TOWN COUNCIL REGULAR MEETING

21 Main Street

Tuesday, August 13, 2024 at 9:00 AM

AGENDA

Possible additions to the agenda and related materials are not set forth herein.

Times set forth are approximate and may be adjusted as necessary.

I. WORKSESSION - 9:00 AM

A. EOTW Report

B. Town of Warrenton Parks and Recreation Department Overview

C. Speed Limit Discussion

D. Planning Commission update

E. SUP 2022-05 Warrenton Village Center, the Owners, Jefferson Associates LP and Warrenton Center, LLC with the Applicant, NewCastle Development Group, seek a Special Use Permit for two parcels totaling approximately 29.05 acres to create a mixed use development in the existing Warrenton Village Center. The proposal includes up to 320 apartments, 34 2 over 2s, and 32 townhomes with the addition of central plaza, parking garage, enhanced internal road network, and pedestrian infrastructure to promote walkability. The properties are zoned Commercial and designated in the New Town Character District of Plan Warrenton 2040. (GPINs 6985-20-7247 and 6984-29-6753)

F. Code of Conduct Committee Update

G. Agenda Review

H. Closed Session

II. REGULAR MEETING - 6:30 PM

A. INVOCATION.

B. PLEDGE OF ALLEGIANCE.

C. PROCLAMATIONS AND RECOGNITIONS.

D. CITIZEN'S TIME.

E. APPROVAL OF THE AGENDA.

F. PUBLIC HEARINGS.

a. SUP 2022-05 Warrenton Village Center, the Owners, Jefferson Associates LP and Warrenton Center, LLC with the Applicant, NewCastle Development Group, seek a Special Use Permit for two parcels totaling approximately 29.05 acres to create a mixed use development in the existing Warrenton Village Center. The proposal includes up to 320 apartments, 34 2 over 2s, and 32 townhomes with the addition of central plaza, parking garage, enhanced internal road network, and pedestrian infrastructure to promote walkability. The properties are zoned Commercial and designated in the New Town Character District of Plan Warrenton 2040. (GPINs 6985-20-7247 and 6984-29-6753)

G. CONSENT AGENDA.

a. BOND-24-2- Bond Release Request for Washington Street Development

b. Quarterly Reports

c. Police Department Report

d. Finance Department Report

e. Community Development Department Report

f. Parks and Recreation Department Report

g. Public Works and Utilities Department Report

Capital Improvement Program

Street Maintenance Report

h. Human Capital

Emergency Management

i. Fleet and Facilities Department Report

j. Delinquent Tax List

k. Approval of Draft Town Council Meeting Minutes

H. NEW BUSINESS.

a. Closed Session

b. Legal Action: Direction of the Town Council

I. UNFINISHED BUSINESS.

a. BZA Funding request

J. TOWN ATTORNEY'S REPORT.

K. TOWN MANAGER'S REPORT.

L. COUNCILMEMBERS TIME.

M. ADJOURNMENT.

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

EOTW Report

Council Meeting Date:	August 13th, 2024
Agenda Title:	EOTW Update
Requested Action:	Receive the information from the Experience Old Town Warrenton Team
Department / Agency Lead:	EOTW
Staff Lead:	Joelle Fryman

EXECUTIVE SUMMARY

The Director of Experience Old Town Warrenton, Ms. Joelle Fryman, will present an update to the Town Council. In this update she will address:

- Recap of recent events including the Brewfest
- Review of Old Town After Hours
- EOTW Is Acting as the fiscal agent for the Warrenton Arts Commission
- Restaurant week August 26th through September 1st, 2024. New Participants this year- Fauquier Springs Country Club
- Visitors Snapshot of Main Street.
- Multiple new businesses are opening, and businesses are thriving!
    - Goodness and Grace
    - WeirdDoughs
    - The Lucky Knot
    - Three Sisters
    - History Unboxed
    - Liv Creatively
    - The Source Harmonic Egg
    - And more!

- Increased focus on earned income, building on partnerships with local businesses and organizations such as the Fauquier Mental Health Association and Aging together as well as Silver Branch Brewery.
- Working with Ms. Lyndie Paul on wayfinding ideas and concepts for the community
- Community Calendars! Upcoming events like restaurant week, and more
- Natalie will do a presentation on the Farmer's market
- New EOTW Logo!

Experience Old Town Warrenton thanks the Town of Warrenton and the Town Council for this opportunity to present an update. As well as, for their support, and for their partnership.

BACKGROUND

Experience Old Town Warrenton is a 501(c) 3 nonprofit organization. EOTW operates with a Memo of Understanding (MOU) with the Town of Warrenton. The organization is a close partner of the Town of Warrenton and also acts as a liaison between the Town and the Main Street vendors.

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
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William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13, 2023
Agenda Title:	Town of Warrenton Parks and Recreation Department Overview
Requested Action:	Information Only
Department / Agency Lead:	Parks and Recreation
Staff Lead:	Kelly Koernig, Director

EXECUTIVE SUMMARY

This staff report provides a compilation of the current and future initiatives and programs of the Parks and Recreation Department.

BACKGROUND

The Town of Warrenton Parks and Recreation Department provides programs, facilities, and services that enhance the quality of life in our community and further perpetuate The Town of Warrenton as an exceptional place to live, work, and play. We strive to provide citizens with attractive, clean, functional, safe, and pleasant places to recreate.

SERVICE LEVEL/POLICY IMPACT

Staffing:

The Parks and Recreation Department has been restructured to eliminate the Assistant Director position. Duties that were previously assigned to that position are currently being fulfilled by the Special Events and Recreation Program Coordinator, Fitness Supervisor and the recently upgraded Facility Operations Manager (formally Facility Services Coordinator) positions. We also continue to hire and train our part-time staff consisting of lifeguards, head guards, customer service specialists, managers on duty, water safety instructors and fitness instructors.

As mentioned during the budget discussions for FY 25, in order to calculate budgeted hours for our part time staff, we determined the number of hours needed at each position to operate our current services and offerings. This was determined using factors such as the operating hours, number of fitness classes offered, and projected hours of swim lessons. The "Annual Hours" column shows the budget of hours at each of the positions that the department has for FY 2025. We will work closely with finance to track and evaluate this number throughout the year.

Position	Annual Hours
Water Safety Instructor	1,560
Fitness Instructor	3,900
Customer Service Specialist	8,398
Manager on Duty	3,094
Headguard	5,434
Lifeguard	19,396

Current Projects:

CIP-Eva Walker Park-Phase 1 of the Master Plan-Phase 1 is to develop cost estimates and We have been working with Kimley Horn on concept drawings for the total master plan. We are currently awaiting the relative costs of each proposed element and costing related to necessary site drainage improvements and soil mitigation. Once we have these, we will present the drawings and cost estimations to council for approval to move forward with CIP project planning and the rest of the phased concept in the master plan.

CIP Front Walkway/Building Structural Repairs-This will be out to bid from the beginning of August through mid-September. We anticipate the work being completed by the spring.

CIP Natatorium Lighting-We have received all the quotes and selected a vendor to perform the work beginning in October. The final quote came in lower than the total project submitted in the CIP, total cost of $350,000 was submitted and the current quote is $227, 784. Due to the decrease in the overall project quote, we can complete the totality of the work this year by transferring CIP funds from projects that came in under budget. Additionally, the work can be done without draining the pool and with minimal pool closures. We anticipate this work beginning at the beginning of October.

CIP-Parks and Recreation Master Plan, As one of the goals in the Plan Warrenton 2040 Comprehensive Plan, P-4.3, a parks and recreation master plan will help us to embrace a long term approach to the development of open space, parks and recreation areas that reflect the needs and priorities of the community, as well as a cost recovery recommendation which will allow us to critically look at our revenue streams and strategically set goals and help in preparing future budgets. We are continuing to evaluate and put together the scope of work that will be the best fit for Warrenton.

ARPA-ADA playgrounds

Fun for All Playground-We have identified areas of the playground that need to be repaired or replace, to include full replacement of the surfacing, as well as grading work at the entrance to the playground to ensure ADA compliance and minor repairs to current equipment.
Rady Park-We are looking to put a shade structure over the existing playground, as well as expand the playground so we can move the swings and have additional inclusive and accessible pieces of equipment.
Sam Tarr Park-The current proposal is a playground expansion that will have multiple pieces of equipment that will be accessible to all abilities. Additional re-grading will most likely need to be done as well to ensure ADA compliance.

Eva Walker Park-The playground will be included in the CIP projects as part of the Eva Walker Park Master Plan.

Full WARF Shutdown August 12-18, Additional Aquatic Level Closure August 19-25
Work to be completed during this time:
HVAC-water will be drained from the building due to having to rebuild several motors, along with replacing multiple vales and adding a bypass pipe so that when we get the new chiller next spring, the system will not have to be drained. We will be without AC and water for the whole week.
Surge tank repairs-competition pool will need to be partially drained to perform this work.
Plumbing in the locker rooms.
MPR floor repair.
Tile work, painting, and additional maintenance projects throughout the entire building.

***Facility Highlight*:** The WARF won the Best Gym/Fitness Club for the 2024 Readers Choice Award!

Future Projects:

CIP-Chiller Replacement-This will most likely occur in May 2025 prior to the start of the summer season.

CARP-Fitness Equipment Replacement-continuing to evaluate our current equipment and maintenance needs over past year for each piece to determine which are at or nearing end of life and need to be replaced

Parks-We are taking a more holistic approach to the park amenities and maintenance. This includes evaluating all the amenities at the parks and determining what needs to be fixed now due to safety reasons, then analyzing needs vs wants, as well as trying to be equitable between all the parks and listening to our customer's feedback with what they would like to see done to and in our parks.

Programming:

Aquatics

Group Swim Lessons-Offered year-round, with built-in breaks between sessions. In the summer we offered 50 classes per week and hope to offer up to 42 classes per week in the Fall.
Private Swim Lessons-number varies based on requests and instructor availability.
Lifeguard Certification classes-offered once per month
Water Safety Instructor classes-offered once per month

Fitness

Group Fitness Classes-Offered year-round. Currently offering 56 classes per week.
Personal Training-number varies based on requests and instructor availability.
Pop Up Fitness Classes at the WARF and in the Parks-Resolution Ride, Yoga Workshop, Line Dancing and Family Health and Fitness Day 5k, Zumba, and Yoga

Recreation

Multiple holiday/seasonal events throughout the year
First Dog-A-Palooza in April
Started beginner Pickleball classes in the spring on the second Saturdays of every month
Kids to Parks Day to include the Storywalk at Eva Walker Park, collaboration with Fauquier County Public Library and Games against Guards at the WARF
Play All Day-Virginia State initiative and programming was done in collaboration with Fauquier County-we offered programs from sunrise to sunset on the longest day of the year
Warrenton Town Limits Festival-full scale event on June 28 with an estimated attendance of over 7000, 14 food trucks, 50 vendors, 6 moon bounces, axe throwing, 9 music/entertainment activities, and so much more!
Attempted Kite Night and Game Nights, but due to weather were not very successful
Biathlon-Swim, run-only had a couple participants, but will continue to offer these types of programs in the future
Cardboard Boat Race in August-7 teams entered

Outside Special Events

We processed 43 event applications in 2023. *Please note this number does not account for any events that have recurring dates such as Old Town After Hours, BLM Vigil and First Fridays. *

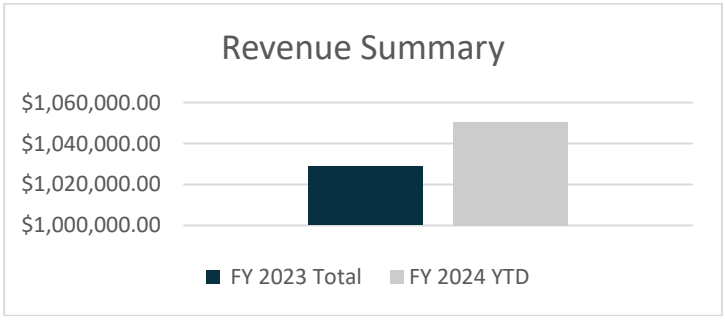
Future Programming:

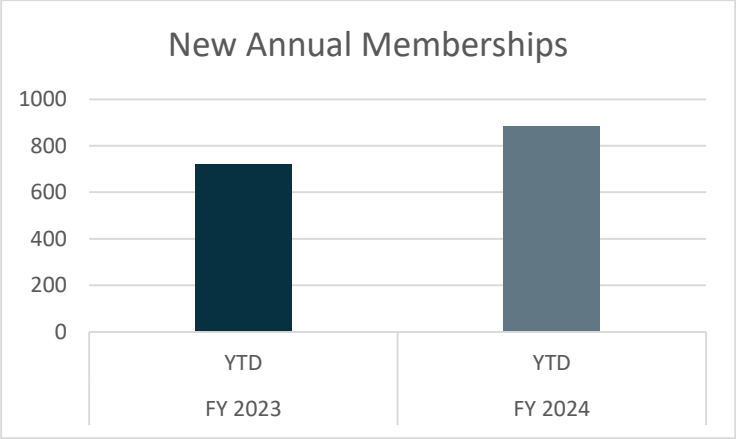
Fall 2024:

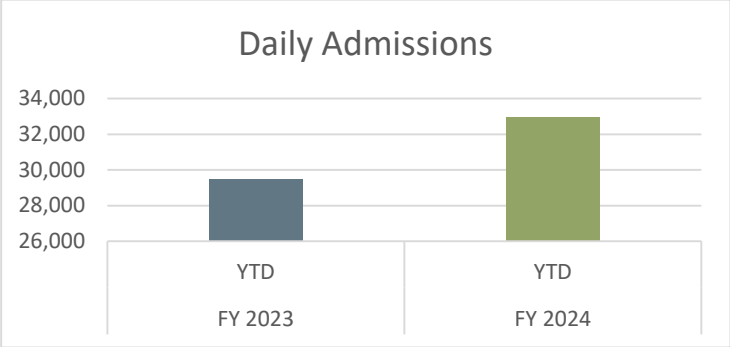
Game Nights and Kite Night
Puzzle Wars-"Cupcake Chaos"
25th Anniversary Celebration of the Rady Park Arboretum in collaboration with the Master Gardeners-September 27
Halloween events-save the date-October 26

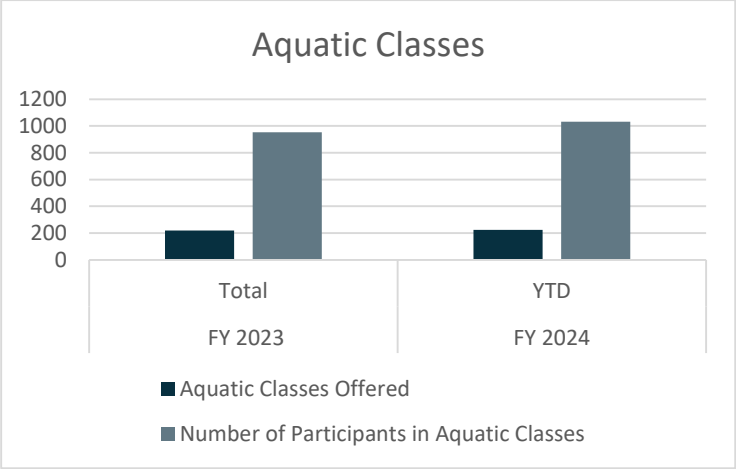
Additionally, we will continue to evaluate our current offerings to help us determine our balance between the paid and free programs/events we offer, as well as develop more effective programs. This balance includes taking into consideration supporting quality of life vs. revenue generating programs. Our services and program offerings are also determined by talking to our customer base and hearing what they want to see from us at the WARF and in the parks.

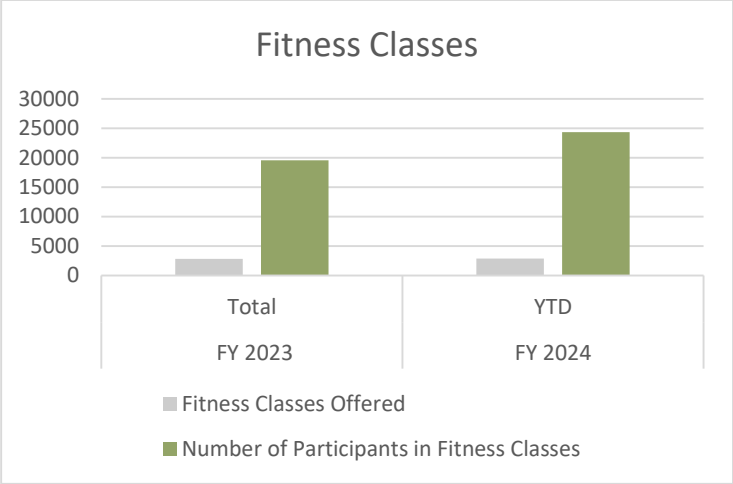
Revenue and Data:

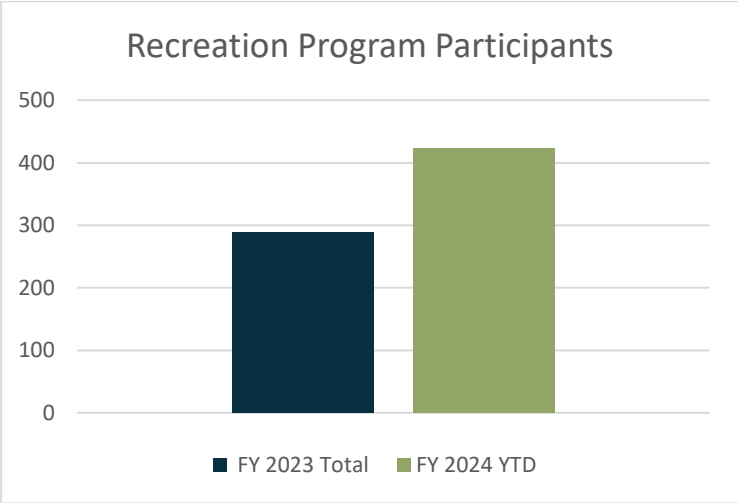



New Annual Memberships
1000
800
600
400
200
0
YTD
FY 2023
YTD
FY 2024


Daily Admissions
34,000
32,000
30,000
28,000
26,000
YTD
FY 2023
YTD
FY 2024


Aquatic Classes
1200
1000
800
600
400
200
0
Total
FY 2023
YTD
FY 2024
Aquatic Classes Offered
Number of Participants in Aquatic Classes





Fiscal Impact

No fiscal impact at this time all projects and programs are using current funding sources.

Legal Impact

No legal impact at this time

Office of the Town Manager
Frank Cassidy

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Council Meeting Date:	August 13, 2024
Agenda Title:	Parks & Recreation Financial Overview
Requested Action:	For information only
Department / Agency Lead:	Finance Department
Staff Lead:	Brooke Campbell, Budget Manager

EXECUTIVE SUMMARY

The Parks & Recreation function is broken down into three (3) departments for budgetary purposes:

- The Aquatic & Recreational Facility department captures the cost to operate the Warrenton Aquatic and Recreation Facility (WARF).
- The Parks Maintenance department captures the cost to maintain the Town's parks and their related facilities.
- Administration costs are captured in the Parks & Recreation Administration department.

Principal and interest payments related to the WARF building are captured in the Debt Service section of the budget. Further, there are several projects in the Capital Improvement Plan under the purview of the Parks & Recreation function.

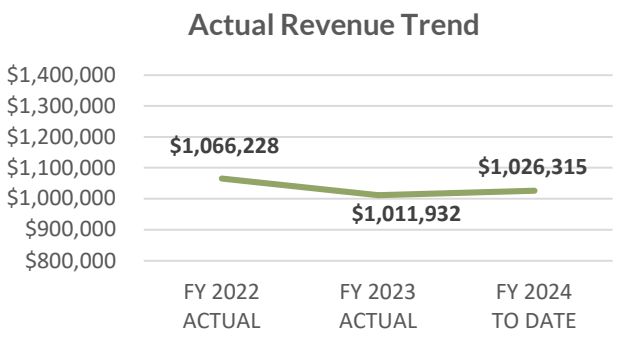
BACKGROUND

The below tables and charts provide a financial summary of the Parks and Recreation function by department.

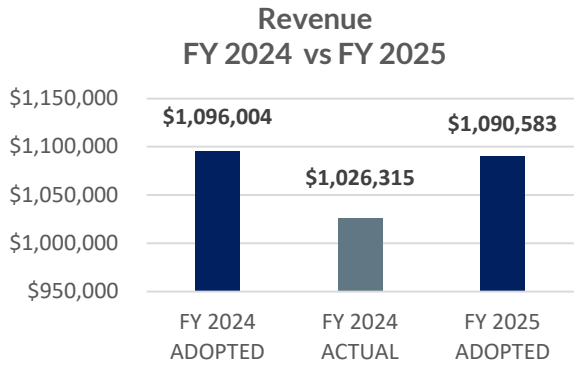
Warrenton Aquatic & Recreation Facility (WARF) Department

WARF Revenue

ACCOUNT NAME	FY 2022 ACTUAL	FY 2023 ACTUAL	FY 2024 ADOPTED	FY 2024 ACTUAL	FY 2025 ADOPTED
MERCHANDISE	4,043	3,252	4,000	3,665	4,000
MISCELLANEOUS WARF FEES	-	-	-	25	-
SWIM LANE RENTALS	215,178	206,036	215,178	186,113	239,594
AQUATICS PROGRAMS	263,468	147,666	263,468	124,453	169,885
ANNUAL PASS	291,048	324,272	291,048	329,169	324,933
DAY PASS	220,548	239,158	220,549	268,049	240,604
FITNESS CLASSES	29,798	33,192	30,097	34,094	30,097
RECREATION PROGRAMS	1,207	1,340	-	5,819	15,000
FACILITY RENTALS	39,664	45,448	54,664	52,695	46,470
VENDING	1,274	11,567	2,000	6,783	5,000
WARF SPONSORSHIPS	-	-	15,000	15,450	15,000
TOTAL	$ 1,066,228	$ 1,011,932	$ 1,096,004	$ 1,026,315	$ 1,090,583



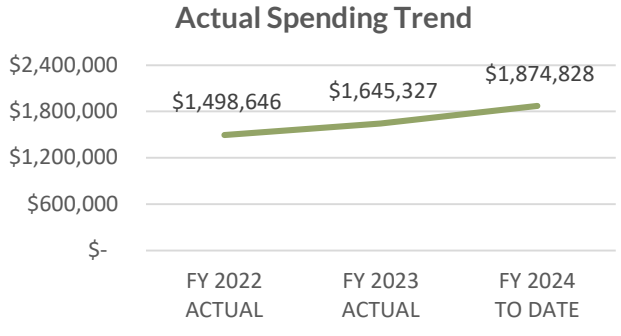
FY 2023 revenues were down 5.1% when compared to FY 2022. In FY 2024, revenues recovered slightly (1.4%), but did not return to FY 2022 levels.



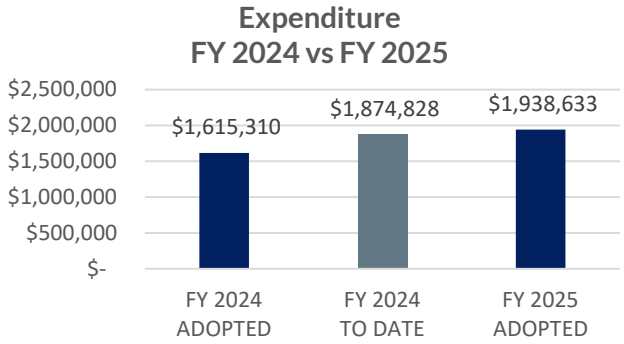
FY 2024 actual revenues fell short of budgeted figures by 6.4%, or approximately $70,000. The department has projected revenues of $1,090,583 related to the WARF for FY 2025.

WARF Expenditure

ACCOUNT NAME	FY 2022 ACTUAL	FY 2023 ACTUAL	FY 2024 ADOPTED	FY 2024 TO DATE	FY 2025 ADOPTED
PERSONNEL SUBTOTAL	***799,173***	***827,524***	***913,360***	***1,016,274***	***1,140,530***
PROFESSIONAL SERVICES	5,785	2,134	4,650	1,100	-
CONTRACTUAL REPAIR	67,930	80,735	76,220	120,063	111,220
MAINTENANCE CONTRACTS	81,458	89,523	32,000	49,026	42,000
JANITORIAL SERVICES	60,580	61,152	65,000	56,056	65,000
MARKETING EXPENSES	1,762	-	-	-	-
PRINTING	1,675	1,862	-	-	-
FUEL	84,808	129,387	74,000	89,019	90,000
ELECTRICITY	230,325	299,730	288,000	336,198	303,803
POSTAGE	40	-	100	72	100
LEASE OF EQUIPMENT	3,414	-	3,500	3,707	3,500
TRAINING	-	1,698	4,000	2,542	4,000
PURCHASING	51,547	74,212	98,480	88,903	88,480
PROGRAM SUPPLIES	30,573	-		-	10,000
CHEMICAL SUPPLIES	30,488	35,230	36,000	34,981	36,000
EMERGENCY FACILITY REPAIRS	-	-	-	25,693	-
CREDIT CARD FEES	-	-		-	24,000
REFUNDS	10,394	7,790	-	-	-
MATERIALS & SUPPLIES	21,877	-		-	-
EQUIPMENT	16,815	34,352	20,000	51,195	20,000
TOTAL	$ 1,498,646	$ 1,645,327	$ 1,615,310	$ 1,874,828	$ 1,938,633



Actual spending for the WARF was 10% higher in FY 2023 than in FY 2022. In FY 2024 spending increased 5.9% over FY 2023.



FY 2024 actual expenditures exceeded budgeted figures by 16.1% or approximately $250,500. The department has projected expenses of $1,938,633 related to the WARF for FY 2025.

WARF Recovery Ratio

Type	FY 2022 ACTUAL	FY 2023 ACTUAL	FY 2024 ADOPTED	FY 2024 TO DATE	FY 2025 ADOPTED
Expense	1,498,646	1,645,327	1,615,310	1,874,828	1,938,633
Revenue	1,066,228	1,011,932	1,096,004	1,026,315	1,090,583
Recovery Ratio	**71%**	**62%**	**68%**	**55%**	**56%**

The WARF's recovery ratio declined from 71% to 62% from FY 2022 to FY 2023. In FY 2024, the budget predicted that the ratio would improve, but actuals fell short due to higher expenses and lower revenues than projected. In FY 2025, the ratio is expected to slightly improve to 56%.

WARF Debt Service

Debt service related to this department includes the principal and interest on the debt for the WARF building. FY 2022 payments totaled $597,649, FY 2023 payments totaled $594,984, and FY 2024 payments totaled $595,766. Future payments, including FY 2025, are included in the schedule below:

Fiscal Year	Total Debt Service
2025	$ 595,522
2026	599,125
2027	596,575
2028	597,872
2029	597,888
2030	596,622
2031	598,947
2032	594,863

WARF - Current Capital Improvement Plan (CIP) Projects

Project Name	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 2027-28	FY29 2028-29	FY30 2029-30	Total
WARF Basketball Court Construction	-	-	100,000	-	-	-	100,000
Replace Natatorium Lighting	215,000	135,000	-	-	-	-	350,000
Skatepark Replacement at the WARF	-	-	-	-	300,000	-	300,000
	$ 215,000	**$ 135,000**	**$ 100,000**	**$ -**	**$ 300,000**	**$ -**	**$ 750,000**

WARF - Current Capital Asset Replacement Plan (CARP) Projects

Project Name	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 2027-28	FY29 2028-29	FY30 2029-30	Total
Fitness Equipment Replacement	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -	$ 50,000
Replace Chiller at WARF	340,000	-	-	-	-	-	340,000
Repaving and Restriping WARF Parking Lot	-	60,000	-	-	-	-	60,000
WARF Structural Repairs	25,000	-	-	-	-	-	25,000
Waterplay Structure Replacement	-	300,000	-	-	-	-	300,000
	$ 390,000	**$ 385,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 775,000**

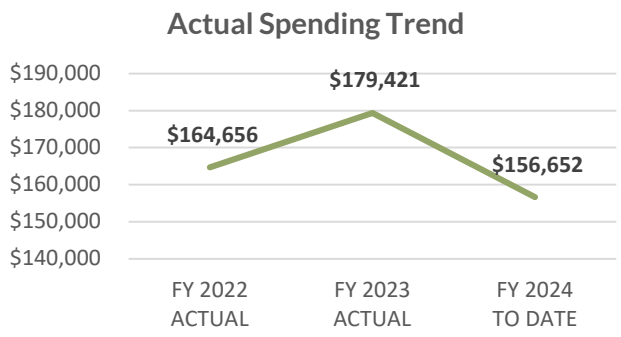
Parks Maintenance Department

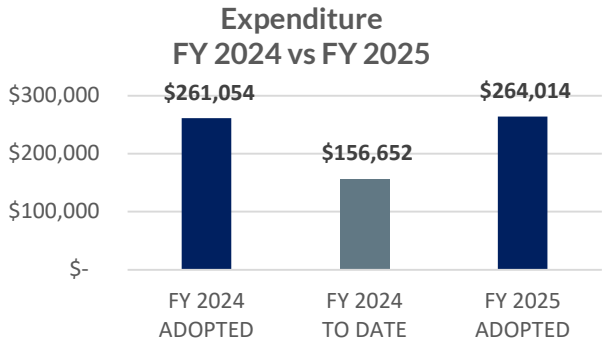
Parks Maintenance Revenue

REVENUE	FY 2022 ACTUAL	FY 2023 ACTUAL	FY 2024 ADOPTED	FY 2024 ACTUAL	FY 2025 ADOPTED
PARKS USER FEES	9,435	7,410	9,435	9,043	9,435

Parks Maintenance Expenditure

ACCOUNT NAME	FY 2022 ACTUAL	FY 2023 ACTUAL	FY 2024 ADOPTED	FY 2024 TO DATE	FY 2025 ADOPTED
PERSONNEL SUBTOTAL	*19,767*	*1,494*	*100*	*13,848*	*41,154*
ASPHALT	-	4,329	10,000	-	1,500
PROFESSIONAL SERVICES	1,142	-		-	-
MAINTENANCE CONTRACTS	47,167	86,717	90,000	72,636	82,000
PARK MAINTENANCE	22,181	34,104	56,394	14,229	56,000
TRAIL MAINTENANCE	13	55	2,000	-	-
FIELDS MAINTENANCE	9,118	-	32,000	295	10,000
UNIFORM RENTAL	532	-	-	-	-
VEHICLE EXPENSES	8,086	3,017	-	-	-
ELECTRICITY	6,436	6,147	2,460	8,122	2,460
VOLUNTEER ACCIDENT INSURANCE	250	-	-	-	-
LEASE OF EQUIPMENT	9,192	2,861	5,200	1,717	3,000
PURCHASING	30,076	19,255	15,400	9,892	10,400
PROGRAM SUPPLIES	44	-	-	-	5,000
SPECIAL EVENTS	10,652	21,442	40,000	35,913	45,000
PLAYGROUND EQUIPMENT	-	-	7,500	-	7,500
TOTAL	$ 164,656	$ 179,421	$ 261,054	$ 156,652	$ 264,014





Actual spending for Parks Maintenance decreased 12.7% when compared to FY 2023. When compared FY 2024 to FY 2022 the decrease is 4.9%.

Actual spending for Parks Maintenance fell short of the budget by $104,402 or 40.0%. The department has projected expenses of $264,014 for FY 2025.

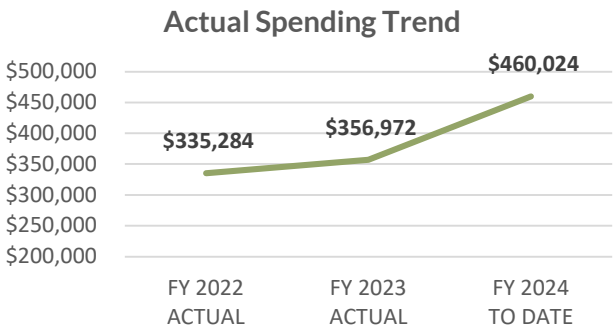
Parks Maintenance - Current Capital Improvement Plan (CIP) Projects

Project Name	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 2027-28	FY29 2028-29	FY30 2029-30	Total
ADA Playground Replacements	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ 150,000
Eva Walker Park Improvements	-	100,000	150,000	150,000	100,000	-	500,000
Park Pavilions	42,000	44,100	45,423	-	-	-	131,523
Park Restrooms	-	121,275	-	-	-	-	121,275
	$ 192,000	$ 265,375	$ 195,423	$ 150,000	$ 100,000	$ -	$ 902,798

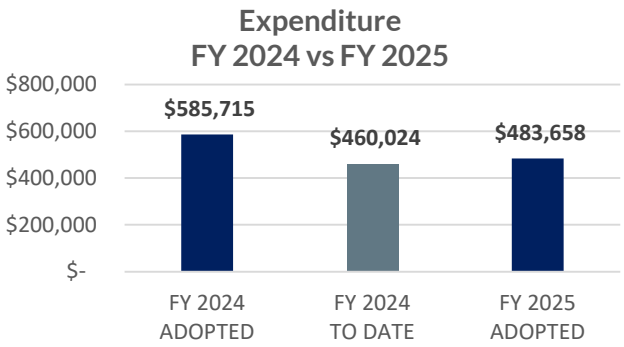
Parks & Recreation Administration Department

Parks & Recreation Administration Expenditure

ACCOUNT NAME	FY 2022 ACTUAL	FY 2023 ACTUAL	FY 2024 ADOPTED	FY 2024 TO DATE	FY 2025 ADOPTED
PERSONNEL SUBTOTAL	*325,896*	*347,267*	*542,715*	*453,217*	*470,558*
PROFESSIONAL SERVICES	285	-	15,500	-	-
PRINTING	-	68	4,250	240	-
ADVERTISING/MARKETING	-	-	2,000	-	-
POSTAGE	96	67	1,000	2	100
LEASE OF EQUIPMENT	601	601	-	601	-
TRAVEL	1,614	1,502	4,900	1,463	3,000
TRAINING	3,149	2,874	8,750	3,245	5,000
MEMBERSHIPS & DUES	-	-	-	410	-
PURCHASING	3,644	4,594	6,600	847	5,000
TOTAL	$ 335,284	$ 356,972	$ 585,715	$ 460,024	$ 483,658



Actual spending for Parks & Recreation Administration increased 6.5% in FY 2023 and 28.9% in FY 2024.



Actual spending for Parks & Recreation Administration fell short of the budget by $125,691 or 21.5%. The department has projected expenses of $483,658 for FY 2025.

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Parks and Recreation Department Overview

Town Council Regular Meeting
August 13, 2024

The Value of Parks and Recreation

- Customer Service
- Behind the Scenes
- Parks
- Playgrounds
- Programs and Events
- Future Outlook

"A lot of people have fancy things to say about customer service, but it's just a day-in, day-out, ongoing, never-ending, persevering, compassionate kind of activity." – *Christopher McCormick, CEO of L.L Bean*











Fauquier Times

52 S. Third St., Suite 100
Warrenton, VA 20186
540.437.4222



2024 WINNER

Congratulations

The WARF

Warrenton Aquatic and Recreation Facility

for winning

Best Gym/Fitness Club

The votes are in, and our readers chose you as THE BEST in Fauquier!

Behind the Scenes...

















Parks













Playgrounds









Programs and Events















Programs and Events

















Future Outlook

Fall Programs:
Game Nights and Kite Night
Puzzle Wars-“Cupcake Chaos”
25th Anniversary Celebration of the Rady Park Arboretum in collaboration with the Master Gardeners-September 27
Halloween events-save the date-October 26

Upcoming Projects:
Repaving and restriping the WARF parking lot-late Fall
Crack seal repairs on the basketball court at Eva Walker-late Fall
Chiller Replacement-May 2025
Fitness Equipment Replacement-FY 25
Pavilion at Sam Tarr Park-FY 25
Waterplay Structure Replacement-FY 26
Skatepark Replacement


Questions?

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Parks and Recreation Department Overview

Town Council Regular Meeting
August 14, 2024

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13th, 2024.
Agenda Title:	Speed Limit Discussion
Requested Action:	Receive the information from staff
Department / Agency Lead:	Town Attorney
Staff Lead:	Martin Crim

EXECUTIVE SUMMARY

The Town has been working to provide consistent and predictable operations. Part of this requires consistency in information and enforcement. We continue to proactively address speeding complaints and issues Town wide through a variety of tactics. This year, we revamped the Traffic Coalition Work Group into a Task Force. This task force provides active response by implementing traffic calming measures combined with assessments to measure effectiveness. These tactics are adjusted based on results. This has been a successful approach over the last year with several positive results.

The Virginia General Assembly adopted House Bill 1071 which was effective July 1, 2024. This bill, in short, provides the Town the opportunity to set speed limits less than 25 mph on residential streets without going through studies. This provides the opportunity for the Town to set a consistent speed limit throughout our Town. The speed limit cannot be below 15 mph, nor above 25 mph, and can only be applied to residential streets within Town Limits.

The Town has already set the speed limit of 15 mph on many of our streets. This has been a piecemeal approach. This Bill allows the Town to set the speed limit on all our streets. This is consistency and predictability.

The concept of speed limits is based on two programs, the 20 is Plenty and the Zero XXXX programs. These have been incorporated into many jurisdictions' approach to traffic safety and have proven to be effective. Screen shots of the Eugune, Oregon 20 is plenty program are included as an attachment. https://eugene-or.gov/4488/20-is-Plenty

BACKGROUND

The Town continues to address speeding on our streets through the Traffic Task Force. This is an action approach to implementing traffic calming with the collaboration of all Town Departments. Some of our streets are 25 mph, some are 35 mph, and some are 15 mph. With the passage of House Bill 1071, we have an opportunity to address speed limits Town-wide.

The Town of Middleburg discussed and adopted this approach at their last council meeting.

STAFF RECOMMENDATION

Town Staff recommends direction from the Council as to moving forward. If the Council wants this initiative to move forward, staff will prepare a strategic approach to changing the speed limits to include signage, outreach, and education. This will also include the drafting and passage of require resolutions and/or ordinances.

Service Level/Collaborative Impact

Staff will provide an update to the Council at the September Work Session to plan to move forward if so directed.

Policy Direction/Warrenton Plan 2040

T-1: Improve Multimodal Capacity and Safety the Encourages trips by Walking, Bicycling, and Transit.

T-2: Enhance the Traveling Experience by Creating Great Streets.
T-3: Promote Livability in Town by Creating Great Places Where Residents and Visitors feel Welcome and Safe.
T-4: Provide and Equitable and Connected Multi-Modal network.

Fiscal Impact

New signage costs- to be determined.

Legal Impact

Drafting of required resolutions and ordinances.

ATTACHMENTS

1. 20 is Plenty
2. Vision Zero
3. Copy of House Bill 1071
4. Middleburg Council Packet



20 MPH Residential Speed Limits

On July 13, 2020, the Eugene City Council approved an ordinance that **authorized speed limit reductions from 25 MPH to 20 MPH on most neighborhood residential streets** in Eugene.

With passage of Senate Bill 558 in the 2019 legislative session, changes to Oregon Revised Statute 810.180 gave cities across Oregon the authority to designate speed limits 5 miles per hour lower than statutory speed limits on non-arterial streets in 'residence districts.' This provided the City with an exciting opportunity to promote safer conditions for people walking, biking, using a mobility device, riding the bus, and driving.

Why 20 MPH?

Reducing vehicle speeds is an important component of the City's adopted Vision Zero Action Plan, which aims to eliminate major traffic injuries and fatalities within Eugene by 2035.

Crash studies have documented that risk of injury and death during a collision decreases significantly between 25 MPH and 20 MPH. This is particularly true for vulnerable roadway users, such as people walking and biking. Lower speed limits on residential streets support safer travel conditions for everyone using the street, as well as provide a more comfortable environment for people walking and biking.



When will the speed limit change happen?

Speed limit signs were replaced in neighborhoods through a phased approach over Fall 2020. The new 20 MPH speed limits legally went into effect on each street when the existing speed limit signs were replaced.

Fall 2020 '20 is Plenty' Campaign

The speed limit changes was accompanied by a '20 is Plenty' community outreach campaign to help inform the community of the speed limit change and provide information on the relationship between speed and transportation safety.



Due to high demand, the online '20 is Plenty' sign request form is CLOSED.

1,425 '20 is Plenty' lawn signs were distributed during the Fall 2020 community outreach campaign.

Free '20 is Plenty' lawn signs were distributed to community members who requested signs via the online form. Sign pick-up events took place in October and November 2020 at ten locations.

'20 is Plenty' Campaign Resources



Beginning this fall, many residential streets will change from 25 MPH to 20 MPH. **Pay attention and follow the posted speed limits to avoid speeding citations!** The speed limit changes will occur in phases from Fall 2020 through 2021. To learn when speed limit changes are coming to your neighborhood, or to request a '20 is Plenty' lawn sign, visit www.eugene-or.gov/4488



20 is Plenty from City of Eugene on Vimeo.

20 es suficiente recursos en español



A partir de este otoño, muchas calles residenciales cambiarán de 25 MPH a 20 MPH. **¡Presta atención y sigue los límites de velocidad publicados para evitar multas por exceso de velocidad!** Los cambios en el límite de velocidad ocurrirán en fases desde el otoño de 2020 hasta el 2021. Para saber cuándo se producirán cambios en el límite de velocidad en tu vecindario, o para solicitar un letrero para tu ante-jardín "20 es suficiente", visita: www.eugene-or.gov/4488

American Planning Association
Planning Advisory Service
Creating Great Communities for All

No. 118

PAS MEMO

Achieving Vision Zero in Practice

By Elias Guseman, AICP, Michael Manzella, AICP, and Lyndsey Scofield, AICP, PMP

The United States is facing a growing crisis of traffic fatalities and serious injuries on our roadways that now results in over 40,000 preventable deaths per year (NHTSA 2022). The crisis is especially acute for the most vulnerable road users, such as those walking or biking. Today, about 50 percent more people die while walking or using a mobility device compared to a decade ago (Schmitt 2020).

The Vision Zero movement emerged in Sweden in the 1990s in response to this growing traffic safety crisis. While its goal of achieving zero deaths and serious injuries has been adopted by dozens of communities across the United States, many still struggle with rising fatalities and disproportionate impacts on communities of color and pedestrians and cyclists (Vision Zero Network 2023; GHSA 2021).

But some communities are seeing progress towards achieving safety goals and centering equity in their approach. Jersey City is a densely populated New Jersey municipality of nearly 300,000 residents that is one of the most racially and ethnically diverse populations in the United States. It achieved zero traffic deaths and a significant reduction in serious injury crashes on streets under its jurisdiction in 2022 using mostly tactical, quick-build tools and a safe-system approach that engages multiple disciplines in instituting change (Surico 2022). In this same year, Jersey City also saw an overall reduction in traffic fatalities on state and county roads running through the city, despite an increase at the state level.



Figure 1. Jersey City has achieved success by designing infrastructure for all ages and abilities, making streets safer for all (City of Jersey City)

This *PAS Memo* provides actionable and practical guidance based on an in-depth case study of Jersey City. It shares how Jersey City has been able to develop a Vision Zero Action Plan, leverage tactical interventions to create systematic change within city government, and coordinate with regional and state entities to achieve greater levels of success. Planners will learn how to apply these principles in their own communities, starting small and building momentum towards making streets safe for all (Figure 1).

The Disproportionate Impact of Traffic Violence

In her book, *Right of Way: Race, Class, and the Silent Epidemic of Pedestrian Deaths in America*, author Angie Schmitt cites the statistic that Black and Hispanic men are twice as likely to be killed while walking (or wheeling) as white men and four times more likely to be killed than the general population. While Black and brown people are significantly more likely to primarily rely on walking or public transportation and are less likely to have access to a vehicle, this pattern holds true even when accounting for mode and distance traveled. A recent study by Harvard and Boston University researchers found that Black pedestrians were more than twice as likely for each mile walked to be struck and killed by a vehicle as white pedestrians, and Black cyclists were 4.5 times as likely per mile to be struck and killed by a vehicle (Susaneck 2023).

These patterns are legacies of systemic racism in the United States that have been perpetuated through discriminatory housing and transportation policies and funding that have segregated where people live and how they get around. These neighborhoods are overburdened in part due to historic underinvestment in planning and implementation of basic traffic



Figure 2. To address disproportionate impacts on communities of color, centering equity and protecting historically marginalized populations is an important aspect of Vision Zero planning (City of Jersey City)

safety improvements (Susaneck 2023). It should be no surprise that in several major cities studied, maps of redlined communities overlap with the highest density of traffic violence, as historically redlined areas continue to house higher concentrations of low-income families and communities of color (Susaneck 2023).

Recognizing the disproportionate impacts of traffic violence on historically marginalized communities, it is imperative that planners center equity in their efforts to improve traffic safety (Figure 2). This imperative to act comes with urgency, as every day of inaction or delay maintains the status quo of more than 100 people—our friends, family, and neighbors—being needlessly lost to traffic violence every day (NHTSA 2022).

A History of U.S. Traffic Safety

Streets have long been the sites of tragic fatalities. Historian Peter Norton describes four major paradigms in the history of traffic safety since the advent of the automobile in the United States (Norton 2015).

The period between 1900–1920 represented **Safety First,** a period during which public opinion and the legal system recognized the inherent danger posed by cars to more vulnerable users of the street and expected drivers to take responsibility for exercising a higher standard of care. Campaigns at this time often equated speed with recklessness and included appeals to innocence and guilt using charged images of mothers and children.

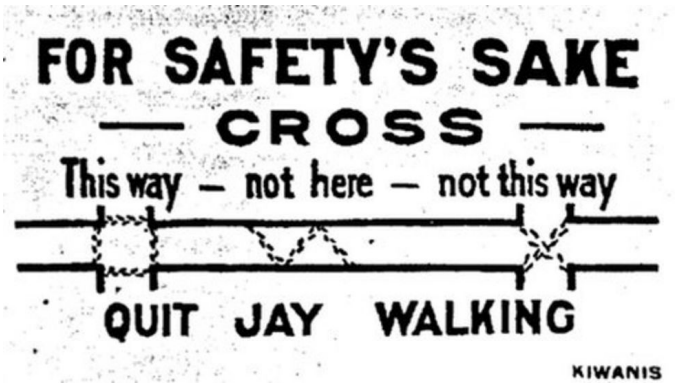


Figure 3. Between the 1920s and 1960s, traffic safety officials aimed to control non-drivers' behavior, as demonstrated by this card that was handed to pedestrians by a local Boy Scouts troop and Kiwanis Club in Hartford, Connecticut (National Safety News 1921)

This changed when the United States entered the period of **Control** between the 1920s and 1960s, characterized by the idea of the "Three E's"—engineering, education, and enforcement. Educational campaigns at that time focused on controlling behaviors, especially those of pedestrians (Figure 3). This was followed by the **Crashworthiness** paradigm in the 1960s–1980s, which focused on technical solutions to making vehicles safer for those driving them. It was in the mid-1960s that annual traffic fatalities exceeded 40,000 for the first time in the United States, quickly rising to over 50,000 by 1966. Officials at this time began to accept crashes as inevitable, but they focused most of their efforts on making vehicles safer for drivers in the event of a crash through vehicle design features like airbags and seatbelts. Much discussion centered around highway safety and attempts to engineer safety into high-speed roadways, with little attention to the pedestrian environment.

Norton's analysis ends with the paradigm of **Responsibility** that began in the 1980s and has predominated in most U.S. communities through the present. This paradigm emphasizes individual responsibility with a greater focus on education and enforcement methods. It is only in the last five to 10 years that a new paradigm has begun to emerge in the United States: **Vision Zero** and the Safe System Approach.

Vision Zero

The concept of Vision Zero originated in Sweden in the 1990s and was officially adopted by its parliament in 1997 (Safarpour



Figure 4. In the Safe System Approach, all stakeholders are vital to preventing fatalities and serious injuries on roadways (USDOT)

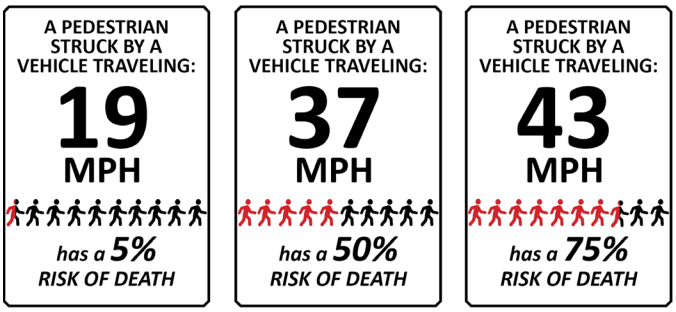


Figure 5. A meta-analysis of pedestrian and vehicle crash studies found that the risk of pedestrian fatalities increases exponentially with the rate of speed of vehicles (data source: Hussain et al. 2019)

et al. 2021). At the core of Vision Zero efforts is the conviction that no one should be killed or seriously injured on streets. It recognizes that humans make mistakes, but that those mistakes should not cost them their lives.

Recognizing the vulnerability of people outside of vehicles, Vision Zero shifts the primary responsibility for safety to those who design the transport system, including planners and engineers, vehicle manufacturers, legislators, and others. This is referred to as a Safe System Approach, as it designs a system with many redundancies in place to protect all users through a holistic and comprehensive approach (USDOT 2023). In the United States, this has been adopted by the U.S. Department of Transportation (USDOT) as the guiding paradigm to address roadway safety and involves planning for safer people, safer vehicles, safer speeds, safer roads, and post-crash care (Figure 4, p. 2).

This paradigm further recognizes that safety improvements must encompass safety for all users of the street, often achieved through traffic-calming design interventions. The management of speed has proven to be an effective method of reducing the severity of crashes, especially when involving pedestrians and cyclists. A 2019 meta-analysis found that the risk of death for a pedestrian struck at about 43 miles per hour is 75 percent, while at closer to 20 miles per hour the risk is significantly reduced to just five percent (Figure 5). These findings, however, are now outdated; as vehicles in the United States have become larger and heavier on average, the impact of speed on the severity of crashes has increased.

Sweden and other Nordic countries have seen significant progress towards Vision Zero, with the number of traffic fatalities in Sweden being more than halved since the adoption of this new paradigm (Safarpour et al. 2021). Inspired by the compelling evidence seen overseas, Chicago became the first major U.S. city to adopt Vision Zero in 2012, followed by New York City, San Francisco, and eventually over 45 other communities of varying sizes across the country (Vision Zero Network 2023).

Unfortunately, most U.S. Vision Zero cities have not yet achieved the kind of success that other developed countries have seen. In 2021, the United States reached a 16-year high for the number of traffic fatalities, while other countries, including Japan and Norway, experienced the lowest rates since the 1940s (Figure 6). Even more striking is the fact that U.S. pedes-

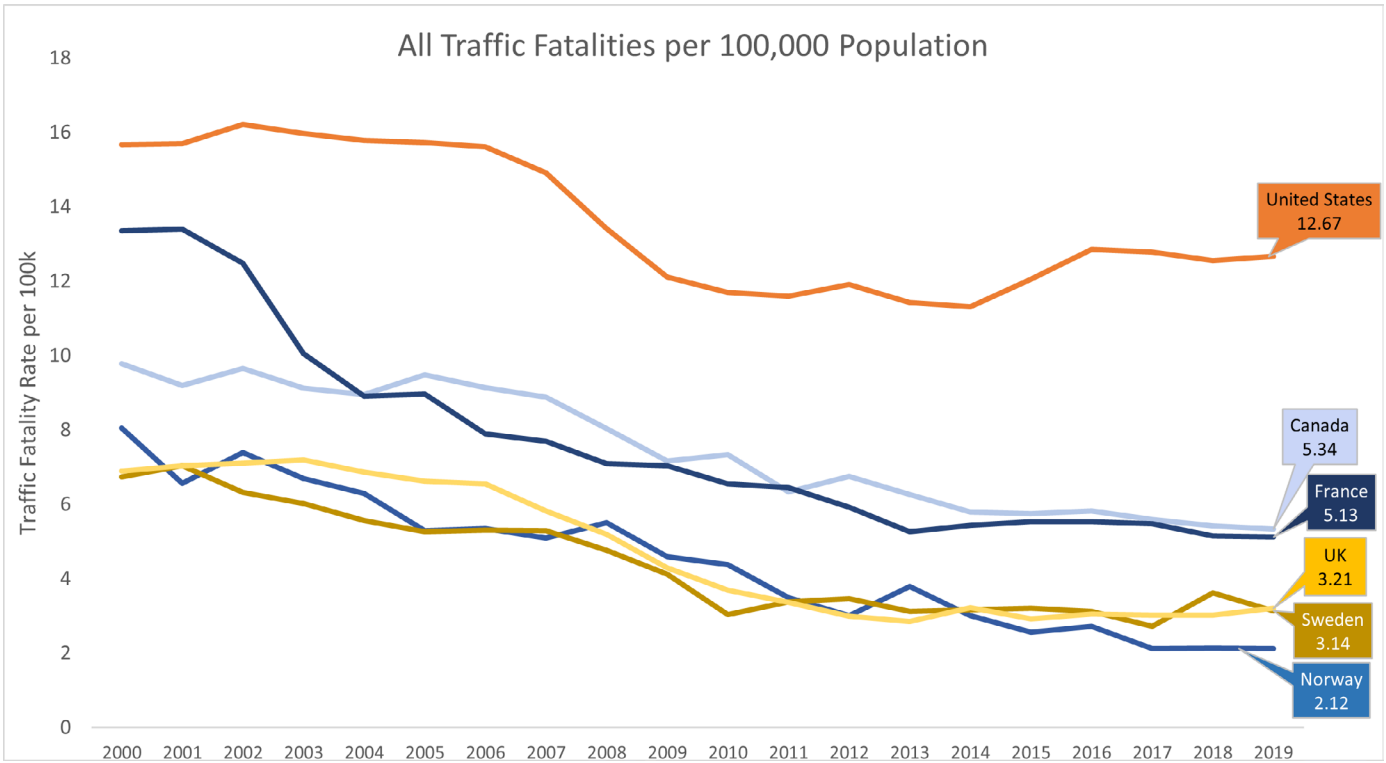


Figure 6. Traffic fatalities per 100,000 population in the United States, Canada, and selected western European countries (data source: World Health Organization's Global Health Observatory)

trian deaths have risen over 40 percent between 2010 and 2018, more than twice the pace of any other OECD member countries (Zipper 2022b).

Many reasons have been suggested for this difference in results from other countries, ranging from safer vehicle design and size to the more widespread adoption of technologies such as automated speed cameras and the significant changes to street design that prioritize pedestrian and cyclist mobility (Zipper 2022b). In the United States, some of the challenge comes from a lack of urgent action at the state and federal levels to tackle the issue with regulatory and financial tools, but cities have also struggled to radically reallocate space on the street to achieve the scale of change necessary. Factors thwarting Vision Zero progress include hyperlocal community opposition towards individual projects, a lack of political will to overcome obstacles, and institutional inertia in transportation departments that still compromises safety for vulnerable road users in favor of keeping cars moving (Zipper 2022a).

The good news is that as planners, there are still many tools in our toolbox to make a meaningful difference in the safety of streets using tactical approaches that center equity and engagement. As will be seen in the case study of Jersey City, tactical approaches can be effective at reducing serious injuries and crashes while building support for making permanent changes.

Jersey City's Vision Zero Approach

In 2018, Mayor Steven Fulop signed Executive Order 2018-007 committing the City of Jersey City to eliminate traffic fatalities and serious injuries by 2026. This strong leadership from the mayor and his administration has been critical to advancing Vision Zero as a priority, structuring the team for success, and moving key projects across the finish line. However, the need for Vision Zero started much earlier.

Identifying the need. Around the time that Jersey City adopted Vision Zero, it was also in the midst of creating or updating multiple plans that touched on various elements of traffic safety: a Pedestrian Enhancement Plan, a Bicycle Master Plan, and a School Travel Plan. During the outreach for these plans, planners heard from community members that safety was a key issue impacting their ability to get around on foot or by bike. Planners gathered mode-specific crash data that began to identify the need for targeted efforts to improve safety at various hotspots throughout the city.

Analysis revealed that in the decade prior to adopting Vision Zero, almost 100 people in Jersey City had been killed in traffic crashes and over 200 suffered life-changing injuries. Nearly half of the fatal crash victims were pedestrians, and many were children.

Getting the support of elected officials. Confronted with these startling and tragic statistics, the need to act with urgency became clear to local elected officials, planners, and members of the community, leading to the adoption of a Vision Zero commitment and development of a Vision Zero Action Plan.

Gaining the support of the mayoral administration helped to solidify Vision Zero as a priority and affirm that all departments had roles to play in achieving a successful outcome. Executive Order 2019-007 called for a multidisciplinary task force that would engage top leadership as well as safe streets advocacy groups in developing the Action Plan and overseeing its implementation. The multidisciplinary nature of the group ensured that Jersey City would tackle the issue using a systems approach.

Data and equity analysis. To better understand where to invest resources and which strategies would be most suitable to deploy, the Transportation Planning and Traffic Engineering staff responsible for leading the Vision Zero Action Plan and Task Force first engaged a consultant through a competitive procurement process to assist with the development of the Action Plan. Among the first tasks of the consultant team was to conduct a comprehensive data and equity analysis. The analysis included mapping of the locations of serious injury and fatal crashes overlaid with communities of concern (see the sidebar on p. 5 for a definition of this designation in the context of equity analysis).

The analysis ultimately resulted in the creation of the High-Injury Network, a map of streets that represent a small percentage of the overall road miles but are the site of a majority of fatal and serious crashes (discussed further below). The High-Injury Network continues to be used to guide investments in traffic safety and street redesigns.

Engaging the community and stakeholders. Recognizing the importance of robust and inclusive public engagement, the project team undertook an intentional effort to incorporate outreach into its efforts around Vision Zero. In addition to translating public engagement materials into Arabic, Hindi, Spanish, and Tagalog and having a Spanish translator available at every public event, the team ensured that there was a diverse array of participation opportunities around the city and that in-person meetings included children's activities to make it easier for families with children to participate. This included the following approaches:

- Tables at existing public events
- Pop-up intercept surveys near transit stops on the High-Injury Network
- Information sessions in an open-house style
- Online survey and mapping exercise
- Public meetings

The team also incorporated the feedback collected from walking audits and handlebar surveys conducted as part of the Pedestrian Enhancement Plan and Bicycle Master Plan.

Developing the Action Plan. With the help of its consultant, Jersey City embarked on a 12-month process to develop a comprehensive Vision Zero Action Plan that included extensive public outreach and a data-driven approach to recommendations. An important element shaping the Action Plan's recommendations was recognition on the part of the mayor and city council that Vision Zero was not just a new or additional program, but rather a new way of doing business that required the City to refocus its existing programs.

Jersey City's Equity Analysis and Key Statistics

Jersey City has a rapidly growing population that by some accounts is the most diverse in the United States. Almost 60 percent of residents identify as non-white, and over half speak a language other than English at home. More than 80 percent of the city falls within the designation "community of concern," defined as minority concentration equal to or exceeding the regional threshold; low-income concentration equal to or exceeding the regional threshold; or two or more other indicators equal to or exceeding the regional threshold, such as female head of household with children, persons with limited English proficiency, carless households, or elderly populations of 75 years and over.

Jersey City also experiences an uncommon level of travel mode diversity, which can be attributed to the dense built environment and high-quality transit options available. Greater than 60 percent of trips within city boundaries are taken by walking, biking, or using transit (Figure 7).

Despite this diversity, specific populations and travel modes bear the brunt of the fatal and serious injury crashes. An equity analysis as part of the Vision Zero Action Plan development found that between 2008 and 2017, 68 percent of fatal crashes on city roads involved either a pedestrian or bicyclist, and predominately non-white neighborhoods with elevated levels of poverty were more likely to experience traffic crashes.

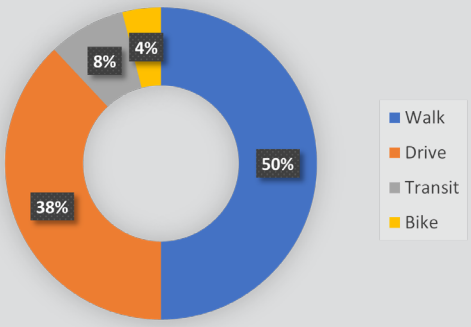


Figure 7. Trips by mode within Jersey City (data source: Streetlight Data, April 2019)

The final plan included 77 actions spanning five major themes and several disciplines. Each action item listed one lead partner, but most included at least three supporting partners, an indicator of how important coordination and collaboration would be to achieving success. With accountability built into the plan with timeframes and performance metrics for each action item, the Action Plan is a living document that drives progress each year.

In 2022, Jersey City achieved zero traffic deaths and a significant reduction in serious injury crashes on streets under its jurisdiction as a result of this sustained focus on systematic action. In this same year, the city also saw an overall reduction in traffic fatalities on its state and county roads, despite an increase at the state level.

Systematizing Change for Success

To achieve change at the scale and pace that the traffic safety crisis demands, action is required at the systems level. Planners have an integral role to play in setting the framework for this systems-level change.

In Jersey City, staff transportation planners have identified the streets and intersections that are most problematic from a safety perspective and helped make the case for focusing on the quick implementation of physical changes to streets to improve conditions for the most vulnerable users, such as pedestrians and bicyclists. Whether tracking progress towards Vision Zero goals, providing expertise and guidance to other departments, or applying for funding, planners have applied their knowledge, skills, and professional values to help the City make meaningful progress towards eliminating traffic deaths. The ability to achieve this success has been further enabled by systemic and administrative changes.

Leadership and Structure

Strong leadership that understands and supports Vision Zero has been a critical catalyst for Jersey City to make structural changes that enable the City to systematize Vision Zero efforts. As noted above, Jersey City's mayor was an early supporter of Vision Zero and issued an executive order in 2018 to adopt Vision Zero as an initiative, establish a task force, and create an action plan.

In 2018, Jersey City moved part of its transportation planning function, which was previously entirely within City Planning, into the Division of Engineering, Traffic, and Transportation. This change helped to increase collaboration between planners and engineers, leading to several successful grant applications to redesign major corridors identified in Jersey City's High-Injury Network. By having a seat at the table during the design phase for corridor projects, planners were able to influence the designs to incorporate best practices for Complete Streets and safety for all users.

In 2022, Jersey City undertook a more significant reorganization. This resulted in the creation of a new Department of Infrastructure that now includes the Divisions of Transportation

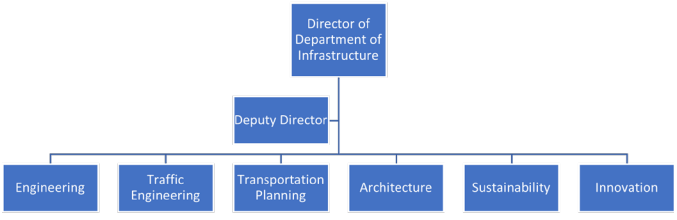


Figure 8. Jersey City's new organizational structure puts project planning, design, and delivery for public spaces in one department (City of Jersey City)

VISION ZERO JC ANNUAL REPORT

Actions

Action	Partner*	Timeframe	Progress
1.1 Incorporate the current Speed Hump program into a broader Traffic Calming Policy that encompasses a wider menu of traffic calming options including raised intersections, traffic circles, diverters, forced-turn channelization, and other treatments permissible on residential streets.	***T,*** C,E,M	2 year	**Yes, Incomplete**
1.2 Develop a neighborhood slow zone program to allow neighborhoods to request treatments to slow motor vehicles to 15 to 20 mph using traffic calming features, signs, and markings. Explore the feasibility of implementing a 20 mph speed limit for all residential streets.	***T,*** P	2 year	**No**
1.3 Prioritize major safety Engineering projects at locations along the High Injury Network.	***E***, DPW, P, T	Annual	**Yes, Implementation Ongoing**

Figure 9. The Annual Progress Report shares the status of action items annually for full transparency and accountability (City of Jersey City)

Planning, Engineering, Traffic Engineering, Innovation, Sustainability, and Architecture (Figure 8, p. 5). With the new structure, project planning, design, and delivery for public spaces are in one department, which has greatly improved collaboration across disciplines and coordination across project phases.

The structural change has also enabled the City to rapidly transform several major corridors using tactical urbanism. Planners and engineers work together to develop striping plans for quick-build projects and use on-call striping, asphalt, and concrete contractors for implementation.

Accountability

Without an accountability mechanism in place, any well-intentioned plan runs the risk of gathering dust on a shelf. Jersey City's Vision Zero Action Plan incorporates several components designed to increase the likelihood of achieving the plan's overarching goals of eliminating serious injuries and deaths on city streets.

The Action Plan incorporates action items under five broad categories: Design Safer Streets; Promote a Culture of Safety; Embed Vision Zero in City Practices; Enforcement, Law, and Policy; and Planning and Leveraging Data. Each outlines the following elements to ensure actionability:

- **Performance target.** This is a specific (ideally quantifiable) measure to indicate whether the action item has been completed (e.g., implement safety upgrades on five high-crash intersections per year).
- **Owner.** This is whoever is responsible for ensuring the action item is accomplished (e.g., Traffic Division, Planning Department, Police Department). There can be multiple owners for a given action item but designating a lead helps drive accountability. At the plan level, it is typical to list organizational units like divisions or departments, but it is recommended that specific roles or individuals are identified to carry out the tasks as part of the implementation of the plan.
- **Timeframe.** This is the period of time by which the action item should be accomplished (e.g., six months, two years, five years).

In addition to the elements built into each action item, it is important to have a performance reporting plan and structure in place. Jersey City's Vision Zero Program includes a Task Force comprising representatives of each of the divisions or departments involved in carrying out the Vision Zero Action Plan, county and state transportation planners and engineers, transportation advocacy groups involved in safety, and transportation planners from our neighboring Vision Zero community. The Task Force meets quarterly to review year-to-date serious injury and fatal crash trends across all roadways, share progress on high-priority action items and safety projects, and raise issues to address.

At the end of each calendar year, Task Force members submit end-of-year updates, key statistics, and photos to incorporate into the Annual Progress Report. Importantly, the

template and structure of the Annual Progress Report was determined as part of the initial Vision Zero Action Plan development. This commits Jersey City to full transparency by ensuring the ongoing reporting of our fatal and serious injury crash data and the status of each and every action item (Figure 9, p. 6). The Annual Progress Report is shared on the City's dedicated Vision Zero webpage for all to access.

While Jersey City does not have a dedicated GIS unit, Transportation Planning maintains a geodatabase of traffic calming and safety projects, such as protected bike lanes, curb extensions, speed humps, leading pedestrian intervals, and more. Mapping this data is important to assess whether Jersey City is focusing enough effort on the High-Injury Network and investing equitably throughout the city.

Process Integration

One of the major contributing factors to Jersey City's success has been the integration of Vision Zero practices into the routine work of the City. This has made Vision Zero a systematic part of how the City operates across several disciplines. By systematizing safety improvements, progress begins to take on a life of its own, without requiring as much effort from any one person or department.

Traditionally, transportation officials have made safety improvements as part of larger capital projects that tackle one location or corridor at a time and often require significant levels of investment, time, and coordination. Jersey City still pursues capital projects on corridor-wide scales, but no longer waits for those projects to make needed safety improvements to roadways.

The **Planning Division** in the Department of Housing, Economic Development, and Commerce incorporates Vision Zero into development site reviews by requiring that traffic impact studies prepared by developers take into consideration the Vision Zero Action Plan, Bicycle Master Plan, Pedestrian Enhancement Plan, and School Travel Plan. The Transportation Planning Division and Traffic Engineering Division also review each major site plan for opportunities to incorporate traffic safety, with a priority on vulnerable road users. Redevelopment plans often seek to reconnect the street grid and incorporate best practices in safe street design.

Within the Department of Infrastructure, the **Transportation Planning Division** is responsible for administration of the Vision Zero Action Plan and Task Force, incorporating safe street design and principles into every transportation plan and project. Transportation planners coordinate with the Division of Engineering on streets scheduled to be repaved and use the opportunity to introduce safety improvements such as bike lanes, new crosswalks with curb ramps, and curb extensions. They are also responsive to safety concerns raised by the community, and act as liaisons with the Divisions responsible for implementing improvements.

For example, in a recent project, the Transportation Planning Division worked with students to make an intersection safer in front of their school, using temporary materials to test out the new design (Figure 10). The new design features a safe drop-off area for buses only, as well as space for student drop-off. Students helped paint murals in the safety island and curb extensions. After school, the space also functions as additional play space for kids.

The **Traffic Engineering Division** is fully committed to safe, multimodal streets and works hand-in-hand with Transportation Planning on every project impacting the public right-of-way. Traffic Engineering oversees several on-call contracts that allow them to quickly design and implement safety improvements, like traffic signal changes, bike lanes, curb extensions, all-way stops, and more.

The **Division of Engineering i**ncorporates safety improvements, including the installation of new bike lanes, as part of its routine resurfacing program. Engineering oversees several on-call contracts that allow them to construct traffic calming and safety improvements such as curb ramps and speed humps. During the winter season, inspectors inventory streets on the High-Injury Network for faded crosswalks and other safety needs to help determine priorities for the following year.



Figure 10. School intersection before (left) and after (right) Transportation Planning worked with students to implement improvements (City of Jersey City)

The **Department of Public Works** has retooled its maintenance fleet to be able to maintain the new infrastructure. For example, it has purchased mini-street sweepers and mini-snow plows that can be used to clear debris and snow from bike lanes and sidewalks (Figure 11). Public Works also paints curbs within 25 feet of intersections to indicate "No Parking" and replaces broken flexible delineators used in the City's quick-build installations.

Data-Informed Decision-Making

As a rapidly growing city, our ability to respond to changing transportation patterns and increasing safety concerns is limited by the availability of staff time and safety project funding. To ensure we are using our constrained time and resources in an efficient manner, Transportation Planning developed the High-Injury Network as a part of the Vision Zero Action Plan.

The High-Injury Network was developed by conducting separate analyses for crashes involving pedestrians, bicyclists, and vehicles and identifying areas with high incidence of fatal or serious injury crashes based on a decade of state and local crash data. After identifying these corridors, the data showed that 55 percent of crashes and 61 percent of fatal crashes occurred on just 14 percent of City-owned roads. Narrowing the scope from over 200 miles of road to just 30 has allowed Jersey City to better prioritize safety investments and maximize the impact of our limited time and resources through targeted lifesaving improvements.

Since the completion of the Vision Zero Action Plan, the Transportation Planning, Traffic Engineering, and Engineering teams have used these findings to apply for and invest millions of dollars in high-impact locations. These investments have yielded positive safety results and we continue to use data to monitor the impacts. The Transportation team uses real-time evaluation tools and databases to monitor crashes, speed, and traffic counts. For example, Traffic Engineering's on-call traffic signal contractor has deployed over 65 cameras at signalized intersections along the High-Injury Network that provide multimodal turning movement counts and video footage that can be used to evaluate safety issues (Figure 12). Traffic Engineering also uses its on-call consultants to measure before/after data on speeds and travel times through corridors. Through its bike-share provider, Jersey City also measures the impact of projects on ridership at nearby bike-share stations. These data sets provide us the ability to monitor and report on progress and address traffic safety deficiencies in our roadway designs.

While the Action Plan may be a static document, the City must constantly address the unfortunate reality of changing crash patterns. Our push to achieve Vision Zero has led to the investment in greater data inputs and analysis capabilities. We are constantly on the lookout to address growing areas of concern that were not present in the initial analysis. It is critical to our traffic safety goals that our crash data, crash analyses, and hot spots are up to date.

Funding

Jersey City uses a mix of funding sources to accomplish its goals around Vision Zero.

Local. Most of the safety improvements made to city streets each year are funded using the local capital budget. Using this funding, Jersey City Engineering and Traffic Engineering issue several on-call contracts to purchase most of the materials and install the projects. On-call contracts are competitively bid with terms of one to three years plus options for additional extensions.



Figure 11. The Department of Public Works ensures that bike lanes are cleared of snow so that getting around by bicycle or scooter is possible at all times of year (City of Jersey City)

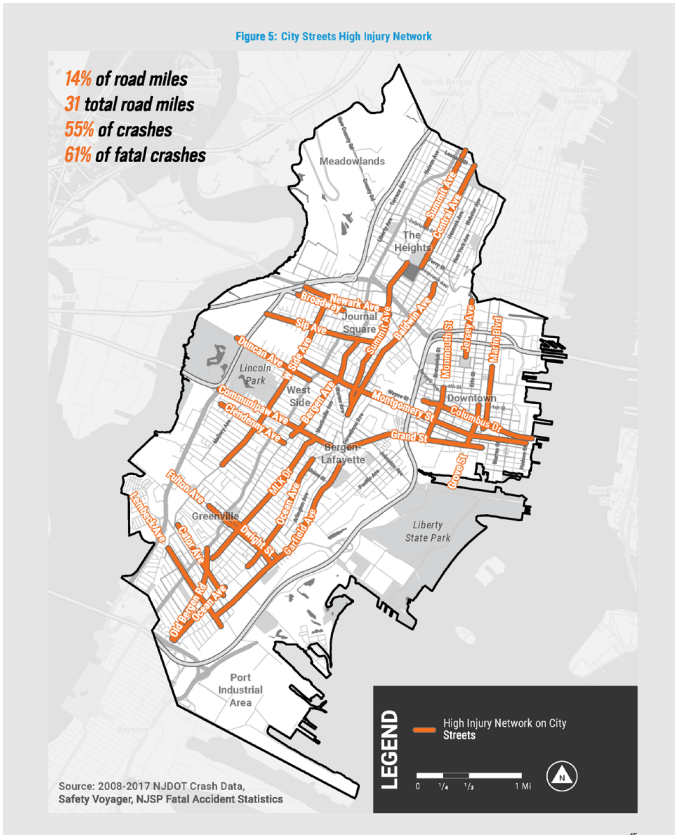


Figure 12. Jersey City's High-Injury Network shows streets under City jurisdiction responsible for the majority of fatal and serious crashes (City of Jersey City)

- Concrete – ADA curb ramps, sidewalks, floating bus islands, etc.
- Asphalt – patching, milling, paving, speed humps
- Striping – thermoplastic roadway striping, bike lanes, curb extensions
- Signals – traffic signal emergency and routine maintenance, signal head upgrades, signal timing changes, traffic-counting camera installation

Jersey City also allocates a portion of its general operating budget to on-call consulting contracts to supplement planning and design of safety improvements.

State. Jersey City takes advantage of state grants (some of which use federal funds) to advance a variety of safety projects, including those that would typically have only funded roadway improvements that preserved the status quo. For example, while Engineering previously used municipal aid funding for traditional repaving projects, it now incorporates street design changes such as adding protected bike lanes, removing travel lanes, widening sidewalks, installing curb extensions, and other elements to improve safety for all users.

Transportation Planning also applies for competitive grants through programs such as Safe Routes to School, Safe Routes to Transit, Transit Village, Bikeways, and others. Selecting projects and successfully applying for grants has been made easier now that Jersey City has a suite of updated plans containing recommendations, including the Bicycle Master Plan, Pedestrian Enhancement Plan, School Travel Plan, and of course, the Vision Zero Action Plan.

Federal. The most significant federally funded program that Jersey City takes advantage of, called the Local Safety Program, is administered jointly by the regional metropolitan planning organization (MPO) and state DOT. This program is funded by the Highway Safety Improvement Program (HSIP) with an aim to fund high-impact safety improvements on local roadways. Jersey City has successfully applied for and been awarded over $25 million since 2015 to make safety improvements to seven corridors on the High-Injury Network. With the new funding available through the Infrastructure Investment and Jobs Act (IIJA), the Transportation Planning team has taken the lead on ramping up applications for grants administered directly by the federal government. In particular, the Safe Streets and Roads for All (SS4A) Program is an unprecedented opportunity for counties and local government to advance Vision Zero planning and implementation.

Due to the longer timeframes associated with federally funded projects, Jersey City has opted to make quick-build improvements to many of these corridors once the preliminary design has been established, which has also given the Transportation team the opportunity to make tweaks to the final design based on real-world feedback on how the changes are working.

Regional and State Coordination

Jersey City has focused heavily on making improvements to streets under its own jurisdiction to make changes quickly and set the tone for how streets should function to be safe for all users within its borders. However, the City has never intended to accomplish Vision Zero on its own and recognizes the importance of collaborating with regional and statewide partners.

In many communities, state and county streets are the most dangerous, so Vision Zero efforts must include partnership to succeed. Jersey City works closely with planners, engineers, and advocates in the county, state, and neighboring municipalities to collaborate on Vision Zero principles, policies, and projects through its Vision Zero Task Force as well as on specific projects or grant opportunities.

In addition to the High-Injury Network for streets within the jurisdiction of the City, Jersey City developed a second version

Regional Collaboration for Multimodal Connections

In November 2022, Jersey City collaborated with its neighboring Vision Zero city, Hoboken, to construct a bikeway that completes a connection in both cities' protected bike lane networks. The bike lane connects Hoboken Terminal and a bike-share station just over the border in Jersey City, making it possible to travel between the cities entirely on protected bike lanes (Figure 13).

This small but mighty connection was named one of the best new U.S. bike lanes of 2022 by the organization People for Bikes, in part because of how critical to regional mobility it is (Haggerty 2023). In 2022, it was the most popular route for the entire regional bike-share system (Jersey City and Hoboken have a joint contract with Citi Bike). The cities worked together on the design and consulted with Hudson County for how the project would interface with a county intersection at its northern end, eventually coming to a short-term, quick-build design that was acceptable to all parties.



Figure 13. This protected bikeway provides a critical connection between Jersey City and neighboring Hoboken (City of Jersey City)

of the High-Injury Network that accounts for all streets, regardless of jurisdiction. In quarterly and annual reporting, Transportation Planning tabulates fatalities and serious injuries on City streets as well as the total number of fatalities and serious injuries across all streets.

By experimenting with new techniques and transforming major local corridors, as described in the sidebar on p. 9, Jersey City has gained credibility as a municipality that is committed to implementing truly Complete Streets that are safer for all users.

Tactical Interventions

Jersey City has undertaken a number of strategies and projects that highlight its tactical and iterative approach to creating safer, complete streets at various scales. Table 1 highlights some of the low-cost, high-impact tactics that Jersey City has used to implement change, and the following project examples showcase the ways planners have translated these tactics into action on the ground. In many cases, action began with temporary pilot or demonstration projects that became permanent changes to Jersey City's streets.

Table 1. Jersey City Traffic Safety Tactics

Traffic Tactic	Illustration
Protected bike lanes – A key part of making biking, rolling, and scooting accessible for all ages and abilities, this style of bike lane provides a buffer from moving vehicular traffic and can be deployed quickly and at low cost with paint and flexible delineators. More durable pavement treatments and more robust physical protection can be added over time.	
Curb extensions – Visually or physically extends the sidewalk at pedestrian crossings to narrow the crossing distance, slows turning vehicles, and increases visibility by eliminating obstructions to sight distances at intersections ("daylighting"). Like protected bike lanes, these can be deployed with paint and flexible delineators cost-effectively, and later upgraded with more robust protective barriers, such as planters, or raised to sidewalk level with concrete. Bonus: Engage community members or local artists in painting designs within the curb extensions for added placemaking.	
Bus boarding islands – Provides additional space for passengers to wait for the bus and speeds up bus operations by allowing the bus to stop in the travel lane. When paired with a bike lane, allows the bike lane to continue along the curb without conflicting with bus movements. Can be deployed quickly with paint and bollards before installing a modular platform or upgrading to concrete. W	
Street murals – Enhances sense of identity and placemaking while also serving as traffic calming through the use of artistic designs painted directly on the street. Paint can be applied to crosswalks, curb extensions, street segments, or an entire intersection, using materials as temporary as chalk or tempera paint.	
Mini-roundabouts or chicanes - Visually narrows the street and requires drivers to deviate from a straight path of travel, which results in slower speeds. These can also be deployed with paint and flexible delineators before implementing permanent configurations that may incorporate concrete and green infrastructure.	
Traffic signal timing changes - Supports safer and more convenient pedestrian travel with simple changes to existing signals, such as pedestrian recall to automatically include a pedestrian walk phase during every signal cycle, an all-pedestrian phase ("pedestrian scramble") that provides a dedicated phase for pedestrians to cross in all directions, or changes to the signal phasing to reduce unsafe conflicts.	
(Photos: City of Jersey City)	



Figure 14. The Newark Pedestrian Plaza was installed in 2015 using leftover tennis court paint and planters (above); in 2022, it was upgraded with landscaping, pavers, new lighting, and seating (below) (City of Jersey City)



Newark Avenue Pedestrian Plaza
Type: Pilot to permanent pedestrian plaza

This placemaking project is a great example of how tactical pilot and demonstration projects have the power to permanently transform a space and lead to lasting change.

In 2015, Jersey City barricaded off one block of Newark Avenue, a busy mixed-use corridor that runs diagonally through the historic downtown and its historic street grid, ending at the Grove Street Plaza (a major rail and bus transit hub). Due to its central location and geometry, the block had already been temporarily closed for street festivals and celebrations a few times per year, demonstrating that the street could serve a purpose other than vehicular traffic. Initially championed by an aide to the mayor who would become the City's Business Administrator, the project was implemented as a two-month pilot and was only closed to vehicular traffic during certain times of day (Mondays through Fridays, 3pm–midnight, and all day on Saturdays and Sundays). It served as a reminder that champions for innovative planning ideas can come from outside of predictable city departments or stakeholders.

With support of the mayor and local community, a more permanent plan for the pedestrian plaza was advanced in 2016, at which time the City's new transportation planner became involved and encouraged the use of tactical methods of placemaking. All it took was some leftover green tennis court paint and planters to transform a previously auto-centric street into a safe place for pedestrians to walk, restaurants to set up outdoor seating, and families to let their kids play (Figure 14).

The pilot was so successful that in 2018, the plaza expanded into two more blocks and incorporated portions of two intersecting side streets. As Transportation Planning's role in the project grew, they were able to influence the design to include more placemaking and amenities that would be incorporated into the permanent design. The project was passed to the Engineering Division, who completed the permanent improvements in 2022: pavers to raise the street to sidewalk level, mature street trees, new overhead wire lighting, custom benches, bike racks, and a stage for performances, among other enhancements. What once was a space dominated by vehicles is now a thriving place for people to shop, dine, and move through safely.

Bergen Avenue Protected Bike Lanes
Type: Demonstration project to permanent protected bike lanes

Jersey City also uses a pilot-to-permanent approach for many of its bike lanes. Bergen Avenue is a busy north-south mixed-use corridor on the High-Injury Network that leads to the Journal Square Transportation Center, another major rail and bus transit hub in the region. The corridor is at the center of a diverse neighborhood in a city consistently ranked among the top two most ethnically diverse cities in the United States (McCann 2023).





Figure 15. Volunteers helped paint over an exclusive right turn lane as part of a demonstration project to improve the safety of the corridor for bicyclists and pedestrians (above); inexpensive but more permanent treatments were installed as a result of the demonstration project's success (left) (City of Jersey City)

As part of Transportation Planning's development of the City's first Bicycle Master Plan in 2018, a four-day demonstration project was implemented by the project team to showcase a "road diet" (conversion of four travel lanes to three) and adding a parking-protected bicycle lane. The design of the demonstration project was approved by the Traffic Engineering team and made possible with the assistance of the Department of Public Works and volunteers from a local bike advocacy group, who helped to paint the lanes. The demonstration was so successful that the Transportation team worked with their on-call traffic engineering consultant to refine the design to incorporate a two-way cycle track and used low-cost materials (green waterborne paint, flexible delineator posts) and existing on-call striping contractors to perform the installation of the new configuration the following year (Figure 15, p. 11).

An evaluation of the corridor following the installation found that biking increased, nearby bike share stations saw increases in usage larger than the system as a whole, vehicular travel times during peak periods were either the same or reduced, and the 85th percentile speeds were under the posted 25 mph speed limit. As a result of successful coordination with county government, Hudson County will extend the Bergen Avenue bike lane north to the Journal Square Transportation Center as part of an upcoming federally funded safety grant project.

Grove Street

Type: First protected bike lanes/cycle track, reallocation of travel and parking lane to pedestrian plaza, protected intersection

Coming out of the City's Bicycle Master Planning process, Jersey City's mayor announced a commitment to installing nine miles of protected bike lanes to city streets over the next year. One of these projects was Jersey City's first permanent protected bike lane, an upgrade of conventional bike lanes to a two-way cycle track installed in July 2019 on Grove Street using the City's now go-to formula of green waterborne paint, flexible delineator posts, and use of on-call striping contractors for installation.



Figure 16. Paint and flexible delineators were used to quickly create Jersey City's first protected intersection connecting two protected bike lane paths (City of Jersey City)



Figure 17. A year after implementing the Grove Street bike lanes, Jersey City converted one direction of travel and a parking lane into a pedestrian plaza with outdoor dining (City of Jersey City)

Running past City Hall to the Grove Street PATH station and adjacent to the most heavily utilized bike-share station, this was another high-visibility project that demonstrated the City's commitment to multimodal infrastructure to improve safety on High-Injury Network streets. It also demonstrated a strategy that transportation planners and engineers used to make bike lane projects more palatable to the wider community: finding room for bicycle facilities by reducing the width of travel lanes rather than removing travel lanes or on-street parking. Grove Street's 16-foot lanes were first narrowed to 11-foot lanes with the addition of the conventional bike lanes, then eventually narrowed down to 10-foot lanes to accommodate the cycle track.

At the intersection of Grove Street with Grand Street, another high-crash corridor that was redesigned in 2020 with protected bike lanes after a successful campaign by the local advocacy group Bike JC, Transportation Planning and Traffic Engineering worked together to incorporate the City's first protected intersection into the striping plan. The use of paint and flexible delineator posts significantly slow turning vehicles and allow cyclists to cross the intersection with fewer conflicts (Figure 16).

At the start of the COVID-19 pandemic when restaurants were struggling and people craved more outdoor space, Transportation Planning with support of the Mayor's Office quickly took advantage of the opportunity to further transform Grove Street by converting one direction of travel and a parking lane into pedestrian space using planters and parklets for spreading out and outdoor dining (Figure 17). In 2023, Transportation Planning has kicked off a visioning study to engage the community in a long-term plan to make these improvements permanent.

Washington Boulevard

Type: Road diet, protected bike lanes, iteration from flexible bollards to concrete Jersey barriers

Washington Boulevard is a major north-south corridor that runs through a dense office, commercial, and residential neighborhood known as Newport in downtown Jersey City. Prior to 2019, the corridor consisted of six vehicular travel lanes with a planted median divider. In part due to safety issues and the excess capacity along the boulevard, the corridor was identified as a priority for protected bike lane facilities in the City's Bicycle Master Plan and advanced as one of the City's first nine miles of protected bike lanes.

To complete a "minimum grid" network for short-term implementation, Transportation Planning had worked with consultants to create a project prioritization matrix containing both quantitative and qualitative measures, such as safety, equity, and access to transit. In 2019, this led Jersey City's Transportation Planning and Traffic Engineering teams to advance a one-mile-long road diet that converted one travel lane in each direction to protected bike lanes and added curb extensions, pedestrian refuge islands, updated signage, and improved pedestrian crossings (Figure 18).

With these changes, pedestrian crossing distances have been significantly reduced and continuous protection has been provided to micromobility users. This previously unsafe corridor now provides critical safe connections to multiple light rail, heavy rail, commuter rail, and bus stations. Since implementation, the design of the corridor has consistently been updated through an iterative design process that included revised striping, more robust green epoxy-based paint, and upgraded protection for the bike lanes from plastic bollards to concrete Jersey barriers.



Figure 18. Washington Blvd before road diet (above) and after quick-build improvements (below) (Street Plans)



Heights Neighborhood Intersection Mural

Type: Curb extension with youth-led mural, pop-up bike lane demonstration

Palisade Avenue is a heavily traveled multimodal north-south corridor that connects multiple neighborhoods and Hudson County municipalities. Jersey City's Office of Innovation, working in coordination with the Division of Transportation Planning and Division of Sustainability on a "Year of Open Space" (YoOS) initiative, identified the intersection of Booraem Avenue and Palisade Avenue as a prime location for safety improvements due to the challenging historic intersection geometry, unsafe vehicular turning conditions, and underutilized space.

To address these safety concerns and activate the space, the YoOS team, supported by a placemaking and transportation planning consultant, used a series of tactical Vision Zero strategies. These included installing a two-block-long pop-up protected bike lane and adding painted curb extensions that reduced curb radii and the crossing distance. To enhance the curb extensions and build community support for the project, the team commissioned a Jersey City student who had been

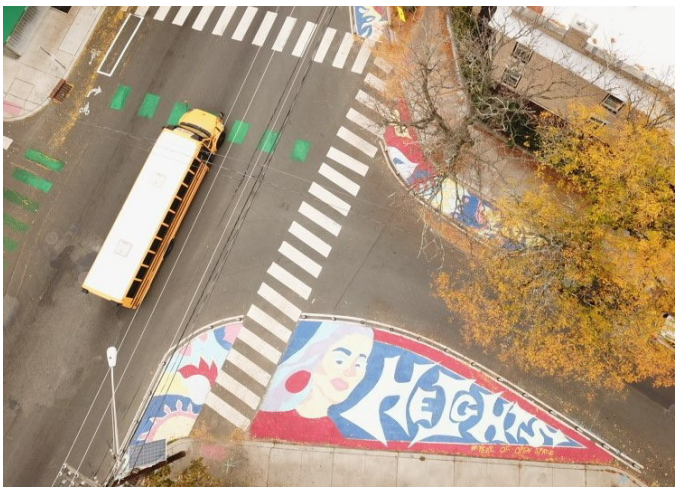


Figure 19. A local youth artist designed this mural that acts as traffic calming and shortens the crossing distance for pedestrians (Beatriz Bofill, Bike JC)

involved in the City's Mural Arts Program (JCMAP) to design and lead a group of local volunteers in painting a mural in the reclaimed street space (Figure 19, p. 13). Initiated in 2013 and funded by a Clean Communities Grant, the Mural Arts Program links established and emerging local, national, and international mural artists with property owners as part of an innovative beautification program that reduces graffiti, engages local residents, and is transforming Jersey City into an outdoor art gallery. A group of artistically inclined youth have an opportunity to work alongside professional mural artists each summer, cultivating a talent pool of local artists that can be called upon to contribute to a lively streetscape.

Action Steps for Planners

As natural systems-thinkers and integrators, planners are well-equipped with the skills and knowledge to spearhead Vision Zero efforts in the communities they serve as staff planners, consultants, or advocates. Planners can use the information and examples from this Memo to engage in the action steps listed below. While the steps are listed in a suggested order, each community is in a different stage in their journey to make streets safer and may complete some steps concurrently or in a completely different order.

1. **Engage internal and external partners.** To truly achieve systems-level change, a diverse coalition representing multiple disciplines and perspectives inside and outside of the organization is critical. It is helpful to have assembled this representation at the outset of a Vision Zero Action Planning process so that the resulting plan is realistic and has buy-in from the entities charged with implementation, but new partners can be engaged throughout the pursuit of Vision Zero to support specific projects and programs. It is recommended that this takes the form of a task force, committee, or advisory board for continuity and accountability.
2. **Identify high-priority, high-impact locations based on safety and equity.** This analysis typically occurs at the beginning of a Vision Zero Action Planning process and results in the creation of a High-Injury Network map to identify where the recommended action items and project priorities will be located. Faced with limited resources, a community's investments in these areas are expected to have the most safety impact, so this map can be helpful in the project prioritization and selection process. As safety improvements are implemented, this analysis can be updated periodically to understand if projects in the targeted areas have resulted in reductions in serious injuries and fatalities, or if new streets have emerged as hot spots. Given that there is often a lag in complete crash records being made available for analysis and some projects may take years to implement, the timeframe for refreshing this analysis is likely every three to seven years, depending on the circumstances of your community.
3. **Develop an action plan.** A Vision Zero Action Plan builds on the analysis of when, where, and why crashes occur to identify specific, measurable actions to address the conditions that lead to serious injury and fatal crash outcomes. If your community still needs to develop an action plan, there is unprecedented opportunity through the USDOT's Safe Streets and Roads for All (SS4A) grant program, which dedicates a significant portion of funding for planning activities and in its first round funded all applications for planning grants. Once a plan is developed, this same grant program aims to fund action items to measurably improve the safety of streets for all users.
4. **Experiment with demonstration projects and quick-build, low-cost materials.** Addressing Vision Zero requires urgency and calls for progress measured in days and weeks rather than months and years. There is mounting evidence for the types of interventions that improve safety for all users. Nearly all of these changes can be implemented at relatively low cost without requiring extensive engineering design, as has been shown in the examples implemented in Jersey City over the past five years. By quickly implementing changes, communities can get immediate feedback about what works in their community and can engage in more meaningful dialogue with members of the public, elected officials, and other departments.
5. **Iterate, adapt, systematize.** Achieving Vision Zero is a bold goal that requires a shift in how things have traditionally been done as it relates to the transportation system. Even once the goal of zero traffic deaths is achieved in a given community in a given year, maintaining zero in the years to come will require continued diligence. This requires a constant commitment to reviewing data, engaging the community and partners, adapting based on what's working and what isn't working, and finding ways to embed Vision Zero-centered principles and practices into the systems underlying how the streets operate.

Conclusion

When it comes to creating livable and safe places, planners already possess a body of knowledge of which elements to include: human-scaled streets that are easy to cross and naturally slow traffic, a mix of uses within short proximity that allow people to meet many of their daily needs on foot or on bike, trees and plantings to provide shade and a barrier between the sidewalk and moving vehicles, and so much more. These are the same elements that can also contribute to sustainability, resiliency, and affordability, additional goals that guide many planning activities.

Achieving Vision Zero requires that these interventions are pursued with an even greater sense of urgency and that planners take a more active role in translating a vision for safe streets into concrete, iterative improvements that can be implemented in the day-to-day engineering of streets. Jersey City has shown that significant changes can be achieved using tactical, quick-build approaches that prioritize the most vulnerable users of the street and encourage active transportation. By bringing multiple disciplines and partnerships to the challenge, developing a tactical Action Plan, adopting a quick-build mindset to implement changes quickly, and weaving safety into the everyday culture

and processes of city-building, planners can lead the efforts towards achieving zero traffic deaths in their communities.

About the Authors

Elias Guseman, AICP, is a Senior Transportation Planner in Jersey City's Division of Transportation Planning and has worked for Jersey City since June 2019. He moved to Jersey City after graduating from the Edward J. Bloustein School's Master of City and Regional Planning Program at Rutgers University. With Jersey City, he has had the opportunity to work on a host of bike, pedestrian and micromobility projects that aim to make the City a leader in active transportation and has led a series of planning studies to address long standing transportation inequities and issues. Along with the rest of the Transportation Planning team, he is an avid cyclist and city explorer.

Michael Manzella, AICP, has served as the Director of Transportation Planning in Jersey City's Division of Transportation Planning since March 2022. In the five years prior, he served as the Director of Transportation for the City of Asbury Park, during which the City implemented its Complete Streets policy by adopting a bicycle and pedestrian master plan, installing over 10 miles of bicycle facilities, launching the Jersey Shore's first bike share and scooter share programs, and developing several Open Streets programs, among other initiatives. He is a proud MCRP alum from the Bloustein School at Rutgers University and studied undergraduate engineering at Stevens Institute of Technology in Hoboken, New Jersey.

Lyndsey Scofield, AICP, PMP, is a Senior Transportation Planner in Jersey City's Division of Transportation Planning with a passion for making transportation work better for everyone. She moved to Jersey City in 2012 while working for NJ TRANSIT and pursuing her master's degree in urban planning at NYU Wagner School of Public Service. As a resident, she first got involved with community groups focused on transforming public space through advocating for green infrastructure, constructing pop-up parklets on PARK(ing) Day, and participating in group bike rides on city streets. As an employee of Jersey City, she now has the privilege to work every day on projects that make streets safer for all users, encourage users of all ages and abilities to feel comfortable choosing active modes of transportation, and help support the sustainable growth of the City.

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2024 SESSION

HB 1071 Speed limits; expands authority of any locality to reduce limit to less than 25 miles per hour.

Introduced by: **Betsy B. Carr** | **all patrons** ... **notes** | **add to my profiles**

SUMMARY AS PASSED HOUSE: (all summaries)

Reduction of speed limits; local authority. Expands the current authority of any locality to reduce the speed limit to less than 25 miles per hour, but not less than 15 miles per hour, on highways within its boundaries that are located in a business district or residence district to include highways within the state highway system, provided that such reduced speed limit is indicated by lawfully placed signs. The bill authorizes a locality to restore a speed limit that has been reduced pursuant to this authority and requires the locality to notify the Commissioner of Highways of a change in speed limit. This bill incorporates **HB 793.**

FULL TEXT

01/10/24 House: Prefiled and ordered printed; offered 01/10/24 24102677D pdf

02/01/24 House: Committee substitute printed 24106085D-H1 pdf

02/27/24 House: Bill text as passed House and Senate (HB1071ER) pdf

05/17/24 Governor: Acts of Assembly Chapter text (CHAP0842) pdf

AMENDMENTS

House subcommittee amendments and substitutes offered

House subcommittee amendments and substitutes adopted

Governor's recommendation

HISTORY

01/10/24 House: Prefiled and ordered printed; offered 01/10/24 24102677D

01/10/24 House: Referred to Committee on Transportation

01/26/24 House: Assigned Transportation sub: Transportation Infrastructure and Funding

01/30/24 House: Subcommittee recommends reporting with substitute (6-Y 2-N)

02/01/24 House: Reported from Transportation with substitute (14-Y 8-N)

02/01/24 House: Committee substitute printed 24106085D-H1

02/05/24 House: Read first time

02/06/24 House: Read second time

02/06/24 House: Committee substitute agreed to 24106085D-H1

02/06/24 House: Engrossed by House - committee substitute HB1071H1

02/07/24 House: Read third time and passed House (53-Y 46-N)

02/07/24 House: VOTE: Passage (53-Y 46-N)

02/08/24 Senate: Constitutional reading dispensed

02/08/24 Senate: Referred to Committee on Transportation

02/15/24 Senate: Reported from Transportation (9-Y 6-N)

02/19/24 Senate: Constitutional reading dispensed (38-Y 0-N)

02/20/24 Senate: Read third time

02/20/24 Senate: Defeated by Senate (20-Y 20-N)

02/20/24 Senate: Chair votes No

02/20/24 Senate: Reconsideration of defeated action agreed to by Senate (40-Y 0-N)

02/20/24	Senate: Passed by for the day
02/21/24	Senate: Read third time
02/21/24	**Senate: Passed Senate (23-Y 17-N)**
02/27/24	House: Enrolled
02/27/24	House: Bill text as passed House and Senate (HB1071ER)
02/27/24	House: Signed by Speaker
03/01/24	Senate: Signed by President
03/11/24	House: Enrolled Bill communicated to Governor on March 11, 2024
03/11/24	Governor: Governor's Action Deadline 11:59 p.m., April 8, 2024
04/08/24	House: Governor's recommendation received by House
04/17/24	House: House rejected Governor's recommendation (0-Y 98-N)
04/17/24	**House: VOTE: REJECTED (0-Y 98-N)**
04/17/24	House: Communicated to Governor
04/17/24	Governor: Governor's Action Deadline 11:59 p.m., May 17, 2024
05/17/24	Governor: Approved by Governor-Chapter 842 (effective 7/1/24)
05/17/24	Governor: Acts of Assembly Chapter text (CHAP0842)

TOWN OF MIDDLEBURG
Loudoun County, Virginia

TOWN COUNCIL MEMO

TO: Mayor and Members of Town Council

FROM: Shaun Jones, Chief of Police
Will Moore, Deputy Town Manager
Danny Davis, Town Manager

DATE: July 11, 2024

SUBJECT: Reduction of Speed Limits in Middleburg

BACKGROUND

- At the June 27, 2024 Town Council Meeting, the Town Council discussed staff's proposal to lower speed limits in Town based on new enabling legislation.
- The Town Council in general supported the proposal and discussed a few additional options:
  - Move the 20MPH zone on West Washington Street as far west as possible.
  - Consider adding The Plains Road to the reduced speed limit areas.
  - Consider the entire Town – specifically Ridgeview – in the reduced speed limit areas.

DISCUSSION

- Washington Street:
  - Staff continues to support changing the speed limit to 20MPH near the National Sporting Library and Museum.
  - The initial focus of this speed reduction effort was to slow down traffic in the core of Middleburg, specifically where there is significant pedestrian traffic.
  - By creating multiple transition zones, staff believes that it will be more effective in getting drivers to slow from 25MPH to 20MPH in the core area where pedestrian crossings are most common.
  - Furthermore, the transition from 25MPH to 20MPH near the top of the hill naturally results in drivers letting off the gas (or using the brake) near the crest of the hill – which supports slower speeds entering the core of Middleburg.

  - Fiscal Impact: Minimal
  - Staff also notes that Council supported moving the 25MPH further west to the end of the "dual lanes" (near 1103 West Washington Street). With Council's approval, staff will send a formal request to VDOT to make this speed limit change.

- Speed Limit on Side Streets:
  - Staff initially recommended reducing the speed limit to 15MPH on certain side streets.
  - After further review and discussion, staff believes that having a consistent lowered speed limit through Town will be more effective, and recommends only reducing the speed limit to 20MPH.
  - In driving through Town, trying to maintain 15MPH can be very difficult, and instances like this could result in the unintended consequence of drivers becoming *more* aggressive due to a very low speed limit.
  - Furthermore, staff would recommend reevaluating the speed limit after 12 months to understand if the 20MPH limit is appropriate, and further decisions can be made at that time, if necessary.

- Extent of Speed Limit Reductions:
  - The Town Council discussed adding additional streets to the reduced speed limit areas.
  - Staff would support adding The Plains Road from Washington Street to the Town boundaries as a 20MPH zone.
  - Staff also recommends extending the reduced speed limit on W. Marshall Street to the western end of Stonewall Avenue (it is one continuous road, even though it changes names).
  - As of this time, staff recommends not changing speed limits in Ridgeview or other streets.
  - Fiscal Impact: Minimal
  - The primary issues of speeding, especially from those who do not live in Town, occur on Washington, Federal, Marshall, Madison, and The Plains Road. These roads also afford the most effective areas for enforcement.
  - Furthermore, changing the speed on certain streets in Ridgeview would require changing the speed limit on ALL streets in Ridgeview, which requires additional signage, VDOT approvals, and time to implement.
    - If Council wishes to change the speed limit in Ridgeview, then staff recommends phasing the changes so that the most immediate issues (stated above) can be addressed, and the changes in Ridgeview to follow.
    - Fiscal Impact: Moderate

ENFORCEMENT

- Traffic patterns in Middleburg continue to change, as we see an increase in the volume of traffic passing through Town. In addition, visitor trips to the shops and restaurants in Town continue to grow.
- Trends across the country since the pandemic have demonstrated that drivers tend to be more aggressive, less patient, and in general less willing to follow stated speed limits and laws.

- One of the top priorities for our police department is to ensure the safety and well-being of our residents, visitors, and children.
- It is paramount that the Middleburg Police Department enhances its visibility and enforcement of traffic and speed laws. This will help ensure a safe community where everyone can walk and drive in a safe manner.
- The more that the Department is visible and is seen as enforcing traffic laws, the more people will understand that Middleburg is still a small, pedestrian-oriented Town where speeding will not be tolerated.
- Chief Jones will take the initiative with the Department to provide training and education on community safety, recognize employees who demonstrate a commitment to traffic safety, clearly communicate the community expectations around traffic safety, and provide feedback opportunities so that the Department can improve its traffic safety activities.

Furthermore, we will be pursuing the following items:

- Grants
  - We are exploring applying for grant opportunities from the Virginia Department of Motor Vehicles to implement the key items stated above.
  - These grants will pay for overtime for officers to work traffic enforcement. The grants will also provide funding for education for citizens, training for our officers and equipment.
- Recruitment and Additional Staffing
  - We continue recruiting to fill our vacant officer position. When that is filled, it will provide additional flexibility for greater enforcement during the business day when the Chief and Lieutenant will be working.
  - Additionally, we are still exploring changes to the organizational structure of the Department and will work with Council over the coming months in preparation for the FY26 budget cycle.
- Public Education and Awareness
  - Emphasize Community Responsibility
    - We would like to encourage a collective responsibility among residents and visitors for the safety of all community members, particularly pedestrians.
  - Consistent Messaging
    - We plan on using consistent and frequent messaging through various outlets such as social media, local news outlets, community meetings such as Biz Buzz to reinforce the importance of adhering to speed limits.
  - Collaborative Approach
    - This will involve local businesses, schools, and organizations in promoting and supporting the initiative.
  - Public Announcements
    - We would like to utilize local media and social media to announce the speed limit changes and take the opportunity to explain the reasons behind the changes.

FISCAL IMPACT

The physical cost to replace a speed limit sign on an existing post is less than $100. The additional cost to place a new sign post and sign is around $200.

Staff would need to procure contractor services if a significant amount of new signage is going to be installed in Town (such as, throughout Ridgeview).

Furthermore, the Town would need to develop a signage plan to submit to VDOT for obtaining appropriate permits. If just a few signs are added, staff can do this in-house.

If all of Town were to be reduced in speed limit, it would take staff a more significant amount of time, or we would need to procure support from an engineering firm. An initial proposal from Kimley-Horn indicates a cost of $15,500 to develop a set of plans to cover all of Middleburg that would be ready to submit to VDOT.

DECISION POINTS

To support the Council's review, below are decision points:

WASHINGTON STREET SPEED LIMIT

- Staff recommends a 20MPH speed limit from approximately Reed Street to Pinckney Street
    - Does Council concur?
    - Does Council wish to move it further west?

SIDE STREET SPEED LIMITS

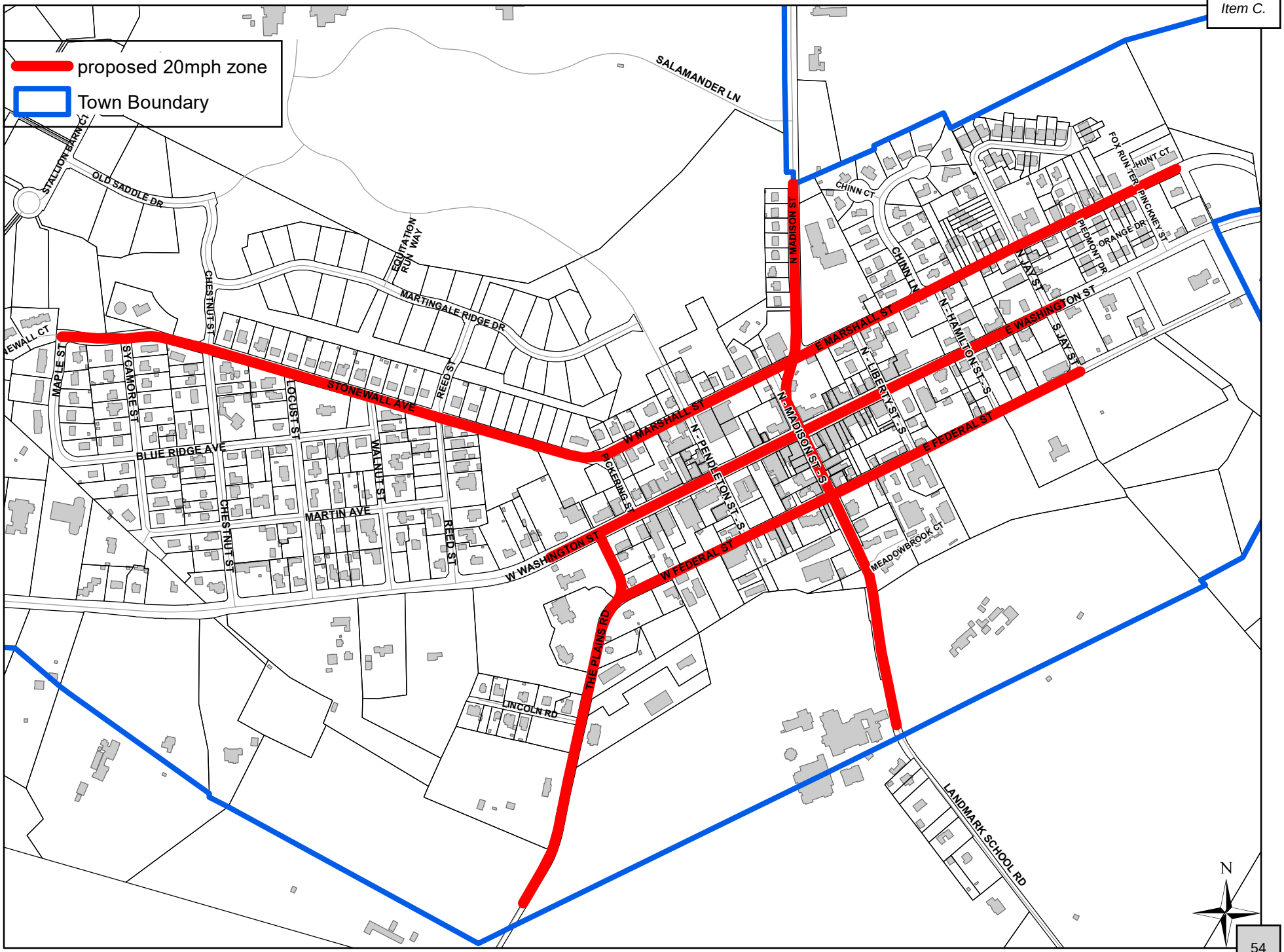
- Staff recommends a 20MPH speed limit on Federal Street, The Plains Road, Madison Street, and Marshall St/Stonewall Ave.
    - Does Council concur with a 20MPH speed limit?
    - Or does Council wish to have it lowered to 15MPH?

ADDITIONAL LOWERED SPEED LIMIT AREAS

- Staff recommends not reducing the speed limit on other streets at this time (some are marked, some are unmarked)
    - Does Council concur?
    - Or does Council wish to extend the reduced speed limits throughout Town?
        - If Council wishes to go in this direction, will Council support a two-phased approach, with immediate changes taking effect on the main streets noted above, and additional changes taking place throughout Town once a signage plan can be developed and approved by VDOT?

DRAFT MOTION

I move that the Town Council adopt **AN ORDINANCE TO REDUCE SPEED LIMITS ON CERTAIN HIGHWAYS WITHIN THE TOWN OF MIDDLEBURG,** reducing the speed limit on certain streets in Town to 20MPH. I further move that the Town Council direct the Town Manager to send a letter to VDOT, requesting that the 25MPH zone on West Washington Street be moved west past Windy Hill Road to enhance safety in the Town of Middleburg.


proposed 20mph zone
Town Boundary
SALAMANDER LN
STALLION BARN CT
OLD SADDLE DR
EQUITATION RUN WAY
MARTINGALE RIDGE DR
CHESTNUT ST
REED ST
STONEWALL CT
STONEWALL AVE
MAPLE ST
SYCAMORE ST
LOCUST ST
BLUE RIDGE AVE
WALNUT ST
MARTIN AVE
CHESTNUT ST
REED ST
W WASHINGTON ST
W MARSHALL ST
PICKERING ST
N - PENDLETON ST - S
W FEDERAL ST
THE PLAINS RD
LINCOLN RD
N MADISON ST
N - MADISON ST - S
CHINN CT
CHINN LN
E MARSHALL ST
N - LIBERTY ST - S
N - HAMILTON ST - S
E WASHINGTON ST
E FEDERAL ST
N JAY ST
S JAY ST
FOX RUN TER
HUNT CT
PINCKNEY ST
PIEDMONT DR
ORANGE DR
MEADOWBROOK CT
LANDMARK SCHOOL RD
N

AN ORDINANCE TO REDUCE SPEED LIMITS ON CERTAIN HIGHWAYS WITHIN THE TOWN OF MIDDLEBURG

MOTION:
SECOND:

WHEREAS, the Virginia General Assembly adopted House Bill 1071, effective July 1, 2024, which allows the governing body of towns to reduce the speed limit to less than 25 Miles Per Hour (MPH), but not less than 15 MPH, on highways within its boundaries that are located in a business district or residence district; and,

WHEREAS, after reviewing the recommendations of the Police Chief and Town staff, the Council desires to reduce the speed limits on certain highways in the Town limits in order to protect its citizens and visitors;

NOW THEREFORE BE IT ORDAINED that the Town Council of Middleburg here by reduces the speed limit in the following manner:

20 MPH Speed Limit:

- Washington Street, between Reed Street and Pinckney Street
- Madison Street, between the northern Town boundary and the southern Town boundary
- Marshall Street, between Pickering Street and its eastern terminus
- Stonewall Avenue, between its western terminus and Pickering Street
- Federal Street, between The Plains Road and Jay Street
- The Plains Road, between Washington Street and the southern Town boundary and;

BE IT FURTHER ORDAINED that the Town Manager is authorized to provide written notice to the Commissioner of Highways of the change in speed limits and, no less than 30 days after said written notice, to install required signage in accordance with this Ordinance, to inform the public of such changes, and to enforce the revised speed limits; and

BE IT FURTHER ORDAINED that revised speed limits shall be enforced by the Middleburg Police Department or any other authorized law enforcement agency in the same manner as all other speed limits which may have been approved by the Commissioner of Highways.

Adopted:

Vote: Aye:
Nay:
Abstain:
Absent:

APROVED:

_____
Trowbridge M. Littleton, MAYOR

ATTEST:

_____
Rhonda S. North, MMC
Town Clerk

Community Development Department

STAFF REPORT

Town Council Meeting Date:	August 13, 2024
Agenda Title:	Planning Commission Update
Requested Action:	Informational Purposes
Staff Lead:	Denise Harris, Planning Manager

EXECUTIVE SUMMARY

Planning Commission Update - At the July 16, 2024, Regular Meeting the Planning Commission held a public hearing on ZOTA 2024-02 Zoning Ordinance Text Amendment to Remove Articles 4 and 5 to Address Changes to the Erosion and Stormwater Control Ordinance. The Town Council adopted on June 11, 2024, a new, combined Erosion and Stormwater Management Ordinance that is a separate, stand-alone document, as required by Virginia State law. As a part of the creation of the new, stand-alone Ordinance, the Zoning Ordinance must be revised to remove the out of date erosion and stormwater management regulations found in Article 4 and Article 5, as well as update several sections of the Zoning Ordinance that currently refer to Articles 4 and 5. There were no speakers during the public hearing and the Planning Commission recommended approval to the Town Council 4-0-1 (Barbour absent).

The Planning Commission held a work session on ZMA 2024-01 Warrenton United Methodist Church/Hero's Bridge: A Zoning Map Amendment is being proposed by Trustees of Warrenton United Methodist Church (Owners) and Hero's Bridge (Applicant) for a Residential Planned Unit Development (R-PUD) . The R-PUD is to allow for construction of 44-duplex units for age restricted affordable housing to serve veterans, walking trails, office/community center, a multi-purpose recreation center, and the existing church. The approximate 9.8640 acres is located at 341 Church Street is zoned R-10 (Residential) and RO (Residential Office). The Future Land Use Map designation is Medium Density Residential. A second work session is scheduled for the Planning Commission August meeting.

BACKGROUND

Draft minutes are attached for background.

STAFF RECOMMENDATION

For Informational Purposes.

PLANNING COMMISSION REGULAR MEETING

21 Main Street

Tuesday, July 16, 2024, at 7:00 PM

MINUTES

A REGULAR MEETING OF THE PLANNING COMMISSION OF THE TOWN OF WARRENTON, VIRGINIA, WAS HELD ON JULY 16, 2024, at 7:00 PM

Regular Meeting

PRESENT	Mr. Ryan Stewart, Chair; Mr. Terry Lasher, Vice Chair; Mr. James Lawrence; Mr. Steve Ainsworth; Ms. Denise Harris, Planning Manager; Heather Jenkins, Zoning Administrator
ABSENT	Ms. Darine Barbour, Secretary

The minutes laid out will be a brief recap of the agenda items. Please see recorded video for more in-depth information.

REGULAR MEETING - 7:00 PM

At 7:00 PM on Tuesday, July 16, 2024. The Planning Commission meeting was called to order by the Chair and a quorum was established.

APPROVAL OF THE MINUTES.

June 18, 2024, Regular Meeting Minutes

Commissioner Lawrence motioned to adopt the June 18, 2024, Planning Commission Regular Meeting Minutes.

Vice Chair Lasher seconded the motion.

Vote 4-0-1 to approve (Barbour Absent).

PUBLIC HEARINGS.

1. ZOTA-24-2 Zoning Ordinance Text Amendment to Remove Articles 4 and 5 to Address Changes to the Erosion and Stormwater Control Ordinance. The Town Council adopted on June 11, 2024, a new, combined Erosion and Stormwater Management Ordinance that is a separate, stand-alone document, as required by Virginia State law. As a part of the creation of the new, stand-alone Ordinance, the Zoning Ordinance must be revised to remove the out of date erosion and stormwater management regulations found in Article 4 and Article 5, as well as update several sections of the Zoning Ordinance that currently refer to Articles 4 and 5. This is a Town-initiated text amendment so as to remain in conformance with the requirements of the Code of Virginia, Section 62.1.44.15:51 Erosion and

Sediment Control Law and Section 62.1-44.15:24 Stormwater Management Act, which became effective on July 1, 2024.

Ms. Heather Jenkins, Zoning Administrator, gave an overview of the application.

Chair Stewart opened the Public Hearing at 7:01 PM. The following citizens spoke to the application:

None

Chair Stewart closed the Public Hearing at 7:01 PM.

The motion was made by Commissioner Lawrence and seconded by Vice Chair Lasher to recommend approval to the Town Council. The motion was approved 4-0-1.

Ayes:	Mr. Ryan Stewart, Chair; Mr. Terry Lasher, Vice Chair;; Mr. James Lawrence; Mr. Steve Ainsworth
Nays:	***N/A***
Abstention:	***N/A***
Absent:	Ms. Darine Barbour, Secretary

WORKSESSION ITEMS.

1. ZMA 2024-01 Warrenton United Methodist Church/Hero's Bridge: A Zoning Map Amendment is being proposed by Trustees of Warrenton United Methodist Church (Owners) and Hero's Bridge (Applicant) for a Residential Planned Unit Development (R-PUD) . The R-PUD is to allow for construction of 44-duplex units for age restricted affordable housing to serve veterans, walking trails, office/community center, a multi-purpose recreation center, and the existing church. The approximate 9.8640 acres is located at 341 Church Street is zoned R-10 (Residential) and RO (Residential Office). The Future Land Use Map designation is Medium Density Residential. (GPINs 6984-16-7013, 6984-15-1823, 6984-15-1930, and 6984-16-5101)

Ms. Denise Harris, Planning Manager gave an overview of the application.

Mr. John Foote, Applicant's Representative, gave a presentation.

Mr. Foote spoke to the Rowland vs. Town of Warrenton Virginia Supreme Court ruling, size of available parcel, age restriction, specific focus on target group, establish of phases, assurances of affordability.

Mr. Foote referenced a 1980s Special Use Permit for the existing church.

Mr. Foote indicated there would be a senior technology area, fitness area, and pet therapy.

Mr. Foote reviewed the staffing levels, plans for a 12 person van, resulting in an estimated 68 trips per day or the equivalent of seven single family dwellings.

Mr. Foote spoke about the proposed 19,000 square feet multipurpose recreational center.

Mr. Foote reviewed pedestrian connectivity, proffers, buffers, and provision for a fence with landscaping.

Molly Brooks, Hero's Bridge Board of Directors, spoke to the mission and creation of the non-profit.

Ms. Brooks spoke to a market study that reviewed the needs for low-income senior housing. Need 398 units to meet demand. Looked at multiple sites, including Remington, Midland, and Vint Hill.

Vice Chair Lasher restated the number 1 issue is social isolation, number 2 is housing, number 3 is transportation for seniors.

Commissioner Lawrence stated he is supportive of idea, but a lot of detail is needed and requested more information on the old SUP. He asked if there are plans to rent out office.

Mr. Foote and Ms. Brooks stated that Phase 2 office solely serves the church and Hero's Bridge. It is intended to be built to serve intergenerational design for blended environment.

Commissioner Lawrence asked if there was a plan for retail.

Mr. Foote stated no retail is planned.

Commissioner Lawrence asked for clarifications on the proposed sidewalk connections.

Mr. Foote and the Applicant's engineer Jeremy Karls explained the sidewalk connects to Sullivan Street.

Vice Chair Lasher pointed out there are no sidewalks on Sullivan behind the BP station, He asked if the Phase 2 parking lot was illustrative and is it reconfiguring or increasing number of parking for church.

Mr. Karls stated the church is overparked now and planned to be reconfigured.

Vice Chair Lasher asked the Applicant to review the list of amenities.

Mr. Foote stated there would be a wildlife habitat designation, small office community center (movie viewing, technology, arts and crafts, music, pet therapy, fitness) outside walking trails, existing flagstone garden for meditation, and fitness stations.

Commissioner Ainsworth stated he sees value and need but details need to be laid out. Look at the multi-purpose building and make sure there is no conflict with the existing SUP. He asked is the units will be leased units and the overall organizational structure.

Ms. Brooks stated the preference points are low income, socially isolated, and from five county service area seniors. Hero's Bridge would have a long term (69 years) ground lease from church. Rentals would be between Hero's Bridge and veterans with the unit structures owned by Hero's Bridge.

Chair Stewart expressed support for the concept. He questioned the parking spaces between units and church. Residents are not precluded from owning cars and pedestrian connectivity between the units and the church.

Mr. Karls reviewed the pedestrian walkway designed to accommodate emergency services between the units.

Chair Stewart asked if there will be pet waste receptacles. He stated he likes the idea of a dog park but did not see the details.

Commissioner Lawrence asked if the project would be restricted to veterans in perpetuity.

Mr. Foote stated it will be proffered.

Chair Stewart thanked applicant for the work session.

DRAFT

COMMENTS FROM THE COMMISSION.

Commissioner Ainsworth confirmed there is no Planning Commission meeting next week.

Commissioner Lawrence requested a second work session on ZMA 2024-01.

Mr. Foote stated the Applicant will accommodate Planning Commission as possible.

COMMENTS FROM THE STAFF.

The Town Council appointed the Zoning Ordinance Update Steering Committee. Commissioner Barbour is appointed to serve with ten others.

Two Planning Commissioners, Lasher and Barbour, will be attending with staff the annual APA-VA conference in Williamsburg next week.

No Planning Commission meeting next week.

Work session next month on a SUP application for a car dealership at 71 S Fifth Street where there was previously a non-conforming dealership.

Planning Commission Bylaws need updating to incorporate new State Code notice requirements.

Town Council updated Electronic Meeting policy per State Code.

ADJOURN.

Commissioner Ainsworth moved to adjourn, seconded by Vice Chair Lasher. With no further business, the Chair adjourned at 8:02 PM.

I hereby certify that this is a true and exact record of actions taken by the Planning Commission of the Town of Warrenton on July 16, 2024.

_____

Darine Barbour, Secretary
Planning Commission

DRAFT

DRAFT

Community Development Department

STAFF REPORT

Meeting Date:	August 13, 2024
Agenda Title:	Special Use Permit 2022-05 Warrenton Village Mixed Use
Requested Action:	Hold a Work Session
Staff Lead:	Denise Harris, Planning Manager

EXECUTIVE SUMMARY

Special Use Permit (SUP) 2022-05 Warrenton Village Center, the Owners, Jefferson Associates LP and Warrenton Center, LLC with the Applicant, NewCastle Development Group, seek a Special Use Permit for two parcels totaling approximately 29.05 acres to create a mixed-use development in the existing Warrenton Village Center. The proposal includes up to 320 apartments, 34 two over twos, and 32 townhomes with the addition of central plaza, parking garage, enhanced internal road network, and pedestrian infrastructure to promote walkability. The proposal includes a 10% density bonus and several waiver/modification requests. The properties are zoned Commercial and designated in the New Town Character District of Plan Warrenton 2040. (GPINs 6985-20-7247 and 6984-29-6753)

The Town Council held a work session on July 9, 2024 on the proposal. Topics reviewed included parking, water and sewer, demographics of potential residents, transportation impacts, amenities proposed, and types of materials and fixtures. There was discussion around the difference between Section 8 Affordable Housing, US HUD Standards, and attainable housing. There was discussion around how the Town of Warrenton's Zoning Ordinance is written for affordable dwelling units and how this proposal employs it.

After the work session, the Applicant submitted a letter dated July 31, 2024, committing to providing low flow toilets. As is addressed in Attachment B Staff Analysis page B-9, Virginia State Code 15.2-2286.A.3 states the approving body shall consider the impact of SUP conditions upon the affordability of housing when the applicant is proposing affordable housing.

BACKGROUND

On March 19, 2024, the Planning Commission held a Work Session on SUP 2022-05 Warrenton Village Center Mixed Use. The Applicant, NewCastle Development Partners, presented an overview of the proposal. The Planning Commissioners asked a series of questions related to affordable dwelling units, waivers and modifications, architecture, transportation, economic impacts, water and sewer, density bonuses, walkability, schools, open space, and design. While the Applicant spoke to many of the topics at

this meeting, it was agreed upon to hold two more Work Sessions in the month of April to enable the Applicant to provide a deeper analysis on each topic.

The Planning Commission continued its Work Session on April 16, 2024, the Applicant presented to the Planning Commission information related to design of the development. Topics included affordable dwelling units, elevations and building heights, architecture, historical resources, and economic impacts. On April 23, 2024, the Planning Commission Work Session discussed transportation, schools, and water and sewer impacts, and modifications and waivers. The Planning Commission asked the Applicant to consider the character and massing of the proposed structures. At each of these meetings, subject matter experts for the Town were in attendance to answer zoning, transportation, water and sewer questions. The Applicant indicated they would look at adjustments to the plans to accommodate the requests.

On May 31, 2024, the Applicant resubmitted the SUP application for the June Public Hearing. Based on discussions at the Work Sessions, highlights of the modified application are:

- Developing a new set of elevations that include pitched roofs, stone instead of brick, and massing variations.
- Flipping the townhouses and 2 over 2 blocks to allow for the townhouses to front Branch Drive and the 2 over 2 to front Broadview.
- Added proposed language to the draft Conditions of Approval to accommodate 10% of each block to be reserved for 80% AMI affordable dwelling units, 10 additional units in Block 1 reserved for 70% AMI, and five additional units in Block 1 reserved for 60% AMI.

On June 18, 2024, the Planning Commission held a public hearing on SUP 2022-05. Twelve citizens spoke to the application (video of meeting available on the Town's website). After closing the public hearing, the Planning Commission discussed the revenue that will be generated by water and sewer taps; the perceived transportation impacts against the findings of the Transportation Impact Analysis; walkability to adjacent neighborhoods; and the desire to ensure the proposed ADUS are identical to market rate units. The Planning Commission stated this proposal meets the goals of Plan Warrenton 2040 and that the applicant has put forth a good faith effort in listening to the community. The Planning Commission then voted unanimously to recommend approval to the Town Council 4-0-1 (Ainsworth absent) with the proposed Conditions of Approval.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission recommended approval of SUP 2022-05 in a 4-0-1 vote with Conditions of Approval (Ainsworth absent) on June 18, 2024.

SPECIAL USE PERMIT CONDITIONS

Applicant: NewCastle Development Group, LLC ("The Applicant")
Owners: Jefferson Associates LP; Warrenton Center LLC
SUP 2022-05, Warrenton Village Mixed Use Center
GPINs 6985-20-7247-000; 6984-29-6753-000 (the "Property")
Special Use Permit Area: ± 29.05 acres
Zoning: Commercial (C)
Date: August 13, 2024

In approving a Special Use Permit, the Town Council may impose such conditions, safeguards, and restrictions as may be necessary to avoid, minimize, or mitigate any potentially adverse or injurious effect of such special uses upon other properties in the neighborhood, and to carry out the general purpose and intent of this Ordinance. The Council may require a guarantee or bond to ensure that compliance with the imposed conditions. All required conditions shall be set out in the documentation approving the Special Use Permit (SUP).

1. General: The property shall be developed in substantial conformance with these conditions and the plans titled "Special Use Permit for Warrenton Village Center, REVISION 3 – 5/31/2024", and prepared by Bohler Engineering. Minor changes and adjustments may be made to the road and street alignments, entrances, parking, dimensions and location of SWM/BMP facilities, the exact configuration and location of building footprints, and other similar features as shown on the SUP Plan, provided they meet the intent of these Conditions and are approved by the Director of Community Development or the Zoning Administrator.

2. Use Parameters: The Special Use Permit shall apply to the entire +/- 29.05 acre property. The property may be constructed with not more than 320 apartments, 32 townhomes, and 34 two over twos. The Zoning Ordinance 9-25 requires that residential uses shall not exceed 1 dwelling unit per 500 gross square feet of non-residential floor space within the mixed use development unless approved by Town Council through a Special Use Permit.

3. Phasing: The Applicant has the flexibility to develop Blocks 1-3 in any order. Mixed Use development approval includes the provision for construction of public amenities. To ensure that site improvements are completed in a timely manner along with the residential buildings, Applicant agrees that the Town of Warrenton will withhold Certificates of Occupancy (COs) in accordance with the following schedule:

   A. Block 1: Prior to issuance of the 1st CO within Block 1, all required infrastructure improvements for Block 1 and the following amenities shall be constructed and open for public use:

- Central Plaza
- Dog Park and Picnic Area
- West Plaza

- East Plaza
- Reconfiguration of commercial parking
- Preservation and reconditioning of Oak Spring (natural spring)
- Crosswalk across Oaks Springs Drive at Highland School entrance and Hastings Lane

B. Block 2: Prior to issuance of the 17th CO within Block 2, all required infrastructure improvements for Block 2 and the following amenities shall be constructed and open for public use:

- Central Plaza
- Reconfiguration of commercial parking
- Crosswalk across Oaks Springs Drive at Hastings Lane

C. Block 3: Prior to issuance of the 26th CO within Block 3, all required infrastructure improvements for Block 3 and the following amenities shall be constructed and open for public use:

- Central Plaza
- Reconfiguration of commercial parking
- Crosswalk across Oaks Springs Drive at Hastings Lane
- New sidewalk section on east side of Broadview Ave (behind Galaxy Strike Bowling Center building)

4. Architecture:

A. The final design of the buildings to be constructed shall generally conform to the elevations and materials included with the Special Use Permit application (hereinafter, the "Elevations"). The Elevations may be subject to minor modification approved by the Zoning Administrator in connection with Site Development Plan review. Additional changes to the design and materials may be made provided that any such changes are approved by the Zoning Administrator prior to the issuance of a building permit. Such approval shall be based on a determination that the changes result in equal to or better than the quality shown on the Building Elevations developed by Dynamik dated February 14, 2024 and/or May 30, 2024

B. The following materials are prohibited from use: vinyl siding, EIFS, corrugated metal siding, and plastic panels.

C. All residential buildings shall be designed and certified to a National Green Building Standard (NGBS), Level Bronze or higher. If NGBS is not available for this project, an equivalent certification from an alternative third-party green building rating system will be acceptable.

D. The structured parking garage in Block 1 shall include a nonreflective screening on the façade on its south facing side.

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5. Waivers and Modifications:

A. Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.
• Waiver #1: Increase density to 386 units or 13.28 per acre.

B. Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
• Waiver #2: Decrease minimum setback to 14' along Broadview Avenue.

C. Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
• Waiver #3: Decrease side/rear yard setbacks to 0'.

D. Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
• Waiver #4a: Decrease buffer width between commercial and residential uses to 0'.
• Waiver #4b: Decrease rear buffer width for residential uses from public ROW to 14'.

E. Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.
• Waiver #5: Increase height limit for dwellings as follows:
• 54' max height for Block 1, Oak Springs Drive Frontage
• 36' max height for Block 1, Broadview Avenue Frontage
• 36' max height for Block 2
• 45' max height for Block 3

F. Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
• Waiver #6: Increase maximum grouping of townhouse units from six to seven

G. Article 2-19: Fences and walls may be erected up to a height of six (6) feet in all zoning districts, except for fences or walls that extend within the required front setback.
• Waiver #7: Allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and around refuse and dumpster enclosures as approved by the Zoning Administrator.

6. Signage: All signage shall comply with the applicable provisions of Article 6 of the Town of Warrenton Zoning Ordinance.

7. Site Maintenance and Refuse Collection: The Applicant shall maintain the site in a clean and orderly manner and shall arrange for the pickup of trash, litter, and debris. Any refuse storage areas shall be screened with a solid enclosure constructed of materials that are compatible with the buildings on the property. Private refuse collection will be provided by the Homeowners' Association and non-residential businesses. The Association documents shall ensure that pickup times for refuse

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from both residential and the non-residential follow Town Code. Deliveries and refuse collection shall follow Town Code Section 11-19(9).

8. Transportation:

A. Access - Access to the site shall be provided as shown on the SUP Plan, subject to changes as may be approved at Site Development Plan review.

B. Loading/Unloading – All loading and unloading of vehicles shall take place on the Subject Property during regular hours of operation and outside of peak travel hours, to the greatest extent possible, in the Loading Area depicted on the Special Use Permit Plan.

C. Obstruction of Travel Ways – No vehicles associated with the use shall obstruct the travel ways, fire lanes, adjoining road network or encroach upon landscaped areas as shown on the Special Use Permit Plan. No vehicles shall be located within site entranceways or otherwise impede ingress, egress, and internal circulation.

D. Parking – The Subject Parcel shall meet all parking requirements as outlined in Article 7. Should it be desired to expand the use in any of the buildings located on the Subject Property, the new proposed use shall be required to apply for approvals that meet Zoning Ordinance and additional parking requirements.

E. Sidewalks - The Applicant shall install sidewalks as shown on the SUP Plan, through these Conditions of Approval, and required by the Town of Warrenton regulations. All sidewalks will be a minimum of five feet (5') in width. The Applicant will install a new section of sidewalk along the east side of Winchester Street, between Lee Highway and Broadview Avenue (behind the
Galaxy Strike Bowling Center building) as part of Block 3 improvements.

F. Oak Springs Drive Crosswalk(s) – new crosswalks will be installed on Oak Springs Drive at Hasting Lane and at the entrance to Highland School as provided for in the Phasing condition. Inclusion of these crosswalks will be contingent upon and subject to Town of Warrenton at time of Site Development Plan approval.

9. Water & Public Sewer Connection: The Property shall connect to public water and public sewer. A pre and post closed-circuit TV inspection will be required with inspection prior to residential occupancy permits.

10. Stormwater Management: The site is to be planned and designed as a redeveloped site under the State's Runoff Reduction requirements for Stormwater Management (SWM) and in compliance with the Town of Warrenton's SWM Ordinance at time of construction.

11. Affordable Dwelling Units:

A. The Applicant shall provide the following minimum number of Affordable Dwelling Units (ADUs):

- 10% of total dwelling units within each of the three blocks (Block 1,

Block 2 and Block 3) will be reserved as 80% AMI ADUs;
• Ten (10) additional dwelling units in Block 1 will be reserved as 70% AMI ADUs;
• Five (5) additional dwelling units in Block 1 will be reserved as 60% AMI ADUs

B. The Applicant shall maintain the ADU program on all rental units for a period of twenty-five (25) years from the issuance of the Special Use Permit (the "Affordability Period").

C. Within Block 1, allocation of the ADUs between 1-, 2- and 3-bedroom units will be at the discretion of the Applicant, so long as the minimum number of units defined above are maintained as ADUs. Within Block 2 and Block 3, wherein all units are 3-bedrooms, all ADUs will be 3-bedrooms. The ADUs shall be identical to the market rate units in architectural design, fixture/appliance selections and unit size. ADUs will be distributed so that no more than three (3) are adjacent in Block 1 and none shall be adjacent in Blocks 2 and 3. The ADUs shall be architecturally identical to the market rate units. The size of these units shall be identical to the market rate units.

D. "Qualified Parties" and "Rent Limits" for ADUs, are defined as:
• For the purposes of qualifying for the lease of an affordable rental ADU a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 60%, 70%, or 80% (dependent on the specific ADU) of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for Fauquier County as published by the Virginia Housing (formerly known as VHDA), at the time the rental application is opened for such Qualified Party ("AMI"). If Viginia Housing has not published the Income Limits used under this Condition 11 for a period of more than 365 days, the Zoning Administrator shall notify the property owner at the record address given in the Fauquier County tax records of a new comparable Income Limits program to be used based on the available information about income in the Warrenton or Fauquier County housing markets.
• For the purposes of determining the Rent Limits for all ADUs, monthly rental rate limits shall be equal to those published by Virginia Housing for 0-, 1-, 2-, and 3-bedroom units and corresponding 60%, 70% and 80% AMIs, with no utility allowances.
• For the purposes of qualifying for the purchase of an ADU in Block 2 or Block 3, a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 80% of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for a 4-person household in Fauquier County as published by Virginia Housing, at the time the purchase contract is executed for such Qualified Party.
• For purposes of determining the purchase price of any for-sale ADU, that price will not exceed the amount at which the monthly mortgage payment for such unit exceeds the monthly rent limits for 3-bedroom units and 80% AMI income, as published by Virginia Housing. Qualifying Parties must provide a market rate loan commitment prior to closing in order to calculate the proposed mortgage payment.

E. ADU status shall be set forth in a deed of restrictive covenants recorded against the Property and shall continue to bind the minimum ADU requirement within each block to the Property for a period of twenty five years from the issuance of this Special Use Permit; provided, however, that for rental units, the Applicant may recalculate the rental

rates for new leases or renewals in accordance with the then current rates published by Virginia Housing.

F. The Applicant shall establish in a deed of restrictive covenants a program for the administration of this ADU program according to the requirements of these conditions.

G. The Applicant shall designate on the Construction Drawings submitted for building permit approval which units will be the initial ADUs; however, the units that are selected as the initial rental ADU units are not required to remain as the designated rental ADUs for the entirety of the Affordability Period. The Applicant will have the authority to re-designate the rental ADUs from time to time based on leases and vacancies. The Applicant will maintain a building plan set at the leasing office located in the Block 1 at all times that shows which units are currently designated as rental ADUs, a copy of which shall be made available to the Zoning Administrator upon request.

H. The documents creating the ADU program shall be reviewed and approved by the Town Attorney prior to their recordation in the Land Records.

I. ADUs will first be made available to the following persons with preference to the first three bulleted items below:
- Those residing or working in the Town of Warrenton or Fauquier County
- Town of Warrenton or Fauquier County teachers
- Town of Warrenton or Fauquier County first responders
- Veterans and enlisted members of the United States Armed Forces

J. The Applicant shall contact the appropriate local Social Service and/or Housing Authority offices for help to identify and place of local residents.

K. The community's Property Management Team shall make annual reports to the Zoning Administrator as to the number, type and location of units hereunder that shall have been rented as ADUs and shall verify that they have been rented to Qualified Parties.

L. Separate entrances for ADU apartment entrances are not permitted.

M. All ADU occupants shall have the same rights and privileges to amenities as market rate unit residents, except for as provided under the condo sale provision.

N. All ADUs shall meet the US Department of Housing and Urban Development Accessibility Requirements for Multifamily Buildings under the Fair Housing Act.

12. Site Surface: All outdoor areas used for open spaces, amenities, facilities, parking, storage, loading, display and driveways shall be constructed and maintained in good repair, free of cracks or damage to the surface.

13. Electric Vehicle Charging Stations: a minimum of 2% of the total spaces

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included within the Block 1 parking garage will include electric charging stations for tenant use. EV stations shall be reserved for electric vehicles only and enforcement will be monitored by the Property Management team.

14. Landscaping: All Zoning Ordinance requirements must be met for landscaping, except as provided for in approved waivers and/or modifications. The Owner shall be responsible for the maintenance and replacement of all plantings on site. Any diseased or dead landscaping shall be replaced within one season of dormancy.

15. Emergency Services:

A. All future Site Development Plans shall illustrate adequate access to the site for Emergency Service vehicles, subject to approval by the Community Development Director or Zoning Administrator. Nothing shall be placed or constructed on the site that would prohibit or restrict Emergency Service vehicles from mounting curbs or accessing structures. There shall be no parking of any vehicles in the travel ways. Mountable curbs will be required at new and/or modified entrances.

B. Fire hydrants shall be installed in locations acceptable to the Town of Warrenton.

C. Buildings shall have supra boxes installed on them with a fire alarm panel inside the front and rear entrances of the structures.

16. Lighting:

A. All outdoor lighting shall be in conformance with the Zoning Ordinance.
B. The Applicant shall prepare and submit a photometric plan in connection with Site Development Plan review.
C. All site lighting, to include both new fixtures within the new development areas as well as any non-residential area that is modified as a part of site development, must consist of fully-shielded, full cut-off fixtures to meet the requirements of Article 9, Section 9-8.
D. Color temperature of exterior light fixtures will be 3,000 degrees kelvin or lower.
E. Average horizontal illumination level of exterior light fixtures will be 3.0 footcandles or less.

17. Open Space: each residential block/parcel and the residual retail parcel will individually meet the 10% usable open space requirement. The Applicant will construct and maintain all open spaces in general conformance with the improvements noted and shown in SUP "Open Space Plan." Benches, bicycle racks, and other amenities shall be provided as shown on the SUP "Open Space Plan.".

18. Modified Alley: The Applicant will build and maintain the Modified Alley in general conformance with the improvements shown in this area on the Plan.

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19. Three Bedroom Unit Maximum: A maximum of 10% of the units located in Block 1 will be 3-bedroom units.

20. Condo Sale of Block 2 and Block 3: Applicant will maintain the ability to sell the entirety of Block 2 (Multi-Family Townhomes) and/or the entirety of Block 3 (Multi-Family 2-Over-2 and Townhomes) as Condos. The Applicant agrees to sell all or none of the units within Block 2 or Block 3, so as to prohibit a mix of for rent and for sale units in the same block.

All conditions of the SUP will continue to be enforced in a block sale scenario through the Declarations of Restrictive Covenants that the Applicant will record and encumber the Block 2 and/or Block 3 parcels.

In a block sale scenario, Homeowner Associations will be established to maintain all conditions of the SUP and will own the block parcel, while individual condo owners will own the condo dwelling units.

In a sale scenario, residents/owners of the condos will not be tenants of the apartment community and will not have access to the rental amenities located within Block 1. In a block sale scenario, 10% of the units within the sold block will be required to be sold as ADUs, in accordance with the language outlined in Affordable Dwelling Units of this Conditions of Approval.

21. Block 1 Amenities: All amenities located within Block 1 will be available for use by tenants of residential rental units owned by the Owner in all three blocks (Block 1, 2 and 3). If residential units within Block 2 and/or Block 3 are sold by the Owner in a condo sale, the fee simple owners of the residential condos will not have access to the Block 1 amenities contained within the apartment complex. All public amenities shall continue to be open to Block 2 and 3 residents.

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June 18, 2024
Planning Commission
Regular Meeting

RESOLUTION TO RECOMMEND APPROVAL SPECIAL USE PERMIT 22-05 WARRENTON VILLAGE CENTER MIXED USE PURSUANT TO SECTION 11-3.10 OF THE ZONING ORDINANCE OF THE TOWN OF WARRENTON (GPINS 6985-20-7247 and 6984-29-6753)

WHEREAS, Warrenton, VA (Hereinafter "the Town") is a municipal corporation located within the County of Fauquier; and

WHEREAS, Warrenton Village Center, and the owners, Jefferson Associates LP and Warrenton Center, LLC, with the Applicant, NewCastle Development Group ("the Applicant"), are the requesting a Special Use Permit approval on a parcel of land containing approximately 29.05 acres, identified as GPINs 6985-20-7247 and 6984-29-6753, located at the existing Warrenton Village shopping center bordered by Oak Springs Drive, Branch Drive, Lee Highway, and Broadview Avenue in the Town of Warrenton and hereinafter referred to as the "Property"; and

WHEREAS, the Applicant has applied for a Special Use Permit pursuant to §3-4.10 and §9-25 of the Zoning Ordinance for approval to create a mixed-use development in the existing shopping center to include up to 320 apartments, up to 34 2-over-2s, and up to 32 townhomes with the addition of a central plaza, enhanced internal road network, and pedestrian infrastructure to promote walkability, hereinafter the "Special Use Permit"; and

WHEREAS, the Applicant requested waivers and modifications to the Zoning Ordinance for Article 2-6.1 to allow for density increase to 386 units at approximately 13.28 units/per acre; Article 3-4.10.4 to allow for 14' setbacks from Public Right of Way on the east side of Broadview Avenue and 0' setbacks along internal parcel lines within Warrenton Village Center; Article 8-8.5 to allow for 0' buffer width between commercial and residential uses within Warrenton Village Center and 14' buffer width between Public Right of Way and residential uses along the east side of Broadview Avenue; Article 2-20 to allow for maximum building heights of 54' along Oak Springs Drive (Block 1), 36' along Broadview Avenue (Block 1), 36' within Block 2, and 45' within Block 3; Article 3-4.4.5.3 to allow for seven multifamily townhome and/or 2-over-2 units to be grouped contiguously, and Article 2-19 to allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and

WHEREAS, the Planning Commission held three public work sessions on SUP 2022-05 on March 19, 2024; April 16, 2024; April 23, 2024; and

WHEREAS, pursuant to §11-3 of the Zoning Ordinance upon petition of the Applicant for approval of the Special Use Permit, the Planning Commission upon advertisement and notice properly given pursuant to §15.2-2204 of the Virginia Code held a Public Hearing on June 18, 2024; and

WHEREAS, the Planning Commission considered for approval of the Special Use Permit based on Conditions of Approval and Virginia State Code Section 15.2-2286.A.3; and

WHEREAS, the Planning Commission finds that the Application meets the criteria for approval found in Section 11-3.10.3 in the Town of Warrenton Zoning Ordinance; and

WHEREAS, the Planning Commission, in consideration of all of the foregoing, is of the opinion that the application for the Special Use Permit is to be recommended for approval to the Town Council subject to certain conditions;

NOW, THEREFORE, BE IT RESOLVED that the Warrenton Planning Commission on this 18th day of June 2024, that SUP 22-05 be, and is hereby, recommended for approval to Town Council, subject to the Conditions of Approval and Special Use Permit Plans dated June 30, 2023 and revised through May 31, 2024 by Bohler (Sheets 1-36).

Votes:
Ayes: Stewart, Lasher, Barbour, Lawrence
Nays: ø
Absent from Vote: S. Ainsworth
Absent from Meeting: S. Ainsworth

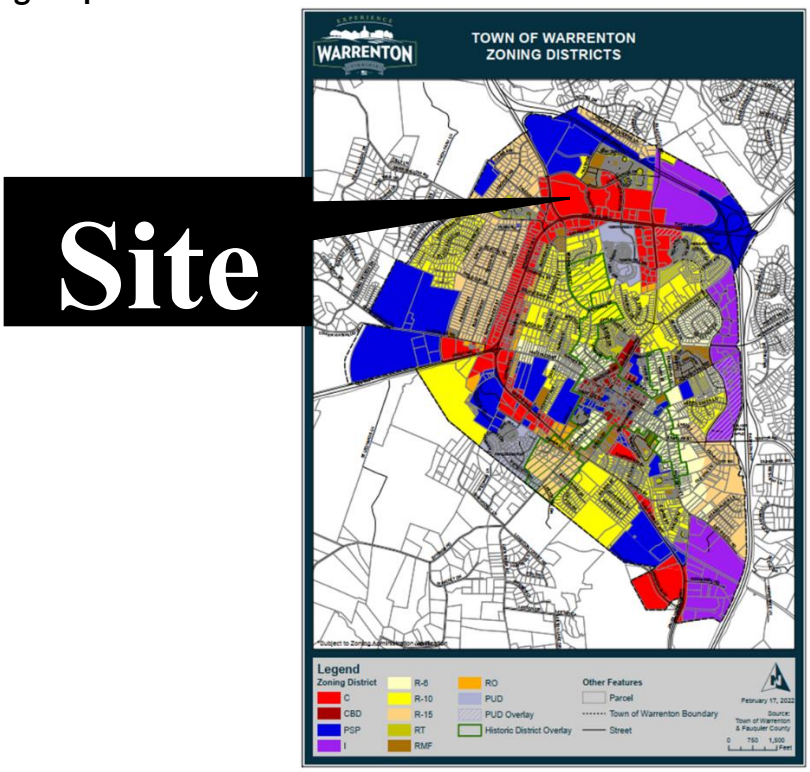
ATTEST: Darine Barbour
Darine Barbour, Planning Commission Secretary

Attachment A – Maps

Vicinity Map:



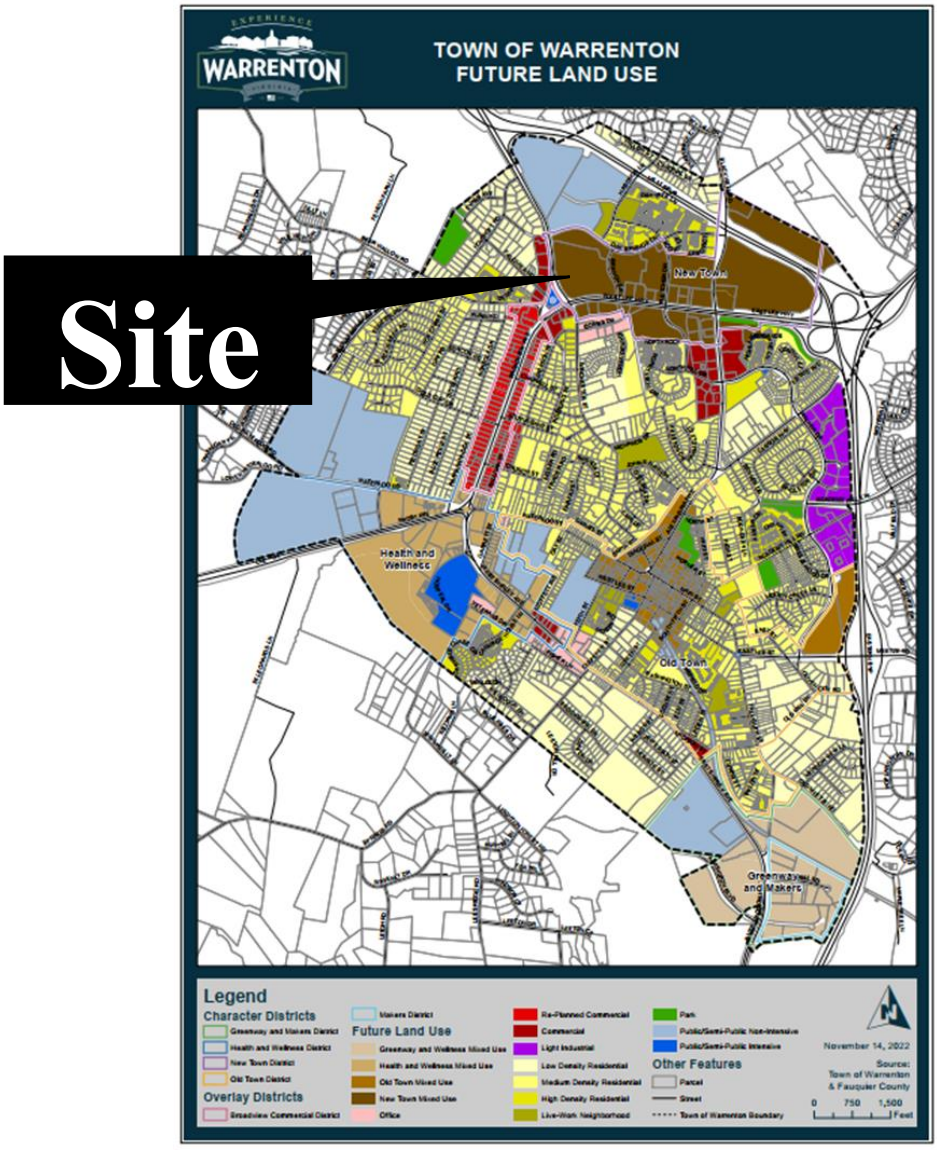
Zoning Map:



Commercial Zoning

Attachment A – Maps

Future Land Use Map:



New Town Character District

Staff Analysis

This analysis is based on the Comprehensive Plan, Zoning Ordinance, and review comments by Town Departments. The standards/analysis tables in the sections below contain the criteria for Planning Commission and Town Council consideration of Special Use Permits, per Article 11-3.10.3.

This request for a Special Use Permit for Warrenton Village Center Mixed Use with Article 3-4.10 and Article 9-25 of the Town Zoning Ordinance. The proposal includes up to 320 apartments, 34 two over twos, and 32 townhomes with the addition of central plaza, parking garage, enhanced internal road network, and pedestrian infrastructure to promote walkability. The proposal includes a 10% density bonus, provisions for affordable dwelling units, and several waiver/modification requests.

The following table summarizes the area characteristics (see maps in Attachment A):

Approx. Direction	Land Use	Future Land Use Map Designation	Zoning
North	Private School/Multi Family/Assisted Living	Public/Semi Public Non Intensive; Live/Work Neighborhood	PSP/R-10/RMF
South	Commercial	New Town District	Commercial
East	Commercial	New Town District	Commercial
West	Commercial	Commercial	Commercial

The properties totaling approximately 29.05 acres are zoned Commercial and designated in the New Town Character District of Plan Warrenton 2040. (GPINs 6985-20-7247 and 6984-29-6753)

Comprehensive Plan Future Land Use

Plan Warrenton 2040 designates Warrenton Village in the New Town Character District. The District encourages quality modern architecture that compliments the historic character of Warrenton. Open spaces contribute to this character to encourage active use tying the commercial and residential uses together. District design elements listed in the Comprehensive Plan encourage frontages with storefront awnings, gallery, arcade, stoops, porches, and yards. Internal streets are walkable and on a grid-pattern with a mix of uses at varying intensities. The summary of this district calls for the following:

"*A form-based transect approach to development would define form with greater maximum height towards Lee Highway and the center of the district, with a gradual step down in scale towards Oak Springs Drive…Frontage along the adjoining neighborhoods shall have a more residential appearance, with setbacks, stoops, and compact green yard space.*"

There are Ten Guiding Principles for all Character Districts listed in the Comprehensive Plan. The first and most emphasized feature being a discernible center. A hardscaped plaza or park *centered* within the entire

development to accommodate neighborhood interactions. Building placement, building massing and design, entrances and facades, ground floor residential use, streetscape design and walkability, multi-purpose public areas, and a mix of residential with non-residential are all part of the envisioned New Town Character District.

Standard	Analysis
Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.	The proposed use falls within the future land use designation of New Town Character District which specifically calls for redevelopment of shopping centers to be mixed use.
The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.	The Warrenton Village Center is surrounded by commercial retail, multi-family, and institutional uses. The proposed mixed use is compatible and consistent with the comprehensive plan.

Staff Findings

The Applicant has worked to integrate the proposed mixed use with the existing built environment and is proposing the creation of a central plaza with splash pad, landscaping, and seating in the existing parking lot of Warrenton Village Center. This amenity is part of the design transformation from a commercial strip mall towards a mix-use development. There will be a potential commercial/retail pad on the western side of the central plaza to activate the space. The Applicant is also proposing a dog park immediately north of the existing eastern side of the commercial development. This area currently is an underutilized grassy grove of younger trees.

The Applicant worked with Plan Warrenton 2040 Design Guidelines and the Planning Commission to refine the proposal. Retrofitting an existing shopping center to mixed use provides challenges. However, the Applicant worked to create transportation linkages by extending Hastings Lane; adjust Blocks 2 and 3 to have the more compatible townhomes located next to existing multi-family and townhomes; and developed a second set of architectural drawing to incorporate pitched roofs and stone.

The waivers and modification requests are necessary to achieve the design setbacks and mix of uses envisioned in Plan Warrenton 2040. The Applicant is asking for a height waiver along Oak Springs Drive where the comprehensive plan envisioned a “stepped down” approach to Oak Springs. Plan Warrenton 2040 is a guide that made a high-level goal for the entirety of Oak Springs Drive. The Applicant’s justification for the additional height is multi-layered due to topology, the adjacency to a school and commercial assisted living, and the provided setbacks from Oak Springs Drive. Overall, staff finds no outstanding issues.

Planning Commission

The Planning Commission requested the Applicant swap the townhouses in Block 3 fronting Broadview Avenue with the 2 over 2s in Block 2 fronting Oak Springs due the compatibility of townhouses on Oak Springs. The Applicant accommodated this request. The Planning Commission also explored the placement of open spaces, elevations, and access points with the Applicant. This resulted in the May 31,

2024, SUP Plans and included elevations.

Transportation and Circulation Analysis

A Transportation Impact Analysis was provided and is being reviewed with the SUP plans by the Virginia Department of Transportation (VDOT) and the Town's transportation consultant. In addition, conducted a "Pipeline Study" of Lee Highway that resulted in the Smartscale funding of a roundabout at the southwest corner of the proposal at the intersection of Broadview Avenue/Lee Highway/Winchester Street. A second roundabout is funded at the intersection of Lee Highway and Blackwell Road. On June 11, 2024, the Town Council passed a resolution of support to submit Smartscale applications for a roundabout at the intersection of Fletcher Drive and Lee Highway with access management improvements at Branch Drive and Village Center Drive.

The northern portion of Broadview Avenue that touches the proposed parcels is considered a Gateway Street Typology, as noted in the 2017 Complete Streets Guide. This is an alternate Boulevard designation that indicates the roadway crosses from the Town to the County. This means the development would have a more pronounced effect on the entrance impact into Warrenton.

Plan Warrenton 2040 places emphasis on appropriate circulation and connection to promote safe, equitable multimodal transportation. A key aspiration within the Comprehensive Plan states: *"Improve multimodal safety by enacting access management strategies, incorporating bike-friendly policies into new development standards, and deconflicting through-travel and local traffic movements."*

The 2017 Complete Streets Guide categorizes design elements for five distinct street classifications. Each classification encourages multi-modal considerations with an emphasis on connectivity. This is further encouraged by the goals and policies of the Comprehensive Plan to enhance the traveling experience of Warrenton. The Comprehensive Plan provides the following policies:

- *Facilitate new, compact redevelopment in Character Districts to introduce sidewalks and linkages to trails/paths and promote walkability.*
- *Provide and improve sidewalks, crosswalks, pedestrian signals, lighting, and other amenities to make it safer, easier and more comfortable for people to walk.*
- *Require that the proposed street system for new developments will be designed to provide a network of interconnected streets.*
- *In large development parcels, create compact development blocks with internal streets for pedestrian and vehicular circulation to support walk access and decrease auto-trip patterns.*

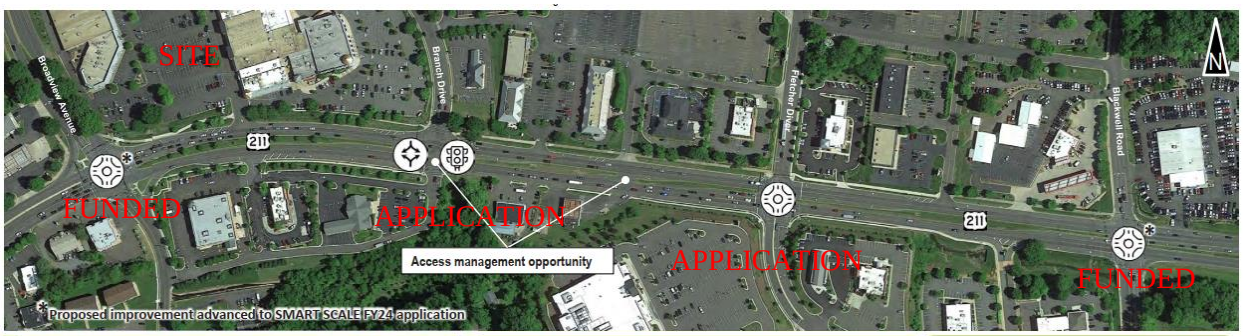
Standard	Analysis
The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.	The Applicant provided a Transportation Impact Analysis (TIA) to calculate the potential impacts of the addition. The TIA determined no adverse impacts on the surrounding road network and no signal or turn lane warrants are triggered. The Town will be constructing roundabouts on Lee Highway which studies show increase safety and transportation flow by 60%.
Whether the proposed use will facilitate orderly and safe road development and transportation.	

Staff Findings

The proposed development includes creating an extension of Hastings Lane into the site and a parking garage located behind the proposed apartments with two entry points (one off Oak Springs Drive across from Highland Lower School and one into the alley). The townhouses and two over twos will have garages. The Applicant has conducted autoturn analysis for delivery and emergency vehicles to demonstrate accessibility. The Applicant has also indicated they will work with the schools on potential bus stop locations in ternal to the site. The Applicant is also proposing pedestrian improvements throughout the site with sidewalk connections, raised crosswalks, and adding crosswalks at Hasting Lane and the intersection with Highland's Lower School to create a pedestrian network to the surrounding community.

External to the Site

Warrenton Village is bounded by several important regional roads and neighborhood streets. Lee Highway (BUS29) to the south, including Broadview Avenue (Bus17) to the west, Oak Springs Drive to the north, and Branch Drive to the east. These are roads that the Town and VDOT have been studying for years and making funding applications regardless of the proposal. Plan Warrenton 2040 listed Lee Highway in the Near-Term Recommendations for improvements. VDOT followed this up with a Lee Highway Pipeline Study in 2022 with specific intersection improvements that VDOT had vetted through a public outreach process. The Town then successfully applied for VDOT Smart Scale funding for roundabouts at Lee Highway and Winchester Street and Lee Highway and Blackwell Road. The remaining improvements in the Pipeline Study, including a roundabout at Fletcher Drive and access management improvements at Branch Drive and Village Center Drive, have been submitted for VDOT Smart Scale applications in 2024.



Town of Warrenton VDOT Smart Scale Applications

The Applicant produced a Transportation Impact Analysis (TIA) that was reviewed by the Virginia

Department of Transportation (VDOT), the Town transportation consultant (Kittelson), and Town staff. The TIA is a technical document that follows industry standards to determine transportation scenarios using today's base numbers, a percentage growth rate to account for changing needs over time that occur off site, intersection analysis of the surrounding onsite access points, and projected transportation needs based on the impacts of the proposed development and without the proposed development. The TIA was updated based on technical comments to produce a document that indicates the following:

1) Ten intersections were studied as part of the TIA.
2) Annual growth rate of 1% regional growth on Lee Highway was assumed.
3) The approved Waterloo Junction and Warrenton Crossing developments were included in the analysis.
4) Included the funded roundabout at Lee Highway and Winchester Street.
5) The proposal generates less traffic than if 40,000 square feet of by-right retail was developed.
6) The proposal anticipates approximately 154 new vehicle trips during the AM Peak Hour and 197 new vehicle trips during the PM Peak Hour across multiple access points.
7) Intersection analysis with the proposed development finds no new turn lane are warranted by VDOT standards.
8) Intersection analysis with the proposed development finds no new signals are warranted per MUTCD standards.



Bottom line is the TIA finds no additional roadway improvements are needed beyond the planned roundabout at Broadview and Winchester that is funded in VDOT's Smart Scale Round 5. The Applicant is providing sidewalks internal to the site, crosswalks on Oak Springs Drive, and the extension of Hastings Lane for interconnected transportation.

Planning Commission

The Planning Commission held a work session on transportation with the Town's staff, transportation consultant and the Applicant. They were advised by the Town Attorney about roughly proportional and essential nexus for reasonable conditions. Since the TIA found no warranted improvements, the Planning Commission encouraged the Town and the Applicant to continue working on the transportation network as a whole for safety. Town staff is already exploring, under current conditions, ways to increase safety on Broadview; adding multi-modal improvements across Broadview, Oak Springs, and Branch Drive; and traffic calming across the network.

Community Facilities and Environmental Analysis

Plan Warrenton 2040's vision includes key aspirations of fostering high quality, equitable, and accessible community facilities; make responsible and strategic community facility investments that support the Town's vision for a live/work community, sustaining its fiscal well-being and economic resiliency; and provide a high quality of life to capture economic benefits through diverse businesses, employers, and residences. The health, safety, and quality of life for residents is established in part by the community infrastructure. Goals also include:

> *CF-4: Ensure healthy, safe, adequate water and wastewater services.*
> *CF-5: To provide a fiscally responsible infrastructure that maintains a high quality of life for residents, supports current businesses, and attracts new employers with a stable tax structure.*

Standard	Analysis
Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.	The parcel is located in Town and currently served by Town Police and Fauquier County Emergency Services. There is an existing water and sewer to the site. Public Utilities has determined there is sufficient infrastructure to serve the site.
The location of any existing and/or proposed adequate on and off-site infrastructure.	

Staff Findings

Schools

Fauquier County Public Schools use a formula for all development across the county to anticipate generated school seats. Using the formula, this proposal generates:

- 49 Elementary Students
- 21 Middle School Students
- 24 High School Students

Fauquier County Public Schools anticipates the projected 2028-2029 enrollment at the currently districted schools to be with program capacity:

- Bradley Elementary: 360 enrollment/588 capacity
- Taylor Middle School: 606 enrollment/850 capacity
- Fauquier High School: 1170 enrollment/1612 capacity

Based on the Fauquier County Public School calculations, there is available capacity in the school system for this proposed development.

Environmental Building

Plan Warrenton 2040 includes the goal *"CF-3: Green infrastructure and sustainability are incorporated into community facilities to promote energy efficiency and environmental protections."* The Applicant is proposing a Condition of Approval that all residential buildings will be designed and certified to a National Green

Building Standard, Level Bronze, or higher. If the National Green Building Standard is not available for the project than an equivalent certification from an alternative third-party green building rating system will be accepted.

Water and Sewer

The Town of Warrenton conducted water and sewer availability studies to determine townwide what approved, by right, and anticipated development would generate. The WRA Water and Sewer Capacity Evaluation took into account approved projects within the Town, partially approved/in process projects in the Town, vacant parcels in the Town, and then potential future growth in various areas of the Town based on the character districts of Plan Warrenton 2040. At that time, the Warrenton Village proposal was included in the study as an "in process" development, meaning it was an active land use application. The Study assumed a usage of 166,000 gallons per day. The Town Public Utilities Department stated the residential portion will require a water and sewer demand of between 77,000 GPS and 116,000 GPD, and the commercial will require around 44,000 GPD for a total of between 121,000 and 160,000 GPD. This flow demand on top of the existing and already committed demand on the Town's water and wastewater treatment plants is a significant increase to the currently permitted treatment levels of 2.4 and 2.5 MGD respectively. If the density and type of development is deemed acceptable by Planning Commission and the Town Council, the Town's Department of Utilities will respond to meet these requirements.

Planning Commission

The Planning Commission held a work session with the Director of Public Utilities and the Applicant to discuss the water and sewer. The Applicant presented an average of the water and sewer usage of their existing apartment complexes that came out to less than was anticipated. The Director of Public Utilities walked the Planning Commission through the WRA Water and Sewer Capacity Study that allocated more water and sewer to anticipated future development on the site then is projected to be used by this proposal.

Attainable/Affordable Housing

Attainable housing for all ages, incomes, and needs is one of the main goals for Housing in Plan Warrenton 2040. Creating housing that caters to the local need while fostering and protecting the character of surrounding neighborhoods and the Town as a whole, new developments are encouraged to be interconnected with shared open spaces for a sense of place. Specifically for the New Town District, the Comprehensive Plan states:

"…each Character District is different when it comes to identifying appropriate housing typologies. For example, …the New Town Character District would promote mixed-use residential in a vertical configuration to support more retail uses."

There is a difference between attainable and affordable housing. While affordable housing is defined by housing subsidized by the government or non-profits, attainable housing is not subsidized. Plan Warrenton 2040 took these distinctions into account when formulating how to create a housing stock that allows for a diverse community. The Plan Warrenton Housing goals include:

H-1: Ensure equitable, attainable housing opportunities across residents of all ages, incomes, and abilities by

catering to the needs of a diverse community, including young families, professionals early in their careers, essential workforce, and those entering retirement.

H-2: Character Districts will accommodate a balance of available housing typologies that are compatible to existing neighborhoods in scale, character, and transition.

> *H-2.1: Place an emphasis on physical form of the housing (e.g. number of stories, building profile, and appropriate transitions to adjoining neighborhoods) by updating the Zoning Ordinance, while protecting the character of existing residential neighborhoods.*
>
> *H-2.2: Increase opportunities for multi-family and mixed-use residential development by updating the commercial corridors in the Character Districts to allow for appropriate use and scale transitions into existing neighborhoods.*

Plan Warrenton 2040 protects existing neighborhoods by promoting the Character Districts as the places to accommodate a range of housing typologies. The RKG Demographic and Housing Analysis White Paper that was adopted as part of Plan Warrenton 2040 found single family units make up 75.3% of the Town's housing inventory with the largest share built before 1980. The 2020 report found *"the Town's population trends are skewing towards older age-cohorts while younger age-cohorts have shown minimal growth since 2010. From a housing perspective, the Town appears to lack the diverse housing options (both housing price and type) desired by younger populations who may not desire or are not ready to purchase a home. Roughly, 63.4% of the Town's newly constructed building square footage is comprised of residential properties with 60.0% being single family properties while only 3.5% is classified as multifamily. Almost all of the multifamily development is age-restricted."*

The Rappahannock Rapidan Regional Housing Study confirmed those aged 65+ represent the highest increase in each jurisdiction of PD9 between 2010-2019. Housing demand was estimated at 4,600 housing units across the region and underhoused population of those aged 18-34 and living with a non-spouse/partner. The Study recommended increasing the supply of attainable housing and recognizing the need for a diverse set of housing options across the region. Under the recommendation of increasing attainable housing, the Study further encourages localities consider targeted incentives for higher density and mixed-use development in potentially designated Urban Development Areas (UDAs). The New Town Character District, where this proposal is located, is a Town adopted UDA and recognized by the Commonwealth of Virginia as such.

The Town of Warrenton Zoning Ordinance Article 9-3 defines persons eligible to rent or buy affordable dwelling units includes those eligible for assistance under the following state or federal programs:

- Virginia Housing Development Authority (now Virginia Housing)
- Section 8 Rental Assistance Program
- Department of Housing and Urban Development Community Block Grant Program
- Farmer's Home Administration Program
- Other programs similar to those named herein as approved by Town Council

Each of these programs utilizes the U.S. Housing and Urban Development (HUD) definitions and calculations for determining Area Median Income (AMI). Warrenton is designated as part of the

Washington-Arlington-Alexandria, DC, VA, MD HUD Metro Area. The following chart illustrates the current HUD calculations.

FY 2024 Income Limit Area	Median Family Income Click for More Detail	FY 2024 Income Limit Category	Persons in Family							
			1	2	3	4	5	6	7	8
Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area	$154,700	Very Low (50%) Income Limits ($) Click for More Detail	54,150	61,900	69,650	**77,350**	83,550	89,750	95,950	102,150
		Extremely Low Income Limits ($)* Click for More Detail	32,500	37,150	41,800	**46,400**	50,150	53,850	57,550	61,250
		Low (80%) Income Limits ($) Click for More Detail	68,500	78,250	88,050	**97,800**	105,650	113,450	121,300	129,100

NOTE: **Fauquier County** is part of the **Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area**, so all information presented here applies to all of the Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area. HUD generally uses the Office of Management and Budget (OMB) area definitions in the calculation of income limit program parameters. However, to ensure that program parameters do not vary significantly due to area definition changes, HUD has used custom geographic definitions for the Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area.

https://www.huduser.gov/portal/datasets/il.htm

Article 9-3 of the Zoning Ordinance further outlines how an affordable housing program would assure the availability for at least 25 years following the date of Town approval, developing in a traditional design technique, and how the units would be offered to the public. These provisions are captured in the draft Conditions of Approval. Article 9-25 for Mixed Use Development Options allows for a density bonus of up to 100% of the allowable density if no less than 10% of the residential units are defined as affordable.

Staff Findings

The Applicant is proposing 10% of the units within each residential block to be dedicated to affordable housing in each block reserved for residents with household incomes below 80% of the Area Medium Income (AMI). Further, the Applicant is proposing 10 additional dwelling units in Block One reserved for 70% AMI and five additional units in Block One reserved for 60% AMI.

Virginia State Code 15.2-2286.A.3 states *"For the granting of special exceptions under suitable regulations and safeguards; notwithstanding any other provisions of this article, the governing body of any locality may reserve unto itself the right to issue such special exceptions. Conditions imposed in connection with residential special use permits, wherein the applicant proposes affordable housing, shall be consistent with the objective of providing affordable housing. When imposing conditions on residential projects specifying materials and methods of construction or specific design features, the approving body shall consider the impact of the conditions upon the affordability of housing."*

The draft Conditions of Approval include how the program would be administered, as well as provisions that ADUs will be built to similar standards as market rate units and not clustered together in one location. Per the State Code, the Town Council needs to consider the draft Conditions of Approval impact upon the affordability of the units.

Planning Commission

The Planning Commission discussed the ADU provisions throughout the work sessions and public hearing. The Applicant offered draft Conditions of Approval that go above the requirements of the Zoning Ordinance in regards to how many are provided, the identical design and materials to market rate units, and architecture.

Historic/Environmental Resources

Plan Warrenton 2040 includes a Historic Resources chapter that envisions *"The Town and property owners will work toward a common goal of preserving the historic built environment for current and future generations, knowing their efforts will strengthen Warrenton's neighborhoods, complement place-based economic development, encourage local economic growth, promote equity of its residents, and conserve natural resources."*

The subject parcels are not located within the Town's Historic District. The existing shopping center is contained on one larger parcel with six acres of greenfield development, where Block One is located, on the northern parcel.

Staff Findings:

Plan Warrenton's goal of HR-4: Enhance the Environment Through Preservation and Sustainability Practices has been addressed by the Applicant twofold. First, a natural spring is located on the northeast portion of the site. This spring may be the original naming reason for Oak Springs Drive and the historical Oak Spring Manor. Former Architectural Review Board Chair, Steve Wojcik, brought this to the Town's attention by pointing out *"The spring, the house, and part of the family cemetery a few blocks further, are all that remain of the estate of the Edmonds Blackwell family, early settlers of the area during the colonial period, one of whose members was an officer in the Revolutionary War."* When brought to the Applicant's attention, the proposal was adjusted to preserve the spring. The Applicant also stated they are looking to recondition the spring as a public amenity.

Second, the Applicant is proposing a Condition of Approval that all residential buildings will be designed and certified to a National Green Building Standard, Level Bronze, or higher. If the National Green Building Standard is not available for the project then an equivalent certification from an alternative third party green building rating system will be accepted.

Planning Commission

The Planning Commission raised the question of the spring on the property during the design discussion with the Applicant. In future submissions, the Applicant spoke to preserving the spring as a public amenity.

Economic Resources Analysis

An economic goal of Plan Warrenton 2040 is to promote a diverse, equitable stable tax base while preserving the character of the community. The New Town District is deemed a major economic development priority with potential to be a destination center for mixed-use bridging entertainment, office, and residential. Per the Comprehensive Plan, the Character Districts are created with the intention

of being:

"…a focal point for revitalization to allow for mixed-use and multi-family development at an appropriate scale compatible with the Town's character and existing neighborhoods. Transform aging commercial corridors to vibrant mixed-use neighborhoods."

Another major economic goal of the Comprehensive Plan is to maintain the small-town character while reducing the percentage of Town residents commuting for work. Mixed use developments allow for greater walkability. Additionally, several large County employers located in Town have communicated recruitment issues due to lack of housing in the Town. Some major employers, for instance the schools and hospital, have indicated that their employees face challenges finding housing in Town due to lack of supply.

The Fiscal Sustainability Analysis that was produced as part of the Comprehensive Plan provided the community with development scenarios that walked the community through the economic realities of the Town and the long-standing desires/needs. The analysis communicated that in order for the community to have net positive fiscal impacts, it must grow its housing supply to support the underperforming retails and commercial assets.

The growth in office component will require a concerted economic development effort from the Town to succeed. Simply put, the current marketplace for office development is not robust enough to project such growth by 2039. That said, the introduction of the proposed large-scale mixed-use developments likely will have a transformative effect on how the office market views the Town, particularly how the projected development program incorporates multifamily development, a critical missing component for Warrenton to attract more of the region's younger workforce. The focus on creating a strong connection between living, working, and recreating (restaurant growth) has proven effective throughout the region.

"First, the citizens of Warrenton continue to want higher levels of services and amenities. This desire for improved facilities, expanded choices, and better connectivity will come at a cost. It is a cost that exceeds the Town's existing financial capacity. If built, the sample public enhancements researched/identified through this effort would create a negative fiscal impact on the Town if development activity does not increase to similar levels of surrounding jurisdictions. Simply put, the Town can not 'save its way' to fiscal sustainability. Improving the quality of life for existing residents will require additional revenue (either from new growth or existing residents).

Second, the mix of development matters. The market analysis reveals that the Town does not have the demand to continue to increase retail services. The existing development policies make new construction of any type challenging, even for those uses that have strong market demand (i.e. multifamily development). That said, the mix of uses that are proposed for development (or redevelopment) matter from a fiscal perspective. Residential uses with smaller household sizes will have a smaller fiscal impact on the Town's cost structure. From the nonresidential side, the modeling reveals accommodation and dining uses create a greater fiscal benefit to the Town due to their higher direct revenue streams.

Finally, balancing the mix of uses between residential and nonresidential uses will be critical from both a market perspective and a fiscal one. Simply put, growth in commercial development (particularly retail and dining venues) will require greater consumer spending, which primarily comes from local households. Much of the development projected in Scenario 2 and Scenario 3 will require more residences to increase spending. More strategically, diversifying the Town's housing stock will be important to redefine the local office market, as Millennials are becoming the largest portion of the white-collar labor force. This generation is delaying homebuying and family

household formation at a higher rate than previous ones. Having a high quality, well-integrated live/work/recreate community is a fundamental need to attracting these workers (and as a result, their companies)."

Standard	Analysis
Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.	According to all fiscal impact studies conducted previously by the Town and by the Applicant as part of this application, the proposal will result in a net positive fiscal impact.
The number of employees.	N/A
The proposed days/hours of operation.	N/A

Staff Findings

The Town has invested significant resources in determining its fiscal resiliency and what market forces are required to obtain a healthy economic scenario in Town. The findings indicate mixed use developments that add to the housing supply are critical to the fiscal success of the Town.

Planning Commission

The Planning Commission received the Fiscal Impact Analysis as part of the project application submission that was consistent with the Town's fiscal studies, which find the overall impact to be net positive. S. Patz and Associates, Inc's June 2023 analysis found the proposal of 320 units apartment building, 36 2 over 2s, and 20 townhomes to be a net benefit of approximately $46, 100 annually with most of the revenue generated by off-site impacts due to the *"Town of Warrenton levies low real estate and personal property taxes."* (Page 2) Since the Planning Commission's purview is land use, it is did explore the fiscal impact question further.

Open Space, Parks, and Environment

Plan Warrenton 2040 highlights ample open space and access to open space is a priority to public health. Providing access to an open space suitable for the development needs within walking distance is encouraged:

"*Provide a dynamic system of safe, interconnected spaces for a variety of public uses that promote healthy, active, recreational activities in spaces throughout the Town. These spaces will reflect the culture, ecology, and natural environment of Warrenton.*"

Staff Findings

The Applicant is following the Character District Design Guidelines by providing for a central plaza and other public amenities like a dog park, interconnected sidewalks, and residential units in a compact, walkable environment.

Planning Commission

The Planning Commission reviewed the open space, central plaza, sidewalks and connections to adjacent neighborhoods.

Zoning Analysis

The legislative intent of the Commercial District is to encourage the logical and timely development of land for a range of commercial and mixed-use purposes in accordance with the objectives, policies, and proposals of the Comprehensive Plan; to prohibit any use which would create undue impacts on surrounding residential areas; and to assure suitable design to protect the residential environmental of adjacent and nearby neighborhoods. It is further declared to be the intent of the district to limit traffic congestion, overcrowding of land, noise, glare, and pollution, as to lessen the danger to public safety, and to ensure convenient and safe pedestrian access to and from commercial and mixed-use sites.

Standard	Analysis
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.	The existing use is commercial/retail. All non-residential uses in Town must meet the noise ordinance and residential must meet Town Code.
The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.	The Applicant has stated they will follow Article 6 of the Zoning Ordinance. While conceptual signage was provide, a master sign plan was not included in the application.
The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.	The Applicant is seeking waivers and modifications to the height of the proposed building and possible retaining walls to a fourth story for the apartment units.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	The Applicant provided a landscaping plan and must meet all Zoning Ordinance requirements.
The timing and phasing of the proposed development and the duration of the proposed use.	The Applicant is not proposing specific phasing but is breaking the development into three distinct blocks.
Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.	The welfare of the public is promoted by contributing new housing stock and affordable dwelling units.
Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.	N/A
The location, character, and size of any outdoor storage.	N/A

Standard	Analysis
The location of any major floodplain and steep slopes.	Steep slopes are illustrated in the SUP Plans and will be addressed at time of site plan.
The location and use of any existing non-conforming uses and structures.	N/A
The location and type of any fuel and fuel storage.	N/A
The location and use of any anticipated accessory uses and structures.	The Applicant states where applicable, all accessory structures will comply with local codes and ordinances.
The area of each proposed use.	Block 1: up to 320 apartments with a 4 story parking garage Block 2: Up to 32 townhouses Block 3: Up to 34 two over twos
The location and screening of parking and loading spaces and/or areas.	Block 1 contains a 4 story parking garage with screening; Blocks 2 and 3 contain garages and driveways.
The location and nature of any proposed security features and provisions.	N/A
Any anticipated odors which may be generated by the uses on site.	Site will comply with Zoning Ordinance.
Refuse and service areas.	Private refuse collection is anticipated with dumpster areas delineated on the SUP Plans.
Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.	The Applicant is proposing to preserve a historic natural spring for a public amenity.
The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality. The location of any major floodplain and steep slopes.	The Applicant states they will comply with federal, state, or local codes and ordinances regarding wildlife habitats, sensitive land or natural features, vegetation, water quality, and air quality.
The glare or light that may be generated by the proposed use in relation to uses in the immediate area.	Fixture details/cut-sheets and new structures will be required to be provided and reviewed as part of the Site Development Plan submission.

Staff Findings

The Applicant has indicated that items like lighting, landscaping, parking, and signage will all be addressed at the time of the Site Development Plan. As with previous SUP approvals, draft Conditions of Approval attempt to address potential LED lights as the Zoning Ordinance has not yet been updated to address this

technology.

Planning Commission

The Planning Commission passed a resolution that found the Application to meets the evaluation criteria found in the Zoning Ordinance Article 11-3.10.3.

Waiver and Modification Requests

Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.

- Waiver #1: Increase density to 386 units or 13.28 per acre.

Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.

- Waiver #2: Decrease minimum setback to 14' along Broadview Avenue.

Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.

- Waiver #3: Decrease side/rear yard setbacks to 0'.

Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.

- Waiver #4a: Decrease buffer width between commercial and residential uses to 0'.
- Waiver #4b: Decrease rear buffer width for residential uses from public ROW to 14'.

Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.

- Waiver #5: Increase height limit for dwellings as follows:
- 54' max height for Block 1, Oak Springs Drive Frontage
- 36' max height for Block 1, Broadview Avenue Frontage
- 36' max height for Block 2
- 45' max height for Block 3

Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.

- Waiver #6: Increase maximum grouping of townhouse units from six to seven

Article 2-19: Fences and walls may be erected up to a height of six (6) feet in all zoning districts, except for fences or walls that extend within the required front setback.

- Waiver #7: Allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and around refuse and dumpster enclosures as approved by the Zoning Administrator.

Staff Findings

Plan Warrenton calls for mixed use developments, with design guidelines, that require modifications to the Zoning Ordinance. Mixed use developments are integrated with zero set backs and buildings closer to

the street to create a more walkable environment. The proposed waivers and modifications are requested to help meet the mixed use design guidelines as the Zoning Ordinance has not yet been updated.

Planning Commission

The Planning Commission motioned to recommend approval to the Town Council for SUP 2022-05 per the Conditions of Approval (Separate Attachment) and SUP plans. Waivers and modifications are included in the recommended Conditions of Approval.

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

LOCATION OF SITE

TOWN OF WARRENTON

FAUQUIER COUNTY, VIRGINIA 20186

PARCEL ID'S: 6985-20-7247-000, 6984-29-6753

PARCEL IDENTIFICATION TABLE

PARCEL NUMBER	OWNER	ADDRESS	AREA	CURRENT ZONE	CURRENT PLANNED LAND USE	PROPOSED PLANNED LAND USE
6985-20-7247-000	JEFFERSON ASSOCIATES LP	360 OAK SPRINGS DRIVE WARRENTON, VA 20186	6.46 ACRES	C	VACANT	MIXED USE
6984-29-6753-000	WARRENTON CENTER LLC	251 W LEE HIGHWAY WARRENTON, VA 20186	22.59 ACRES	C	RETAIL	MIXED USE
			TOTAL AREA 29.05 ACRES			

REFERENCES AND CONTACTS

REFERENCES

♦ BOUNDARY & TOPOGRAPHIC SURVEY:
ALTA/NSPS LAND TITLE SURVEY
"WARRENTON CENTER, 360 OAK SPRINGS DRIVE, CENTER DISTRICT, TOWN OF WARRENTON, VIRGINIA"
PREPARED BY: BOHLER
DATED: 11/3/21

♦ ARCHITECTURAL PLAN:
CAD FILE: WARRENTON FLOOR PLAN.DWG
PREPARED BY: DYNAMIK DESIGN
DATED: 5/21/2024
SEE GENERAL NOTES REFERENCE ON SHEET 4

GOVERNING AGENCIES

♦ TOWN OF WARRENTON
COMMUNITY DEVELOPMENT
21 MAIN STREET
WARRENTON, VA 20188-0341
CONTACT: ROB WALTON, DIRECTOR OF COMMUNITY DEVELOPMENT
PHONE: (540) 347-2405

* THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.



LOCATION MAP

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SHEET INDEX

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OWNER

SEE PARCEL IDENTIFICATION TABLE

DEVELOPER

NEWCASTLE DEVELOPMENT GROUP
100 10TH STREET SE, SUITE 300
CHARLOTTESVILLE, VA 22902
CONTACT: JESS ACHENBACH
PHONE: (434) 260-6628

PREPARED BY

BOHLER

CONTACT: JOHN C. WRIGHT, P.E.

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	6/30/2023	TOWN COMMENTS	DSH / JCW
2	2/14/2024	TOWN COMMENTS	TAL / JCW
3	5/31/2024	TOWN COMMENTS	TAL / JCW

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

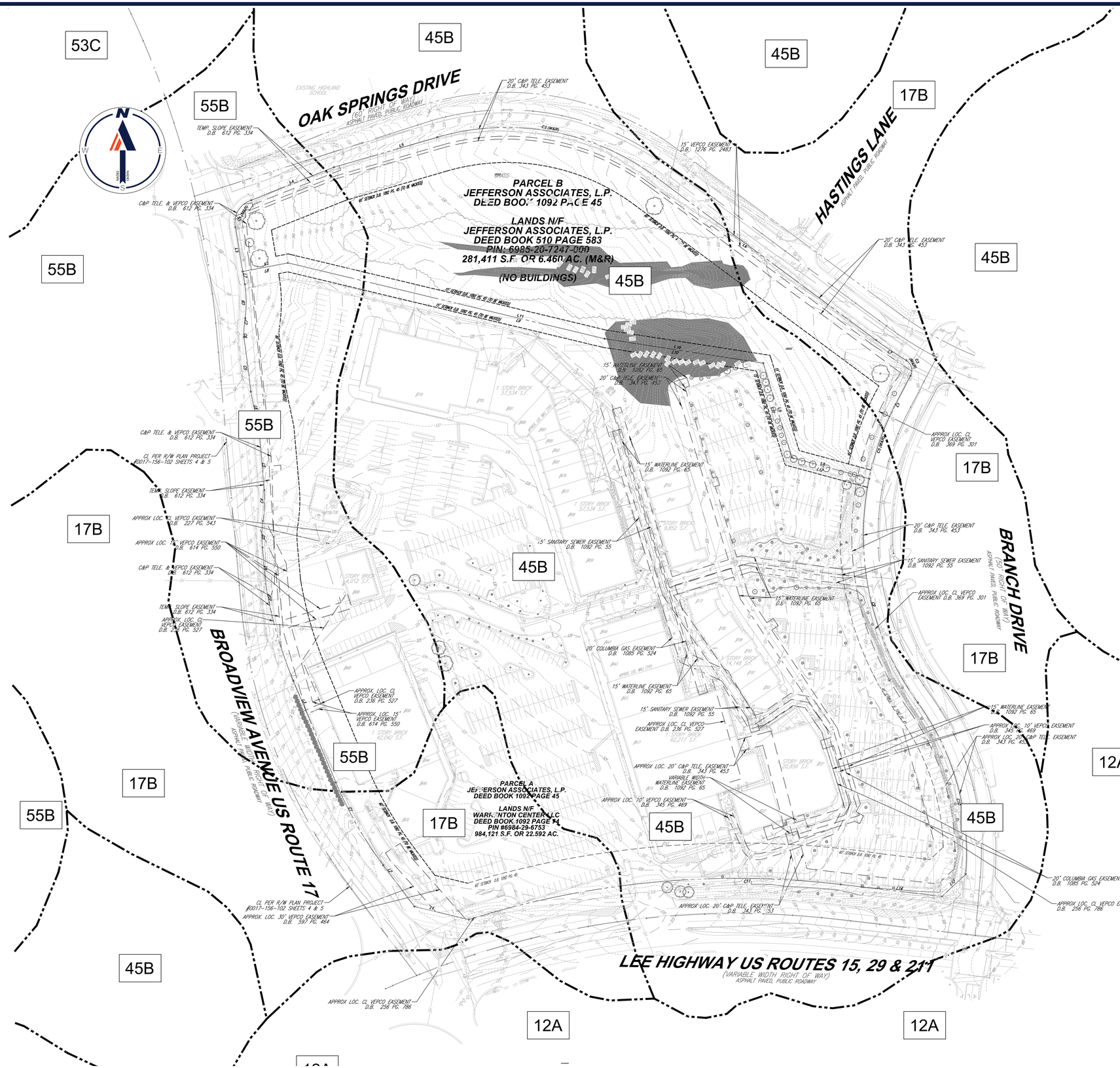
COVER SHEET

SHEET NUMBER:

1

REVISION 3 - 5/31/2024

May 30, 2024
H:\2012141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1---LAYOUT 1 - COVER SHEET



HATCH LEGEND

EXTENTS OF STEEP SLOPES

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
12A	ROHRERSVILLE LOAM	0 TO 2%
17B	MIDDLEBURG LOAM	2 TO 7%
45B	FAUQUIER SILT LOAM	2 TO 7%
53C	GLENELG LOAM	7 TO 15%
55B	ELIOAK LOAM	2 TO 7%

BOHLER

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2	2/14/2024	TOWN COMMENTS	TAL / JCW
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PROJECT No.:	V212141
DRAWN BY:	DSH
CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	EXST -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

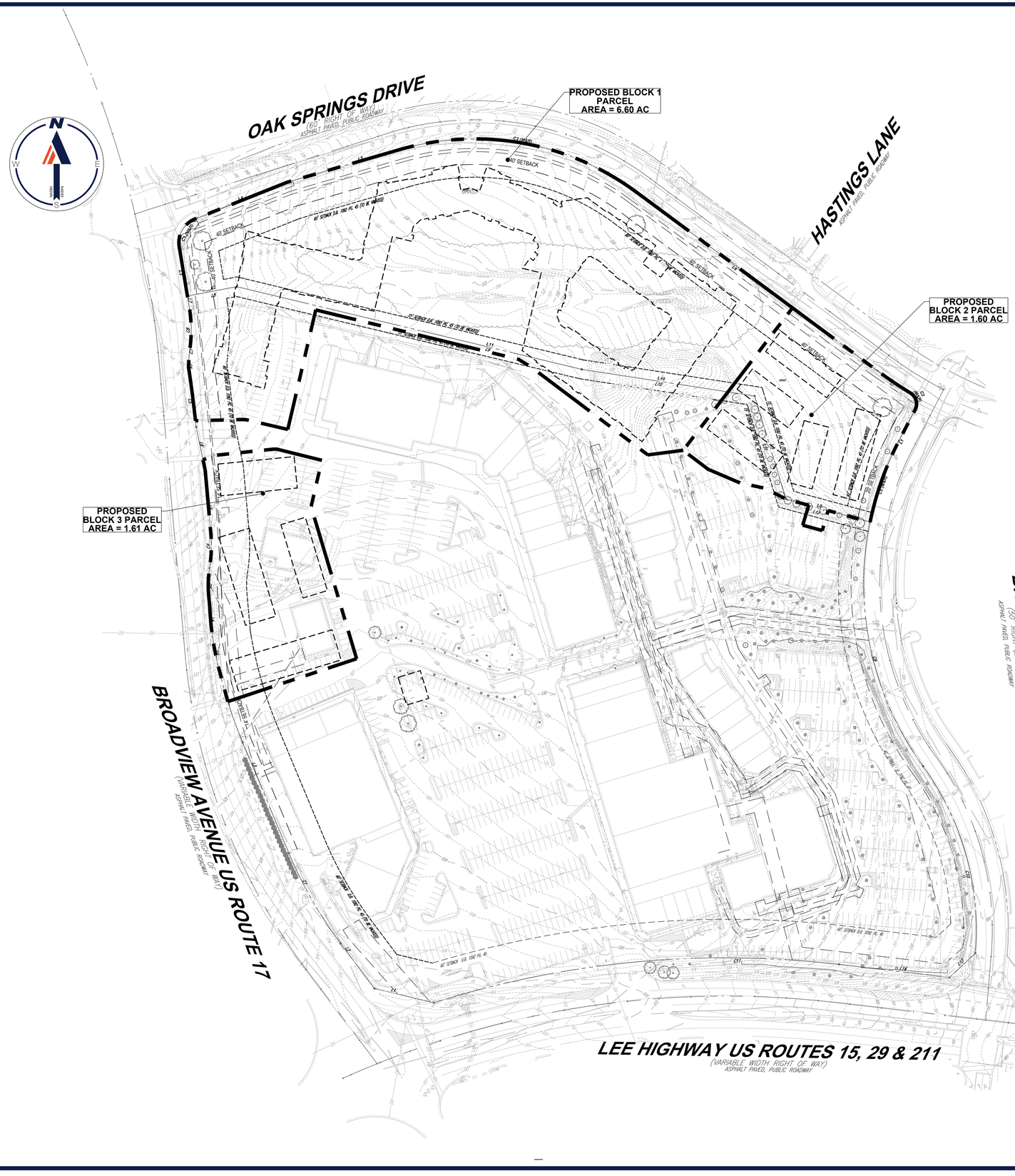
SHEET TITLE:

EXISTING CONDITIONS PLAN

SHEET NUMBER:

2

REVISION 3 - 5/31/2024



LEGEND

- PROPOSED BUILDING OUTLINE
- PROPOSED BLOCK PARCEL LINE

80 40 20 0 80
1"= 80'

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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
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PROFESSIONAL ENGINEER

SHEET TITLE:

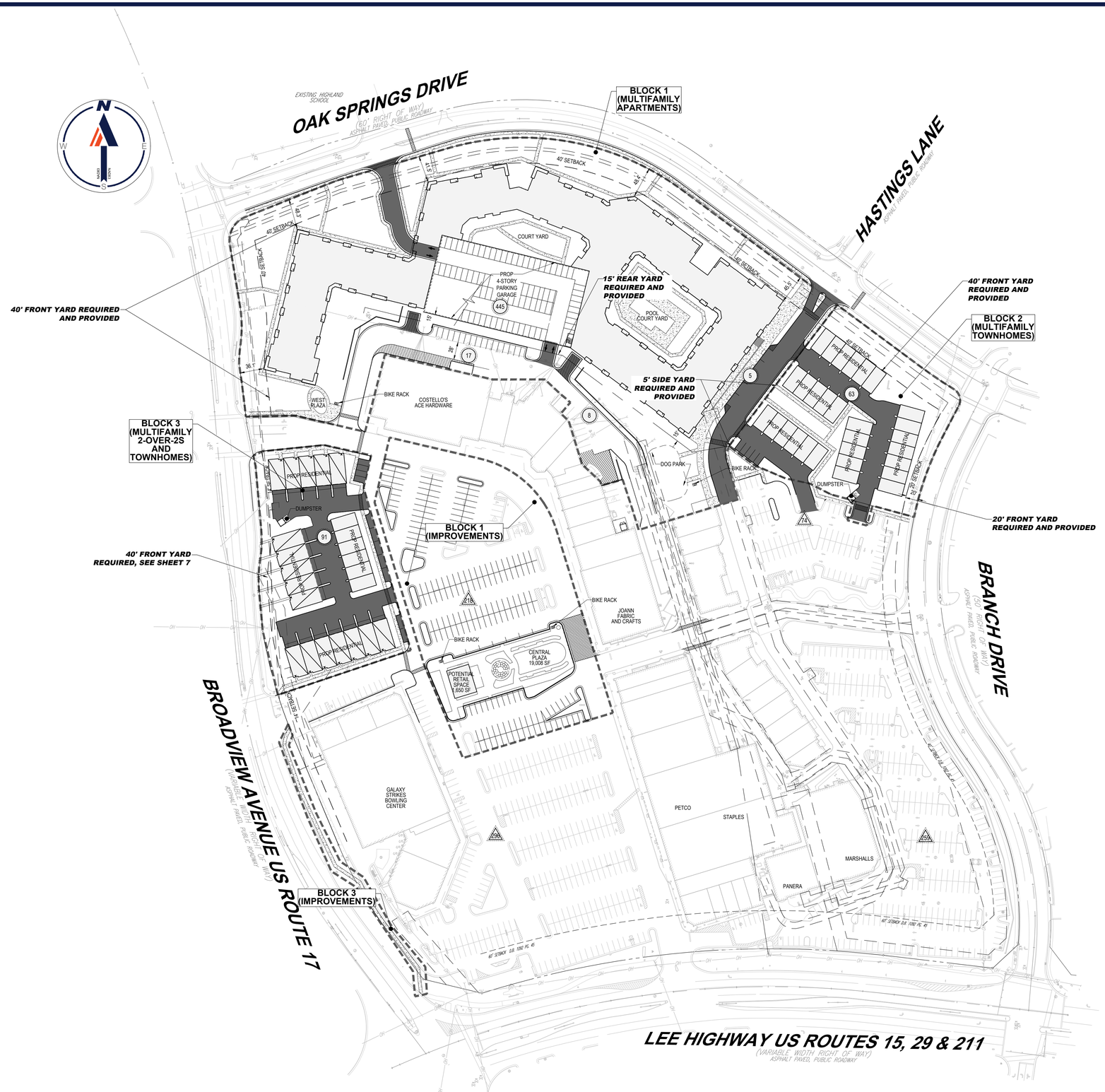
PARCEL OVERVIEW PLAN

SHEET NUMBER:

2A

REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUP\V212141 - EXST -1 —LAYOUT 2A - PARCEL OVERVIEW PLAN
TL



ZONING TABULATION TABLE:

LOT SIZE AND YARD SETBACK REQUIREMENTS:

	REQUIRED	PROVIDED
MINIMUM LOT SIZE:	5 ACRES	29.05 ACRES
SETBACK REQUIREMENTS:		
	REQUIRED	MIN PROVIDED
FRONT YARD (OAK SPRINGS, ROW >50')	40'*	40'±
FRONT YARD (BRANCH, ROW <50')	20'*	20'±
FRONT YARD (BROADVIEW, ROW >50')	40'*	14'±
	REQUIRED	MIN PROVIDED
SIDE YARD BUILDING	5'	0'±
	REQUIRED	MIN PROVIDED
SIDE YARD BUILDING	5'	48.7'±
	REQUIRED	MIN PROVIDED
REAR YARD BUILDING	15'	15'±

LOT COVERAGE REQUIREMENTS

	MAX	PROVIDED
PROPOSED LOT COVERAGE: (IMPERVIOUS SURFACES)	85%	83%

*FRONT YARD MAY BE REDUCED BY 20' IF NO PARKING OR LOADING IS PROPOSED. A REDUCTION IN FRONT/REAR/SIDE SETBACKS IS BEING REQUESTED FROM TOWN COUNCIL AT CERTAIN LOCATIONS - SEE SHEET 7 FOR DETAIL.

GENERAL NOTES:

1. THIS PLAN IS BASED ON THE FOLLOWING:
   SURVEY CAD FILES PREPARED BY BOHLER DATED: 11/3/2021
   BUILDING FOOTPRINT CAD FILES PREPARED BY MV&A ARCHITECTS DATED: 5/21/2024
2. ZONING DATA:
   EXISTING ZONE: C - COMMERCIAL
   PROPOSED ZONE: COMMERCIAL WITH MIXED USE
3. USES:
   EXISTING USE: VACANT, RETAIL
   PROPOSED USE: MIXED USE
4. SITE AREA
   PIN'S : 6985-20-7247-0000 6.46 ACRES
   6984-29-6753-0000 22.59 ACRES
5. SITE WILL BE SERVICED BY TOWN WATER AND SEWER.
6. TOPOGRAPHIC INFORMATION:
   HORIZONTAL DATUM: NAD 83
   VERTICAL DATUM: NAVD 88
7. THE PROPOSED BUILDING, DIMENSIONAL ELEMENTS, AND OTHER SITE FEATURES, SUCH AS HARDSCAPE AREAS AND PLAZAS SHOWN ARE CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL ENGINEERING.
8. CURB AND PARKING MODIFICATIONS IN WARRENTON CENTER WILL OCCUR AS PART OF EACH DEVELOPMENT BLOCK.
9. A PROPERTY LINE ADJUSTMENT PLAT WILL BE COMPLETED WITH SITE PLAN.
10. A TREE SURVEY WILL BE PROVIDED AT TIME OF SITE PLAN.
11. A PHOTOMETRIC/LIGHTING PLAN WILL BE PROVIDED AT TIME OF SITE PLAN.
12. CONSTRUCTION DETAILS OF ALL SCREENING AND FENCING WILL BE ADDRESSED AT TIME OF SITE PLAN.

HATCH LEGEND

- CONCRETE
- PROP BUILDING (SEE ARCH DRAWINGS)
- DEVELOPMENT BLOCKS
- ASPHALT

80 40 20 0 80
1"= 80'

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PROJECT No.:	V212141
DRAWN BY:	DSH
CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
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VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

OVERALL SITE DEVELOPMENT PLAN

SHEET NUMBER:

3

REVISION 3 - 5/31/2024

May 30, 2024
H:\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1----LAYOUT 3 - OVERALL SITE PLAN
CHRIS

DEVELOPMENT TABULATION

BLOCK	BLOCK USE	LAND AREA	EXISITNG ZONE	LAND USE	RETAIL	RESIDENTIAL	MAX. ALLOWABLE DENSITY	PROPOSED MAX.	REQUIRED PARKING	PARKING PROVIDED	MAX. BUILDING HEIGHT	MAX. BUILDING HEIGHT PROVIDED
Block 1	Multifamily Apartments	6.60 Ac.	C-Commercial	Mixed Use W/ SUP	1,650	320		320	±144 - 1 bed units (1 space per 1 bed unit) ±144 - 2 bed units (1.5 spaces per 2 bed unit) ±32 - 3 bed units (2 spaces per 3 bed unit) = 320 units, 424 spaces	475 Spaces (445 Garage + 30 Surface spaces)	36'	54' (Oak Springs Drive Frontage) 36' (Broadview Drive Frontage)
Block 2	Multifamily Townhomes	1.60 Ac.	C-Commercial	Mixed Use W/ SUP	-	26		26	2 spaces per unit = 52 spaces	63 Spaces (58 garage + 5 Surface spaces)	36'	36'
Block 3	Multifamily 2-over-2s and Townhomes	1.61 Ac.	C-Commercial	Mixed Use W/ SUP	-	40		40	2 spaces per unit = 80 spaces	91 Spaces (46 Garage + 45 Surface spaces)	36'	45'
Retail	Retail	19.24 Ac.	C-Commercial	Mixed Use W/ SUP	218,142 SF	N/A			Shopping Center: 1/300 GFA for first 12,000 SF + 2 spaces for each 1,000 GFA = 449 spaces	847 spaces	45'	45'
TOTALS:	TOTALS:	29.05 Ac.	C-Commercial	Mixed Use W/ SUP	219,792 SF	391 UNITS	439 Units (See Note 1)	386 Units or 13.28 Units/Ac. 219,792 SF of Commercial	1,005 Spaces Required	1,476 Total Parking Spaces		(See Note 5)

NOTES:

1. FIVE (5) DWELLING UNITS PER ACRE OR 29.05 AC. X 5 = 145.25 UNITS, 1 DWELLING UNITS PER 500 GROSS SF OR NON-RESIDENTIAL FLOOR SPACE OR 219,792 SF/500 SF = 439 UNITS
2. DENSITY BONUS REQUESTED AS 10% OF THE TOTAL NUMBER UNITS WILL BE PROVIDED AS AFFORDABLE HOUSING.
3. 2/2 TOWNHOME UNITS INCLUDE 1 DRIVEWAY SPACE + 1 GARAGE SPACE IN TOTAL PARKING SPACE COUNT.
4. EXISTING COMMERCIAL = 218,142, PROPOSED RETAIL (PLAZA) = 1,650 SF NEW TOTAL = 219,792 SF, NOTE: RETAIL SPACE MAY INCREASE AS EXISTING SPACE IS REDEVELOPED
5. BUILDING HEIGHT MODIFICATION SECTION 9-25 BEING REQUESTED FROM TOWN COUNCIL TO INCREASE BUILDING HEIGHTS. SEE WAIVER INFORMATION ON SHEET 7.



GENERAL NOTES:

1. THIS PLAN IS BASED ON THE FOLLOWING:
   SURVEY CAD FILES PREPARED BY BOHLER DATED: 11/3/2021
   BUILDING FOOTPRINT CAD FILES PREPARED BY MV+A ARCHITECTS DATED: 5/21/2024
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   EXISTING ZONE: C - COMMERCIAL
   PROPOSED ZONE: COMMERCIAL WITH MIXED USE
3. USES:
   EXISTING USE: VACANT, RETAIL
   PROPOSED USE: MIXED USE
4. SITE AREA
   PINS : 6985-20-7247-0000 6.46 ACRES
   6984-29-6753-0000 22.59 ACRES
5. SITE WILL BE SERVICED BY TOWN WATER AND SEWER.
6. TOPOGRAPHIC INFORMATION:
   HORIZONTAL DATUM: NAD 83
   VERTICAL DATUM: NAVD 88
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8. CURB AND PARKING MODIFICATIONS IN WARRENTON CENTER WILL OCCUR IN EACH OF THE DEVELOPMENT BLOCKS, UNLESS OTHERWISE NOTED.
9. A PROPERTY LINE ADJUSTMENT PLAT WILL BE COMPLETED WITH SITE PLAN.
10. A TREE SURVEY WILL BE PROVIDED AT TIME OF SITE PLAN.
11. A PHOTOMETRIC / LIGHTING PLAN WILL BE PROVIDED AT TIME OF SITE PLAN.
12. CONSTRUCTION DETAILS OF ALL SCREENING AND FENCING WILL BE ADDRESSED AT TIME OF SITE PLAN.
13. PROPOSED SIDEWALK WIDTH IS 5' MIN. UNLESS OTHERWISE NOTED.

HATCH LEGEND

- CONCRETE
- PROP BUILDING (SEE ARCH DRAWINGS)
- PAVEMENT & ADA STRIPING
- ASPHALT
- DEVELOPMENT AREA

50 25 12.5 0 50
1"= 50'

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
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VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

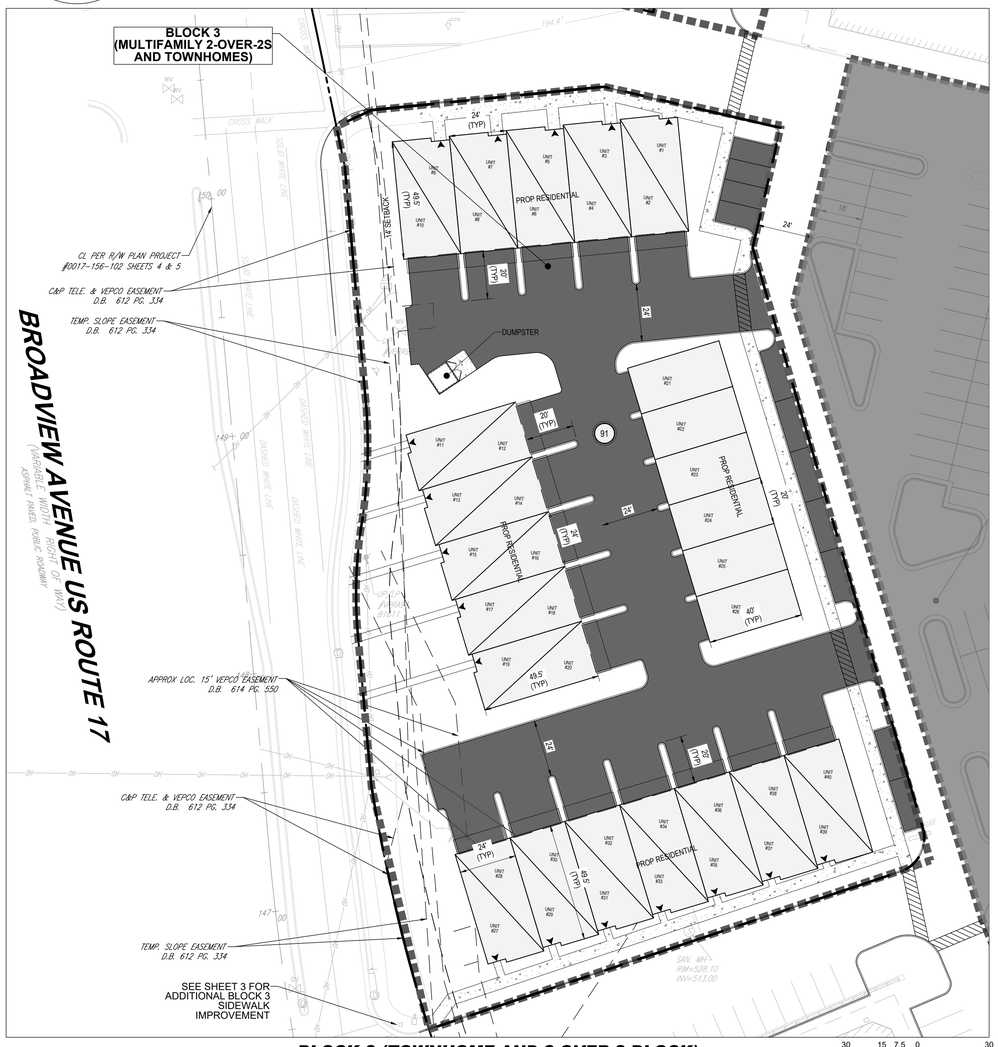
SITE DEVELOPMENT PLAN BLOCK 1

SHEET NUMBER:

4

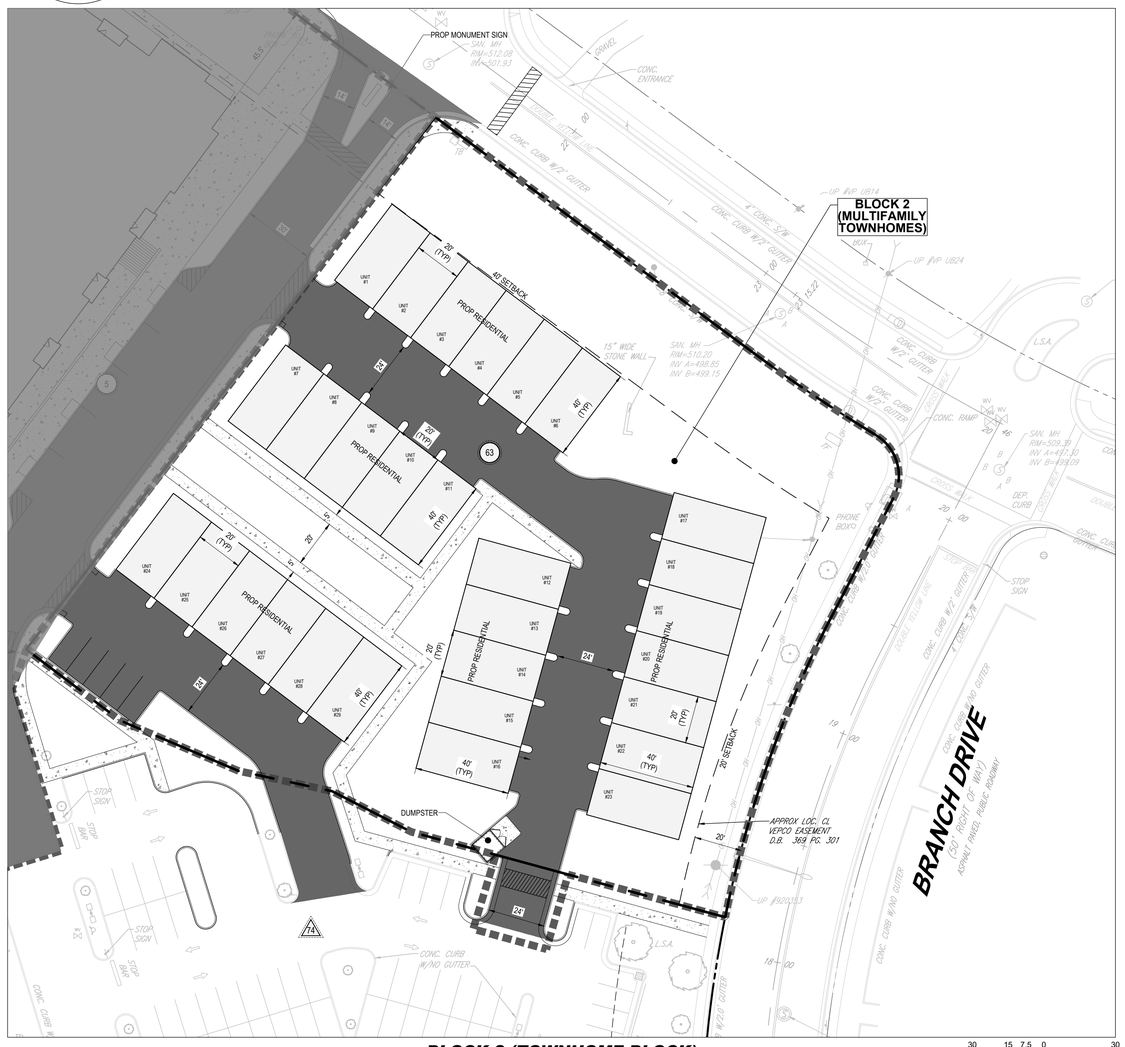
REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1 - LAYOUT 4 - SITE PLAN



BLOCK 3 (TOWNHOME AND 2-OVER-2 BLOCK)

30 15 7,5 0 30
1"= 30'



BLOCK 2 (TOWNHOME BLOCK)

30 15 7,5 0 30
1"= 30'

NOTES:

1. DECKS ARE NOT SHOWN IN FOOTPRINTS - STANDARD DECKS PROTRUDE 2' OUT FROM FOOTPRINT.

HATCH LEGEND

- CONCRETE
- PROP BUILDING (SEE ARCH DRAWINGS)
- PAVEMENT & ADA STRIPING
- ASPHALT
- DEVELOPMENT BLOCKS

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PROJECT:

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FOR

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PROPOSED DEVELOPMENT

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COMMONWEALTH OF VIRGINIA
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

SITE DEVELOPMENT PLAN - BLOCKS 2 AND 3

SHEET NUMBER:

5

REVISION 3 - 5/31/2024

May 30, 2024
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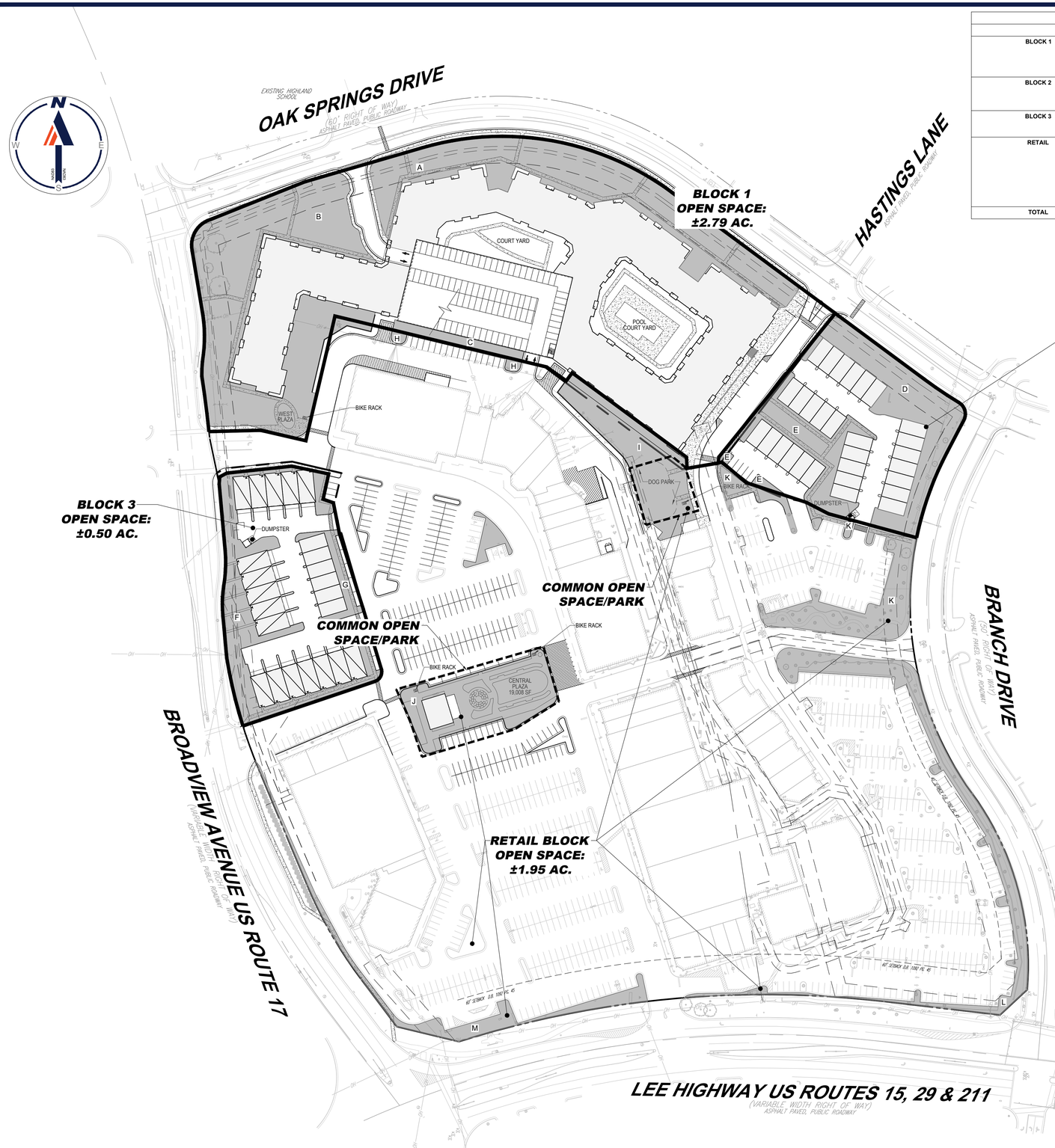
TL



OPEN SPACE TABULATION

	AREA	OPEN SPACE REQUIRED	OPEN SPACE PROVIDED	NEW IMPROVEMENTS
BLOCK 1	±6.60 AC.	10% - 0.66 AC. (±28,750 SF)	A: 0.91 AC. (±39,640 SF) B: 1.81 AC. (±78,840 SF) C: 0.07 AC. (±3,050 SF) TOTAL BLOCK 1: 2.79 AC. (±121,530 SF) (42.2%)	A: LANDSCAPING B: RESIDENTIAL PLAZA, BENCH SEATING, BIKE RACK, LANDSCAPING C: LANDSCAPING
BLOCK 2	±1.60 AC.	10% - 0.16 AC. (±6,970 SF)	D: 0.47 AC. (±20,470 SF) E: 0.26 AC. (±11,330 SF) TOTAL BLOCK 2: 0.73 AC. (±31,800 SF) (45.6%)	D: LANDSCAPING E: RESIDENTIAL PLAZA, LANDSCAPING
BLOCK 3	±1.61 AC.	10% - 0.16 AC. (±6,970 SF)	F: 0.43 AC. (±18,860 SF) G: 0.07 AC. (±3,050 SF) TOTAL BLOCK 3: 0.50 AC. (±21,910 SF) (28%)	F: LANDSCAPING G: LANDSCAPING
RETAIL	±19.24 AC.	10% - 1.92 AC. (±83,640 SF)	H: 0.02 AC. (±870 SF) I: 0.39 AC. (±16,990 SF) J: 0.44 AC. (±19,170 SF) K: 0.41 AC. (±17,860 SF) L: 0.45 AC. (±19,600 SF) M: 0.20 AC. (±8,710 SF) LANDSCAPE ISLAND: 0.04 AC. (±1,750 SF) TOTAL BLOCK RETAIL: 1.95 AC. (±84,950 SF) (10.1%)	H: LANDSCAPING I: FENCED DOG PLAY AREA, PICNIC TABLES, BIKE RACK, LANDSCAPING J: BIKE RACK, SPLASH-PAD, LAWN AREA, BENCH SEATING, LANDSCAPING, COMMERCIAL PAD K, L, M: EXISTING CONDITIONS
TOTAL	**±29.05 AC.**	**10% - 2.90 AC. (±126,330 SF)**	**20.6% - 5.97 AC. (±260,050 SF)**	

LEGEND

- OPEN SPACE
- COMMON OPEN SPACE/PARK
- BLOCK AREA FOR OPEN SPACE TABULATION

80 40 20 0 80
1"= 80'

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PROFESSIONAL ENGINEER

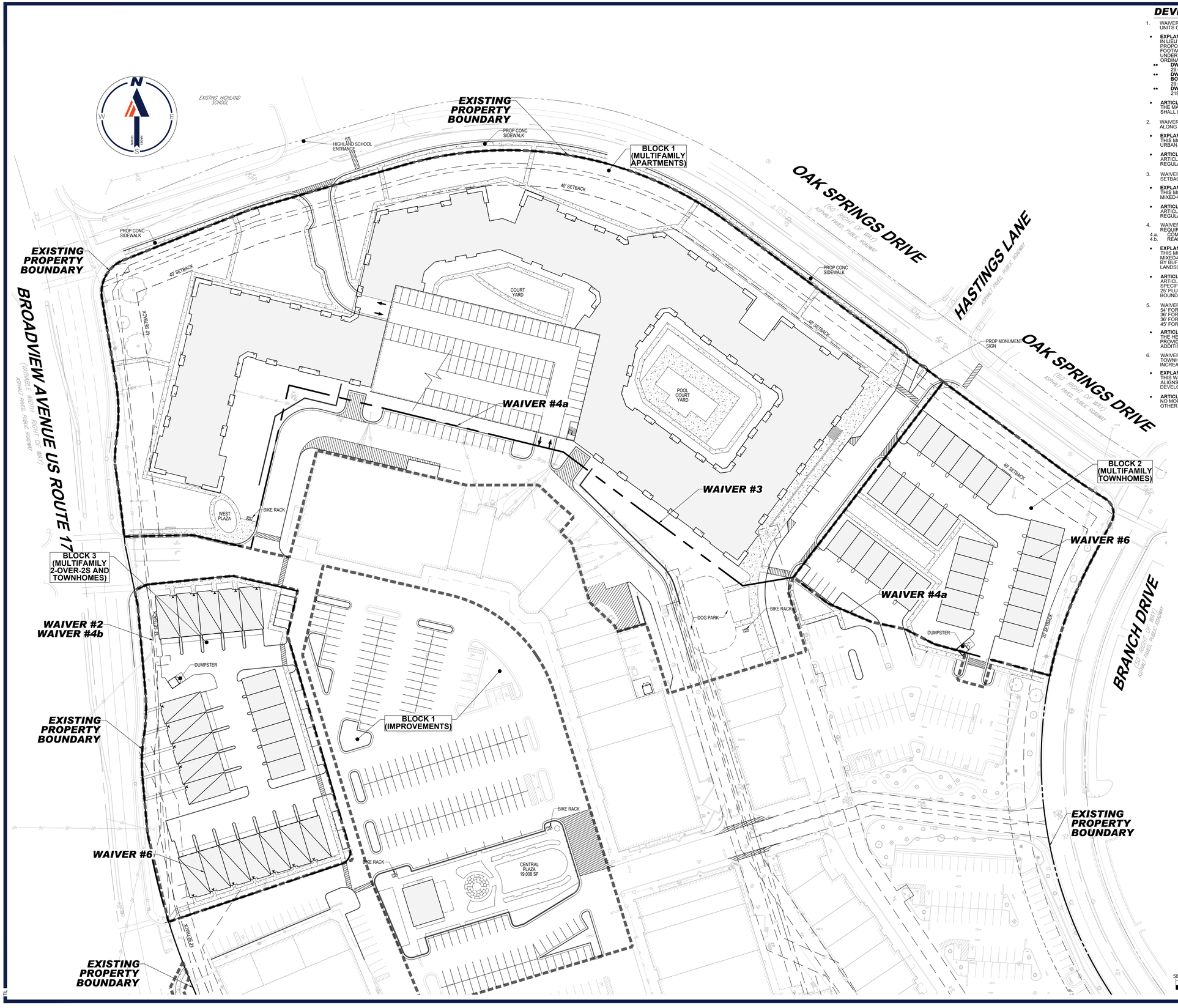
SHEET TITLE:

OPEN SPACE PLAN

SHEET NUMBER:

6

REVISION 3 - 5/31/2024



DEVELOPMENT MODIFICATIONS/WAIVERS

1. WAIVER TO ARTICLES 2-6.1 OF THE TOWN ZONING ORDINANCE FOR DENSITY INCREASE OF 386 UNITS OR 13.28 UNITS/ACRE.

- **EXPLANATION:**
  IN LIEU OF CALCULATING DENSITY ON A DWELLING UNIT PER ACRE BASIS, APPLICANT PROPOSED TO CALCULATE RESIDENTIAL DENSITY BASED ON EXISTING COMMERCIAL SQUARE FOOTAGE (1 DWELLING PER 500 SQUARE FEET OF NON-RESIDENTIAL SPACE, AS ALLOWED UNDER THE MIXED-USE DEVELOPMENT OPTION OF THE COMMERCIAL DISTRICT ZONING ORDINANCE)
  - **DWELLING UNITS ALLOWED PER DU/A = 145 UNITS**
    29.05 ACRES X 5 DU/A = 145 UNITS
  - **DWELLING UNITS ALLOWED PER DU/A CALCULATION (ASSUMING AFFORDABLE HOUSING BONUS):**
    29.05 ACRES X 10 DU/A = 290 UNITS
  - **DWELLING UNITS ALLOWE PER DU/GSF CALCULATION:**
    219,792 GSF / 500 = 439 UNITS
- **ARTICLE 2-6.1:**
  THE MAXIMUM DENSITY SPECIFIED IN THE ZONING ORDINANCE FOR A GIVEN ZONING DISTRICT SHALL NOT BE EXCEEDED. THE REQUIRED MAXIMUM DENSITY IS 5 UNITS PER ACRE.

2. WAIVER TO ARTICLE 3-4.10.4 OF THE TOWN ZONING ORDINANCE FOR FRONT YARD SETBACK ALONG BROADVIEW AVENUE FOR TOWNHOME BLOCK TO BE 14' MIN.

- **EXPLANATION:**
  THIS MODIFICATION WILL ALLOW THE UNITS TO BE CLOSER TO STREET, CREATING A MORE URBAN FORM AND CHARACTER.
- **ARTICLE 3-4.10.4:**
  ARTICLE 3-4.10.4 OF THE ZONING ORDINANCE IS A TABLE STATING LOT AND YARD REGULATIONS PER USE. THE REQUIRED FRONT YARD SETBACK IS TO BE 40' MIN.

3. WAIVER TO ARTICLE 3-4.10.4 OF THE TOWN ZONING ORDINANCE FOR SIDE/REAR YARD SETBACKS ALONG INTERNAL PROPOSED/EXISTING PROPERTY LINES TO 0.

- **EXPLANATION:**
  THIS MODIFICATION WILL ALLOW THE OVERALL DEVELOPMENT TO FUNCTION AS A TRUE MIXED-USE DEVELOPMENT THAT WILL NOT BE SEGMENTED BY INTERNAL SEPARATIONS.
- **ARTICLE 3-4.10.4:**
  ARTICLE 3-4.10.4 OF THE ZONING ORDINANCE IS A TABLE STATING LOT AND YARD REGULATIONS PER USE. THE REQUIRED SIDE YARD SETBACK IS TO BE 5' MIN.

4. WAIVER TO ARTICLE 8-8.5 OF THE TOWN ZONING ORDINANCE FOR LANDSCAPE BUFFER REQUIREMENTS
   4.a. COMMERCIAL USES FROM RESIDENTIAL USES TO 0.
   4.b. REAR BOUNDARIES OF RESIDENTIAL USES FROM PUBLIC RIGHT-OF-WAYS TO 14'.

- **EXPLANATION:**
  THIS MODIFICATION WILL ALLOW THE OVERALL DEVELOPMENT TO FUNCTION AS A TRUE MIXED-USE DEVELOPMENT BY CREATING AN INTEGRATED PROJECT THAT IS NOT SEGMENTED BY BUFFER STRIPS ADJACENT TO RESIDENTIAL AND COMMERCIAL USES. THE SCHEMATIC LANDSCAPING PLAN HAS IDENTIFIED AREAS WHERE PLANTINGS ARE PROPOSED.
- **ARTICLE 8-8.5:**
  ARTICLE 8-8.5 OF THE TOWN ZONING ORDINANCE IS A TABLE STATING LOT AND BUFFER YARD SPECIFICATIONS. THE MINIMUM WIDTH FOR COMMERCIAL USES FROM RESIDENTIAL USES IS 25' PLUS 1' FOR EACH FOOT OF BUILDING HEIGHT OVER 35'. THE MINIMUM WIDTH FOR REAR BOUNDARIES OF RESIDENTIAL USES FROM PUBLIC RIGHT-OF-WAYS IS 25'.

5. WAIVER TO ARTICLE 2-20 OF THE TOWN ZONING ORDINANCE FOR BUILDING HEIGHT:
   54' FOR BLOCK 1 OAK SPRINGS DRIVE FRONTAGE
   36' FOR BLOCK 1 BROADVIEW DRIVE FRONTAGE
   36' FOR BLOCK 2
   45' FOR BLOCK 3
- **ARTICLE 2-20:**
  THE HEIGHT LIMIT FOR DWELLINGS MAY BE INCREASED UP TO 45' AND UP TO THREE STORIES PROVIDED THAT FRONT, SIDE, AND REAR YARD SETBACKS INCREASE 1' FOR EACH ADDITIONAL FOOT OF BUILDING HEIGHT OVER 35'.

6. WAIVER TO ARTICLE 3-4.4.5.3 OF THE TOWN ZONING ORDINANCE FOR MAXIMUM GROUPING OF TOWNHOUSES:
   INCREASE FROM 6 TO 7.
- **EXPLANATION:**
  THIS WAIVER IS NECESSARY FOR UNIT COUNTS TO ENSURE DEVELOPMENT FEASIBILITY AND ALIGNS SEVERAL OTHER GROUPINGS OF 7 TO 8 UNITS IN OTHER TOWNHOUSE DEVELOPMENTS THROUGHOUT THE TOWN OF WARRENTON.
- **ARTICLE 3-4.4.5.3:**
  NO MORE THAN SIX (6) TOWNHOUSE UNITIS SHALL BE GROUPED CONTIGUOUS TO EACH OTHER.

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DRAWN BY:	DSH
CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

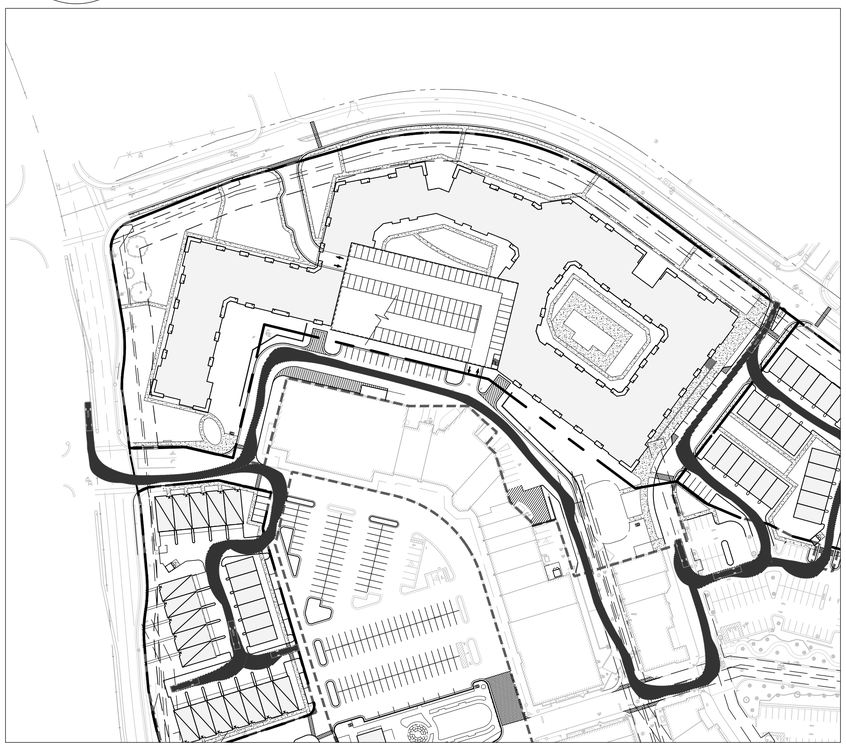
WAIVER INFORMATION

SHEET NUMBER:

7

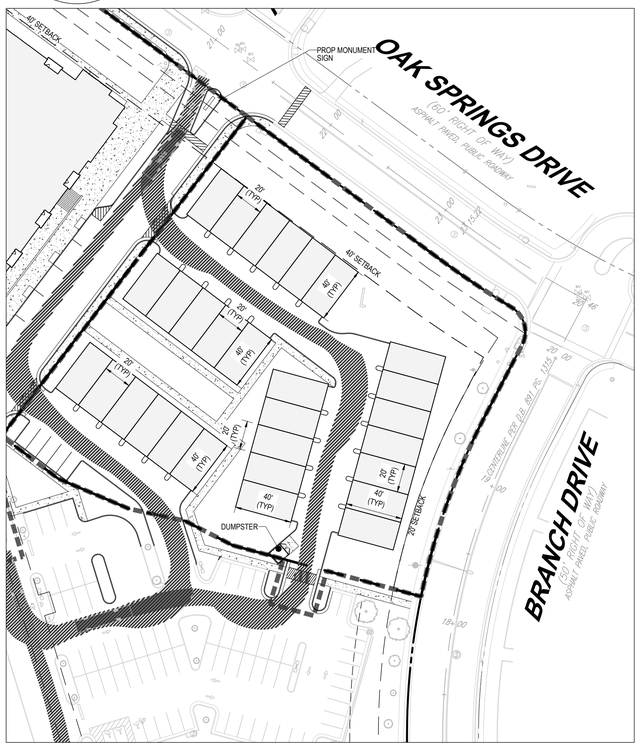
REVISION 3 - 5/31/2024

May 30, 2024
I:\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1----LAYOUT 7 - WAIVER INFORMATION



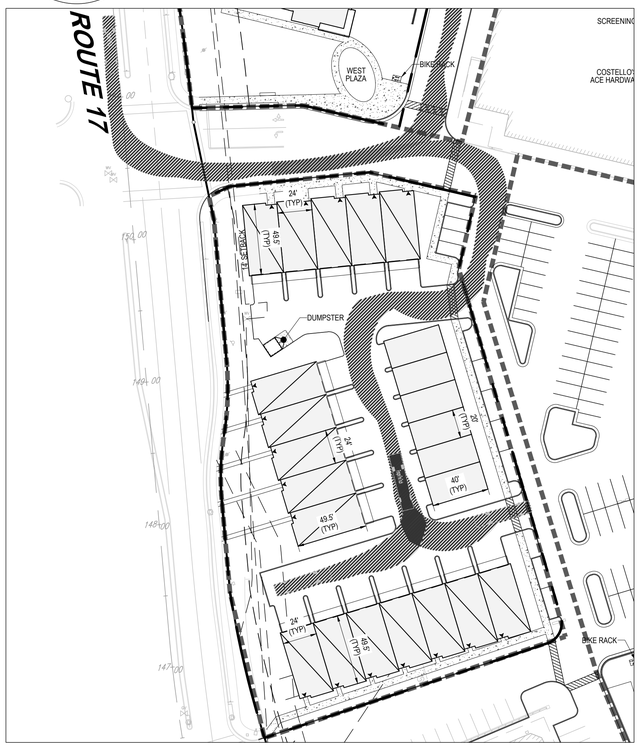
BLOCK 1

100 50 25 0 100
1"= 100'



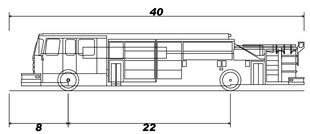
BLOCK 2 (2 OVER 2 BLOCK)

50 25 12.5 0 50
1"= 50'



BLOCK 3 (TOWNHOME BLOCK)

50 25 12.5 0 50
1"= 50'



Pumper Fire Truck	
Overall Length	***40.000ft***
Overall Width	***8.167ft***
Overall Body Height	***7.745ft***
Min Body Ground Clearance	***0.656ft***
Track Width	***8.167ft***
Lock-to-lock time	***5.00s***
Max Wheel Angle	***45.00°***

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TOWN OF WARRENTON, VIRGINIA

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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

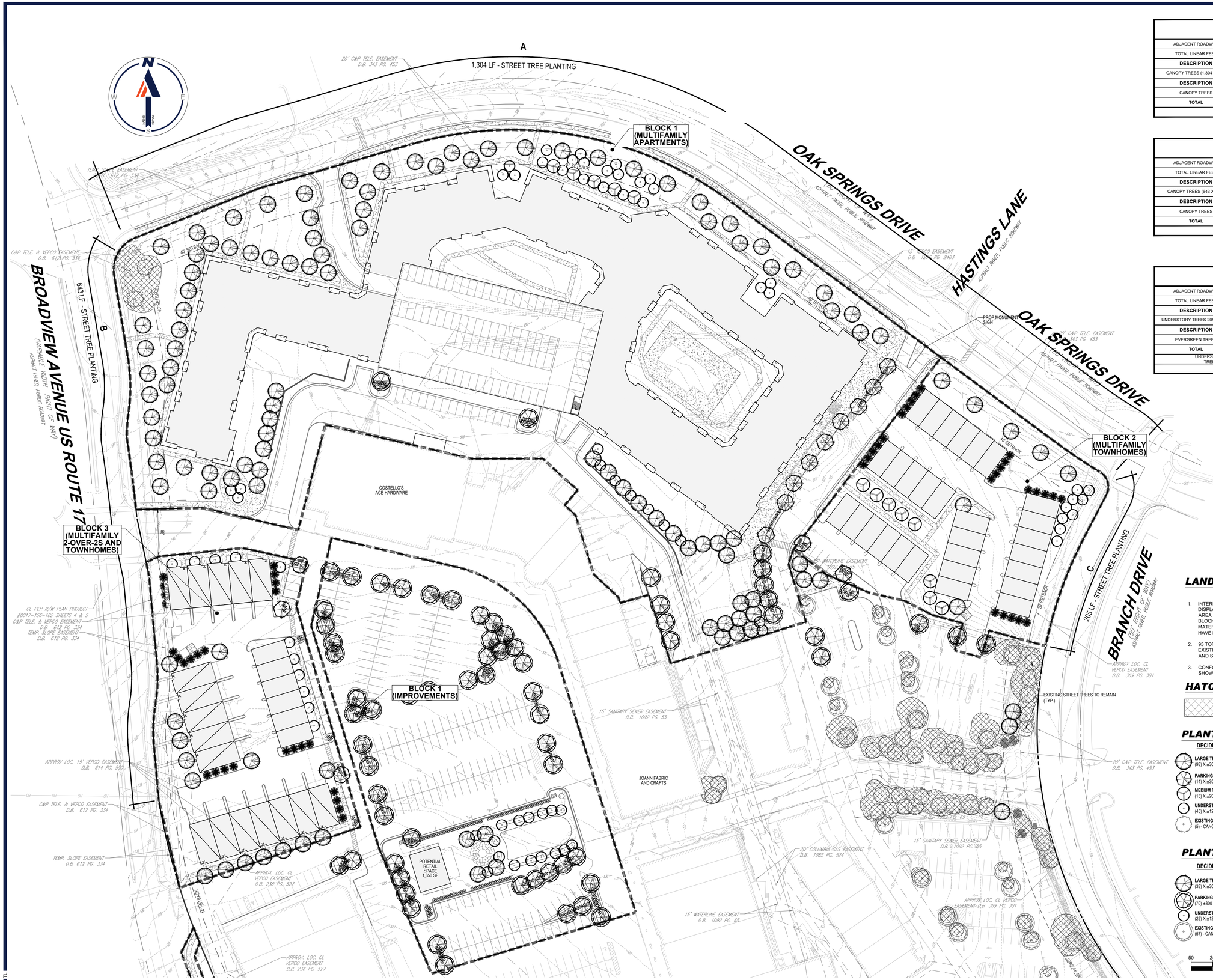
FIRE TRUCK MOVEMENT

SHEET NUMBER:

8

REVISION 3 - 5/31/2024

May 30, 2024
11:21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP -1----LAYOUT 8 - FIRE TRUCK MOVEMENT



A

STREET TREE PLANTING SECTION 8-5.5				
ADJACENT ROADWAY	OAK SPRINGS DRIVE			
TOTAL LINEAR FEET	1,304 LF			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
CANOPY TREES (1,304 X 1/50)	27		27	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	27	27	100%
TOTAL	0	27	27	100%

B

STREET TREE PLANTING SECTION 8-5.5				
ADJACENT ROADWAY	BROADVIEW AVE - VA ROUTE 17			
TOTAL LINEAR FEET	643 LF			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
CANOPY TREES (643 X 1/50)	13		14	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	14	14	100%
TOTAL	0	14	14	100%

C

STREET TREE PLANTING SECTION 8-5.5				
ADJACENT ROADWAY	BRANCH DR			
TOTAL LINEAR FEET	205 LF			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
UNDERSTORY TREES 205 X (2/50)	9		9	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
EVERGREEN TREES	0	9	9	100%
TOTAL	0	9	9	100%
UNDERSTORY TREES ARE PROPOSED IN PLACE OF CANOPY TREES DUE TO OVERHEAD LINES AT RATE OF 2 TO 1				

LANDSCAPE NOTES

1. INTERIOR PARKING LOT AND 20-YEAR TREE CANOPY ANALYSIS IS DISPLAYED FOR RESIDENTIAL BLOCK AREA. RESIDENTIAL BLOCK AREA ENCOMPASSES THE TOTAL AREA OF THE MULTIFAMILY BLOCK, 2 OVER 2 BLOCK, AND TOWNHOME BLOCK. ONLY THE MATERIAL COUNTED TOWARD THE RESIDENTIAL LANDSCAPING HAVE BEEN COUNTED FOR THE 20-YEAR TREE CANOPY.
2. 95 TOTAL TREES PROPOSED IN EXISTING PARKING LOT TO REPLACE EXISTING TREES THAT ARE TO BE REMOVED DUE TO PARKING LOT AND SITE IMPROVEMENTS.
3. CONFORMANCE WITH LANDSCAPING REQUIREMENTS WILL BE SHOWN WITH THE SITE DEVELOPMENT PLAN.

HATCH LEGEND

EXISTING TREE CANOPY TO REMAIN

PLANT LEGEND - RESIDENTIAL

DECIDUOUS	EVERGREEN
LARGE TREE (MIN. 15 FEET) (93) X ±300 SF EA = 27,900 SF	EVERGEEN TREE (MIN. 8 FEET) (52) X ±150 SF EA = 7,800 SF
PARKING LOT TREE (MIN. 15 FEET) (14) X ±300 SF EA = 4,200 SF	PARKING LOT SHRUBS (42)
MEDIUM TREE (MIN. 12 FEET) (13) X ±200 SF EA = 2,600 SF	
UNDERSTORY TREE (MIN. 6 FEET) (45) X ±125 SF EA = 5,625 SF	
EXISTING LARGE TREE (5) - CANOPY BASED ON AERIAL IMAGERY	

PLANT LEGEND - COMMERCIAL

DECIDUOUS	EVERGREEN
LARGE TREE (MIN. 15 FEET) (33) X ±300 SF EA = 9,900 SF	PARKING LOT SHRUBS (345)
PARKING LOT TREE (MIN. 15 FEET) (70) ±300 SF EA = 21,000 SF	
UNDERSTORY TREE (MIN. 6 FEET) (25) X ±125 SF EA = 3,125 SF	
EXISTING PARKING LOT TREE (57) - CANOPY BASED ON AERIAL IMAGERY	

50 25 12.5 0 50
1"= 50'

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: LSCP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:
9

REVISION 3 - 5/31/2024

May 30, 2024
H:\2012\V212141\CAD\DRAWINGS\PLAN SETS\SUP\V212141 - LSCP - 1 — LAYOUT 9 - LANDSCAPE PLAN
TL



LANDSCAPE NOTES

1. INTERIOR PARKING LOT AND 20-YEAR TREE CANOPY ANALYSIS IS DISPLAYED FOR RESIDENTIAL BLOCK AREA. RESIDENTIAL BLOCK AREA ENCOMPASSES THE TOTAL AREA OF THE MULTIFAMILY BLOCK, 2 OVER 2 BLOCK, AND TOWNHOME BLOCK. ONLY THE MATERIAL COUNTED TOWARD THE RESIDENTIAL LANDSCAPING HAVE BEEN COUNTED FOR THE 20-YEAR TREE CANOPY.
2. 95 TOTAL TREES PROPOSED IN EXISTING PARKING LOT TO REPLACE EXISTING TREES THAT ARE TO BE REMOVED DUE TO PARKING LOT AND SITE IMPROVEMENTS.
3. CONFORMANCE WITH LANDSCAPING REQUIREMENTS WILL BE SHOWN WITH THE SITE DEVELOPMENT PLAN.

PLANT LEGEND - RESIDENTIAL

DECIDUOUS

- **LARGE TREE (MIN. 15 FEET)** (93) X ±300 SF EA = 27,900 SF
- **PARKING LOT TREE (MIN. 15 FEET)** (14) X ±300 SF EA = 4,200 SF
- **MEDIUM TREE (MIN. 12 FEET)** (13) X ±200 SF EA = 2,600 SF
- **UNDERSTORY TREE (MIN. 6 FEET)** (45) X ±125 SF EA = 5,625 SF
- **EXISTING LARGE TREE** (5) - CANOPY BASED ON AERIAL IMAGERY

EVERGREEN

- **EVERGEEN TREE (MIN. 8 FEET)** (52) X ±150 SF EA = 7,800 SF
- **PARKING LOT SHRUBS** (42)

HATCH LEGEND

- EXISTING TREE CANOPY TO REMAIN
- INTERIOR PARKING LOT AREA
- INTERIOR PARKING LOT LANDSCAPE AREA

100 50 25 0 100

1"= 100'

PLANT LEGEND - COMMERCIAL

DECIDUOUS

- **LARGE TREE (MIN. 15 FEET)** (33) X ±300 SF EA = 9,900 SF
- **PARKING LOT TREE (MIN. 15 FEET)** (70) ±300 SF EA = 21,000 SF
- **UNDERSTORY TREE (MIN. 6 FEET)** (25) X ±125 SF EA = 3,125 SF
- **EXISTING PARKING LOT TREE** (57) - CANOPY BASED ON AERIAL IMAGERY

EVERGREEN

- **PARKING LOT SHRUBS** (345)

INTERIOR PARKING LOT LANDSCAPING - COMMERCIAL

SECTION 8-6.2

PARKING LOT AREA	457,772 SF			
PARKING SPACES	847			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 457,772 X 10%	45,777 SF		48,163 SF (10.52%)	
SHADE TREES 847 X (1/8)	106		132	
SHRUBS 847 X (3/8)	317		348	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	57	70	127	100%
SHRUBS	0	345	345	100%
TOTAL	57	415	472	100%

INTERIOR PARKING LOT LANDSCAPING - MULTIFAMILY BLOCK 1

SECTION 8-6.2

PARKING LOT AREA	8,376 SF			
PARKING SPACES	30			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 8,376 X 10%	838 SF		1,127 SF (14.49%)	
SHADE TREES 30 X (1/8)	4		9	
SHRUBS 30 X (3/8)	12		14	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	9	9	100%
SHRUBS	0	14	14	100%
TOTAL	0	23	23	100%

INTERIOR PARKING LOT LANDSCAPING - MULTIFAMILY BLOCK 2

SECTION 8-6.2

PARKING LOT AREA	4,308 SF			
PARKING SPACES	5			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 4,308 X 10%	431 SF		672 SF (15.6%)	
SHADE TREES 5 X (1/8)	1		2	
SHRUBS 5 X (3/8)	3		9	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	2	2	100%
SHRUBS	0	9	9	100%
TOTAL	0	11	11	100%

INTERIOR PARKING LOT LANDSCAPING - MULTIFAMILY BLOCK 3

SECTION 8-6.2

PARKING LOT AREA	2,173 SF			
PARKING SPACES	11			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 2,173 X 10%	217 SF		920 SF (42.34%)	
SHADE TREES 11 X (1/8)	2		3	
SHRUBS 11 X (3/8)	5		18	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	3	3	100%
SHRUBS	0	18	18	100%
TOTAL	0	21	21	100%

TREE CANOPY TABLE - COMMERCIAL

SECTION 8-10.3.2

SITE AREA	838,094 SF OR 19.24 AC
PROPOSED ZONE	COMMERCIAL
20 YEAR CANOPY REQUIREMENT	10%
20 YEAR CANOPY REQUIRED	83,809 SF
PROPOSED CANOPY	34,025 SF (4.06%)
EXISTING CANOPY CONSERVATION	51,087 SF (6.10%)
TOTAL 20 YEAR CANOPY PROVIDED	85,112 SF (10.16%)

TREE CANOPY TABLE - MULTIFAMILY BLOCK 1

SECTION 8-10.3.2

SITE AREA	287,496 SF OR 6.60 AC
PROPOSED ZONE	RESIDENTIAL
20 YEAR CANOPY REQUIREMENT	10% (49 UNITS PER ACRE)
20 YEAR CANOPY REQUIRED	28,750 SF
PROPOSED CANOPY	27,825 SF (9.67%)
EXISTING CANOPY CONSERVATION	3,031 SF (1.05%)
TOTAL 20 YEAR CANOPY PROVIDED	30,856 SF (10.72%)

TREE CANOPY TABLE - MULTIFAMILY BLOCK 2

SECTION 8-10.3.2

SITE AREA	69,696 SF OR 1.6 AC
PROPOSED ZONE	RESIDENTIAL
20 YEAR CANOPY REQUIREMENT	10% (25 UNITS PER ACRE)
20 YEAR CANOPY REQUIRED	6,970 SF
PROPOSED CANOPY	8,575 SF (12.3%)
EXISTING CANOPY CONSERVATION	0 SF (0.00%)
TOTAL 20 YEAR CANOPY PROVIDED	8,575 SF (12.3%)

TREE CANOPY TABLE - MULTIFAMILY BLOCK 3

SECTION 8-10.3.2

SITE AREA	70,131 SF OR 1.61 AC
PROPOSED ZONE	RESIDENTIAL
20 YEAR CANOPY REQUIREMENT	15% (19 UNITS PER ACRE)
20 YEAR CANOPY REQUIRED	10,515 SF
PROPOSED CANOPY	10,800 SF (15.40%)
EXISTING CANOPY CONSERVATION	0 SF (0.00%)
TOTAL 20 YEAR CANOPY PROVIDED	10,800 SF (15.40%)

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PROFESSIONAL ENGINEER

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

10

REVISION 3 - 5/31/2024

May 30, 2024
H:\212\212141\CAD\DRAWINGS\PLAN SETS\SUP\V212141 LSCP- 1 ---LAYOUT 10 - LANDSCAPE PLAN
TL



CASTLE
DEVELOPMENT PARTNERS

WARRENTON VILLAGE MIXED-USE CENTER

WARRENTON, VA

RENDERING • 05-30-2024

CST2021-03

DYNAMIK
DESIGN

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FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
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WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
PROFESSIONAL ENGINEER
5/31/2024

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

11

REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP- 1----LAYOUT 11- BUILDING ELEVATIONS 1
TL



MULTIFAMILY FRONT ELEVATION

CASTLE DEVELOPMENT PARTNERS

WARRENTON VILLAGE CENTER

WARRENTON, VA

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
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COMMONWEALTH OF VIRGINIA
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

12

REVISION 3 - 5/31/2024

May 30, 2024
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TL



MULTIFAMILY ELEVATION- 3 STORY

WARRENTON VILLAGE CENTER

WARRENTON, VA

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
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5/31/2024
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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

12B

REVISION 3 - 5/31/2024

May 30, 2024
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TIL



MULTIFAMILY SIDE ELEVATION

CASTLE DEVELOPMENT PARTNERS

WARRENTON VILLAGE MIXED-USE CENTER

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5/31/2024
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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

12C

REVISION 3 - 5/31/2024

May 30, 2024
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TL



TOWNHOME - 3 STORY FRONT ELEVATION

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
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5/31/2024
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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13

REVISION 3 - 5/31/2024

May 30, 2024
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TIL



TOWNHOME - 3 STORY REAR ELEVATION

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FOR

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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COMMONWEALTH OF VIRGINIA
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5/31/2024
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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13B

REVISION 3 - 5/31/2024

May 30, 2024
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TOWNHOME - 4 STORY ELEVATION

CASTLE DEVELOPMENT PARTNERS

WARRENTON VILLAGE CENTER

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
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JOHN C. WRIGHT
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13C

REVISION 3 - 5/31/2024

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TOWNHOME - 4 STORY REAR ELEVATION

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WARRENTON, VA

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13D

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MULTIFAMILY FRONT ELEVATION

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WARRENTON VILLAGE CENTER

WARRENTON, VA

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FOR

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

14

REVISION 3 - 5/31/2024

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MULTIFAMILY ELEVATION- 3 STORY

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5/31/2024
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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

14B

REVISION 3 - 5/31/2024

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MULTIFAMILY SIDE ELEVATION

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
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TOWN OF WARRENTON, VIRGINIA

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

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REVISION 3 - 5/31/2024

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TOWNHOME - 3 STORY ELEVATION

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PROJECT No.:	V212141
DRAWN BY:	DSH
CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER

28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

15

REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1 - LAYOUT 15 - BUILDING ELEVATIONS 12



TOWNHOME - 4 STORY ELEVATION

CASTLE DEVELOPMENT PARTNERS

WARRENTON VILLAGE CENTER

WARRENTON, VA

ELEVATION • 02-13-2024

CST2021-03

DYNAMIK DESIGN

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PROJECT:

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FOR

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

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RENDERING - WARRENTON VILLAGE CENTER

SCALE 1"=80'-0"

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SHEET TITLE:

CONCEPTUAL PLAN RENDERING

SHEET NUMBER:

16

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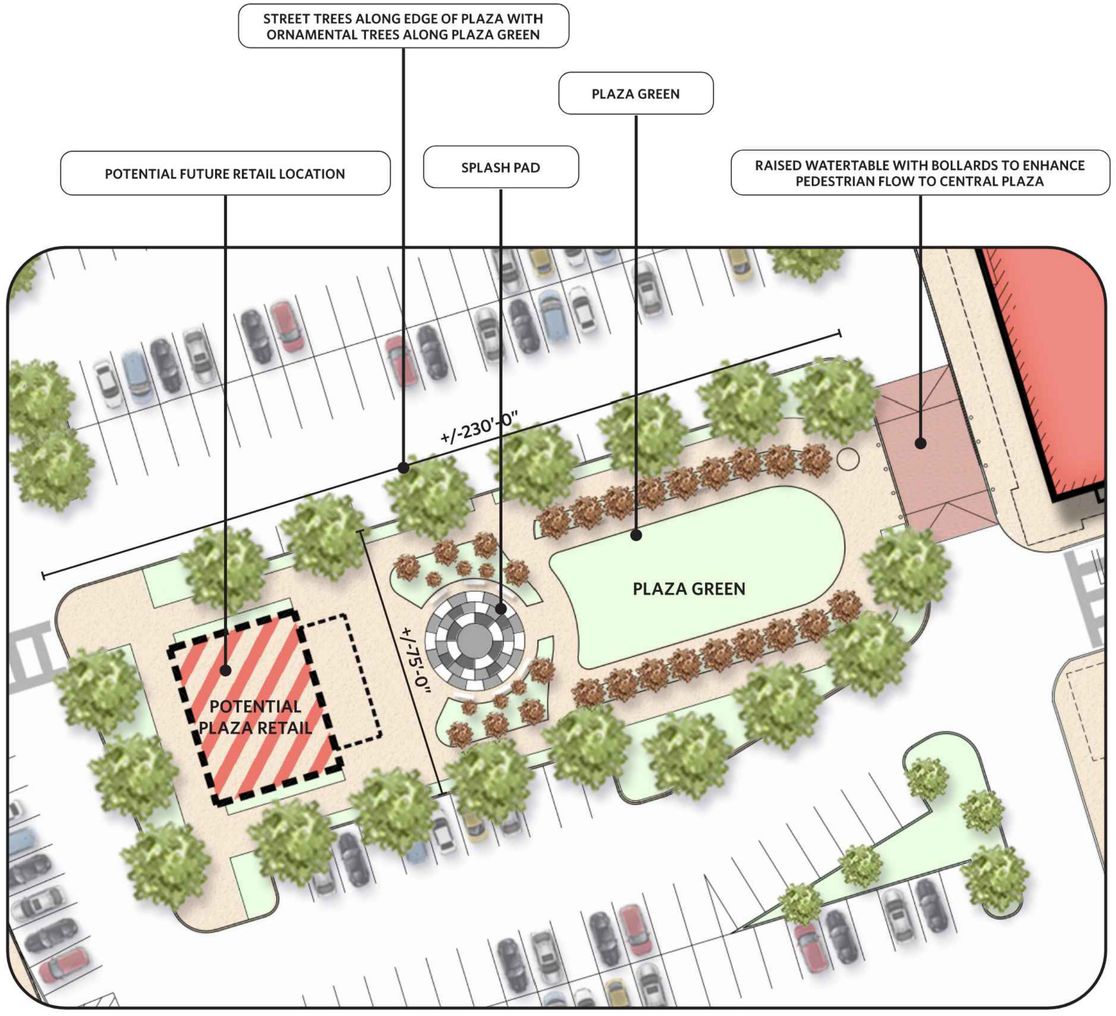

ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"



AERIAL VIEW OF CENTRAL PLAZA

NTS



EYE LEVEL VIEW OF CENTRAL PLAZA

NTS

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NOTE: Retail building shown in Central Plaza is for conceptual future development purposes only. No retail building is proposed as part of this SUP.

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SHEET TITLE:

DETAIL - CENTRAL PLAZA

SHEET NUMBER:

17

REVISION 3 - 5/31/2024

May 30, 2024
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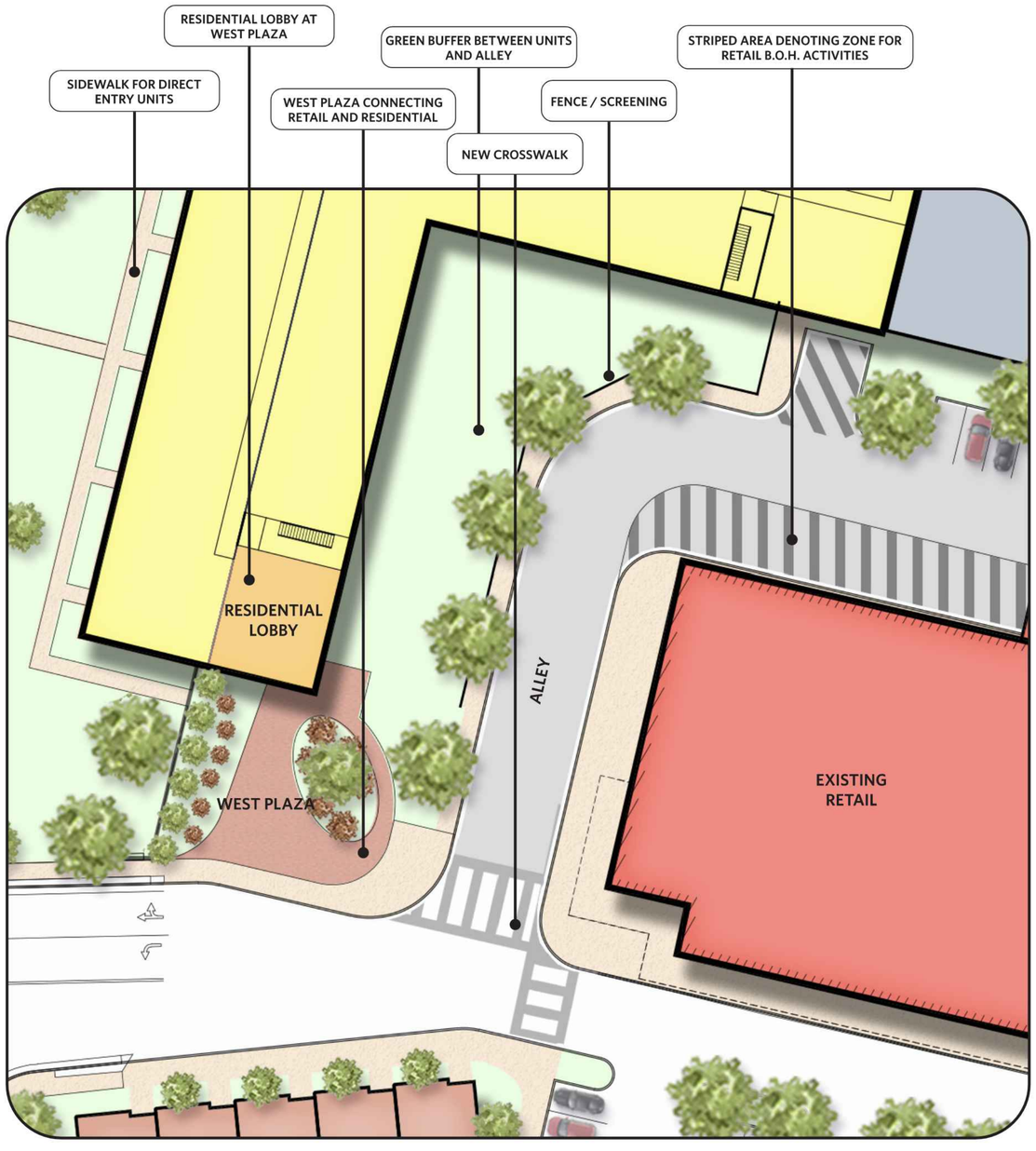

ENLARGED CONCEPTUAL WEST PLAZA PLAN

SCALE 1"=20'-0"



TYPICAL SECTION THROUGH ALLEY

SCALE 1/8"=1'-0"



VIEW OF WEST PLAZA AND EXISTING RETAIL BEYOND

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FOR

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SHEET TITLE:

DETAIL - WEST PLAZA

SHEET NUMBER:

18

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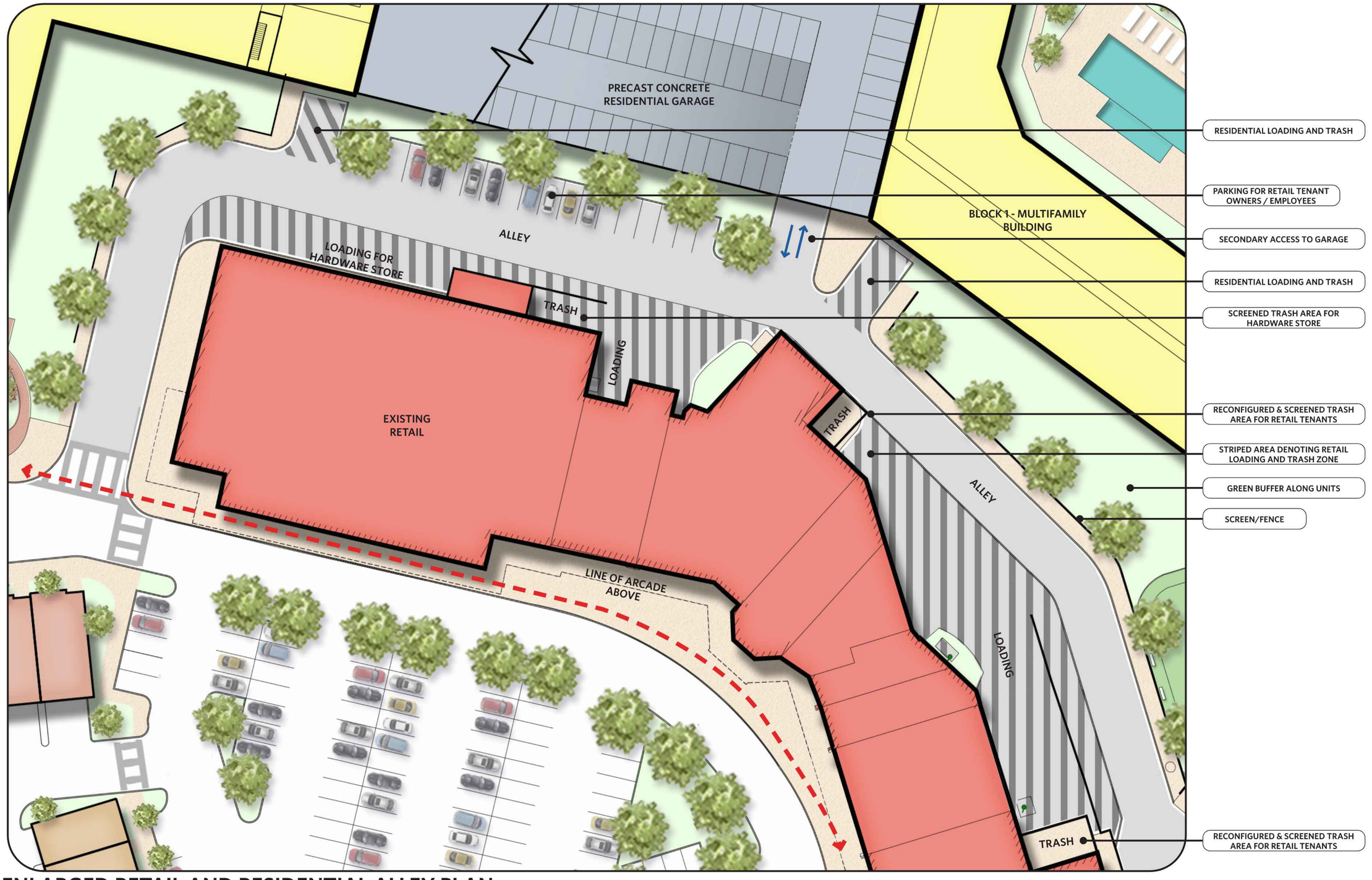

ENLARGED RETAIL AND RESIDENTIAL ALLEY PLAN

SCALE 1"=20'-0"

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SHEET TITLE:

DETAIL - ALLEY

SHEET NUMBER:

19

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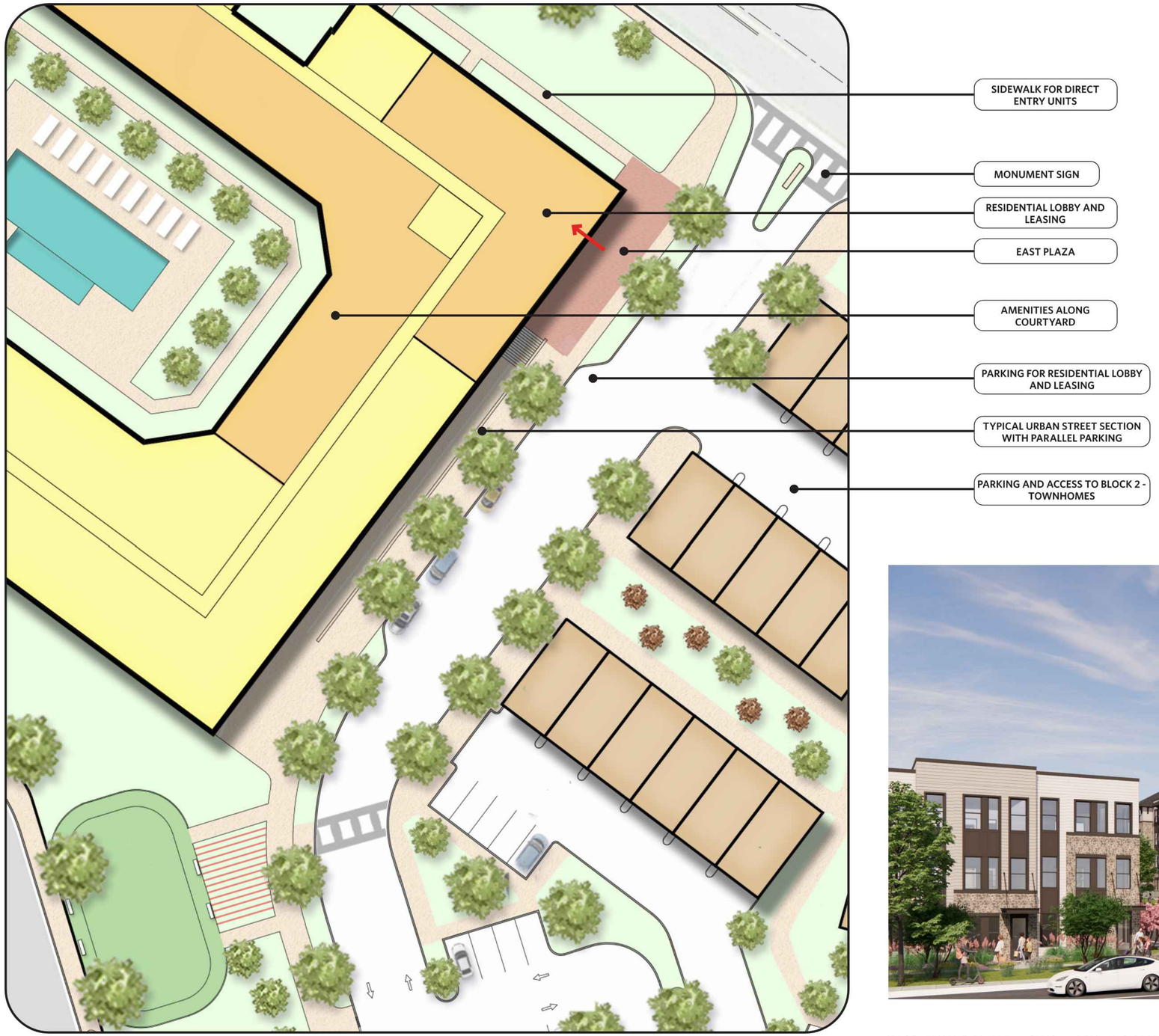

ENLARGED PLAN OF NEW ENTRANCE DRIVEWAY

SCALE 1"=20'-0"



VIEW OF NEW ENTRANCE STREET

NTS

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May 30, 2024
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SHEET TITLE:

DETAIL - EAST PLAZA

SHEET NUMBER:

20

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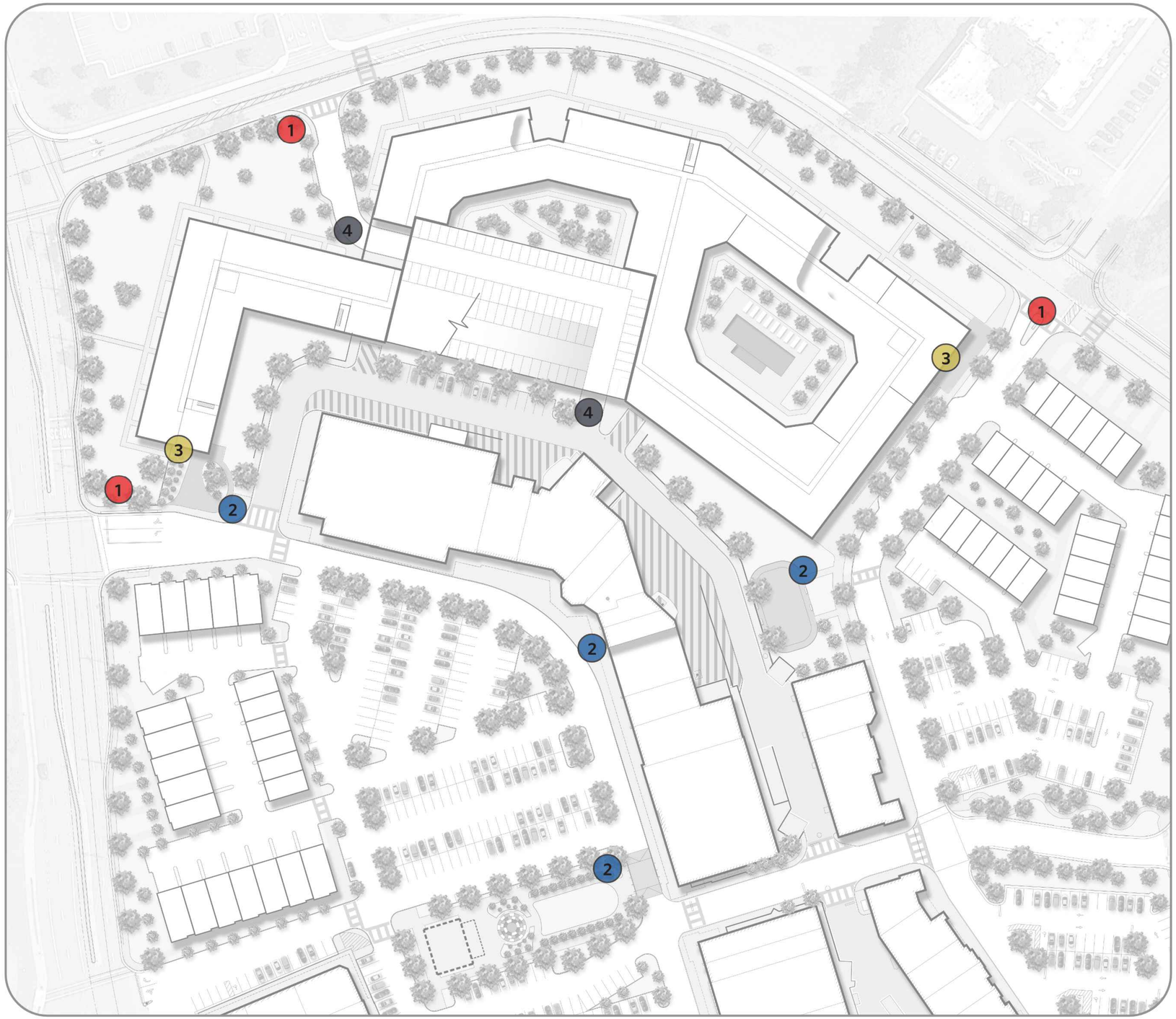

CONCEPTUAL SITE SIGNAGE PLAN

SCALE 1"=50'-0"

mv+a MAY 30, 2024

NOTE: Signage types and location shown here in this plan is conceptual and subject to change with input from stakeholders. All signs to conform to Article 6 - Signage of Zoning Ordinance



1 MONUMENT SIGNAGE

INCLUDES HORIZONTAL OR VERTICAL PYLON SIGNS , EITHER FREE STANDING OR INTEGRATED INTO THE LANDSCAPE, HIGHLIGHTING THE PROJECT/COMMUNITY NAME AND MAJOR TENANTS



2 WAYFINDING SIGNAGE

SUCH SIGNS COULD BE POST SUPPORTED OR ATTACHED TO OTHER ELEMENTS OF THE STREETSCAPE OR WITHIN LANDSCAPING AND ARE MEANT TO PROVIDE PEDESTRIANS WITH DIRECTION TO TENANTS WITHIN THE PROJECT.



3 CANOPY SIGNAGE

INCLUDES SIGNS THAT MAY BE WALL MOUNTED, CANOPY MOUNTED OR VERTICALLY MOUNTED TO THE FACADE VIA BRACKETS AND TYPICALLY ARE USED TO HIGHLIGHT THE NAME OF THE BUILDING OR THE COMMUNITY.



4 INCIDENTAL SIGNAGE

SIGNS THAT SUPPLEMENT AND PROVIDE NON-TENANT/BRAND IDENTITY INFORMATION USUALLY HIGHLIGHTING OTHER SUPPLEMENTARY PROGRAMS IN A PROJECT.

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SHEET TITLE:

CONCEPTUAL SIGNAGE PLAN

SHEET NUMBER:

21

REVISION 3 - 5/31/2024

May 30, 2024
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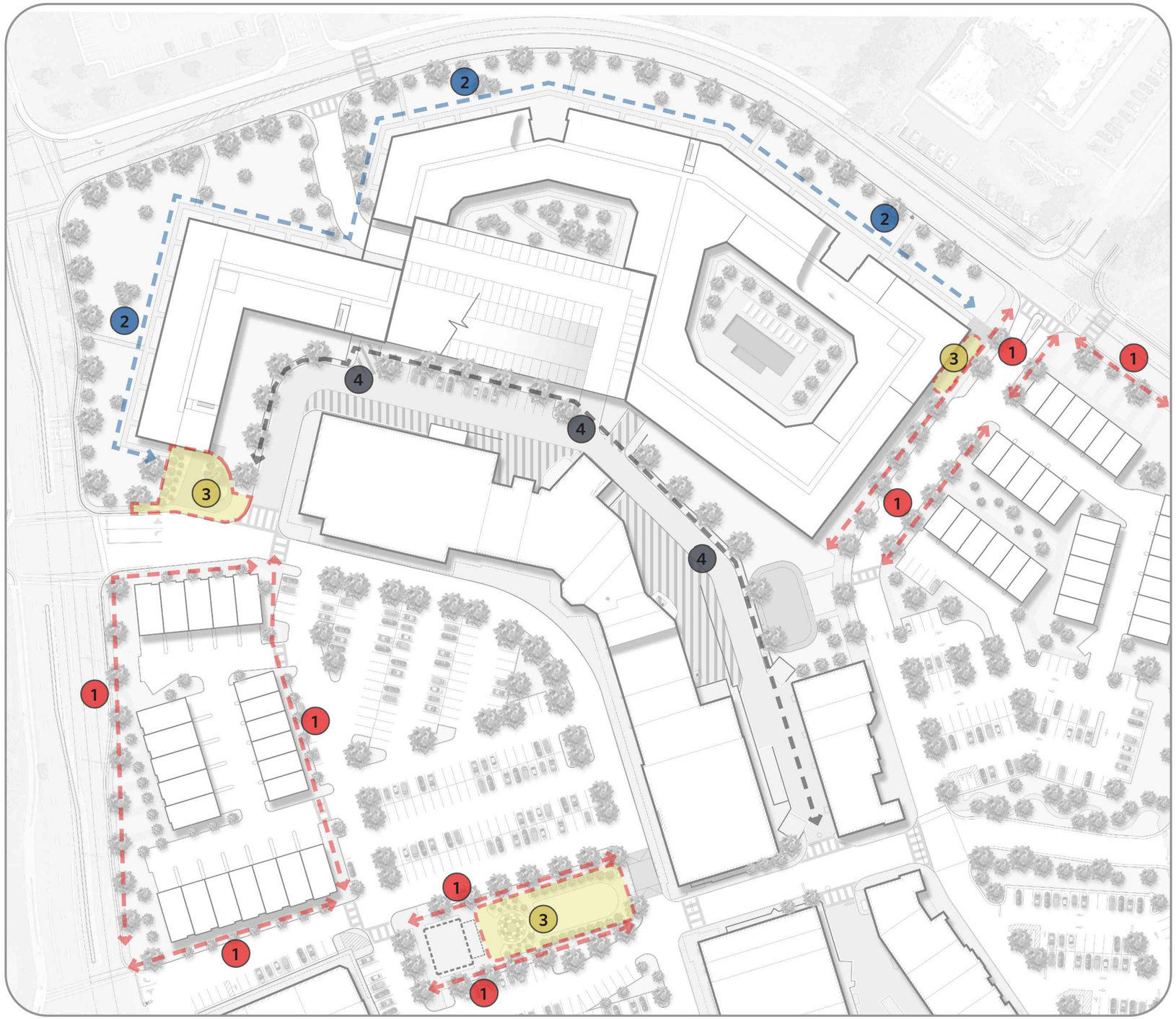


CONCEPTUAL LIGHTING PLAN

SCALE 1"=50'-0"

mv+a MAY 30, 2024

NOTE: Detailed lighting and photometric plan to be provided at site plan. All lighting to conform to Article 9 of Zoning Ordinance.



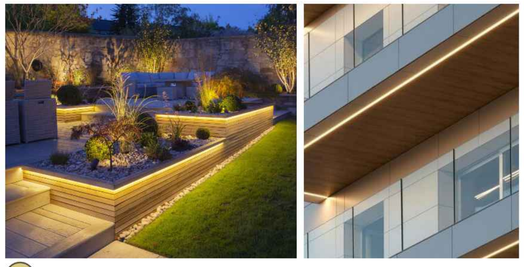
1 DECORATIVE POST LIGHTING

SUCH LIGHTING ALREADY EXISTS WITHIN SELECTIVE AREAS OF THE SITE. THIS LIGHTING TYPE IS MEANT TO PROVIDE ILLUMINATION ALONG PEDESTRIAN ROUTES/STREETS AND FORMS A NECESSARY COMPONENT OF THE ENTOURAGE THAT MAKES UP URBAN STREETSCAPES.



2 WALL SCONCE LIGHTING

ACCENT LIGHTING MOUNTED ON THE BUILDING ILLUMINATING FEATURES OF THE ARCHITECTURE AS WELL AS PROVIDING UTILITY LIGHTING FOR THE IMMEDIATE SURROUNDINGS/WALKWAYS.



3 ACCENT LIGHTING - BUILDING AND LANDSCAPE

ACCENT LIGHTING UTILIZED TO EMPHASIZE BUILDING ARCHITECTURE/ CANOPY ENTRANCES AS WELL AS LANDSCAPE FEATURES - PLANTING, FURNITURE ELEMENTS, DECORATIVE WALKING PATHS, ETC.



4 UTILITY LIGHTING

POST MOUNTED OR BUILDING MOUNTED LIGHTING THAT IS MEANT TO ILLUMINATE AREAS THAT ARE NOT USUALLY ACCESSED BY PEDESTRIANS OR PART OF THE URBAN STREETSCAPES - ALLEYS, INCIDENTAL PATHS, HIGH VEHICULAR TRAFFIC AREAS

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COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

SHEET TITLE:

CONCEPTUAL LIGHTING PLAN

SHEET NUMBER:

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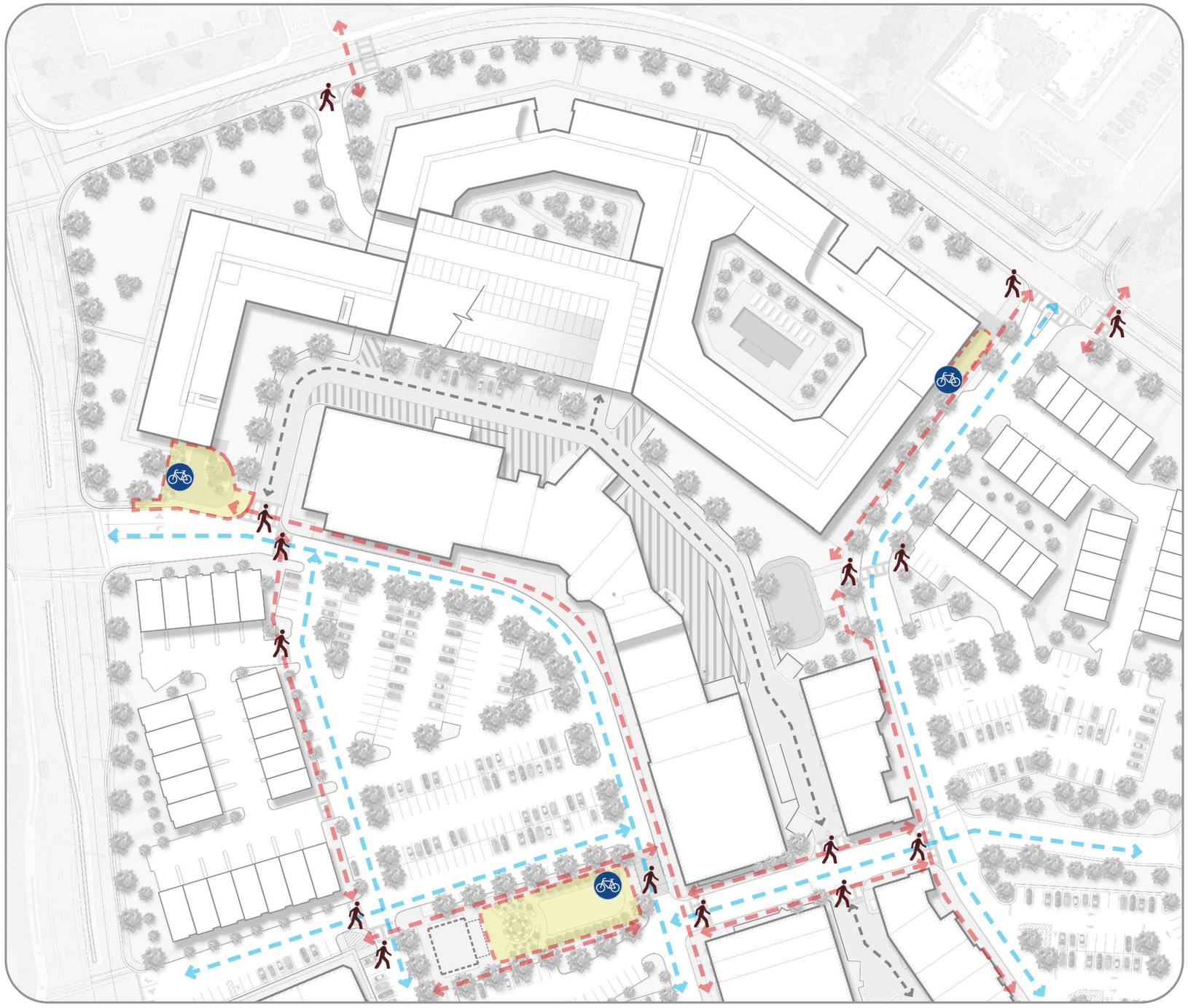

CONCEPTUAL CIRCULATION PLAN

SCALE 1"=50'-0"

mv+a MAY 30, 2024

LEGEND

PLAZA / COMMUNITY AREAS

THESE COLORED REGIONS REPRESENT THE PUBLIC PLAZAS IN THE PROJECT ANCHORING BOTH RETAIL AS WELL AS RESIDENTIAL PROGRAMS.

PEDESTRIAN CIRCULATION

THIS DENOTES SOME OF THE MAJOR PEDESTRIAN CIRCULATION ROUTES WITHIN THE CENTER EFFECTIVELY CONNECTING THE NEW RESIDENTIAL PROGRAMS WITH THE EXISTING RETAIL CENTER AND COMMUNITY SPACES/ PLAZAS WITHIN THE PROJECT. CIRCULATION PATHS WILL CONSIST OF MINIMUM 5' WIDTH SIDEWALK AS REQUIRED BY ARTICLE 9-25.1 SUBSECTION G OF THE ZONING CODE.

BICYCLE AND VEHICULAR CIRCULATION

SHARED CIRCULATION CORRIDORS WITHIN THE PROJECT ON CONNECTOR STREETS - EXISTING AND PROPOSED, AS WELL AS PARKING LOTS, ALL CHARACTERISED BY LOW SPEED LIMITS. REDUCED DRIVE WIDTHS AND RAISED CROSSWALKS IN SELECTED AREAS WILL PROVIDE NECESSARY TRAFFIC CALMING AND A DETERRENT TO UNSAFE DRIVING.

SERVICE AND SECONDARY GARAGE CIRCULATION

PRIMARY USE FOR THIS CORRIDOR IS LOADING AND TRASH PICKUP FOR BOTH THE RETAIL AND RESIDENTIAL IN THE PROJECT ALONG WITH SECONDARY GARAGE ACCESS FOR BLOCK 1 - MULTIFAMILY BUILDING.

BIKE PARKING AREAS

BIKE PARKING WILL BE CLUSTERED WITHIN THE CENTRAL, EAST AND WEST PLAZAS FOR USE BY RESIDENTS OR VISITING MEMBERS OF THE COMMUNITY. ADDITIONAL BIKE PARKIING WILL BE DISPERSED ALONG THE RETAIL SIDEWALK FOR USE BY RETAIL CUSTOMERS.

CROSSWALKS

PROPOSED CROSSWALKS PROVIDE ACCESSIBLE MEANS OF CROSSING THE STREET/ALLEYS AS PEDESTRIANS MAKE THEIR WAY BETWEEN THE RESIDENTIAL AND THE RETAIL.

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FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

CONCEPTUAL CIRCULATION PLAN

SHEET NUMBER:

23

REVISION 3 - 5/31/2024

May 30, 2024
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VIEW OF NEW ENTRANCE ACROSS FROM HASTINGS LANE LOOKING AT BLOCK 1 AND BLOCK 2

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PROPOSED DEVELOPMENT

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SHEET TITLE:

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SHEET NUMBER:

24

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VIEW ALONG BLOCK 1 MULTIFAMILY APARTMENT BUILDING LOOKING TOWARDS BLOCK 3

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25

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TL





VIEW ALONG BLOCK 3 SIDEWALK LOOKING TOWARDS THE EXISTING RETAIL

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26

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11:21 V:\212141\ACAD\DRAWINGS\PLAN SETS\SUPPV212141 - SUPP - 1 — LAYOUT: 26 - RENDERING 3





AERIAL VIEW OF CENTRAL PLAZA STRETCHING BETWEEN THE RETAIL

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FOR

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SHEET NUMBER:
27

REVISION 3 - 5/31/2024

May 30, 2024
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AERIAL VIEW OF CENTRAL PLAZA STRETCHING ACROSS THE RETAIL

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REVISION 3 - 5/31/2024





EYE LEVEL VIEW OF CENTRAL PLAZA STRETCHING ACROSS THE RETAIL

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PROPOSED DEVELOPMENT

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EYE LEVEL VIEW FROM CENTRAL PLAZA GREEN LOOKING TOWARDS RETAIL AND RESIDENTIAL

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EYE LEVEL VIEW OF CONNECTION BETWEEN THE RETAIL AND CENTRAL PLAZA

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EYE LEVEL VIEW OF CENTRAL PLAZA AS APPROACHED FROM THE RETAIL

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CENTER DISTRICT
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VIEW FROM INTERSECTION OF BROADVIEW AVENUE AND EXISTING ENTRANCE

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VIEW FROM HASTINGS LANE LOOKING OUT TOWARD OAK SPRINGS

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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

RENDERING

SHEET NUMBER:

34

REVISION 3 - 5/31/2024

May 30, 2024
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VIEW FROM EXISTING DRIVE LOOKING OUT TO BROADVIEW AVENUE

mv+a MAY 30, 2024

BOHLER
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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	6/30/2023	TOWN COMMENTS	DSH / JCW
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PROJECT No.:	V212141
DRAWN BY:	DSH
CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

RENDERING

SHEET NUMBER:

35

REVISION 3 - 5/31/2024

May 30, 2024
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VIEW FROM INTERSECTION OF OAK SPRINGS AND BROADVIEW AVENUE

mv+a MAY 30, 2024

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FOR

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PROPOSED DEVELOPMENT

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SHEET TITLE:

RENDERING

SHEET NUMBER:

36

REVISION 3 - 5/31/2024

WARRENTON VILLAGE CENTER

DESIGN STORY

WARRENTON, VIRGINIA | MAY 31, 2024









DESIGN OBJECTIVE

To transform the existing Warrenton Village retail center into a thriving, walkable, mixed-use, community destination with a sense of place that celebrates the character of Warrenton, while introducing a new, fresh, modern aesthetic.









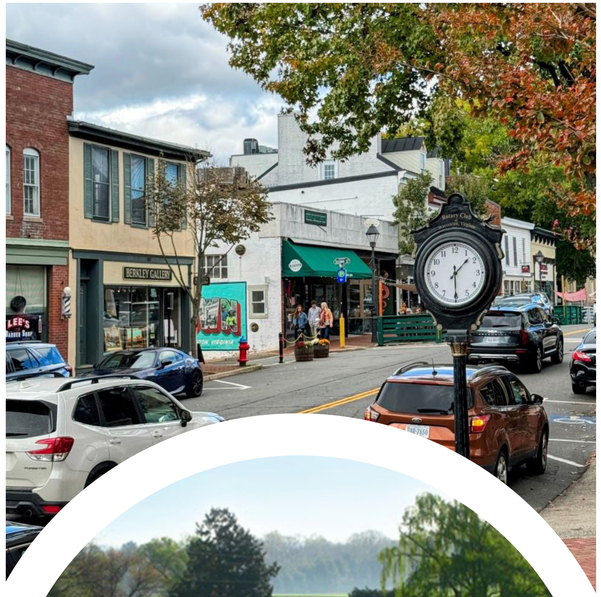
DESIGN IMPLEMENTATION

- Purposeful integration of new buildings to create a Live/Work/Play community in line with the goals of the 2040 Warrenton Plan.
- Revitalization of the existing retail with new public gathering spaces, pedestrian connectivity, reduced vehicles speeds, a new Central Plaza for village events, enhanced green spaces, and activated streetscapes.
- Fusion of a new contemporary aesthetic with the warmth of local and historical design influences.

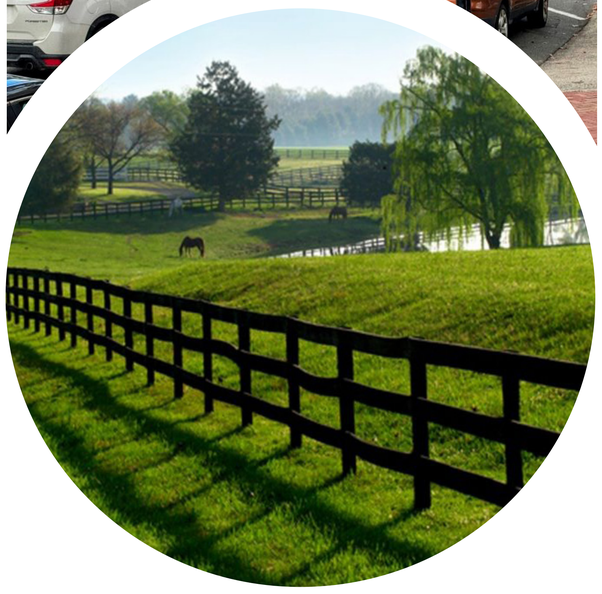














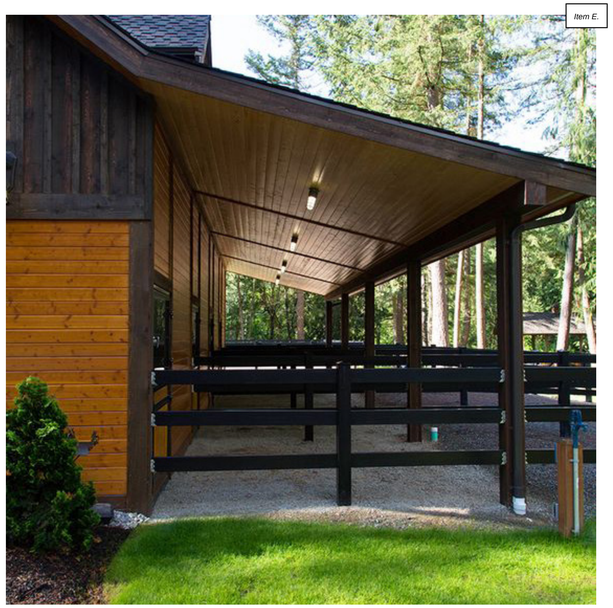
WARRENTON CONTEXT

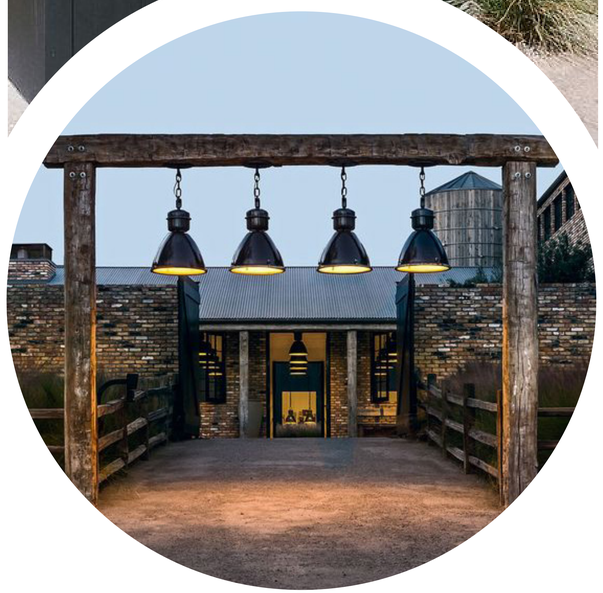
- Historical downtown Warrenton provides inspiration with its textures of brick and stone, dark metal accents and awnings, historical lighting fixtures, traditional lap siding, classic masonry banding and detailing, large windows with dark mullions, and pedestrian friendly streetscapes.
- The greater Warrenton area has deep equine and agricultural industry roots, featuring iconic horse farms and celebrated bucolic landscapes. Inspirations include classic equestrian design features, rich colors and textures, dark metal accents, warm woods, and farmhouse inspired lap siding and stone.





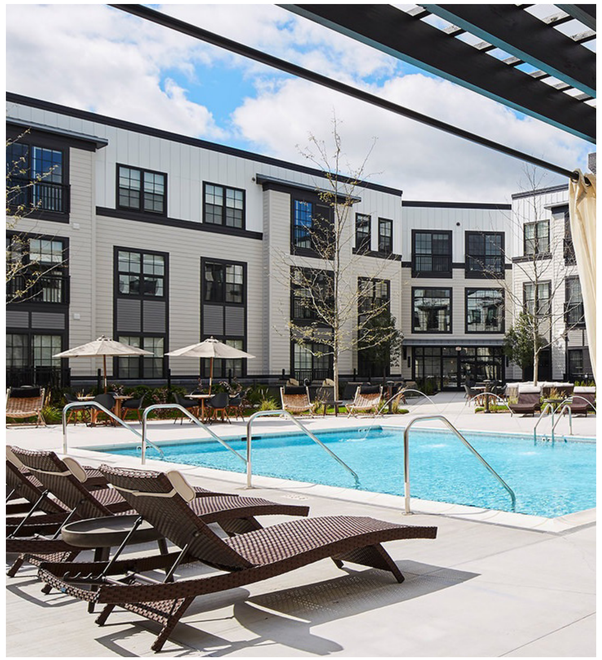












DESIGN APPLICATION

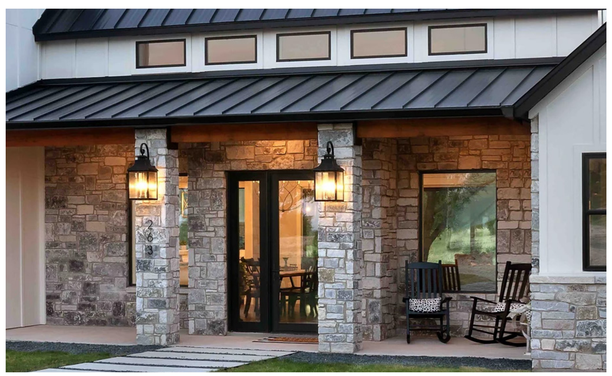
Warrenton's past becomes Warrenton's future. The rich palette of historic materials, textures, and architectural details are reclaimed with a fresh perspective and contemporary context.

RESIDENTIAL DESIGN

The three and four story massing of the residential development is designed to emulate the scale of a walkable town center. A clean, light modern aesthetic is grounded with rich masonry and architectural detailing. The street level is activated with resident access, generous sidewalks and rich landscaping. The articulated façade and generous fenestration break down the scale of the buildings and create visual interest for pedestrians.





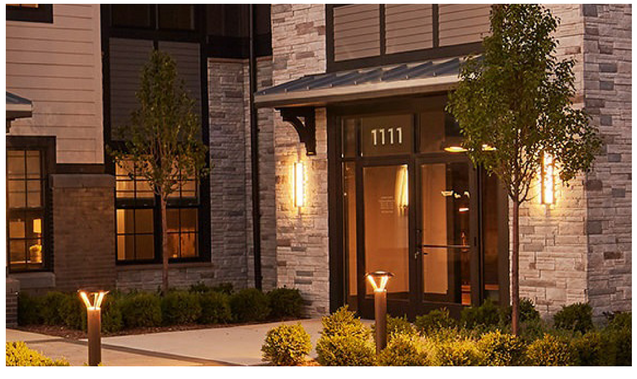




MATERIALS

- Cultured stacked farmstone
- Exterior reveal panel system
- Classic lap siding
- Selective sloped roofs to blend modern and traditional aesthetics
- Corbels
- Wood tones to infuse warmth







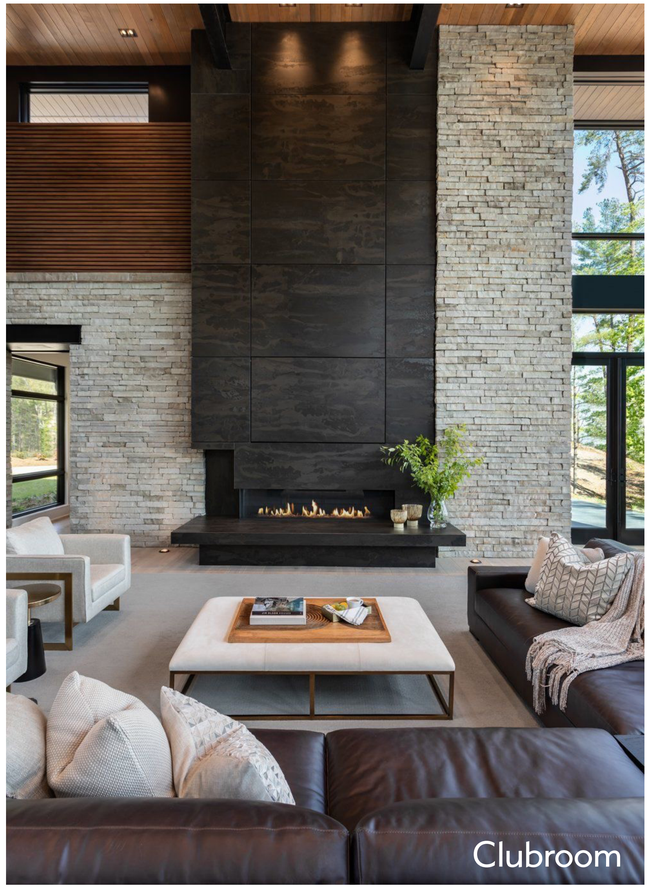


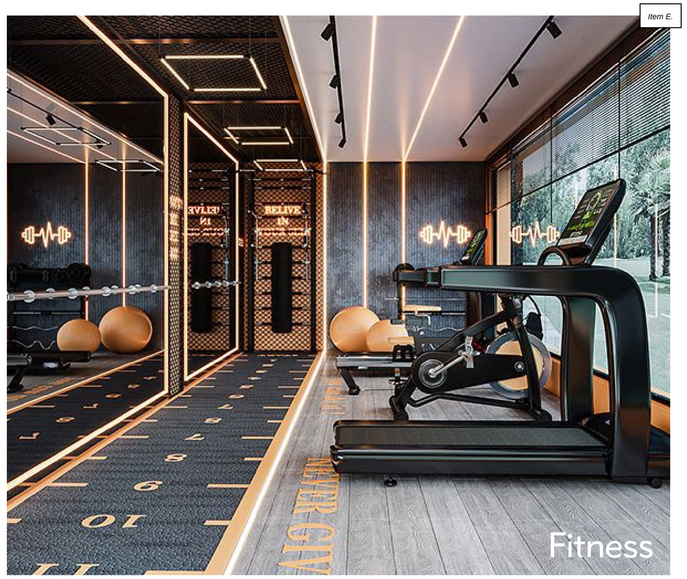
ACCENT FEATURES & STREETSCAPE

- Metal accents & awnings
- Equestrian inspired light fixtures
- Large windows with dark mullions and lintels
- Architectural detailing to provide visual interest at pedestrian level
- Residential street level entries activating the sidewalk
- Pedestrian Connectivity
- Walkable Environment

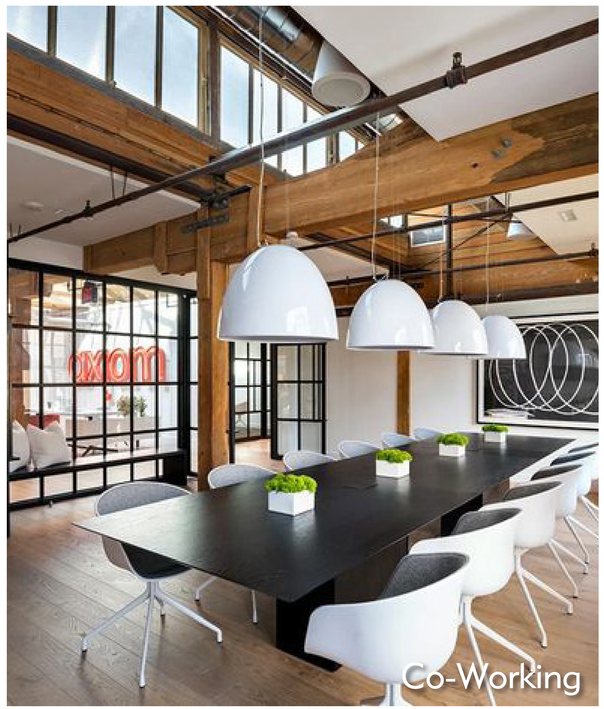


















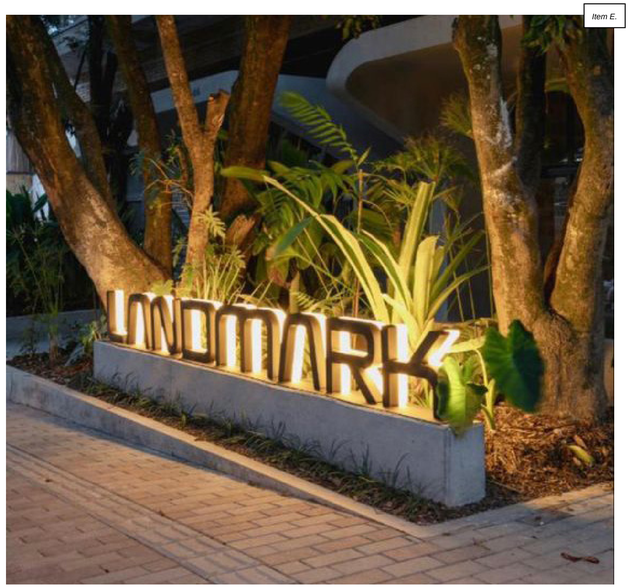
INTERIOR DESIGN CONCEPT

Urban Farmhouse aesthetic blends classic, timeless materials and natural textures with crisp, clean lines, neutral color palettes and light, open spaces. Old is blended with the new to provide spaces that are comfortable and approachable with a nod toward the trends of tomorrow.

















SIGNAGE

Signage and wayfinding are designed to combine key historical elements or notable community themes with clean, sophisticated materials, fonts and applications, bridging the old and the new.

STATEMENT OF JUSTIFICATION
WARRENTON VILLAGE CENTER
SPECIAL USE PERMIT APPLICATION

GPIN 6985-20-7247-000 and GPIN 6984-29-6753-000

Owner: Jefferson Associates L P, Warrenton Center, LLC
Applicant: NewCastle Development Group

May 31, 2024

INTRODUCTION

NewCastle Development Group (hereinafter, the "Applicant") is seeking a Special Use Permit for two parcels, totaling 29.05 acres and identified as GPINs 6984-20-7247-000 and 6984-29-6753-000 (the "Property"), to add residential units into the existing Warrenton Village Center (the "Center") in order to create a new mixed-use, live/work/play community (the "Proposal"). The Proposal seeks to bring a maximum of 386 residential dwellings to the existing commercial center through a variety of dwelling types, including traditional apartment units, 2-over-2s units and townhomes.

The Property is located within the New Town Warrenton District in the Plan Warrenton 2040 Comprehensive Plan, which is described as "a location for signature office/jobs center; with a greater intensity of mixed use and strong live, work and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks green spaces and public gathering areas." This guidance from Plan Warrenton 2040 was the framework upon which the Proposal was contemplated and designed.

The Proposal seeks to create a critical mass of residential units on the vacant land north of Warrenton Village Center via a multifamily apartment building and structured parking garage that will 1) bring much needed rental supply to the Warrenton housing market and 2) introduce a new supply of consumers to support the existing businesses of not only Warrenton Village Center, but of all of Warrenton's established commercial/retail businesses.

The Applicant proposes to offer a wider range of housing types and price points through two additional sections of housing, which will include 2-over-2 and townhome dwelling units. These infill blocks, which will provide much needed "missing middle" housing types, will be utilized to integrate residential dwellings into the existing commercial center, creating a true mixed-use environment.

Lastly, the Applicant proposes a multitude of new improvements to the existing Warrenton Village Center, including public plazas, increased pedestrian walkability, and an enhanced road network, all of which adhere to the goals and initiatives of the New Town Warrenton District's vision for mixed-use centers.

SPECIAL USE PERMIT – MODIFICATIONS/WAIVERS

The Applicant is requesting the following modifications from Town Council, via approval of a Special Use Permit:

1. Increase in Overall Project Density

- Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.
- Waiver Request #1: Increase density to 386 units or 13.28 per acre.
- In lieu of calculating density on a dwelling unit per acre basis, applicant proposes to calculate residential density based on existing commercial square footage (1 dwelling unit per 500 square feet of non-residential space, as allowed under the Mixed-Use Development Option of the Commercial District zoning ordinance)
    - Dwelling units allowed per DU/A calculation:
        - 29.05 acres x 5 DU/A = 145 units
    - Dwelling units allowed per DU/A calculation (assuming affordable housing bonus):
        - 29.05 acres x 10 DU/A = 290 units
    - Dwelling units allowed per DU/GSF calculation:
        - 219,792 GSF / 500 = 439 units
- Proposed dwelling units = 386 units

2. Front Yard Setback Modification along Broadview Avenue
    - Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
    - Waiver Request #2: Decrease minimum setback to 14' along Broadview Avenue.
    - This modification will allow the units to be closer to street, creating a more urban form and character.

3. Side & Rear Yard Setbacks along all internal property lines
    - Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
    - Waiver Request #3: Decrease side/rear yard setbacks to 0'.
    - This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.

4. Landscape Buffers along internal property lines and public ROW
    - Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
    - Waiver Request #4a: Decrease buffer width between commercial and residential uses to 0'.
    - Waiver Request #4b: Decrease rear buffer width for residential uses from public ROW to 14'.
    - This modification will allow the overall development to function as a true mixed-use development by creating an integrated project that is not segmented by buffer strips adjacent to residential and commercial uses. The schematic landscaping plan has identified areas where plantings are proposed.

5. Height Modifications
    - Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.
    - Waiver Request #5: Increase height limit for dwellings as follows:
        - 54' max height for Block 1, Oak Springs Drive Frontage
        - 36' max height for Block 1, Broadview Drive Frontage
        - 36' max height for Block 2

    - 45’ max height for Block 3
- This modification will allow for the concentration of increased density that is envisioned in Warrenton Plan 2040. With these increases in height, the desired step down in height towards adjacent properties is still achieved, relative to Warrenton Plan 2040’s proposed 6-story maximum heights along Lee Highway and 3-story maximum heights on the north side of Oak Springs Drive.

6. Maximum Multifamily Townhome Grouping
- Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
- Waiver Request #6: Increase maximum grouping of townhouse units from six to seven.
- This modification is necessary to provide increased supply of “missing middle” housing type and aligns with several other existing residential communities in Warrenton include grouping of seven or eight units.

7. Other modifications/waivers necessary to implement the proposed development plans.

CREATION OF A MIXED-USE CENTER

The goal of the new Warrenton Village Center is to create a mixed-use community that is representative of the Plan Warrenton 2040’s vision for the New Town Warrenton Character District. The New Town Warrenton District emphasizes highly visible centers with greater intensity of mixed-use and strong live, work and play options. This mix of uses is ideally located around an internal street network and public amenities, such as civic spaces, parks, green space and public gathering areas. This was the guiding directive when designing the Proposal.

The existing Warrenton Village Center is an established commercial center with a wide variety of in-place retail tenants. Due to the existing operations of these long-standing Warrenton businesses, the Proposal does not have the luxury of a “clean slate” from which to design the “quintessential” mixed-use community—impacts to tenants must be minimized, displacement of tenants may not be acceptable and the ability to demise existing structures, if possible, must be done extremely selectively.

So, while the existing commercial structures must remain as is, the Proposal seeks to improve the under-utilized commercial areas with the introduction of public amenities, increased pedestrian circulation and new interesting gathering areas—in this way, the new residential areas will offer a place to live, and the enhanced commercial areas will offer a place to “play.”

The goal of the design is not to create a new apartment community adjacent to an existing commercial center. The goal is to create an integrated village environment where both uses enjoy and thrive off one another and the lines between residential and commercial uses becomes blurred.

The Proposal focuses on two primary components to create a mixed-use community that will have little to no negative impact on existing businesses:

1) introduction of residential dwellings into the existing commercial center to create a live, work, play environment; and

2) installation of new public amenity areas and pedestrian connectivity to tie the different uses together in a cohesive manner.

1) Introduction of Residential Dwellings

The Proposal includes three new residential "blocks." Each block will submit its own Site Development Plan and will meet the general requirements of a "standalone" site plan with respect to open space requirements, parking requirements, landscaping requirements, ADU requirements, etc. While it is not possible for each of the individual blocks to satisfy all the guiding principles of the 2040 Plan, when combined, they will create a cohesive mixed-use center that exhibits all the goals of the New Town Character District. The "Block Sequencing and Required Site Improvements" section later in this Statement of Justification will provide additional detail on how the Applicant proposes to ensure that this comprehensive plan will be realized.

Block 1 (Multi-Family Apartments): located on the vacant land along Oak Springs Drive, between Broadview Avenue and Hastings Lane, this component of the SUP will include a maximum of 320 rental dwellings, comprised of 1-, 2-, and 3-bedroom units, a four-story parking garage and approximately 10,000 square feet of clubhouse and amenity space, including a state-of-the-art fitness facility, work-from-home/co-working spaces, entertainment lounges, cyber and coffee cafes, gathering spaces, and more. The building will also offer two interior courtyards that will include a saltwater pool and resort style pool deck, outdoor kitchens and grilling stations, outdoor game spaces, ample seating and lounging areas, firepits and "brew gardens."

Primary access to the internal, four-story, parking garage will be located on Oak Springs Drive, directly across from the entrance into Highland School. The residential leasing offices and amenity areas will be accessed at the corner of Oak Springs Drive and the new Hastings Lane extension. On-street parallel parking along the Hastings Lane extension will be provided for prospective tenants that are visiting the leasing facilities.

All building frontage facing Broadview Avenue and Branch Drive will be three stories, while building frontage facing Oak Springs Drive will be four stories. All first-floor units along Broadview Avenue, Oak Springs Drive, Branch Drive, and Hastings Lane will feature direct entry access to promote pedestrian walkability.

This block will include the majority of the proposed residential units and will have the greatest impact on bringing much needed housing supply and consumers to Warrenton.

Block 1 Multi-Family Apartment Building Elevation



Block 2 (Multi-Family Townhomes): a maximum of 26 townhome dwelling units are proposed in the northeast corner of the Warrenton Village Center, at the intersection of Oak Springs Drive and Hastings Lane. These will be three story units and feature a two-car garage in each unit and direct pedestrian sidewalk access to all units.

Through its rental townhome product, Block 2 will provide new supply to the highly desirable "missing middle" housing stock.

Block 2 Multi-Family Townhome Elevation



Block 3 (Multi-Family 2-over-2s): a maximum of 34 2-over-2s and 6 townhomes are proposed on the west side of Warrenton Village Center along Broadview Avenue. These buildings will be four stories, with one unit located on the 1st and 2nd floors and a second unit located on the 3rd and 4th floors of each residential "stack." All units will include a one-car garage and direct pedestrian access to first-floor units along Broadview Avenue. The townhomes included in this block will mirror the townhomes found in Block 2 and will face inward in the Center to provide direct residential access into the heart of commercial area.

Block 3 will introduce a new product type to Warrenton in its 2-over-2s and will create true infill into the existing commercial center, better integrating the two uses and promoting walkability between the Central and West Plazas. These units will add additional units to the "missing middle" housing supply.

Block 3 Multi-Family 2-over-2 Elevation



2) Installation of Public Improvements

Central Plaza: the Applicant proposes to create a new Central Plaza at the core of Warrenton Village Center. This public gathering space will include a plaza green with seating and lounging areas for visitors and provide a place for local businesses to hold activities; a splash-pad that will be a major attractor for families with young children and serve as a central landmark for the newly improved center; as well as an area for a potential future retail building that would further activate this public amenity—ownership envisions a coffee or ice cream shop with indoor/outdoor seating that will be a destination for all residents of Warrenton. This plaza will be adorned with street and ornamental trees and planting beds and feature a raised watertable street crossing that will connect the space to the existing retail in a pedestrian safe manner. The new Central Plaza will serve as Warrenton Village Center's vehicular and pedestrian crossroads, a hub that will function as the heart of the Center and is sized, programmed, and planned to allow for community activities as well as everyday use.

East and West Plazas: Smaller public plazas are proposed at the Broadview Avenue entrance and the Hasting Lane entrance into the Warrenton Village Center. These plazas are connecting points celebrating the east and west entrances to the multifamily building and will act as visual links between the residential and commercial areas. These "doorways" into the Center will enhance walkability for the residents by providing easy and direct connection to the retail areas. The plazas will also help transition from public sidewalks to private interior residential lobbies. The 24/7 illuminated interiors of the lobbies will provide visual activation for both plazas and serve as an anchoring use for the open spaces.

The East and West plazas will serve as passive, ceremonial transition zones between the private residential realm and the public retail realm. Their primary intent and use is to connect residents with the rest of the commercial center, while also allowing for a different, less active, and smaller public area for passive recreation.

Dog Park and Picnic Area: a new dog park and seating areas will be accessible to both residents and the general public. The dog park will include a fenced in area for off-leash play, pet water fountains and waste clean up stations. Just outside of the dog area will be picnic table seating areas for pet owners and guests to relax and congregate while their pets play.

Oak Springs Drive Pedestrian Crosswalks: two crosswalks are proposed on Oak Springs Drive—one at Hastings Land and one at the Highland School entrance. These new crosswalks will provide safe points of pedestrian access for people visiting the Center from the north side of Oak Springs Drive.

Completion of Outer Sidewalk Ring: the Proposal seeks to complete a sidewalk ring around the entirety of the Warrenton Village Center. Each residential block will include sidewalks along its outer rim (either along Broadview Avenue, Oak Springs Drive or Branch Drive) to piece together a fully encompassing sidewalk circle.

Additionally, there is currently a large gap in the sidewalk connection along the east side of Broadview Avenue. The Applicant proposes to install a new ~475' section of sidewalk in this area (located behind the Galaxy Strike Bowling Center building). Once completed, this section of sidewalk and the new sidewalks within the residential blocks will complete an outer ring of sidewalks around the entire Warrenton Village Center.

Internal Pedestrian Circulation: residential tenants will benefit from quick and easy access to all the businesses of Warrenton Village Center via new sidewalks, crosswalks and wayfinding markers. All new buildings will be encircled by new sidewalks and will include direct entry access to ground level units (with the exception of those units in Block 1 that will face the rear of the existing commercial building). The addition of the plazas, linked together with internal sidewalks, will serve to better activate and tie together the different uses found within the Center. Finally, new crosswalks are proposed at all primary street crossings. These improvements will not only benefit pedestrian circulation within the site, but will also allow for easier and safer travel for those accessing the site from the outside.

A Conceptual Circulation Plan for pedestrian, vehicular and bicycle traffic can be found on Sheet 23 of the SUP.

Hastings Lane Extension: a new vehicular and pedestrian entrance into the Warrenton Village Center is proposed at the Oak Springs Drive and Hastings Lane intersection. This new entrance will provide a new source of direct ingress/egress into the Center, which will help to facilitate less congestion at the Center's other entrances and result in less traffic on Oak Springs Drive and Branch Drive, as vehicles no longer have to circle around the Center to access one of the existing entrances on Broadview Avenue and Branch Drive.

Oak Spring Preservation: the natural spring from which Oak Springs Drive derives its name is located at the northeast corner of the Center. The Applicant has revised its original site plan in order to preserve this spring and proposes to recondition it into a public amenity, which will include seating areas in a natural and historical environment.

Summary of Improvements, included within each block:

Block 1:

- Multi-family building and parking garage
- Central Plaza
- West Plaza
- East Plaza
- Hastings Lane extension
- Reconfiguration of commercial parking

- Modified Alley, all improvements
- Dog park and picnic area
- Preservation and reconditioning of Oak Spring (natural spring)
- Sidewalks included in Block 1 Improvements – Sheet 4 of SUP
- Two crosswalks across Oaks Springs Drive at Hastings Lane and Highland School entrance

Block 2:
- Townhome dwelling units and parking
- Sidewalks included in Block 2 Improvements – Sheet 5 of SUP
- Restoration of Oak Spring into a natural public amenity

Block 3:
- 2-over-2 dwelling units and parking
- Townhome dwelling units and parking
- Sidewalks included in Block 3 Improvements – Sheet 5 of SUP
- New sidewalk section on east side of Broadview Ave (behind Galaxy Strike Bowling Center building)

ADDITIONAL JUSTIFICATIONS AND PROPOSAL DETAILS

Density

Plan Warrenton 2040 states that the calculation of density on a unit per acre basis can be deficient in a mixed-use environment – "when considering implementation, conventional zoning that separates land uses and measures development intensities by dwelling units per acre (DU/AC) is not compatible with a vision of mixed-use, walkable neighborhoods with a range of housing types" and "if the density requirements for a zoning district are revised accordingly, the chances are high that a typical multi-family building will be built." It recognizes that using DU/AC as a density measurement often gives a false perception of increased density with housing types that are lower in square footage and are stacked vertically, such as the apartments and "2-over-2" units included in the Proposal. To eliminate the false sense of increased density given the proposed housing types, this submittal proposes to utilize an alternative density calculation method that is included in Article 9-25.1.B of the Zoning Ordinance.

Per the Mixed-Use Development Option in Article 9-25.1.B of the Zoning Ordinance, which stipulates that a mixed-use property can be approved for up to one dwelling unit per 500 gross square feet (GSF) of non-residential floor space, the Property could be permitted to have up to 439 units with approval of an SUP, given the proposed 219,792 gross square feet of non-residential floor space (219,792 GSF / 500 GSF = 439 units).

The Warrenton Village Center proposes a maximum of 386 residential dwellings, paired with 219,792 square feet of non-residential uses. Therefore, while the Applicant is requesting a modification for increased density, the request is 53 units less than the maximum amount that can be approved via an SUP.

Plan Warrenton 2040 encourages "setting district standards based on form rather than density" to "achieve the middle-range housing types desired." Accordingly, this proposal prioritizes site design and a mix of housing types over a strict adherence to underlying density requirements. This enhanced site design will mitigate any effects of the additional density, with an emphasis on

walkability, a variety of housing types, and the integration of multiple uses within a single destination location.

Lastly, the Economic and Fiscal Resilience goals of the Plan Warrenton 2040 call for “a range of housing types and housing assistance programs for employees to live in Warrenton.” This proposal accomplishes this by including affordable housing and a range of housing types that will be attractive to current Warrenton residents, as well as potential employers looking to bring new business and employees to Warrenton. This proposal supports Plan Warrenton 2040’s goal to “promote Character Districts as the place to accommodate a range of housing typologies” by proposing a variety of housing types, including multi-family, 2-over-2s, and townhomes. This new stock of residential units and new housing types will bolster a housing supply that is severely underserved and sorely needed within the Town.

The Applicant’s proposal meets and advances nearly all of the housing goals stated in the Plan Warrenton 2040. Additionally, it promotes consolidation of a high amount of density into an infill project, in lieu of sprawl development that is detrimental to the area’s rural preservation.

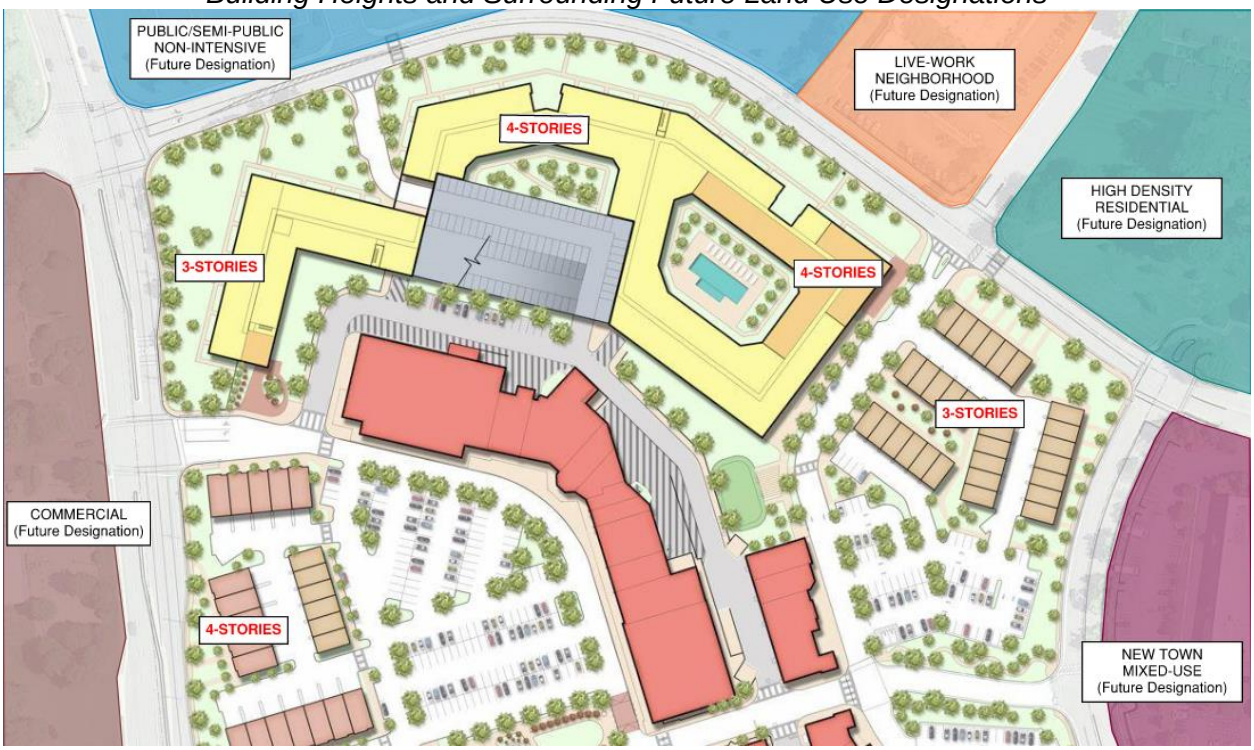
Height

The New Town Character District uses a form-based transect approach to development, which defines form with greater maximum height towards Lee Highway and the center of the district, with a gradual step down in scale towards Oak Springs Drive, where the Property is located. Since the Property is in the Transition Zone, building heights of one-to-three stories or 35’ are recommended.

Applicant is seeking a modification for a fourth story along Oak Springs Drive in Block 1, which is one story greater than the three recommended in the Transition Zone. Since Plan Warrenton 2040 envisions developments along Lee Highway and east of Broadview Avenue to be up to six stories, the Property would still maintain a step down in scale towards Oak Springs Drive at four stories. Therefore, the requested height modification is still in conformance with the goal of Plan Warrenton 2040, which is to step down in height towards residential zones.

The goal of the height recommendations of Plan Warrenton 2040 is to step down towards residential zones. The Proposal achieves this goal by locating its three-story sections in the northwest and northeast corners of the Center, nearest to current and future residential uses—most notably, those neighborhoods located on the west side of Broadview Avenue and the 3-story townhome communities located to the northeast across Oaks Springs Drive—and increasing heights in areas that are adjacent to existing commercial and other non-residential uses.

Building Heights and Surrounding Future Land Use Designations



Inclusion of four-story buildings along Oak Springs Drive will provide a more gradual step down from the six stories allowed along Lee Highway to the three-stories allowed in the High-Density Residential areas shown on the Future Land Use Map on the north side of Oak Springs Drive. This will create a better design aesthetic than the stark contrast of a dramatic drop from six stories down to three stories. From a visual perspective along Oak Springs Drive, this modification would allow for three-story buildings on the north side of the street, four-story buildings on the south side of the street in the Transition Zone, then escalating up to six-story buildings along Lee Highway—a gradual and appropriate escalation in heights.

It is noteworthy that Transition Zones are intended to provide appropriate step downs to adjacent single-family residential neighborhoods, which are typically two-story—hence the recommendation of 3-story maximum heights. However, in the case of the Property, it is in a unique Transition Zone that does not adjoin any typical single-family residential. Instead, it is surrounded by commercial, non-residential, and 3- and 4-story residential uses. Therefore, the 3-story maximum is not necessary to provide the appropriate step down to single-family residential, and the proposed 4-story maximum adequately achieves the step down to the adjacent commercial, non-residential and 3- and 4-story residential uses—see adjacent building in illustration below.

Surrounding Properties – Existing Building Uses & Heights



Another transition goal of Plan Warrenton 2040 is that "the neighborhood edge provides the means of transition from the Character District to adjoining properties." Four-story apartments are an appropriate transition to the High-Density Residential areas located to the north, which will be similar in character and use. High-Density Residential will allow up to 12 units per acre, which is in line with the DU/AC proposed at Warrenton Village Center (13.28 DU/AC).

Further, the Future Land Use Plan's Character District Summaries calls for "greater intensity of mixed-use and strong live, work, and play options" in the New Town Warrenton District and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this character district.

Finally, one of the ten guiding principles for the character districts is to place parking behind buildings and away from street frontages. To accomplish this goal, the Applicant has proposed an interior structured parking garage that will not be visible from surrounding streets. Increasing building heights in select areas is the only way to create the necessary density needed to facilitate this improved parking condition and to conceal it behind building facades.

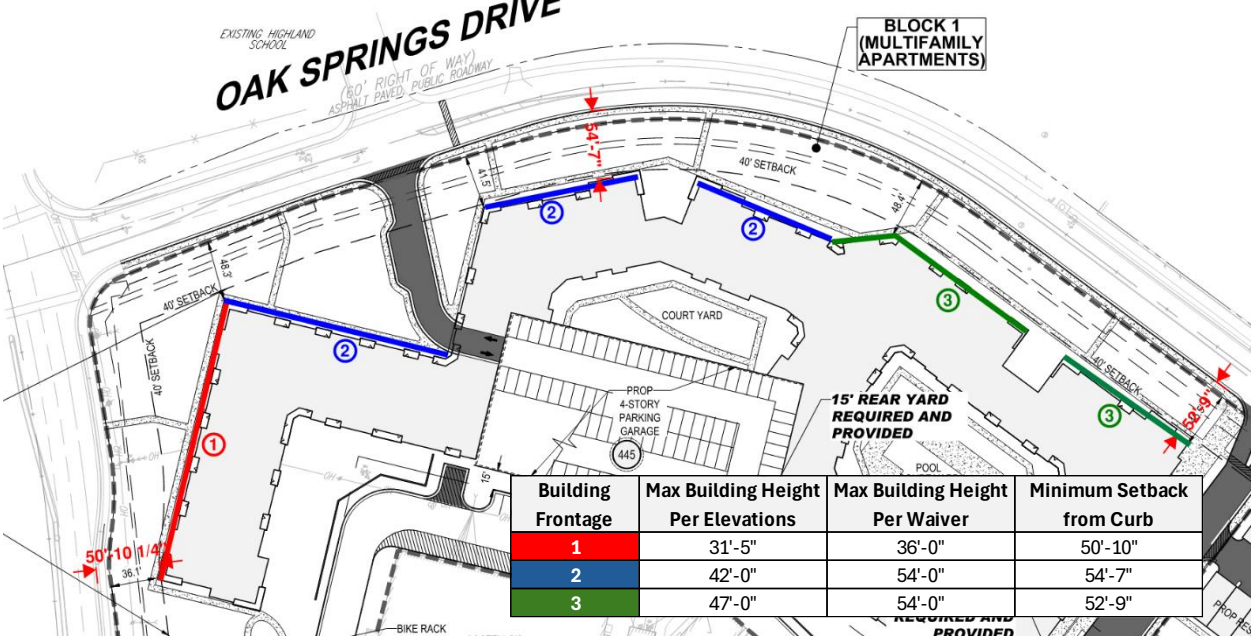
Building Heights and Setbacks

Article 2-20 allows for building height limits to increase above 35' if the corresponding setback increases by an equal amount. The intent of offering a mechanism by which an applicant can increase building heights if corresponding building setbacks are simultaneously and equally increased, is to ensure that an appropriate balance or ratio of height to depth is maintained. The general rule of thumb in land planning is that for every one foot of building height, there should be a minimum of one foot of corresponding setback. Applicant has satisfied this standard by providing appropriately sized setbacks that correspond with the proposed increases in building height limits.

The below illustration examines the three building frontages of the Block 1 apartment building. Anticipated building heights are calculated using the average ground surface elevation across a building's frontage in relation to the highest point of a flat roof (parapets have not been included

in building heights, per IBC code definition). For each building frontage, the corresponding minimum setback from the back of street curb has been provided. Along all three frontages, building setbacks are equal to or greater than the anticipated building height, confirming that the appropriate standard has been achieved.

Block 1 Building Heights and Corresponding Setbacks



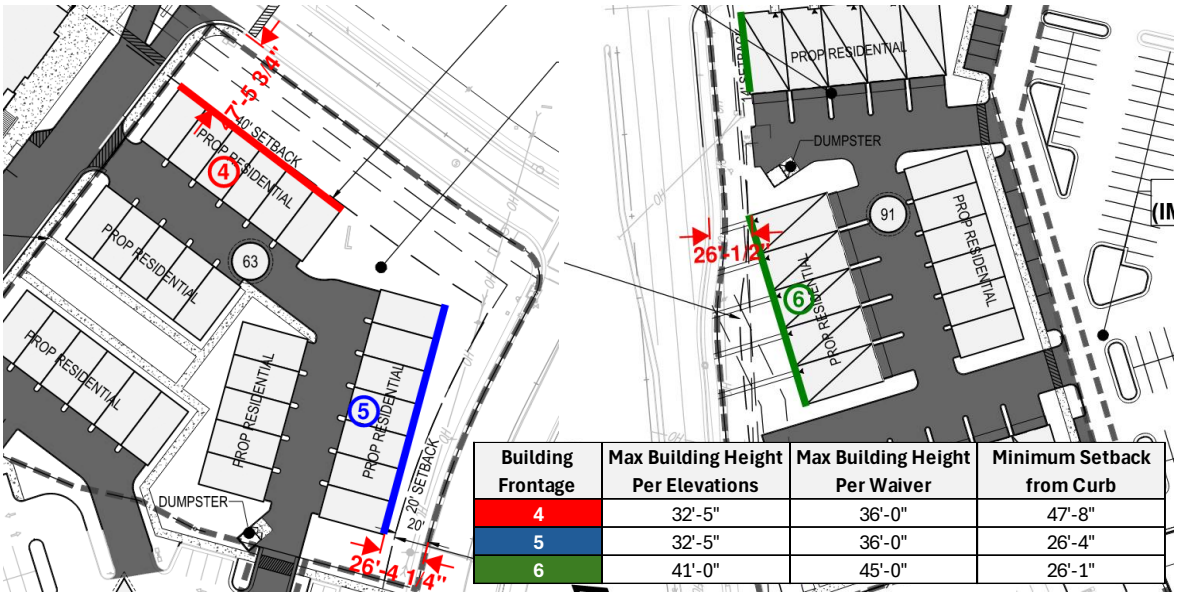
Building Frontage	Max Building Height Per Elevations	Max Building Height Per Waiver	Minimum Setback from Curb
1	31'-5"	36'-0"	50'-10"
2	42'-0"	54'-0"	54'-7"
3	47'-0"	54'-0"	52'-9"

Note—Applicant acknowledges that setbacks are defined by the Town from property lines, however, the point of this exercise is to illustrate that proper height to setback standards have been provided, which apply to the public's viewpoint (i.e. traveling the street) and not an intangible property line. Applicant is therefore requesting a height waiver because it acknowledges that adequate setbacks from property lines have not been provided.

In Block 2, proper anticipated building height to minimum setbacks ratios are provided along Frontage #4 (Oak Springs Drive), but not along Frontage #5 (Branch Drive). The Applicant feels that this is appropriate given the internal nature of Branch Drive as a "cut through" drive within the Warrenton Village Center. Branch Drive serves the Center more as an internal drive than as a primary thoroughfare, in which case it is appropriate to push buildings up onto internal street frontages.

Block 3 (Frontage #6) provides setbacks that are below the 1:1 ratio, as this area of the New Town Character District calls for taller building heights, up to 6 stories. A waiver is already being requested at this location to reduce setbacks to 14'.

Block 2 and Block 3 Building Heights and Corresponding Setbacks



Building Frontage	Max Building Height Per Elevations	Max Building Height Per Waiver	Minimum Setback from Curb
4	32'-5"	36'-0"	47'-8"
5	32'-5"	36'-0"	26'-4"
6	41'-0"	45'-0"	26'-1"

Below is the compiled list of anticipated building heights along street frontages, the maximum height allowed per the Applicant's waiver request, and the corresponding setback from back of curb. Slight height increases have been added into the maximum height limits allowed per the waiver to provide buffer for average ground surface grade changes that may occur during Site Development Plan.

Building Frontage	Location	Block	Max Building Height Per Elevations	Max Building Height Per Waiver	Minimum Setback from Curb
1	Broadview Avenue	1	31'-5"	36'-0"	50'-10"
2	Oak Springs Drive	1	42'-0"	54'-0"	54'-7"
3	Oak Springs Drive	1	47'-0"	54'-0"	52'-9"
4	Oak Springs Drive	2	32'-5"	36'-0"	47'-8"
5	Branch Drive	2	32'-5"	36'-0"	26'-4"
6	Broadview Avenue	3	41'-0"	45'-0"	26'-1"

See Elevation Sheets 11-13B of SUP for a depiction of these measurements.

Affordable Housing

To support the need for affordable housing within the Town of Warrenton, the Applicant proposes that for a minimum affordability period of twenty-five years from the issuance of this Special Use Permit (the "Affordability Period), the following units shall be designated as affordable low-income restricted units (the "Affordable Dwelling Units or ADUs"):

- A minimum of 10% of total dwelling units within each of the three blocks (Block 1, Block 2 and Block 3) will be reserved as 80% AMI ADUs
- An additional ten (10) dwelling units in Block 1 will be reserved as 70% AMI ADUs
- An additional five (5) dwelling units in Block 1 will be reserved as 60% AMI ADUs

Within Block 1, allocation of the Affordable Dwelling Units between 1-, 2- and 3-bedroom units will be at the discretion of the Applicant, so long as the minimum number of units defined above

are maintained as Affordable Dwelling Units. Within Block 2 and Block 3, wherein all units are 3-bedrooms, all ADUs will be 3-bedrooms. The ADUs shall be similar to the market rate units in architectural design, fixture/appliance selections and unit size. No more than three ADU units will be positioned adjacent to one another at any given time.

"Qualified Parties" who will be eligible to rent or purchase one of the ADUs, are defined as:

> For the purposes of qualifying for the lease of an affordable rental ADU a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 60%, 70%, or 80% (dependent on the specific ADU) of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for Fauquier County as published by the Virginia Housing & Development Authority (VHDA), at the time the rental application is opened for such Qualified Party ("AMI").
>
> For the purposes of determining the rent limits for all ADUs, monthly rental rate limits shall be equal to those published by VHDA for 0-, 1-, 2-, and 3-bedroom units and corresponding 60%, 70% and 80% AMIs, with no utility allowances.
>
> For the purposes of qualifying for the purchase of an ADU in Block 2 or Block 3, a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 80% of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for a 4-person household in Fauquier County as published by VHDA, at the time the purchase contract is executed for such Qualified Party.
>
> For purposes of determining the purchase price of any for-sale ADU, that price will not exceed the amount at which the monthly mortgage payment for such unit exceeds the monthly rent limits for 3-bedroom units and 80% AMI income, as published by VHDA. Qualifying Parties must provide a market rate loan commitment prior to closing in order to calculate the proposed mortgage payment.
>
> Persons eligible for assistance under the following state or federal programs:
>
> a. Virginia Housing Development Authority

The ADU status shall be set forth in a deed of restrictive covenants recorded against the Property and shall continue to bind the minimum ADU requirement within each block to the Property for a period of twenty-five years from the issuance of this Special Use Permit; provided, however, that for rental units, the Applicant may recalculate the rental rates for new leases or renewals in accordance with the then current rates published by VHDA.

The Applicant shall establish in a deed of restrictive covenants a program for the administration of this ADU program according to the requirements of these conditions. The Applicant (or Owners Associations with respect to any purchase units if the Applicant is no longer the Declarant) shall make each ADU available for a period of not less than 90 days for rental units and 180 days for purchase units, following the issuance of a certificate of occupancy for each unit.

The Applicant shall designate on the Construction Drawings submitted for building permit approval which units will be the initial ADUs; however, the units that are selected as the initial rental ADU units are not required to remain as the designated rental ADUs for the entirety of the Affordability Period. The Applicant will have the authority to re-designated the rental ADUs from time to time based on leases and vacancies. The Applicant will maintain a building plan set at

the leasing office located in the Block 1 at all times that shows which units are currently designated as rental ADUs.

The documents creating the ADU program shall be reviewed and approved by the Town Attorney prior to their recordation in the Land Records.

ADUs will first be made available to the following persons: those residing or working in the Town of Warrenton or Fauquier County; Town of Warrenton or Fauquier County teachers; Town of Warrenton or Fauquier County first responders; veterans and enlisted members of the United States Armed Forces. The Applicant shall contact the appropriate local Social Service and/or Housing Authority offices for identification and placement of these potential residents.

The community's Property Management Team shall make annual reports to the Zoning Administrator as to the number, type and location of units hereunder that shall have been rented as ADUs and shall verify that they have been rented to Qualified Parties.

These obligations are described in greater detail in the proposed Conditions of Approval.

Condo Sale of Block 2 and Block 3

All dwelling units in all three blocks are intended to be for rent, however, Applicant will maintain the ability to sell the entirety of Block 2 (Multi-Family Townhomes) and/or the entirety of Block 3 (Multi-Family 2-over-2s) as Condos. The Applicant agrees to sell all or none of the units within Block 2 or Block 3, so as to prohibit a mix of for rent and for sale units in the same block.

All conditions of the SUP will continue to be enforced in a block sale scenario through the Declarations of Restrictive Covenants that the Applicant will record and encumber the Block 2 and/or Block 3 parcels. In a block sale scenario, Homeowner Associations will be established to maintain all conditions of the SUP and will own the block parcel, while individual condo owners will own the condo dwelling units.

In a sale scenario, residents/owners of the condos will not be tenants of the apartment community and will not have access to the rental amenities located within Block 1.

In a block sale scenario, 10% of the units within the sold block will be required to be sold as ADUs, in accordance with the language outlined in the SUP's Affordable Housing Conditions of Approval.

Architecture

The Conditions of Approval includes language that the final design of all buildings shall be in general conformance with the materials included in this SUP submittal.

Two options for exterior elevations have been provided to Planning Commission, who will select which option is approved for Town Council review. Elevations for the two options can be found on SUP Sheets 11 – 15B.

A list of prohibited materials is also included in the Conditions of Approval.

One noteworthy architectural feature that has been added to the Block 1 apartment building design is the inclusion of two "building insets or step backs" along Oak Springs Drive. These

features have been added to lengthy sections of the building in order to break up the larger massing areas and to create the sense of agglomeration, as opposed to a single frontage.

Building "Insets" Added to Break Up Massing on Oak Springs Drive



Garage Screening

A structured parking garage is proposed in Block 1. Three of the garage's four sides will be concealed within the apartment building and not visible from the exterior. The south facing façade, while exposed, is not anticipated to be easily viewed from ground level, given its position behind the existing Warrenton Village Center commercial buildings. To mitigate concerns that may remain regarding its visibility, the Applicant will install a screen on the southern facing façade of the garage to minimize its visual impact. A concept of this screening is provided below.

Conceptual Garage Screening Design on South Facing Façade



Block Sequencing and Required Site Improvements

Applicant can develop the blocks in any order. Each block will have its own independent Site Development Plan, separately submitted and approved by the Town of Warrenton.

All improvements included within each individual block are shown on SUP Sheet 4 and Sheet 5.

To ensure that site improvements are completed in a timely manner along with the residential buildings, Applicant agrees that the Town of Warrenton will withhold Certificates of Occupancy (COs) in accordance with the following schedule:

- Block 1: the 215th CO within Block 1 will not be issued until such time as all Block 1 site improvements have been substantially completed;
- Block 2: the 19th CO within Block 2 will not be issued until such time as all Block 2 site improvements have been substantially completed;
- Block 3: the 33rd CO within Block 3 will not be issued until such time as all Block 3 site improvements have been substantially completed.

It is anticipated, but not required, that Block 1 (Multi-family Apartment Building) will commence construction first. Block 2 (Multi-Family Townhomes) is anticipated to commence simultaneously with Block 1 or shortly after, depending on market conditions. Block 3 (Multi-Family 2-over-2s) will commence last, due to in-place tenants in the current retail building at that location (Summit Community Bank). It is anticipated that Block 3 will commence upon lease expiration of current retail tenant, but exact timing is unknown.

Open Space

Each individual residential block/parcel, as well as the residual retail parcel, will individually satisfy the 10% open space requirement.

Applicant will construct all open spaces in general conformance with the renderings and materials included in the SUP and inclusive of the "New Improvements" listed on Sheet 6 "Open Space Plan."

Most Notably:

- Open Space A in Block 1 will include the West Plaza, inclusive of a hardscape residential plaza with bench seating and a bike rack;
- Open Space D in Retail Block will include a fenced in dog play area, picnic table seating and a bike rack;
- Open Space E in Retail Block will include the Central Plaza, inclusive of a lawn area, splash-pad, bench seating, two bike racks, and future commercial pad.

Site Conditions

The proposed development consists of two parcels totaling approximately 29.05 acres. Approximately 22.59 acres are the existing shopping center known as Warrenton Village Center and the remaining 6.46 acres are a vacant semi-wooded parcel with road frontage on Broadview Avenue and Oak Springs Drive. The topography of the site ranges in elevation from 550' at the northwest corner of the site at Broadview Avenue to an elevation of 505' along the eastern property line at Branch Avenue. Site soils consist of various loams such as Rohrersville, Middleburg, Fauquier Silt, Glenelg and Elioak. A detailed tree survey will be provided at the time of Site Development Plan.

The Property is surrounded by a mix of commercial, education and residential uses:

- To the north, across Oak Springs Drive, is Highland School, Brookside Rehab and Nursing Center and the Cedars of Warrenton town home community;
- To the east, across Branch Drive, is Safeway and other commercial businesses included within Warrenton Village Center;

- To the south is Warrenton Village Center;
- To the west, across Broadview Avenue, are standalone commercial and office uses and single family neighborhoods.

Construction Impacts

Construction limits of disturbance will be limited to within the Property. No neighboring or adjoining properties will be included within the limits of disturbance. All construction parking will be contained within the Property and/or specified locations within Warrenton Village Center. No offsite impacts or storage will be required. If substantial rock is discovered at the Property, blasting may be required and permitted in accordance with Town of Warrenton requirements.

Per Gorove Slade's Traffic Impact Analysis, turn lanes are not warranted at the proposed access points on Oak Springs Drive, therefore, the only impact to the public right of way will be the two new connections to Oak Springs Drive and the two new crosswalks on Oak Springs Drive.

Construction Timelines

Block 1 (Multi-family Apartments): Construction will take approximately 24 to 28 months.

Site Work Duration: 6 to 8 months
Vertical Construction Commencement: ~ Month 6
Vertical Construction Duration: 18 to 20 months
Clubhouse/Leasing Delivery: ~ Month 20
First Units Available: ~ Month 20
Construction Completion: ~ Month 26

Block 2 (Multi-family Townhomes): Construction will take approximately 16 months.

Site Work Duration: 3 to 4 months
Vertical Construction Commencement: ~ Month 4
Vertical Construction Duration: 8 to 12 months
First Units Available: ~ Month 12
Construction Completion: ~ Month 16

Block 3 (Multi-family 2-over-2s): Construction will take approximately 16 months.

Site Work Duration: 3 to 4 months
Vertical Construction Commencement: ~ Month 4
Vertical Construction Duration: 8 to 12 months
First Units Available: ~ Month 12
Construction Completion: ~ Month 16

Construction schedules included herein are estimates and subject to change based on potential unanticipated delays, such as those caused by severe weather, material shortages, etc.

Economic Impact

A Fiscal Impact Analysis by S. Patz & Associates, Inc. determined that the Proposal would result in a $46,100 annual surplus for the Town of Warrenton, plus the additional benefit of much needed housing supply.

The full report has been submitted as part of the SUP application.

Traffic Impact Analysis

New access to the Property will be provided via a parking garage entry with direct access to Oak Springs Drive (Town Route 3), a fourth-leg to the existing full-movement intersection of Oak Springs Road at Hastings Lane, and via the existing shopping center accesses to the south.

Based on the capacity and queueing analysis results, the proposed Warrenton Village Center will not have a substantial impact on the surrounding transportation and roadway network. No improvements are warranted or recommended to mitigate traffic concerns created by the Proposal.

It is anticipated that the peak activity times for the proposed residential units would have only a short overlap with the Highland School peak arrival and dismissal times. Based on existing traffic counts, the school driveway on Oak Springs Drive sees most activity after 7:45 AM and has very little traffic after 4:30 PM. Typical peak times for multi-family residences are 7:00-8:00 AM and 5:00-6:00 PM, according to the Institute of Transportation Engineers. Similarly, the Traffic Impact Study prepared for the site indicates that with both Highland School traffic and new trips from the residential units, acceptable traffic operations would be maintained at the shared entrance location during all times of day.
To help mitigate potential traffic concerns during Highland School's peak AM and PM hours, the Applicant proposes to install signage and lighting at the Primary Garage Entrance to encourage residents to use the Secondary Garage Entrance at those times—during Highland School's peak hours, a red light will turn on at the interior exit to the garage's Oak Springs Drive access point with signage saying "Highland School Peak Traffic Hours – Recommend Using Secondary Exit" (or something similar).

The full report on transportation impacts can be found in the Traffic Impact Analysis by Gorove Slade that has been submitted as part of this SUP application.

New Amenities for Public Use

In addition to the extensive package of amenities that will be offered to tenants within the Block 1 multi-family apartment building, the Proposal also includes a variety of new improvements that will be available to and benefit the general public:

- Improved walkability through an enhanced sidewalk and crosswalk network within the Center will make for a more efficient shopping experience.
- New and improved crosswalks on Oak Springs Drive at Hastings Lane and at the Highland School entrance will create easier and safer points of pedestrian access to the Center.
- Traffic slowing measures will create a safer walking environment.
- The Central Plaza will provide a new destination family attraction for residents of Warrenton with its splash-pad, activity area and future eatery.
- The Dog Park will offer a new off-leash area for pets to play, while owners can relax nearby on benches and picnic tables.
- Restoration of Oak Spring along with improved seating areas.

Impact on Community Facilities

Stormwater Management will include, but not be limited to both structural and non-structural best management practices for managing stormwater runoff. This could include underground stormwater facilities, bio-retention areas and rain gardens.

The Property will connect to public water and sewer. The Town of Warrenton Department of Public Works and Utilities has utilized a calculation of 300 gallons per day per unit and determined that there are no concerns with providing adequate capacity for the Proposal.

The Property will rely on Town Services such as fire, rescue, and police services.

Impact on Schools

School age children residing at the proposed community would attend the following public schools:

Elementary:	Bradley
Middle School:	Taylor/Warrenton
High School:	Fauquier

Per existing and projected enrollment data provided by Fauquier County Public Schools, the max capacity and projected enrollments of these schools are shown in the table below. Based on the available data, an increase of 225 elementary students, 244 middle school students and 464 high school students would be required to meet the capacity at any of these schools over the next five years.

Available Capacity at District Public Schools

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year*						
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year*						
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year*						
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

Fauquier County Public Schools uses the following calculation to estimate student generation from various housing types:

- Single Family Detached Dwelling: 0.72 students per household
- Single Family Attached Dwelling: 0.45 students per household
- Multi-Family Apartment Dwelling: 0.20 students per household

Fauquier's methodology then allocated students as follows:

- 52% to elementary school
- 22% to middle school
- 26% to high school

Based on the student generation calculation used by Fauquier County Public Schools, at full buildout, Warrenton Village Center is projected to generate the following students:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

With allocations per school as follows:

- 52% to Bradley = 49 students
- 22% to Taylor/Warrenton = 21 students
- 26% to FHS = 24 students

The chart below shows the projected students generated from Warrenton Village Center versus the minimum available capacity at those schools over the next five years.

School	Min. Capacity	New Students	Remaining Capacity
Bradley	225	49	176
Taylor/Warrenton	243	21	222
FHS	464	24	440

Topography

To address grade changes of approximately 45' from west to east across the site and approximately 10' from south to north, the architect and engineering teams have utilized different grade mitigation methods such as stepped buildings, introduction of "basement" units, small retaining walls and adding elevated stoops with sidewalk access.

Below is a building elevation to help illustrate some of these strategies—this elevation is taken from the new Hastings Lane extension, looking west at the proposed multi-family building.

Profile Illustrating the "Stepping" of the Apartment Building



In Section A, at the corner of Oak Springs and Branch Drive, the Property's elevation is at its lowest point. The leasing offices and amenity areas have been located at this corner and the finished floor elevation of the building has been dropped to mitigate the lower elevations and provide direct on-grade access at that point. These sections will also benefit from increased ceiling heights created from the "sunken" finished floor elevation.

In Section B, as the site's elevation rises, residential units will be elevated above the street level, with access to those units provided by a secondary sidewalk that sits on top of a section of masonry retaining wall. One "public" sidewalk will be placed adjacent to the street and run with the slope and a secondary "private" sidewalk will be placed adjacent to the building in an elevated, level position. The elevated residential units will have direct access to the raised secondary sidewalk, which will also create increased privacy for those ground floor residents. See image below for illustration of this concept.

View of Section B Showing "Double Sidewalk" Configuration



In Section C, the finished floor elevation of the building is on-grade at street level and no grade mitigation is required.

In Section D, where there is a steep increase in elevation, the building will step from four-stories to three-stories, utilizing a retaining wall hidden within the building's foundation to mitigate the significant grade change.

Through methods such as these around the Property, the elevation changes across the site will be mitigated in subtle and attractive ways that enhance the aesthetic of the building and avoid large and potentially unsightly retaining walls.

Geotech

A geotechnical report will be completed at the time of Site Development Plan. Results of the study will be incorporated into the certified structural design and approved during the building permit review process.

Block 2 & Block 3 Mail

Block 2 and Block 3 will require cluster mailboxes. The mailbox locations and adequate temporary parking (delivery/pickup) will be approved at Site Development Plan.

Road & Infrastructure Maintenance

The Warrenton Village Center will be owned and maintained by Jefferson Associates L P, Warrenton Center, LLC and/or affiliated entities. These entities will be responsible for the continued maintenance and cleaning of all existing and proposed improvements, including but not limited to residential buildings, private roads, sidewalks, stormwater facilities, parking areas, plazas and open space, as well as continued maintenance of landscaping, including mowing, weeding, mulching and snow removal.

Modified Alley – Improvements, Vehicular Access & Loading, and Screening

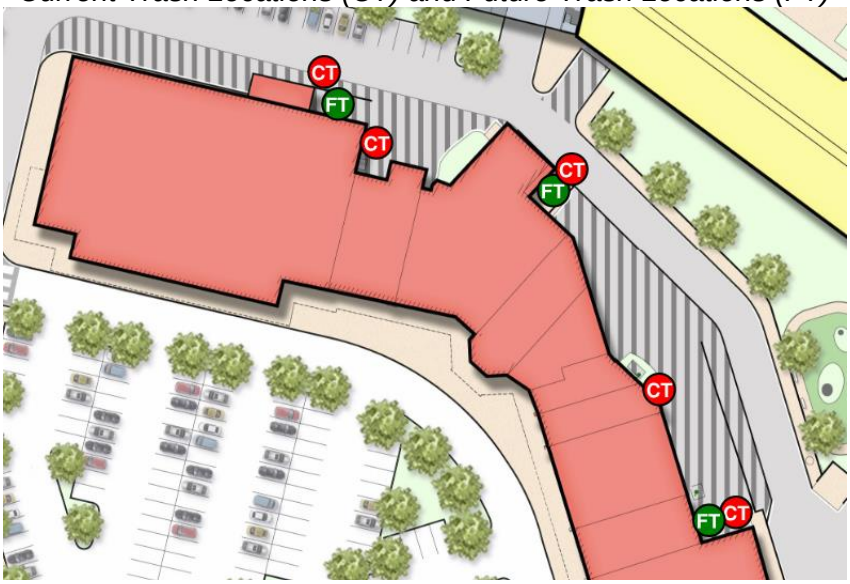
Improvements to the existing alley located behind the retail buildings are proposed with this SUP plan. The primary usage of the Modified Alley will continue to be for “back of house” loading functions and trash pickup areas for the existing commercial buildings. These functions will be improved through several enhancements, including a consolidation of existing dumpster locations into three, centrally located, screened trash areas (see Sheet 19 of SUP), removal and cleanup of existing “ancillary” structures that have been erected adjacent to the commercial buildings, painting of the rear facing commercial façade, and striping of “back of house” areas to designate retail loading and trash zones. This alley will also include approximately twenty-five parking spaces that will be reserved for employees of the commercial tenants.
The Modified Alley will also serve as a secondary vehicular ingress/egress into the garage, as well as provide Residential Loading and Trash Pickup Areas. Two residential loading and trash pickup areas have been designated within the Modified Alley. The primary ingress/egress into the garage will be located on Oak Springs Drive, so as to minimize vehicular traffic in the Modified Alley.

Vehicular studies have been performed to ensure appropriate turning radii will be provided for commercial loading vehicles and adequate lines of site around all corners/turns will be confirmed during Site Development Plan review. These studies were coordinated with the existing shopping center owner to ensure that adequate loading space will be provided for each of the business’s required loading vehicle sizes and types. Additionally, convex traffic safety mirrors can be installed at any location that poses a safety concern.

The Applicant plans to incorporate a number of visual improvements to the Modified Alley, summarized below:

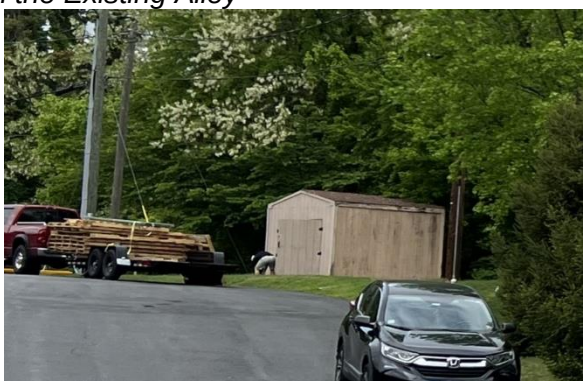
- Garage positioning: the garage has purposefully been located in a parallel position along the rear of the commercial buildings so that the majority of the multi-family building that abuts the “back of house” area is non-residential space.
- Trash screening: commercial trash areas have been consolidated into three locations, all of which will have new privacy fencing installed around the designated areas. Construction details of all screening and fencing will be addressed at the time of Site Development Plan.

Current Trash Locations (CT) and Future Trash Locations (FT)



- Landscape buffers and screening: all portions of the Modified Alley that are within the potential viewshed of residential dwelling units will include 35’ to 50’ of landscape buffers, plus privacy fencing along the drive lanes—see Sheets 18 & 19 of SUP. Construction details of all screening and fencing will be addressed at the time of Site Development Plan.
- Painting: all rear elevations of the commercial building that are adjacent to the Modified Alley will be repainted in a consistent, neutral color.
- Striping: all residential and commercial trash and loading areas will be striped to encourage loading/delivery activity to stay out of the travel way and within the designated locations.
- Demolition: all ancillary structures that have been erected adjacent to the commercial building will be demised and removed. Examples of these ancillary structures are shown below.

"Ancillary Structures" in the Existing Alley



Loading and Trash Pickup Areas

Striped loading and trash pickup areas are proposed along both sides of the Modified Alley. The loading areas are intended to be reserved for exclusive use by either the residential tenants or the commercial tenants, as outlined below:

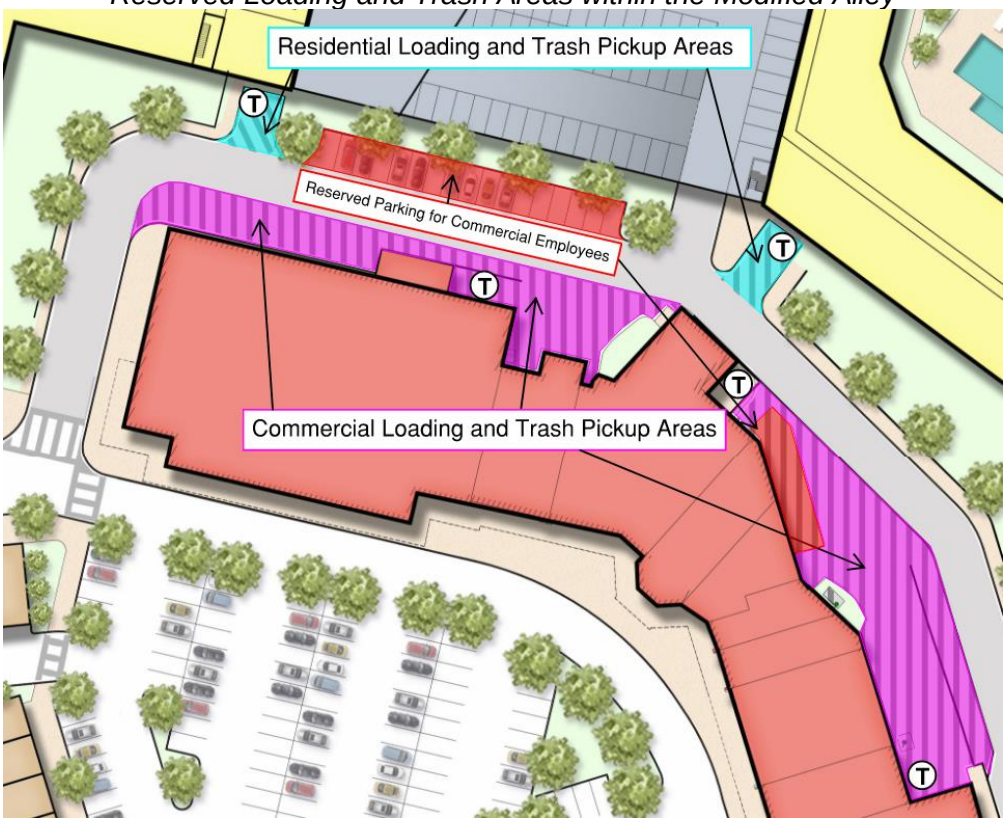
- Commercial Loading and Trash Area (PINK): these striped areas will be reserved for exclusive use by commercial tenants for "back of house" operations. These areas will provide access to necessary loading and delivery areas for the commercial tenants in accordance with their current and future needs. Existing loading areas and loading doors/docks will continue to serve the commercial building—no changes are proposed to the existing commercial loading bays and appropriate turning radii will be provided to ensure that commercial vehicles maintain access to existing loading facilities. Commercial trash dumpsters will be consolidated to the three locations marked with a "T" and will be shielded with privacy fencing. Privately contracted waste management services will pick up trash at these locations on scheduled trash days.
- Residential Loading and Trash Area (BLUE): these striped areas will be reserved for exclusive use by residential tenants for "move in / move out" purposes. Tenants will have the ability to reserve these areas on an hourly basis at specific times to facilitate move ins and move outs. Reservations for use of these spaces will be made through the property management team. These two loading areas are a minimum of 30' deep, which is adequate space to fit the maximum sized commercial rental truck (e.g. U-Haul truck). These areas will also serve as trash pickup locations for the residential building. On scheduled trash days, property management will roll dumpsters from the trash compactors

located on the interior of the building to these locations, where they will be picked up by privately contracted waste management services.

- No ground level residential units will be placed adjacent to the Residential Loading and Trash Areas. Those areas of the buildings will be designated for loading and trash services.

- Reserved Parking for Commercial Employees (RED): to ensure that employees of the commercial tenants do not utilize the loading areas for employee parking, approximately 25 parking spaces will be provided for their exclusive use along the Modified Alley. This will help to provide consistent, unimpeded trash and loading access to both the residential and commercial tenants.

Reserved Loading and Trash Areas within the Modified Alley



Trash

The Applicant shall maintain Warrenton Village Center in a clean and orderly manner and shall arrange for the pickup of trash, litter, and debris on a daily basis through a private refuse collection company.

Deliveries and refuse/solid waste collection shall follow Town Code Section 11-19(9).

Residential Trash Locations: trash facilities are proposed at three locations (found on Sheets 4 & 5 of the SUP):

1) Block 1: A trash compactor will be located within the multi-family building. Trash chutes will be located on all floors of the building for direct deposit of trash from residential floors into the trash compactor. Trash bins will be rolled out by property

management to one of the Residential Loading and Trash Pickup Areas on either side of the garage on trash pickup days.

2) Block 2: It is anticipated that each individual unit will have its own trash bin kept within that unit's garage. Residents will be responsible for rolling trash bins out to the rear alley on trash pickup days.
    a. If the municipality will not allow individual trash bins/pickup, the location for a potential trash dumpster that will serve all residents of Block 2 has been included in the SUP plans.
    b. Block 2 dumpster will be surrounded by privacy fencing, as well as landscape buffering.
3) Block 3: It is anticipated that each individual unit will have its own trash bin kept within that unit's garage. Residents will be responsible for rolling trash bins out to the rear alley on trash pickup days.
    a. If the municipality will not allow individual trash bins/pickup, the location for a potential trash dumpster that will serve all residents of Block 3 has been included in the SUP plans.
    b. Block 3 dumpster will be surrounded by privacy fencing, as well as landscape buffering.

Commercial Trash Locations: trash dumpsters behind the existing retail buildings will be consolidated into the three centrally located trash areas shown on Sheet 19 of the SUP. These trash areas will be hidden from public view with new privacy fencing.

All exterior refuse storage areas will be shielded within enclosures or privacy screening.

Wayfinding

The Applicant will include detailed locations and specifications on all proposed signage and wayfinding in the site plan. All signage will comply with the Zoning Ordinance at the time of Site Development Plan.

A Conceptual Signage Plan can be found on Sheet 21of the SUP.

Lighting

The Applicant will prepare a detailed lighting plan in conformance with §9-8 of the Zoning Ordinance and will install lighting in accordance with that plan. This will be reviewed at the time of Site Plan Development review.
Light pollution restrictions will include:

- All site lighting, to include both new fixtures within the new development areas as well as any non-residential area that is modified as a part of site development, must consist of fully-shielded, full cut-off fixtures to meet the requirements of Article 9, Section 9-8.
- Color temperature of exterior light fixtures will be 3,000 degrees kelvin or lower.
- Average horizontal illumination level of exterior light fixtures will be 3.0 footcandles or less.

A Conceptual Lighting Plan can be found on Sheet 22 of the SUP.

Bicycle Plan

The streets within the retail and residential areas are proposed to function as shared streets for both cars and bicycles. This is appropriate given the low vehicular volumes, short street segments

that limit vehicular speeds, existing and proposed character of the property with significant pedestrian/vehicle interactions, and the need to minimize street widths to keep pedestrian crossing distances short.

Eliminated/shortened travel ways, especially those encouraging speedy vehicular use between Broadview Avenue and Oak Springs Drive, change the nature of available accessways within the Center. This combined with on-street parking – parallel and head-in spaces, reduced driveway widths and raised crosswalks, will automatically provide traffic calming and slower traffic speeds, thereby making it safer for multi-modal use. Visitors entering the site are immediately confronted with a travel landscape that is unlike urban throughfares and more like parking lots with limited speeds, but good visibility. Unlike urban throughfares, which are designed for speedy travel between points A and B, visitors entering the Center will be immediately at B. The proposed streets and accessways encourage visitors to think about parking their vehicles or bikes and setting out on foot.

A Conceptual Circulation Plan, including proposed bicycle travel ways and public bike rack locations, can be found on Sheet 23 of the SUP.

Resident Connectivity to the Town of Warrenton

The Applicant believes that the new residents of Warrenton Village Center should not only benefit the commercial tenants at the Center but should provide new patronage to all of Warrenton's businesses. To do this, the Applicant desires to enhance and promote new and existing transportation networks to other areas of Warrenton.

Warrenton Circuit Rider: to encourage increased use of this public transport by residents, the Applicant proposes the following concepts:

1) There are currently Green Route and Blue Route stops within Warrenton Village Center at the current location of Joann Fabrics. If desired by the Town, the Applicant agrees to work with the Town to establish additional stops at the West Plaza and/or East Plaza residential lobbies.
2) Install permanent signage within residential lobbies to promote this public transportation option.
3) Establish a program with the Town that provides tenants with a monthly stipend for Circuit Rider fares—"Circuit Rider Cash" or something similar that would be accepted by the buses and funded by the apartment community.

Green Building Design

All residential buildings will be designed and certified to a National Green Building Standard (NGBS), Level Bronze, or higher. This certification requires minimum efficiency standards among building materials, plumbing and electrical fixtures, appliances and much more. If NGBS is not available for this project, an equivalent certification from an alternative third-party green building rating system will be acceptable.

EV Stations

To encourage continued growth of electric vehicles, a minimum of 2% of parking spaces within the Block 1 parking garage will include electric charging stations for resident use. Block 2 and Block 3 will not include charging stations, as residents will be able to utilize individual unit garages to supply EV power.

Noise & Exhaust

The proposed development will not produce any noticeable increase in noise or odor.

Emergency Services

All plans will be in conformance with Town Code and approved at Site Development Plan.

Sheet 8 of the SUP provides a Fire Truck Movement plan, confirming 360-degree fire truck access to all buildings.

Community Hours of Operations

All proposed residential rental units in all three blocks (multi-family, townhome and 2-over-2 units) will be part of the same new apartment community. All residents will have access to the community amenities found primarily at the Block 1 multi-family building. Hours of operations for the community's amenities will be as follows:

Leasing Office: 9am-6pm (Monday-Friday), 10am-5pm (Saturday), Closed (Sunday)
Mail & Packaging: 24 hours a day, 7 days a week
Bike Storage: 24 hours a day, 7 days a week
Pool and Pool Deck: 10am – 8pm, 7 days a week (Memorial Day to Labor Day)
Fitness: 24 hours a day, 7 days a week
Co-Working Space: 24 hours a day, 7 days a week
Entertainment Lounge: 24 hours a day, 7 days a week
Gathering Room: 24 hours a day, 7 days a week
Garage Parking: 24 hours a day, 7 days a week

3-Bedroom Unit Maximum

3-bedroom apartments are important to provide a wide range of housing types and price points to the residents of Warrenton. 3-bedroom units provide the lowest rental rates on a per bedroom basis and are therefore pivotal when seeking to provide lower cost options to the Town's residents. In order to minimize concerns regarding potential fiscal impacts of 3-bedroom units, the Applicant agrees to cap 3-bedroom units in Block 1 at 10% of the total Block 1 units.

PLAN WARRENTON 2040

Plan Warrenton 2040 establishes a series of goals for future development within Warrenton. This proposal advances many of these goals, which have been outlined below:

Housing Goals

Character Districts are identified as an opportunity for "expanding housing options" and to "accommodate a range of housing typologies." The Proposal advances this goal via inclusion of multiple housing types.

Goals H-1 and H-1.3 recommend the creation of workforce housing. The Proposal advances this by creating a variety of housing types to provide a wide range of rental price points, as well as inclusion of an affordable housing component.

Goal H-1.1 is to encourage “Missing Middle” housing types. The Proposal advances this goal by providing highly sought after rental dwellings in both townhome and 2-over-2 product types.

Goal H-1.2 of the Plan is to encourage the creation of a range of housing types. The Proposal meets this goal by providing 1-, 2- and 3-bedroom multi-family apartment units, as well as 2-over-2 and townhome dwelling units.

Goal H-2.2 of the Plan provides for appropriate use and scale of development and proper transitions to existing neighborhoods. The Proposal meets this goal by placing higher, four-story buildings in areas closer to existing commercial and future three-story residential, and then steps down to three-story buildings on the west side, where existing neighborhoods and future low density residential are found on the west side of Broadview Avenue.

Open Space, Parks, & Environment Goals

Goals P-3 and P-3.1 focus on providing residents with access to green and public spaces. The Proposal meets this goal by providing significant open space in close proximity to new residential housing, most notably, at the newly proposed Central, East and West Plazas.

Transportation Goals

Goals T-3.6 and T-3.10 focus on encouraging bicycle friendly policies and bicycle parking in new development standards. A bike storage room will be located within the multi-family building for use by all residents, as well as multiple bike racks throughout the site to promote bicycle transportation and recreation.

Goals T-3.4 and T-4.3 focus on creating a walkable network with sidewalk, pedestrian safety features, and increased network connectivity. An extensive new sidewalk network is being proposed throughout the Warrenton Village Center to promote walkability for residents and commercial shoppers alike. Pedestrians will have the ability to easily navigate between the residential, commercial and plaza areas with new sidewalks, crosswalks and vehicular traffic slowing measures.

Economics & Fiscal Resilience Goals

Goal E-1.2 of the Plan calls for a range of housing, with appropriate levels of density and transitions. The Proposal meets this goal by providing a variety of housing types, with height and density tapering down toward existing residential neighborhoods.

Goal E-1.5 of the Plan focuses on a diverse, equitable stable tax base. The Proposal advances this goal by providing opportunities for an increased tax base through its added housing stock.
Goal E-2.2 of the Plan promotes Warrenton’s high quality of life to attract employers to work here. The Proposal will appeal to employers wanting to offer their employees new, high quality housing options. Warrenton Village Center will provide the Town with the first new, Class A apartment community in decades.

Goal E-2.5 of the Plan calls for development of a range of housing types. The Proposal meets this goal by providing 1-, 2- and 3-bedroom multi-family apartment units, as well as 2-Over-2 and townhome dwelling units.

Goal E-3.3 of the Plan focuses on maximizing public spaces and right-of-way for outdoor gathering space. The Proposal meets this goal by adding significant publicly accessible open space to the Property, most notably, at the Central, East and West Plazas.

Land Use & Character Districts

The Plan recommends a set of ten design criteria for projects within a Character District. The proposal meets and advances all these criteria, as shown below:

1. Discernable Center

The highlight of the proposed Warrenton Village Center is the new Central Plaza. The Plaza is centrally located within the 29-acre site at the crossroads of vehicular and pedestrian circulation and positioned to benefit the new residential units and existing commercial businesses alike. The Central Plaza is proposed as approximately one-half acre and includes a spash-pad, public green, hardscapes for seating and decorative planters and flower beds. It is sized, programmed, and designed for everyday use as well as for larger community activities. Additionally, the Central Plaza is bookended by a space for future retail development that would further activate the public amenity. A new raised watertable crosswalk will provide safe pedestrian connectivity and new wayfinding will allow the entire Warrenton Village Center to easily locate and enjoy this new public space.

2. Connected sidewalks with a clear pedestrian path, street trees, and lighting

The new Warrenton Village Center will benefit from a multitude of improvements that will increase pedestrian connectivity throughout the entire site. New sidewalks will be added along the entire perimeter of all residential blocks, including direct sidewalk connectivity to all street facing, ground floor units. The extension of Hastings Lane and accompanying sidewalks will offer a new pedestrian access point from Oak Springs Drive. Multiple sidewalks will link the three new residential blocks to the new public amenities and allow maximum ease of walkability from one side of the Property to the other.

Ample street trees, landscaping and lighting will line the sidewalks along the streets and private drives, providing shade during the day and lighting during the evenings to create a pleasant and safe walking environment.

Detailed landscaping and lighting plans will be provided at Site Development Plan review. Concept plans have been included on Sheets 9 & 10 (landscape) and Sheet 22 (lighting) of the SUP.

The siting of all three blocks, the sidewalk connections leading from the residential to the retail and the consistent street wall and streetscape envisioned will allow for a familiar experience typically seen in traditional mixed-use settings.

3. Buildings that are placed close to the street to create a sense of place

All buildings have been placed along exterior streets to create desirable streetscapes and a sense of place. Majority of parking has been pulled away from streets and concealed from view within a centrally located parking garage—inclusion of the parking garage has eliminated the need for unattractive surface parking lots.

Portions of all three building types (multi-family, 2-over-2s and townhomes) have been faced inwards so that they are visible from the commercial areas to enhance the mixed-use feel of the Center.

Street-facing, ground level units in all residential buildings will have direct access from the units to the sidewalk systems installed along all public and private streets.

4. Parking placed behind buildings and away from street frontages

All parking for Block 1 will be centrally located within a four-story parking garage that has been concealed from public view within the building itself.

Block 2 and Block 3 will have interior garages (two-car garage per townhome unit and one-car garage per 2-over-2 unit), surface parking in the driveways behind all 2-over-2 garages, and visitor parking areas found within both blocks.

5. Complete streets create a balance between cars, pedestrians, and bicyclists

The street networks are designed to slow vehicular traffic, create ease of access for residents and visitors, and promote pedestrian activity.

A bike storage room will be located within the multi-family building for use by all residents, as well as multiple bike racks throughout the site to promote bicycle transportation and recreation—see Sheet 23 of the SUP.

An extensive new sidewalk network is being proposed throughout the Warrenton Village Center to promote walkability for residents and commercial shoppers alike. Pedestrians will have the ability to easily navigate between the residential, commercial and plaza areas with new sidewalks, crosswalks and vehicular traffic slowing measures.

6. Compact street blocs encourage walking

The deliberate location of the Central Plaza and reorganization of vehicular, pedestrian and bicycle traffic around it allows the center to appear as a collection of smaller blocks, providing numerous ways for residents and visitors to explore areas within the Center.

These enhancements will create smaller, more compact blocks to promote easy walkability from the new residential to the existing retail.

Further traffic calming by way of raised crosswalks/watertables at important intersections and elimination of travel ways designed for speed will encourage pedestrian use.

7. A park, trail, or activity center is within a half mile walking radius

The proposed development will link its new residents directly to the adjacent shops and businesses of Warrenton Village Center, turning the existing retail into an active pedestrian amenity. The creation of the Central Plaza, East and the West Plaza will further promote the Warrenton Village Center as a destination for not only residents of the community, but all residents of Warrenton. The location of the plazas and their use and function is directly tied to the role they are expected to play. The Central Plaza is ‘centrally’ located at the crossroads – vehicular and pedestrian to allow it to function as the neighborhood center and is sized, programmed, and

planned to allow for community activities as well as everyday use. The East and West plazas serve as passive, ceremonial transition zones between the private residential realm and the public retail realm. Their primary intent and use is to connect residents with the rest of the commercial center while also allowing for a different, less active and smaller public area for passive recreation.

8. A variety of dwelling types accommodates a wide range of family sizes and income levels and commercial activity

As the first large rental community in the area in over a decade, the proposed Warrenton Village Center will add diversity to the housing market by providing much needed market rate and affordable rental dwellings. The community will offer 1-, 2-, and 3-bedroom apartment units within Block 1, as well as unique 2-over-2 and townhome units to supply the "missing middle" in Blocks 2 and 3—all dwellings are anticipated to be for rent.

9. Neighborhood identity connects district wayfinding and identification with a larger marketing effort to bring private investment to the neighborhood

Warrenton Village Center is an existing neighborhood anchor and community shopping destination. The new Warrenton Village Center will synergistically elevate the overall development, redefining the neighborhood identity as a regional Live-Work-Play destination for both residents and visitors from the surrounding area.

The overall aesthetic of the new Warrenton Village Center brand and identity will be a contemporary design that thoughtfully incorporates Warrenton's rich history, focusing on equestrian inspired materials and textures. The sleek façade of the exterior pairs light colored brick and cementitious panels with warm stone, wood, and dark metal accents.

Signage and wayfinding will exercise these same principles to create a sense of place and affirm the character of the new development. The existing equestrian themed signage at Warrenton Village Center will be contemplated to create fresh branding and wayfinding that complements the existing infrastructure with a new modern and sleek identity.

10. The neighborhood edge provides the means of transition from the Character District to adjoining properties.

The buildings are designed to scale appropriately with the adjacent current and future uses, which are primarily commercial with some periphery residential. At four-stories, the proposed new buildings will be a step down from the six-stories allowed along Lee Highway and create an appropriate transition to the three-story residential areas allowed on the north of Oak Springs Drive.

Comprehensive Plan Future Land Use Analysis

Plan Warrenton 2040 labels this parcel in the Future Land Use Map within the New Town Character District. The New Town designation notes the district "will support the revitalization of the commercial shopping malls with a walkable development pattern that includes a mix of uses." Plan Warrenton also includes the following applicable goals:

Transportation and Circulation Goals

T-1: Improve multi-modal capacity and safety that encourages trips by walking, bicycling, and transit.

T-3 Promote livability in the Town by creating great places for residents and visitors to feel welcome and safe.

Economic and Fiscal Goals

E-1 Grow a strong, diversified, and resilient economy that supports residents and businesses a like.

E-4 Support Character Districts as unique mixed-use neighborhood centers

Standard	Analysis
Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.	The Applicant's proposal has been designed to advance the general goals of the Plan and the specific goals set forth for the New Town Character District, which is identified as "a location for signature office/jobs center; with greater intensity of mixed use and strong live, work and play options. A mix of uses cold be organized around an internal street network and public amenities, such as civic spaces, parks, green spaces and public gathering areas."
The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.	The proposed development is surrounded by a mix of commercial, education and residential: • To the north, across Oak Springs Drive, is Highland Private School, Brookside Rehab and Nursing Center and the Cedars of Warrenton town home community. • To the east, across Branch Drive, is Safeway and other commercial businesses included within Warrenton Village Center.

	• To the south is Warrenton Village Center. • To the west, across Broadview Avenue, are standalone commercial and office uses. The proposal is compatible with these uses and proposed uses and the goals of the Comprehensive Plan.

Zoning Analysis

The legislative intent of the Commercial District is to simultaneously encourage appropriate and timely land development while assuring suitable design by prohibiting uses that would create undue impacts on the surrounding residential areas.

Standard	Analysis
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.	The proposed use is a mixed-residential and retail. All non-residential uses must meet the noise standards under Article 9-14.2.
The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.	All signage shall be permitted in accordance with the Plan as shown and shall comply with any Zoning Ordinance regulations at that time.
The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.	The Applicant is seeking a minor modification to the height because it is located between Lee Highway, which allows up to six (6) stories, and Oak Springs Drive which allows up to three (3) stories. The goal of the height recommendations of Plan Warrenton 2040 is to step down towards residential zones. The proposal will achieve this goal in the Transition Zone along Oak Springs Drive. Though a fourth story is proposed by the Applicant for the apartment units, it maintains a step down in scale from the six stories permitted along Lee Highway.

	Additionally, stepping down from six stories to four stories is a more gradual approach and a better design aesthetic than the stark hierarchal contrast of a dramatic drop from six stories down to three stories. From a visual perspective along Oak Springs Drive, maintaining three stories would mean that the structures behind the residential buildings could be twice their size or more with bonus height.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	Applicant acknowledges that landscaping must meet Zoning Ordinance requirements and will be reviewed as part of the Site Development Plan.
The timing and phasing of the proposed development and the duration of the proposed use.	There is no phasing proposed.
Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.	The mixed-use development will promote the welfare of the public by reducing housing costs for renters and promoting a healthier lifestyle be encouraging outdoor activity.
Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.	No existing structures are being converted
The location, character, and size of any outdoor storage.	No outdoor storage is proposed.
The location of any major floodplain and steep slopes.	Where applicable, all paving that may interact with major floodplains or steep slopes will be done with strict compliance to the flood-proofing and related provisions contained in the Virginia Uniform Statewide Building Code and all other applicable codes and ordinances.
The location and use of any existing non-conforming uses and structures.	There are no non-conforming structures or uses on the site.
The location and type of any fuel and fuel storage.	No fuel storage areas are noted on site.

The location and use of any anticipated accessory uses and structures.	Where applicable, all accessory structure will comply with local codes and ordinances.
The area of each proposed use.	Unique housing types are proposed within each block: Block 1: Multi-Family Apartments Block 2: Multi-Family Townhomes Block 3: Multi-Family 2-over-2s and Townhomes
The location and screening of parking and loading spaces and/or areas.	The Subject Parcel shall meet all parking requirements as outlines in Article 7. Should it be desired to expand the use in any of the buildings located on the Subject Property, the new proposed use shall be required to apply for approvals that meet Zoning Ordinance and additional parking requirements.
The location and nature of any proposed security features and provisions.	Not applicable.
Any anticipated odors which may be generated by uses on site.	The site must remain in compliance with Article 9-14.5 regarding the control of odors
Refuse and service areas.	The Applicant shall maintain Warrenton Village Mixed Use Center in a clean and orderly manner and shall arrange for the pickup of trash, litter and debris on a daily basis through a private refuse collection company. Additionally, trash pickup will be scheduled through the Town of Warrenton's Public Work's & Utilities – Refuse Collection.
Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.	No significant or topographic areas are located on site.
The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality.	Except where given exceptions by the Special Use Permit, the proposal will comply with any federal, state, or local codes and ordinances regarding wildlife habitats, sensitive land or natural features, vegetation, water quality, and air quality.

The glare or light that may be generated by the proposed use in relation to uses in the immediate area.	A concept lighting plan has been provided. Fixture details/cut-sheets and new structures will be required to be provided and reviewed as part of the Site Development Plan submission.

Transportation and Circulation Analysis

The primary transportation and circulation goal for the Town of Warrenton is to "Promote livability in the Town by integrating multi-modal, interconnected transportation solutions with land use development in each mixed-use Character District and applying traffic calming techniques that foster and protect non-vehicular street activities in established residential neighborhoods." The Transportation and Circulation section of the Comprehensive Plan sets out policies and objectives that work to further this goal. The section includes recommendations addressing improvements for pedestrian use, new street connections, parking and sidewalks, trails, cost sharing, traffic calming techniques, safety, and signage.

Standard	Analysis
The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.	Mixed-use development of the property will assist in vehicular safety by reducing the amount that residents are required to drive; Additionally, no vehicles associated with the use shall obstruct the travel ways, fire lanes, adjoining road network or encroach upon landscaped areas as shown on the Special Use Permit Plan. No vehicles shall be located within site entranceways or otherwise impede ingress, egress, and internal circulation. Finally, access to the site is adequate as shown in site plan.
Whether the proposed use will facilitate orderly and safe road development and transportation.	

Community Facilities and Services Analysis

Public community facilities in the Town are provided by the Town, Fauquier County, and other public groups for the benefit of all residents. The availability and quality of these facilities, that include, schools, libraries, hospitals, parks, police and fire and rescue services, are evaluated when people are considering moving into the Town or nearby area. The provision of these facilities adds to the desirability of living in the Town. The Comprehensive Plan's primary community facilities and services goals for the Town of Warrenton are:

1. *Foster high-quality, equitable, and accessible community facilities that meet the Town's service requirements and support a high quality of life for the community.*

2. *Make responsible and strategic community facility investments that support the Town's vision for a live/work community, sustaining its fiscal well-being and economic resiliency.*

3. *Promote sustainability in all Town-owned facilities.*

4. *Reinforce the role of County community facilities into the Town fabric.*

5. *Promote livability through properly located Town services, schools, libraries, courts, and County administrative functions.*

6. *Support the connection of residential dwellings to public water and sewer.*

7. *Provide a high quality of life to capture economic benefits through diverse businesses, employers, and residences.*

Public services are essential to the community structure and quality of life, as well as to long-term economic vitality. They support existing and planned developments and contribute to the health, safety, education and general welfare of Warrenton residents.

Standard	Analysis
Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.	The Subject Parcels shall be served by public water and sewer. The Property Owner is responsible for all improvements required in order to meet the demand of the Subject Uses associated with the Property.
The location of any existing and/or proposed adequate on and off-site infrastructure.	

Economic Resources Analysis

An economic goal of Plan Warrenton 2040 is to promote a diverse, equitable stable tax base while preserving the character of the community.

Standard	Analysis
Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.	Residential use will enlarge the tax base by providing increases in property taxes and increasing the local population, allowing more money to be spent at local businesses. Additional retail space will also create new

	employment opportunities for the residents of Warrenton.
The number of employees.	No changes anticipated by applicant.
The proposed day/hours of operation.	For residential use, not applicable. For retail use, this would be subject to final decisions from the retailers.

SPECIAL USE PERMIT PROPOSED CONDITIONS
Applicant: NewCastle Development Group, LLC ("The Applicant")
Owner: Jefferson Associates LP; Warrenton Center LLC
Special Use Permit: SUP 22-5, Warrenton Village Mixed-Use Center
Address: 360 Oak Springs Drive, Center District, Town of Warrenton, Virginia 20186
GPIN #: 6984-20-7247-000; 6984-29-6753-000
Zoning: Commercial District
Special Use Permitting Area: +/- 6.46 acres; +/- 22.59 acres
Date: May 31, 2024

In approving a Special Use Permit, the Town Council may impose such conditions, safeguards, and restrictions as may be necessary to avoid, minimize or mitigate any potentially adverse or injurious effect of such special uses upon other properties in the neighborhood, and to carry out the general purpose and intent of this Ordinance. The Council may require a guarantee or bond to ensure that compliance with the imposed conditions. All required conditions shall be set out in the documentation approving the Special Use Permit (SUP).

1. Site Development – The property shall be developed in substantial conformance with these conditions and the plans titled "Special Use Permit for Warrenton Village Center, REVISION 3 – 5/31/2024", and prepared by Bohler Engineering. Minor changes and adjustments may be made to the road and street alignments, entrances, parking, dimensions and location of SWM/BMP facilities, the exact configuration and location of building footprints, and other similar features as shown on the SUP Plan, provided they meet the intent of these Conditions and are approved by the Director of Community Development or the Zoning Administrator.

2. Use Parameters

    1. Special Use Permit Area – The Special Use Permit shall apply to the entire +/- 29.05-acre property.

    2. Use Limitations – Use shall be limited to residential and retail.

3. Waivers and modifications

    1. Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.
        - Waiver Request #1: Increase density to 386 units or 13.28 per acre.
    2. Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
        - Waiver Request #2: Decrease minimum setback to 14' along Broadview Avenue.

3. Article 3-4.10.4: Required side/rear yard setbacks is 5’ minimum.
    - Waiver Request #3: Decrease side/rear yard setbacks to 0’.

4. Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25’, plus 1’ for each foot of building height over 35’. Minimum buffer width for rear boundaries of residential uses from public ROW is 25’.
    - Waiver Request #4a: Decrease buffer width between commercial and residential uses to 0’.
    - Waiver Request #4b: Decrease rear buffer width for residential uses from public ROW to 14’.

5. Article 2-20: Height limit for dwellings may be increased up to 45’ and up to three stories provided that front, side and year setbacks increase 1’ for each additional foot of building height over 35’.
    - Waiver Request #5: Increase height limit for dwellings as follows:
        - 54’ max height for Block 1, Oak Springs Drive Frontage
        - 36’ max height for Block 1, Broadview Avenue Frontage
        - 36’ max height for Block 2
        - 45’ max height for Block 3
6. Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
    - Waiver Request #6: Increase maximum grouping of townhouse units from six to seven.

4. Architecture – The final design of the buildings to be constructed shall generally conform to the elevations and materials included with the Special Use Permit application (hereinafter, the "Elevations"). The Elevations may be subject to minor modification approved by the Zoning Administrator in connection with Site Development Plan review. Additional changes to the design and materials may be made provided that any such changes are approved by the Town prior to the issuance of a building permit. Such approval shall be based on a determination that the changes result in equal to or better than the quality shown on the Elevations.

5. Materials – the following materials will be prohibited from use:

    1. Vinyl siding
    2. EIFS
    3. Corrugated metal siding
    4. Plastic panels

6. Garage Screening – the structured parking garage in Block 1 will include a mesh or fabric screening on its south facing façade.

7. Green Building Design -- all residential buildings will be designed and certified to a National Green Building Standard (NGBS), Level Bronze, or higher. If NGBS is not available for this project, an equivalent certification from an alternative third-party green building rating system will be acceptable.

8. Electric Vehicle Charging Stations – a minimum of 2% of the total spaces included within the Block 1 parking garage will include electric charging stations for tenant use.

9. Affordable Dwelling Units

    1. The Applicant shall provide the following minimum number of Affordable Dwelling Units (ADUs):

        - 10% of total dwelling units within each of the three blocks (Block 1, Block 2 and Block 3) will be reserved as 80% AMI ADUs;

        - Ten (10) additional dwelling units in Block 1 will be reserved as 70% AMI ADUs;

        - Five (5) additional dwelling units in Block 1 will be reserved as 60% AMI ADUs

    2. The Applicant shall maintain the ADU program on all rental units for a period of twenty-five (25) years from the issuance of the Special Use Permit (the "Affordability Period").

    3. Within Block 1, allocation of the ADUs between 1-, 2- and 3-bedroom units will be at the discretion of the Applicant, so long as the minimum number of units defined above are maintained as ADUs. Within Block 2 and Block 3, wherein all units are 3-bedrooms, all ADUs will be 3-bedrooms. The ADUs shall be similar to the market rate units in architectural design, fixture/appliance selections and unit size. No more than three ADU units will be positioned adjacent to one another at any given time.

    4. "Qualified Parties" and "Rent Limits" for ADUs, are defined as:

        - For the purposes of qualifying for the lease of an affordable rental ADU a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 60%, 70%, or 80% (dependent on the specific ADU) of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for Fauquier County as published by the Virginia Housing & Development Authority (VHDA), at the time the rental application is opened for such Qualified Party ("AMI").

        - For the purposes of determining the Rent Limits for all ADUs, monthly rental rate limits shall be equal to those published by

VHDA for 0-, 1-, 2-, and 3-bedroom units and corresponding 60%, 70% and 80% AMIs, with no utility allowances.

- For the purposes of qualifying for the purchase of an ADU in Block 2 or Block 3, a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 80% of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for a 4-person household in Fauquier County as published by VHDA, at the time the purchase contract is executed for such Qualified Party.

- For purposes of determining the purchase price of any for-sale ADU, that price will not exceed the amount at which the monthly mortgage payment for such unit exceeds the monthly rent limits for 3-bedroom units and 80% AMI income, as published by VHDA. Qualifying Parties must provide a market rate loan commitment prior to closing in order to calculate the proposed mortgage payment.

5. The ADU status shall be set forth in a deed of restrictive covenants recorded against the Property and shall continue to bind the minimum ADU requirement within each block to the Property for a period of twenty-five years from the issuance of this Special Use Permit; provided, however, that for rental units, the Applicant may recalculate the rental rates for new leases or renewals in accordance with the then current rates published by VHDA.

6. The Applicant shall establish in a deed of restrictive covenants a program for the administration of this ADU program according to the requirements of these conditions. The Applicant (or Owners Associations with respect to any purchase units if the Applicant is no longer the Declarant) shall make each ADU available for a period of not less than 90 days for rental units and 180 days for purchase units, following the issuance of a certificate of occupancy for each unit.

7. The Applicant shall designate on the Construction Drawings submitted for building permit approval which units will be the initial ADUs; however, the units that are selected as the initial rental ADU units are not required to remain as the designated rental ADUs for the entirety of the Affordability Period. The Applicant will have the authority to re-designated the rental ADUs from time to time based on leases and vacancies. The Applicant will maintain a building plan set at the leasing office located in the Block 1 at all times that shows which units are currently designated as rental ADUs.

8. The documents creating the ADU program shall be reviewed and approved by the Town Attorney prior to their recordation in the Land Records.

9. ADUs will first be made available to the following persons:

    - Those residing or working in the Town of Warrenton or Fauquier County
    - Town of Warrenton or Fauquier County teachers
    - Town of Warrenton or Fauquier County first responders
    - Veterans and enlisted members of the United States Armed Forces

    The Applicant shall contact the appropriate local Social Service and/or Housing Authority offices for identification and placement of local residents.

10. The community's Property Management Team shall make annual reports to the Zoning Administrator as to the number, type and location of units hereunder that shall have been rented as ADUs and shall verify that they have been rented to Qualified Parties.

10. Block Sequencing and Required Site Improvements

1. The Applicant can develop the three blocks included within the Site Development in any order.

2. To ensure that site improvements are completed in a timely manner along with the residential buildings, Applicant agrees that the Town of Warrenton will withhold Certificates of Occupancy (COs) in accordance with the following schedule:

    - Block 1: the 215th CO within Block 1 will not be issued until such time as all Block 1 site improvements have been substantially completed;

    - Block 2: the 19th CO within Block 2 will not be issued until such time as all Block 2 site improvements have been substantially completed;

    - Block 3: the 33rd CO within Block 3 will not be issued until such time as all Block 3 site improvements have been substantially completed.

3. Site improvements allocated to each individual block are shown in SUP Sheets 4 & 5 and generally include the following:

- Block 1:
  - Multi-family building and parking garage
  - Central Plaza
  - West Plaza
  - East Plaza
  - Hastings Lane extension
  - Reconfiguration of commercial parking
  - Modified Alley, all improvements
  - Dog park and picnic area
  - Preservation and reconditioning of Oak Spring (natural spring)
  - Sidewalks included in Block 1 Improvements – Sheet 4 of SUP
  - Two crosswalks across Oaks Springs Drive at Hastings Lane and Highland School entrance

- Block 2:
  - Townhome dwelling units and parking
  - Sidewalks included in Block 2 Improvements – Sheet 5 of SUP

- Block 3:
  - 2-over-2 dwelling units and parking
  - Townhome dwelling units and parking
  - Sidewalks included in Block 3 Improvements – Sheet 5 of SUP
  - New sidewalk section on east side of Broadview Ave (behind Galaxy Strike Bowling Center building)

11. Site Surface – All outdoor areas used for shared open spaces, amenities, facilities, parking, storage, loading, display and driveways shall be constructed and maintained in good repair, free of cracks or damage to the surface.

12. Traffic

    1. Access - Access to the site shall be provided as shown on the SUP Plan, subject to changes as may be approved through at Site Development Plan review.

    2. Loading/Unloading – All loading and unloading of vehicles shall take place on the Subject Property during regular hours of operation and outside of peak travel hours, to the greatest extent possible, in the Loading Area depicted on the Special Use Permit Plan.

    3. Obstruction of Travel Ways – No vehicles associated with the use shall obstruct the travel ways, fire lanes, adjoining road network or encroach

upon landscaped areas as shown on the Special Use Permit Plan. No vehicles shall be located within site entranceways or otherwise impede ingress, egress, and internal circulation.

13. Parking – The Subject Parcel shall meet all parking requirements as outlined in Article 7. Should it be desired to expand the use in any of the buildings located on the Subject Property, the new proposed use shall be required to apply for approvals that meet Zoning Ordinance and additional parking requirements.

14. Sidewalks

    1. The Applicant shall install sidewalks as shown on the SUP Plan.

    2. All sidewalks will be a minimum of 5’.

    3. The Applicant will install a new section of sidewalk along the east side of Winchester Street, between Lee Highway and Broadview Avenue (behind the Galaxy Strike Bowling Center building) as part of Block 3 improvements.

15. Oak Springs Drive Crosswalk(s) – new crosswalks will be installed on Oak Springs Drive at Hasting Lane and at the entrance to Highland School as part of Block 1 improvements. Inclusion of these crosswalks will be contingent upon and subject to Town of Warrenton and VDOT approvals as Site Development Plan.

16. Refuse Storage Area – Any refuse storage areas shall be screened with a solid enclosure constructed of materials that are compatible with the buildings on the property.

17. Site Maintenance – The Owner shall maintain the site in a clean and orderly manner and shall pick up trash, litter and debris on a daily basis.

18. Landscaping – The Owner shall be responsible for the maintenance and replacement of all plantings on site. Any diseased or dead landscaping shall be replaced within one season of dormancy.

19. Stormwater Management – The site is to be planned and designed as a redeveloped site under the State's Runoff Reduction requirements for Stormwater Management (SWM) and in compliance with the Town of Warrenton's SWM Ordinance at time of construction.

20. Water and Sewer – The Subject Parcels shall be served by public water and sewer. The Property Owner is responsible for all improvements required in order to meet the demand of the Subject Uses associated with the Property.

21. Emergency Services

    1. All future Site Development Plans shall illustrate adequate access to the site for Emergency Service vehicles, subject to approval by the Planning Director or Zoning Administrator. Nothing shall be placed or constructed on the site that would prohibit or restrict Emergency Service vehicles from mounting curbs or accessing structures. There shall be no parking of any vehicles in the travel ways.

    2. Fire hydrants shall be installed in locations acceptable to the Town of Warrenton.

    3. Buildings shall have supra boxes installed on them with a fire alarm panel inside the front and rear entrances of the structures.

22. Signs – All signage shall be permitted in accordance with the Plan as shown and shall comply with any Zoning Ordinance regulations at that time.

23. Lighting

    1. All outdoor lighting shall be in conformance with the Zoning Ordinance.

    2. The Applicant shall prepare and submit a photometric plan in connection with Site Development Plan review.

    3. All site lighting, to include both new fixtures within the new development areas as well as any non-residential area that is modified as a part of site development, must consist of fully-shielded, full cut-off fixtures to meet the requirements of Article 9, Section 9-8.

    4. Color temperature of exterior light fixtures will be 3,000 degrees kelvin or lower.

    5. Average horizontal illumination level of exterior light fixtures will be 3.0 footcandles or less.

24. Open Space – each residential block/parcel and the residual retail parcel will individually meet the 10% open space requirement. The Applicant will construct and maintain all open spaces in general conformance with the improvements noted and shown in Sheet 6 of the SUP – “Open Space Plan.”

25. Modified Alley – The Applicant will build and maintain the Modified Alley in general conformance with the improvements shown in this area on the Plan.

26. 3-Bedroom Unit Maximum – A maximum of 10% of the units located in Block 1 will be 3-bedroom units.

27. Condo Sale of Block 2 and Block 3 – Applicant will maintain the ability to sell the entirety of Block 2 (Multi-Family Townhomes) and/or the entirety of Block 3 (Multi-Family 2-Over-2 and Townhomes) as Condos. The Applicant agrees to sell all or none of the units within Block 2 or Block 3, so as to prohibit a mix of for rent and for sale units in the same block.

    All conditions of the SUP will continue to be enforced in a block sale scenario through the Declarations of Restrictive Covenants that the Applicant will record and encumber the Block 2 and/or Block 3 parcels. In a block sale scenario, Homeowner Associations will be established to maintain all conditions of the SUP and will own the block parcel, while individual condo owners will own the condo dwelling units.

    In a sale scenario, residents/owners of the condos will not be tenants of the apartment community and will not have access to the rental amenities located within Block 1.

    In a block sale scenario, 10% of the units within the sold block will be required to be sold as ADUs, in accordance with the language outlined in Section 9 – Affordable Dwelling Units of this Conditions of Approval.

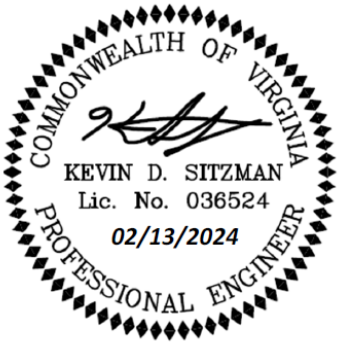
28. Block 1 Amenities – All amenities located within Block 1 will be available for use by tenants of residential rental units owned by the Owner in all three blocks (Block 1, 2 and 3). If residential units within Block 2 and/or Block 3 are sold by the Owner in a condo sale, the fee simple owners of the residential condos will not have access to the Block 1 amenities.

Traffic Impact Analysis

Warrenton Village Center

Town of Warrenton, Virginia

June 30, 2023
Revised February 13, 2024



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Executive Summary

This report presents the findings of a Traffic Impact Analysis (TIA) conducted for the proposed Warrenton Village Center development (the Site / the Development / the Property) situated in the Town of Warrenton, Virginia.

This study was developed in accordance with the Virginia Department of Transportation (VDOT) and the Town of Warrenton (the Town) transportation impact analysis guidelines. The document was prepared in accordance with best professional practices and standards that assess the impact of a proposed development on the transportation system. Traffic operational analyses, as presented in this TIA, involve the evaluation of anticipated roadway conditions with and without the proposed development. The analysis assists public officials and developers to balance the interrelations between efficient traffic movements with necessary lane access. This revised TIA is based on review comments provided by VDOT and the Town.

Site Location and Study Area

The proposed development will be located primarily along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia. The vehicular study area includes ten existing intersections along Broadview Avenue, Lee Highway, Branch Drive, and Oak Springs Drive.

Description of Proposed Development

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

This report analyzes the trips generated by the Warrenton Village Center Development and its impact on traffic operations on the surrounding road network.

Principal Findings and Conclusions

Discussions regarding the study assumptions and relevant background information were held with VDOT, County, and Town staff during January 2023. The scope details the study assumptions and relevant background information discussed. A copy of the scoping document is included in Appendix A.

The analysis contained herein presents the 2023 Existing Conditions, 2027 Future Conditions without Development, and 2027 Future Conditions with Development:

The analysis presented in this report supports the following assumptions and major findings:

Analysis Components

- 2023 existing volumes were derived via turning movement counts collected at intersections within the study area in February 2023.
- As determined based on review comments from VDOT and the Town, an inherent regional growth of 1.0% per year was applied to the Lee Highway mainline through movements at the intersection of Lee Highway at Broadview Avenue (US

Route 17 Business). The growth volumes were balanced along the road network by increasing the mainline through movements at subsequent study intersections along the road network where applicable for the period between 2023 and 2027 to account for 2027 conditions.

- The trip generation associated with the Site was based on the ITE Trip Generation Manual, 11th Edition publication. The Site in total is expected to generate approximately 154 new trips during the AM peak hour, 197 new trips during the PM peak hour, and 2,602 new daily trips on a typical weekday.
- Intersection capacity and queuing analyses were performed for all analysis scenarios at the study area intersections during the weekday morning (AM) and weekday afternoon (PM) peak hours. *Synchro*, version 11, was used to analyze the study intersections with results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) methodology and analysis guidelines provided in VDOT's Traffic Operations and Safety Analysis Manual (TOSAM) (version 2). The analysis herein includes level of service (LOS), delay, and queue length comparisons for the turning movements analyzed.
- The analysis also considers an assessment of historical crash data at all existing study intersections.
- The analysis also includes preliminary access management assessment and turn lane warrant assessments for the Site access points along Oak Springs Drive.

Analysis Results

2023 Existing Conditions

- Based on the capacity analysis of Existing Conditions, the two signalized study intersections operate at an overall level of service D or better during both the AM and PM peak hours.
- Based on the capacity analysis of Existing Conditions, three study intersections have at least one approach that operates at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that can be accommodated within the available storage length of the turn bays, except the southbound left turn movement at Study Intersection 1 (Broadview Avenue / Lee Highway at Winchester Street).

2027 Future Conditions without Development

- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B or better with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of 2027 Future Conditions without Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

2027 Future Conditions with Development

- The Site is expected to generate approximately 154 new total trips during the AM peak hour, 197 new trips during the PM peak hour and 2,602 new trips during a typical weekday.

- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of the 2027 Future Conditions with Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour (similar to 2027 Future Conditions without Development) during the AM and PM peak hours. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the queuing analysis performed for the 2027 Future Conditions with Development, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

Overall Conclusion

Based on the capacity and queueing analysis results, the proposed Development will not have a substantial impact to the surrounding transportation and roadway network, assuming that the site is constructed as depicted on the concept plan. No improvements are warranted or recommend to accommodate the proposed Development.

Introduction

This report presents the findings of a Traffic Impact Analysis (TIA) conducted for the proposed Warrenton Village Center (the Site / the Development / the Property) along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

The following tasks were completed as part of this study effort:

- A scoping meeting was held on January 3, 2023 with the Virginia Department of Transportation (VDOT), Fauquier County (the County), and the Town of Warrenton (Town) staff to discuss the parameters of this study as well as any relevant background information. A copy of the scoping document is included in Appendix A.
- Review comments of the first TIA submission were provided and addressed in this study submission.
- Existing conditions were observed in the field to verify roadway geometry, pedestrian and bicycle infrastructure, and traffic flow characteristics.
- Signal timings were acquired from VDOT and are provided in Appendix E.
- In order to determine the weekday morning and afternoon peak hour turning movement traffic volumes, traffic counts were conducted in February 2023.
- The 2027 Future Conditions without Development scenario was projected based on the existing traffic volumes, an inherent growth to account for regional growth on the roadway network, two approved background developments, and roadway improvements.
- Proposed site traffic volumes were derived based on the methodology outlined in ITE's Trip Generation Manual, 11th Edition, publication and were assigned to the road network based on the agreed-upon direction of approach discussed during the aforementioned scoping meeting.
- The 2027 Future Conditions with Development scenario was projected based on the existing traffic volumes, regional growth, and the projected trips generated by the proposed development.
- Intersection capacity and queueing analyses were performed for the identified study intersections for the 2023 Existing Conditions, 2027 Future Conditions without Development, and 2027 Future Conditions with Development scenarios during the weekday morning (AM), and weekday afternoon (PM) peak hours.
- Intersection capacity and queuing analyses were performed using *Synchro*, version 11, with LOS and delay results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) 6 methodology and in following VDOT's Traffic Operations and Safety Manual (TOSAM) (version 2).
- The analysis also considers an assessment of historical crash data at all study intersections.

- The analysis also includes preliminary access management assessment and turn lane warrant assessments for the Site access points along Oak Springs Drive.
- The study also includes preliminary discussions on the pedestrian facilities in the study area.

Sources of data for this study include the Institute of Transportation Engineers (ITE), VDOT, the County, the Town and the office files and field reconnaissance efforts of Gorove Slade.

Background Information: Proposed Development (Site & Nearby)

Description of the Existing Site

Site Location

The proposed Development will be located primarily along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia. A description of the proposed Development is provided in the *Introduction* section of this report.

Location within Jurisdiction and Region

The Site is located generally on the northern portion of Warrenton approximately 0.5 miles from the north Town line an approximately 1 mile west of the US 17 and US 29 Business interchange. A regional aerial of the Site is provided in **Figure 1.**

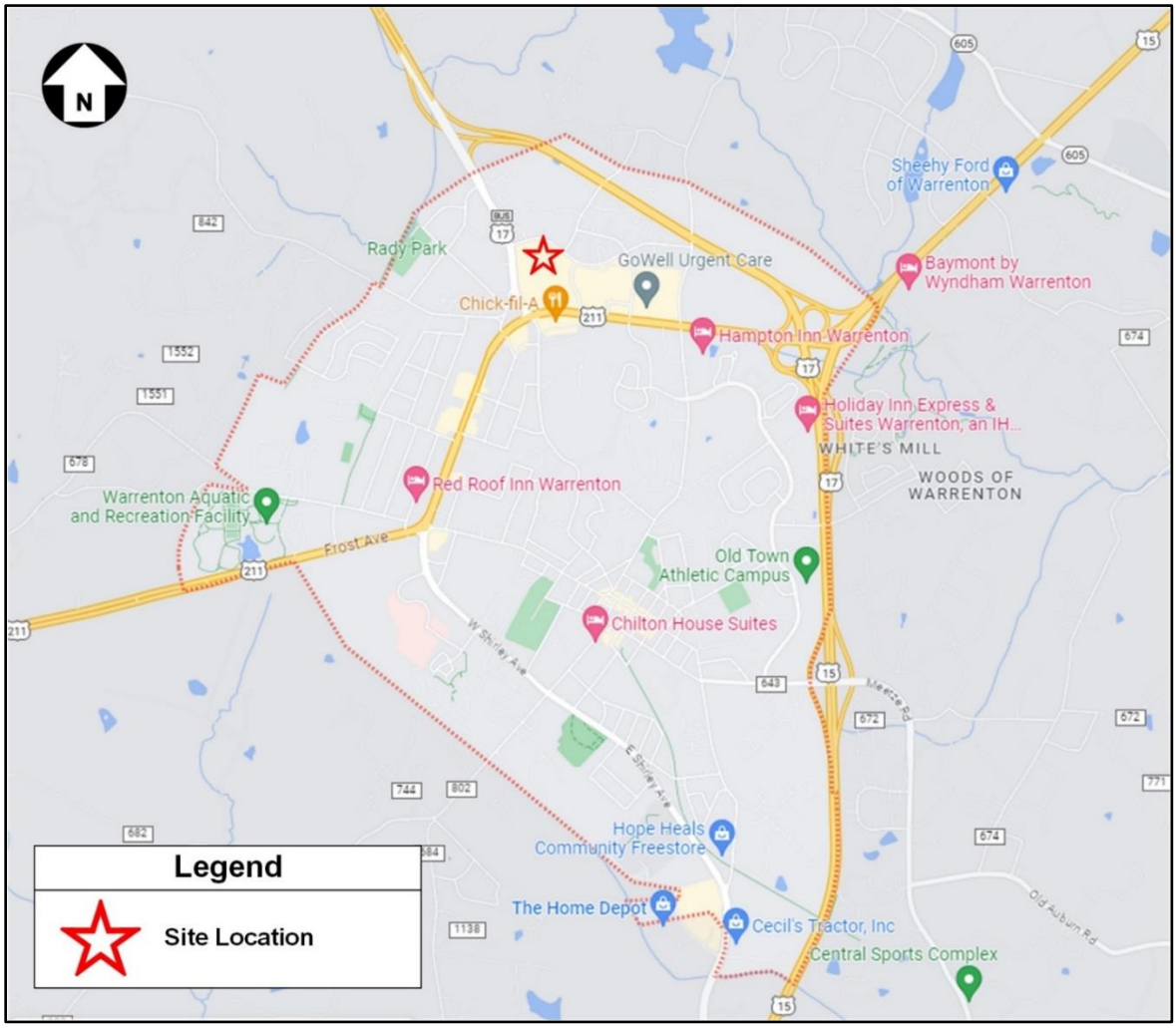

Figure 1: Regional Location

Description of the Parcel

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000 as illustrated in **Figure 2.**

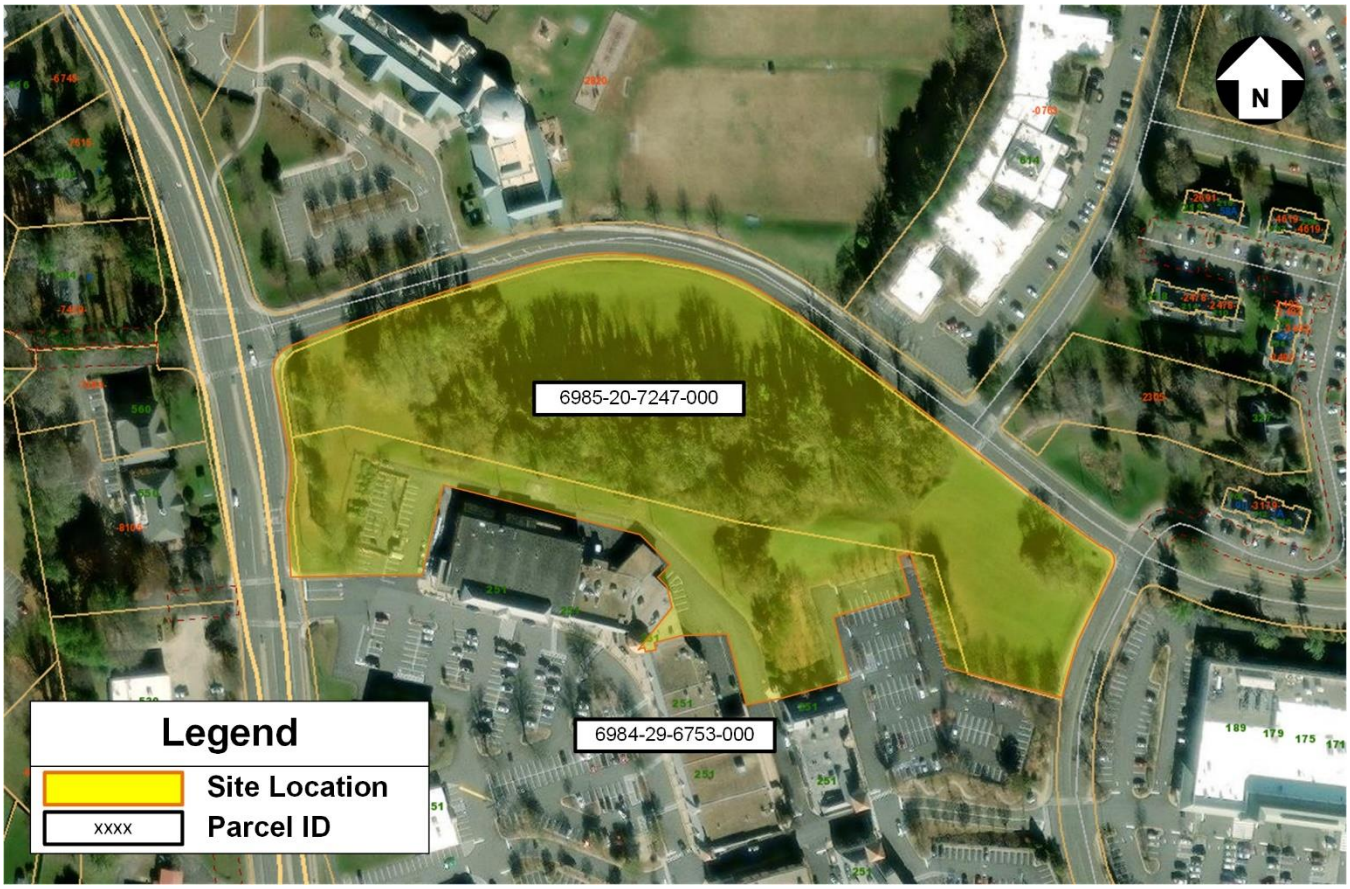

Figure 2: Parcel Map
(Source: https://fauquiergis.maps.arcgis.com/**)**

Existing Zoning and Future Land-Use

The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The existing zoning is presented in Error! Reference source not found.; the Town of Warrenton 2040 Comp Plan future land use is presented in **Figure 4**.

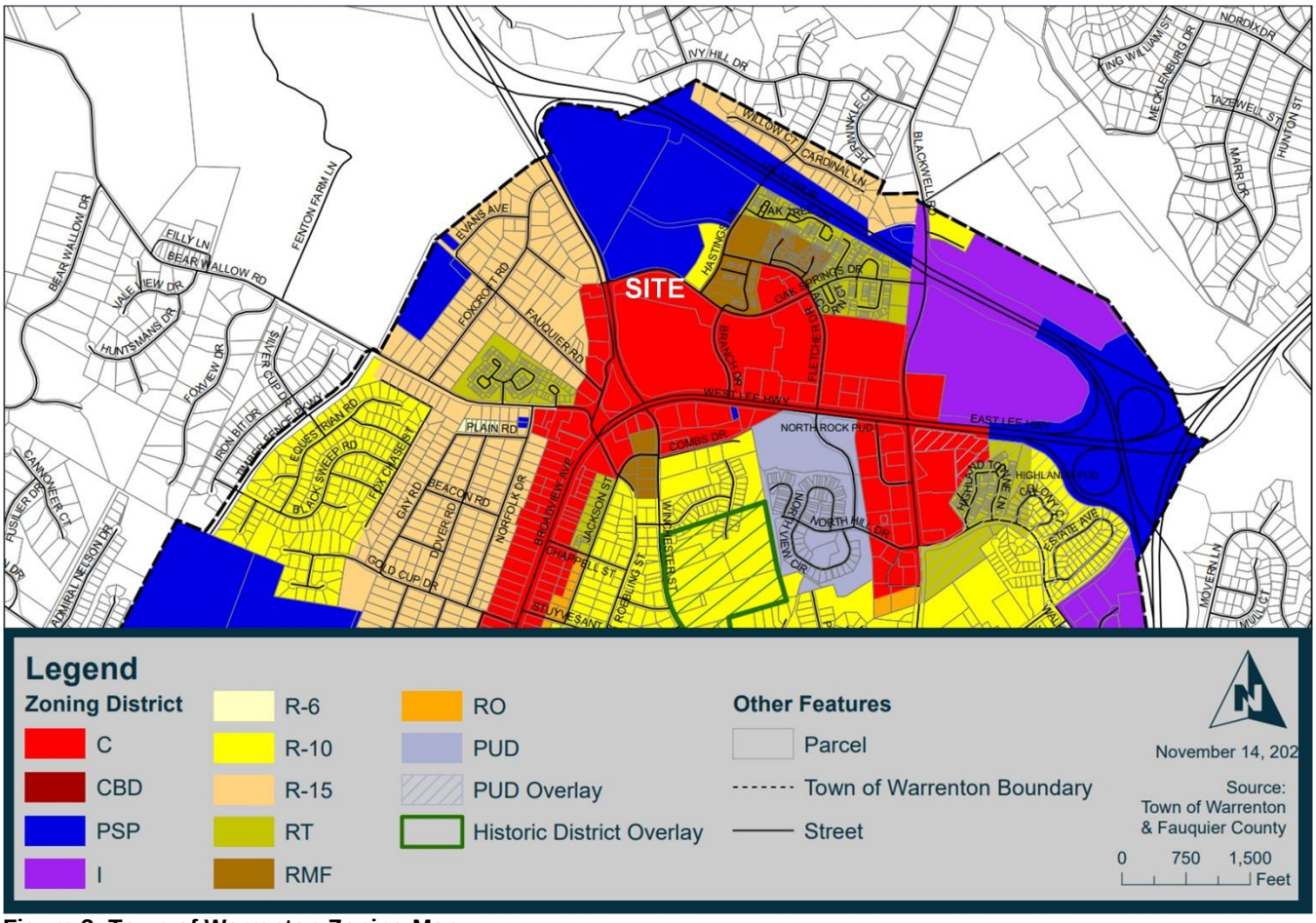

Figure 3: Town of Warrenton Zoning Map

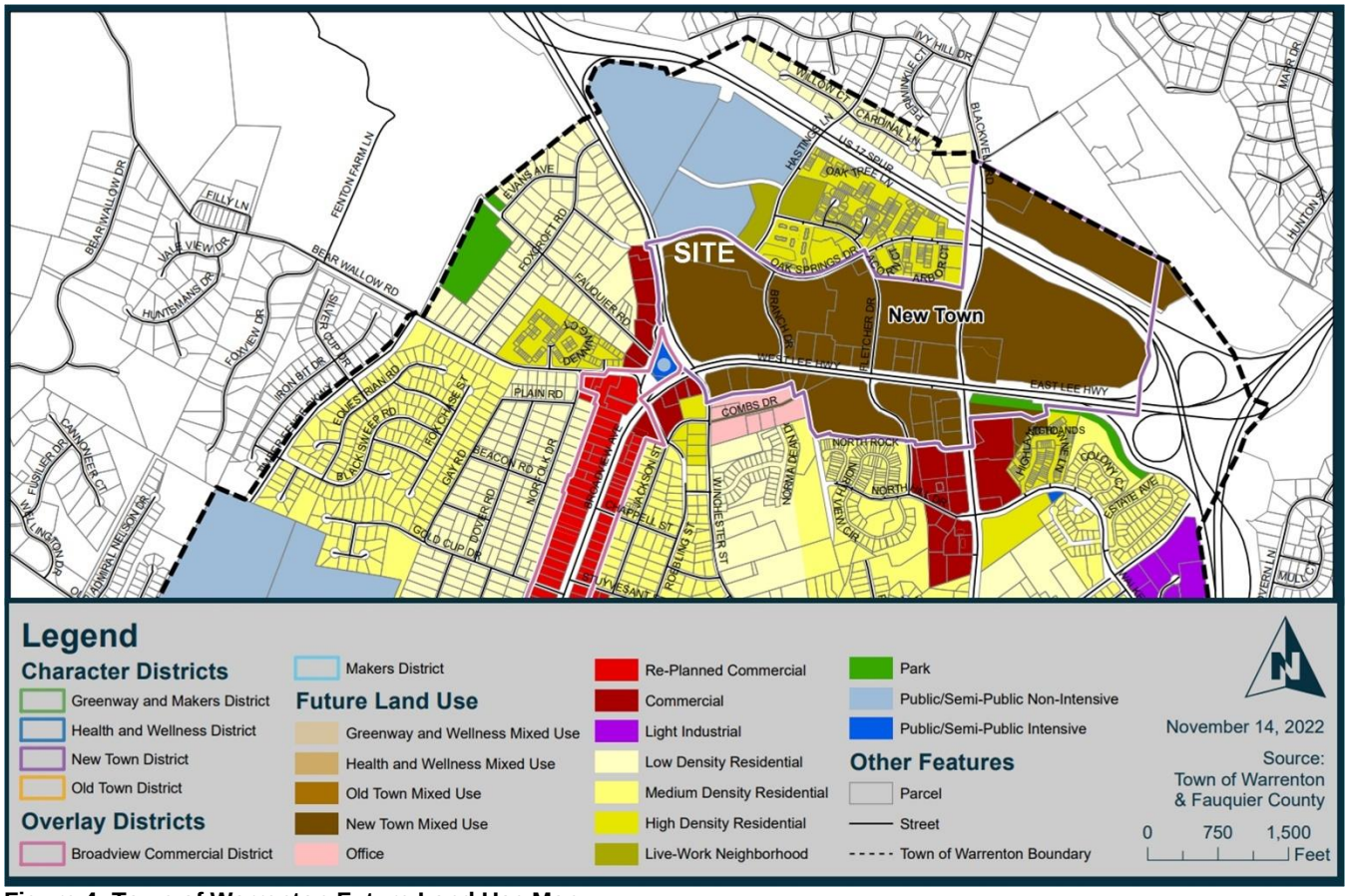

Figure 4: Town of Warrenton Future Land Use Map

Descriptions of Geographic Scope of Study and Limits of the Study Area

The geographic scope of the study area was developed in accordance with VDOT and County guidance. The vehicular study area includes ten existing study intersections. At build out of the Site, the proposed site driveways will form the fourth leg of two existing intersections.

The existing study intersections are as follows:

Intersection 1: Broadview Avenue (US Route 17) / Lee Highway at Broadview Avenue / Winchester Street [existing full-movement, signalized],

Intersection 2: Lee Highway (US Route 17) at Warrenton Village Center Driveway at Chick-fil-a Driveway [existing full-movement, unsignalized],

Intersection 3: Lee Highway (US Route 17) at Branch Drive (Town Route 4) [existing full-movement, signalized],

Intersection 4: Branch Drive (Town Route 4) at Warrenton Village Driveway / Safeway Driveway [existing full-movement, unsignalized],

Intersection 5: Oak Springs Drive (Town Route 3) at Branch Drive (Town Route 4) / Cedar Crest Drive [existing full-movement, unsignalized],

Intersection 6: Oak Springs Drive (Town Route 3) at Hastings Lane / Future Access [existing full-movement, unsignalized, future fourth leg],

Intersection 7: Oak Springs Drive (Town Route 3) at Highland School Driveway / Future Garage Access [existing full-movement, unsignalized, future fourth leg],

Intersection 8: Broadview Avenue (US Route 17 Business) at Oak Springs Drive (Town Route 3) [existing full-movement, unsignalized],

Intersection 9: Broadview Avenue (US Route 17 Business) at Warrenton Village Center South Driveway [existing full-movement, unsignalized],

Intersection 10: Broadview Avenue (US Route 17 Business) at Warrenton Village Center North Driveway [existing full-movement, unsignalized].

An aerial of the study intersections is provided in **Figure 5.**



Figure 5: Aerial of Study Boundaries (Study Intersections)

Existing Roadway Network

A description of the major roadways within the immediate vicinity of the Site is presented below in Error! Reference source not found..

Table 1: Summary of Existing Road Network

Roadway	RTE #	VDOT Classification	Legal/Design Speed Limit (mph)	Lanes	AADT (vpd)	Road Segment Between:		k-factor
Broadview Avenue	US 17 Bus	Other Principal Arterial	35	4 Div	11,000	Bus US 29 Lee Hwy	NCL Warrenton	9.7%
Oak Springs Drive	Town 3	Major Collector	25	2 Undiv	3,100	Broadview Ave	Branch Dr	10.3%
Branch Drive	Town 4	Major Collector	25	4 Undiv	4,300	Lee Highway	Oak Springs Drive	11.1%
Lee Highway	US 211/29 Bus	Other Principal Arterial	40	4 Div	26,000	US 17 Broadview	US 15 Blackwell	7.7%

Lee Highway (US Route 211/US Route 29 Business) is generally a four-lane divided Principal Arterial with a posted speed limit of 40 mph within the vicinity of the Site. The 2021 VDOT ADT on Lee Highway is 26,000 vehicles per day (vpd). For the purposes of this analysis, Lee Highway is assumed to be an east-west roadway.

Broadview Avenue (US 17 Business) is a four-lane divided Principal Arterial with a posted speed limit of 35 mph and a 2021 VDOT ADT of approximately 11,000 vpd. For the purposes of this study, Broadview Avenue is assumed to be a north-south roadway.

Branch Drive (Town Route 4) is a four-lane, undivided Major Collector with a posted speed limit of 25 mph and a 2021 VDOT ADT of approximately 4,300 vpd. For the purposes of this study, Branch Drive is assumed to be a north-south roadway.

Oak Springs Drive (Town Route 3) is a two-lane, undivided Major Collector with a posted speed limit of 25 mph and a 2021 VDOT ADT of approximately 3,100 vpd. For the purposes of this study, Oak Springs Drive is assumed to be an east-west roadway.

Analysis of 2023 Existing Conditions

Existing Roadway Safety Assessment

As agreed upon in the aforementioned scoping meeting, existing crash reports for all existing study intersections over a five-year period between May 2018 and May 2023 were provided by VDOT's Crash Analysis Tool. These reports are summarized in **Table 2** and **Table 3**.

During the five-year period, a total of 88 crashes were recorded at the ten existing study intersections as illustrated in Error! Reference source not found.. Of the 88 recorded crashes, 58 were classified as "Property Damage Only (PDO)," 30 were classified as "Injury Collision (IC), and zero fatalities occurred during the five-year period.

An aerial of the recorded crash locations is provided in **Figure 6**. The crash data by study intersection is provided in Appendix B.

The intersection crash rate was computed for the existing study intersections using the following formula and was calculated as crashes per one million entering vehicles (MEV). The approach average daily traffic volumes ($ADT_{approach}$) were derived from calculations based on the existing link ADTs.

$$Rate_{intersection} = \frac{1{,}000{,}000 * \#\ of\ Crashes}{\#\ of\ Years * 365\ \left(\frac{days}{year}\right) * ADT_{approach}}$$

It should be noted that according to the Institute of Transportation Engineers' (ITE) Transportation Impact Analysis for Site Development, a crash rate of 1.0 MEV or higher is an indication that further study may be required. A rate over 1.0 MEV does not necessarily mean there is a significant problem at an intersection, but rather it is a threshold used to identify which intersections may have an elevated crash rate due to operational, geometric, or other deficiencies. Based on the crash rates, none of the existing study intersections were considered high crash locations.

The following tables provide detailed reported crash data for all study intersections.

Table 2: Historical Crash Data Summary (May 2018 – May 2023)

	Intersection	Approximate ADT	PDO	IC	Fatality	Total	Crash Rate (Per MEV)
1	Lee Highway (US 211/US 29 BUS) at Broadview Avenue	29,125	28	12	0	40	0.75
2	Lee Highway (US 211/US 29 BUS) at Warrenton Village /	21,375	3	2	0	5	0.13
3	Lee Highway (US 211/US 29 BUS) at Branch Drive	23035	14	5	0	19	0.45
4	Branch Drive at Warrenton Village / Safeway	4485	1	1	0	2	0.24
5	Branch Drive at Oak Springs Drive	4000	2	0	0	2	0.27
6	Oak Springs Drive at Hastings Lane	No Crashes	0	0	0	0	0.00
7	Oak Springs Drive at Highland School Entrance	No Crashes	0	0	0	0	0.00
8	Broadview Avenue at Oak Springs Drive	12010	2	1	0	3	0.14
9	Broadview Avenue at Warrenton Village North	10425	2	2	0	4	0.21
10	Broadview Avenue at Warrenton Village South	13165	6	7	0	13	0.54
Total Reported Crashes Analyzed			**58**	**30**	**0**	**88**	-
Percentages			**65.9%**	**34.1%**	**0.0%**	**100.0%**	-

Based on the crash rates, none of the existing study intersections were considered high crash locations, however, Study Intersections 1 and 10 are on the Culpepper District top 100 PSI list. A pipeline study has been conducted and these locations have been identified for construction of roundabouts.

Table 3: VDOT Crash Data Summary by Type of Collision (May 2018 – May 2023)

	Intersection	Fixed Object/Single Vehicle	Head-on	Sideswipe (Same Direction)	Sideswipe (Opposite Direction)	Rear End	Angle	Backing	Pedestrian	Animal	Other	Total
1	Lee Highway (US 211/US 29 BUS) at Broadview Avenue	0	0	3	0	24	11	0	0	0	2	40
2	Lee Highway (US 211/29 BUS) at Warrenton Village /	2	0	0	0	1	2	0	0	0	0	5
3	Lee Highway (US 211/29 BUS) at Branch Drive	1	0	1	1	6	8	1	0	0	1	19
4	Branch Drive at Warrenton Village / Safeway	0	0	0	0	0	2	0	0	0	0	2
5	Branch Drive at Oak Springs Drive	0	0	0	0	0	2	0	0	0	0	2
6	Oak Springs Drive at Hastings Lane	0	0	0	0	0	0	0	0	0	0	0
7	Oak Springs Drive at Highland School Entrance	0	0	0	0	0	0	0	0	0	0	0
8	Broadview Avenue at Oak Springs Drive	0	0	0	0	0	3	0	0	0	0	3
9	Broadview Avenue at Warrenton Village North	0	0	0	0	0	3	0	0	1	0	4
10	Broadview Avenue at Warrenton Village South	0	3	1	0	1	7	0	0	0	1	13
Total Reported Crashes Analyzed		**3**	**3**	**5**	**1**	**32**	**38**	**1**	**0**	**1**	**4**	**88**
Percentages		**3.4%**	**3.4%**	**5.7%**	**1.1%**	**36.4%**	**43.2%**	**1.1%**	**0.0%**	**1.1%**	**4.5%**	**100.0%**

Approximately 43% of the crashes that occurred were classified as angle collisions and approximately 36% were classified as rear end collisions. Rear end and angle collisions are common at congested signalized intersections. Study Intersection 1 has been identified as a location for a potential roundabout.

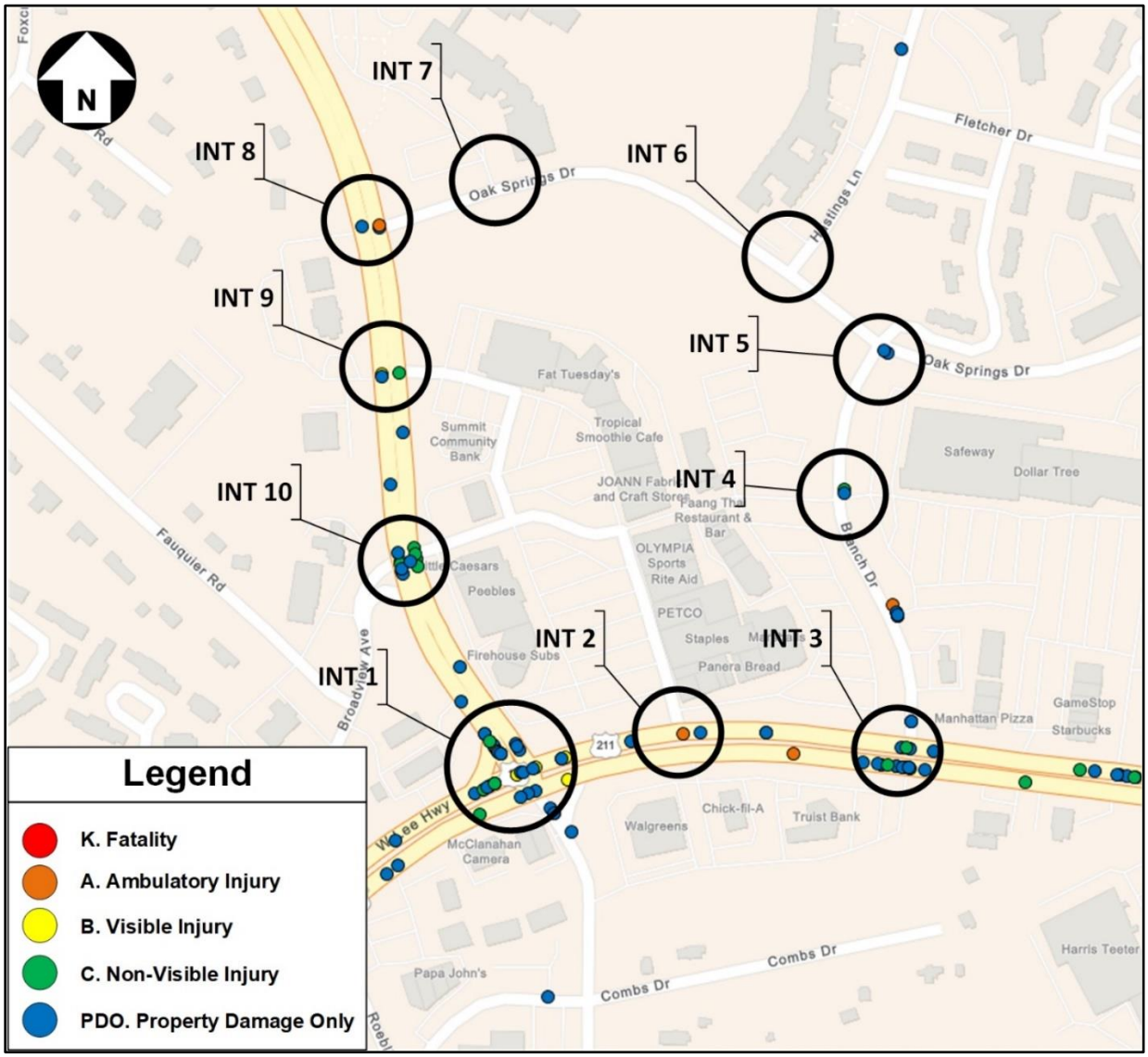

Figure 6: Recorded Crash Location Map

2023 Existing Traffic Volumes

In order to determine the weekday morning (AM) and weekday afternoon (PM) peak hour turning movement traffic volumes, turning movement counts (TMC) were collected at the study intersections in February 2023. The referenced weekday turning movement counts were collected from the hours of 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM:

- Study Intersection 1: Lee Highway (US 211/US 29 BUS) at Broadview Avenue (US 17 BUS)
- Study Intersection 2: Lee Highway (US 211/US 29 BUS) at Warrenton Village / Chick-fil-a Driveway
- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 4: Branch Drive at Warrenton Village / Safeway
- Study Intersection 5: Branch Drive at Oak Springs Drive
- Study Intersection 6: Oak Springs Drive at Hastings Lane
- Study Intersection 7: Oak Springs Drive at Highland School Entrance
- Study Intersection 8: Broadview Avenue at Oak Springs Drive
- Study Intersection 9: Broadview Avenue at Warrenton Village North
- Study Intersection 10: Broadview Avenue at Warrenton Village South

- From the turning movement counts, the following system peak hours were determined.
  - AM Peak Hour: 7:30 AM to 8:30 AM
  - PM Peak Hour: 4:00 PM to 5:00 PM

The 2023 existing road network configuration is presented in **Figure 7**. The existing AM and PM peak hour traffic volumes for the existing study intersections are shown in **Figure 8**. The ADT volumes, depicted in **Figure 8** and in subsequent volume graphics, were calculated based on VDOT published k-factors from 2021, if available, or assumed k-factors per approach of 0.10 and the PM peak hour volumes. The raw existing traffic count data is provided in Appendix C.

In addition to turning movement volumes, pedestrians crossing data was collected at all study intersections. The peak hour pedestrian crossing data is presented in **Figure 9**.

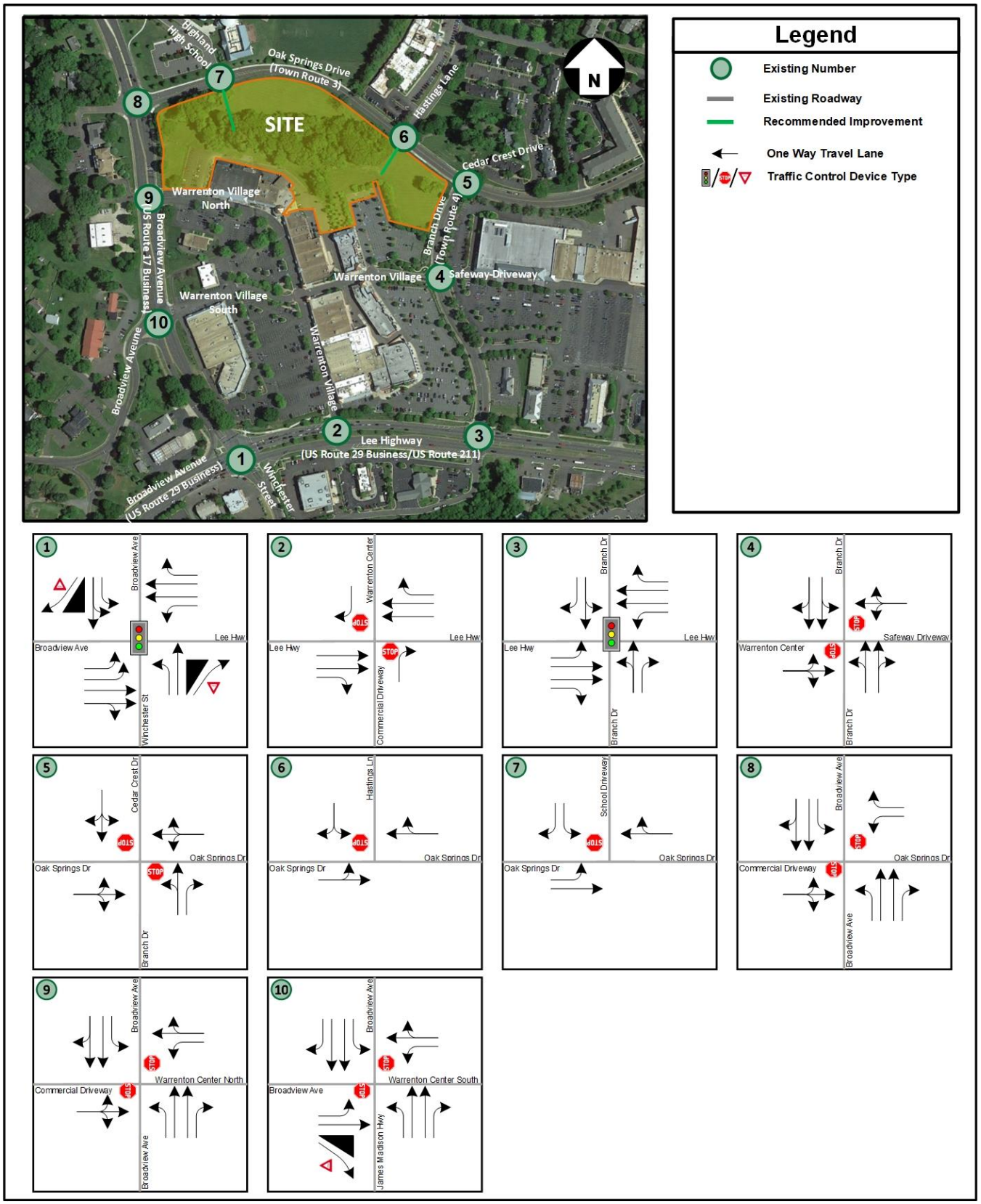

Figure 7: 2023 Existing Conditions – Roadway Network Geometric Configuration and Traffic Control Devices

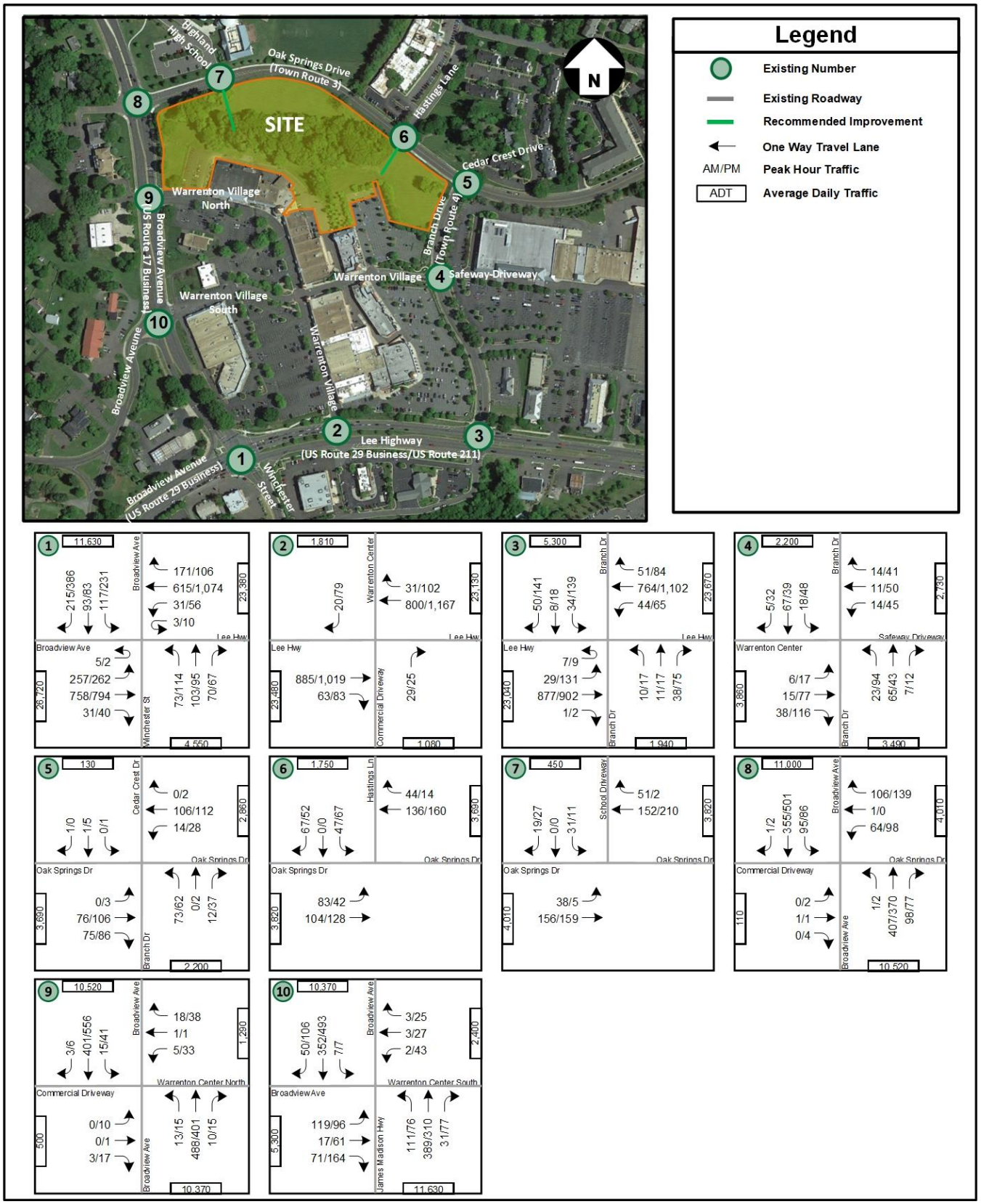

Figure 8: 2023 Existing Conditions – Vehicular Traffic Volumes

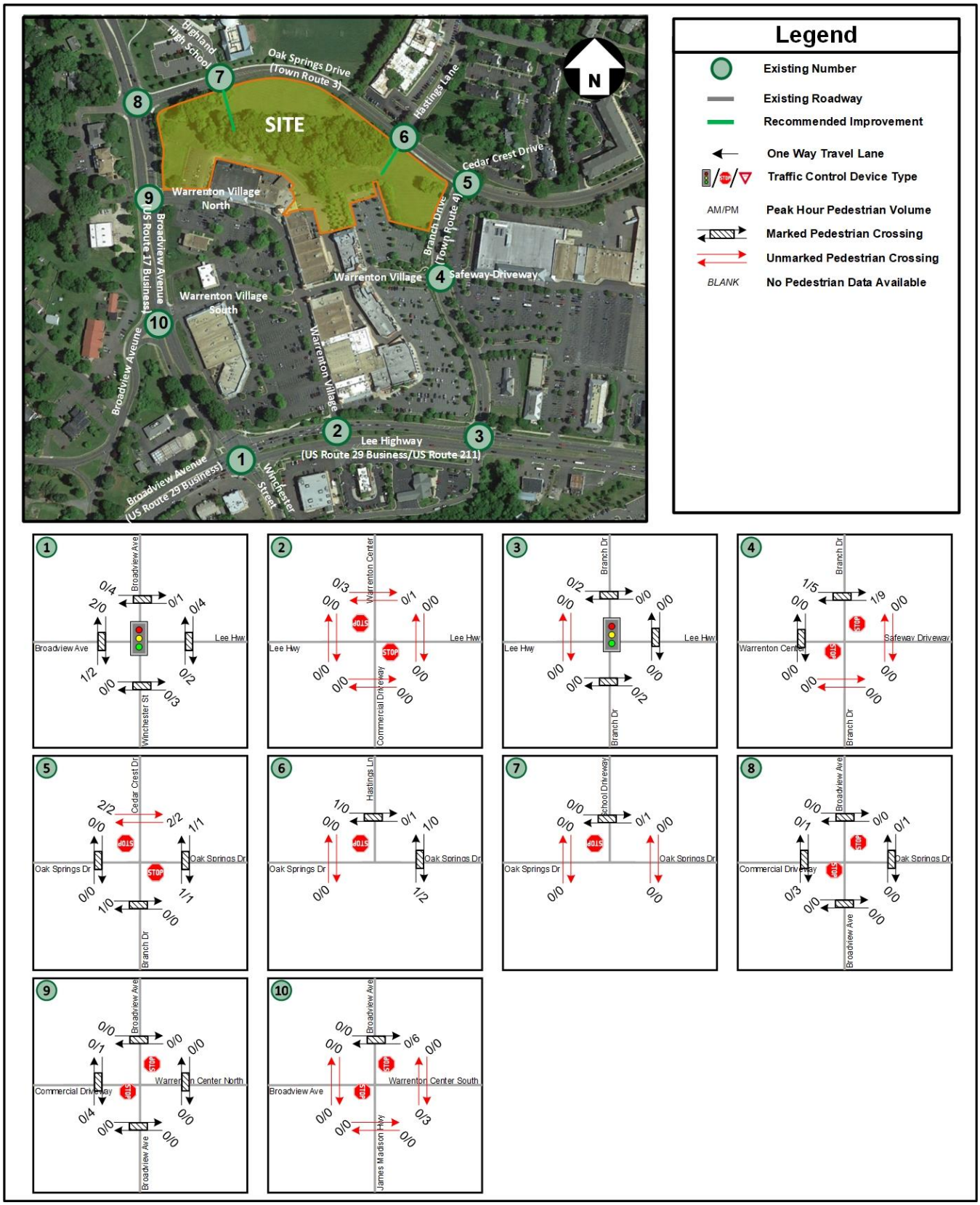

Figure 9: 2023 Existing Conditions – Pedestrian Volumes

Existing Intersection Capacity and Queueing Analysis

Intersection capacity and queuing analyses were performed for the 2023 Existing Conditions scenario at the study area intersections during AM and PM peak hours, in accordance with VDOT's *TOSAM* (version 2) guidelines. *Synchro,* version 11, was used to analyze the study intersections with results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) 6th edition methodology[1] and include level of service (LOS), delay, and queue length comparisons for the turning movements analyzed. Lane configurations at study intersections along the road network were field-verified, and the existing traffic volumes discussed in the aforementioned section as well as other relevant data were entered into the analysis models.

Signal timings were obtained from VDOT and were utilized as a base for the analysis models. Traffic operation conditions as well as lane configurations were field verified. The existing traffic volumes discussed in the aforementioned section as well as other relevant data were entered into the analysis models. For the purposes of this analysis, the existing peak hour factors (PHF) utilized in the analysis of existing conditions were based on the 2023 existing volumes and were modeled in the *Synchro* network on a by-intersection basis. PHF in the range of 0.85 to 1.00 were used for the existing scenario, as agreed to in the scoping document. The heavy vehicle percentages (HV%) utilized per movement were based on the existing traffic counts collected. Pedestrian crossing data utilized per crossing were based on the existing traffic counts collected. Based on *Synchro* guidance and pedestrian count data, all pedestrian calls at both signalized intersections were set to five calls per hour. Note that for analysis purposes, all turning movement counts were coded with a minimum volume of one vehicle in *Synchro*.

Per the scoping meeting with VDOT and Town staff, it would be considered acceptable and/or desirable to achieve an approach LOS D or better for traffic operations using HCM methodology. The results of the intersection capacity and queuing analyses from *Synchro* are presented in **Table 4** and graphically in **Figure 10**. The results are expressed in LOS and delay (seconds per vehicle) for overall signalized/all-way stop control intersections and per approach and lane group for all study intersections. Any overall signalized intersection or approach that operates at LOS E or F is displayed in red.

The queue lengths were reported as the 95th percentile queues from *Synchro* and are expressed in feet. The lane groups where the queue lengths exceeded the available effective storage capacity of existing turn lanes are displayed in red.

The description of different LOS and delay are included in Appendix D. The signal timing data provided by VDOT is included in Appendix E. The detailed analysis worksheets of 2023 Existing Conditions are contained in Appendix F.

[1] It should be noted that HCM 2000 methodology was used in lieu of HCM 6th if the HCM 6th methodology was not applicable. HCM 6th could not be applicable in such cases as nonstandard National Electrical Manufacturers Association (NEMA) configurations, shared lane configurations, placement of loop detectors, U-turns, etc.

Table 4: 2023 Existing Conditions – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
1	**Broadview Ave (E/W) at Winchester St (N/S)**							
	Overall Intersection (Signalized)		**D**	**36.4**		**D**	**39.4**	
	Eastbound Approach		***C***	***34.2***		***D***	***40.6***	
	Eastbound Left	250	E	64.9	186	E	72.0	193
	Eastbound Thru/Right		C	24.0	428	C	30.6	428
	Westbound Approach		***C***	***25.5***		***C***	***25.9***	
	Westbound Left	130	F	89.7	78	F	93.8	m119
	Westbound Thru		B	19.8	143	C	22.7	192
	Westbound Right	200	C	33.6	46	B	16.8	m15
	Northbound Approach		***E***	***60.3***		***E***	***66.6***	
	Northbound Left	250	E	61.7	126	E	74.8	188
	Northbound Thru		E	66.5	166	E	67.3	160
	Northbound Right	125	D	49.9	0	D	51.7	17
	Southbound Approach		***D***	***49.2***		***D***	***50.9***	
	Southbound Left	215	E	63.1	167	E	59.2	251
	Southbound Left/Thru		E	62.0	171	E	59.0	257
	Southbound Right		D	36.1	95	D	44.2	417
2	**Broadview Ave (E/W) at Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy (N/S)**							
	Overall Intersection (TWSC)							
	Northbound Approach		***B***	***12.6***		***B***	***13.4***	
	Northbound Right		B	12.6	5	B	13.4	5
	Southbound Approach		***B***	***10.7***		***B***	***13.3***	
	Southbound Right		B	10.7	3	B	13.3	15
3	**Broadview Ave (E/W) at Branch Dr (N/S)**							
	Overall Intersection (Signalized)		**B**	**16.2**		**C**	**31.6**	
	Eastbound Approach		***A***	***9.0***		***C***	***20.9***	
	Eastbound Left	240	F	81.5	m80	F	80.8	225
	Eastbound Thru		A	6.0	133	B	11.6	226
	Eastbound Right	330	A	9.9	m0	B	13.4	m0
	Westbound Approach		***B***	***15.8***		***C***	***28.5***	
	Westbound Left	150	E	67.4	88	E	78.5	123
	Westbound Thru		B	13.2	394	C	26.4	610
	Westbound Right	150	A	9.8	0	B	17.3	0
	Northbound Approach		***E***	***60.3***		***E***	***67.0***	
	Northbound Left/Thru		E	61.0	43	E	68.6	73
	Northbound Right	60	E	59.9	0	E	66.2	0
	Southbound Approach		***E***	***64.7***		***E***	***69.4***	
	Southbound Left/Thru		E	67.2	86	E	78.8	249
	Southbound Right		E	62.7	0	E	59.0	53
4	**Warrenton Village Center Dwy/Shopping Center Dwy (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.4***		***B***	***11.8***	
	Eastbound Left/Thru/Right		A	9.4	8	B	11.8	30
	Westbound Approach		***B***	***10.1***		***B***	***14.2***	
	Westbound Left/Thru/Right		B	10.1	5	B	14.2	28
	Northbound Approach							
	Northbound Left		A	7.4	3	A	7.5	5
	Southbound Approach							
	Southbound Left		A	7.4	0	A	7.4	3
5	**Oak Springs Dr (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	7.5	0	A	7.5	0
	Westbound Approach							
	Westbound Left		A	7.7	0	A	7.7	3
	Northbound Approach		***B***	***11.2***		***B***	***11.4***	
	Northbound Left/Thru		B	11.6	13	B	12.6	13
	Northbound Right		A	9.0	0	A	9.4	5
	Southbound Approach		***B***	***10.0***		***B***	***10.9***	
	Southbound Left/Thru/Right		B	10.0	0	B	10.9	0

Table 4 (Continued): 2023 Existing Conditions – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
6	**Oak Springs Dr (E/W) at Hastings Ln / Future Access (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left		A	7.9	5	A	7.7	3
	Southbound Approach		***B***	***11.5***		***B***	***11.3***	
	Southbound Left/Thru/Right		B	11.5	18	B	11.3	18
7	**Oak Springs Dr (E/W) at Highland School Dwy / Future Garage Access (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left	75	A	7.8	3	A	7.7	0
	Southbound Approach		***B***	***11.2***		***B***	***10.2***	
	Southbound Left/Thru		B	12.3	5	B	11.5	3
	Southbound Right		A	9.4	3	A	9.7	3
8	**Oak Springs Dr (E/W) at Broadview Ave (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***D***	***25.2***		***C***	***16.8***	
	Eastbound Left/Thru/Right		D	25.2	0	C	16.8	3
	Westbound Approach		***C***	***23.0***		***D***	***27.5***	
	Westbound Left/Thru	125	E	42.8	53	F	51.1	83
	Westbound Right		B	10.8	15	B	10.8	18
	Northbound Approach							
	Northbound Left	90	A	8.1	0	A	8.6	0
	Southbound Approach							
	Southbound Left	225	A	9.3	10	A	8.7	8
9	**Warrenton Village North Dwy (E/W) at Broadview Ave (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***A***	***9.9***		***C***	***20.3***	
	Eastbound Left/Thru/Right		A	9.9	0	C	20.3	10
	Westbound Approach		***B***	***13.8***		***C***	***18.5***	
	Westbound Left		C	22.9	3	D	27.8	18
	Westbound Thru/Right		B	11.4	3	B	10.6	5
	Northbound Approach							
	Northbound Left	150	A	8.3	0	A	8.8	3
	Southbound Approach							
	Southbound Left	110	A	8.7	3	A	8.4	3
10	**Warrenton Village South Dwy/Broadview Ave (E/W) at Broadview Ave/Winchester St (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***E***	***38.8***		***D***	***28.4***	
	Eastbound Left		F	57.3	110	F	52.1	83
	Eastbound Thru		D	29.6	10	E	36.7	40
	Eastbound Right		B	10.1	8	B	11.5	25
	Westbound Approach		***C***	***21.4***		***D***	***33.0***	
	Westbound Left		D	28.0	0	E	47.2	38
	Westbound Thru/Right		C	19.2	3	C	21.3	20
	Northbound Approach							
	Northbound Left	160	A	8.7	10	A	9.2	8
	Southbound Approach							
	Southbound Left	160	A	8.4	0	A	8.2	0

NOTES:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] m: 95th percentile volume and queues (reported from Synchro) are metered by upstream signal.

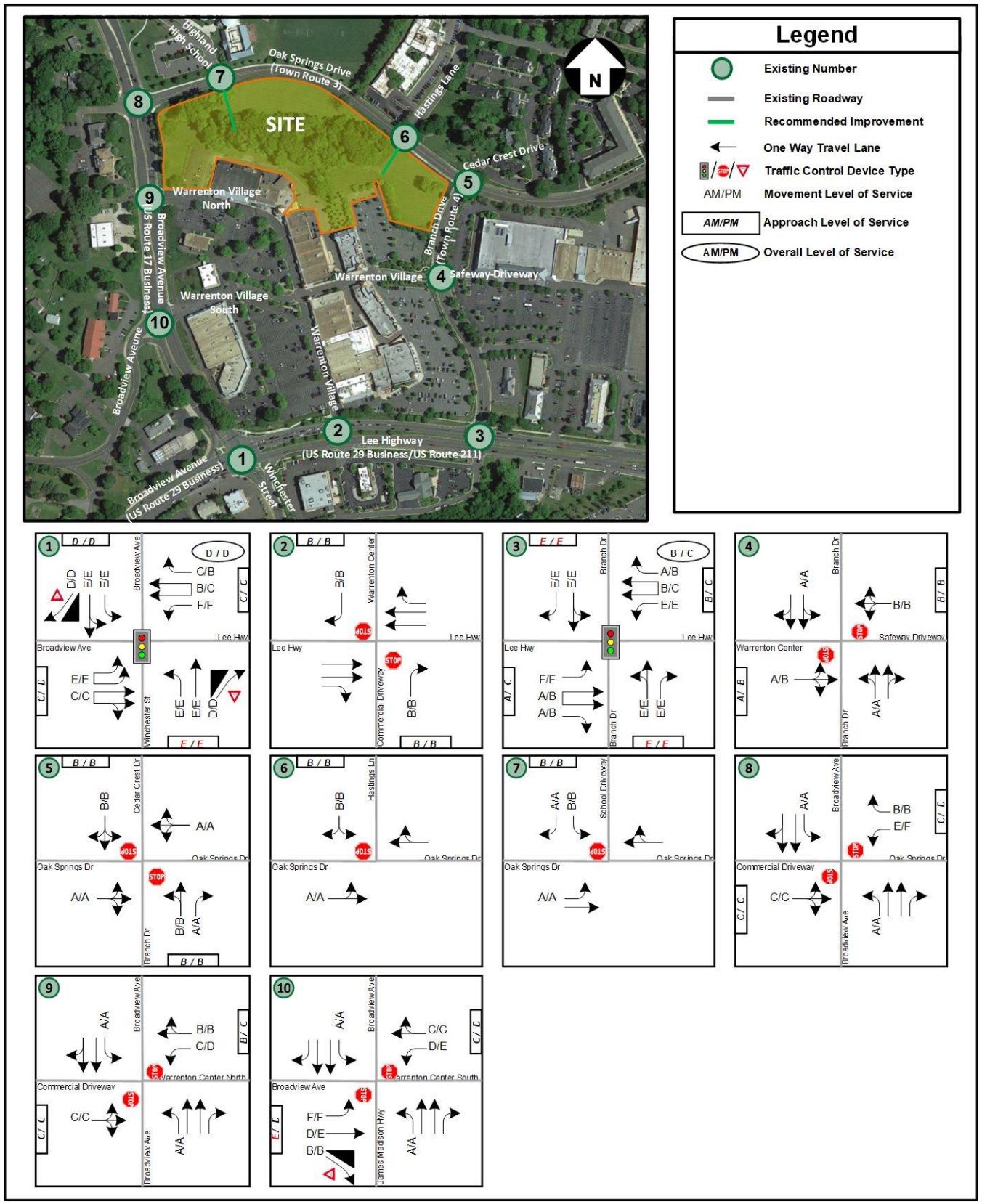

Figure 10: 2023 Existing Conditions – Level of Service Results

Based on the capacity analysis of existing conditions, the two signalized study intersections operate at overall levels of service of D or better during both the AM and PM peak hours.

Based on the capacity analysis of existing conditions, the approaches of all study intersections operate at approach levels of service of D or better during both the AM and PM peak hours, except for the following study intersections that have at least one approach that operates at levels of service E or F during at least one peak hour:

- Study Intersection 1: Lee Highway (US 211/US 29 BUS) at Broadview Avenue / Winchester Street
- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 10: Broadview Avenue at Warrenton Village South

Based on the queuing analysis performed for existing conditions, all turning movements at the study intersections have maximum queue lengths that are accommodated within the available storage lengths of the turn bays except for the southbound left turn movement at Study Intersection 1 (Lee Highway at Broadview Avenue / Winchester Street).

Analysis of 2027 Future Conditions Without Development

For the purposes of this study, the Development is anticipated to be constructed by 2027; this scenario analyzes the future without development conditions for the year 2027.

Future without Development Traffic Volumes

The derivation of future without development traffic volumes was based on assumptions and parameters discussed with VDOT and the County during the scoping process for this study. The future conditions include anticipated inherent regional growth, the inclusion of any potential background developments in the pipeline around the vicinity of the Site, and any anticipated roadway improvements.

Inherent Regional Growth

The Development is anticipated to be complete in 2027. In order to account for increased demand on the traffic network between 2023 and 2027, an inherent growth rate was applied to the future scenarios. This “inherent” growth was anticipated to account for regional development within the at-large area, which would ultimately result in increased roadway demand. Furthermore, the inherent growth was anticipated to account for any potential background developments unaccounted for within the vicinity of the study area.

To account for 2027 future conditions, an inherent growth rate of 1.0%, (compounded annually) over a four-year period, between 2023 to 2027 (and totaling 4.06% growth of the existing volumes) was applied to the Lee Highway mainline through movements at the intersection of Lee Highway at Broadview Avenue / Winchester Street. The growth volumes were balanced along the road network by increasing the mainline through movements at subsequent study intersections along the road network where applicable.

The inherent regional growth volumes (for the period between 2023 and 2027) are illustrated in **Figure 11.**

Potential Background Development(s)

In addition to the applied inherent regional growth reflecting increased regional traffic demand, a total of two “background” developments within the vicinity of the Site, with their locations depicted in **Figure 12**, were identified in the meeting with VDOT and Town staff for inclusion in this study. The background developments included are as follows:

1. Waterloo Junction
    - Located in the southeast quadrant of Bear Wallow Road and Norfolk Drive, the Waterloo Junction development is anticipated to include 47 townhomes, 6 apartments, and 3,600 square feet of retail space.
2. Patrick Ryan Way Homes
    - Located along Winchester Street at Patrick Ryan Way, this development is expected to consist of 60 single family homes. This development was partially built out at the time the turning movement counts were collected. For the purposes of this study, it was assumed that 40 of the 60 homes are built and occupied.

The assignment of the total combined background trips to the road network is depicted in **Figure 13**. Additional information, including the trips generated and the assignment of trips for each individual background development are included in Appendix G.

Potential Roadway Improvement(s)

As discussed during the scoping meeting, there is one roadway improvement within the vicinity of the site that is either fully funded or would be completely constructed by 2027.

- Smartscale project to construct a roundabout at the intersection of Lee Highway at Winchester Street / Broadview Avenue (Study Intersection 1)

There is one roadway improvement within the vicinity of the site that was previously identified for construction but was not selected for funding and therefore not included in the analysis:

- Smartscale project to construct a six-leg roundabout at the intersection of Broadview Avenue at Warrenton Village South (Study Intersection 10)

Relevant Smartscale excerpts and information are included in Appendix G.

The anticipated 2027 future road network (without the development) is illustrated in **Figure 14.**

Future without Development Traffic Volumes

In order to forecast future roadway traffic volumes for the year 2027, the 2023 existing traffic volumes were combined with the inherent regional growth traffic volumes and the combined background development trips. The 2027 future conditions without Development traffic volumes are illustrated in **Figure 15**.

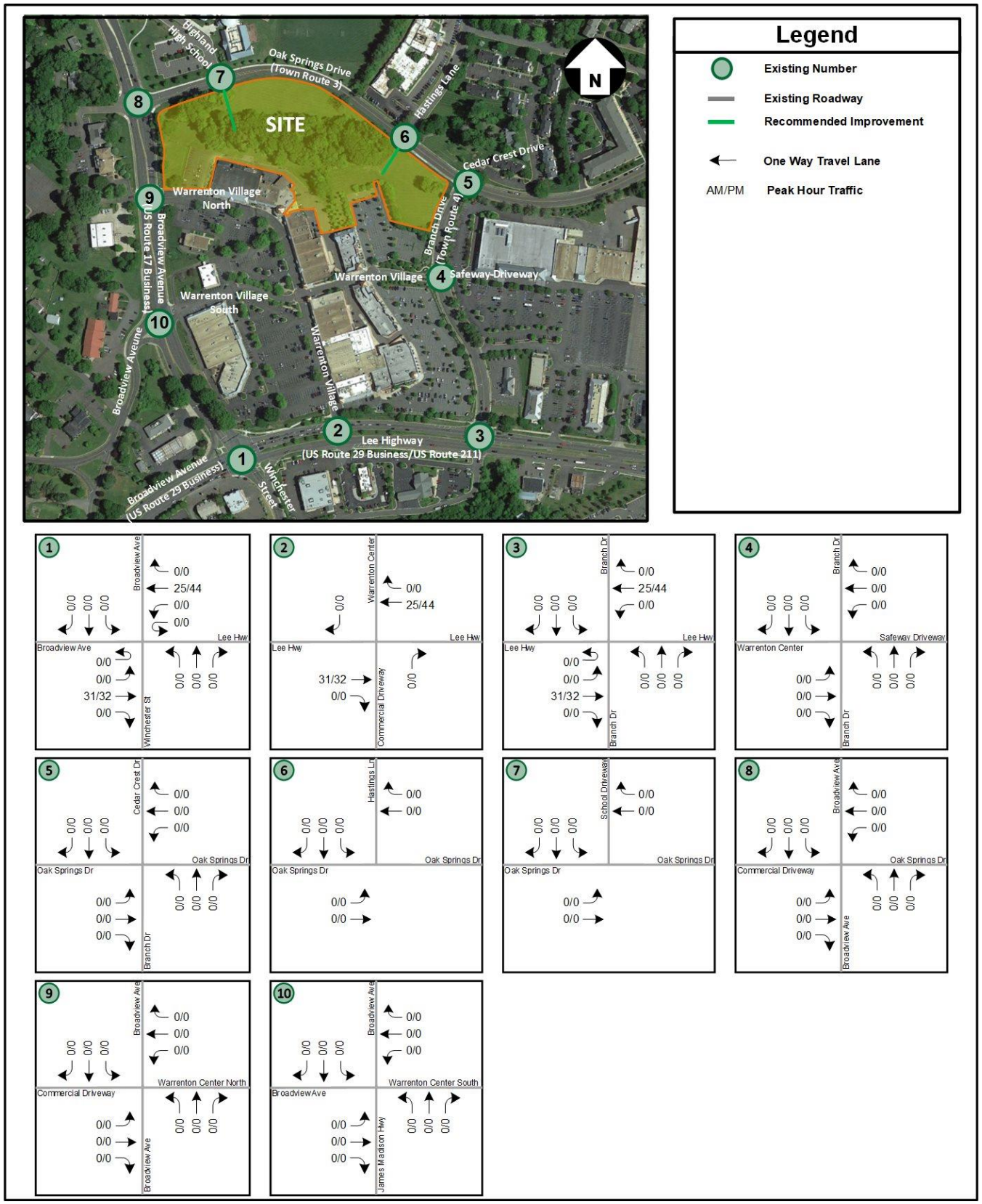

Figure 11: Projected Inherent Regional Growth Traffic Volumes (2023 to 2027)

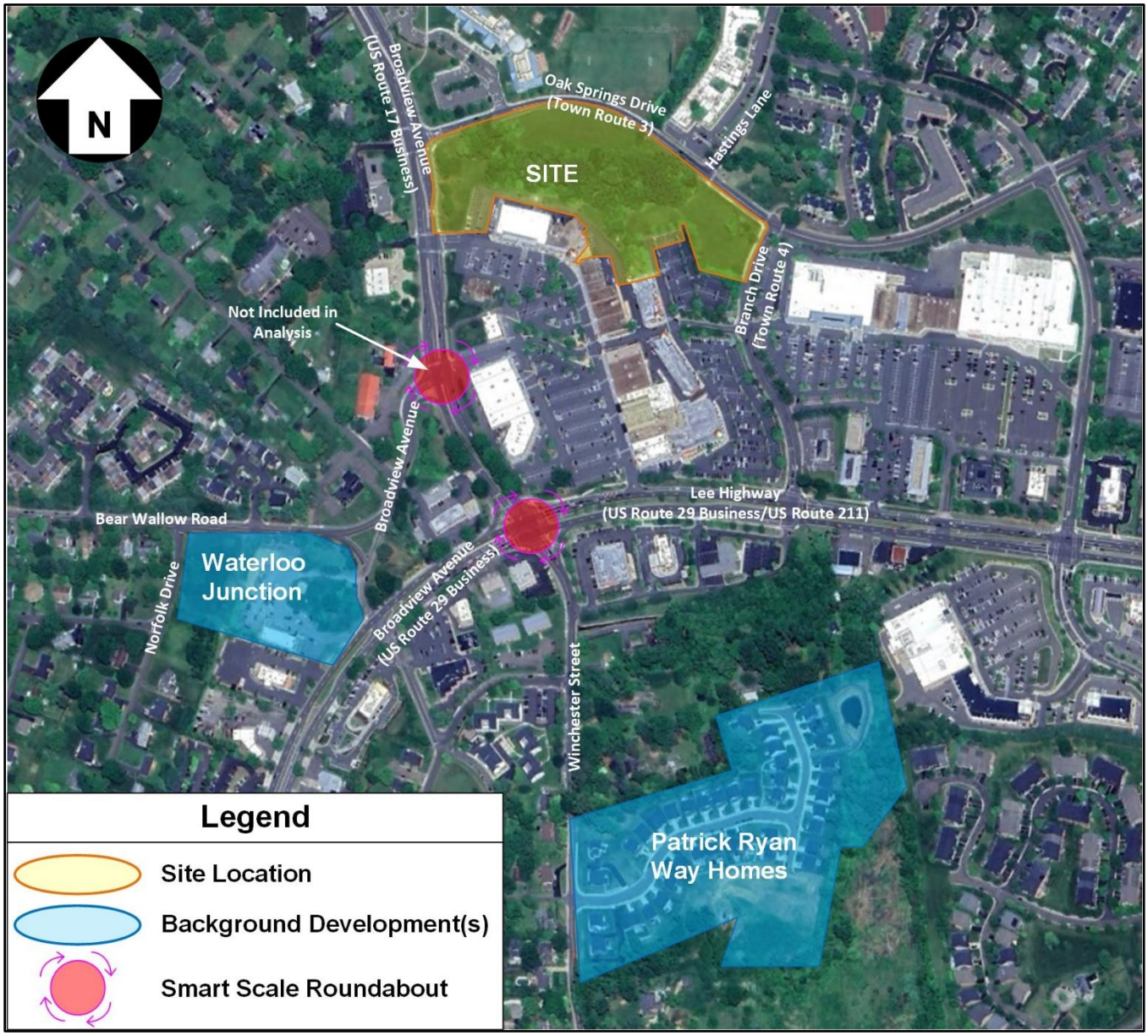

Figure 12: Background Development and Roadway Improvement Map

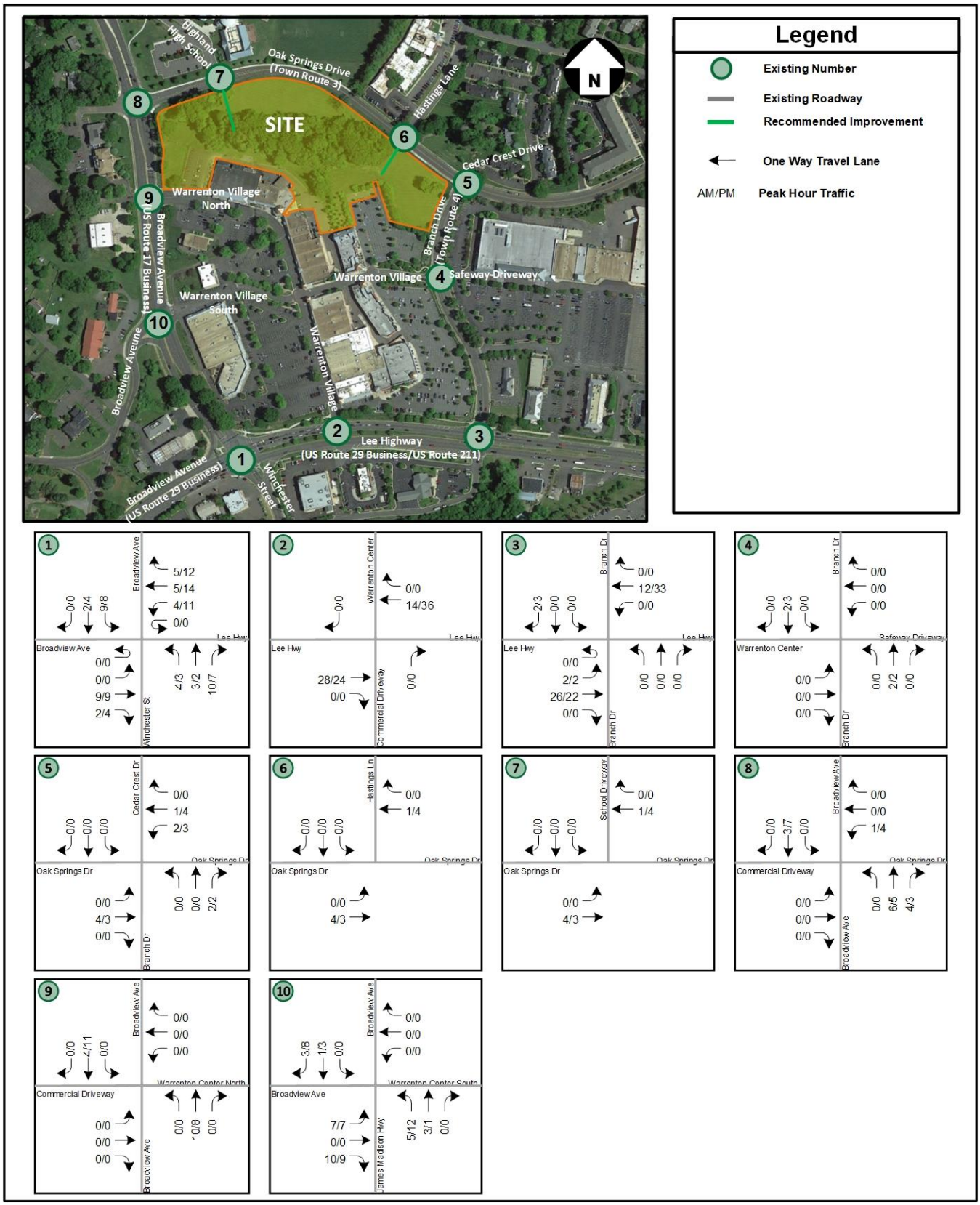

Figure 13: Total Combined Background Development Trips

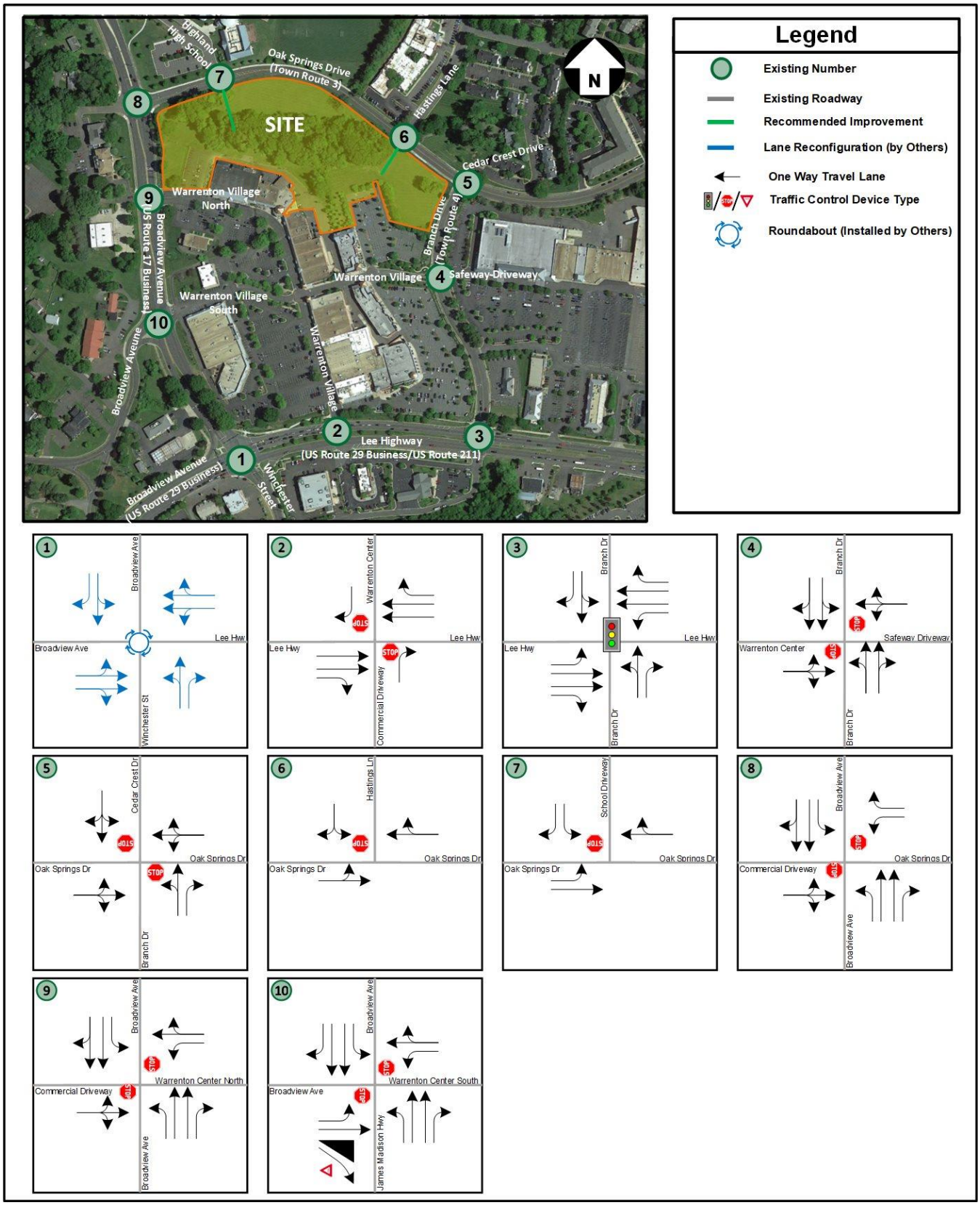

Figure 14: 2027 Future Conditions without Development – Roadway Network Geometric Configuration and Traffic Control Devices

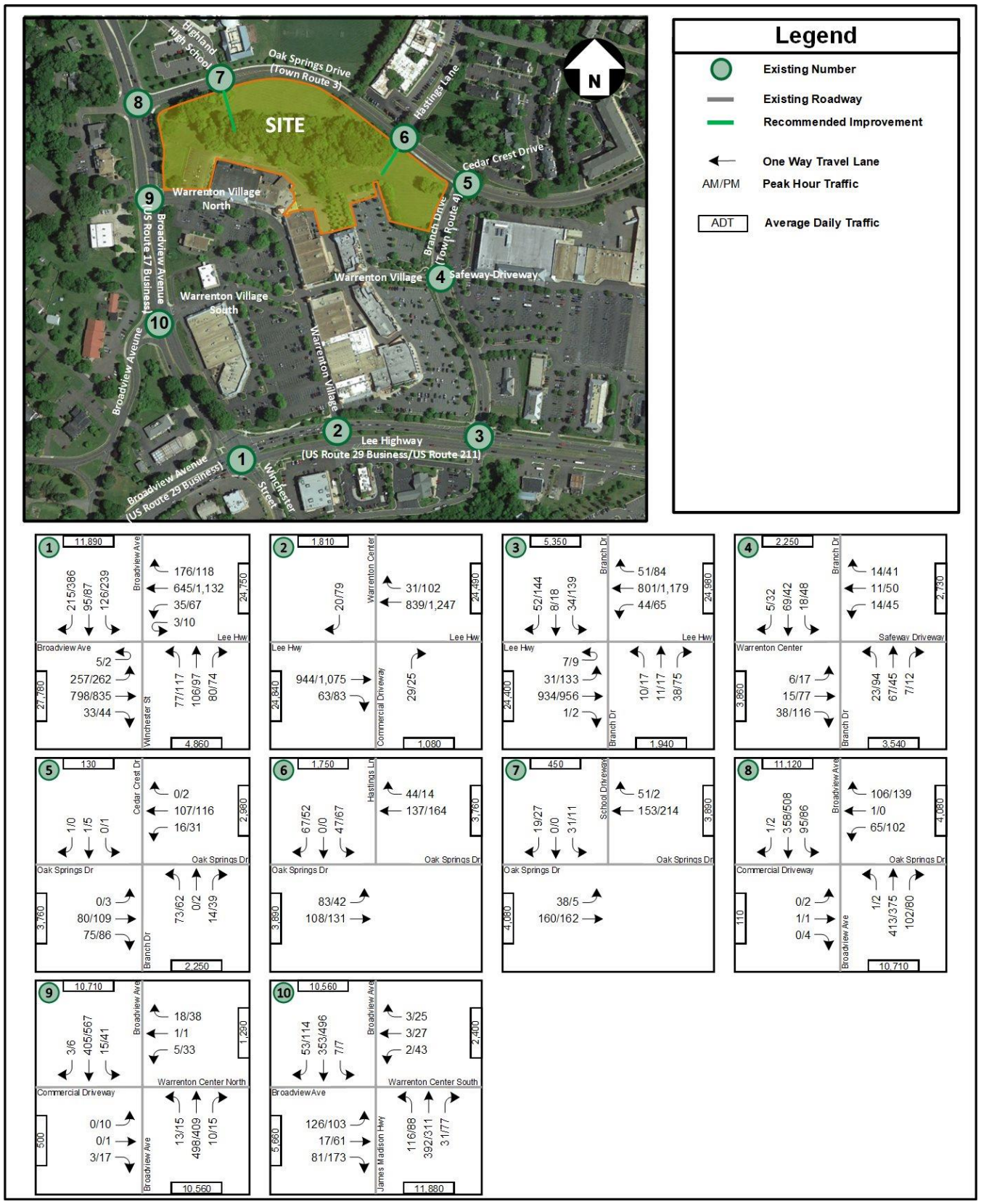

Figure 15: 2027 Future Conditions without Development – Vehicular Traffic Volumes

Future without Development Intersection Capacity and Queuing Analysis

Intersection capacity and queueing analyses were performed for the 2027 Future Conditions without Development scenario at the study area intersections during the AM and PM peak hours, in accordance with VDOT's *TOSAM* (version 2) guidelines. *Synchro,* version 11, was used to analyze the study intersections with results based on TRB's HCM 6th methodology and include LOS, delay, and queue length comparisons for the turning movements analyzed. The roundabout was analyzed using *Sidra*, version 9.

For the purposes of this analysis, the intersection PHF utilized in the analysis of future conditions was determined based on the existing traffic counts, with a minimum of 0.92 as agreed to in the scoping document. The HV% were based on the existing conditions scenario. Note that for analysis purposes, all turning movement counts were coded with a minimum volume of one vehicle in *Synchro*.

Per the scoping meeting with VDOT and County staff, it would be considered acceptable and/or desirable to achieve an approach LOS D or better for traffic operations using HCM methodology. The results of the intersection capacity and queuing analyses from *Synchro* are presented in **Table 5** and graphically in **Figure 16.** The results are expressed in LOS and delay (seconds per vehicle) for overall signalized intersections and per approach and lane group for all study intersections. Any overall signalized intersection or approach that operates at LOS E or F is displayed in red.

The queue lengths were reported as the 95th percentile queues determined from *Synchro* and are expressed in feet. The lane groups where the queue lengths exceeded the available effective storage capacity of existing turn lanes are displayed in red.

The detailed analysis worksheets of the 2027 Future Conditions without Development are contained in Appendix H.

Table 5: 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.)	LOS	Delay (sec/veh)	95th % Queue
			Synchro			Synchro		
1	**Broadview Ave (E/W) at Winchester St (N/S)**							
	Overall Intersection (Roundabout)		**A**	**8.1**		**B**	**17.6**	
	Eastbound Approach		***A***	***7.6***		***B***	***11.1***	
	Eastbound Left/Thru		A	8.0	80	B	11.9	158
	Eastbound Thru/Right		A	7.2	83	B	10.4	158
	Westbound Approach		***A***	***7.6***		***B***	***15.0***	
	Westbound Left/Thru		A	8.0	78	B	16.2	252
	Westbound Thru/Right		A	7.2	81	B	14.0	268
	Northbound Approach		***A***	***9.5***		***B***	***12.4***	
	Northbound Left/Thru		A	9.2	36	B	12.2	56
	Northbound Right		B	10.2	19	B	13.0	22
	Southbound Approach		***A***	***9.1***		***C***	***34.7***	
	Southbound Left/Thru		A	8.6	39	D	35.1	161
	Southbound Right		A	9.7	43	C	34.4	191
2	**Broadview Ave (E/W) at Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy (N/S)**							
	Overall Intersection (TWSC)							
	Northbound Approach		***B***	***13.0***		***B***	***13.9***	
	Northbound Right		B	13.0	5	B	13.9	5
	Southbound Approach		***B***	***10.8***		***B***	***13.9***	
	Southbound Right		B	10.8	3	B	13.9	15
3	**Broadview Ave (E/W) at Branch Dr (N/S)**							
	Overall Intersection (Signalized)		**B**	**19.7**		**C**	**34.0**	
	Eastbound Approach		***B***	***16.4***		***C***	***26.4***	
	Eastbound Left	240	E	67.0	80	E	75.4	224
	Eastbound Thru		B	14.3	485	B	19.1	441
	Eastbound Right	330	A	9.7	0	B	13.4	0
	Westbound Approach		***B***	***15.7***		***C***	***29.6***	
	Westbound Left	150	E	67.4	88	E	78.5	123
	Westbound Thru		B	13.3	400	C	27.8	675
	Westbound Right	150	A	9.7	0	B	17.3	0
	Northbound Approach		***E***	***60.8***		***E***	***67.0***	
	Northbound Left/Thru		E	61.5	44	E	68.6	73
	Northbound Right	60	E	60.4	0	E	66.2	0
	Southbound Approach		***E***	***64.7***		***E***	***69.3***	
	Southbound Left/Thru		E	67.2	86	E	78.8	249
	Southbound Right		E	62.7	0	E	59.1	58
4	**Warrenton Village Center Dwy/Shopping Center Dwy (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.3***		***B***	***11.8***	
	Eastbound Left/Thru/Right		A	9.3	5	B	11.8	30
	Westbound Approach		***B***	***10.0***		***B***	***14.3***	
	Westbound Left/Thru/Right		B	10.0	5	B	14.3	28
	Northbound Approach							
	Northbound Left		A	7.4	3	A	7.5	5
	Southbound Approach							
	Southbound Left		A	7.4	0	A	7.4	3
5	**Oak Springs Dr (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	7.4	0	A	7.5	0
	Westbound Approach							
	Westbound Left		A	7.6	0	A	7.7	3
	Northbound Approach		***B***	***11.0***		***B***	***11.4***	
	Northbound Left/Thru		B	11.4	10	B	12.6	10
	Northbound Right		A	9.0	3	A	9.4	5
	Southbound Approach		***A***	***9.9***		***B***	***11.0***	
	Southbound Left/Thru/Right		A	9.9	0	B	11.0	0

Table 5 (Continued): 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.)	LOS	Delay (sec/veh)	95th % Queue
			Synchro			Synchro		
6	**Oak Springs Dr (E/W) at Hastings Ln / Future Access (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left		A	7.9	5	A	7.7	3
	Southbound Approach		***B***	***11.1***		***B***	***11.0***	
	Southbound Left/Right		B	11.1	15	B	11.0	15
7	**Oak Springs Dr (E/W) at Highland School Dwy / Future Garage Access (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left	75	A	7.7	3	A	7.7	0
	Southbound Approach		***B***	***10.9***		***B***	***10.1***	
	Southbound Left		B	11.9	5	B	11.2	3
	Southbound Right		A	9.3	3	A	9.6	3
8	**Oak Springs Dr (E/W) at Broadview Ave (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***17.8***		***C***	***16.6***	
	Eastbound Left/Thru/Right		C	17.8	0	C	16.6	3
	Westbound Approach		***C***	***19.7***		***D***	***27.9***	
	Westbound Left/Thru	125	D	34.3	40	F	51.0	85
	Westbound Right		B	10.6	13	B	10.7	18
	Northbound Approach							
	Northbound Left	90	A	8.1	0	A	8.5	0
	Southbound Approach							
	Southbound Left	225	A	9.1	8	A	8.7	8
9	**Warrenton Village North Dwy (E/W) at Broadview Ave (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***15.6***		***C***	***20.0***	
	Eastbound Left/Thru/Right		C	15.6	0	C	20.0	10
	Westbound Approach		***B***	***13.2***		***C***	***18.3***	
	Westbound Left		C	21.2	3	D	27.3	15
	Westbound Thru/Right		B	11.1	3	B	10.6	5
	Northbound Approach							
	Northbound Left	150	A	8.2	0	A	8.8	3
	Southbound Approach							
	Southbound Left	110	A	8.6	0	A	8.4	3
10	**Warrenton Village South Dwy/Broadview Ave (E/W) at Broadview Ave/Winchester St (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach		***D***	***30.7***		***D***	***31.9***	
	Eastbound Left		E	44.6	90	F	62.0	98
	Eastbound Thru		D	26.5	8	E	38.5	43
	Eastbound Right		B	10.0	10	B	11.6	25
	Westbound Approach		***C***	***19.7***		***E***	***35.5***	
	Westbound Left		D	25.4	0	F	51.8	40
	Westbound Thru/Right		C	17.8	3	C	22.1	20
	Northbound Approach							
	Northbound Left	160	A	8.6	10	A	9.3	8
	Southbound Approach							
	Southbound Left	160	A	8.3	0	A	8.2	0

NOTES:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

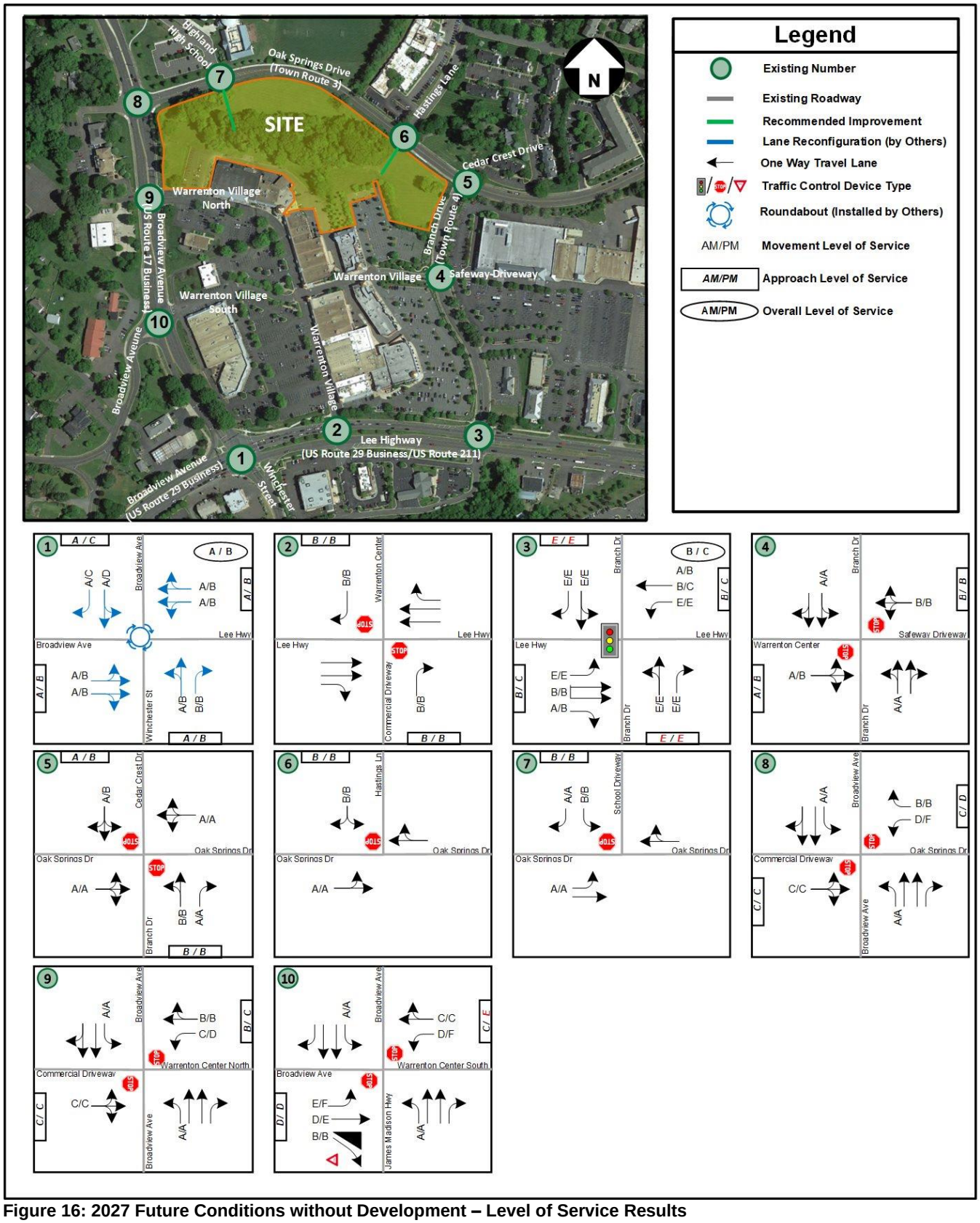

Figure 16: 2027 Future Conditions without Development – Level of Service Results

Study Intersection 1 (Lee Highway at Winchester Street / Broadview Avenue) was approved for a roundabout and received SmartScale funding. As such, this intersection was converted from a signalized intersection to a roundabout in all future conditions.

Based on the capacity analysis of 2027 Future Conditions without Development, the planned roundabout is expected to operate at overall levels of service of B or better during both the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the signalized study intersection is expected to operate at overall levels of service of C or better during both the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the approaches of all study intersections continue to operate at approach levels of service of D or better during both the AM and PM peak hours, except for the following study intersections that have at least one approach that would operates at level of service E of F during at least one peak hour:

- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 10: Broadview Avenue at Warrenton Village South

Based on the queuing analysis performed for 2027 Future Conditions without Development, all turning movements at the study intersections have maximum queue lengths that are accommodated within the available storage lengths of the turn bays.

Analysis of 2027 Future Conditions with Development

For the purposes of this study, the Development is anticipated to be constructed by 2027; this scenario analyzes the future with development conditions for the year 2027.

Site Description

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

A conceptual plan for the Site is illustrated in **Figure 17**

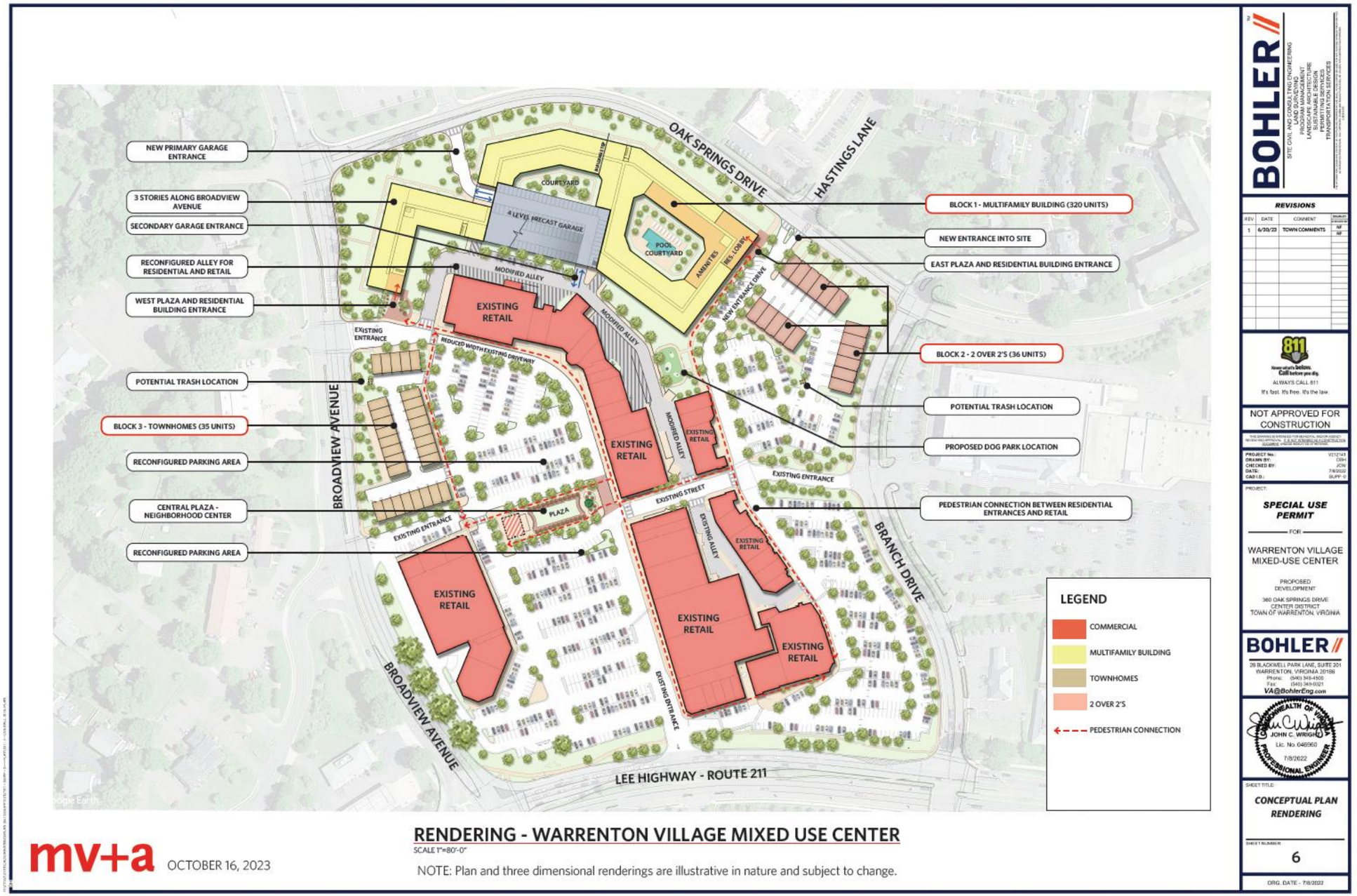

Figure 17: Conceptual Development Plan
Note: Plan provided by Bohler and is for conceptual purposes only.

Proposed Site Access

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

Projected Site Trip Generation

In order to calculate the trips generated by the proposed Development, the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, publication was used to determine the total trips going into and out of the subject study site during the AM and PM peak hours as well as the typical number of weekday daily trips. The projected trip generation for the proposed Development is depicted in **Table 6**Table 6. Of note, as agreed to in the scoping document, no internal capture or pass-by trip reductions were assumed with respect to the proposed Development, and therefore are not assumed within the table.

Table 6: Site Trip Generation (Peak Hour of the Adjacent Street; ITE 11th Ed.)

Land Use	ITE Code	Size	------ Weekday ------						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Multifamily Housing	220	386 DU	37	117	154	124	73	197	2,602

As illustrated in the table above, the Site is expected to generate approximately 154 new trips during the AM peak hour, 197 new trips during the PM peak hour, and 2,602 new daily trips on a typical weekday.

Distribution and Assignment of Site Traffic

The distribution and assignment of the site generated trips were based on the existing traffic patterns, engineering judgement, the nature of the proposed Development, and with the guidance and input from the VDOT and the Town staff. The site direction of approach and trip distribution are illustrated in **Figure 18**.

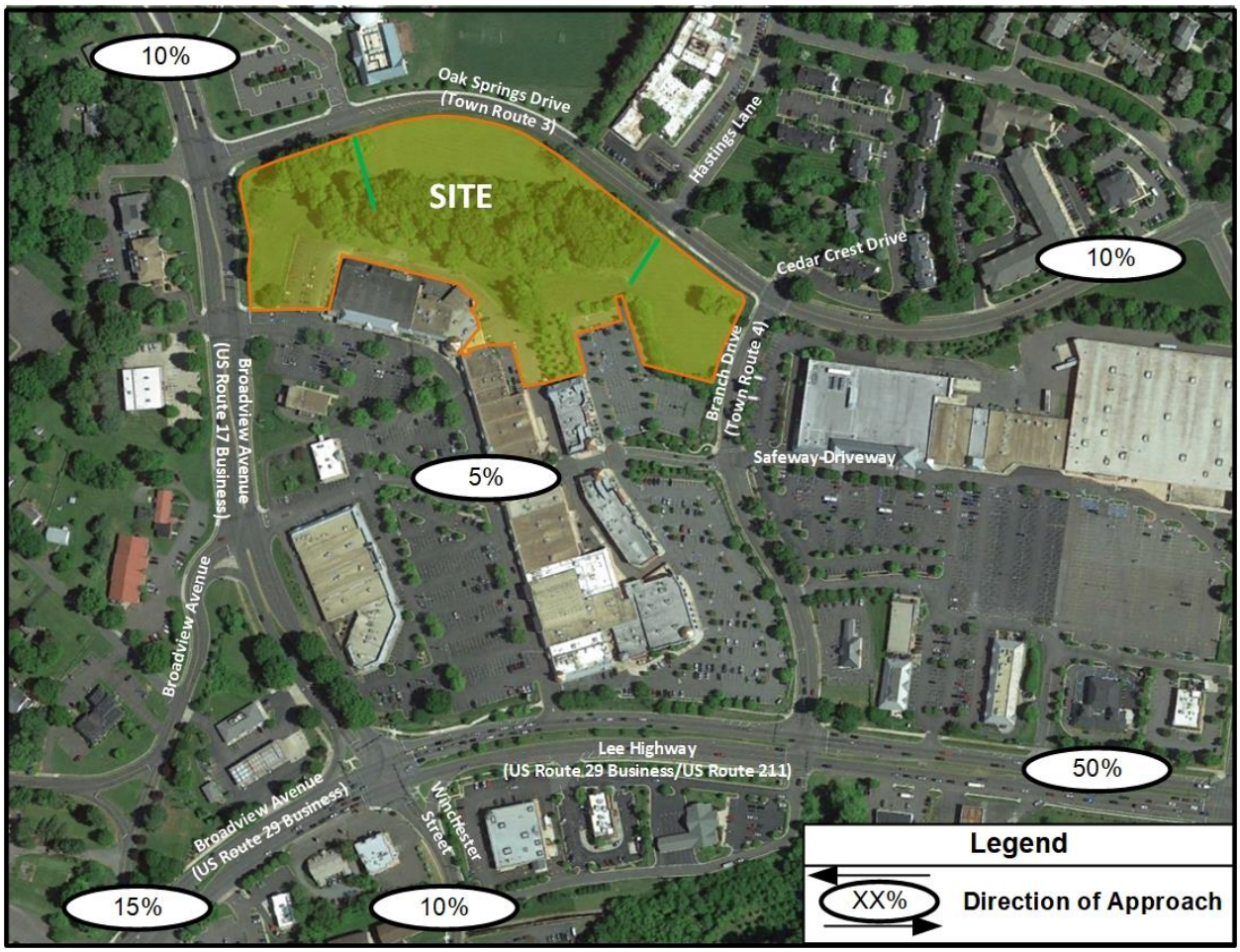

Figure 18: Global Vehicular Direction of Approach (Site Trip Distribution)

Future with Development Traffic Volumes

In order to project future traffic volumes on the roadways in the vicinity of the Development, trips generated from the Development were assigned to the road network based on the previously mentioned direction of approach. The site traffic assignment is illustrated for the AM and PM peak hours in **Figure 19.**

The future with development traffic volumes for were determined by adding the assigned site generated traffic volumes to the 2027 Future Conditions without Development traffic volumes. The 2027 Future Conditions with Development traffic volumes are depicted in **Figure 20.**

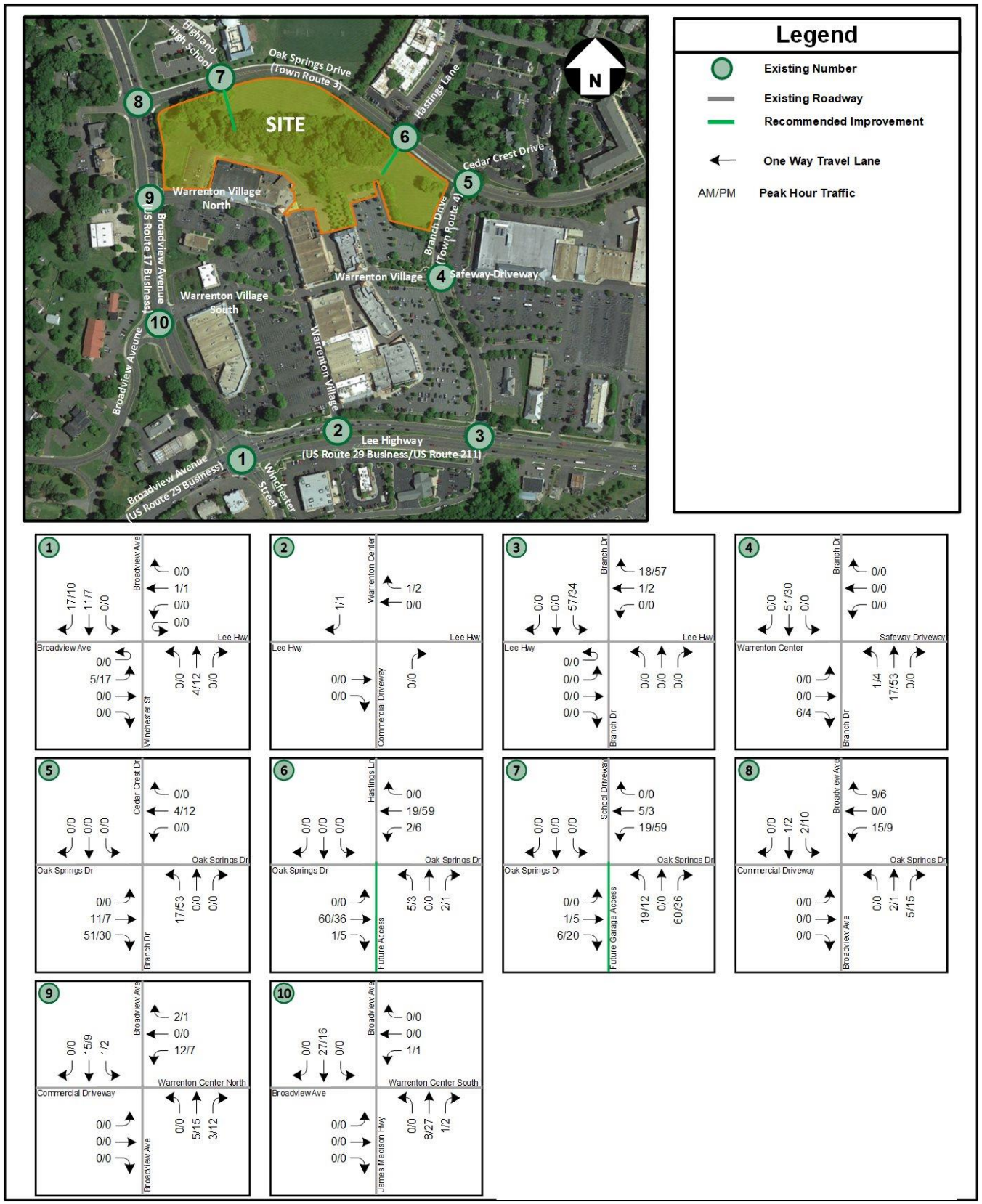

Figure 19: Site Generated Trip Assignment

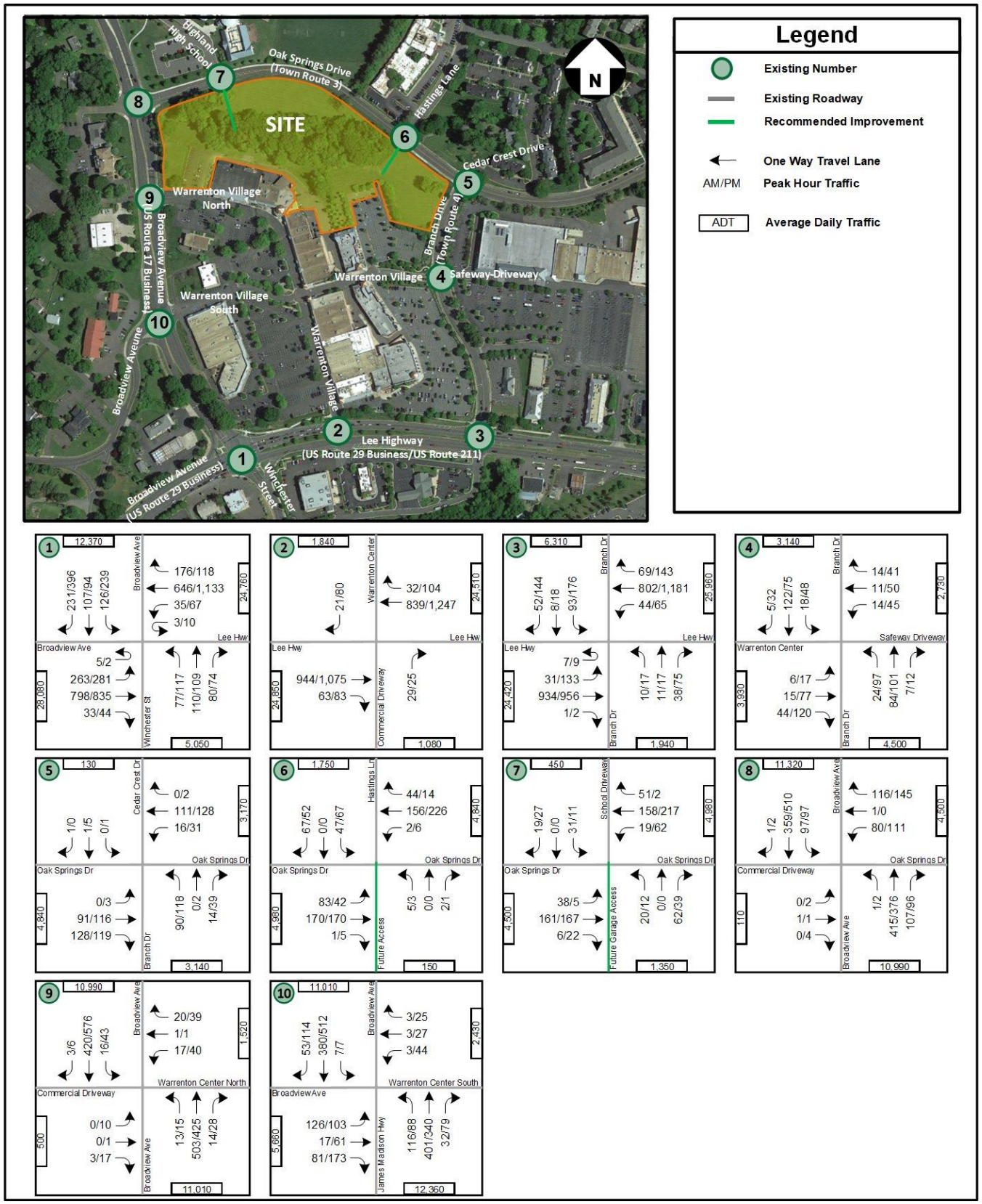

Figure 20: 2027 Future Conditions with Development

Future with Development Intersection Capacity and Queuing Analysis

Intersection capacity and queueing analyses were performed for the 2027 Future Conditions without Development scenario at the study area intersections during the AM and PM peak hours, in accordance with VDOT's *TOSAM* (version 2) guidelines. *Synchro,* version 11, was used to analyze the study intersections with results based on TRB's HCM 6th methodology and include LOS, delay, and queue length comparisons for the turning movements analyzed. Roundabouts were analyzed using *Sidra*, version 9.

For the purposes of this analysis, the intersection PHF utilized in the analysis of future conditions was determined based on the existing traffic counts, with a minimum of 0.92 as agreed to in the scoping document. The HV% were based on the existing conditions scenario, with any new approaches utilizing a default *Synchro* value of 2.0% per movement. Note that for analysis purposes, all turning movement counts were coded with a minimum volume of one vehicle in *Synchro*.

Per the scoping meeting with VDOT and the Town staff, it would be considered acceptable and/or desirable to achieve an approach LOS of D or better for traffic operations using the HCM methodology. The results of the intersection capacity and queuing analyses from *Synchro* are presented in **Table 7** and graphically in **Figure 21.** The results are expressed in LOS and delay (seconds per vehicle) for overall signalized intersections and per approach and lane group for all study intersections. The overall signalized intersections and any approaches that operate at LOS E or F are displayed in red.

The queue lengths were reported as the 95th percentile queues determined from *Synchro* and are expressed in feet. The lane groups where the queue lengths exceeded the available effective storage capacity of existing turn lanes are displayed in red.

The detailed analysis worksheets of the 2027 Future Conditions with Development scenario are contained in Appendix I.

Table 7: 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
1	**Broadview Ave (E/W) at Winchester St (N/S)**							
	Overall Intersection (Roundabout)		**B**	**10.1**		**B**	**19.3**	
	Eastbound Approach		***A***	***9.4***		***B***	***11.5***	
	Eastbound Left/Thru		A	10.0	111	B	12.4	170
	Eastbound Thru/Right		A	8.9	116	B	10.8	172
	Westbound Approach		***B***	***10.5***		***B***	***16.3***	
	Westbound Left/Thru		A	11.4	116	B	17.7	272
	Westbound Thru/Right		B	9.8	117	B	15.3	291
	Northbound Approach		***B***	***11.9***		***B***	***13.3***	
	Northbound Left/Thru		B	11.5	47	B	13.2	62
	Northbound Right		B	12.7	23	B	13.7	23
	Southbound Approach		***B***	***10.1***		***D***	***39.6***	
	Southbound Left/Thru		A	9.5	47	D	39.5	170
	Southbound Right		B	10.8	53	D	39.7	172
2	**Broadview Ave (E/W) at Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy (N/S)**							
	Overall Intersection (TWSC)							
	Northbound Approach		***B***	***13.0***		***B***	***13.9***	
	Northbound Right		B	13.0	5	B	13.9	5
	Southbound Approach		***B***	***10.8***		***B***	***13.9***	
	Southbound Right		B	10.8	3	B	13.9	15
3	**Broadview Ave (E/W) at Branch Dr (N/S)**							
	Overall Intersection (Signalized)		**C**	**23.0**		**D**	**35.8**	
	Eastbound Approach		***B***	***19.0***		***C***	***28.1***	
	Eastbound Left	240	E	67.0	80	E	75.4	224
	Eastbound Thru		B	17.0	485	C	21.1	441
	Eastbound Right	330	B	11.6	0	B	14.7	0
	Westbound Approach		***B***	***18.0***		***C***	***31.6***	
	Westbound Left	150	E	67.4	88	E	78.5	123
	Westbound Thru		B	15.8	400	C	30.4	675
	Westbound Right	150	B	11.6	0	B	19.3	26
	Northbound Approach		***E***	***62.1***		***E***	***67.0***	
	Northbound Left/Thru		E	63.0	47	E	68.6	73
	Northbound Right	60	E	61.6	0	E	66.2	0
	Southbound Approach		***E***	***63.4***		***E***	***68.7***	
	Southbound Left/Thru		E	66.7	162	E	78.1	#338
	Southbound Right		E	57.2	0	E	56.4	58
4	**Warrenton Village Center Dwy/Shopping Center Dwy (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.5***		***B***	***12.5***	
	Eastbound Left/Thru/Right		A	9.5	8	B	12.5	35
	Westbound Approach		***B***	***10.4***		***C***	***16.0***	
	Westbound Left/Thru/Right		B	10.4	5	C	16.0	33
	Northbound Approach							
	Northbound Left		A	7.5	3	A	7.6	5
	Southbound Approach							
	Southbound Left		A	7.4	0	A	7.5	3
5	**Oak Springs Dr (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	0.0	0	A	7.5	0
	Westbound Approach							
	Westbound Left		A	7.8	0	A	7.8	3
	Northbound Approach		***B***	***11.8***		***B***	***13.1***	
	Northbound Left/Thru		B	12.2	15	B	14.3	25
	Northbound Right		A	9.2	3	A	9.5	5
	Southbound Approach		***B***	***10.1***		***B***	***11.3***	
	Southbound Left/Thru/Right		B	10.1	0	B	11.3	0

Table 7 (Continued): 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
6	**Oak Springs Dr (E/W) at Hastings Ln / Future Access (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left		A	7.9	5	A	7.9	3
	Westbound Approach							
	Westbound Left		A	7.6	0	A	7.6	0
	Northbound Approach		***B***	***13.6***		***B***	***13.1***	
	Northbound Left/Thru/Right		B	13.6	3	B	13.1	0
	Southbound Approach		***B***	***12.1***		***B***	***12.5***	
	Southbound Left/Thru/Right		B	12.1	18	B	12.5	20
7	**Oak Springs Dr (E/W) at Highland School Dwy / Future Garage Access (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left	75	A	7.7	3	A	7.7	0
	Westbound Approach							
	Westbound Left		A	7.6	0	A	7.8	3
	Northbound Approach		***B***	***10.8***		***B***	***11.0***	
	Northbound Left/Thru/Right		B	10.8	10	B	11.0	8
	Southbound Approach		***B***	***12.6***		***B***	***11.1***	
	Southbound Left/Thru		B	14.6	8	B	14.7	3
	Southbound Right		A	9.4	3	A	9.6	3
8	**Oak Springs Dr (E/W) at Broadview Ave (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***18.1***		***C***	***17.1***	
	Eastbound Left/Thru/Right		C	18.1	0	C	17.1	3
	Westbound Approach		***C***	***22.4***		***D***	***32.9***	
	Westbound Left/Thru	125	E	39.0	55	F	61.8	103
	Westbound Right		B	10.7	15	B	10.8	20
	Northbound Approach							
	Northbound Left	90	A	8.1	0	A	8.5	0
	Southbound Approach							
	Southbound Left	225	A	9.1	10	A	8.8	8
9	**Warrenton Village North Dwy (E/W) at Broadview Ave (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***16.0***		***C***	***20.7***	
	Eastbound Left/Thru/Right		C	16.0	3	C	20.7	10
	Westbound Approach		***C***	***16.3***		***C***	***20.3***	
	Westbound Left		C	22.8	8	D	30.0	23
	Westbound Thru/Right		B	11.1	3	B	10.7	5
	Northbound Approach							
	Northbound Left	150	A	8.3	0	A	8.8	3
	Southbound Approach							
	Southbound Left	110	A	8.6	3	A	8.5	3
10	**Warrenton Village South Dwy/Broadview Ave (E/W) at Broadview Ave/Winchester St (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***D***	***34.4***		***E***	***35.6***	
	Eastbound Left		F	51.0	100	F	71.7	108
	Eastbound Thru		D	27.8	8	E	42.2	45
	Eastbound Right		B	10.1	10	B	11.7	25
	Westbound Approach		***C***	***21.2***		***E***	***40.2***	
	Westbound Left		D	26.6	3	F	60.0	45
	Westbound Thru/Right		C	18.5	3	C	23.5	20
	Northbound Approach							
	Northbound Left	160	A	8.7	10	A	9.4	8
	Southbound Approach							
	Southbound Left	160	A	8.3	0	A	8.3	0

NOTES:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] #: 95th percentile queues (reported from Synchro) exceed capacity; actual queues may be longer. Queues shown are based on the maximum after two cycles.

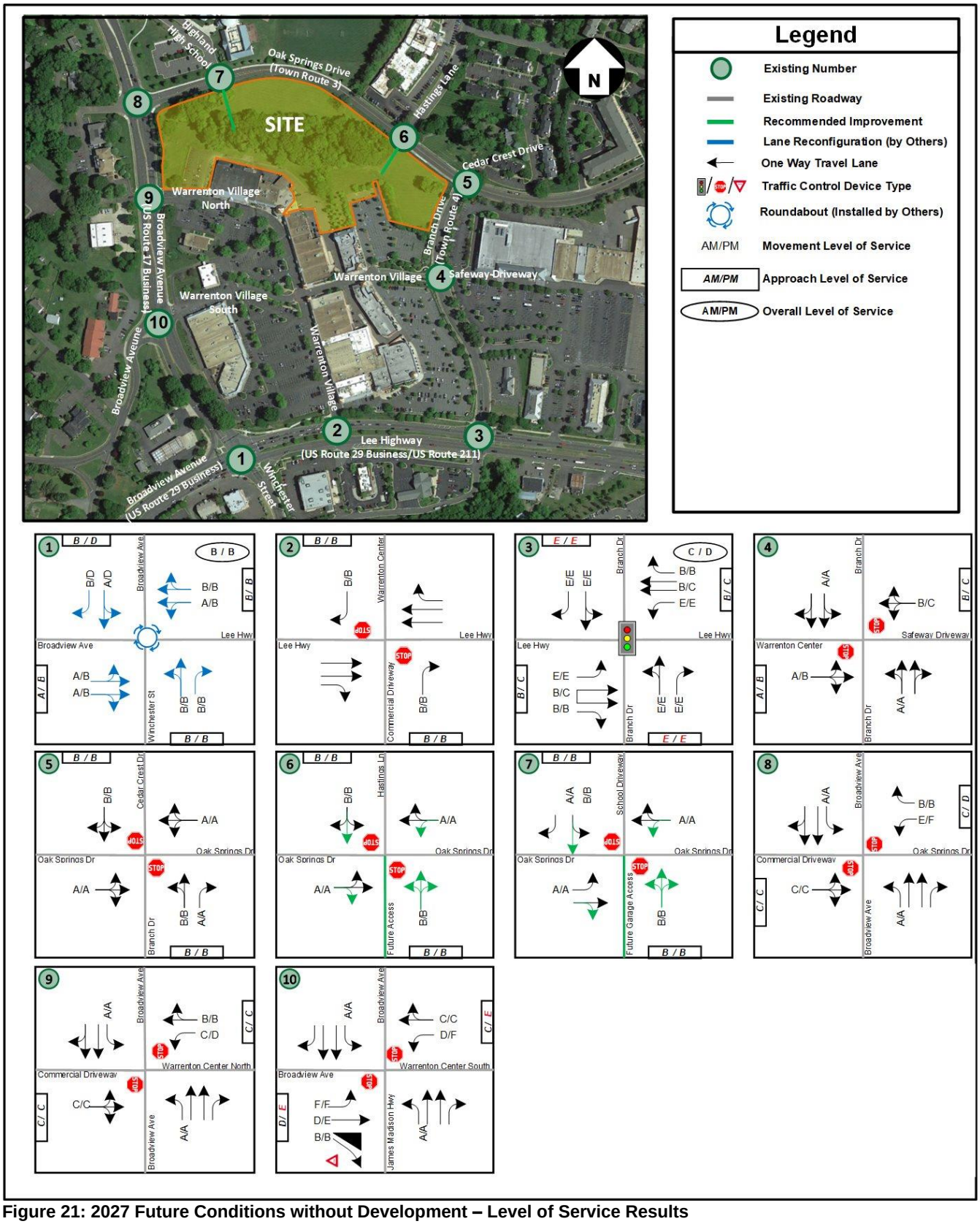

Figure 21: 2027 Future Conditions without Development – Level of Service Results

As mentioned previously, per the agreed upon scoping document, it would be considered desirable to achieve an approach LOS D or better for traffic operations using HCM methodology. Furthermore, if an overall intersection or approach was operating at an unacceptable LOS under future without development conditions, it was assumed acceptable to achieve non-degradation.

The planned roundabout is expected to operate at an overall LOS B with all approaches operating at LOS D or better during the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the signalized study intersection is expected to continue to operate at overall levels of service of D or better during both the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the approaches of all study intersections continue to operate at approach levels of service of D or better during both the AM and PM peak hours, except for the following study intersections that have at least one approach that would operate at level of service E of F (similar to 2027 Future Conditions without Development) during at least one peak hour:

- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 10: Broadview Avenue at Warrenton Village South

Based on the queuing analysis performed for 2027 Future Conditions without Development, all turning movements at the study intersections have maximum queue lengths that are accommodated within the available storage lengths of the turn bays.

Note that Study Intersection 10 (Broadview Avenue at Warrenton Village South) was previously identified by the Town for construction of a roundabout but was not selected for funding and therefore not included in the analysis. Therefore, no improvements are recommended for construction by the proposed Development.

In general, the signalized intersection would operate with longer vehicular delays for the side-streets and mainline left turning movements. These delays are a result of VDOT prioritization of through traffic on the mainline, as is typical along commuter corridors, to accommodate the largest possible volume of through traffic in the area along the mainlines and therefore have a better overall traffic operation than if all movements were prioritized equally.

No improvements are warranted or recommended as part of the proposed Development.

Preliminary Left and Right Turn Lane Warrant Assessments

Left and right turn lane warrants are based off VDOT's Road Design Manual (RDM), Appendix F. In order to determine the need for exclusive left and/or right turn lanes or tapers at the study intersections, the traffic data and anticipated development program provided in the 2027 Future Conditions with Development scenario section were utilized.

Warrants for right-turn storage lanes on two- and four-lane highways at intersections are based on Figure 3-26 and Figure 3-27 in Appendix F of VDOT's RDM. These figures provide a graphical representation for determining the necessity of a right turn lane by comparing the total volumes of a given approach with their respective right turn volumes.

Warrants for left-turn storage lanes on two-lane highways at unsignalized intersections are based on Figure 3-5 to Figure 3-21 in Appendix F of VDOT's RDM. The figures provide graphical representations for determining the necessity of a left turn lane by comparing the advancing volumes of a given approach and the respective opposing volumes with respect to the percentage of left turning vehicles of the advancing volumes and the design speed of a given roadway.

If the turn lanes and / or tapers are not provided or would not meet the minimum requirements per VDOT's RDM, turn lane waivers requests would need to be submitted as separate documentation and be approved by VDOT.

A summary of the turn lane warrant analysis is presented in **Table 8** through **Table 11**.

Table 8: Summary of Left Turn Lane Warrants at Site Entrances (2-Lane) – Build 2027

Study Scenario	Opposing Vol. (VPH)	Advancing Vol. (VPH)	Left Turn Vol. (VPH)	Left Turn %	Minimum Opposing Threshold (VPH)	VDOT RDM F Figure	Treatment
INT 6 - WBL AM - TF 2027	254	202	2	0.99%	1,208	Fig. 3-4	Not Warranted
INT 6 - WBL PM - TF 2027	217	246	6	2.44%	1,054	Fig. 3-4	Not Warranted
INT 7 - WBL AM - TF 2027	205	228	19	8.33%	841	Fig. 3-5	Not Warranted
INT 7 - WBL PM - TF 2027	194	281	62	22.06%	274	Fig. 3-8	Not Warranted

Table 9: Summary of Right Turn Lane Warrants at Site Entrances (2-Lane) - Build 2027

Study Scenario	Approach Volume	Right Turn Volume	Minimum Right Turn Taper Threshold	Minimum Right Turn Full Lane Threshold	Treatment
INT 4 - NBR - 2027 TF AM Peak	95	7	37	90	Not Warranted
INT 4 - NBR - 2027 TF PM Peak	149	12	36	90	Not Warranted
INT 4 - SBR - 2027 TF AM Peak	90	5	37	90	Not Warranted
INT 4 - SBR - 2027 TF PM Peak	119	32	36	90	Not Warranted

Table 10: Summary of Left Turn Lane Warrants at Brach Drive (Study Intersection 4) (4-Lane) - Existing 2023

Study Scenario	Opposing Vol. (VPH)	Advancing Vol. (VPH)	Left Turning Vol.	Left Turn %	Treatment
INT 4 - NBL - 2023 EX AM Peak	90	95	23	24.2%	Not Warranted
INT 4 - NBL - 2023 EX PM Peak	119	149	94	63.1%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2023 EX AM Peak	95	90	18	20.0%	Not Warranted
INT 4 - SBL - 2023 EX PM Peak	149	119	48	40.3%	Full-width Turn Lane and Taper Warranted (for Undivided)

Table 11: Summary of Left Turn Lane Warrants at Brach Drive (Study Intersection 4) (4-Lane) – Build 2027

Study Scenario	Opposing Vol. (VPH)	Advancing Vol. (VPH)	Left Turning Vol.	Left Turn %	Treatment
INT 4 - NBL - 2027 TF AM Peak	145	115	24	20.9%	Not Warranted
INT 4 - NBL - 2027 TF PM Peak	155	210	97	46.2%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2027 TF AM Peak	115	145	18	12.4%	Not Warranted
INT 4 - SBL - 2027 TF PM Peak	210	155	48	31.0%	Full-width Turn Lane and Taper Warranted (for Undivided)

No turn lanes are warranted at the site entrances. At the request of VDOT and the Town, turn lanes were evaluated at the Study Intersection 4 (Branch Drive at Warrenton Village Driveway / Safeway Driveway). The northbound left turn lane is warranted under Build 2027 conditions, but it is also warranted under existing conditions. Therefore, a northbound left turn

lane on Branch Drive is not recommended to be installed by the proposed Development. Graphics and information regarding the methodology used to determine the turn lane warrants are provided in Appendix J.

Preliminary Access Management Evaluation (Intersection Spacing)

The minimum spacing standards for the Commonwealth of Virginia are specified in VDOT's Road Design Manual (RDM). Appendix F of the RDM focuses primarily on access management practices. The minimum spacing standard are particularly specified in Table 2-2 through Table 2-4. Table 2-2 provides guidance on the minimum spacing standard for commercial entrances, intersections, and median crossovers, and are based on a roadway's speed limit and functional classification. Table 2-3 and 2-4 provide guidance for minimum spacing standards for the spacing between interchanges and intersections or commercial entrances.

As mentioned previously, Oak Springs Road is classified by VDOT as "Major Collector," with a posted speed limit of 25 mph. Based on the applicable intersection spacing requirements (centerline-to-centerline) per RDM Appendix F Table 2-2, **Table 12** lists the summary of the future intersections with corresponding roadway information and the appropriate distance requirements. **Figure 22** shows the approximate proposed distances between the study intersections and the corresponding required distances with the proposed intersections in place for the Site.

Table 12: Future Intersection Spacing

Functional Classification	Design Speed (See Note 2)	Minimum Spacing (Distance) in Feet			
		Type 1 (Signalized)	Type 2 (Unsignalized/ Full Crossover)	Type 3 (Full Access /Directional Crossover)	Type 4 (Partial Access)
Principal Arterial	≤ 30 mph	1,050	880	440	250
	35 to 45 mph	1,320	1,050	565	305
	≥ 50 mph	2,640	1,320	750	495
Minor Arterial	≤ 30 mph	880	660	355	200
	35 to 45 mph	1,050	660	470	250
	≥ 50 mph	1,320	1,050	555	425
Collector	≤ 30 mph	660	440	225	200
	35 to 45 mph	660	440	335	250
	≥ 50 mph	1,050	660	445	360
Local Street	See Note 1				

TABLE 2-2 MINIMUM SPACING STANDARDS FOR COMMERCIAL ACCESSES, INTERSECTIONS AND MEDIAN CROSSOVERS*

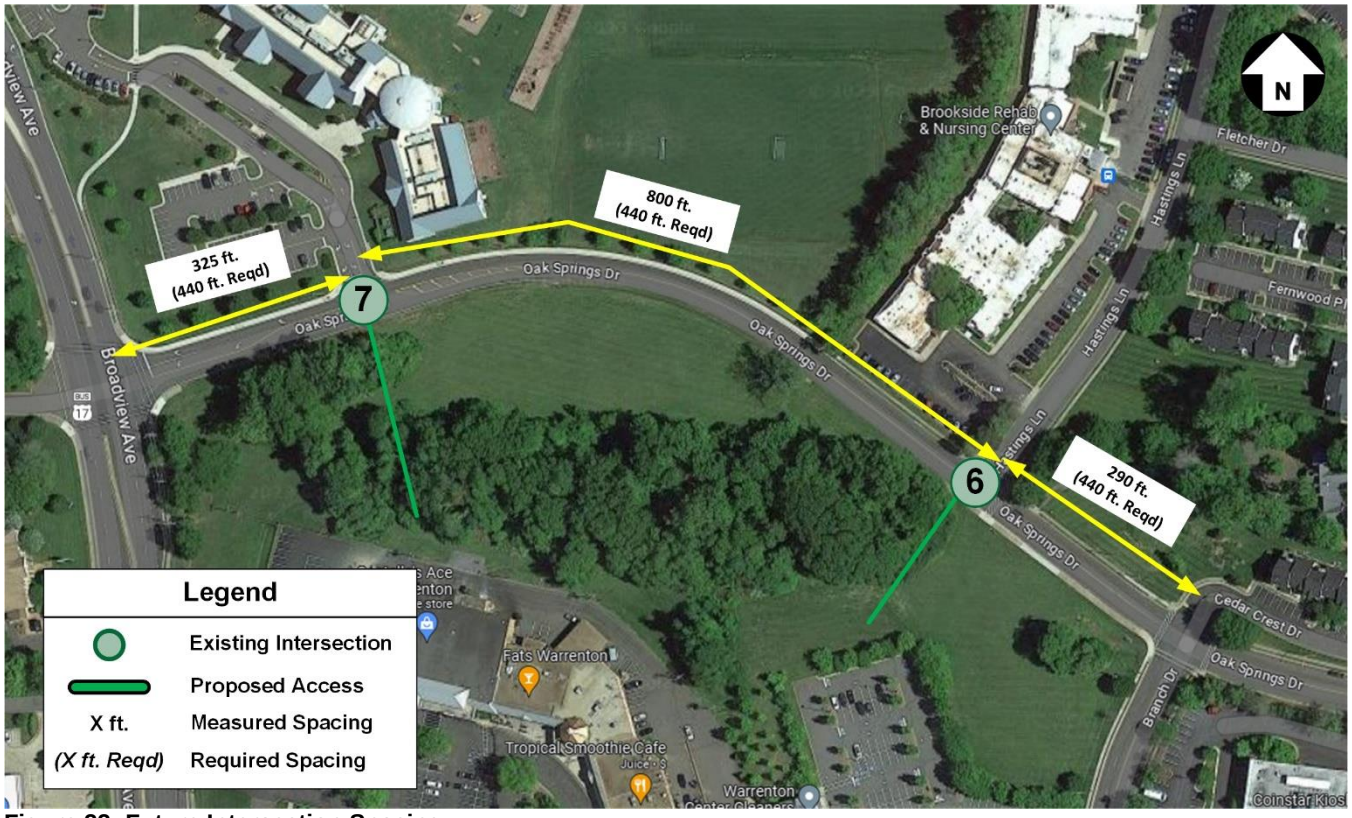

Figure 22: Future Intersection Spacing

As described in

Table 12**2** and depicted in **Figure 22,** the two proposed entrances do not meet the spacing requirements for unsignalized intersections on a 25 mph Major Collector. However, the entrances are proposed as the fourth leg to existing intersections instead of creating new entrances with offsets. However, Oak Springs Drive does not appear to be a VDOT maintained roadway, so an Access Management Exception (AM-E) request will not be submitted.

Preliminary Signal Warrant Analysis

Signal warrants are based on *Chapter 4C: Traffic Control Signal Needs Studies* of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition. Chapter 4C discusses nine (9) separate warrants, by which only one warrant needs to be satisfied to justify the installation of a traffic control signal. In order to provide an assessment for the possible signalization of Broadview Avenue at Oak Springs Road (Study Intersection 8) under the build 2027 traffic volumes, Warrant Two (Four-Hour Vehicular Volume) was analyzed, since the warrant usually is a significant factor signalization and is often the warrant that is most readily satisfied for typical conditions.

Portions of the MUTCD used in this analysis are provided in Appendix K.

Warrant Two: Four-Hour Vehicular Volume

Warrant Two is satisfied when the plotted points representing the vehicles per hour (vph) on the major street (total of both approaches and the corresponding vph on the high-volume minor-street approach (one direction only), for each of any four hours of an average day, all fall above either MUTCD Figure 4C-1 or Figure 4C-2 (depending on the applicability) for the future combination of approach lanes.

The traffic volumes utilized to evaluate Warrant Two, using Figure 4C-1 are shown in **Table 13** for the study intersection. It should be noted that the intersection was analyzed as being two lanes on the major approach and one lane on the minor approach. In addition, only two hourly volumes were utilized, the build 2027 AM and PM peak hour volumes, because it is not anticipated that the other hourly volumes would be any higher or more likely to satisfy the conditions than that of the two selected. Lastly, as the capacity analysis of future conditions indicated that 100% of right turners could perform right turn maneuvers on red from the side-street approaches and there are currently exclusive northbound and westbound right turn lanes, a 100% right turn on red (RTOR) reduction was applied to all approaches, as depicted below.

Table 13: Volume Projections – Broadview Avenue at Oak Springs Road (Intersection 8)

Time Period	Broadview Ave (NB/SB)	Oak Springs Dr (WBL)
7:30AM to 8:30 AM	872	80
4:00 PM to 5:00 PM	985	110

Note: 100% right turn reductions are applied on all approaches

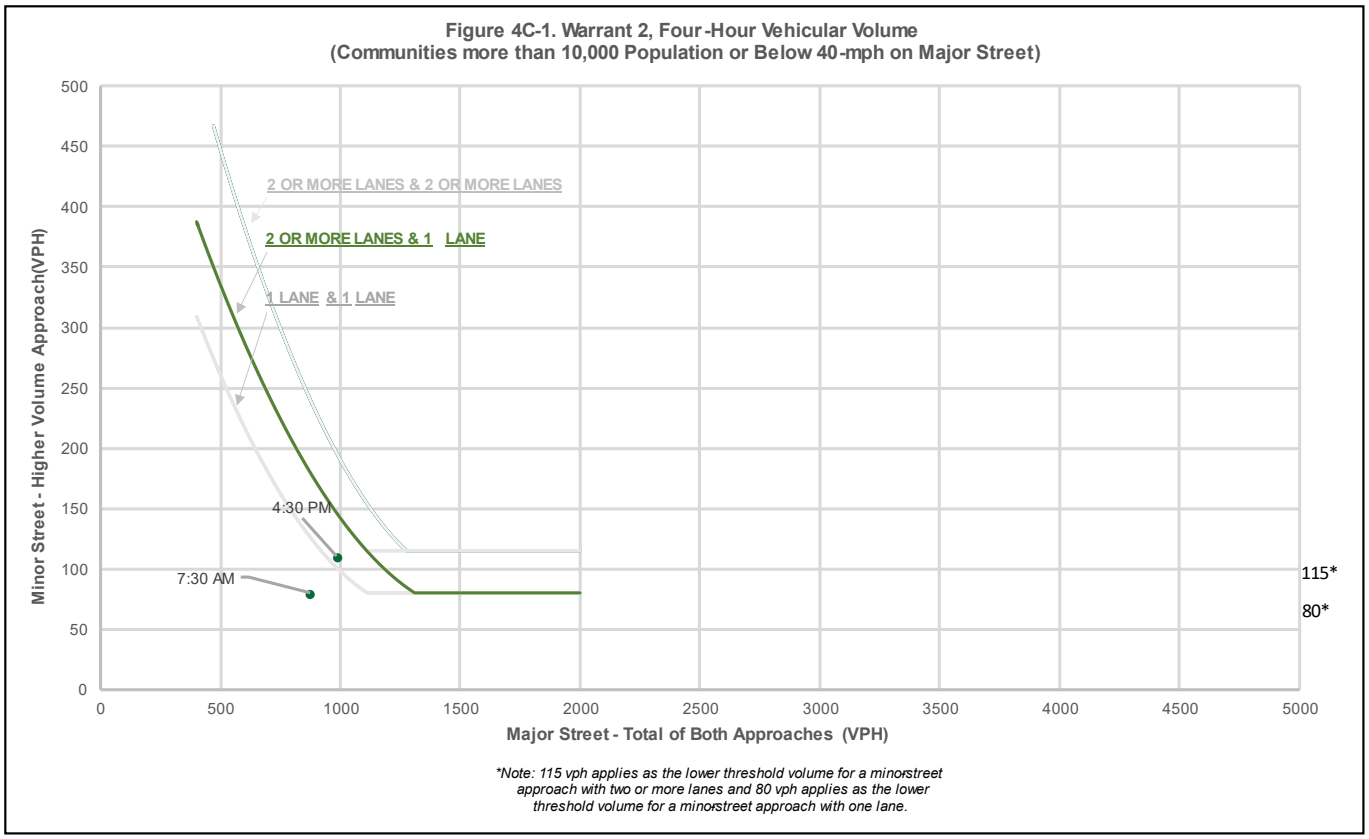

Figure 23: Four-Hour Warrant Analysis – Broadview Avenue at Oak Springs Road (Intersection 8)

As seen in the figure above, the build 2027 peak hour traffic volumes with a 100% RTOR reduction does not meet the threshold for two of the four hours required. As mentioned earlier, it is most likely that the next two hours with the highest traffic volume will generate even lower trips than the AM and PM peak hours. Therefore, based on traffic volumes, a signal would not be warranted at this intersection under this analysis.

The minor street volume is above the minimum threshold of 80 vehicles to warrant a signal; however, the major street volume is not high enough.

Additionally, the capacity analysis in the 2011 TIA shows that all reported movements at this unsignalized study intersection are anticipated to operate at LOS C or better during both AM and PM peak hours. This capacity analysis is acceptable and an indication that there is not an operational need for signalization.

Bicycle and Pedestrian Accommodations

The property currently contains a sidewalk with a buffer across the north side of the Oak Springs frontage. The existing sidewalk will be maintained with the proposed development, and sidewalk will be constructed along the south side of Oak Springs Road across the property frontage. There is at least one crosswalk at every study intersection, with the exception of Study Intersection 2 (Lee Highway at Warrenton Village / Chick-fil-a Driveway).

The school and mixed-use area create opportunities for the proposed Site to create paths and areas for multimodal connectivity. As shown on the concept plan, The Site is proposing a multitude of improvements that will increase pedestrian connectivity throughout the entire area. New sidewalks will be added along the entire perimeter of all residential blocks, including direct sidewalk connectivity to ground floor units. The extension of Hastings Lane and accompanying sidewalks will offer a new pedestrian access point from Oak Springs Drive. The proposed road that will connect the Hastings Lane extension through the existing commercial building and into the heart of the retail center via a new cut-through street that will allow maximum ease to walk from one side of the site to the other.

The unsignalized pedestrian crossings were reviewed as per TE-384.1 and will be submitted as a separate document.

Conclusions

This report presents the findings of a Traffic Impact Analysis (TIA) conducted for the proposed Warrenton Village Center (the Site / the Development / the Property) along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

Analysis Components

- 2023 existing volumes were derived via turning movement counts collected at intersections within the study area in February 2023.
- As determined based on review comments from VDOT and the Town, an inherent regional growth of 1.0% per year was applied to the Lee Highway mainline through movements at the intersection of Lee Highway at Broadview Avenue (US Route 17 Business). The growth volumes were balanced along the road network by increasing the mainline through movements at subsequent study intersections along the road network where applicable for the period between 2023 and 2027 to account for 2027 conditions.
- The trip generation associated with the Site was based on the ITE Trip Generation Manual, 11th Edition publication. The Site in total is expected to generate approximately 154 new trips during the AM peak hour, 197 new trips during the PM peak hour, and 2,602 new daily trips on a typical weekday.
- Intersection capacity and queuing analyses were performed for all analysis scenarios at the study area intersections during the weekday morning (AM) and weekday afternoon (PM) peak hours. *Synchro*, version 11, was used to analyze the study intersections with results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) methodology and analysis guidelines provided in VDOT's Traffic Operations and Safety Analysis Manual (TOSAM) (version 2). The analysis herein includes level of service (LOS), delay, and queue length comparisons for the turning movements analyzed.
- The analysis also considers an assessment of historical crash data at all existing study intersections.
- The analysis also includes preliminary access management assessment and turn lane warrant assessments for the Site access points along Oak Springs Drive.

Analysis Results

2023 Existing Conditions

- Based on the capacity analysis of Existing Conditions, the two signalized study intersections operate at an overall level of service D or better during both the AM and PM peak hours.

- Based on the capacity analysis of Existing Conditions, three study intersections have at least one approach that operates at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that can be accommodated within the available storage length of the turn bays, except the southbound left turn movement at Study Intersection 1 (Broadview Avenue / Lee Highway at Winchester Street).

2027 Future Conditions without Development

- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B or better with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of 2027 Future Conditions without Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

2027 Future Conditions with Development

- The Site is expected to generate approximately 154 new total trips during the AM peak hour, 197 new trips during the PM peak hour and 2,602 new trips during a typical weekday.
- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of the 2027 Future Conditions with Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour (similar to 2027 Future Conditions without Development) during the AM and PM peak hours. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the queuing analysis performed for the 2027 Future Conditions with Development, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

Overall Conclusion

Based on the capacity and queueing analysis results, the proposed Development will not have a substantial impact to the surrounding transportation and roadway network, assuming that the site is constructed as depicted on the concept plan. No improvements are warranted or recommend to accommodate the proposed Development.

Transportation Technical Appendix

Warrenton Village Center

Town of Warrenton, Virginia

GOROVE SLADE
Transportation Planners and Engineers

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A. Signed Scoping Document

THIS IS NOT A CHAPTER 870 STUDY

VDOT Virginia Department of Transportation	PRE-SCOPE OF WORK MEETING FORM Information on the Project Traffic Impact Analysis Base Assumptions

The applicant is responsible for entering the relevant information and submitting the form to VDOT and the locality no less than three (3) business days prior to the meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information			
Consultant Name: Tele: E-mail:	Kevin Sitzman, Gorove Slade Associates, Inc. 703.787.9595 kevin.sitzman@goroveslade.com		
Developer/Owner Name: Tele: E-mail:	Jess Achenbach jachenbach@castledp.com		
Project Information			
Project Name:	Warrenton Village Mixed-Use Center	Locality/County:	Town of Warrenton
Project Location: (Attach regional and site specific location map)	The proposed development will be located primarily along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia. **(See Figure 1).**		
Submission Type	Comp Plan ☐	REZ/SUP ☒	Site Plan ☐ / Subd Plat ☐
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]). The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 376 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 20 townhomes) and a parking deck. The site has an anticipated build-out date of 2027. Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the forth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth-leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.		
Proposed Use(s): (Check all that apply; attach additional pages as necessary)	Residential ☒ / Commercial ☐ / Mixed Use ☐ / Other ☐		
	Residential Uses(s) ITE LU Code(s): 220 Number of Units: 376 **Other Use(s)**	**Commercial Use(s)** ITE LU Code(s): Square Ft or Other Variable:	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

	ITE LU Code(s): Square Ft or Other Variable:			
Total Peak Hour Trip Projection:	Less than 100 ☐	100 – 499 ☒	500 – 999 ☐	1,000 or more ☐

Traffic Impact Analysis Assumptions

Study Period	Existing Year: 2023	Build-out Year: 2027	Design Year: N/A
Study Area Boundaries (Attach map)	North: Oak Springs Drive (Town Route 3)		South: US Route 211 / 29 Business
	West: Broadview Avenue (US Route 17 Business)		East: Branch Drive (Town Route 4)
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	Waterloo Junction Single Family homes along Patrick Ryan Way Smart Scale Roundabouts 1. Broadview/Winchester/Lee 2. Roebling/Broadview		
Consistency With Comprehensive Plan (Land use, transportation plan)	Yes		
Available Traffic Data (Historical, forecasts)	2023 TMC's VDOT Historical AADT Data		
Trip Distribution **(Please refer to attached Figure 2 in Supplement)**	Road Name: (to/from the North) – N/A		Road Name: (to/from the South) – N/A
	Road Name: (to/from the West) – N/A		Road Name: (to/from the East) – N/A
Annual Vehicle Trip Growth Rate: (See Note 2.)	1.0%/yr. (2023 to 2027)	Peak Period for Study (check all that apply)	☒ AM ☒ PM ☐ SAT
		Peak Hour of the Adj. (to be used in study)	AM: 150 / PM: 192 / Daily: 2,534

Study Intersections and/or Road Segments (Attach additional sheets as necessary) **(Please refer to attached Figure 1.)**				
	1.	Broadview Avenue (US Route 17) / Lee Highway at Broadview Avenue / Winchester Street	6.	Oak Springs Drive (Town Route 3) at Hastings Lane / Future Access
	2.	Lee Highway (US Route 17) at Warrenton Village Center Driveway at Chick-fil-a Driveway	7.	Oak Springs Drive (Town Route 3) at Highland School Driveway / Future Garage Access
	3.	Lee Highway (US Route 17) at Branch Drive (Town Route 4)	8.	Broadview Avenue (US Route 17 Business) at Oak Springs Drive (Town Route 3)
	4.	Branch Drive (Town Route 4) at Warrenton Village Driveway / Safeway Driveway	9.	Broadview Avenue (US Route 17 Business) at Warrenton Village Center South Driveway
	5.	Oak Springs Drive (Town Route 3) at Branch Drive (Town Route 4) / Cedar Crest Drive	10.	Broadview Avenue (US Route 17 Business) at Warrenton Village Center North Driveway

Trip Adjustment Factors	Internal allowance Reduction: ☐ Yes ☒ No	Pass-by allowance Reduction: ☐ Yes ☒ No
Software Methodology	☒ Synchro ☐ HCS (v.2000/+) ☒ SIDRA ☐ CORSIM ☐ Other _____	
Traffic Signal Proposed or Affected (Analysis software to be used, progression speed, cycle length)	Existing traffic signals that could be affected: 1. Broadview Avenue (US Route 17) / Lee Highway at Broadview Avenue / Winchester Street 2. Lee Highway (US Route 17) at Branch Drive (Town Route 4) Analysis Software: Synchro version 11 Results: HCM 6 Methodology (See Note 7) Queue Lengths to be Reported: 95th Percentile	
Improvement(s) Assumed or to be Considered	Smart Scale Roundabouts 1. Broadview/Winchester/Lee 2. Roebling/Broadview	
Background Traffic Studies Considered	Waterloo Junction Single Family homes along Patrick Ryan Way	
Plan Submission	☐ Master Development Plan (MDP) ☒ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ☐ Other Plan type (Final Site, Subd. Plan)	
Additional Issues to be Addressed	☒ Queuing analysis ☐ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis ☒ Bike/Ped Accommodations ☒ Intersection(s) ☐ TDM Measures ☐ Other (_____)	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

NOTES on ASSUMPTIONS:

1. The scenarios to be included in the study are Existing Conditions (2023), Future without Development (2027) and Future with Development (2027). The study will analyze AM and PM peak hours.
2. Existing traffic volumes will be based on 2023 traffic count data. In order to project 2027 future conditions, a regional growth of 1.0% per annum will be applied to all turning movements at all study intersections.
3. Existing peak hour factors will be based on the traffic counts and utilized on a by-intersection basis. Peak hours factors by intersection in the range of 0.85 to 1.00 will be used for existing scenario. Peak hour factors of 0.92 will be used for all future scenarios if the existing peak hour factor by intersection is less than 0.92.
4. Heavy vehicle percentages (HV%) will be based on existing counts per movement. For any new leg or intersection, the HV% will be based on a default *Synchro* value of 2.0% per movement.
5. For any approach, a level of service (LOS) D or better would be considered as acceptable/desirable traffic operation condition. For all approaches, the projected future conditions without development LOS and delay will be maintained in the future with development condition. Will show intersection, approach, and movement LOS.
6. 95th percentile queues will be provided from *Synchro*.
7. HCM 6 methodology will be utilized where applicable; HCM 2000 methodology will be utilized if HCM 6 methodology is not applicable.
8. Preliminary access management and turn lane warrant assessments will be conducted for the site entrances.
9. Crash Data obtained from VDOT's Crash Analysis Tool will be analyzed at existing intersections.

SIGNED:  DATE: 6/30/2023
Applicant or Consultant

PRINT NAME: Kevin Sitzman
Applicant or Consultant

SIGNED: _____ DATE: _____
VDOT Representative

PRINT NAME: _____
VDOT Representative

SIGNED: _____ DATE: _____
Local Government Representative

PRINT NAME: _____
Local Government Representative

Table 1: Historic Growth (Based on VDOT Traffic Data)

Road Segment:	From:	To:	Published VDOT AADT					Growth Rate			
			2015	2016	2017	2018	2019	2015 - 2019	2016 - 2019	2017 - 2019	2018 - 2019
Broadview Avenue	Bus US 29 Lee Hwy	NCL Warrenton	10,000	10,000	10,000	10,000	11,000	2%	3%	5%	10%
Oak Springs Drive	Broadview Ave	Branch Dr	3,200	3,200	3,200	3,200	3,100	-1%	-1%	-2%	-3%
Branch Drive	Lee Highway	Oak Springs Drive	3,800	4,200	4,200	4,300	4,300	3%	1%	1%	0%



Figure 1: Site Location and Study Intersections

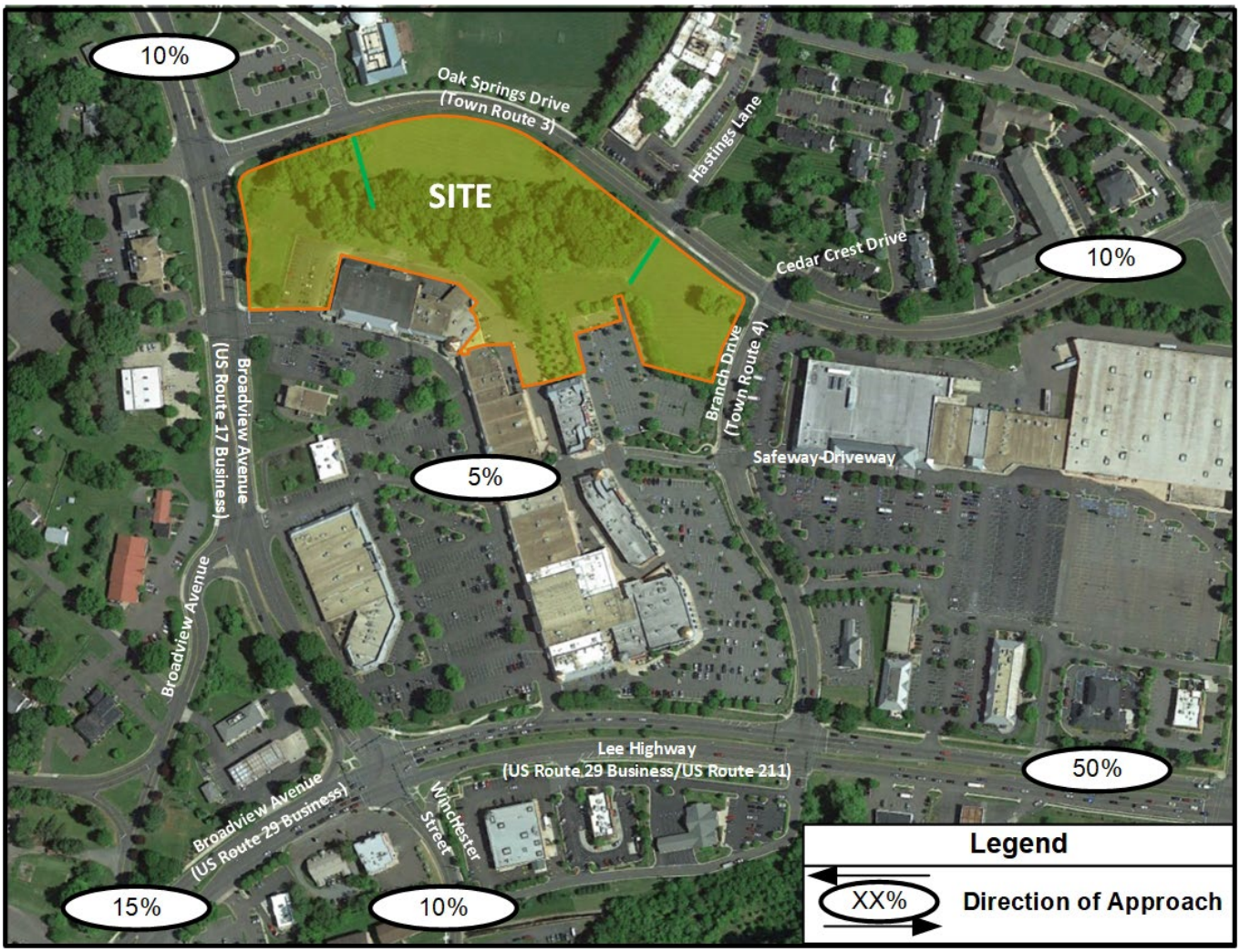


Figure 2: Direction of Approach

Table 2: Trip Generation – Peak Hour of the Adjacent Street (ITE 11th Edition) – To Be Used in Study

Land Use	ITE Code	Size	------ Weekday ------						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Multifamily Housing	220	376 DU	36	114	150	121	71	192	2,534

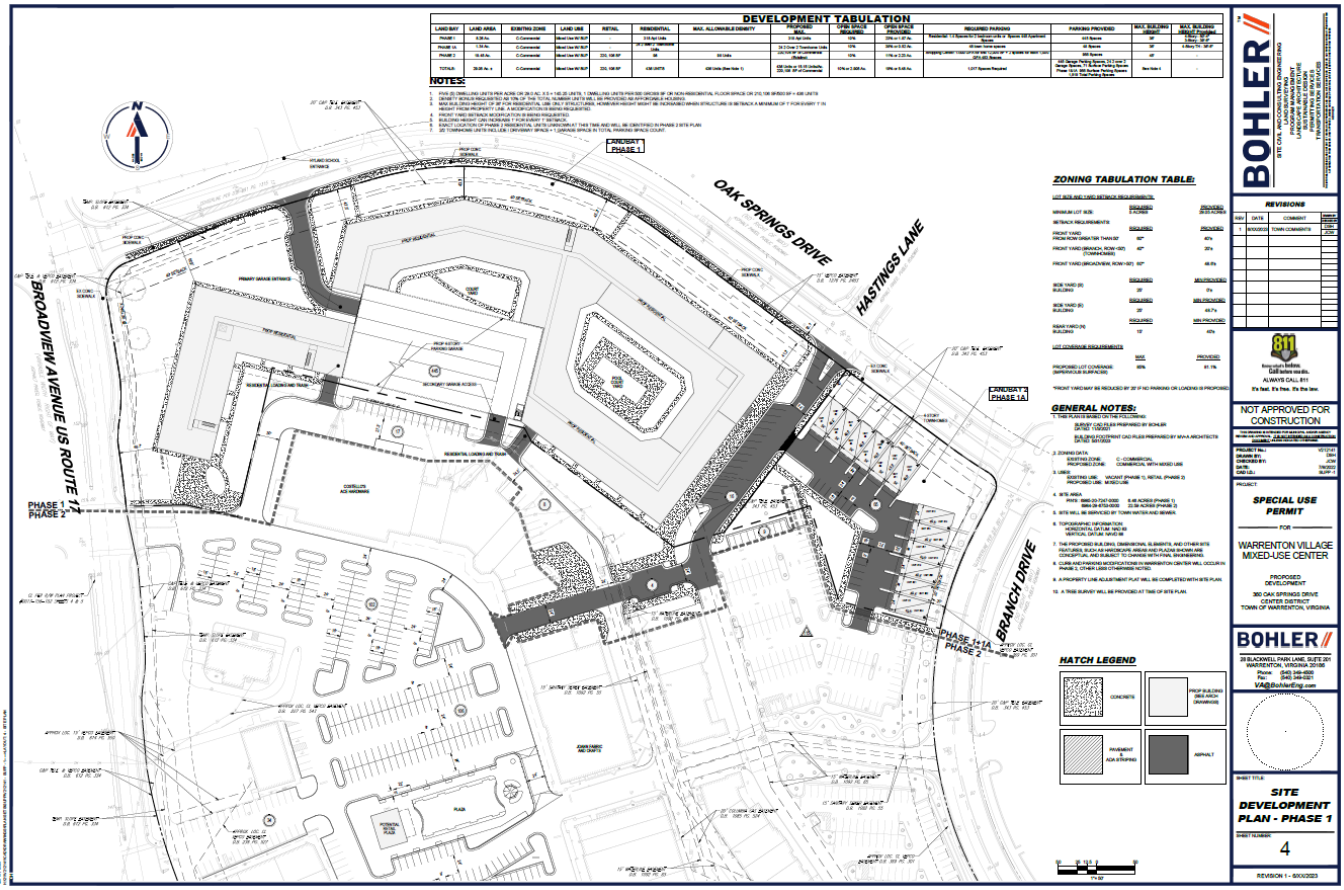


Figure 3: Illustrative Site Plan (Provided by Bohler)
Note: For conceptual purposes only.

B. Crash Data by Study Intersection

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Broadview Avenue (US 17 BUS) (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	2	6	1	1	2		12	30.00%
Type A	*1*						*1*	
Type B		*2*			*2*		*4*	
Type C	*1*	*4*	*1*	*1*			*7*	
Property Damage Only (Type PDO)	3	8	3	8	6		28	70.00%
TOTAL*	***5***	***14***	***4***	***9***	***8***		***40***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction		1			2		3	7.50%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision	3	8	4	5	4		24	60.00%
Angle Collision	1	5		4	1		11	27.50%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other	1				1		2	5.00%
TOTAL*	***5***	***14***	***4***	***9***	***8***		***40***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**	1						1	2.50%
Work-Zone								0.00%
Inclement Weather (Non-Dry)		1			2		3	7.50%
Speeding	2						2	5.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)	*1*	*5*		*2*			*8*	*20.00%*
Off Peak - Daytime (10 AM - 3 PM)	*1*	*5*	*3*	*4*	*4*		*17*	*42.50%*
PM Peak Period (3 - 7 PM)	*2*	*3*	*1*	*3*	*2*		*11*	*27.50%*
Off Peak - Nighttime (7 PM - 6 AM)	*1*	*1*			*2*		*4*	*10.00%*
CALCULATED CRASH RATE*							***0.75***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Broadview Avenue (US 17 BUS) (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
182555077	9/11/2018	A. Severe Injury	16. Other	0	1	0		no	no
181915232	7/5/2018	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
181845228	6/28/2018	PDO. Property Damage Only	2. Angle	0	0	0		no	no
182415104	8/20/2018	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
182885118	10/13/2018	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
192075126	7/20/2019	B. Visible Injury	2. Angle	0	1	0		no	no
193445038	8/21/2019	PDO. Property Damage Only	2. Angle	0	0	0		no	no
191415326	5/15/2019	PDO. Property Damage Only	2. Angle	0	0	0		no	no
191685219	5/22/2019	PDO. Property Damage Only	2. Angle	0	0	0		no	no
190705057	3/5/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
190935057	4/2/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
192325410	8/20/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
191895108	7/5/2019	C. Nonvisible Injury	1. Rear End	0	5	0		no	no
193445107	10/30/2019	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
193445122	11/14/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
193445083	10/13/2019	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
193445100	10/22/2019	C. Nonvisible Injury	1. Rear End	0	3	0		yes	no
193445071	9/30/2019	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		no	no
191295165	5/8/2019	B. Visible Injury	2. Angle	0	1	0		no	no
203495122	12/11/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
202175264	7/29/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
203175313	11/2/2020	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
201635154	6/2/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
212215197	7/25/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
212285259	8/6/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
211945123	7/6/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
211535051	5/26/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Broadview Avenue (US 17 BUS) (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
212725106	9/20/2021	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
213275307	11/17/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
211805101	6/21/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
213145192	11/6/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
210905134	3/20/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
220205117	1/12/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222345164	8/21/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
220975211	3/18/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222795285	10/6/2022	B. Visible Injury	8. Non-Collision	0	1	0		no	no
222015106	7/14/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
221295161	5/7/2022	B. Visible Injury	4. Sideswipe - Same Direction	0	1	0		yes	no
220135226	1/6/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
222165194	7/8/2022	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		yes	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Warrenton Village / Chick-fil-a Driveway (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)		1			1		2	40.00%
Type A		*1*			*1*		*2*	
Type B								
Type C								
Property Damage Only (Type PDO)			1		2		3	60.00%
TOTAL*		***1***	***1***		***3***		***5***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash			1		1		2	40.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision					1		1	20.00%
Angle Collision		1			1		2	40.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*		***1***	***1***		***3***		***5***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**					1		1	20.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)			1				1	20.00%
Speeding					1		1	20.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)								*0.00%*
Off Peak - Daytime (10 AM - 3 PM)					*1*		*1*	*20.00%*
PM Peak Period (3 - 7 PM)		*1*			*1*		*2*	*40.00%*
Off Peak - Nighttime (7 PM - 6 AM)			*1*		*1*		*2*	*40.00%*
CALCULATED CRASH RATE***							***0.13***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Warrenton Village / Chick-fil-a Driveway (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
193445020	7/26/2019	A. Severe Injury	2. Angle	0	1	0		no	no
203025223	10/25/2020	PDO. Property Damage Only	9. Fixed Object - Off Road	0	0	0		yes	no
222785213	9/17/2022	A. Severe Injury	9. Fixed Object - Off Road	0	1	0		no	no
222135133	7/28/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
223325320	11/1/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Branch Drive (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	1		2	1	1		5	26.32%
Type A								
Type B								
Type C	*1*		*2*	*1*	*1*		*5*	
Property Damage Only (Type PDO)	2	1		3	8		14	73.68%
TOTAL*	***3***	***1***	***2***	***4***	***9***		***19***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash				1			1	5.26%
Head-On								0.00%
Sideswipe / Same Direction	1						1	5.26%
Sideswipe / Opposite Direction				1			1	5.26%
Rear-End Collision	2			1	3		6	31.58%
Angle Collision			2	1	5		8	42.11%
Backed Into		1					1	5.26%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other					1		1	5.26%
TOTAL*	***3***	***1***	***2***	***4***	***9***		***19***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**								0.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)				2	1		3	15.79%
Speeding			1		1		2	10.53%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)	*1*			*1*	*1*		*3*	*15.79%*
Off Peak - Daytime (10 AM - 3 PM)			*2*	*2*	*2*		*6*	*31.58%*
PM Peak Period (3 - 7 PM)	*2*	*1*		*1*	*6*		*10*	*52.63%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.45***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Branch Drive (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
190035248	12/24/2018	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		no	no
182955427	10/20/2018	C. Nonvisible Injury	1. Rear End	0	2	0		no	no
183655065	12/17/2018	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
193445084	10/13/2019	PDO. Property Damage Only	15. Backed Into	0	0	0		no	no
201995197	7/12/2020	C. Nonvisible Injury	2. Angle	0	1	0		no	no
201275157	4/1/2020	C. Nonvisible Injury	2. Angle	0	1	0		no	no
211335075	5/10/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
212925308	10/10/2021	PDO. Property Damage Only	9. Fixed Object - Off Road	0	0	0		yes	no
212705186	9/20/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
211935132	6/22/2021	C. Nonvisible Injury	5. Sideswipe - Opposite Direction	0	2	0		yes	no
222805102	10/6/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
220825133	3/21/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
221965176	7/9/2022	PDO. Property Damage Only	2. Angle	0	0	0		yes	no
221965175	6/29/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
221735151	6/2/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222205137	8/6/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
222695228	9/24/2022	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
220385210	2/6/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222975113	10/23/2022	PDO. Property Damage Only	16. Other	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Branch Drive and Warrenton Village / Safeway (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)					1		1	50.00%
Type A								
Type B								
Type C					*1*		*1*	
Property Damage Only (Type PDO)				1			1	50.00%
TOTAL*				***1***	***1***		***2***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision				1	1		2	100.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*				***1***	***1***		***2***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**				1			1	50.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)					1		1	50.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)					*1*		*1*	*50.00%*
Off Peak - Daytime (10 AM - 3 PM)								*0.00%*
PM Peak Period (3 - 7 PM)				*1*			*1*	*50.00%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.24***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Branch Drive and Warrenton Village / Safeway (May 2018 - April 2023)									
Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
213055189	10/15/2021	PDO: Property Damage Only	2. Angle	0	0	0		no	no
223255325	11/11/2022	C. Nonvisible Injury	2. Angle	0	1	0		yes	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Branch Drive and Oak Springs Drive (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)								0.00%
Type A								
Type B								
Type C								
Property Damage Only (Type PDO)			1		1		2	100.00%
TOTAL*			***1***		***1***		***2***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision			1		1		2	100.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*			***1***		***1***		***2***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**								0.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)								0.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)								*0.00%*
Off Peak - Daytime (10 AM - 3 PM)					*1*		*1*	*50.00%*
PM Peak Period (3 - 7 PM)			*1*				*1*	*50.00%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.27***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Branch Drive and Oak Springs Drive (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
202745301	9/18/2020	PDO: Property Damage Only	2. Angle	0	0	0		no	no
220335106	1/31/2022	PDO: Property Damage Only	2. Angle	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Broadview Avenue and Oak Springs Drive (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	1						1	33.33%
Type A	*1*						*1*	
Type B								
Type C								
Property Damage Only (Type PDO)			2				2	66.67%
TOTAL*	***1***		***2***				***3***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision	1		2				3	100.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*	***1***		***2***				***3***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**								0.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)								0.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)								*0.00%*
Off Peak - Daytime (10 AM - 3 PM)			*1*				*1*	*33.33%*
PM Peak Period (3 - 7 PM)	*1*		*1*				*2*	*66.67%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.14***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Broadview Avenue and Oak Springs Drive (May 2018 - April 2023)									
Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
182435282	8/23/2018	A. Severe Injury	2. Angle	0	1	0		no	no
202585163	2/22/2020	PDO. Property Damage Only	2. Angle	0	0	0		no	no
202115210	7/15/2020	PDO. Property Damage Only	2. Angle	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Broadview Avenue and Warrenton Village North (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)			1		1		2	50.00%
Type A								
Type B			*1*				*1*	
Type C					*1*		*1*	
Property Damage Only (Type PDO)		1		1			2	50.00%
TOTAL*		***1***	***1***	***1***	***1***		***4***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision			1	1	1		3	75.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal		1					1	25.00%
Other								0.00%
TOTAL*		***1***	***1***	***1***	***1***		***4***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**					1		1	25.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)					1		1	25.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)		*1*					*1*	*25.00%*
Off Peak - Daytime (10 AM - 3 PM)								*0.00%*
PM Peak Period (3 - 7 PM)			*1*	*1*	*1*		*3*	*75.00%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.21***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Broadview Avenue and Warrenton Village North (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
192545226	9/11/2019	PDO. Property Damage Only	10. Deer	0	0	0		no	no
202765309	9/20/2020	B. Visible Injury	2. Angle	0	1	0		no	no
211665121	5/27/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
223465170	12/6/2022	C. Nonvisible Injury	2. Angle	0	1	0		yes	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Broadview Avenue and Warrenton Village South (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	2			2	3		7	53.85%
Type A								
Type B								
Type C	*2*			*2*	*3*		*7*	
Property Damage Only (Type PDO)	1		2	2	1		6	46.15%
TOTAL*	***3***		***2***	***4***	***4***		***13***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On	1				2		3	23.08%
Sideswipe / Same Direction				1			1	7.69%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision			1				1	7.69%
Angle Collision	1		1	3	2		7	53.85%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other	1						1	7.69%
TOTAL*	***3***		***2***	***4***	***4***		***13***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**	1						1	7.69%
Work-Zone								0.00%
Inclement Weather (Non-Dry)								0.00%
Speeding			1				1	7.69%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)					*1*		*1*	*7.69%*
Off Peak - Daytime (10 AM - 3 PM)	*1*		*2*	*2*	*2*		*7*	*53.85%*
PM Peak Period (3 - 7 PM)	*1*			*2*	*1*		*4*	*30.77%*
Off Peak - Nighttime (7 PM - 6 AM)	*1*						*1*	*7.69%*
CALCULATED CRASH RATE***							***0.54***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Broadview Avenue and Warrenton Village South (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
182505243	9/5/2018	C. Nonvisible Injury	6. Fixed Object in Road	0	1	0		no	no
182835057	10/4/2018	C. Nonvisible Injury	2. Angle	0	1	0		no	no
182135102	7/31/2018	PDO. Property Damage Only	3. Head On	0	0	0		no	no
201265208	2/25/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
201265233	3/12/2020	PDO. Property Damage Only	2. Angle	0	0	0		no	no
213625118	12/15/2021	C. Nonvisible Injury	2. Angle	0	2	0		no	no
213145191	11/3/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
210135154	1/6/2021	C. Nonvisible Injury	2. Angle	0	1	0		no	no
212425152	8/23/2021	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		no	no
221235227	4/29/2022	C. Nonvisible Injury	3. Head On	0	1	0		no	no
221045273	3/28/2022	PDO. Property Damage Only	3. Head On	0	0	0		no	no
220945207	3/29/2022	C. Nonvisible Injury	2. Angle	0	1	0		no	no
223325319	11/23/2022	C. Nonvisible Injury	2. Angle	0	1	0		no	no

C. Turning Movement Counts Data

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	5	5	2	0	28	3	15	0	18	155	2	1	2	48	21	1	306
6:15 AM	7	0	6	0	15	2	19	0	21	167	1	1	0	78	32	1	350
6:30 AM	7	9	8	0	18	1	31	0	18	179	2	0	0	90	27	0	390
6:45 AM	12	11	8	0	27	5	45	0	23	163	0	3	6	122	32	0	457
7:00 AM	13	13	10	0	27	3	97	0	46	171	1	1	7	134	41	0	564
7:15 AM	20	8	11	0	31	8	89	0	58	208	5	2	6	119	31	1	597
7:30 AM	15	25	14	0	28	9	34	0	83	220	13	1	6	154	49	0	651
7:45 AM	27	42	32	0	34	40	61	0	73	169	5	2	5	162	64	1	717
8:00 AM	14	19	12	0	22	26	61	0	57	204	7	2	9	140	29	1	603
8:15 AM	17	17	12	0	26	18	59	0	44	165	6	0	11	159	29	1	564
8:30 AM	24	11	21	0	29	13	61	0	52	159	13	2	11	125	28	3	552
8:45 AM	16	17	8	0	45	26	54	0	53	170	16	4	4	141	24	3	581
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	177	177	144	0	330	154	626	0	546	2130	71	19	67	1472	407	12	6332
APPROACH %'s :	35.54%	35.54%	28.92%	0.00%	29.73%	13.87%	56.40%	0.00%	19.74%	77.01%	2.57%	0.69%	3.42%	75.18%	20.79%	0.61%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	76	94	69	0	115	83	245	0	271	801	30	7	26	575	173	3	2568
PEAK HR FACTOR :	0.704	0.560	0.539	0.000	0.846	0.519	0.688	0.000	0.816	0.910	0.577	0.875	0.722	0.887	0.676	0.750	0.895
	0.592				0.820				0.875				0.837				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	29	18	21	0	72	18	94	1	51	194	14	0	7	309	23	1	852
4:15 PM	32	27	15	0	46	23	86	1	69	167	9	1	19	240	40	1	776
4:30 PM	24	28	16	0	50	23	103	0	71	223	9	1	17	261	24	4	854
4:45 PM	29	22	15	0	44	19	94	0	67	210	8	0	13	264	19	4	808
5:00 PM	12	35	13	0	47	14	63	0	68	170	13	2	14	265	23	4	743
5:15 PM	18	34	18	0	46	18	75	0	60	180	11	1	13	284	28	1	787
5:30 PM	22	29	15	0	28	19	69	0	44	183	7	4	12	218	40	1	691
5:45 PM	16	27	16	0	37	23	74	0	47	176	8	1	8	252	25	6	716
6:00 PM	32	23	15	0	42	14	44	0	54	135	12	1	19	222	23	3	639
6:15 PM	14	12	17	0	42	19	45	0	47	144	6	1	17	236	34	4	638
6:30 PM	19	16	20	0	26	13	42	0	49	137	8	0	16	185	22	4	557
6:45 PM	14	17	20	0	25	10	35	0	43	107	9	1	13	194	24	4	516
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	261	288	201	0	505	213	824	2	670	2026	114	13	168	2930	325	37	8577
APPROACH %'s :	34.80%	38.40%	26.80%	0.00%	32.71%	13.80%	53.37%	0.13%	23.73%	71.77%	4.04%	0.46%	4.86%	84.68%	9.39%	1.07%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	114	95	67	0	212	83	377	2	258	794	40	2	56	1074	106	10	3290
PEAK HR FACTOR :	0.891	0.848	0.798	0.000	0.736	0.902	0.915	0.500	0.908	0.890	0.714	0.500	0.737	0.869	0.663	0.625	0.963
	0.932				0.911				0.900				0.916				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	5	5	2	0	27	3	14	0	16	149	2	1	2	48	21	1	296
6:15 AM	7	0	6	0	15	2	19	0	18	163	1	1	0	74	31	1	338
6:30 AM	7	9	8	0	17	1	29	0	15	171	1	0	0	87	27	0	372
6:45 AM	12	11	8	0	27	5	43	0	22	160	0	3	5	112	31	0	439
7:00 AM	12	13	10	0	26	3	92	0	39	165	1	1	7	127	40	0	536
7:15 AM	19	7	11	0	28	8	83	0	55	196	5	2	6	112	30	1	563
7:30 AM	14	25	13	0	25	9	30	0	81	213	13	1	6	146	48	0	624
7:45 AM	25	42	31	0	33	40	61	0	70	159	5	2	5	155	63	1	692
8:00 AM	12	18	12	0	22	25	61	0	54	199	6	2	9	131	27	1	579
8:15 AM	16	16	11	0	24	17	57	0	39	157	6	0	11	136	26	1	517
8:30 AM	23	9	21	0	27	13	49	0	51	155	12	2	11	108	25	3	509
8:45 AM	14	17	7	0	43	26	50	0	52	166	16	4	3	125	22	3	548
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	166	172	140	0	314	152	588	0	512	2053	68	19	65	1361	391	12	6013
APPROACH %'s :	34.73%	35.98%	29.29%	0.00%	29.79%	14.42%	55.79%	0.00%	19.31%	77.41%	2.56%	0.72%	3.55%	74.41%	21.38%	0.66%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	70	92	67	0	108	82	235	0	260	767	29	7	26	544	168	3	2458
PEAK HR FACTOR :	0.700	0.548	0.540	0.000	0.818	0.513	0.708	0.000	0.802	0.900	0.558	0.875	0.722	0.877	0.667	0.750	0.888
	0.584				0.793				0.863				0.827				

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	29	18	21	0	72	18	90	1	50	190	14	0	7	303	23	1	837
4:15 PM	32	27	15	0	45	23	79	1	67	164	9	1	19	235	40	1	758
4:30 PM	24	27	16	0	49	23	101	0	69	220	9	1	17	251	24	4	835
4:45 PM	29	22	15	0	44	19	91	0	64	205	8	0	13	260	17	4	791
5:00 PM	12	35	13	0	47	14	61	0	67	168	13	2	13	261	23	4	733
5:15 PM	18	34	17	0	46	18	74	0	59	177	11	1	13	278	28	1	775
5:30 PM	22	29	15	0	28	18	67	0	44	181	7	4	12	214	40	1	682
5:45 PM	16	27	16	0	37	23	72	0	45	172	8	1	7	250	24	6	704
6:00 PM	31	23	15	0	42	14	44	0	53	132	12	1	19	220	23	3	632
6:15 PM	14	12	17	0	42	19	44	0	46	141	6	1	17	235	33	4	631
6:30 PM	19	16	19	0	26	13	42	0	48	137	8	0	16	179	22	4	549
6:45 PM	14	17	20	0	25	10	35	0	42	104	9	1	13	191	23	4	508
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	260	287	199	0	503	212	800	2	654	1991	114	13	166	2877	320	37	8435
APPROACH %'s :	34.85%	38.47%	26.68%	0.00%	33.16%	13.97%	52.74%	0.13%	23.59%	71.83%	4.11%	0.47%	4.88%	84.62%	9.41%	1.09%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	114	94	67	0	210	83	361	2	250	779	40	2	56	1049	104	10	3221
PEAK HR FACTOR :	0.891	0.870	0.798	0.000	0.729	0.902	0.894	0.500	0.906	0.885	0.714	0.500	0.737	0.866	0.650	0.625	0.962
	0.929				0.906				0.895				0.912				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	1	0	1	0	2	6	0	0	0	0	0	0	10
6:15 AM	0	0	0	0	0	0	0	0	3	4	0	0	0	4	1	0	12
6:30 AM	0	0	0	0	1	0	2	0	3	8	1	0	0	3	0	0	18
6:45 AM	0	0	0	0	0	0	2	0	1	3	0	0	1	10	1	0	18
7:00 AM	1	0	0	0	1	0	5	0	7	6	0	0	0	7	1	0	28
7:15 AM	1	1	0	0	3	0	6	0	3	12	0	0	0	7	1	0	34
7:30 AM	1	0	1	0	3	0	4	0	2	7	0	0	0	8	1	0	27
7:45 AM	2	0	1	0	1	0	0	0	3	10	0	0	0	7	1	0	25
8:00 AM	2	1	0	0	0	1	0	0	3	5	1	0	0	9	2	0	24
8:15 AM	1	1	1	0	2	1	2	0	5	8	0	0	0	23	3	0	47
8:30 AM	1	2	0	0	2	0	12	0	1	4	1	0	0	17	3	0	43
8:45 AM	2	0	1	0	2	0	4	0	1	4	0	0	1	16	2	0	33
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	5	4	0	16	2	38	0	34	77	3	0	2	111	16	0	319
APPROACH %'s :	55.00%	25.00%	20.00%	0.00%	28.57%	3.57%	67.86%	0.00%	29.82%	67.54%	2.63%	0.00%	1.55%	86.05%	12.40%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	6	2	2	0	7	1	10	0	11	34	1	0	0	31	5	0	110
PEAK HR FACTOR :	0.750	0.500	0.500	0.000	0.583	0.250	0.417	0.000	0.917	0.708	0.250	0.000	0.000	0.861	0.625	0.000	0.809
	0.833				0.500				0.767				0.818				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	4	0	1	4	0	0	0	6	0	0	15
4:15 PM	0	0	0	0	1	0	7	0	2	3	0	0	0	5	0	0	18
4:30 PM	0	1	0	0	1	0	2	0	2	3	0	0	0	10	0	0	19
4:45 PM	0	0	0	0	0	0	3	0	3	5	0	0	0	4	2	0	17
5:00 PM	0	0	0	0	0	0	2	0	1	2	0	0	1	4	0	0	10
5:15 PM	0	0	1	0	0	0	1	0	1	3	0	0	0	6	0	0	12
5:30 PM	0	0	0	0	0	1	2	0	0	2	0	0	0	4	0	0	9
5:45 PM	0	0	0	0	0	0	2	0	2	4	0	0	1	2	1	0	12
6:00 PM	1	0	0	0	0	0	0	0	1	3	0	0	0	2	0	0	7
6:15 PM	0	0	0	0	0	0	1	0	1	3	0	0	0	1	1	0	7
6:30 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	6	0	0	8
6:45 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	3	1	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	2	0	2	1	24	0	16	35	0	0	2	53	5	0	142
APPROACH %'s :	25.00%	25.00%	50.00%	0.00%	7.41%	3.70%	88.89%	0.00%	31.37%	68.63%	0.00%	0.00%	3.33%	88.33%	8.33%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	2	0	16	0	8	15	0	0	0	25	2	0	69
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.500	0.000	0.571	0.000	0.667	0.750	0.000	0.000	0.000	0.625	0.250	0.000	0.908
	0.250				0.563				0.719				0.675				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave **Project ID:** 23-260020-001
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/Winchester St		US 17/Winchester St		US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	2	3
8:30 AM	1	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	0	1	2	5
APPROACH %'s :	50.00%	50.00%					33.33%	66.67%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	1	2	0	0	4
4:15 PM	1	1	0	0	1	2	0	0	5
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	2	0	0	2	0	0	2	0	6
5:00 PM	0	0	0	0	0	4	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	2	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	0	0	0	3	0	0	0	5
6:15 PM	1	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	1	1	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	7	1	1	4	7	8	2	0	30
APPROACH %'s :	87.50%	12.50%	20.00%	80.00%	46.67%	53.33%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	4	1	0	3	2	4	2	0	16
PEAK HR FACTOR :	0.500	0.250		0.375	0.500	0.500	0.250		0.667
	0.625		0.375		0.500		0.250		

Prepared by National Data & Surveying Services

US 17/Winchester St & US 17/US 211/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-001
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2568	0	3290
PHF	0.90		0.96

SOUTHBOUND (US 17/Winchester St)

	L	T	R	U	Total	
AM	245	83	115	0	538	AM
NOON	0	0	0	0	0	NOON
PM	377	83	212	2	461	PM
	1	0.5	1.5	0		

EASTBOUND (US 17/US 211/Broadview Ave)

AM	NOON	PM		
903	0	1567	⇦	
7	0	2	↶	0
271	0	258	↱	2
801	0	794	→	1.5
30	0	40	↷	0.5
AM	NOON	PM		

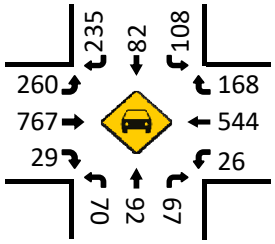
WESTBOUND (US 17/US 211/Broadview Ave)

PM	NOON	AM		
106	0	173	↰	1
1074	0	575	←	2
56	0	26	↰	1
10	0	3	↶	0
1083	0	988	⇨	
PM	NOON	AM		

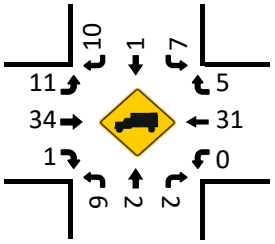
NORTHBOUND (US 17/Winchester St)

	L	T	R	U	Total	
PM	179	0	114	95	67	PM
NOON	0	0	0	0	0	NOON
AM	139	0	76	94	69	AM
	0	1	1	1		

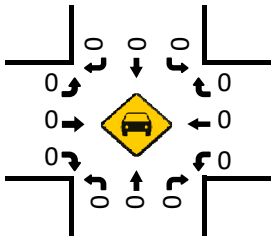
Cars (AM)



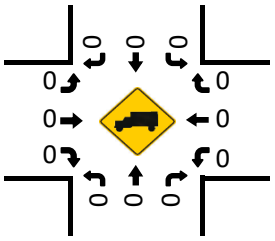
HT (AM)



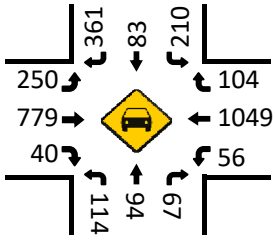
Cars (NOON)



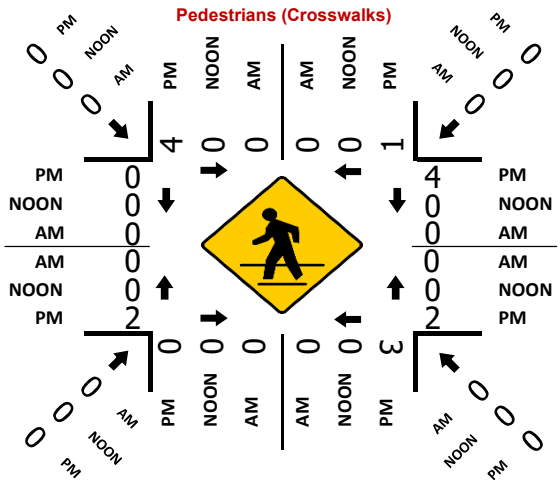
HT (NOON)



Cars (PM)



Pedestrians (Crosswalks)


PM NOON AM
0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - Total

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	183	0	0	0	67	2	0	252
6:15 AM	0	0	0	0	0	0	0	0	0	192	0	0	0	115	0	0	307
6:30 AM	0	0	0	0	0	0	0	0	0	203	0	0	0	113	2	0	318
6:45 AM	0	0	0	0	0	0	2	0	0	196	0	0	0	157	1	0	356
7:00 AM	0	0	0	0	0	0	1	0	0	212	0	0	0	185	4	0	402
7:15 AM	0	0	0	0	0	0	3	0	0	244	0	0	0	164	3	0	414
7:30 AM	0	0	0	0	0	0	3	0	0	269	0	0	0	196	9	0	477
7:45 AM	0	0	0	0	0	0	8	0	0	236	0	0	0	234	9	0	487
8:00 AM	0	0	0	0	0	0	3	0	0	236	0	0	0	168	6	0	413
8:15 AM	0	0	0	0	0	0	6	0	0	207	0	0	0	196	7	0	416
8:30 AM	0	0	0	0	0	0	6	0	0	208	0	0	0	159	10	0	383
8:45 AM	0	0	0	0	0	0	7	0	0	230	0	0	0	168	23	0	428
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	39	0	0	2616	0	0	0	1922	76	0	4653
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	96.20%	3.80%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	20	0	0	948	0	0	0	794	31	0	1793
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.881	0.000	0.000	0.000	0.848	0.861	0.000	0.920
							0.625			0.881				0.849			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	17	0	0	291	0	0	0	320	25	0	653
4:15 PM	0	0	0	0	0	0	19	0	0	227	0	0	0	284	25	0	555
4:30 PM	0	0	0	0	0	0	17	0	0	295	0	0	0	286	18	0	616
4:45 PM	0	0	0	0	0	0	26	0	0	271	0	0	0	274	34	0	605
5:00 PM	0	0	0	0	0	0	20	0	0	236	0	0	0	295	35	0	586
5:15 PM	0	0	0	0	0	0	26	0	0	245	0	0	0	302	24	0	597
5:30 PM	0	0	0	0	0	0	16	0	0	223	0	0	0	244	16	0	499
5:45 PM	0	0	0	0	0	0	20	0	0	239	0	0	0	277	38	0	574
6:00 PM	0	0	0	0	0	0	29	0	0	190	0	0	0	250	38	0	507
6:15 PM	0	0	0	0	0	0	25	0	0	212	0	0	0	248	42	0	527
6:30 PM	0	0	0	0	0	0	24	0	0	185	0	0	0	203	22	0	434
6:45 PM	0	0	0	0	0	0	21	0	0	158	0	0	0	219	22	0	420
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	260	0	0	2772	0	0	0	3202	339	0	6573
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	90.43%	9.57%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	79	0	0	1084	0	0	0	1164	102	0	2429
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.760	0.000	0.000	0.919	0.000	0.000	0.000	0.909	0.750	0.000	0.930
							0.760			0.919				0.917			

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	176	0	0	0	67	2	0	245
6:15 AM	0	0	0	0	0	0	0	0	0	188	0	0	0	110	0	0	298
6:30 AM	0	0	0	0	0	0	0	0	0	194	0	0	0	110	2	0	306
6:45 AM	0	0	0	0	0	0	2	0	0	193	0	0	0	144	1	0	340
7:00 AM	0	0	0	0	0	0	1	0	0	205	0	0	0	178	4	0	388
7:15 AM	0	0	0	0	0	0	2	0	0	229	0	0	0	156	3	0	390
7:30 AM	0	0	0	0	0	0	3	0	0	258	0	0	0	188	9	0	458
7:45 AM	0	0	0	0	0	0	8	0	0	224	0	0	0	225	9	0	466
8:00 AM	0	0	0	0	0	0	3	0	0	231	0	0	0	156	6	0	396
8:15 AM	0	0	0	0	0	0	6	0	0	196	0	0	0	172	7	0	381
8:30 AM	0	0	0	0	0	0	6	0	0	204	0	0	0	137	10	0	357
8:45 AM	0	0	0	0	0	0	7	0	0	221	0	0	0	151	23	0	402
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	38	0	0	2519	0	0	0	1794	76	0	4427
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	95.94%	4.06%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	20	0	0	909	0	0	0	741	31	0	1701
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.881	0.000	0.000	0.000	0.823	0.861	0.000	0.913
							0.625			0.881				0.825			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	17	0	0	286	0	0	0	314	25	0	642
4:15 PM	0	0	0	0	0	0	19	0	0	223	0	0	0	277	25	0	544
4:30 PM	0	0	0	0	0	0	17	0	0	291	0	0	0	278	18	0	604
4:45 PM	0	0	0	0	0	0	26	0	0	266	0	0	0	268	34	0	594
5:00 PM	0	0	0	0	0	0	19	0	0	234	0	0	0	291	35	0	579
5:15 PM	0	0	0	0	0	0	26	0	0	241	0	0	0	296	24	0	587
5:30 PM	0	0	0	0	0	0	15	0	0	221	0	0	0	241	16	0	493
5:45 PM	0	0	0	0	0	0	20	0	0	235	0	0	0	273	38	0	566
6:00 PM	0	0	0	0	0	0	29	0	0	187	0	0	0	248	38	0	502
6:15 PM	0	0	0	0	0	0	25	0	0	209	0	0	0	246	42	0	522
6:30 PM	0	0	0	0	0	0	24	0	0	184	0	0	0	197	22	0	427
6:45 PM	0	0	0	0	0	0	21	0	0	155	0	0	0	215	22	0	413
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	258	0	0	2732	0	0	0	3144	339	0	6473
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	90.27%	9.73%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	79	0	0	1066	0	0	0	1137	102	0	2384
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.760	0.000	0.000	0.916	0.000	0.000	0.000	0.905	0.750	0.000	0.928
							0.760			0.916				0.914			

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - HT

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
6:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9
6:30 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	3	0	0	12
6:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	13	0	0	16
7:00 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	14
7:15 AM	0	0	0	0	0	0	1	0	0	15	0	0	0	8	0	0	24
7:30 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	8	0	0	19
7:45 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	9	0	0	21
8:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	12	0	0	17
8:15 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	24	0	0	35
8:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	22	0	0	26
8:45 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	17	0	0	26
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	0	97	0	0	0	128	0	0	226
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	39	0	0	0	53	0	0	92
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.552	0.000	0.000	0.657
										0.813				0.552			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0	11
4:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
4:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	8	0	0	12
4:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0	11
5:00 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	4	0	0	7
5:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	0	10
5:30 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	3	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8
6:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
6:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	7
6:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	2	0	0	40	0	0	0	58	0	0	100
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	18	0	0	0	27	0	0	45
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.000	0.844	0.000	0.000	0.938
										0.900				0.844			

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/L **Project ID:** 23-260020-002
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens		Warrenton Village Center Dwy (Chipotle)/Walgreens		US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	1
APPROACH %'s :	100.00%	0.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	1
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	2	0	0	0	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	1	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	3	0	0	0	0	0	0	7
APPROACH %'s :	57.14%	42.86%							
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	3	1	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.375	0.250							0.500
	0.500								

Prepared by National Data & Surveying Services

Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-002
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND — Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy

AM	20	0	0	0	31	AM
NOON	0	0	0	0	0	NOON
PM	79	0	0	0	102	PM

0 1 0 0

EASTBOUND — US 17/US 211/Broadview Ave

AM	NOON	PM	
814	0	1243	
0	0	0	0
0	0	0	0
948	0	1084	3
0	0	0	0

WESTBOUND — US 17/US 211/Broadview Ave

PM	NOON	AM	
102	0	31	1
1164	0	794	2
0	0	0	0
0	0	0	0
1084	0	948	

CONTROL

1-Way Stop(SB)

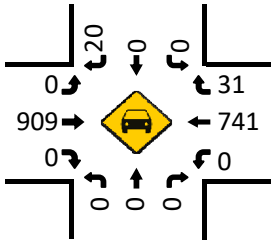
TEV	1793 AM	0 NOON	2429 PM
PHF	0.92		0.93

0 0 0 0

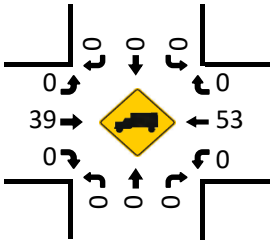
NORTHBOUND — Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

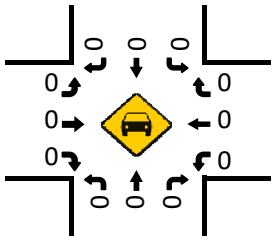
Cars (AM)



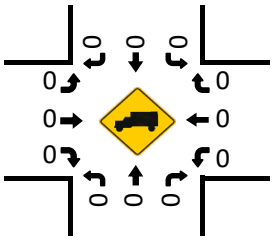
HT (AM)



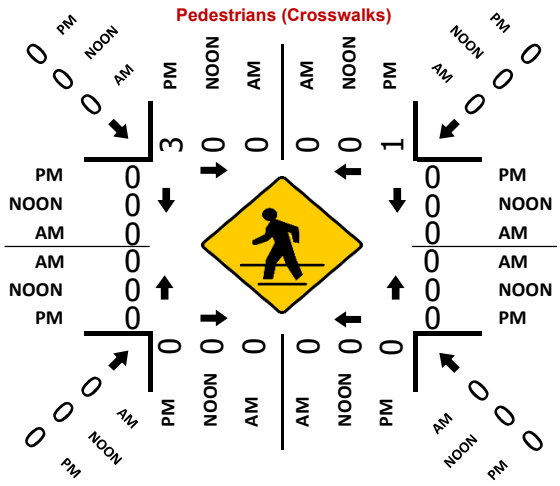
Cars (NOON)



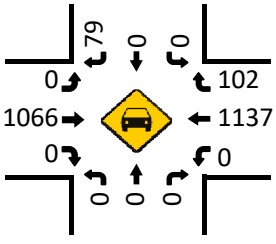
HT (NOON)



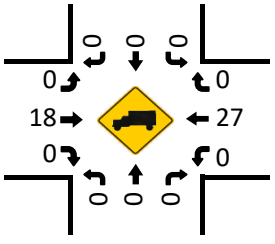
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - Total

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	0	4	0	3	1	1	0	0	180	0	0	3	69	3	0	265
6:15 AM	0	0	4	0	2	1	7	0	4	180	0	0	6	106	3	0	313
6:30 AM	0	0	8	0	1	1	4	0	4	190	0	0	11	114	3	0	336
6:45 AM	1	1	7	0	2	0	8	0	9	176	0	0	7	152	9	0	372
7:00 AM	3	0	6	0	1	1	12	0	5	213	1	1	11	167	4	0	425
7:15 AM	2	0	8	0	5	5	7	0	8	225	0	2	10	158	6	0	436
7:30 AM	4	4	14	0	3	1	9	0	6	245	0	2	10	192	15	0	505
7:45 AM	2	5	10	0	11	3	11	0	9	220	0	3	11	223	18	0	526
8:00 AM	1	2	8	0	10	2	4	0	7	215	0	1	11	172	12	0	445
8:15 AM	3	0	6	0	10	2	26	0	7	195	1	1	12	169	6	0	438
8:30 AM	4	3	9	0	12	5	9	0	10	187	0	2	17	156	5	2	421
8:45 AM	0	3	11	0	11	2	11	0	11	214	2	3	17	176	14	0	475
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	18	95	0	71	24	109	0	80	2440	4	15	126	1854	98	2	4957
APPROACH %'s :	15.67%	13.43%	70.90%	0.00%	34.80%	11.76%	53.43%	0.00%	3.15%	96.10%	0.16%	0.59%	6.06%	89.13%	4.71%	0.10%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	10	11	38	0	34	8	50	0	29	875	1	7	44	756	51	0	1914
PEAK HR FACTOR :	0.625	0.550	0.679	0.000	0.773	0.667	0.481	0.000	0.806	0.893	0.250	0.583	0.917	0.848	0.708	0.000	0.910
	0.670				0.605				0.901				0.844				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	4	15	0	40	4	39	0	23	252	1	1	17	275	26	1	705
4:15 PM	3	4	18	0	39	4	36	0	34	208	1	3	14	272	23	0	659
4:30 PM	5	7	20	0	34	6	24	0	35	218	0	1	15	269	10	0	644
4:45 PM	2	2	22	0	26	4	42	0	39	224	0	4	18	277	25	0	685
5:00 PM	2	3	16	0	30	7	31	0	28	205	1	4	19	298	22	2	668
5:15 PM	4	8	16	0	26	6	31	0	29	203	0	3	14	266	15	2	623
5:30 PM	3	4	13	0	30	1	20	0	18	187	0	3	13	241	19	0	552
5:45 PM	5	2	17	0	31	2	21	0	25	210	0	3	22	279	19	0	636
6:00 PM	6	2	12	0	44	5	28	0	29	160	1	1	16	262	15	0	581
6:15 PM	3	5	17	0	30	4	25	0	19	160	0	6	13	247	17	1	547
6:30 PM	4	4	16	0	32	4	21	0	13	162	0	0	22	202	19	5	504
6:45 PM	1	1	9	0	27	9	20	0	17	149	0	4	10	214	11	0	472
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	45	46	191	0	389	56	338	0	309	2338	4	33	193	3102	221	11	7276
APPROACH %'s :	15.96%	16.31%	67.73%	0.00%	49.68%	7.15%	43.17%	0.00%	11.51%	87.11%	0.15%	1.23%	5.47%	87.95%	6.27%	0.31%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	17	17	75	0	139	18	141	0	131	902	2	9	64	1093	84	1	2693
PEAK HR FACTOR :	0.607	0.607	0.852	0.000	0.869	0.750	0.839	0.000	0.840	0.895	0.500	0.563	0.889	0.986	0.808	0.250	0.955
	0.852				0.898				0.942				0.970				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	0	4	0	3	1	1	0	0	174	0	0	3	69	3	0	259
6:15 AM	0	0	4	0	2	1	6	0	3	176	0	0	6	102	3	0	303
6:30 AM	0	0	8	0	1	1	4	0	3	183	0	0	11	111	3	0	325
6:45 AM	1	1	6	0	1	0	5	0	9	173	0	0	6	142	9	0	353
7:00 AM	3	0	6	0	1	1	11	0	5	206	1	1	11	161	4	0	411
7:15 AM	2	0	8	0	4	5	7	0	8	210	0	2	10	150	6	0	412
7:30 AM	4	4	14	0	3	1	9	0	6	235	0	2	10	184	15	0	487
7:45 AM	2	5	10	0	11	3	11	0	9	208	0	3	11	214	18	0	505
8:00 AM	1	2	8	0	9	2	3	0	7	211	0	1	11	161	12	0	428
8:15 AM	3	0	6	0	10	2	18	0	7	184	1	0	11	154	6	0	402
8:30 AM	4	3	9	0	11	5	8	0	10	183	0	2	15	135	5	2	392
8:45 AM	0	2	11	0	10	2	10	0	11	206	2	3	17	159	14	0	447
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	17	94	0	66	24	93	0	78	2349	4	14	122	1742	98	2	4724
APPROACH %'s :	15.91%	12.88%	71.21%	0.00%	36.07%	13.11%	50.82%	0.00%	3.19%	96.07%	0.16%	0.57%	6.21%	88.70%	4.99%	0.10%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	10	11	38	0	33	8	41	0	29	838	1	6	43	713	51	0	1822
PEAK HR FACTOR :	0.625	0.550	0.679	0.000	0.750	0.667	0.569	0.000	0.806	0.891	0.250	0.500	0.977	0.833	0.708	0.000	0.902
	0.670				0.683				0.899				0.830				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	4	15	0	40	4	39	0	23	247	1	1	17	269	25	1	693
4:15 PM	3	4	18	0	39	4	35	0	34	206	1	3	14	265	23	0	649
4:30 PM	5	7	20	0	33	6	24	0	35	213	0	1	15	262	10	0	631
4:45 PM	2	2	22	0	26	4	42	0	39	218	0	4	18	271	25	0	673
5:00 PM	2	3	15	0	30	7	30	0	28	203	1	4	19	295	21	2	660
5:15 PM	4	8	16	0	26	6	29	0	29	199	0	3	14	262	14	2	612
5:30 PM	3	4	13	0	29	1	20	0	18	185	0	3	13	237	19	0	545
5:45 PM	5	2	17	0	31	2	21	0	25	206	0	3	22	276	19	0	629
6:00 PM	6	2	12	0	44	5	27	0	29	158	1	1	16	261	15	0	577
6:15 PM	3	5	17	0	30	4	25	0	19	156	0	6	13	245	17	1	541
6:30 PM	4	4	16	0	32	4	21	0	13	161	0	0	22	196	19	5	497
6:45 PM	1	1	9	0	27	9	19	0	17	146	0	4	10	211	11	0	465
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	45	46	190	0	387	56	332	0	309	2298	4	33	193	3050	218	11	7172
APPROACH %'s :	16.01%	16.37%	67.62%	0.00%	49.94%	7.23%	42.84%	0.00%	11.69%	86.91%	0.15%	1.25%	5.56%	87.85%	6.28%	0.32%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	17	17	75	0	138	18	140	0	131	884	2	9	64	1067	83	1	2646
PEAK HR FACTOR :	0.607	0.607	0.852	0.000	0.863	0.750	0.833	0.000	0.840	0.895	0.500	0.563	0.889	0.984	0.830	0.250	0.955
	0.852				0.892				0.943				0.967				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - HT

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
6:15 AM	0	0	0	0	0	0	1	0	1	4	0	0	0	4	0	0	10
6:30 AM	0	0	0	0	0	0	0	0	1	7	0	0	0	3	0	0	11
6:45 AM	0	0	1	0	1	0	3	0	0	3	0	0	1	10	0	0	19
7:00 AM	0	0	0	0	0	0	1	0	0	7	0	0	0	6	0	0	14
7:15 AM	0	0	0	0	1	0	0	0	0	15	0	0	0	8	0	0	24
7:30 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	8	0	0	18
7:45 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	9	0	0	21
8:00 AM	0	0	0	0	1	0	1	0	0	4	0	0	0	11	0	0	17
8:15 AM	0	0	0	0	0	0	8	0	0	11	0	1	1	15	0	0	36
8:30 AM	0	0	0	0	1	0	1	0	0	4	0	0	2	21	0	0	29
8:45 AM	0	1	0	0	1	0	1	0	0	8	0	0	0	17	0	0	28
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	5	0	16	0	2	91	0	1	4	112	0	0	233
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%	23.81%	0.00%	76.19%	0.00%	2.13%	96.81%	0.00%	1.06%	3.45%	96.55%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	9	0	0	37	0	1	1	43	0	0	92
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.281	0.000	0.000	0.771	0.000	0.250	0.250	0.717	0.000	0.000	0.639
							0.313				0.792				0.688		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	1	0	12
4:15 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	7	0	0	10
4:30 PM	0	0	0	0	1	0	0	0	0	5	0	0	0	7	0	0	13
4:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	12
5:00 PM	0	0	1	0	0	0	1	0	0	2	0	0	0	3	1	0	8
5:15 PM	0	0	0	0	0	0	2	0	0	4	0	0	0	4	1	0	11
5:30 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	4	0	0	7
5:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0	7
6:00 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	0	4
6:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	7
6:45 PM	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	2	0	6	0	0	40	0	0	0	52	3	0	104
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	25.00%	0.00%	75.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	94.55%	5.45%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	1	0	0	18	0	0	0	26	1	0	47
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.929	0.250	0.000	0.904
							0.500				0.750				0.964		

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500
														0.500			

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave **Project ID:** 23-260020-003
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Branch Dr		Branch Dr		US 211/Lee Hwy/Broadview Ave		US 211/Lee Hwy/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	2	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	1	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	1	0	0	0	0	0	0	4
APPROACH %'s :	75.00%	25.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	2	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	1	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	2	1	2	0	1	0	0	8
APPROACH %'s :	50.00%	50.00%	33.33%	66.67%	0.00%	100.00%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	2	0	0	2	0	0	0	0	4
PEAK HR FACTOR :	0.500			0.250					0.500
	0.500			0.250					

Prepared by National Data & Surveying Services

Branch Dr & US 211/Lee Hwy/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-003
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND (Branch Dr)

AM	50	8	34	0	91	AM
NOON	0	0	0	0	0	NOON
PM	141	18	139	0	232	PM
	1	0.5	0.5	0		

EASTBOUND (US 211/Lee Hwy/Broadview Ave)

AM	NOON	PM	
823	0	1260	
7	0	9	0
29	0	131	1
875	0	902	2
1	0	2	1
AM	NOON	PM	

WESTBOUND (US 211/Lee Hwy/Broadview Ave)

PM	NOON	AM	
84	0	51	1
1093	0	756	2
64	0	44	1
1	0	0	0
1117	0	947	
PM	NOON	AM	

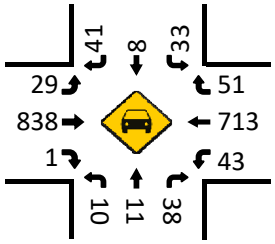
	0	0.5	0.5	1

NORTHBOUND (Branch Dr)

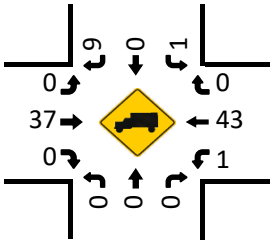
PM	84	0	17	17	75	PM
NOON	0	0	0	0	0	NOON
AM	53	0	10	11	38	AM

CONTROL			
Signalized			
TEV	1914	0	2693
	AM	NOON	PM
PHF	0.91		0.95

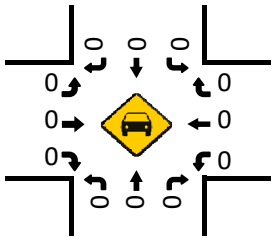
Cars (AM)



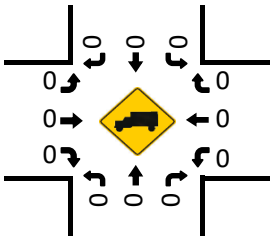
HT (AM)



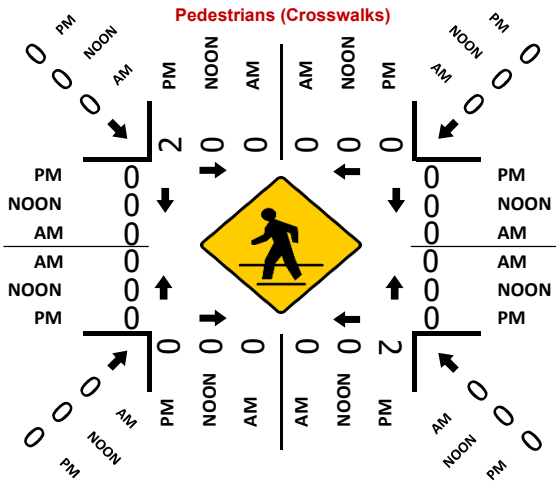
Cars (NOON)



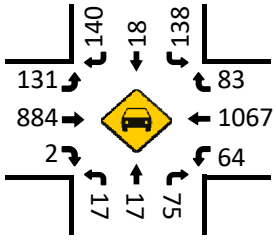
HT (NOON)



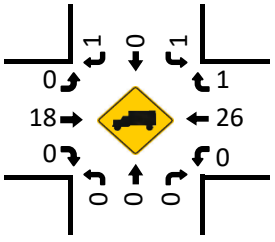
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - Total

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	2	0	0	2	5	0	0	0	4	2	0	1	0	0	0	18
6:15 AM	0	1	1	0	1	2	0	0	0	1	0	0	4	2	0	0	12
6:30 AM	1	3	1	0	1	4	0	0	0	3	2	0	3	1	0	0	19
6:45 AM	7	2	0	0	3	8	0	0	0	1	0	0	2	2	0	0	25
7:00 AM	3	6	0	0	0	9	0	0	0	4	5	0	3	6	1	0	37
7:15 AM	3	6	1	0	5	8	2	0	1	5	5	0	3	3	5	0	47
7:30 AM	10	16	0	0	2	10	1	0	0	5	5	0	1	3	5	0	58
7:45 AM	5	26	3	0	5	21	1	0	4	3	9	0	3	2	3	0	85
8:00 AM	6	14	3	0	6	16	0	0	1	4	10	0	2	4	2	0	68
8:15 AM	2	9	1	0	5	20	3	0	1	3	14	0	8	2	4	0	72
8:30 AM	9	5	0	0	3	17	5	0	3	2	5	0	1	4	3	0	57
8:45 AM	8	9	1	0	2	14	4	0	1	6	7	0	3	2	0	0	57
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	56	99	11	0	35	134	16	0	11	41	64	0	34	31	23	0	555
APPROACH %'s :	33.73%	59.64%	6.63%	0.00%	18.92%	72.43%	8.65%	0.00%	9.48%	35.34%	55.17%	0.00%	38.64%	35.23%	26.14%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	23	65	7	0	18	67	5	0	6	15	38	0	14	11	14	0	283
PEAK HR FACTOR :	0.575	0.625	0.583	0.000	0.750	0.798	0.417	0.000	0.375	0.750	0.679	0.000	0.438	0.688	0.700	0.000	0.832
	0.699				0.804				0.819				0.696				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	32	10	0	0	11	13	8	0	3	22	29	0	14	12	6	0	160
4:15 PM	19	6	3	0	10	11	8	0	6	22	28	0	10	12	14	0	149
4:30 PM	15	16	5	0	13	9	10	0	2	20	33	0	7	10	12	0	152
4:45 PM	28	11	4	0	14	6	6	0	6	13	26	0	14	16	9	0	153
5:00 PM	28	9	1	0	12	13	10	0	3	12	35	0	7	12	12	0	154
5:15 PM	25	7	3	0	12	9	9	0	6	12	30	0	11	9	12	0	145
5:30 PM	27	15	4	0	6	0	10	0	11	26	32	0	6	14	10	0	161
5:45 PM	28	6	2	0	9	6	8	0	5	22	32	0	12	21	7	0	158
6:00 PM	29	9	1	0	5	6	9	0	8	22	48	0	10	17	13	0	177
6:15 PM	20	16	2	0	4	6	6	0	6	17	32	0	8	14	8	0	139
6:30 PM	18	8	2	0	3	9	4	0	4	10	25	0	10	17	4	0	114
6:45 PM	10	6	0	0	1	5	7	0	4	9	36	0	4	7	10	0	99
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	279	119	27	0	100	93	95	0	64	207	386	0	113	161	117	0	1761
APPROACH %'s :	65.65%	28.00%	6.35%	0.00%	34.72%	32.29%	32.99%	0.00%	9.74%	31.51%	58.75%	0.00%	28.90%	41.18%	29.92%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	109	37	10	0	32	21	36	0	30	82	142	0	39	61	42	0	641
PEAK HR FACTOR :	0.940	0.617	0.625	0.000	0.667	0.583	0.900	0.000	0.682	0.788	0.740	0.000	0.813	0.726	0.808	0.000	0.905
	0.848				0.742				0.814				0.888				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	2	0	0	2	5	0	0	0	4	2	0	1	0	0	0	18
6:15 AM	0	0	1	0	1	2	0	0	0	1	0	0	3	2	0	0	10
6:30 AM	1	3	0	0	1	4	0	0	0	3	1	0	3	1	0	0	17
6:45 AM	6	2	0	0	3	6	0	0	0	1	0	0	1	1	0	0	20
7:00 AM	3	6	0	0	0	8	0	0	0	4	5	0	3	5	1	0	35
7:15 AM	3	6	1	0	4	8	1	0	1	5	4	0	3	3	5	0	44
7:30 AM	10	16	0	0	2	10	1	0	0	5	5	0	1	3	5	0	58
7:45 AM	5	26	3	0	5	21	1	0	4	3	9	0	3	1	3	0	84
8:00 AM	6	14	3	0	6	13	0	0	1	4	10	0	2	4	2	0	65
8:15 AM	2	9	1	0	5	14	3	0	1	3	14	0	8	2	4	0	66
8:30 AM	9	5	0	0	3	16	5	0	3	2	4	0	1	3	3	0	54
8:45 AM	8	9	1	0	2	13	4	0	1	6	7	0	1	2	0	0	54
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	55	98	10	0	34	120	15	0	11	41	61	0	30	27	23	0	525
APPROACH %'s :	33.74%	60.12%	6.13%	0.00%	20.12%	71.01%	8.88%	0.00%	9.73%	36.28%	53.98%	0.00%	37.50%	33.75%	28.75%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	23	65	7	0	18	58	5	0	6	15	38	0	14	10	14	0	273
PEAK HR FACTOR :	0.575	0.625	0.583	0.000	0.750	0.690	0.417	0.000	0.375	0.750	0.679	0.000	0.438	0.625	0.700	0.000	0.813
	0.699				0.750				0.819				0.679				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	32	9	0	0	11	13	8	0	3	22	29	0	14	12	6	0	159
4:15 PM	19	6	3	0	10	10	8	0	6	22	27	0	10	11	13	0	145
4:30 PM	15	16	5	0	13	9	10	0	2	20	32	0	7	10	11	0	150
4:45 PM	28	11	4	0	14	6	6	0	6	13	26	0	14	16	9	0	153
5:00 PM	28	9	1	0	12	12	10	0	3	12	35	0	7	11	12	0	152
5:15 PM	25	7	3	0	12	7	9	0	6	12	30	0	11	9	12	0	143
5:30 PM	27	15	4	0	6	0	10	0	11	26	32	0	6	14	10	0	161
5:45 PM	28	6	2	0	9	6	8	0	5	22	32	0	12	20	7	0	157
6:00 PM	29	9	1	0	5	5	9	0	8	22	48	0	10	17	13	0	176
6:15 PM	20	16	2	0	4	6	6	0	6	17	32	0	8	14	8	0	139
6:30 PM	18	8	2	0	3	9	4	0	4	10	25	0	10	16	4	0	113
6:45 PM	10	6	0	0	1	4	7	0	4	9	36	0	3	7	10	0	97
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	279	118	27	0	100	87	95	0	64	207	384	0	112	157	115	0	1745
APPROACH %'s :	65.80%	27.83%	6.37%	0.00%	35.46%	30.85%	33.69%	0.00%	9.77%	31.60%	58.63%	0.00%	29.17%	40.89%	29.95%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	109	37	10	0	32	18	36	0	30	82	142	0	39	60	42	0	637
PEAK HR FACTOR :	0.940	0.617	0.625	0.000	0.667	0.643	0.900	0.000	0.682	0.788	0.740	0.000	0.813	0.750	0.808	0.000	0.905
	0.848				0.768				0.814				0.881				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - HT

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
6:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
6:45 AM	1	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0	5
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
7:15 AM	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	3
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	1	0	1	14	1	0	0	0	3	0	4	4	0	0	30
APPROACH %'s :	33.33%	33.33%	33.33%	0.00%	6.25%	87.50%	6.25%	0.00%	0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	9	0	0	0	0	0	0	0	1	0	0	10
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.417
						0.375								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	6	0	0	0	0	2	0	1	4	2	0	16
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	14.29%	57.14%	28.57%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	4
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.500
						0.375								0.250			

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
							0.250				0.250						

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy **Project ID:** 23-260020-004
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Branch Dr		Branch Dr		Warrenton Village Center Dwy/Shopping Center		Warrenton Village Center Dwy/Shopping Center		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	2	0	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	3	0	0	0	0	0	0	6
APPROACH %'s :	50.00%	50.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.250	0.250							0.500
	0.500								

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	5	0	0	0	0	0	0	5
4:15 PM	1	2	0	0	1	0	0	0	4
4:30 PM	1	2	0	0	0	0	0	0	3
4:45 PM	3	0	0	0	0	1	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	2	1	0	0	0	0	0	0	3
5:30 PM	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	1	0	0	0	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	2	0	0	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	10	13	0	0	1	1	0	0	25
APPROACH %'s :	43.48%	56.52%			50.00%	50.00%			
PEAK HR :	05:15 PM - 06:15 PM								TOTAL
PEAK HR VOL :	5	2	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.625	0.500							0.583
	0.583								

Prepared by National Data & Surveying Services

Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy

Peak Hour Turning Movement Count

ID: 23-260020-004
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
05:15 PM - 06:15 PM	4:00 PM - 07:00 PM

CONTROL: 2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	283	0	641
PHF	0.83		0.91

SOUTHBOUND (Branch Dr)

	Left	Thru	Right	U-Turn	
AM	5	67	18	0	85
NOON	0	0	0	0	0
PM	36	21	32	0	109

EASTBOUND (Warrenton Village Center Dwy/Shopping Center Dwy)

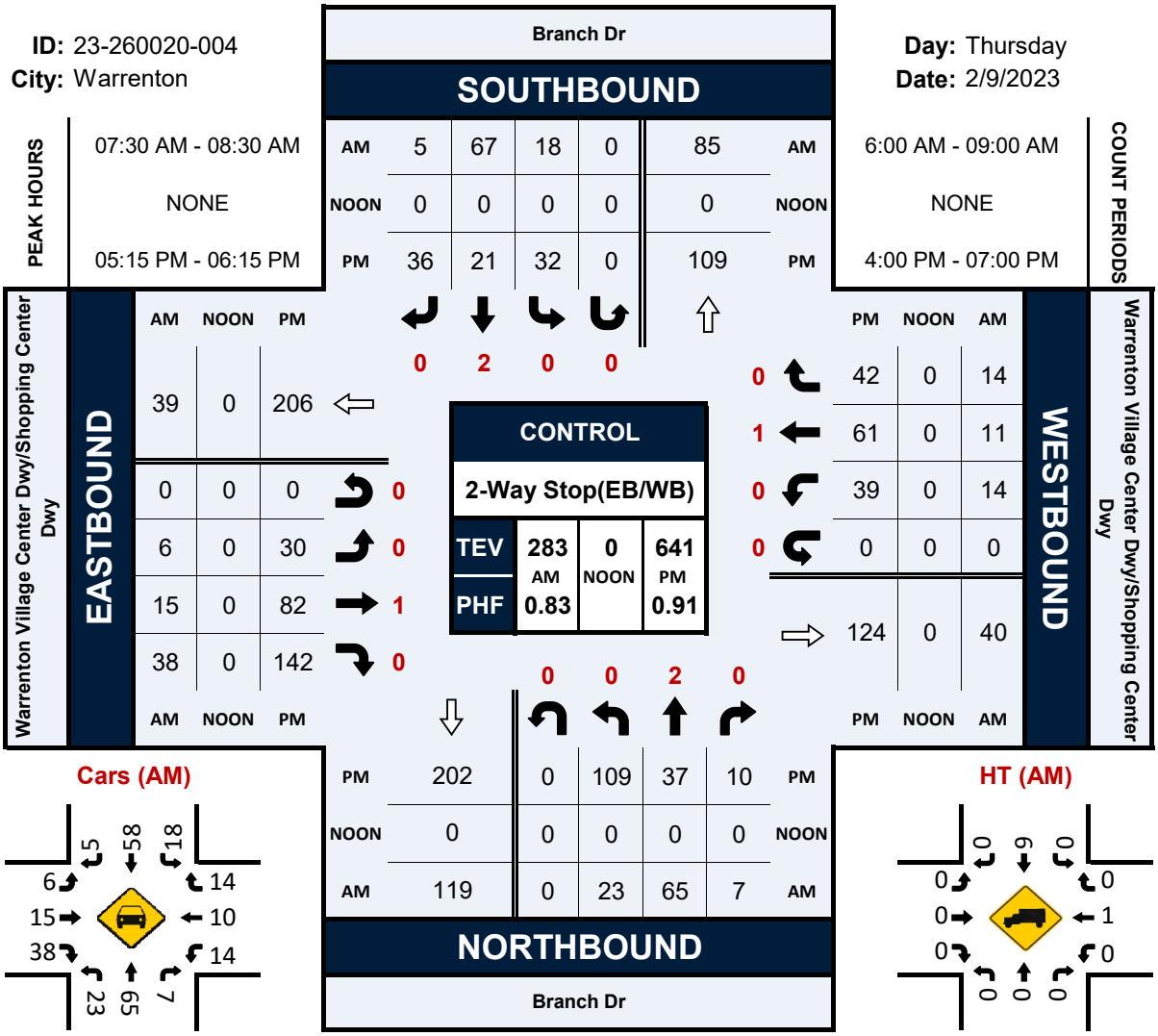
	Left	Thru	Right	U-Turn	
AM	39	0	206		
NOON	0	0	0	0	
PM	6	0	30	0	
AM	15	0	82	1	
NOON	38	0	142	0	

WESTBOUND (Warrenton Village Center Dwy/Shopping Center Dwy)

	Left	Thru	Right	U-Turn	
PM	42	0	14	0	
NOON	61	0	11	1	
AM	39	0	14	0	
PM	0	0	0	0	
NOON	124	0	40		

NORTHBOUND (Branch Dr)

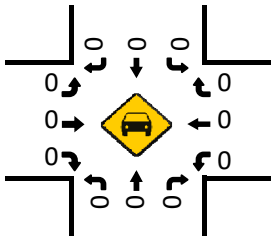
	Left	Thru	Right	U-Turn	
PM	202	0	109	37	10
NOON	0	0	0	0	0
AM	119	0	23	65	7



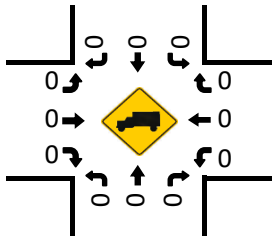
Cars (AM)

HT (AM)

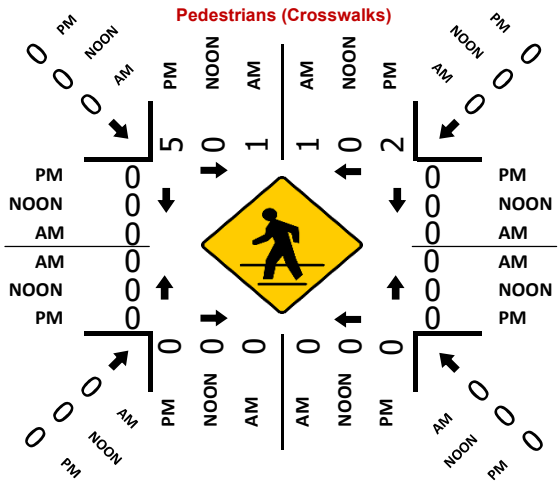
Cars (NOON)



HT (NOON)



Pedestrians (Crosswalks)


PM
NOON
AM
0
0
0
5
0
1
1
0
2
0
0
0
0
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0
0
0
0

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - Total

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	0	0	0	0	0	0	0	0	3	6	0	1	0	0	0	12
6:15 AM	0	0	1	0	0	0	0	0	0	2	3	0	0	4	0	0	10
6:30 AM	3	0	0	0	0	1	0	0	0	3	4	0	0	6	0	0	17
6:45 AM	2	0	0	0	0	0	0	0	1	3	9	0	2	6	1	0	24
7:00 AM	6	0	0	0	1	0	0	0	0	5	6	0	3	12	0	0	33
7:15 AM	12	0	1	0	0	2	0	0	0	15	9	0	4	10	0	0	53
7:30 AM	17	0	2	0	0	1	0	0	0	15	7	0	5	18	0	0	65
7:45 AM	31	0	4	0	0	0	1	0	0	20	23	0	4	49	0	0	132
8:00 AM	14	0	3	0	0	0	0	0	0	14	21	0	1	22	0	0	75
8:15 AM	11	0	3	0	0	0	0	0	0	27	24	0	4	17	0	0	86
8:30 AM	9	0	2	0	0	0	1	0	0	17	18	0	7	19	0	0	73
8:45 AM	7	0	3	0	0	2	1	0	1	26	15	0	3	19	0	0	77
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	114	0	19	0	1	6	3	0	2	150	145	0	34	182	1	0	657
APPROACH %'s :	85.71%	0.00%	14.29%	0.00%	10.00%	60.00%	30.00%	0.00%	0.67%	50.51%	48.82%	0.00%	15.67%	83.87%	0.46%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	65	0	12	0	0	0	2	0	0	78	86	0	16	107	0	0	366
PEAK HR FACTOR :	0.524	0.000	0.750	0.000	0.000	0.000	0.500	0.000	0.000	0.722	0.896	0.000	0.571	0.546	0.000	0.000	0.693
	0.550				0.500				0.804				0.580				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	0	4	0	1	1	0	0	1	34	21	0	9	25	1	0	112
4:15 PM	13	2	10	1	0	2	0	0	2	21	20	0	6	25	1	0	103
4:30 PM	19	0	11	0	0	1	0	0	0	30	26	0	5	33	0	0	125
4:45 PM	14	0	12	0	0	1	0	0	0	20	19	0	8	29	0	0	103
5:00 PM	18	1	4	0	0	1	0	0	1	22	20	0	12	27	0	0	106
5:15 PM	19	1	6	0	0	3	0	0	1	12	21	0	6	29	0	0	98
5:30 PM	26	1	8	0	1	0	0	0	0	23	12	0	4	26	1	0	102
5:45 PM	12	1	6	0	0	0	0	0	0	20	15	0	8	20	2	0	84
6:00 PM	22	2	6	0	0	0	0	0	0	15	13	0	8	14	1	0	81
6:15 PM	18	1	10	0	0	0	0	0	1	16	10	0	5	5	1	0	67
6:30 PM	10	3	4	0	1	2	1	0	0	15	7	0	7	9	0	0	59
6:45 PM	13	0	6	0	0	0	0	0	0	12	5	0	8	3	1	0	48
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	199	12	87	1	3	11	1	0	6	240	189	0	86	245	8	0	1088
APPROACH %'s :	66.56%	4.01%	29.10%	0.33%	20.00%	73.33%	6.67%	0.00%	1.38%	55.17%	43.45%	0.00%	25.37%	72.27%	2.36%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	61	2	37	1	1	5	0	0	3	105	86	0	28	112	2	0	443
PEAK HR FACTOR :	0.803	0.250	0.771	0.250	0.250	0.625	0.000	0.000	0.375	0.772	0.827	0.000	0.778	0.848	0.500	0.000	0.886
	0.842				0.750				0.866				0.934				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	0	0	0	0	0	0	0	0	3	6	0	1	0	0	0	12
6:15 AM	0	0	0	0	0	0	0	0	0	2	3	0	0	4	0	0	9
6:30 AM	3	0	0	0	0	1	0	0	0	2	4	0	0	6	0	0	16
6:45 AM	2	0	0	0	0	0	0	0	1	3	8	0	1	6	1	0	22
7:00 AM	6	0	0	0	1	0	0	0	0	3	5	0	3	12	0	0	30
7:15 AM	12	0	1	0	0	2	0	0	0	15	8	0	3	10	0	0	51
7:30 AM	17	0	2	0	0	1	0	0	0	15	7	0	5	18	0	0	65
7:45 AM	31	0	4	0	0	0	1	0	0	20	23	0	4	48	0	0	131
8:00 AM	14	0	3	0	0	0	0	0	0	13	19	0	0	22	0	0	71
8:15 AM	11	0	3	0	0	0	0	0	0	27	18	0	4	17	0	0	80
8:30 AM	9	0	2	0	0	0	1	0	0	16	18	0	6	19	0	0	71
8:45 AM	7	0	3	0	0	2	1	0	1	26	14	0	3	19	0	0	76
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	114	0	18	0	1	6	3	0	2	145	133	0	30	181	1	0	634
APPROACH %'s :	86.36%	0.00%	13.64%	0.00%	10.00%	60.00%	30.00%	0.00%	0.71%	51.79%	47.50%	0.00%	14.15%	85.38%	0.47%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	65	0	12	0	0	0	2	0	0	76	78	0	14	106	0	0	353
PEAK HR FACTOR :	0.524	0.000	0.750	0.000	0.000	0.000	0.500	0.000	0.000	0.704	0.848	0.000	0.583	0.552	0.000	0.000	0.674
	0.550				0.500				0.856				0.577				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	14	0	4	0	1	1	0	0	1	34	21	0	9	25	1	0	111
4:15 PM	13	2	9	1	0	2	0	0	2	20	20	0	5	25	1	0	100
4:30 PM	18	0	11	0	0	1	0	0	0	29	26	0	5	33	0	0	123
4:45 PM	14	0	12	0	0	1	0	0	0	19	19	0	8	28	0	0	101
5:00 PM	18	1	4	0	0	1	0	0	1	22	20	0	11	26	0	0	104
5:15 PM	19	1	6	0	0	3	0	0	1	12	20	0	5	29	0	0	96
5:30 PM	26	1	8	0	1	0	0	0	0	23	12	0	4	26	1	0	102
5:45 PM	12	1	6	0	0	0	0	0	0	20	15	0	8	20	2	0	84
6:00 PM	22	2	6	0	0	0	0	0	0	15	13	0	7	14	1	0	80
6:15 PM	18	1	10	0	0	0	0	0	1	16	10	0	5	5	1	0	67
6:30 PM	10	3	4	0	1	2	1	0	0	15	7	0	7	9	0	0	59
6:45 PM	13	0	6	0	0	0	0	0	0	12	5	0	7	3	1	0	47
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	197	12	86	1	3	11	1	0	6	237	188	0	81	243	8	0	1074
APPROACH %'s :	66.55%	4.05%	29.05%	0.34%	20.00%	73.33%	6.67%	0.00%	1.39%	54.99%	43.62%	0.00%	24.40%	73.19%	2.41%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	59	2	36	1	1	5	0	0	3	102	86	0	27	111	2	0	435
PEAK HR FACTOR :	0.819	0.250	0.750	0.250	0.250	0.625	0.000	0.000	0.375	0.750	0.827	0.000	0.750	0.841	0.500	0.000	0.884
	0.845				0.750				0.853				0.921				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - HT

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	0	0	0	0	5	12	0	4	1	0	0	23
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	29.41%	70.59%	0.00%	80.00%	20.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	8	0	2	1	0	0	13
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.333	0.000	0.500	0.250	0.000	0.000	0.542
										0.417				0.750			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	3
4:30 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	1	0	0	0	0	0	0	3	1	0	5	2	0	0	14
APPROACH %'s :	66.67%	0.00%	33.33%	0.00%					0.00%	75.00%	25.00%	0.00%	71.43%	28.57%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	0	1	0	0	0	0	0	0	3	0	0	1	1	0	0	8
PEAK HR FACTOR :	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.250	0.250	0.000	0.000	0.667
			0.750							0.750				0.500			

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Project ID: 23-260020-005
Date: 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Branch Dr		Branch Dr		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	1	0	0	1	3
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	1	1	0	0	0	0	0	0	2
8:15 AM	1	0	1	0	1	1	0	0	4
8:30 AM	2	2	0	0	1	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	6	5	1	0	3	1	0	1	17
APPROACH %'s :	54.55%	45.45%	100.00%	0.00%	75.00%	25.00%	0.00%	100.00%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	4	3	1	0	2	1	0	0	11
PEAK HR FACTOR :	0.500	0.375	0.250		0.500	0.250			0.550
	0.438		0.250		0.375				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	2	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	1	0	0	0	1
4:30 PM	0	1	0	0	0	1	0	0	2
4:45 PM	0	1	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	1	0	0	2
6:00 PM	3	2	0	0	1	0	0	0	6
6:15 PM	1	0	0	0	0	1	0	0	2
6:30 PM	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	1	0	0	1	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	6	7	1	1	3	4	0	0	22
APPROACH %'s :	46.15%	53.85%	50.00%	50.00%	42.86%	57.14%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	2	2	0	0	1	1	0	0	6
PEAK HR FACTOR :	0.250	0.500			0.250	0.250			0.750
	0.500				0.500				

Prepared by National Data & Surveying Services

Branch Dr & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-005
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	
AM	07:45 AM - 08:45 AM
NOON	NONE
PM	04:00 PM - 05:00 PM

COUNT PERIODS	
AM	6:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 07:00 PM

SOUTHBOUND (Branch Dr)

AM	2	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	5	1	0	7	PM
	0	1	0	0		

EASTBOUND (Oak Springs Dr)

AM	NOON	PM	
174	0	173	
0	0	0	0
0	0	3	0
78	0	105	1
86	0	86	0
AM	NOON	PM	

WESTBOUND (Oak Springs Dr)

PM	NOON	AM	
2	0	0	0
112	0	107	1
28	0	16	0
0	0	0	0
143	0	90	
PM	NOON	AM	

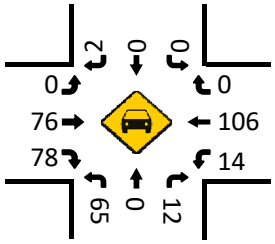
CONTROL: 2-Way Stop(NB/SB)

TEV	366	0	443
	AM	NOON	PM
PHF	0.69		0.89

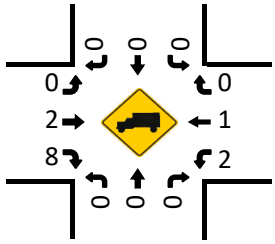
NORTHBOUND (Branch Dr)

	0	0	2	0	
PM	120	1	61	2	37	PM
NOON	0	0	0	0	0	NOON
AM	102	0	65	0	12	AM

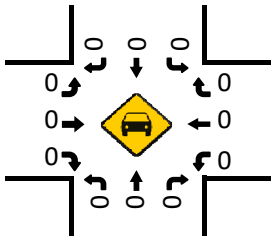
Cars (AM)



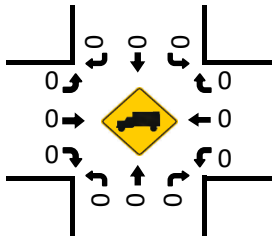
HT (AM)



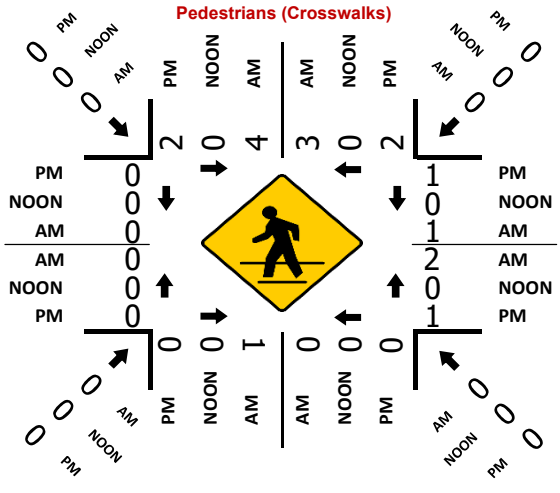
Cars (NOON)



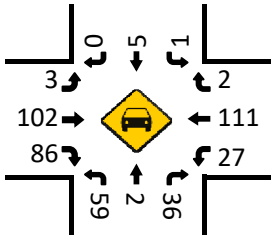
HT (NOON)



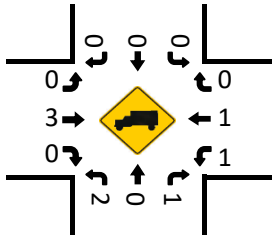
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - Total

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	4	0	0	0	1	5	0	0	0	1	1	0	12
6:15 AM	0	0	0	0	3	0	3	0	1	2	0	0	0	4	0	0	13
6:30 AM	0	0	0	0	2	0	5	0	3	5	0	0	0	6	3	0	24
6:45 AM	0	0	0	0	4	0	8	0	6	9	0	0	0	7	1	0	35
7:00 AM	0	0	0	0	5	0	5	0	7	7	0	0	0	14	4	0	42
7:15 AM	0	0	0	0	5	0	16	0	11	18	0	0	0	16	6	0	72
7:30 AM	0	0	0	0	2	0	13	0	17	20	0	0	0	24	10	0	86
7:45 AM	0	0	0	0	5	0	6	0	18	39	0	0	0	68	12	0	148
8:00 AM	0	0	0	0	14	0	20	0	24	20	0	0	0	27	10	0	115
8:15 AM	0	0	0	0	26	0	28	0	24	25	0	0	0	17	12	0	132
8:30 AM	0	0	0	0	16	0	20	0	8	19	0	0	0	21	7	0	91
8:45 AM	0	0	0	0	2	0	7	0	9	41	0	0	0	21	7	0	87
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	88	0	131	0	129	210	0	0	0	226	73	0	857
APPROACH %'s :					40.18%	0.00%	59.82%	0.00%	38.05%	61.95%	0.00%	0.00%	0.00%	75.59%	24.41%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	61	0	74	0	74	103	0	0	0	133	41	0	486
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.587	0.000	0.661	0.000	0.771	0.660	0.000	0.000	0.000	0.489	0.854	0.000	0.821
						0.625				0.776				0.544			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	24	0	12	0	7	32	0	0	0	39	1	0	115
4:15 PM	0	0	0	0	15	0	9	0	12	29	0	0	0	35	3	0	103
4:30 PM	0	0	0	0	21	0	14	0	12	36	0	0	0	46	6	0	135
4:45 PM	0	0	0	0	7	0	17	0	11	31	0	0	0	40	2	0	108
5:00 PM	0	0	0	0	13	0	2	0	16	30	0	0	0	43	3	0	107
5:15 PM	0	0	0	0	11	0	10	0	12	23	0	0	0	40	8	0	104
5:30 PM	0	0	0	0	2	0	11	0	14	32	0	0	0	43	8	0	110
5:45 PM	0	0	0	0	7	0	10	0	6	28	0	0	0	28	5	0	84
6:00 PM	0	0	0	0	15	0	6	0	8	14	0	0	0	31	5	0	79
6:15 PM	0	0	0	0	8	0	6	0	6	18	0	0	0	15	7	0	60
6:30 PM	0	0	0	0	5	0	4	0	4	18	0	0	0	16	5	0	52
6:45 PM	0	0	0	0	4	0	5	0	4	12	0	0	0	8	8	0	41
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	132	0	106	0	112	303	0	0	0	384	61	0	1098
APPROACH %'s :					55.46%	0.00%	44.54%	0.00%	26.99%	73.01%	0.00%	0.00%	0.00%	86.29%	13.71%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	67	0	52	0	42	128	0	0	0	160	12	0	461
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.698	0.000	0.765	0.000	0.875	0.889	0.000	0.000	0.000	0.870	0.500	0.000	0.854
						0.826				0.885				0.827			

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	4	0	0	0	1	5	0	0	0	1	1	0	12
6:15 AM	0	0	0	0	3	0	3	0	1	2	0	0	0	4	0	0	13
6:30 AM	0	0	0	0	2	0	5	0	2	4	0	0	0	6	3	0	22
6:45 AM	0	0	0	0	3	0	8	0	5	9	0	0	0	7	1	0	33
7:00 AM	0	0	0	0	4	0	5	0	7	5	0	0	0	14	4	0	39
7:15 AM	0	0	0	0	5	0	16	0	11	17	0	0	0	16	6	0	71
7:30 AM	0	0	0	0	2	0	13	0	17	20	0	0	0	24	10	0	86
7:45 AM	0	0	0	0	5	0	6	0	15	39	0	0	0	67	12	0	144
8:00 AM	0	0	0	0	12	0	20	0	22	19	0	0	0	27	10	0	110
8:15 AM	0	0	0	0	20	0	28	0	24	25	0	0	0	17	12	0	126
8:30 AM	0	0	0	0	16	0	20	0	8	18	0	0	0	21	7	0	90
8:45 AM	0	0	0	0	2	0	7	0	9	40	0	0	0	21	7	0	86
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	78	0	131	0	122	203	0	0	0	225	73	0	832
APPROACH %'s :					37.32%	0.00%	62.68%	0.00%	37.54%	62.46%	0.00%	0.00%	0.00%	75.50%	24.50%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	53	0	74	0	69	101	0	0	0	132	41	0	470
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.663	0.000	0.661	0.000	0.719	0.647	0.000	0.000	0.000	0.493	0.854	0.000	0.816
							0.661				0.787				0.547		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	24	0	12	0	7	32	0	0	0	38	1	0	114
4:15 PM	0	0	0	0	15	0	8	0	11	28	0	0	0	35	3	0	100
4:30 PM	0	0	0	0	21	0	14	0	12	35	0	0	0	45	6	0	133
4:45 PM	0	0	0	0	7	0	17	0	11	30	0	0	0	39	2	0	106
5:00 PM	0	0	0	0	12	0	2	0	15	30	0	0	0	42	3	0	104
5:15 PM	0	0	0	0	11	0	10	0	12	23	0	0	0	40	8	0	104
5:30 PM	0	0	0	0	2	0	11	0	14	32	0	0	0	43	8	0	110
5:45 PM	0	0	0	0	7	0	10	0	5	28	0	0	0	28	5	0	83
6:00 PM	0	0	0	0	15	0	6	0	8	14	0	0	0	31	5	0	79
6:15 PM	0	0	0	0	8	0	6	0	6	18	0	0	0	15	7	0	60
6:30 PM	0	0	0	0	5	0	4	0	3	18	0	0	0	16	5	0	51
6:45 PM	0	0	0	0	4	0	5	0	4	12	0	0	0	8	8	0	41
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	131	0	105	0	108	300	0	0	0	380	61	0	1085
APPROACH %'s :					55.51%	0.00%	44.49%	0.00%	26.47%	73.53%	0.00%	0.00%	0.00%	86.17%	13.83%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	67	0	51	0	41	125	0	0	0	157	12	0	453
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.698	0.000	0.750	0.000	0.854	0.893	0.000	0.000	0.000	0.872	0.500	0.000	0.852
							0.819				0.883				0.828		

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - HT

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	4
8:00 AM	0	0	0	0	2	0	0	0	2	1	0	0	0	0	0	0	5
8:15 AM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	10	0	0	0	7	7	0	0	0	1	0	0	25
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	8	0	0	0	5	2	0	0	0	1	0	0	16
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.417	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.667
					0.333				0.583				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	0	4	3	0	0	0	4	0	0	13
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	57.14%	42.86%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	1	3	0	0	0	3	0	0	8
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.750	0.000	0.000	0.000	0.750	0.000	0.000	0.667
					0.250				0.500				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Project ID: 23-260020-006
Date: 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Hastings Ln		Hastings Ln		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	1
7:00 AM	1	2	0	0	0	1	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	1
8:15 AM	1	0	0	0	1	0	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	1
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	3	0	0	1	2	0	0	10
APPROACH %'s :	57.14%	42.86%			33.33%	66.67%			
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	1	1	0	0	1	1	0	0	4
PEAK HR FACTOR :	0.250	0.250			0.250	0.250			0.500
	0.500				0.500				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	2	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	0	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	2	0	0	2	1	0	0	7
APPROACH %'s :	50.00%	50.00%			66.67%	33.33%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	1	0	0	2	0	0	0	3
PEAK HR FACTOR :		0.250			0.250				0.375
	0.250				0.250				

Prepared by National Data & Surveying Services

Hastings Ln & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-006
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND (Hastings Ln)

AM	74	0	61	0	115	AM
NOON	0	0	0	0	0	NOON
PM	52	0	67	0	54	PM

EASTBOUND (Oak Springs Dr)

AM	NOON	PM	
207	0	212	
0	0	0	0
74	0	42	0
103	0	128	1
0	0	0	0

WESTBOUND (Oak Springs Dr)

PM	NOON	AM	
12	0	41	0
160	0	133	1
0	0	0	0
0	0	0	0
195	0	164	

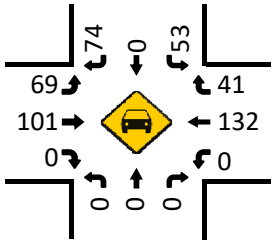
NORTHBOUND (Hastings Ln)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

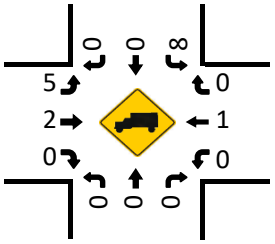
CONTROL: 1-Way Stop(SB)

TEV	486	0	461
	AM	NOON	PM
PHF	0.82		0.85

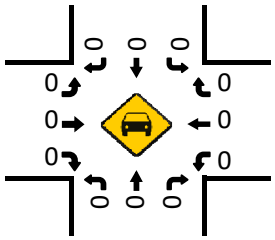
Cars (AM)



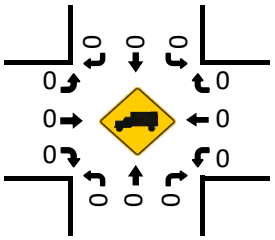
HT (AM)



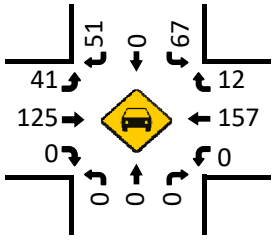
Cars (NOON)



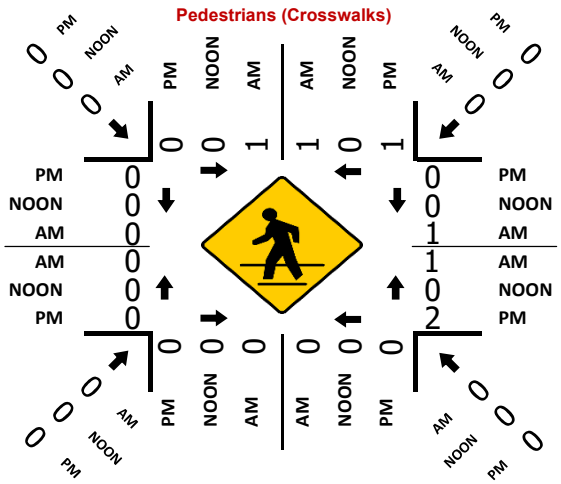
HT (NOON)



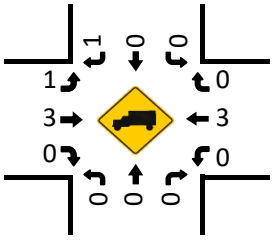
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - Total

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
6:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
6:30 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	11	0	0	18
6:45 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	14	0	0	29
7:00 AM	0	0	0	0	0	0	0	0	2	15	0	0	0	16	4	0	37
7:15 AM	0	0	0	0	0	0	2	0	1	28	0	0	0	30	2	0	63
7:30 AM	0	0	0	0	3	0	4	0	13	34	0	0	0	25	10	0	89
7:45 AM	0	0	0	0	25	0	8	0	19	32	0	0	0	43	33	0	160
8:00 AM	0	0	0	0	2	0	6	0	5	43	0	0	0	42	5	0	103
8:15 AM	0	0	0	0	1	0	1	0	1	47	0	0	0	42	3	0	95
8:30 AM	0	0	0	0	0	0	3	0	5	28	0	0	0	32	7	0	75
8:45 AM	0	0	0	0	19	0	14	0	20	30	0	0	0	17	13	0	113
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	50	0	38	0	66	289	0	0	0	280	77	0	800
APPROACH %'s :					56.82%	0.00%	43.18%	0.00%	18.59%	81.41%	0.00%	0.00%	0.00%	78.43%	21.57%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	31	0	19	0	38	156	0	0	0	152	51	0	447
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.310	0.000	0.594	0.000	0.500	0.830	0.000	0.000	0.000	0.884	0.386	0.000	0.698
					0.379				0.951				0.668				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	2	0	1	0	2	35	0	0	0	50	1	0	91
4:15 PM	0	0	0	0	2	0	6	0	2	39	0	0	0	44	0	0	93
4:30 PM	0	0	0	0	4	0	17	0	1	44	0	0	0	59	1	0	126
4:45 PM	0	0	0	0	1	0	3	0	0	41	0	0	0	57	0	0	102
5:00 PM	0	0	0	0	0	0	0	0	0	46	0	0	0	44	1	0	91
5:15 PM	0	0	0	0	1	0	0	0	0	34	0	0	0	49	1	0	85
5:30 PM	0	0	0	0	0	0	0	0	1	47	0	0	0	54	0	0	102
5:45 PM	0	0	0	0	0	0	2	0	0	33	0	0	0	37	0	0	72
6:00 PM	0	0	0	0	0	0	0	0	0	22	0	0	0	38	0	0	60
6:15 PM	0	0	0	0	1	0	0	0	0	23	0	0	0	21	0	0	45
6:30 PM	0	0	0	0	0	0	1	0	0	22	0	0	0	20	0	0	43
6:45 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	13	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	11	0	30	0	6	402	0	0	0	486	4	0	939
APPROACH %'s :					26.83%	0.00%	73.17%	0.00%	1.47%	98.53%	0.00%	0.00%	0.00%	99.18%	0.82%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	26	0	3	170	0	0	0	204	2	0	412
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.438	0.000	0.382	0.000	0.375	0.924	0.000	0.000	0.000	0.864	0.500	0.000	0.817
					0.393				0.940				0.858				

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
6:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
6:30 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	11	0	0	16
6:45 AM	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0	0	28
7:00 AM	0	0	0	0	0	0	0	0	2	13	0	0	0	16	4	0	35
7:15 AM	0	0	0	0	0	0	2	0	1	27	0	0	0	30	2	0	62
7:30 AM	0	0	0	0	3	0	4	0	13	34	0	0	0	25	10	0	89
7:45 AM	0	0	0	0	25	0	8	0	19	29	0	0	0	42	33	0	156
8:00 AM	0	0	0	0	2	0	6	0	5	40	0	0	0	42	5	0	100
8:15 AM	0	0	0	0	1	0	1	0	1	47	0	0	0	42	3	0	95
8:30 AM	0	0	0	0	0	0	3	0	5	27	0	0	0	32	7	0	74
8:45 AM	0	0	0	0	19	0	14	0	20	29	0	0	0	17	13	0	112
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	50	0	38	0	66	275	0	0	0	279	77	0	785
APPROACH %'s :					56.82%	0.00%	43.18%	0.00%	19.35%	80.65%	0.00%	0.00%	0.00%	78.37%	21.63%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	31	0	19	0	38	150	0	0	0	151	51	0	440
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.310	0.000	0.594	0.000	0.500	0.798	0.000	0.000	0.000	0.899	0.386	0.000	0.705
					0.379				0.979				0.673				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	2	0	1	0	2	35	0	0	0	49	1	0	90
4:15 PM	0	0	0	0	2	0	6	0	2	37	0	0	0	43	0	0	90
4:30 PM	0	0	0	0	4	0	17	0	1	43	0	0	0	58	1	0	124
4:45 PM	0	0	0	0	1	0	3	0	0	40	0	0	0	56	0	0	100
5:00 PM	0	0	0	0	0	0	0	0	0	45	0	0	0	43	1	0	89
5:15 PM	0	0	0	0	1	0	0	0	0	34	0	0	0	49	1	0	85
5:30 PM	0	0	0	0	0	0	0	0	1	47	0	0	0	54	0	0	102
5:45 PM	0	0	0	0	0	0	2	0	0	32	0	0	0	37	0	0	71
6:00 PM	0	0	0	0	0	0	0	0	0	22	0	0	0	38	0	0	60
6:15 PM	0	0	0	0	1	0	0	0	0	23	0	0	0	21	0	0	45
6:30 PM	0	0	0	0	0	0	1	0	0	21	0	0	0	20	0	0	42
6:45 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	13	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	11	0	30	0	6	395	0	0	0	481	4	0	927
APPROACH %'s :					26.83%	0.00%	73.17%	0.00%	1.50%	98.50%	0.00%	0.00%	0.00%	99.18%	0.82%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	26	0	3	165	0	0	0	200	2	0	403
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.438	0.000	0.382	0.000	0.375	0.917	0.000	0.000	0.000	0.862	0.500	0.000	0.813
					0.393				0.933				0.856				

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - HT

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	15
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.438
										0.500				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	7	0	0	0	5	0	0	12
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	9
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	1.000	0.000	0.000	0.750
										0.625				1.000			

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Project ID: 23-260020-007
Date: 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Highland School Dwy		Highland School Dwy		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	1
APPROACH %'s :	100.00%	0.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%							
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	2	0	0	0	0	0	0	2
PEAK HR FACTOR :		0.500							0.500
	0.500								

Prepared by National Data & Surveying Services

Highland School Dwy & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-007
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:15 PM - 05:15 PM	4:00 PM - 07:00 PM

CONTROL: 1-Way stop(SB)

TEV	447 AM	0 NOON	412 PM
PHF	0.70		0.82

SOUTHBOUND (Highland School Dwy)

	Left	Thru	Right	U-Turn	
AM	19	0	31	0	89 AM
NOON	0	0	0	0	0 NOON
PM	26	0	7	0	5 PM

EASTBOUND (Oak Springs Dr)

AM	NOON	PM	
171	0	230	
0	0	0	0
38	0	3	1
156	0	170	1
0	0	0	0

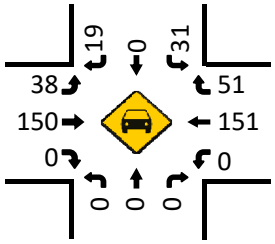
WESTBOUND (Oak Springs Dr)

PM	NOON	AM	
2	0	51	0
204	0	152	1
0	0	0	0
0	0	0	0
177	0	187	

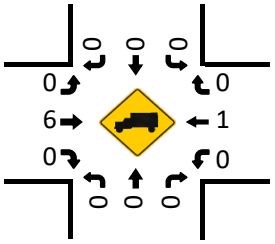
NORTHBOUND (Highland School Dwy)

	Left	Thru	Right	U-Turn	
PM	0	0	0	0	0 PM
NOON	0	0	0	0	0 NOON
AM	0	0	0	0	0 AM

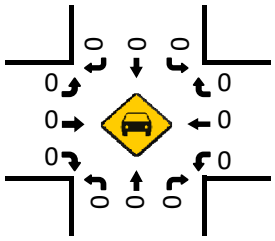
Cars (AM)



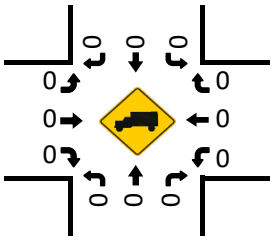
HT (AM)



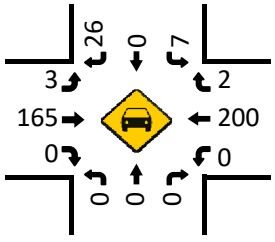
Cars (NOON)



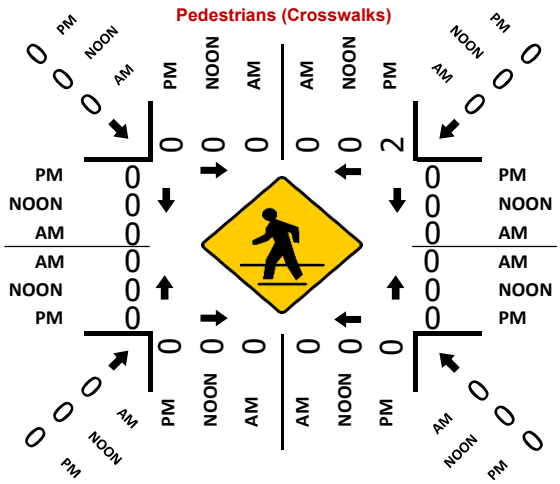
HT (NOON)



Cars (PM)



Pedestrians (Crosswalks)


PM
NOON
AM
0
0
0
0
0
0
0
0
0
0
0
2
0
0
0
0
0
0
0
0
0
0
0

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	38	1	0	5	29	0	0	0	0	0	0	0	0	1	0	74
6:15 AM	0	38	2	0	2	28	0	0	0	0	0	0	3	0	3	0	76
6:30 AM	0	49	3	0	4	38	0	0	0	0	0	0	6	0	6	0	106
6:45 AM	0	48	5	0	10	59	0	0	0	0	0	0	6	0	7	0	135
7:00 AM	1	65	13	0	5	113	1	0	0	0	0	0	13	0	4	0	215
7:15 AM	0	71	15	0	13	88	0	0	0	0	1	0	18	0	14	0	220
7:30 AM	1	121	29	0	17	79	1	0	0	1	0	0	9	0	18	0	276
7:45 AM	0	152	27	0	24	108	0	0	0	0	0	0	12	0	41	0	364
8:00 AM	0	73	21	0	28	90	0	0	0	0	0	0	20	0	26	0	258
8:15 AM	0	59	21	0	26	78	0	0	0	0	0	0	22	1	20	0	227
8:30 AM	0	60	18	0	19	74	1	0	0	0	0	0	23	1	12	0	208
8:45 AM	1	61	31	1	15	93	2	0	0	0	0	0	22	0	10	0	236
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	835	186	1	168	877	5	0	0	1	1	0	154	2	162	0	2395
APPROACH %'s :	0.29%	81.46%	18.15%	0.10%	16.00%	83.52%	0.48%	0.00%	0.00%	50.00%	50.00%	0.00%	48.43%	0.63%	50.94%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	405	98	0	95	355	1	0	0	1	0	0	63	1	105	0	1125
PEAK HR FACTOR :	0.250	0.666	0.845	0.000	0.848	0.822	0.250	0.000	0.000	0.250	0.000	0.000	0.716	0.250	0.640	0.000	0.773
		0.704				0.854				0.250				0.797			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	81	19	0	19	128	0	0	1	0	1	0	20	0	32	0	302
4:15 PM	0	95	24	0	16	142	0	0	1	0	0	0	13	0	34	0	325
4:30 PM	0	119	16	0	30	108	0	0	0	0	2	0	40	0	39	0	354
4:45 PM	1	75	18	0	21	119	2	0	0	1	1	0	24	0	34	0	296
5:00 PM	1	94	19	0	27	107	0	0	0	1	1	0	13	0	33	0	296
5:15 PM	0	85	14	0	19	116	0	0	0	0	1	0	18	0	31	0	284
5:30 PM	1	68	21	0	26	93	0	0	0	1	0	0	25	0	28	0	263
5:45 PM	0	83	9	0	24	106	1	0	0	0	0	0	22	0	18	0	263
6:00 PM	0	66	11	0	13	64	0	0	0	0	1	0	13	0	23	0	191
6:15 PM	0	66	11	0	10	87	0	0	0	0	0	0	8	0	14	0	196
6:30 PM	0	56	12	0	10	54	0	0	1	0	1	0	9	0	13	0	156
6:45 PM	0	52	8	0	8	53	0	0	0	0	0	0	3	1	8	0	133
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	940	182	0	223	1177	3	0	3	3	8	0	208	1	307	0	3059
APPROACH %'s :	0.36%	83.48%	16.16%	0.00%	15.89%	83.89%	0.21%	0.00%	21.43%	21.43%	57.14%	0.00%	40.31%	0.19%	59.50%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	370	77	0	86	497	2	0	2	1	4	0	97	0	139	0	1277
PEAK HR FACTOR :	0.500	0.777	0.802	0.000	0.717	0.875	0.250	0.000	0.500	0.250	0.500	0.000	0.606	0.000	0.891	0.000	0.902
		0.831				0.926				0.875				0.747			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	35	1	0	5	28	0	0	0	0	0	0	0	0	1	0	70
6:15 AM	0	35	2	0	2	28	0	0	0	0	0	0	3	0	3	0	73
6:30 AM	0	47	2	0	3	36	0	0	0	0	0	0	6	0	6	0	100
6:45 AM	0	45	5	0	9	56	0	0	0	0	0	0	6	0	7	0	128
7:00 AM	1	57	11	0	5	106	0	0	0	0	0	0	13	0	4	0	197
7:15 AM	0	67	15	0	12	81	0	0	0	0	1	0	18	0	14	0	208
7:30 AM	1	117	29	0	17	71	1	0	0	1	0	0	9	0	18	0	264
7:45 AM	0	146	26	0	22	107	0	0	0	0	0	0	12	0	40	0	353
8:00 AM	0	67	21	0	25	89	0	0	0	0	0	0	20	0	26	0	248
8:15 AM	0	52	21	0	26	72	0	0	0	0	0	0	22	1	20	0	214
8:30 AM	0	56	17	0	19	59	1	0	0	0	0	0	23	1	12	0	188
8:45 AM	1	58	31	1	14	88	2	0	0	0	0	0	22	0	10	0	227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	782	181	1	159	821	4	0	0	1	1	0	154	2	161	0	2270
APPROACH %'s :	0.31%	80.87%	18.72%	0.10%	16.16%	83.43%	0.41%	0.00%	0.00%	50.00%	50.00%	0.00%	48.58%	0.63%	50.79%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	382	97	0	90	339	1	0	0	1	0	0	63	1	104	0	1079
PEAK HR FACTOR :	0.250	0.654	0.836	0.000	0.865	0.792	0.250	0.000	0.000	0.250	0.000	0.000	0.716	0.250	0.650	0.000	0.764
		0.698				0.833				0.250				0.808			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	80	19	0	19	124	0	0	1	0	1	0	20	0	31	0	296
4:15 PM	0	93	22	0	16	134	0	0	1	0	0	0	12	0	34	0	312
4:30 PM	0	115	15	0	30	105	0	0	0	0	2	0	40	0	38	0	345
4:45 PM	1	71	18	0	20	116	2	0	0	1	1	0	24	0	33	0	287
5:00 PM	1	93	18	0	27	105	0	0	0	1	1	0	13	0	32	0	291
5:15 PM	0	83	14	0	19	115	0	0	0	0	1	0	18	0	31	0	281
5:30 PM	1	68	21	0	26	92	0	0	0	1	0	0	25	0	28	0	262
5:45 PM	0	82	8	0	24	105	1	0	0	0	0	0	22	0	18	0	260
6:00 PM	0	65	11	0	13	64	0	0	0	0	1	0	13	0	23	0	190
6:15 PM	0	66	11	0	10	86	0	0	0	0	0	0	8	0	14	0	195
6:30 PM	0	56	11	0	10	53	0	0	1	0	1	0	9	0	13	0	154
6:45 PM	0	51	8	0	8	52	0	0	0	0	0	0	3	1	8	0	131
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	923	176	0	222	1151	3	0	3	3	8	0	207	1	303	0	3004
APPROACH %'s :	0.36%	83.68%	15.96%	0.00%	16.13%	83.65%	0.22%	0.00%	21.43%	21.43%	57.14%	0.00%	40.51%	0.20%	59.30%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	359	74	0	85	479	2	0	2	1	4	0	96	0	136	0	1240
PEAK HR FACTOR :	0.500	0.780	0.841	0.000	0.708	0.894	0.250	0.000	0.500	0.250	0.500	0.000	0.600	0.000	0.895	0.000	0.899
		0.837				0.943				0.875				0.744			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
6:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 AM	0	2	1	0	1	2	0	0	0	0	0	0	0	0	0	0	6
6:45 AM	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	7
7:00 AM	0	8	2	0	0	7	1	0	0	0	0	0	0	0	0	0	18
7:15 AM	0	4	0	0	1	7	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	6	1	0	2	1	0	0	0	0	0	0	0	0	1	0	11
8:00 AM	0	6	0	0	3	1	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
8:30 AM	0	4	1	0	0	15	0	0	0	0	0	0	0	0	0	0	20
8:45 AM	0	3	0	0	1	5	0	0	0	0	0	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	53	5	0	9	56	1	0	0	0	0	0	0	0	1	0	125
APPROACH %'s :	0.00%	91.38%	8.62%	0.00%	13.64%	84.85%	1.52%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	23	1	0	5	16	0	0	0	0	0	0	0	0	1	0	46
PEAK HR FACTOR :	0.000	0.821	0.250	0.000	0.417	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.885
		0.857				0.656								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	1	0	6
4:15 PM	0	2	2	0	0	8	0	0	0	0	0	0	1	0	0	0	13
4:30 PM	0	4	1	0	0	3	0	0	0	0	0	0	0	0	1	0	9
4:45 PM	0	4	0	0	1	3	0	0	0	0	0	0	0	0	1	0	9
5:00 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	1	0	5
5:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	17	6	0	1	26	0	0	0	0	0	0	1	0	4	0	55
APPROACH %'s :	0.00%	73.91%	26.09%	0.00%	3.70%	96.30%	0.00%	0.00%					20.00%	0.00%	80.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	11	3	0	1	18	0	0	0	0	0	0	1	0	3	0	37
PEAK HR FACTOR :	0.000	0.688	0.375	0.000	0.250	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.712
		0.700				0.594								1.000			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr **Project ID:** 23-260020-008
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	1
7:00 AM	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	1	3
APPROACH %'s :					100.00%	0.00%	50.00%	50.00%	
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	1	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	2	0	3
5:00 PM	0	1	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	1	0	1
6:00 PM	0	0	0	0	3	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	3	1	5	2	12
APPROACH %'s :	0.00%	100.00%			75.00%	25.00%	71.43%	28.57%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	3	1	5
PEAK HR FACTOR :						0.250	0.375	0.250	0.417
					0.250		0.500		

Prepared by National Data & Surveying Services

US 17/US 211/Broadview Ave & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-008
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	04:00 PM - 05:00 PM

COUNT PERIODS

AM	6:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 07:00 PM

SOUTHBOUND — US 17/US 211/Broadview Ave

AM	1	355	95	0	510	AM
NOON	0	0	0	0	0	NOON
PM	2	497	86	0	511	PM

0 2 1 0

EASTBOUND — Oak Springs Dr

AM	NOON	PM	
3	0	4	
0	0	0	0
0	0	2	0
1	0	1	1
0	0	4	0

AM NOON PM

WESTBOUND — Oak Springs Dr

PM	NOON	AM	
139	0	105	1
0	0	1	0
97	0	63	1
0	0	0	0
164	0	194	

PM NOON AM

CONTROL

2-Way Stop(EB/WB)

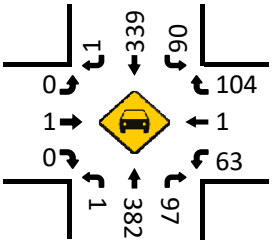
TEV	1125 AM	0 NOON	1277 PM
PHF	0.77		0.90

0 1 2 1

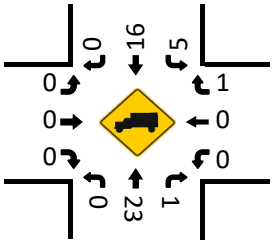
NORTHBOUND — US 17/US 211/Broadview Ave

PM	598	0	2	370	77	PM
NOON	0	0	0	0	0	NOON
AM	418	0	1	405	98	AM

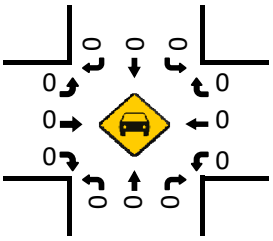
Cars (AM)



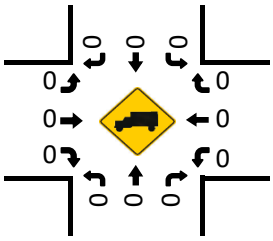
HT (AM)



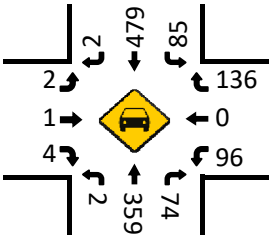
Cars (NOON)



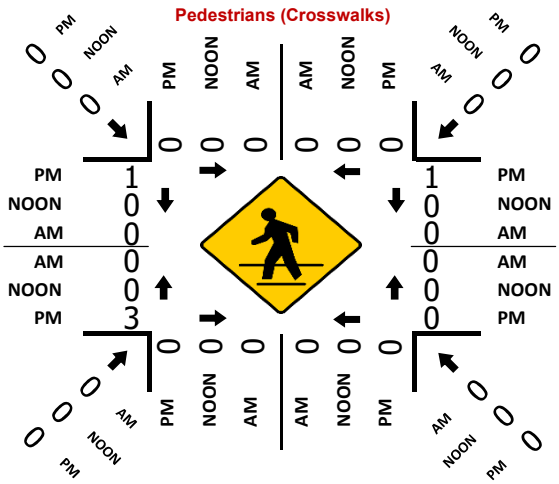
HT (NOON)



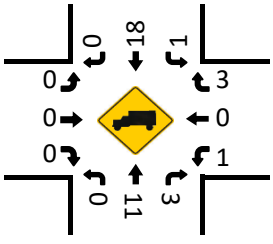
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	38	1	0	0	28	1	0	0	0	1	0	1	0	0	0	70
6:15 AM	0	41	0	0	0	31	0	0	0	0	0	0	0	0	0	0	72
6:30 AM	0	51	0	0	1	43	0	0	0	0	0	0	0	0	0	0	95
6:45 AM	0	52	0	0	1	64	0	0	0	0	0	0	0	0	1	0	118
7:00 AM	6	78	0	0	2	123	0	0	0	0	1	0	2	0	2	0	214
7:15 AM	1	84	1	0	0	107	0	0	0	0	1	0	0	0	1	0	195
7:30 AM	2	153	1	0	3	82	0	0	0	0	0	0	0	1	0	0	242
7:45 AM	7	169	2	0	4	118	1	0	0	0	0	0	1	0	8	0	310
8:00 AM	3	89	5	0	4	106	1	0	0	0	0	0	3	0	5	0	216
8:15 AM	1	77	2	0	4	95	1	0	0	0	3	0	1	0	5	0	189
8:30 AM	4	75	4	0	3	92	1	0	0	0	2	0	2	0	5	0	188
8:45 AM	8	83	1	0	1	116	0	0	2	0	4	0	4	0	5	0	224
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	32	990	17	0	23	1005	5	0	2	0	12	0	14	1	32	0	2133
APPROACH %'s :	3.08%	95.28%	1.64%	0.00%	2.23%	97.29%	0.48%	0.00%	14.29%	0.00%	85.71%	0.00%	29.79%	2.13%	68.09%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	13	495	9	0	11	413	2	0	0	0	1	0	4	1	14	0	963
PEAK HR FACTOR :	0.464	0.732	0.450	0.000	0.688	0.875	0.500	0.000	0.000	0.000	0.250	0.000	0.333	0.250	0.438	0.000	0.777
	0.726				0.866				0.250				0.528				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	87	6	0	17	131	2	0	2	0	4	0	11	1	11	0	275
4:15 PM	5	104	1	1	8	146	1	0	2	0	3	0	3	0	13	0	287
4:30 PM	2	124	8	1	8	140	1	0	4	1	5	0	10	0	8	0	312
4:45 PM	3	85	0	0	7	135	2	1	2	0	5	0	9	0	5	0	254
5:00 PM	5	102	2	0	9	108	4	0	3	1	6	0	6	0	9	0	255
5:15 PM	8	91	1	0	12	121	1	0	1	1	6	0	9	0	7	0	258
5:30 PM	5	83	3	0	5	114	0	0	0	1	3	0	8	0	8	0	230
5:45 PM	2	81	3	0	13	113	1	0	0	0	1	0	2	0	10	0	226
6:00 PM	5	70	3	0	10	68	1	0	2	1	5	0	2	0	5	0	172
6:15 PM	1	62	0	0	7	88	0	0	0	0	2	0	9	0	15	0	184
6:30 PM	0	60	3	0	4	59	1	0	1	0	2	0	9	0	7	0	146
6:45 PM	3	59	1	0	8	48	0	0	0	0	5	0	3	1	1	0	129
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	42	1008	31	2	108	1271	14	1	17	5	47	0	81	2	99	0	2728
APPROACH %'s :	3.88%	93.07%	2.86%	0.18%	7.75%	91.18%	1.00%	0.07%	24.64%	7.25%	68.12%	0.00%	44.51%	1.10%	54.40%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	13	400	15	2	40	552	6	1	10	1	17	0	33	1	37	0	1128
PEAK HR FACTOR :	0.650	0.806	0.469	0.500	0.588	0.945	0.750	0.250	0.625	0.250	0.850	0.000	0.750	0.250	0.712	0.000	0.904
	0.796				0.966				0.700				0.772				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	35	1	0	0	28	0	0	0	0	0	0	1	0	0	0	65
6:15 AM	0	38	0	0	0	31	0	0	0	0	0	0	0	0	0	0	69
6:30 AM	0	48	0	0	1	41	0	0	0	0	0	0	0	0	0	0	90
6:45 AM	0	50	0	0	0	62	0	0	0	0	0	0	0	0	0	0	112
7:00 AM	6	68	0	0	2	117	0	0	0	0	0	0	2	0	2	0	197
7:15 AM	1	80	1	0	0	99	0	0	0	0	1	0	0	0	1	0	183
7:30 AM	2	149	1	0	3	74	0	0	0	0	0	0	0	1	0	0	230
7:45 AM	7	163	2	0	4	117	1	0	0	0	0	0	1	0	7	0	302
8:00 AM	3	83	5	0	4	105	1	0	0	0	0	0	3	0	5	0	209
8:15 AM	1	70	2	0	4	89	1	0	0	0	3	0	1	0	5	0	176
8:30 AM	4	71	2	0	3	77	1	0	0	0	2	0	2	0	4	0	166
8:45 AM	8	81	1	0	1	111	0	0	2	0	4	0	4	0	4	0	216
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	32	936	15	0	22	951	4	0	2	0	10	0	14	1	28	0	2015
APPROACH %'s :	3.26%	95.22%	1.53%	0.00%	2.25%	97.34%	0.41%	0.00%	16.67%	0.00%	83.33%	0.00%	32.56%	2.33%	65.12%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	13	475	9	0	11	395	2	0	0	0	1	0	4	1	13	0	924
PEAK HR FACTOR :	0.464	0.729	0.450	0.000	0.688	0.844	0.500	0.000	0.000	0.000	0.250	0.000	0.333	0.250	0.464	0.000	0.765
	0.722				0.836				0.250				0.563				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	86	6	0	17	127	2	0	2	0	4	0	11	1	11	0	270
4:15 PM	5	102	1	1	8	137	1	0	2	0	3	0	3	0	11	0	274
4:30 PM	2	119	8	1	8	137	1	0	4	1	5	0	10	0	8	0	304
4:45 PM	3	81	0	0	7	132	2	1	2	0	5	0	9	0	5	0	247
5:00 PM	5	101	2	0	9	106	4	0	3	1	6	0	6	0	8	0	251
5:15 PM	8	89	1	0	12	120	1	0	1	1	6	0	9	0	7	0	255
5:30 PM	4	83	3	0	5	113	0	0	0	1	2	0	8	0	8	0	227
5:45 PM	2	80	3	0	13	112	1	0	0	0	1	0	2	0	9	0	223
6:00 PM	4	69	3	0	10	68	1	0	2	1	5	0	2	0	5	0	170
6:15 PM	1	62	0	0	7	87	0	0	0	0	2	0	9	0	15	0	183
6:30 PM	0	60	3	0	3	59	1	0	1	0	2	0	9	0	6	0	144
6:45 PM	3	58	1	0	8	47	0	0	0	0	5	0	3	1	1	0	127
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	40	990	31	2	107	1245	14	1	17	5	46	0	81	2	94	0	2675
APPROACH %'s :	3.76%	93.13%	2.92%	0.19%	7.83%	91.08%	1.02%	0.07%	25.00%	7.35%	67.65%	0.00%	45.76%	1.13%	53.11%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	13	388	15	2	40	533	6	1	10	1	17	0	33	1	35	0	1095
PEAK HR FACTOR :	0.650	0.815	0.469	0.500	0.588	0.973	0.750	0.250	0.625	0.250	0.850	0.000	0.750	0.250	0.795	0.000	0.900
	0.804				0.993				0.700				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	3	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
6:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
6:45 AM	0	2	0	0	1	2	0	0	0	0	0	0	0	0	1	0	6
7:00 AM	0	10	0	0	0	6	0	0	0	0	1	0	0	0	0	0	17
7:15 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	1	0	8
8:00 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
8:30 AM	0	4	2	0	0	15	0	0	0	0	0	0	0	0	1	0	22
8:45 AM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	1	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	54	2	0	1	54	1	0	0	0	2	0	0	0	4	0	118
APPROACH %'s :	0.00%	96.43%	3.57%	0.00%	1.79%	96.43%	1.79%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	20	0	0	0	18	0	0	0	0	0	0	0	0	1	0	39
PEAK HR FACTOR :	0.000	0.833	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.813
		0.833				0.563								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	2	0	0	0	9	0	0	0	0	0	0	0	0	2	0	13
4:30 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
4:45 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
5:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	4
5:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
6:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
6:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	18	0	0	1	26	0	0	0	0	1	0	0	0	5	0	53
APPROACH %'s :	10.00%	90.00%	0.00%	0.00%	3.70%	96.30%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	12	0	0	0	19	0	0	0	0	0	0	0	0	2	0	33
PEAK HR FACTOR :	0.000	0.600	0.000	0.000	0.000	0.528	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.635
		0.600				0.528								0.250			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy **Project ID:** 23-260020-009
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		Warrenton Village North Dwy		Warrenton Village North Dwy		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	1
7:00 AM	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	1	1	3
APPROACH %'s :	100.00%	0.00%					50.00%	50.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	1	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	3	0	3
5:00 PM	0	0	2	0	0	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	2	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	2	0	2	0	4	2	10
APPROACH %'s :			100.00%	0.00%	100.00%	0.00%	66.67%	33.33%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	4	1	5
PEAK HR FACTOR :							0.333	0.250	0.417
							0.417		

Prepared by National Data & Surveying Services

US 17/US 211/Broadview Ave & Warrenton Village North Dwy

Peak Hour Turning Movement Count

ID: 23-260020-009
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND — US 17/US 211/Broadview Ave

AM	2	413	11	0	509	AM
NOON	0	0	0	0	0	NOON
PM	6	552	40	1	448	PM
	0	2	1	0		

EASTBOUND — Warrenton Village North Dwy

AM	NOON	PM	
16	0	20	
0	0	0	0
0	0	10	0
0	0	1	1
1	0	17	0
AM	NOON	PM	

WESTBOUND — Warrenton Village North Dwy

PM	NOON	AM	
37	0	14	0.5
1	0	1	0.5
33	0	4	1
0	0	0	0
56	0	20	
PM	NOON	AM	

CONTROL

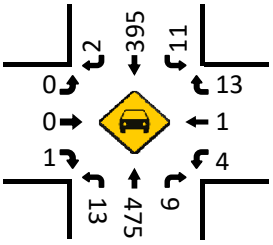
1-Way stop(WB)

TEV	963	0	1128
	AM	NOON	PM
PHF	0.78		0.90

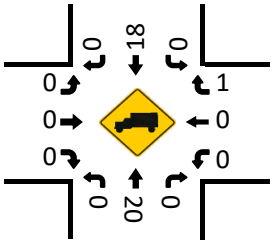
NORTHBOUND — US 17/US 211/Broadview Ave

	0	1	2	1		
PM	604	2	13	400	15	PM
NOON	0	0	0	0	0	NOON
AM	418	0	13	495	9	AM

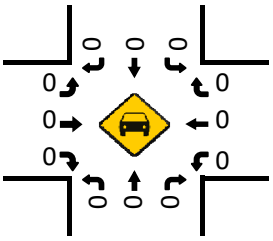
Cars (AM)



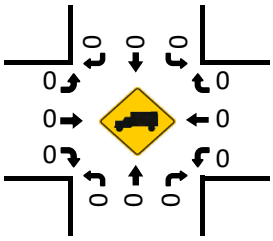
HT (AM)



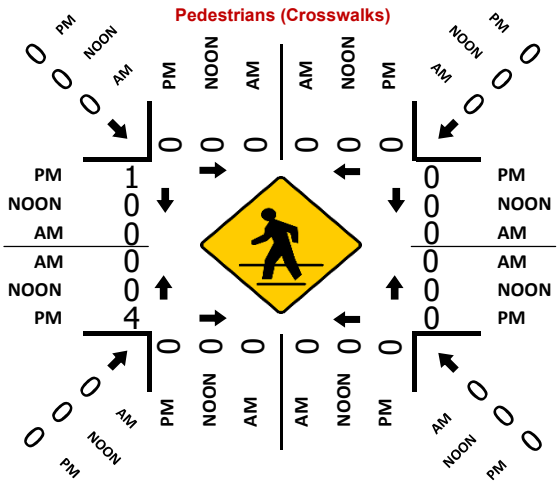
Cars (NOON)



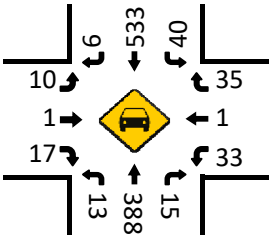
HT (NOON)



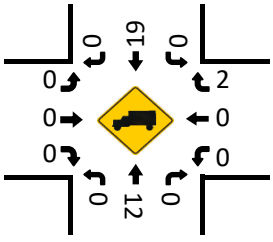
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	25	17	2	0	0	20	8	0	22	4	24	0	0	1	0	0	123
6:15 AM	29	21	2	0	0	26	7	0	20	1	13	0	0	2	0	0	121
6:30 AM	27	26	1	1	0	35	8	0	26	2	12	0	0	3	0	0	141
6:45 AM	32	31	3	0	0	57	7	0	20	2	21	0	0	2	0	0	175
7:00 AM	32	58	7	1	1	117	7	0	24	5	16	0	3	1	2	0	274
7:15 AM	26	66	6	0	0	98	11	0	26	8	19	0	1	0	0	0	261
7:30 AM	30	120	8	0	4	59	19	0	30	5	13	0	0	3	3	0	294
7:45 AM	34	136	7	0	1	106	11	0	39	4	25	0	1	0	0	0	364
8:00 AM	20	78	9	0	1	98	11	0	22	4	20	0	0	0	0	0	263
8:15 AM	26	55	7	1	1	89	7	0	23	4	13	0	1	0	0	0	227
8:30 AM	20	65	7	0	0	91	7	0	17	1	16	0	0	5	0	0	229
8:45 AM	14	71	9	0	0	108	15	0	20	8	19	0	0	1	2	0	267
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	315	744	68	3	8	904	118	0	289	48	211	0	6	18	7	0	2739
APPROACH %'s :	27.88%	65.84%	6.02%	0.27%	0.78%	87.77%	11.46%	0.00%	52.74%	8.76%	38.50%	0.00%	19.35%	58.06%	22.58%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	122	380	28	1	6	380	48	0	119	22	73	0	5	4	5	0	1193
PEAK HR FACTOR :	0.897	0.699	0.875	0.250	0.375	0.812	0.632	0.000	0.763	0.688	0.730	0.000	0.417	0.333	0.417	0.000	0.819
	0.750				0.868				0.787				0.583				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	66	12	0	3	124	21	0	21	10	46	0	14	7	9	0	348
4:15 PM	28	93	18	0	2	124	27	0	20	12	39	0	6	3	2	0	374
4:30 PM	14	87	20	0	0	121	33	0	34	27	44	0	9	7	10	0	406
4:45 PM	19	64	27	0	2	124	25	0	21	12	35	0	14	10	4	0	357
5:00 PM	17	86	18	0	6	88	26	0	18	11	23	0	9	15	4	0	321
5:15 PM	17	77	32	1	4	100	31	0	13	10	30	0	13	10	10	0	348
5:30 PM	34	54	23	0	2	96	28	0	32	16	16	0	10	11	6	0	328
5:45 PM	16	64	21	0	5	97	14	0	10	9	27	0	7	9	12	0	291
6:00 PM	14	57	27	0	1	60	13	0	15	14	35	0	10	14	7	0	267
6:15 PM	20	49	25	1	7	72	21	0	8	16	22	0	8	7	5	0	261
6:30 PM	15	46	22	3	2	55	13	0	9	11	16	0	8	11	7	0	218
6:45 PM	21	37	27	0	2	48	6	0	17	11	10	0	14	4	9	0	206
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	230	780	272	5	36	1109	258	0	218	159	343	0	122	108	85	0	3725
APPROACH %'s :	17.87%	60.61%	21.13%	0.39%	2.57%	79.04%	18.39%	0.00%	30.28%	22.08%	47.64%	0.00%	38.73%	34.29%	26.98%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	76	310	77	0	7	493	106	0	96	61	164	0	43	27	25	0	1485
PEAK HR FACTOR :	0.679	0.833	0.713	0.000	0.583	0.994	0.803	0.000	0.706	0.565	0.891	0.000	0.768	0.675	0.625	0.000	0.914
	0.833				0.984				0.764				0.792				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	25	15	2	0	0	19	8	0	21	4	23	0	0	1	0	0	118
6:15 AM	29	18	1	0	0	26	7	0	20	1	13	0	0	2	0	0	117
6:30 AM	27	23	1	1	0	33	8	0	26	2	11	0	0	3	0	0	135
6:45 AM	32	29	3	0	0	55	7	0	20	2	21	0	0	2	0	0	171
7:00 AM	32	50	7	1	1	111	6	0	23	5	15	0	3	1	1	0	256
7:15 AM	25	62	6	0	0	91	10	0	26	8	19	0	0	0	0	0	247
7:30 AM	30	117	8	0	4	53	17	0	30	5	12	0	0	3	2	0	281
7:45 AM	34	132	7	0	1	106	10	0	37	4	24	0	1	0	0	0	356
8:00 AM	20	72	9	0	1	97	11	0	22	4	20	0	0	0	0	0	256
8:15 AM	25	48	7	1	1	84	6	0	23	4	13	0	1	0	0	0	213
8:30 AM	19	59	7	0	0	77	6	0	17	1	15	0	0	5	0	0	206
8:45 AM	13	69	9	0	0	104	14	0	20	8	18	0	0	1	2	0	258
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	311	694	67	3	8	856	110	0	285	48	204	0	5	18	5	0	2614
APPROACH %'s :	28.93%	64.56%	6.23%	0.28%	0.82%	87.89%	11.29%	0.00%	53.07%	8.94%	37.99%	0.00%	17.86%	64.29%	17.86%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	121	361	28	1	6	361	43	0	116	22	70	0	4	4	3	0	1140
PEAK HR FACTOR :	0.890	0.684	0.875	0.250	0.375	0.813	0.632	0.000	0.784	0.688	0.729	0.000	0.333	0.333	0.375	0.000	0.801
	0.738				0.869				0.800				0.550				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	65	12	0	3	120	21	0	21	10	46	0	14	7	9	0	343
4:15 PM	28	91	18	0	2	116	26	0	20	12	39	0	6	3	2	0	363
4:30 PM	14	84	20	0	0	118	33	0	32	27	43	0	9	7	10	0	397
4:45 PM	18	60	27	0	2	121	25	0	21	12	35	0	14	10	4	0	349
5:00 PM	17	85	18	0	6	86	26	0	18	11	23	0	9	14	4	0	317
5:15 PM	17	76	32	1	4	99	31	0	13	10	30	0	13	10	9	0	345
5:30 PM	34	54	23	0	2	94	28	0	31	16	16	0	9	11	6	0	324
5:45 PM	16	62	20	0	5	96	14	0	10	9	27	0	7	9	12	0	287
6:00 PM	14	56	27	0	1	60	13	0	15	14	35	0	10	14	7	0	266
6:15 PM	19	49	24	1	7	71	21	0	8	16	22	0	8	7	5	0	258
6:30 PM	15	46	21	3	2	55	13	0	9	11	16	0	8	11	7	0	217
6:45 PM	21	36	26	0	2	47	6	0	17	11	10	0	14	4	9	0	203
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	228	764	268	5	36	1083	257	0	215	159	342	0	121	107	84	0	3669
APPROACH %'s :	18.02%	60.40%	21.19%	0.40%	2.62%	78.71%	18.68%	0.00%	30.03%	22.21%	47.77%	0.00%	38.78%	34.29%	26.92%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	75	300	77	0	7	475	105	0	94	61	163	0	43	27	25	0	1452
PEAK HR FACTOR :	0.670	0.824	0.713	0.000	0.583	0.981	0.795	0.000	0.734	0.565	0.886	0.000	0.768	0.675	0.625	0.000	0.914
	0.825				0.972				0.779				0.792				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	2	0	0	0	1	0	0	1	0	1	0	0	0	0	0	5
6:15 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
6:30 AM	0	3	0	0	0	2	0	0	0	0	1	0	0	0	0	0	6
6:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
7:00 AM	0	8	0	0	0	6	1	0	1	0	1	0	0	0	1	0	18
7:15 AM	1	4	0	0	0	7	1	0	0	0	0	0	1	0	0	0	14
7:30 AM	0	3	0	0	0	6	2	0	0	0	1	0	0	0	1	0	13
7:45 AM	0	4	0	0	0	0	1	0	2	0	1	0	0	0	0	0	8
8:00 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	1	7	0	0	0	5	1	0	0	0	0	0	0	0	0	0	14
8:30 AM	1	6	0	0	0	14	1	0	0	0	1	0	0	0	0	0	23
8:45 AM	1	2	0	0	0	4	1	0	0	0	1	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	50	1	0	0	48	8	0	4	0	7	0	1	0	2	0	125
APPROACH %'s :	7.27%	90.91%	1.82%	0.00%	0.00%	85.71%	14.29%	0.00%	36.36%	0.00%	63.64%	0.00%	33.33%	0.00%	66.67%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	1	19	0	0	0	19	5	0	3	0	3	0	1	0	2	0	53
PEAK HR FACTOR :	0.250	0.594	0.000	0.000	0.000	0.679	0.625	0.000	0.375	0.000	0.750	0.000	0.250	0.000	0.500	0.000	0.736
	0.625				0.750				0.500				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	2	0	0	0	8	1	0	0	0	0	0	0	0	0	0	11
4:30 PM	0	3	0	0	0	3	0	0	2	0	1	0	0	0	0	0	9
4:45 PM	1	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
5:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	4
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
5:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	4
5:45 PM	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	16	4	0	0	26	1	0	3	0	1	0	1	1	1	0	56
APPROACH %'s :	9.09%	72.73%	18.18%	0.00%	0.00%	96.30%	3.70%	0.00%	75.00%	0.00%	25.00%	0.00%	33.33%	33.33%	33.33%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	1	10	0	0	0	18	1	0	2	0	1	0	0	0	0	0	33
PEAK HR FACTOR :	0.250	0.625	0.000	0.000	0.000	0.563	0.250	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750
	0.550				0.528				0.250								

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village Sc **Project ID:** 23-260020-010
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St		US 17/US 211/Broadview Ave/Winchester St		Warrenton Village South Dwy/Broadview Ave		Warrenton Village South Dwy/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	2	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	2	0	0	3
APPROACH %'s :	0.00%	100.00%			0.00%	100.00%			
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	1
4:15 PM	0	4	0	0	3	0	0	0	7
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	6	0	0	3	0	0	0	9
APPROACH %'s :	0.00%	100.00%			100.00%	0.00%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	6	0	0	3	0	0	0	9
PEAK HR FACTOR :		0.375			0.250				0.321
	0.375				0.250				

Prepared by National Data & Surveying Services

US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-010
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND — US 17/US 211/Broadview Ave/Winchester St

AM	48	380	6	0	504	AM
NOON	0	0	0	0	0	NOON
PM	106	493	7	0	431	PM
	1	2	1	0		

EASTBOUND — Warrenton Village South Dwy/Broadview Ave

AM	NOON	PM	
174	0	209	
0	0	0	0
119	0	96	1
22	0	61	1
73	0	164	1
AM	NOON	PM	

WESTBOUND — Warrenton Village South Dwy/Broadview Ave

PM	NOON	AM	
25	0	5	0.5
27	0	4	0.5
43	0	5	1
0	0	0	0
PM	NOON	AM	
145	0	56	

NORTHBOUND — US 17/US 211/Broadview Ave/Winchester St

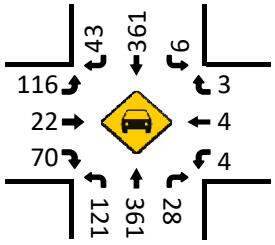
PM	700	0	76	310	77	PM
NOON	0	0	0	0	0	NOON
AM	459	1	122	380	28	AM
		0	1	2	1	

CONTROL

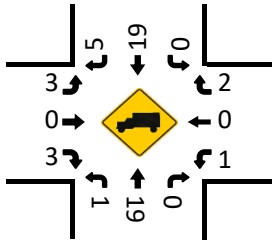
2-Way Stop(EB/WB)

TEV	1193 AM	0 NOON	1485 PM
PHF	0.82		0.91

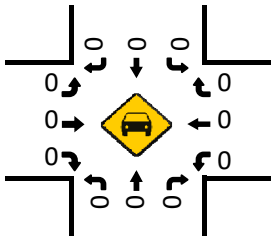
Cars (AM)



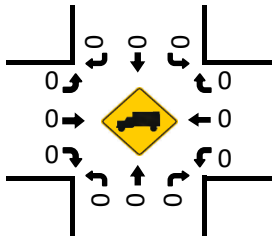
HT (AM)



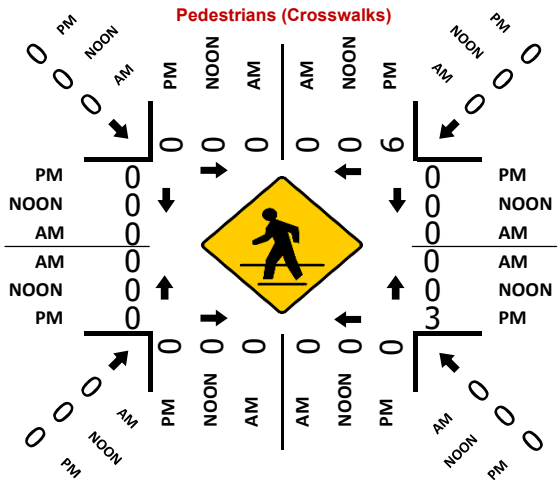
Cars (NOON)



HT (NOON)



Pedestrians (Crosswalks)


PM NOON AM
0 0 0 0

D. HCM Level of Service Definitions

GOROVE SLADE
Transportation Planners and Engineers

TECHNICAL MEMORANDUM

Subject: Level of Service Definitions

Introduction

The purpose of this memorandum is to define the level of service (LOS) metric that commonly used as a measure of effectiveness (MOE) for traffic operations.

All capacity analyses are based on the procedures specified by the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), which is currently on its sixth edition. Level of service ranges from A to F. A brief description of each level of service for signalized and unsignalized intersections is provided below.

Signalized Intersections

Level of service is based upon the traffic volume present in each lane on the roadway, the capacity of each lane at the intersection and the delay associated with each directional movement. The levels of service for signalized intersections are defined below:

- **Level of Service A** describes operations with very low average delay per vehicle, i.e., less than 10.0 seconds. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short signal cycle lengths may also contribute to low delay.
- **Level of Service B** describes operations with average delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
- **Level of Service C** describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping. This is generally considered the lower end of the range of the acceptable level of service in rural areas.
- **Level of Service D** describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicles that do not have to stop declines. Individual signal cycle failures, where all waiting vehicles do not clear the intersection during a single green time, are noticeable. This is generally considered the lower end of the range of the acceptable level of service in urban areas.
- **Level of Service E** describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. These higher delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures are frequent occurrences. LOS E has been set as the limit of acceptable conditions.
- **Level of Service F** describes operations with average delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection. It may also occur at high volumes with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delays.

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Unsignalized Intersections

At an unsignalized intersection, the major street through traffic and right-turns are assumed to operate unimpeded and therefore receive no level of service rating. The level of service for the minor street and the major street left-turn traffic is dependent on the volume and capacity of the available lanes, and, the number and frequency of acceptable gaps in the major street traffic to make a conflicting turn. The level of service grade is provided for each conflicting movement at an unsignalized intersection and is based on the total average delay experienced by each vehicle. The delay includes the time it takes a vehicle to move from the back of a queue through the intersection.

The unsignalized intersection level of service analysis does not account for variations in driver behavior or the effects of nearby traffic signals. Therefore, the results from this analysis usually indicate worse levels of service than may be experienced in the field. The unsignalized intersection level of service descriptions are provided below:

- **Level of Service A** describes operations where there is very little to no conflicting traffic for a minor side street movement, i.e., an average total delay of less than 10.0 seconds per vehicle.
- **Level of Service B** describes operations with average total delay in the range of 10.1 to 15.0 seconds per vehicle.
- **Level of Service C** describes operations with average total delay in the range of 15.1 to 25.0 second per vehicle.
- **Level of Service D** describes operations with average total delay in the range of 25.1 to 35.0 seconds per vehicle.
- **Level of Service E** describes operations with average total delay in the range of 35.1 to 50.0 seconds per vehicle.
- **Level of Service F** describes operations with average total delay of 50 seconds per vehicle. LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through or enter a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queuing on the minor approaches. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal driver behavior.

E. VDOT Signal Timings

Plan 1

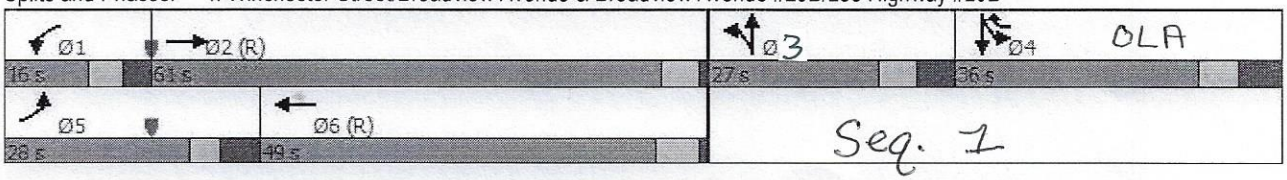
Timing Report, Sorted By Phase
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/02/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	16	61	36	28	49	27
Maximum Split (%)	11.4%	43.6%	25.7%	20.0%	35.0%	19.3%
Minimum Split (s)	12.9	27.2	15.4	13.8	32.8	14.2
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	112	128	76	112	0	49
End Time (s)	128	49	112	0	49	76
Yield/Force Off (s)	121.1	43.8	102.6	132.2	43.2	67.7
Yield/Force Off 170(s)	121.1	28.8	78.6	132.2	23.2	39.7
Local Start Time (s)	124	0	88	124	12	61
Local Yield (s)	133.1	55.8	114.6	4.2	55.2	79.7
Local Yield 170(s)	133.1	40.8	90.6	4.2	35.2	51.7
MAX 1	40	40	25	25	40	25

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 128 (91%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



OLA + 4

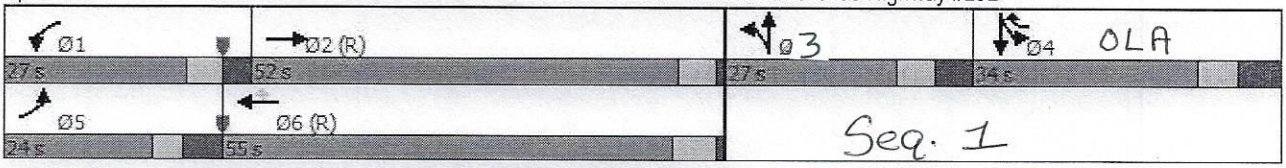
Plan 2

Timing Report, Sorted By Phase

4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/02/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	27	52	34	24	55	27
Maximum Split (%)	19.3%	37.1%	24.3%	17.1%	39.3%	19.3%
Minimum Split (s)	12.9	27.2	15.4	13.8	32.8	14.3
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	121	8	87	121	5	60
End Time (s)	8	60	121	5	60	87
Yield/Force Off (s)	1.1	54.8	111.6	137.2	54.2	78.7
Yield/Force Off 170(s)	1.1	39.8	87.6	137.2	34.2	50.7
Local Start Time (s)	116	3	82	116	0	55
Local Yield (s)	136.1	49.8	106.6	132.2	49.2	73.7
Local Yield 170(s)	136.1	34.8	82.6	132.2	29.2	45.7
MAX 1	40	40	25	25	40	25
Intersection Summary						
Cycle Length			140			
Control Type		Actuated-Coordinated				
Natural Cycle			80			
Offset: 5 (4%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green						

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



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Timing Report, Sorted By Phase

Plan 3

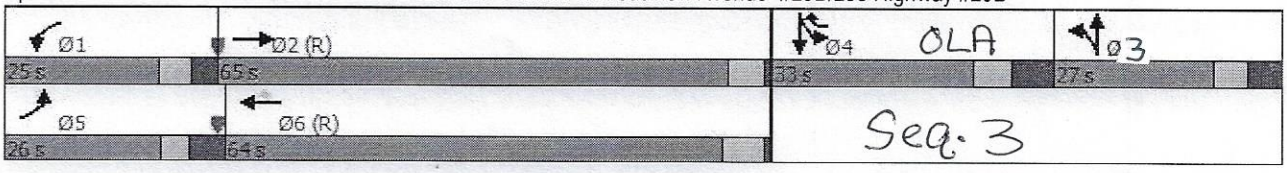
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/03/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	25	65	33	26	64	27
Maximum Split (%)	16.7%	43.3%	22.0%	17.3%	42.7%	18.0%
Minimum Split (s)	14.9	27.2	15.4	13.8	32.8	14.3
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	31	56	121	31	57	4
End Time (s)	56	121	4	57	121	31
Yield/Force Off (s)	49.1	115.8	144.6	49.2	115.2	22.7
Yield/Force Off 170(s)	49.1	100.8	120.6	49.2	95.2	144.7
Local Start Time (s)	125	0	65	125	1	98
Local Yield (s)	143.1	59.8	88.6	143.2	59.2	116.7
Local Yield 170(s)	143.1	44.8	64.6	143.2	39.2	88.7
MAX 1	40	46	25	25	48	25

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Coordinated
Natural Cycle	90

Offset: 56 (37%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



OLA + 4

Plan 4

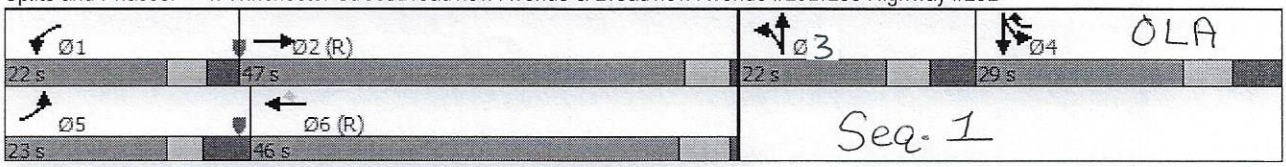
Timing Report, Sorted By Phase
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/03/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	22	47	29	23	46	22
Maximum Split (%)	18.3%	39.2%	24.2%	19.2%	38.3%	18.3%
Minimum Split (s)	12.9	27.2	15.4	13.8	32.8	14.3
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	115	17	86	115	18	64
End Time (s)	17	64	115	18	64	86
Yield/Force Off (s)	10.1	58.8	105.6	10.2	58.2	77.7
Yield/Force Off 170(s)	10.1	43.8	81.6	10.2	38.2	49.7
Local Start Time (s)	98	0	69	98	1	47
Local Yield (s)	113.1	41.8	88.6	113.2	41.2	60.7
Local Yield 170(s)	113.1	26.8	64.6	113.2	21.2	32.7
MAX 1	40	40	25	25	40	25

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



OLA +4

Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 1

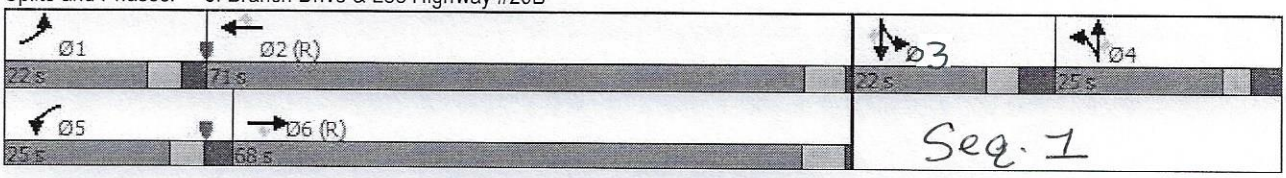
01/02/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	22	71	25	25	68	22
Maximum Split (%)	15.7%	50.7%	17.9%	17.9%	48.6%	15.7%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	yes	yes	yes	yes	yes	yes
Start Time (s)	119	1	94	119	4	72
End Time (s)	1	72	119	4	72	94
Yield/Force Off (s)	134.6	66.4	112.4	137.2	66.3	86.5
Yield/Force Off 170(s)	134.6	51.4	84.4	137.2	51.3	86.5
Local Start Time (s)	118	0	93	118	3	71
Local Yield (s)	133.6	65.4	111.4	136.2	65.3	85.5
Local Yield 170(s)	133.6	50.4	83.4	136.2	50.3	85.5
MAX 1	18	45	35	18	45	35

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	70

Offset: 1 (1%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 2

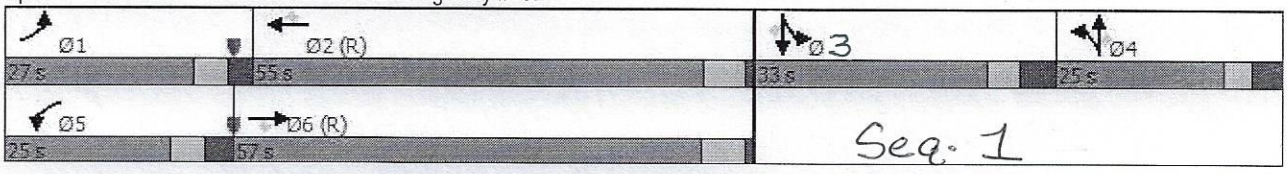
01/02/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	27	55	25	25	57	33
Maximum Split (%)	19.3%	39.3%	17.9%	17.9%	40.7%	23.6%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3.6	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	125	12	100	125	10	67
End Time (s)	12	67	125	10	67	100
Yield/Force Off (s)	5.6	61.4	118.4	3.2	61.3	92.5
Yield/Force Off 170(s)	5.6	46.4	90.4	3.2	46.3	92.5
Local Start Time (s)	115	2	90	115	0	57
Local Yield (s)	135.6	51.4	108.4	133.2	51.3	82.5
Local Yield 170(s)	135.6	36.4	80.4	133.2	36.3	82.5
MAX 1	18	45	35	18	45	35

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 10 (7%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 3

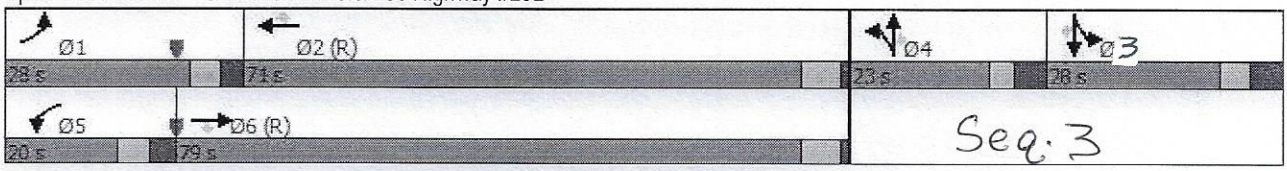
01/03/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	28	71	23	20	79	28
Maximum Split (%)	18.7%	47.3%	15.3%	13.3%	52.7%	18.7%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3.6	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	26	54	125	26	46	148
End Time (s)	54	125	148	46	125	26
Yield/Force Off (s)	47.6	119.4	141.4	39.2	119.3	18.5
Yield/Force Off 170(s)	47.6	104.4	113.4	39.2	104.3	18.5
Local Start Time (s)	130	8	79	130	0	102
Local Yield (s)	1.6	73.4	95.4	143.2	73.3	122.5
Local Yield 170(s)	1.6	58.4	67.4	143.2	58.3	122.5
MAX I	18	45	35	18	45	35

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 46 (31%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 4

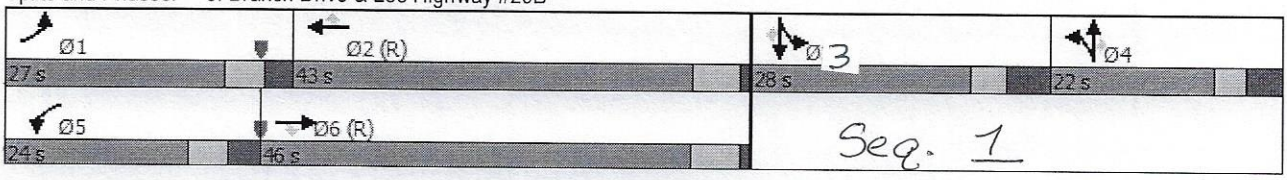
01/03/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	27	43	22	24	46	28
Maximum Split (%)	22.5%	35.8%	18.3%	20.0%	38.3%	23.3%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3.6	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	yes	yes	yes	yes	yes	yes
Start Time (s)	100	7	78	100	4	50
End Time (s)	7	50	100	4	50	78
Yield/Force Off (s)	0.6	44.4	93.4	117.2	44.3	70.5
Yield/Force Off 170(s)	0.6	29.4	65.4	117.2	29.3	70.5
Local Start Time (s)	96	3	74	96	0	46
Local Yield (s)	116.6	40.4	89.4	113.2	40.3	66.5
Local Yield 170(s)	116.6	25.4	61.4	113.2	25.3	66.5
MAX 1	18	45	35	18	45	35

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	75

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



F. 2023 Existing Conditions – Capacity Analysis Worksheets



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	298	896	38	699	194	83	117	80	117	122	244
v/c Ratio	0.72	0.51	0.37	0.48	0.21	0.49	0.62	0.21	0.59	0.58	0.41
Control Delay	69.1	26.2	96.7	21.6	3.5	68.2	73.8	1.2	69.4	67.7	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	26.2	96.7	21.6	3.5	68.2	73.8	1.2	69.4	67.7	11.1
Queue Length 50th (ft)	141	287	38	249	32	76	108	0	112	116	41
Queue Length 95th (ft)	186	428	78	143	46	126	166	0	167	171	95
Internal Link Dist (ft)		1315		334			509			538	
Turn Bay Length (ft)	250		130		200	250		125	215		
Base Capacity (vph)	481	1758	118	1450	1006	224	249	447	313	335	621
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.51	0.32	0.48	0.19	0.37	0.47	0.18	0.37	0.36	0.39

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	5	257	758	31	3	31	615	171	73	103	70	117
Future Volume (vph)	5	257	758	31	3	31	615	171	73	103	70	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			0%				-1%			2%		
Total Lost time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3	6.9	9.4
Lane Util. Factor		0.97	0.95			1.00	0.95	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes		1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.99			1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3338	3452			1814	3359	1561	1655	1844	1537	1649
Flt Permitted		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3338	3452			1814	3359	1561	1655	1844	1537	1649
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	292	861	35	3	35	699	194	83	117	80	133
RTOR Reduction (vph)	0	0	1	0	0	0	0	87	0	0	67	0
Lane Group Flow (vph)	0	298	895	0	0	38	699	107	83	117	13	117
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	0%	5%	4%	3%	0%	0%	8%	4%	8%	2%	4%	5%
Turn Type	Prot	Prot	NA		Prot	Prot	NA	pm+ov	Split	NA	custom	Split
Protected Phases	5	5	2		1	1	6	4	3	3		4
Permitted Phases								6			1 3	
Actuated Green, G (s)		17.4	71.0			8.1	60.2	77.0	14.3	14.3	22.4	16.8
Effective Green, g (s)		17.4	71.0			8.1	60.2	77.0	14.3	14.3	22.4	16.8
Actuated g/C Ratio		0.12	0.51			0.06	0.43	0.55	0.10	0.10	0.16	0.12
Clearance Time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3		9.4
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)		414	1750			104	1444	858	169	188	245	197
v/s Ratio Prot		c0.09	c0.26			0.02	0.21	0.01	0.05	c0.06		c0.07
v/s Ratio Perm								0.05			0.01	
v/c Ratio		0.72	0.51			0.37	0.48	0.12	0.49	0.62	0.05	0.59
Uniform Delay, d1		59.0	23.0			63.5	28.7	15.2	59.4	60.3	49.8	58.4
Progression Factor		1.00	1.00			1.38	0.65	2.21	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.9	1.1			2.1	1.1	0.1	2.2	6.3	0.1	4.7
Delay (s)		64.9	24.0			89.7	19.8	33.6	61.7	66.5	49.9	63.1
Level of Service		E	C			F	B	C	E	E	D	E
Approach Delay (s)			34.2				25.5			60.3		
Approach LOS			C				C			E		

Intersection Summary			
HCM 2000 Control Delay	36.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	31.3
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	93	215
Future Volume (vph)	93	215
Ideal Flow (vphpl)	1900	1900
Grade (%)	-2%	
Total Lost time (s)	9.4	9.4
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.99	1.00
Satd. Flow (prot)	1769	1558
Flt Permitted	0.99	1.00
Satd. Flow (perm)	1769	1558
Peak-hour factor, PHF	0.88	0.88
Adj. Flow (vph)	106	244
RTOR Reduction (vph)	0	127
Lane Group Flow (vph)	122	117
Confl. Peds. (#/hr)		3
Heavy Vehicles (%)	2%	3%
Turn Type	NA	custom
Protected Phases	4	
Permitted Phases		4 5
Actuated Green, G (s)	16.8	43.6
Effective Green, g (s)	16.8	43.6
Actuated g/C Ratio	0.12	0.31
Clearance Time (s)	9.4	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	212	485
v/s Ratio Prot	0.07	
v/s Ratio Perm		0.07
v/c Ratio	0.58	0.24
Uniform Delay, d1	58.2	35.9
Progression Factor	1.00	1.00
Incremental Delay, d2	3.7	0.3
Delay (s)	62.0	36.1
Level of Service	E	D
Approach Delay (s)	49.2	
Approach LOS	D	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

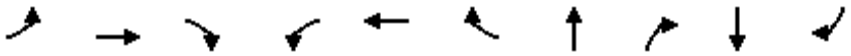
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	885	63	0	800	31	0	0	29	0	0	20
Future Vol, veh/h	0	885	63	0	800	31	0	0	29	0	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	7	0	0	0	3	0	0	0
Mvmt Flow	0	962	68	0	870	34	0	0	32	0	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	481	-	-	435
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.26	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	508	0	0	656
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	508	-	-	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.6	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	508	-	-	-	-	656
HCM Lane V/C Ratio	0.062	-	-	-	-	0.033
HCM Control Delay (s)	12.6	-	-	-	-	10.7
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	40	964	1	48	840	56	23	42	46	55
v/c Ratio	0.36	0.41	0.00	0.41	0.37	0.05	0.15	0.16	0.40	0.28
Control Delay	84.6	7.2	0.0	72.4	16.2	0.1	56.4	1.4	71.9	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	7.2	0.0	72.4	16.2	0.1	56.4	1.4	71.9	3.4
Queue Length 50th (ft)	40	127	0	44	188	0	21	0	43	0
Queue Length 95th (ft)	m80	133	m0	88	394	0	43	0	86	0
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	199	2364	1143	227	2284	1125	286	358	185	248
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.41	0.00	0.21	0.37	0.05	0.08	0.12	0.25	0.22

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	7	29	877	1	44	764	51	10	11	38	34	8
Future Volume (vph)	7	29	877	1	44	764	51	10	11	38	34	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1791	3541	1647	1752	3372	1599		1856	1615		1792
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1791	3541	1647	1752	3372	1599		1856	1615		1792
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	8	32	964	1	48	840	56	11	12	42	37	9
RTOR Reduction (vph)	0	0	0	0	0	0	21	0	0	39	0	0
Lane Group Flow (vph)	0	40	964	1	48	840	35	0	23	3	0	46
Heavy Vehicles (%)	14%	0%	4%	0%	2%	6%	0%	0%	0%	0%	3%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		7.5	87.3	87.3	8.1	88.4	88.4		10.7	10.7		7.9
Effective Green, g (s)		7.5	87.3	87.3	8.1	88.4	88.4		10.7	10.7		7.9
Actuated g/C Ratio		0.05	0.62	0.62	0.06	0.63	0.63		0.08	0.08		0.06
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		95	2208	1027	101	2129	1009		141	123		101
v/s Ratio Prot		0.02	c0.27		c0.03	0.25			c0.01			c0.03
v/s Ratio Perm				0.00			0.02			0.00		
v/c Ratio		0.42	0.44	0.00	0.48	0.39	0.04		0.16	0.03		0.46
Uniform Delay, d1		64.1	13.6	9.9	63.9	12.7	9.7		60.5	59.8		64.0
Progression Factor		1.23	0.40	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		2.7	0.6	0.0	3.5	0.5	0.1		0.5	0.1		3.2
Delay (s)		81.5	6.0	9.9	67.4	13.2	9.8		61.0	59.9		67.2
Level of Service		F	A	A	E	B	A		E	E		E
Approach Delay (s)			9.0			15.8			60.3			64.7
Approach LOS			A			B			E			E

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	50
Future Volume (vph)	50
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1375
Flt Permitted	1.00
Satd. Flow (perm)	1375
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	55
RTOR Reduction (vph)	52
Lane Group Flow (vph)	3
Heavy Vehicles (%)	18%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	7.9
Effective Green, g (s)	7.9
Actuated g/C Ratio	0.06
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	77
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	62.5
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	62.7
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	15	38	14	11	14	23	65	7	18	67	5
Future Vol, veh/h	6	15	38	14	11	14	23	65	7	18	67	5
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	9	0	0	0	0	0	13	0
Mvmt Flow	7	18	45	16	13	16	27	76	8	21	79	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	223	262	45	227	261	42	85	0	0	84	0	0
Stage 1	124	124	-	134	134	-	-	-	-	-	-	-
Stage 2	99	138	-	93	127	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.1	7.1	6.28	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.09	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	794	726	1032	733	645	1028	1524	-	-	1526	-	-
Stage 1	922	842	-	874	780	-	-	-	-	-	-	-
Stage 2	943	836	-	919	785	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	750	702	1030	669	624	1028	1524	-	-	1526	-	-
Mov Cap-2 Maneuver	750	702	-	669	624	-	-	-	-	-	-	-
Stage 1	904	830	-	857	765	-	-	-	-	-	-	-
Stage 2	895	820	-	847	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.1	1.8	1.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	890	748	1526	-	-
HCM Lane V/C Ratio	0.018	-	-	0.078	0.061	0.014	-	-
HCM Control Delay (s)	7.4	0	-	9.4	10.1	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	1	76	75	14	106	1	73	1	12	1	1	1
Future Vol, veh/h	1	76	75	14	106	1	73	1	12	1	1	1
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	1	11	7	1	0	0	0	0	0	0	0
Mvmt Flow	1	89	88	16	125	1	86	1	14	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	178	0	0	295	298	136	307	342	130
Stage 1	-	-	-	-	-	-	136	136	-	162	162	-
Stage 2	-	-	-	-	-	-	159	162	-	145	180	-
Critical Hdwy	4.1	-	-	4.17	-	-	7.5	6.9	6.4	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.263	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1468	-	-	1368	-	-	640	597	911	707	642	942
Stage 1	-	-	-	-	-	-	859	776	-	884	803	-
Stage 2	-	-	-	-	-	-	833	754	-	898	793	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1463	-	-	1367	-	-	631	586	909	684	630	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	631	586	-	684	630	-
Stage 1	-	-	-	-	-	-	857	774	-	880	790	-
Stage 2	-	-	-	-	-	-	820	742	-	880	791	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	11.2	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	630	909	1463	-	-	1367	-	-	729
HCM Lane V/C Ratio	0.138	0.016	0.001	-	-	0.012	-	-	0.005
HCM Control Delay (s)	11.6	9	7.5	0	-	7.7	0	-	10
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	104	136	44	47	67
Future Vol, veh/h	83	104	136	44	47	67
Conflicting Peds, #/hr	1	0	0	1	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	1	1	0	17	0
Mvmt Flow	98	122	160	52	55	79

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	213	0	-	0	505	189
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.16	-	-	-	5.57	5.7
Critical Hdwy Stg 1	-	-	-	-	4.57	-
Critical Hdwy Stg 2	-	-	-	-	4.57	-
Follow-up Hdwy	2.254	-	-	-	3.653	3.3
Pot Cap-1 Maneuver	1334	-	-	-	577	881
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1333	-	-	-	530	879
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	769	-

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1333	-	-	-	691
HCM Lane V/C Ratio	0.073	-	-	-	0.194
HCM Control Delay (s)	7.9	-	-	-	11.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	156	152	51	31	19
Future Vol, veh/h	38	156	152	51	31	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	45	184	179	60	36	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	239	0	-	0	483	209
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1340	-	-	-	546	836
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	527	836
Mov Cap-2 Maneuver	-	-	-	-	527	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	777	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1340	-	-	-	527	836
HCM Lane V/C Ratio	0.033	-	-	-	0.069	0.027
HCM Control Delay (s)	7.8	-	-	-	12.3	9.4
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	64	1	106	1	407	98	95	355	1
Future Vol, veh/h	1	1	1	64	1	106	1	407	98	95	355	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	1	0	6	1	5	5	0
Mvmt Flow	1	1	1	75	1	125	1	479	115	112	418	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	885	1239	210	915	1124	240	419	0	0	594	0	0
Stage 1	643	643	-	481	481	-	-	-	-	-	-	-
Stage 2	242	596	-	434	643	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.3	7.3	7.32	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.2	-	-	2.25	-	-
Pot Cap-1 Maneuver	268	203	811	188	161	744	1151	-	-	958	-	-
Stage 1	465	506	-	486	501	-	-	-	-	-	-	-
Stage 2	766	529	-	523	409	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	202	179	811	170	142	744	1151	-	-	958	-	-
Mov Cap-2 Maneuver	202	179	-	170	142	-	-	-	-	-	-	-
Stage 1	465	447	-	486	500	-	-	-	-	-	-	-
Stage 2	636	528	-	460	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.3	23	0	1.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1151	-	-	255	169	744	958	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.452	0.168	0.117	-	-
HCM Control Delay (s)	8.1	-	-	19.3	42.8	10.8	9.3	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.1	0.6	0.4	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	3	5	1	18	13	488	10	15	401	3
Future Vol, veh/h	1	1	3	5	1	18	13	488	10	15	401	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	6	0	5	0	0	4	0
Mvmt Flow	1	1	4	6	1	21	15	574	12	18	472	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	828	1126	238	877	1116	287	476	0	0	586	0	0
Stage 1	510	510	-	604	604	-	-	-	-	-	-	-
Stage 2	318	616	-	273	512	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.32	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	212	151	744	212	174	681	1097	-	-	999	-	-
Stage 1	451	469	-	413	444	-	-	-	-	-	-	-
Stage 2	616	409	-	684	496	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	146	744	205	168	681	1097	-	-	999	-	-
Mov Cap-2 Maneuver	199	146	-	205	168	-	-	-	-	-	-	-
Stage 1	445	461	-	407	438	-	-	-	-	-	-	-
Stage 2	587	403	-	667	487	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	13.8	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1097	-	-	314	205	587	999	-	-
HCM Lane V/C Ratio	0.014	-	-	0.019	0.029	0.038	0.018	-	-
HCM Control Delay (s)	8.3	-	-	16.7	23.1	11.4	8.7	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	119	17	71	2	3	3	111	389	31	7	352	50
Future Vol, veh/h	119	17	71	2	3	3	111	389	31	7	352	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	0	3	0	0	33	1	5	0	0	3	8
Mvmt Flow	140	20	84	2	4	4	131	458	36	8	414	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	923	1186	207	953	1209	229	473	0	0	494	0	0
Stage 1	430	430	-	720	720	-	-	-	-	-	-	-
Stage 2	493	756	-	233	489	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.96	7.5	6.5	7.56	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.33	3.5	4	3.63	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	225	190	796	217	184	687	1092	-	-	1080	-	-
Stage 1	574	587	-	390	435	-	-	-	-	-	-	-
Stage 2	526	419	-	755	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	166	796	159	161	687	1092	-	-	1080	-	-
Mov Cap-2 Maneuver	199	166	-	159	161	-	-	-	-	-	-	-
Stage 1	505	583	-	343	383	-	-	-	-	-	-	-
Stage 2	456	369	-	648	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.8	21.4	1.8	0.1
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1092	-	-	199	166	796	159	261	1080	-	-
HCM Lane V/C Ratio	0.12	-	-	0.704	0.12	0.105	0.015	0.027	0.008	-	-
HCM Control Delay (s)	8.7	-	-	57.3	29.6	10.1	28	19.2	8.4	-	-
HCM Lane LOS	A	-	-	F	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	4.4	0.4	0.3	0	0.1	0	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	275	869	68	1119	110	119	99	70	161	166	402
v/c Ratio	0.74	0.54	0.51	0.77	0.12	0.67	0.54	0.19	0.55	0.55	0.70
Control Delay	76.6	31.9	101.5	23.6	3.3	83.1	74.3	3.8	64.7	64.4	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.6	31.9	101.5	23.6	3.3	83.1	74.3	3.8	64.7	64.4	40.0
Queue Length 50th (ft)	140	356	58	582	38	119	97	0	152	156	257
Queue Length 95th (ft)	193	428	m119	192	m15	188	160	17	251	257	417
Internal Link Dist (ft)		1315		334			509			538	
Turn Bay Length (ft)	250		130		200	250		125	215		
Base Capacity (vph)	412	1607	218	1486	922	222	232	465	301	311	581
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.54	0.31	0.75	0.12	0.54	0.43	0.15	0.53	0.53	0.69

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	2	262	794	40	10	56	1074	106	114	95	67	231
Future Volume (vph)	2	262	794	40	10	56	1074	106	114	95	67	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			0%				-1%			2%		
Total Lost time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3	6.9	9.4
Lane Util. Factor		0.97	0.95			1.00	0.95	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes		1.00	1.00			1.00	1.00	0.99	1.00	1.00	0.98	1.00
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.99			1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3400	3512			1814	3557	1570	1787	1862	1563	1715
Flt Permitted		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3400	3512			1814	3557	1570	1787	1862	1563	1715
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2	273	827	42	10	58	1119	110	119	99	70	241
RTOR Reduction (vph)	0	0	2	0	0	0	0	37	0	0	58	0
Lane Group Flow (vph)	0	275	867	0	0	68	1119	73	119	99	12	161
Confl. Peds. (#/hr)				3				5	2		6	6
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%	2%	2%	0%	1%	0%	1%
Turn Type	Prot	Prot	NA		Prot	Prot	NA	pm+ov	Split	NA	custom	Split
Protected Phases	5	5	2		1	1	6	4	3	3		4
Permitted Phases								6			1 3	
Actuated Green, G (s)		16.5	68.6			11.1	61.7	87.3	14.9	14.9	26.0	25.6
Effective Green, g (s)		16.5	68.6			11.1	61.7	87.3	14.9	14.9	26.0	25.6
Actuated g/C Ratio		0.11	0.46			0.07	0.41	0.58	0.10	0.10	0.17	0.17
Clearance Time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3		9.4
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)		374	1606			134	1463	913	177	184	270	292
v/s Ratio Prot		0.08	c0.25			0.04	c0.31	0.01	c0.07	0.05		0.09
v/s Ratio Perm								0.03			0.01	
v/c Ratio		0.74	0.54			0.51	0.76	0.08	0.67	0.54	0.04	0.55
Uniform Delay, d1		64.6	29.3			66.8	37.9	13.7	65.2	64.3	51.7	56.9
Progression Factor		1.00	1.00			1.36	0.51	1.22	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.3	1.3			2.6	3.3	0.0	9.6	3.0	0.1	2.2
Delay (s)		72.0	30.6			93.8	22.7	16.8	74.8	67.3	51.7	59.2
Level of Service		E	C			F	C	B	E	E	D	E
Approach Delay (s)			40.6				25.9			66.6		
Approach LOS			D				C			E		

Intersection Summary			
HCM 2000 Control Delay	39.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.3
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	83	386
Future Volume (vph)	83	386
Ideal Flow (vphpl)	1900	1900
Grade (%)	-2%	
Total Lost time (s)	9.4	9.4
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.99
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.98	1.00
Satd. Flow (prot)	1772	1545
Flt Permitted	0.98	1.00
Satd. Flow (perm)	1772	1545
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	86	402
RTOR Reduction (vph)	0	60
Lane Group Flow (vph)	166	342
Confl. Peds. (#/hr)		2
Heavy Vehicles (%)	0%	4%
Turn Type	NA	custom
Protected Phases	4	
Permitted Phases		4 5
Actuated Green, G (s)	25.6	51.5
Effective Green, g (s)	25.6	51.5
Actuated g/C Ratio	0.17	0.34
Clearance Time (s)	9.4	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	302	530
v/s Ratio Prot	0.09	
v/s Ratio Perm		c0.22
v/c Ratio	0.55	0.64
Uniform Delay, d1	56.9	41.5
Progression Factor	1.00	1.00
Incremental Delay, d2	2.0	2.7
Delay (s)	59.0	44.2
Level of Service	E	D
Approach Delay (s)	50.9	
Approach LOS	D	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

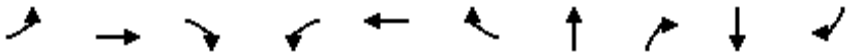
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1019	83	0	1167	102	0	0	25	0	0	79
Future Vol, veh/h	0	1019	83	0	1167	102	0	0	25	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	2	0	0	0	4	0	0	0
Mvmt Flow	0	1096	89	0	1255	110	0	0	27	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	548	-	-	632
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.28	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	454	0	0	519
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	454	-	-	517
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.4	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	454	-	-	-	-	517
HCM Lane V/C Ratio	0.059	-	-	-	-	0.164
HCM Control Delay (s)	13.4	-	-	-	-	13.3
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	147	949	2	68	1160	88	36	79	165	148
v/c Ratio	0.72	0.44	0.00	0.54	0.63	0.10	0.31	0.30	0.76	0.44
Control Delay	87.4	12.5	0.0	82.0	28.6	0.2	72.2	3.0	85.8	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.4	12.5	0.0	82.0	28.6	0.2	72.2	3.0	85.8	10.0
Queue Length 50th (ft)	157	212	0	68	427	0	36	0	164	0
Queue Length 95th (ft)	225	226	m0	123	610	0	73	0	249	53
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	260	2159	993	157	1853	907	202	327	250	363
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.44	0.00	0.43	0.63	0.10	0.18	0.24	0.66	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	9	131	902	2	65	1102	84	17	17	75	139	18
Future Volume (vph)	9	131	902	2	65	1102	84	17	17	75	139	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	1.00	0.97	1.00	1.00	0.98		1.00	1.00		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	138	949	2	68	1160	88	18	18	79	146	19
RTOR Reduction (vph)	0	0	0	1	0	0	41	0	0	74	0	0
Lane Group Flow (vph)	0	147	949	1	68	1160	47	0	36	5	0	165
Confl. Peds. (#/hr)				2			2					
Heavy Vehicles (%)	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		17.1	86.7	86.7	9.3	79.4	79.4		9.5	9.5		17.9
Effective Green, g (s)		17.1	86.7	86.7	9.3	79.4	79.4		9.5	9.5		17.9
Actuated g/C Ratio		0.11	0.58	0.58	0.06	0.53	0.53		0.06	0.06		0.12
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		205	2128	925	110	1854	824		117	102		216
v/s Ratio Prot		c0.08	0.26		0.04	c0.33			c0.02			c0.09
v/s Ratio Perm				0.00			0.03			0.00		
v/c Ratio		0.72	0.45	0.00	0.62	0.63	0.06		0.31	0.05		0.76
Uniform Delay, d1		64.1	18.0	13.4	68.6	24.8	17.1		67.1	66.0		64.0
Progression Factor		1.10	0.61	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		10.2	0.6	0.0	9.9	1.6	0.1		1.5	0.2		14.8
Delay (s)		80.8	11.6	13.4	78.5	26.4	17.3		68.6	66.2		78.8
Level of Service		F	B	B	E	C	B		E	E		E
Approach Delay (s)			20.9			28.5			67.0			69.4
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	141
Future Volume (vph)	141
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1607
Flt Permitted	1.00
Satd. Flow (perm)	1607
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	148
RTOR Reduction (vph)	130
Lane Group Flow (vph)	18
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	1%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.9
Effective Green, g (s)	17.9
Actuated g/C Ratio	0.12
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	191
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.09
Uniform Delay, d1	58.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	59.0
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	77	116	45	50	41	94	43	12	48	39	32
Future Vol, veh/h	17	77	116	45	50	41	94	43	12	48	39	32
Conflicting Peds, #/hr	0	0	14	14	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	2	5	0	2	0	0	3	0
Mvmt Flow	18	80	121	47	52	43	98	45	13	50	41	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	403	412	51	423	422	29	74	0	0	58	0	0
Stage 1	158	158	-	248	248	-	-	-	-	-	-	-
Stage 2	245	254	-	175	174	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.14	7.1	6.14	6.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.5	4.02	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	642	640	1018	545	547	1031	1538	-	-	1559	-	-
Stage 1	895	827	-	760	720	-	-	-	-	-	-	-
Stage 2	828	784	-	832	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	524	577	1006	392	493	1031	1538	-	-	1559	-	-
Mov Cap-2 Maneuver	524	577	-	392	493	-	-	-	-	-	-	-
Stage 1	836	799	-	710	672	-	-	-	-	-	-	-
Stage 2	684	732	-	629	743	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	14.2	4.7	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	747	531	1559	-	-
HCM Lane V/C Ratio	0.064	-	-	0.293	0.267	0.032	-	-
HCM Control Delay (s)	7.5	0	-	11.8	14.2	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	1.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	3	106	86	28	112	2	62	2	37	1	5	1
Future Vol, veh/h	3	106	86	28	112	2	62	2	37	1	5	1
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	3	0	4	1	0	3	0	3	0	0	0
Mvmt Flow	3	119	97	31	126	2	70	2	42	1	6	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	216	0	0	367	368	170	391	415	131
Stage 1	-	-	-	-	-	-	174	174	-	193	193	-
Stage 2	-	-	-	-	-	-	193	194	-	198	222	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.53	6.9	6.43	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.527	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1466	-	-	1342	-	-	564	542	863	637	596	941
Stage 1	-	-	-	-	-	-	810	744	-	858	786	-
Stage 2	-	-	-	-	-	-	789	728	-	854	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1461	-	-	1342	-	-	548	526	862	589	578	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	548	526	-	589	578	-
Stage 1	-	-	-	-	-	-	808	743	-	854	764	-
Stage 2	-	-	-	-	-	-	763	708	-	807	767	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	11.4	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	547	862	1461	-	-	1342	-	-	613
HCM Lane V/C Ratio	0.131	0.048	0.002	-	-	0.023	-	-	0.013
HCM Control Delay (s)	12.6	9.4	7.5	0	-	7.7	0	-	10.9
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.2	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	128	160	14	67	52
Future Vol, veh/h	42	128	160	14	67	52
Conflicting Peds, #/hr	1	0	0	1	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	0	0	2
Mvmt Flow	49	151	188	16	79	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	205	0	-	0	448	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.12	-	-	-	5.4	5.72
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	1366	-	-	-	648	868
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1365	-	-	-	621	867
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	852	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1365	-	-	-	709
HCM Lane V/C Ratio	0.036	-	-	-	0.197
HCM Control Delay (s)	7.7	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	159	210	2	11	27
Future Vol, veh/h	5	159	210	2	11	27
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	6	187	247	2	13	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	250	0	-	0	448	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1327	-	-	-	572	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1326	-	-	-	568	794
Mov Cap-2 Maneuver	-	-	-	-	568	-
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1326	-	-	-	568	794
HCM Lane V/C Ratio	0.004	-	-	-	0.023	0.04
HCM Control Delay (s)	7.7	-	-	-	11.5	9.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	4	98	1	139	2	370	77	86	501	2
Future Vol, veh/h	2	1	4	98	1	139	2	370	77	86	501	2
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	0	2	0	3	4	1	4	0
Mvmt Flow	2	1	4	109	1	154	2	411	86	96	557	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	964	1256	284	887	1171	207	563	0	0	498	0	0
Stage 1	754	754	-	416	416	-	-	-	-	-	-	-
Stage 2	210	502	-	471	755	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.32	7.3	7.34	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.32	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	237	199	730	197	150	781	1019	-	-	1069	-	-
Stage 1	404	457	-	535	543	-	-	-	-	-	-	-
Stage 2	797	577	-	491	355	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	175	180	728	181	136	780	1016	-	-	1068	-	-
Mov Cap-2 Maneuver	175	180	-	181	136	-	-	-	-	-	-	-
Stage 1	402	414	-	533	541	-	-	-	-	-	-	-
Stage 2	637	575	-	443	322	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	28	0	1.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1016	-	-	311	180	780	1068	-	-
HCM Lane V/C Ratio	0.002	-	-	0.025	0.611	0.198	0.089	-	-
HCM Control Delay (s)	8.6	-	-	16.9	52.2	10.8	8.7	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.4	0.7	0.3	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1	17	33	1	38	15	401	15	41	556	6
Future Vol, veh/h	10	1	17	33	1	38	15	401	15	41	556	6
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	5	0	3	0	0	3	0
Mvmt Flow	11	1	19	37	1	42	17	446	17	46	618	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	977	1216	318	882	1202	223	630	0	0	463	0	0
Stage 1	719	719	-	480	480	-	-	-	-	-	-	-
Stage 2	258	497	-	402	722	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	159	130	654	211	152	757	962	-	-	1109	-	-
Stage 1	320	357	-	499	515	-	-	-	-	-	-	-
Stage 2	679	477	-	562	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	142	122	651	194	143	757	958	-	-	1109	-	-
Mov Cap-2 Maneuver	142	122	-	194	143	-	-	-	-	-	-	-
Stage 1	313	341	-	490	506	-	-	-	-	-	-	-
Stage 2	628	468	-	521	368	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.3	18.5	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	958	-	-	267	194	682	1109	-	-
HCM Lane V/C Ratio	0.017	-	-	0.117	0.189	0.064	0.041	-	-
HCM Control Delay (s)	8.8	-	-	20.3	27.8	10.6	8.4	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.7	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	61	164	43	27	25	76	310	77	7	493	106
Future Vol, veh/h	96	61	164	43	27	25	76	310	77	7	493	106
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	0	1	0	0	0	1	3	0	0	4	1
Mvmt Flow	105	67	180	47	30	27	84	341	85	8	542	116

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	918	1155	271	833	1186	180	658	0	0	429	0	0
Stage 1	558	558	-	512	512	-	-	-	-	-	-	-
Stage 2	360	597	-	321	674	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.92	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.31	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	227	199	730	265	190	838	932	-	-	1141	-	-
Stage 1	482	515	-	518	540	-	-	-	-	-	-	-
Stage 2	631	495	-	671	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	176	179	730	131	171	832	932	-	-	1138	-	-
Mov Cap-2 Maneuver	176	179	-	131	171	-	-	-	-	-	-	-
Stage 1	439	511	-	470	490	-	-	-	-	-	-	-
Stage 2	519	449	-	436	454	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.4	33	1.5	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	932	-	-	176	179	730	131	277	1138	-	-
HCM Lane V/C Ratio	0.09	-	-	0.599	0.374	0.247	0.361	0.206	0.007	-	-
HCM Control Delay (s)	9.2	-	-	52.1	36.7	11.5	47.2	21.3	8.2	-	-
HCM Lane LOS	A	-	-	F	E	B	E	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.3	1.6	1	1.5	0.8	0	-	-

G. Background Development and Roadway Improvement Excerpts



TOWN OF WARRENTON
CAPITAL IMPROVEMENT PROGRAM

2023 - 2028

Adopted June 16, 2022

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Mission Statement

In Cooperation With, And For Our Citizens...

...The Mayor, Town Council and the Staff of Warrenton are dedicated to providing public safety, economic opportunity, and quality public services in an attractive, well-planned community with historic character for the benefit, enjoyment and accessibility of all.

Affirmed by Town Council
August 28, 2018

Vision and Value Statement

To Achieve Our Mission, We Strive To...

...

Provide high level services in a cost-effective manner; display honesty, respectfulness, and fairness in all relationships; support the health and economic well-being of our citizens and businesses; preserve our historic small-town character; encourage opportunities, services and infrastructure that allow people of all means to live, work and visit here; and address public concerns and opportunities promptly and effectively.

We recognize our Mission can be achieved only by the exchange of information and that through teamwork we can maintain an environment in which we can maximize our potential.

Affirmed by Town Council August 28, 2018

INTRODUCTION

The Capital Improvement Program (CIP) provides for an orderly implementation of short and long range plans for construction of Capital Improvement Projects and Land Acquisition. It further provides for the scheduling of the associated expenditures over a period of many years. The first year of the program represents the proposed Capital Budget for the Fiscal Year. In addition, consideration is given to the project's relations to other improvements and plans, and the Town's current and anticipated financial capabilities. The CIP is updated annually, at which time the schedule and the projects reevaluated, new or deferred projects are added, and the time frame is extended by one additional fiscal year.

The Town of Warrenton continues to enhance the structure of the budget and provide a greater understanding of funding commitments. Projects are presented under topical categories to help the community understand the investments that are being proposed and the tie in to priorities of the Town. Next, a Capital Asset Replacement Program (CARP) includes projects that cover standard operating and maintenance items. Unlike items listed in the capital project and acquisition program, these are items necessary for the ongoing operations of the Town and its facilities. Finally, the Town created dedicated Utilities and Stormwater Funds. These modifications to the CIP help move it towards a clearer document that works in conjunction with the budget and stated needs of the community.

POLICY

The following policies guide the development of the CIP:

1. The CIP should be realistic relative to the projected source of revenue.
2. A reserve fund should be established, as required, to reduce the fiscal impact of major projects in a single year.
3. Projects undertaken in the Enterprise Fund and Stormwater Fund are to be considered separate from the general Fund.

BENEFITS

A carefully planned CIP will enable the Town to realize several benefits:

1. Major improvements can be anticipated in advance, rather than addressed at the time the need arises.
2. The implementation strategy of the Comprehensive Plan is used as a guide for future needs and investments.
3. The Town Council and Planning Commission are better able to evaluate the needs of the entire community, instead of special projects.
4. Projects can be scheduled when revenue is available and when the community’s anticipated ability to finance is determined.
5. Capital programming improves the Town’s ability to vitalize state and federal aid. Applications can be timed to fit the development schedule.

DEFINING CAPITAL IMPROVEMENT PROJECTS

A capital improvement is defined as a major expenditure, beyond maintenance and operating costs, for the acquisition or construction of a needed facility. Salaries, supplies and other overhead expenditures are considered maintenance and operating costs, not provided for the CIP. Capital improvements include such things as utility systems, public buildings, land acquisitions, streets and sidewalks. The improvements are items that will have a significant impact on the community and are too expensive to be financed in the annual operating budget. Cost and frequency are two criteria that will be used to distinguish between a capital expenditure and a capital asset.

1. COST - A capital improvement project shall be $10,000 or more.
2. FREQUENCY - Capital improvement projects should be non-recurring. An interval of three years between expenditures is recommended.

DEFINING CAPITAL ASSET REPLACEMENT PROGRAM (CARP)

Capital assets, which include property, plant, equipment, and infrastructure assets, are assets with a minimum individual cost of more than $5,000 and a useful life of more than one year. Infrastructure assets capitalized have an original cost of $25,000 or more. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation. The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

* *Development of planning and regulatory documents are typically captured in a budget's operating expense; however, Warrenton recognizes these types of documents here as they do not occur annually and can have a substantial impact on the budget.*

CATEGORIES

Starting the FY22, CIP projects are being classified around stated priorities of the Town. Projects are numbered under specific topical areas. The CIP further states how projects meet the Comprehensive Plan goals and objectives within the individual project sheets. Below is a general description of the categories.

The CIP programs are coded using the following information:

Economic Development and Tourism (E) – Economic development and tourism projects position Warrenton to leverage and promote the location of jobs, revenue-generating businesses, and attracting tourism through complementary place-based economic development that encourages local economic growth.

General Government (G) – General government projects relate to ensuring the efficiency and needs to run a government that meets the needs of its citizens in a responsive, safe, and transparent fashion.

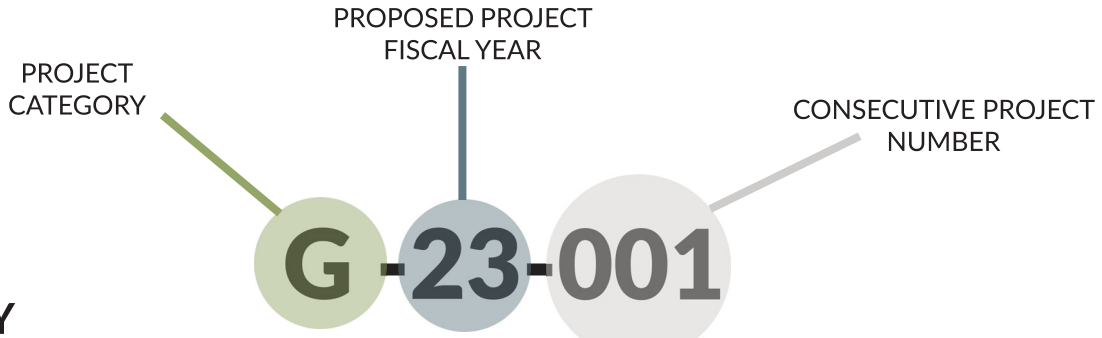
Public Safety (P) - Public safety projects relate to the Town of Warrenton's Police Department and Warrenton Volunteer Fire Company needs to ensure the ongoing safety and security of the community.

Recreation and Quality of Life (R) – Recreation and quality of life projects are recognized as opportunities for additional cultural, arts, and recreational activities in the Town. These type of investments are an important factor for long term economic sustainability.

Transportation and Walkability (T) – Transportation and walkability projects provide for improved multimodal safety by enacting access management strategies, incorporating pedestrian and bike friendly strategies, and deconflicting through-travel and local traffic movements.

Utilities and Stormwater (U) – Utilities and stormwater projects locate, maintain, and build community facilities to ensure the service needs of the Town and Federal and state mandates are met.

EXAMPLE PROJECT NUMBER



SUMMARY

The CIP is a planning and scheduling document. It does not represent authorization to expend Town funds. It does provide an orderly implementation of proposed short and long range plans for land acquisition and construction. Projects are authorized for implementation only after Town Council adopts and appropriates the Capital Budget. The impact of FY23 capital projects, for both improvement and asset projects, on the Town of Warrenton General Fund is $1,281,289. The impact of FY23 capital projects, for both improvement and asset projects, on the Town of Warrenton Water and Sewer Fund is $4,111,102. The impact of the FY23 capital projects on the Stormwater Utility Fund is $94,918. The Town is also using $976,500 in ARPA funds on projects in FY23. The CIP is an annual process and requires close review by both the Planning Commission and the Town Council.

CAPITAL IMPROVEMENT PROJECTS

PROJECT SHEETS

TRANSPORTATION & WALKABILITY

PROJECT NUMBER: T-28-003 **PROJECT TITLE:** Inters. Improv.: Broadview/W. Lee Hwy/Winchester

CATEGORY (check one):

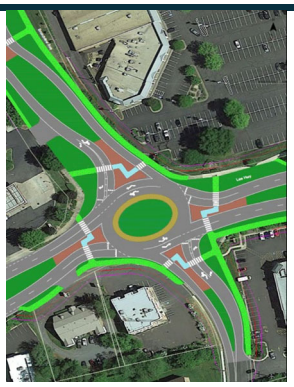
- ☐ Economic Development & Tourism (E)
- ☐ General Government (G)
- ☐ Public Safety (P)
- ☐ Recreation & Quality of Life (R)
- ☐ Stormwater & Utilities (U)
- ☑ Transportation & Walkability (T)

PROGRAM TYPE (check one):

- ☐ CARP
- ☑ CIP

PROGRAM DESCRIPTION

The Town of Warrenton is interested in creating an improvement plan for this important transportation connection between two key arterial corridors. It is also key to the economic development potential of the surrounding area. Therefore, the Town is working with VDOT on a "pipeline project" for the Lee Highway corridor. This project will be updated upon completion of the study in spring 2022.



GOAL ADDRESSED

Plan Warrenton 2040 Transportation and Circulation Near Turn Recommendations page 38.

ESTIMATED COSTS	FY23 2022-23	FY24 2023-24	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 & Beyond	Total
Land Acquisition						$2,325,000	**$2,325,000**
Architecture/Engineering						$1,299,486	**$1,299,486**
Construction/Purchase						$3,641,809	**$3,641,809**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,266,295**	**$7,266,295**

FUNDING SOURCES							
General Fund						$7,266,295	**$7,266,295**
Water and Sewer Fund							**$0**
Stormwater Fund							**$0**
ARPA							**$0**
Grant- Federal							**$0**
Proffer							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,266,295**	**$7,266,295**

OPERATING IMPACT							
Ongoing maintenance							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

PROJECT NUMBER: T-28-004 **PROJECT TITLE:** Route 17 (Broadview) Roebling Roundabout

CATEGORY (check one):

- ☐ Economic Development & Tourism (E)
- ☐ General Government (G)
- ☐ Public Safety (P)
- ☐ Recreation & Quality of Life (R)
- ☐ Stormwater & Utilities (U)
- ☑ Transportation & Walkability (T)

PROGRAM TYPE (check one):

- ☐ CARP
- ☑ CIP

PROGRAM DESCRIPTION

The intersection at Route 17 (Broadview Avenue) and Roebling Street is subjected to safety issues. As the area around it redevelops, the intersection will need improvements. In 2020 the Town applied for an unsuccessful VDOT Smartscale grant. This application included an assessment of costs associated with a roundabout included below. Therefore, the Town is working with VDOT on a "pipeline project" for the Lee Higway corridor. This project will be updated upon completion of the study in spring of 2022.

GOAL ADDRESSED

Plan Warrenton 2040 Transportation and Circulation Near Turn Recommendations page 38.



ESTIMATED COSTS	FY23 2022-23	FY24 2023-24	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 & Beyond	Total
Land Acquisition						$1,987,500	**$1,987,500**
Architecture/Engineering						$1,291,020	**$1,291,020**
Construction/Purchase						$3,921,045	**$3,921,045**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,199,565**	**$7,199,565**

FUNDING SOURCES							
General Fund						$7,199,565	**$7,199,565**
Water and Sewer Fund							**$0**
Stormwater Fund							**$0**
ARPA							**$0**
Grant- Commonwealth							**$0**
Proffer							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,199,565**	**$7,199,565**

OPERATING IMPACT							
Ongoing maintenance							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

PROJECT NUMBER: T-28-005 **PROJECT TITLE:** Bear Wallow Road/ Roebling Intersection

CATEGORY (check one):

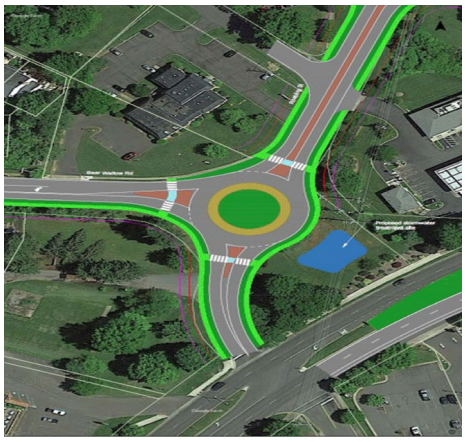
- ☐ Economic Development & Tourism (E)
- ☐ General Government (G)
- ☐ Public Safety (P)
- ☐ Recreation & Quality of Life (R)
- ☐ Stormwater & Utilities (U)
- ☑ Transportation & Walkability (T)

PROGRAM TYPE (check one):

- ☐ CARP
- ☑ CIP

PROGRAM DESCRIPTION

The intersection at Bear Wallow Road and Roebling Street is subjected to safety issues and an awkward configuration. As the area around it redevelops, the intersection will need improvements. In 2020 the Town applied for an unsuccessful VDOT Smartscale grant. This application included an assessment of costs associated with a roundabout included below.



GOAL ADDRESSED

Plan Warrenton 2040 Transportation and Circulation Near Turn Recommendations page 38.

ESTIMATED COSTS	FY23 2022-23	FY24 2023-24	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 & Beyond	Total
Land Acquisition						$1,200,000	$1,200,000
Architecture/Engineering						$1,200,000	$1,200,000
Construction/Purchase						$3,600,000	$3,600,000
Other							$0
TOTAL	$0	$0	$0	$0	$0	$6,000,000	$6,000,000

FUNDING SOURCES							
General Fund						$6,000,000	$6,000,000
Water and Sewer Fund							$0
Stormwater Fund							$0
ARPA							$0
Grant- Commonwealth							$0
Proffer							$0
Other							$0
TOTAL	$0	$0	$0	$0	$0	$6,000,000	$6,000,000

OPERATING IMPACT							
Ongoing maintenance							$0
Other							$0
TOTAL	$0	$0	$0	$0	$0	$0	$0

https://www.fauquiernow.com/news/business/warrenton-town-council-greenlights-mixed-use-development-next-to-obriens-pub/article_5e6c8aca-611c-11ed-8421-2751bb1fb016.html

FEATURED

Warrenton Town Council greenlights mixed-use development next to O'Brien's Pub

James Jarvis, jjarvis@FauquierNow.com
Nov 10, 2022



Rendering of a proposed mixed-use development, dubbed Waterloo Junction, that would be built between Broadview Avenue and Bear Wallow Road.

Farrish Properties & Acquisitions LLC

The Warrenton Town Council voted unanimously Wednesday to approve the construction of a mixed-use development -- including 47 townhomes, six apartments, one retail building and a small park -- on the corner of Lee Highway and Broadview Avenue.

The 4.81-acre development, dubbed Waterloo Junction, will consist of 47 1,800-square-foot townhomes, 3,600 square feet of new retail space, six apartments, parking and a small park with a community play area and benches. One townhome and five apartments – 10% of the proposed units – will be designated as affordable housing for individuals or families whose gross annual income does not exceed 80% of the current Fauquier County area median family income.



Rendering of proposed 47 townhomes that could be built as part of the Waterloo Junction development. Each townhome would be 1,800 square-feet and 45 feet high.

Dan Ryan Builders

According to the application, the townhomes will not exceed the town's zoning ordinance of 45 feet. They'll be priced somewhere between $400,000 and $500,000.

For the project to move forward, the council had to approve a zoning map amendment, special-use permit and Comprehensive Plan amendment.

The Warrenton Planning Commission previously voted 5-1 recommending t council approve the project. Commissioner Ali Zarabi cast the only dissenting vote, noting concerns about traffic mitigation, among other issues.

During the council meeting, Ward 2 representative William Semple urged his colleagues to delay the project. Semple said that while he supported the creation of more affordable housing, he argued it may create a "precedent" in which other developers would be incentivized to propose similar projects along Broadview Avenue that do not align with the 2040 Comprehensive Plan guidelines which the council approved in April 2021.

"I think that we should consider those issues before we adopt this one, because this is going to be what I call the lead horse in a variety of potential development down the road," Semple said.

The Comprehensive Plan states the Experience Broadview District "will allow for mixed-use residential at lower density, but nodal development with mixed-use anchors and improved edges to adjacent single-family neighborhoods. Current commercial uses will be maintained."

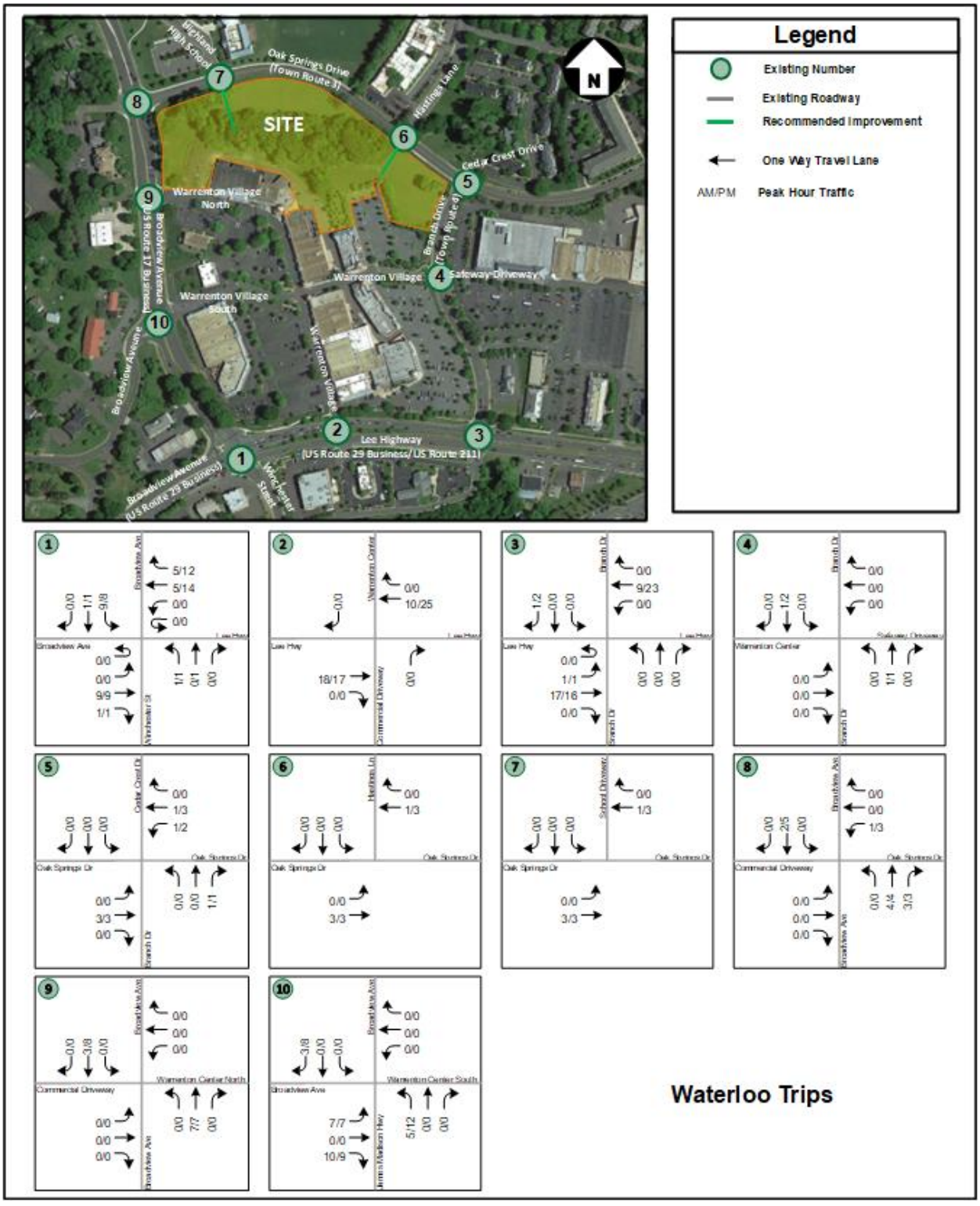
Semple moved to table the project, but it was rejected 6-1, with Semple casting the only supporting vote.

The rest of the council, including Mayor Carter Nevill, praised the project, saying it will be a positive addition to the town.

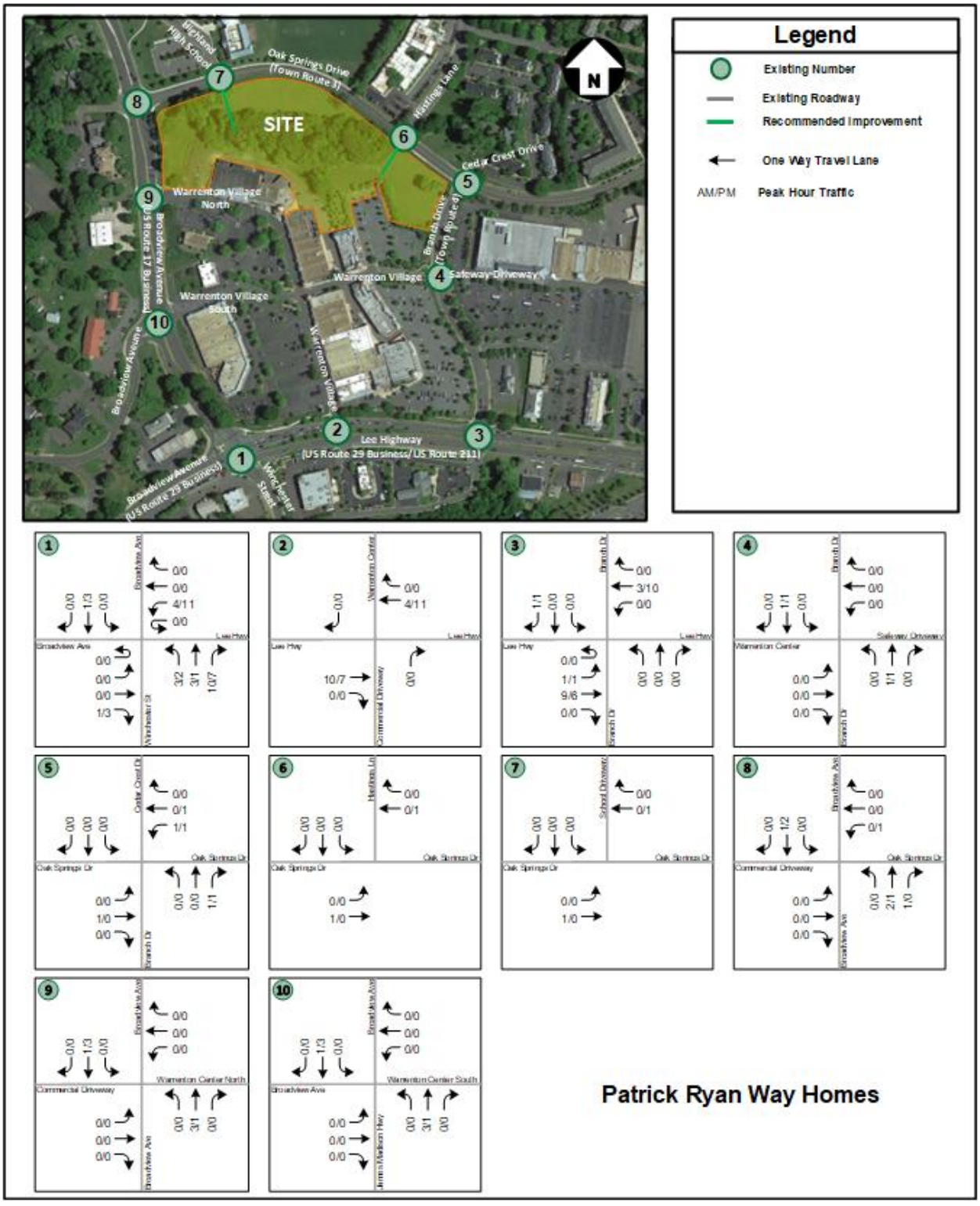
"I think this has been pointed out that the importance of ... bringing people into residential spaces that are close to commercial and entertainment spaces ... it recreates the same sense of community that you see in downtown, where you have people ... walking to restaurants, walking to shops, and I think the more we are able to bring that closer to our neighborhoods, the better we create our built environment to better serve the well-being of our residents," Nevill said.

The renovation of O'Brien's and the apartments above the restaurant – currently vacant – is estimated to take four months. The townhome construction could be completed within 18 months.

James Jarvis


Legend
Existing Number
Existing Roadway
Recommended Improvement
One Way Travel Lane
AM/PM Peak Hour Traffic
N
SITE
Oak Springs Drive (Town Route 1)
Hastings Lane
Cedar Crest Drive
Branch Drive (Town Route 6)
Warrenton Village North
Warrenton Village South
Warrenton Village
Safeway Driveway
Broadview Avenue
Broadview Avenue (US Route 29 Business)
Lee Highway (US Route 29 Business/ US Route 211)
Winchester Street
Warrenton Center
Waterloo Trips


Item E.
402


Legend
Existing Number
Existing Roadway
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Oak Springs Drive (Town Route 1)
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Branch Drive (Town Route 6)
Warrenton Village North
Warrenton Village South
Warrenton Village
Safeway Driveway
Broadview Avenue
Broadview Avenue (US Route 29 Business)
Lee Highway (US Route 29 Business/ US Route 211)
Winchester Street
Patrick Ryan Way Homes

H. 2027 Future Conditions without Development – Capacity Analysis Worksheet

LANE LEVEL OF SERVICE

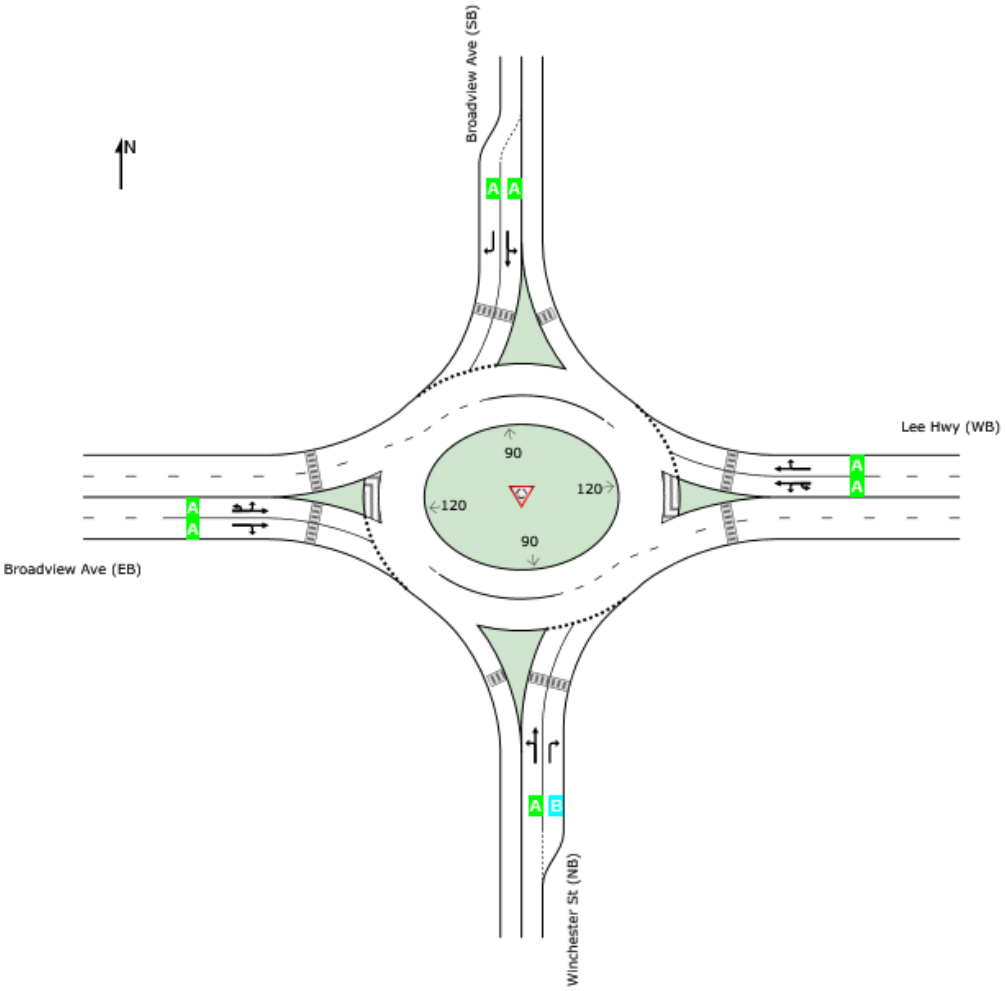
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 FB AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Condtions
AM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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Organisation: GOROVE SLADE | Licence: PLUS / 1PC | Processed: Monday, February 12, 2024 2:04:14 AM
Project: U:\3243\001. Warrenton Village Center\Analysis\Sidra\2nd Submission\2027 TF.sip9

LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 FB AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Condtions
AM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	199	4.5	199	4.5	664	0.300	100	9.2	LOS A	1.4	35.5	Full	1600	0.0	0.0
Lane 2	87	4.0	87	4.0	475	0.183	100	10.2	LOS B	0.7	18.8	Short	250	0.0	NA
Approach	286	4.4	286	4.4		0.300		9.5	LOS A	1.4	35.5				
East: Lee Hwy (WB)															
Lane 1	430	7.2	430	7.2	1024	0.420	100	8.0	LOS A	3.0	78.4	Full	1600	0.0	0.0
Lane 2[d]	504	6.5	504	6.5	1201	0.420	100	7.2	LOS A	3.1	80.8	Full	1600	0.0	0.0
Approach	934	6.8	934	6.8		0.420		7.6	LOS A	3.1	80.8				
North: Broadview Ave (SB)															
Lane 1[d]	240	3.7	240	3.7	750	0.320	100	8.6	LOS A	1.5	39.3	Short	215	0.0	NA
Lane 2	234	3.0	234	3.0	682	0.343	100	9.7	LOS A	1.7	42.6	Full	1600	0.0	0.0
Approach	474	3.4	474	3.4		0.343		9.1	LOS A	1.7	42.6				
West: Broadview Ave (EB)															
Lane 1	448	4.1	448	4.1	1048	0.427	100	8.0	LOS A	3.1	79.7	Full	1600	0.0	0.0
Lane 2[d]	523	3.9	523	3.9	1224	0.427	100	7.2	LOS A	3.2	82.8	Full	1600	0.0	0.0
Approach	971	4.0	971	4.0		0.427		7.6	LOS A	3.2	82.8				
All Vehicles	2664	4.9	2664	4.9		0.427		8.1	LOS A	3.2	82.8				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	84	115	-	199	4.5		664	0.300	100	NA	NA
Lane 2	-	-	87	87	4.0		475	0.183	100	0.0	1
Approach	84	115	87	286	4.4			0.300			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	3	38	389	-	430	7.2	1024	0.420	100	NA	NA
Lane 2	-	-	313	191	504	6.5	1201	0.420	100	NA	NA
Approach	3	38	701	191	934	6.8		0.420			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	137	103	-	240	3.7		750	0.320	100	0.0	2
Lane 2	-	-	234	234	3.0		682	0.343	100	NA	NA
Approach	137	103	234	474	3.4			0.343			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	62	380	-	448	4.1	1048	0.427	100	NA	NA
Lane 2	-	-	487	36	523	3.9	1224	0.427	100	NA	NA
Approach	5	62	867	36	971	4.0		0.427			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2664	4.9	0.427

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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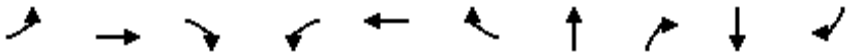
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	944	63	0	839	31	0	0	29	0	0	20
Future Vol, veh/h	0	944	63	0	839	31	0	0	29	0	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	7	0	0	0	3	0	0	0
Mvmt Flow	0	1026	68	0	912	34	0	0	32	0	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	513	-	-	456
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.26	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	483	0	0	640
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	483	-	-	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	483	-	-	-	-	640
HCM Lane V/C Ratio	0.065	-	-	-	-	0.034
HCM Control Delay (s)	13	-	-	-	-	10.8
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	42	1015	1	48	871	55	23	41	46	57
v/c Ratio	0.37	0.43	0.00	0.41	0.39	0.05	0.15	0.16	0.40	0.29
Control Delay	71.3	17.3	0.0	72.4	16.0	0.1	57.5	1.4	71.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.3	17.3	0.0	72.4	16.0	0.1	57.5	1.4	71.9	3.6
Queue Length 50th (ft)	39	246	0	44	198	0	21	0	43	0
Queue Length 95th (ft)	80	485	0	88	400	0	44	0	86	0
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	199	2364	1143	227	2281	1124	279	352	185	248
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.43	0.00	0.21	0.38	0.05	0.08	0.12	0.25	0.23

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	7	31	934	1	44	801	51	10	11	38	34	8
Future Volume (vph)	7	31	934	1	44	801	51	10	11	38	34	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1793	3541	1647	1752	3372	1599		1856	1615		1792
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1793	3541	1647	1752	3372	1599		1856	1615		1792
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	1015	1	48	871	55	11	12	41	37	9
RTOR Reduction (vph)	0	0	0	0	0	0	20	0	0	38	0	0
Lane Group Flow (vph)	0	42	1015	1	48	871	35	0	23	3	0	46
Heavy Vehicles (%)	14%	0%	4%	0%	2%	6%	0%	0%	0%	0%	3%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		7.7	87.8	87.8	8.1	88.7	88.7		10.2	10.2		7.9
Effective Green, g (s)		7.7	87.8	87.8	8.1	88.7	88.7		10.2	10.2		7.9
Actuated g/C Ratio		0.06	0.63	0.63	0.06	0.63	0.63		0.07	0.07		0.06
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		98	2220	1032	101	2136	1013		135	117		101
v/s Ratio Prot		0.02	c0.29		c0.03	0.26			c0.01			c0.03
v/s Ratio Perm				0.00			0.02			0.00		
v/c Ratio		0.43	0.46	0.00	0.48	0.41	0.03		0.17	0.03		0.46
Uniform Delay, d1		64.0	13.6	9.7	63.9	12.7	9.6		60.9	60.3		64.0
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		3.0	0.7	0.0	3.5	0.6	0.1		0.6	0.1		3.2
Delay (s)		67.0	14.3	9.7	67.4	13.3	9.7		61.5	60.4		67.2
Level of Service		E	B	A	E	B	A		E	E		E
Approach Delay (s)			16.4			15.7			60.8			64.7
Approach LOS			B			B			E			E

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1375
Flt Permitted	1.00
Satd. Flow (perm)	1375
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	57
RTOR Reduction (vph)	54
Lane Group Flow (vph)	3
Heavy Vehicles (%)	18%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	7.9
Effective Green, g (s)	7.9
Actuated g/C Ratio	0.06
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	77
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	62.5
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	62.7
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	15	38	14	11	14	23	67	7	18	69	5
Future Vol, veh/h	6	15	38	14	11	14	23	67	7	18	69	5
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	9	0	0	0	0	0	13	0
Mvmt Flow	7	16	41	15	12	15	25	73	8	20	75	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	211	249	42	215	247	41	80	0	0	81	0	0
Stage 1	118	118	-	127	127	-	-	-	-	-	-	-
Stage 2	93	131	-	88	120	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.1	7.1	6.28	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.09	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	805	734	1036	746	656	1030	1531	-	-	1529	-	-
Stage 1	927	845	-	882	785	-	-	-	-	-	-	-
Stage 2	948	839	-	925	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	763	711	1034	686	636	1030	1531	-	-	1529	-	-
Mov Cap-2 Maneuver	763	711	-	686	636	-	-	-	-	-	-	-
Stage 1	911	833	-	867	772	-	-	-	-	-	-	-
Stage 2	904	825	-	857	779	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10	1.8	1.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1531	-	-	898	760	1529	-	-
HCM Lane V/C Ratio	0.016	-	-	0.071	0.056	0.013	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	1	80	75	16	107	1	73	1	14	1	1	1
Future Vol, veh/h	1	80	75	16	107	1	73	1	14	1	1	1
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	11	7	1	0	0	0	0	0	0	0
Mvmt Flow	1	87	82	17	116	1	79	1	15	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	121	0	0	170	0	0	283	286	131	295	327	121
Stage 1	-	-	-	-	-	-	131	131	-	155	155	-
Stage 2	-	-	-	-	-	-	152	155	-	140	172	-
Critical Hdwy	4.1	-	-	4.17	-	-	7.5	6.9	6.4	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.263	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1479	-	-	1378	-	-	652	607	917	718	651	952
Stage 1	-	-	-	-	-	-	865	780	-	890	807	-
Stage 2	-	-	-	-	-	-	841	760	-	902	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1474	-	-	1377	-	-	643	596	915	694	639	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	643	596	-	694	639	-
Stage 1	-	-	-	-	-	-	863	778	-	886	794	-
Stage 2	-	-	-	-	-	-	828	748	-	883	795	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	11	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	642	915	1474	-	-	1377	-	-	739
HCM Lane V/C Ratio	0.125	0.017	0.001	-	-	0.013	-	-	0.004
HCM Control Delay (s)	11.4	9	7.4	0	-	7.6	0	-	9.9
HCM Lane LOS	B	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	108	137	44	47	67
Future Vol, veh/h	83	108	137	44	47	67
Conflicting Peds, #/hr	1	0	0	1	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	1	1	0	17	0
Mvmt Flow	90	117	149	48	51	73

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	471	176
Stage 1	-	-	-	-	174	-
Stage 2	-	-	-	-	297	-
Critical Hdwy	4.16	-	-	-	5.57	5.7
Critical Hdwy Stg 1	-	-	-	-	4.57	-
Critical Hdwy Stg 2	-	-	-	-	4.57	-
Follow-up Hdwy	2.254	-	-	-	3.653	3.3
Pot Cap-1 Maneuver	1351	-	-	-	598	894
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1350	-	-	-	554	892
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1350	-	-	-	713
HCM Lane V/C Ratio	0.067	-	-	-	0.174
HCM Control Delay (s)	7.9	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	160	153	51	31	19
Future Vol, veh/h	38	160	153	51	31	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	41	174	166	55	34	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	221	0	-	0	450	194
Stage 1	-	-	-	-	194	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1360	-	-	-	571	853
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1360	-	-	-	554	853
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1360	-	-	-	554	853
HCM Lane V/C Ratio	0.03	-	-	-	0.061	0.024
HCM Control Delay (s)	7.7	-	-	-	11.9	9.3
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	65	1	106	1	413	102	95	358	1
Future Vol, veh/h	1	1	1	65	1	106	1	413	102	95	358	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	1	0	6	1	5	5	0
Mvmt Flow	1	1	1	71	1	115	1	449	111	103	389	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	823	1158	195	852	1047	225	390	0	0	560	0	0
Stage 1	596	596	-	451	451	-	-	-	-	-	-	-
Stage 2	227	562	-	401	596	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.3	7.3	7.32	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.2	-	-	2.25	-	-
Pot Cap-1 Maneuver	295	225	829	212	182	762	1180	-	-	987	-	-
Stage 1	494	529	-	509	520	-	-	-	-	-	-	-
Stage 2	780	546	-	551	434	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	229	201	829	194	163	762	1180	-	-	987	-	-
Mov Cap-2 Maneuver	229	201	-	194	163	-	-	-	-	-	-	-
Stage 1	494	474	-	508	519	-	-	-	-	-	-	-
Stage 2	660	545	-	492	389	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	19.7	0	1.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1180	-	-	284	193	762	987	-	-
HCM Lane V/C Ratio	0.001	-	-	0.011	0.372	0.151	0.105	-	-
HCM Control Delay (s)	8.1	-	-	17.8	34.3	10.6	9.1	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1.6	0.5	0.3	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	3	5	1	18	13	498	10	15	405	3
Future Vol, veh/h	1	1	3	5	1	18	13	498	10	15	405	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	6	0	5	0	0	4	0
Mvmt Flow	1	1	3	5	1	20	14	541	11	16	440	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	773	1054	222	822	1044	271	443	0	0	552	0	0
Stage 1	474	474	-	569	569	-	-	-	-	-	-	-
Stage 2	299	580	-	253	475	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.32	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	236	170	764	235	194	699	1128	-	-	1028	-	-
Stage 1	478	492	-	436	463	-	-	-	-	-	-	-
Stage 2	636	428	-	704	518	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	165	764	228	189	699	1128	-	-	1028	-	-
Mov Cap-2 Maneuver	223	165	-	228	189	-	-	-	-	-	-	-
Stage 1	472	484	-	431	457	-	-	-	-	-	-	-
Stage 2	609	423	-	689	510	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	13.2	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1128	-	-	346	228	612	1028	-	-
HCM Lane V/C Ratio	0.013	-	-	0.016	0.024	0.034	0.016	-	-
HCM Control Delay (s)	8.2	-	-	15.6	21.2	11.1	8.6	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	126	17	81	2	3	3	116	392	31	7	353	53
Future Vol, veh/h	126	17	81	2	3	3	116	392	31	7	353	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	3	0	0	33	1	5	0	0	3	8
Mvmt Flow	137	18	88	2	3	3	126	426	34	8	384	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	867	1112	192	895	1136	213	442	0	0	460	0	0
Stage 1	400	400	-	678	678	-	-	-	-	-	-	-
Stage 2	467	712	-	217	458	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.96	7.5	6.5	7.56	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.33	3.5	4	3.63	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	247	211	814	239	204	705	1122	-	-	1112	-	-
Stage 1	597	605	-	413	455	-	-	-	-	-	-	-
Stage 2	545	439	-	771	570	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	221	186	814	179	180	705	1122	-	-	1112	-	-
Mov Cap-2 Maneuver	221	186	-	179	180	-	-	-	-	-	-	-
Stage 1	530	601	-	367	404	-	-	-	-	-	-	-
Stage 2	478	390	-	662	566	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.7	19.7	1.9	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1122	-	-	221	186	814	179	287	1112	-	-
HCM Lane V/C Ratio	0.112	-	-	0.62	0.099	0.108	0.012	0.023	0.007	-	-
HCM Control Delay (s)	8.6	-	-	44.6	26.5	10	25.4	17.8	8.3	-	-
HCM Lane LOS	A	-	-	E	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	3.6	0.3	0.4	0	0.1	0	-	-

LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 FB PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Conditions
PM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	223	0.5	223	0.5	570	0.391	100	12.2	LOS B	2.2	55.7	Full	1600	0.0	0.0
Lane 2	77	0.0	77	0.0	376	0.205	100	13.0	LOS B	0.9	22.4	Short	250	0.0	NA
Approach	300	0.3	300	0.3		0.391		12.4	LOS B	2.2	55.7				
East: Lee Hwy (WB)															
Lane 1	625	1.7	625	1.7	888	0.703	100	16.2	LOS B	10.0	252.3	Full	1600	0.0	0.0
Lane 2[d]	758	2.0	758	2.0	1078	0.703	100	14.0	LOS B	10.5	267.5	Full	1600	0.0	0.0
Approach	1382	1.9	1382	1.9		0.703		15.0	LOS B	10.5	267.5				
North: Broadview Ave (SB)															
Lane 1	340	0.7	340	0.7	435	0.780	100	35.1	LOS D	6.4	161.1	Short	215	0.0	NA
Lane 2[d]	402	4.0	402	4.0	498	0.808	100	34.4	LOS C	7.4	190.7	Full	1600	0.0	0.0
Approach	742	2.5	742	2.5		0.808		34.7	LOS C	7.4	190.7				
West: Broadview Ave (EB)															
Lane 1	538	2.5	538	2.5	923	0.583	100	11.9	LOS B	6.2	158.2	Full	1600	0.0	0.0
Lane 2[d]	652	1.9	652	1.9	1118	0.583	100	10.4	LOS B	6.2	158.3	Full	1600	0.0	0.0
Approach	1191	2.1	1191	2.1		0.583		11.1	LOS B	6.2	158.3				
All Vehicles	3615	2.0	3615	2.0		0.808		17.6	LOS B	10.5	267.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	122	101	-	223	0.5		570	0.391	100	NA	NA
Lane 2	-	-	77	77	0.0		376	0.205	100	0.0	1
Approach	122	101	77	300	0.3			0.391			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	70	544	-	625	1.7	888	0.703	100	NA	NA
Lane 2	-	-	635	123	758	2.0	1078	0.703	100	NA	NA
Approach	10	70	1179	123	1382	1.9		0.703			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	249	91	-	340	0.7		435	0.780	100	0.0	2
Lane 2	-	-	402	402	4.0		498	0.808	100	NA	NA
Approach	249	91	402	742	2.5			0.808			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	273	263	-	538	2.5	923	0.583	100	NA	NA
Lane 2	-	-	606	46	652	1.9	1118	0.583	100	NA	NA
Approach	2	273	870	46	1191	2.1		0.583			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	3615	2.0	0.808

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

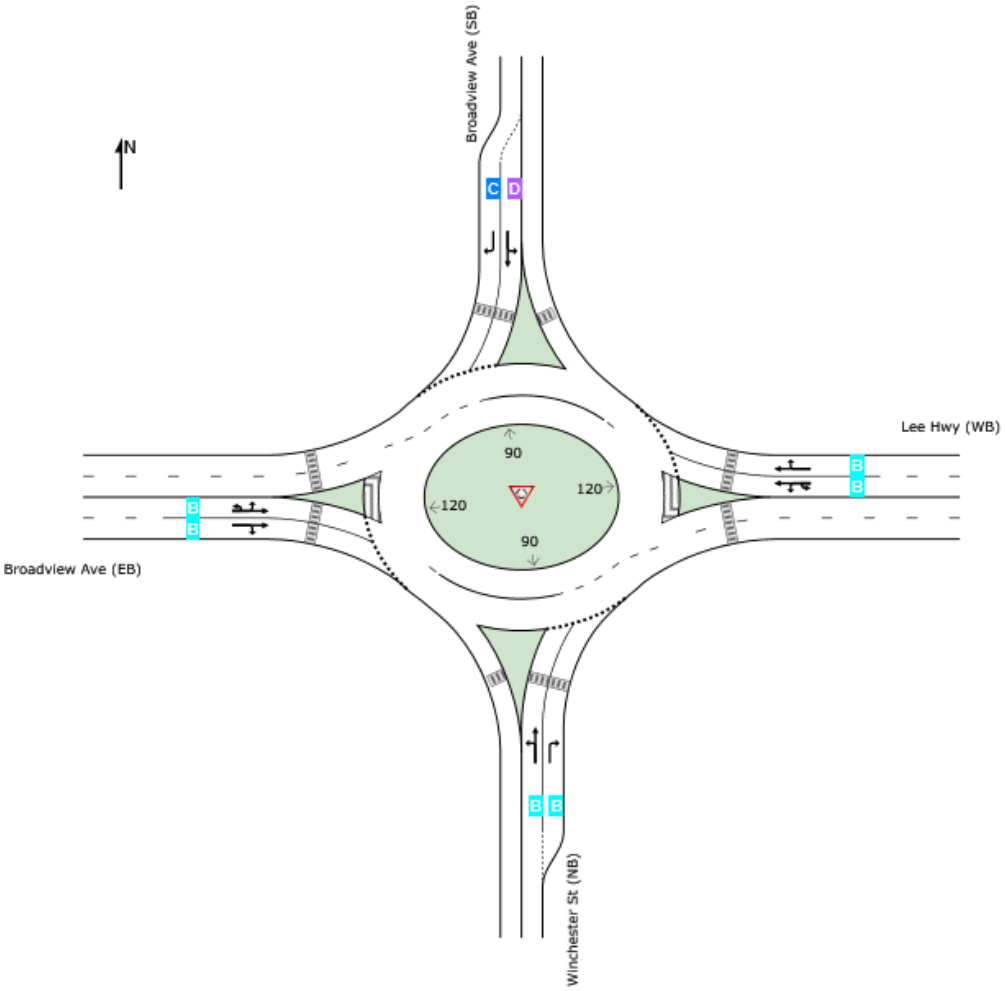
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 FB PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Conditions
PM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	C	B	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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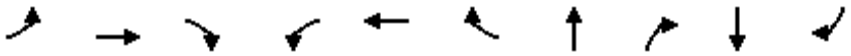
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1075	83	0	1247	102	0	0	25	0	0	79
Future Vol, veh/h	0	1075	83	0	1247	102	0	0	25	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	2	0	0	0	4	0	0	0
Mvmt Flow	0	1156	89	0	1341	110	0	0	27	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	578	-	-	675
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.28	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	433	0	0	493
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	433	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.9	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	433	-	-	-	-	491
HCM Lane V/C Ratio	0.062	-	-	-	-	0.173
HCM Control Delay (s)	13.9	-	-	-	-	13.9
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	149	1006	2	68	1241	88	36	79	165	152
v/c Ratio	0.72	0.47	0.00	0.54	0.67	0.10	0.31	0.30	0.76	0.45
Control Delay	82.8	20.6	0.0	82.0	30.0	0.2	72.2	3.0	85.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	20.6	0.0	82.0	30.0	0.2	72.2	3.0	85.8	10.8
Queue Length 50th (ft)	148	310	0	68	475	0	36	0	164	0
Queue Length 95th (ft)	224	441	0	123	675	0	73	0	249	58
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	260	2159	993	157	1850	906	202	327	250	363
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.47	0.00	0.43	0.67	0.10	0.18	0.24	0.66	0.42

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	9	133	956	2	65	1179	84	17	17	75	139	18
Future Volume (vph)	9	133	956	2	65	1179	84	17	17	75	139	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	1.00	0.97	1.00	1.00	0.98		1.00	1.00		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	140	1006	2	68	1241	88	18	18	79	146	19
RTOR Reduction (vph)	0	0	0	1	0	0	41	0	0	74	0	0
Lane Group Flow (vph)	0	149	1006	1	68	1241	47	0	36	5	0	165
Confl. Peds. (#/hr)				2			2					
Heavy Vehicles (%)	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		17.2	86.7	86.7	9.3	79.3	79.3		9.5	9.5		17.9
Effective Green, g (s)		17.2	86.7	86.7	9.3	79.3	79.3		9.5	9.5		17.9
Actuated g/C Ratio		0.11	0.58	0.58	0.06	0.53	0.53		0.06	0.06		0.12
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		207	2128	925	110	1852	823		117	102		216
v/s Ratio Prot		c0.08	0.27		0.04	c0.35			c0.02			c0.09
v/s Ratio Perm				0.00			0.03			0.00		
v/c Ratio		0.72	0.47	0.00	0.62	0.67	0.06		0.31	0.05		0.76
Uniform Delay, d1		64.1	18.4	13.4	68.6	25.8	17.2		67.1	66.0		64.0
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		11.4	0.8	0.0	9.9	1.9	0.1		1.5	0.2		14.8
Delay (s)		75.4	19.1	13.4	78.5	27.8	17.3		68.6	66.2		78.8
Level of Service		E	B	B	E	C	B		E	E		E
Approach Delay (s)			26.4			29.6			67.0			69.3
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	34.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	144
Future Volume (vph)	144
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1607
Flt Permitted	1.00
Satd. Flow (perm)	1607
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	152
RTOR Reduction (vph)	134
Lane Group Flow (vph)	18
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	1%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.9
Effective Green, g (s)	17.9
Actuated g/C Ratio	0.12
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	191
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.09
Uniform Delay, d1	58.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	59.1
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	77	116	45	50	41	94	45	12	48	42	32
Future Vol, veh/h	17	77	116	45	50	41	94	45	12	48	42	32
Conflicting Peds, #/hr	0	0	14	14	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	2	5	0	2	0	0	3	0
Mvmt Flow	18	80	121	47	52	43	98	47	13	50	44	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	407	417	53	426	427	30	77	0	0	60	0	0
Stage 1	161	161	-	250	250	-	-	-	-	-	-	-
Stage 2	246	256	-	176	177	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.14	7.1	6.14	6.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.5	4.02	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	639	637	1015	542	544	1030	1535	-	-	1556	-	-
Stage 1	893	826	-	759	718	-	-	-	-	-	-	-
Stage 2	827	784	-	831	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	521	575	1003	390	491	1030	1535	-	-	1556	-	-
Mov Cap-2 Maneuver	521	575	-	390	491	-	-	-	-	-	-	-
Stage 1	834	798	-	709	671	-	-	-	-	-	-	-
Stage 2	683	732	-	628	741	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	14.3	4.7	2.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	744	529	1556	-	-
HCM Lane V/C Ratio	0.064	-	-	0.294	0.268	0.032	-	-
HCM Control Delay (s)	7.5	0	-	11.8	14.3	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	1.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	3	109	86	31	116	2	62	2	39	1	5	1
Future Vol, veh/h	3	109	86	31	116	2	62	2	39	1	5	1
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	0	4	1	0	3	0	3	0	0	0
Mvmt Flow	3	118	93	34	126	2	67	2	42	1	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	211	0	0	369	371	167	394	416	131
Stage 1	-	-	-	-	-	-	171	171	-	199	199	-
Stage 2	-	-	-	-	-	-	198	200	-	195	217	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.53	6.9	6.43	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.527	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1466	-	-	1348	-	-	562	539	867	635	595	941
Stage 1	-	-	-	-	-	-	813	747	-	853	782	-
Stage 2	-	-	-	-	-	-	784	723	-	857	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1461	-	-	1348	-	-	545	522	866	585	576	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	545	522	-	585	576	-
Stage 1	-	-	-	-	-	-	811	746	-	849	759	-
Stage 2	-	-	-	-	-	-	756	701	-	810	770	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.6	11.4	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	544	866	1461	-	-	1348	-	-	611
HCM Lane V/C Ratio	0.128	0.049	0.002	-	-	0.025	-	-	0.012
HCM Control Delay (s)	12.6	9.4	7.5	0	-	7.7	0	-	11
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.2	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	131	164	14	67	52
Future Vol, veh/h	42	131	164	14	67	52
Conflicting Peds, #/hr	1	0	0	1	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	0	0	2
Mvmt Flow	46	142	178	15	73	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	194	0	-	0	423	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	4.12	-	-	-	5.4	5.72
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	1379	-	-	-	665	878
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	863	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1378	-	-	-	640	877
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	862	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1378	-	-	-	726
HCM Lane V/C Ratio	0.033	-	-	-	0.178
HCM Control Delay (s)	7.7	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	162	214	2	11	27
Future Vol, veh/h	5	162	214	2	11	27
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	5	176	233	2	12	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	236	0	-	0	421	235
Stage 1	-	-	-	-	235	-
Stage 2	-	-	-	-	186	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1343	-	-	-	593	809
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1342	-	-	-	589	808
Mov Cap-2 Maneuver	-	-	-	-	589	-
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	850	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1342	-	-	-	589	808
HCM Lane V/C Ratio	0.004	-	-	-	0.02	0.036
HCM Control Delay (s)	7.7	-	-	-	11.2	9.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	4	102	1	139	2	375	80	86	508	2
Future Vol, veh/h	2	1	4	102	1	139	2	375	80	86	508	2
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	0	2	0	3	4	1	4	0
Mvmt Flow	2	1	4	111	1	151	2	408	87	93	552	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	952	1243	281	876	1157	205	558	0	0	496	0	0
Stage 1	743	743	-	413	413	-	-	-	-	-	-	-
Stage 2	209	500	-	463	744	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.32	7.3	7.34	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.32	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	241	202	733	201	153	784	1023	-	-	1071	-	-
Stage 1	410	461	-	538	545	-	-	-	-	-	-	-
Stage 2	798	578	-	497	360	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	180	183	731	185	139	783	1020	-	-	1070	-	-
Mov Cap-2 Maneuver	180	183	-	185	139	-	-	-	-	-	-	-
Stage 1	408	420	-	536	543	-	-	-	-	-	-	-
Stage 2	641	576	-	450	328	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.6	27.9	0	1.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1020	-	-	317	184	783	1070	-	-
HCM Lane V/C Ratio	0.002	-	-	0.024	0.608	0.193	0.087	-	-
HCM Control Delay (s)	8.5	-	-	16.6	51	10.7	8.7	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.4	0.7	0.3	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1	17	33	1	38	15	409	15	41	567	6
Future Vol, veh/h	10	1	17	33	1	38	15	409	15	41	567	6
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	5	0	3	0	0	3	0
Mvmt Flow	11	1	18	36	1	41	16	445	16	45	616	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	970	1208	317	876	1195	223	628	0	0	461	0	0
Stage 1	715	715	-	477	477	-	-	-	-	-	-	-
Stage 2	255	493	-	399	718	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	161	132	655	213	154	757	964	-	-	1111	-	-
Stage 1	322	359	-	502	517	-	-	-	-	-	-	-
Stage 2	683	480	-	565	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	144	124	652	197	145	757	960	-	-	1111	-	-
Mov Cap-2 Maneuver	144	124	-	197	145	-	-	-	-	-	-	-
Stage 1	315	343	-	493	508	-	-	-	-	-	-	-
Stage 2	634	472	-	525	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20	18.3	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	960	-	-	270	197	683	1111	-	-
HCM Lane V/C Ratio	0.017	-	-	0.113	0.182	0.062	0.04	-	-
HCM Control Delay (s)	8.8	-	-	20	27.3	10.6	8.4	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.6	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	103	61	173	43	27	25	88	311	77	7	496	114
Future Vol, veh/h	103	61	173	43	27	25	88	311	77	7	496	114
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	1	0	0	0	1	3	0	0	4	1
Mvmt Flow	112	66	188	47	29	27	96	338	84	8	539	124

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	937	1172	270	852	1212	178	663	0	0	425	0	0
Stage 1	555	555	-	533	533	-	-	-	-	-	-	-
Stage 2	382	617	-	319	679	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.92	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.31	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	219	194	731	256	184	841	928	-	-	1145	-	-
Stage 1	484	516	-	503	528	-	-	-	-	-	-	-
Stage 2	612	484	-	673	454	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	172	731	122	164	835	928	-	-	1142	-	-
Mov Cap-2 Maneuver	167	172	-	122	164	-	-	-	-	-	-	-
Stage 1	434	512	-	450	473	-	-	-	-	-	-	-
Stage 2	495	433	-	432	451	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.9	35.5	1.7	0.1
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	928	-	-	167	172	731	122	267	1142	-	-
HCM Lane V/C Ratio	0.103	-	-	0.67	0.385	0.257	0.383	0.212	0.007	-	-
HCM Control Delay (s)	9.3	-	-	62	38.5	11.6	51.8	22.1	8.2	-	-
HCM Lane LOS	A	-	-	F	E	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.9	1.7	1	1.6	0.8	0	-	-

I. 2027 Future Conditions with Development – Capacity Analysis Worksheets

LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 TF AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
AM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	203	4.5	203	4.5	569	0.357	100	11.5	LOS B	1.8	46.7	Full	1600	0.0	0.0
Lane 2	87	4.0	87	4.0	397	0.219	100	12.7	LOS B	0.9	22.9	Short	250	0.0	NA
Approach	290	4.3	290	4.3		0.357		11.9	LOS B	1.8	46.7				
East: Lee Hwy (WB)															
Lane 1	418	7.2	418	7.2	813	0.514	100	11.4	LOS B	4.4	115.6	Full	1600	0.0	0.0
Lane 2[d]	517	6.5	517	6.5	1005	0.514	100	9.8	LOS A	4.5	117.1	Full	1600	0.0	0.0
Approach	935	6.8	935	6.8		0.514		10.5	LOS B	4.5	117.1				
North: Broadview Ave (SB)															
Lane 1[d]	253	3.6	253	3.6	717	0.353	100	9.5	LOS A	1.8	47.0	Short	215	0.0	NA
Lane 2	251	3.0	251	3.0	653	0.385	100	10.8	LOS B	2.1	52.8	Full	1600	0.0	0.0
Approach	504	3.3	504	3.3		0.385		10.1	LOS B	2.1	52.8				
West: Broadview Ave (EB)															
Lane 1	549	4.5	549	4.5	1025	0.535	100	10.0	LOS A	4.3	111.1	Full	1600	0.0	0.0
Lane 2[d]	646	3.9	646	3.9	1207	0.535	100	8.9	LOS A	4.5	115.6	Full	1600	0.0	0.0
Approach	1195	4.2	1195	4.2		0.535		9.4	LOS A	4.5	115.6				
All Vehicles	2924	4.9	2924	4.9		0.535		10.1	LOS B	4.5	117.1				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	84	120	-	203	4.5		569	0.357	100	NA	NA
Lane 2	-	-	87	87	4.0		397	0.219	100	0.0	1
Approach	84	120	87	290	4.3			0.357			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	3	38	377	-	418	7.2	813	0.514	100	NA	NA
Lane 2	-	-	326	191	517	6.5	1005	0.514	100	NA	NA
Approach	3	38	702	191	935	6.8		0.514			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	137	116	-	253	3.6		717	0.353	100	0.0	2
Lane 2	-	-	251	251	3.0		653	0.385	100	NA	NA
Approach	137	116	251	504	3.3			0.385			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	286	257	-	549	4.5	1025	0.535	100	NA	NA
Lane 2	-	-	610	36	646	3.9	1207	0.535	100	NA	NA
Approach	5	286	867	36	1195	4.2		0.535			
	Total	%HV	Deg.Satn (v/c)								
All Vehicles	2924	4.9	0.535								

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

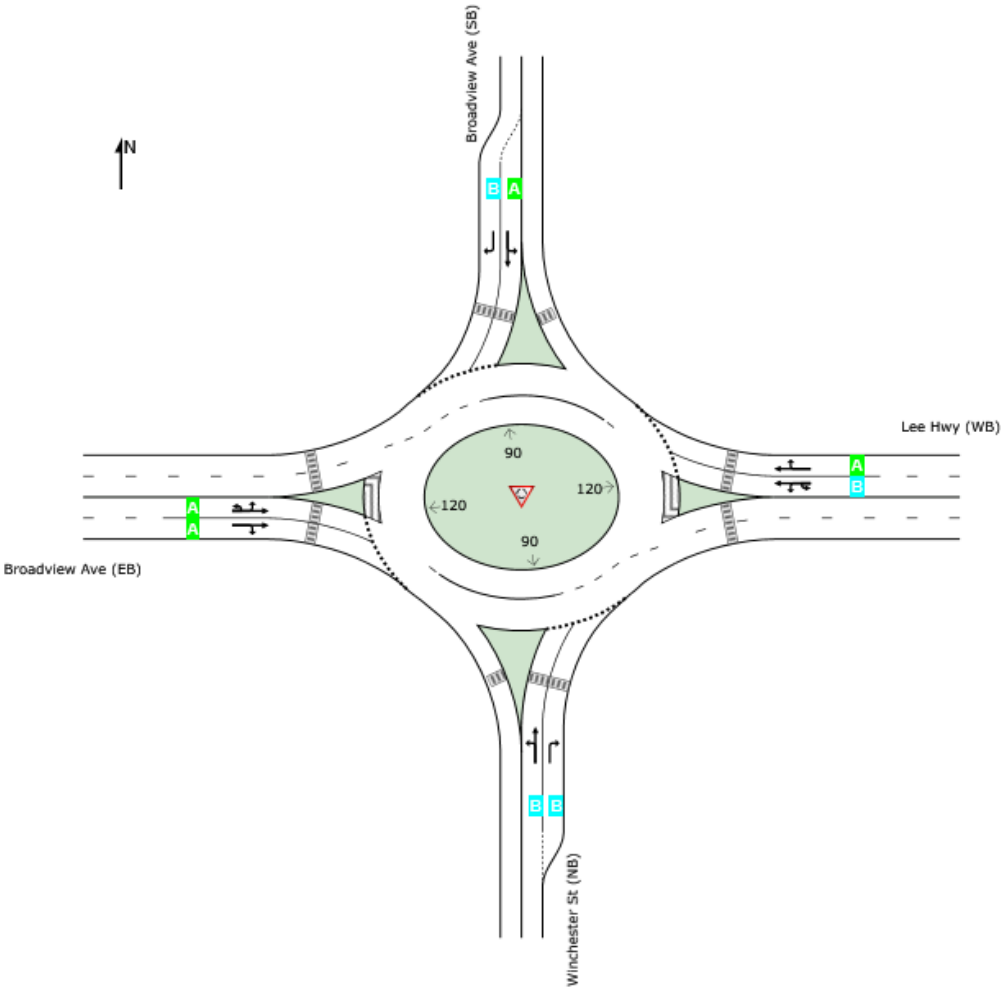
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 TF AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
AM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	B	A	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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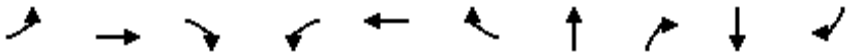
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	944	63	0	839	32	0	0	29	0	0	21
Future Vol, veh/h	0	944	63	0	839	32	0	0	29	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	7	0	0	0	3	0	0	0
Mvmt Flow	0	1026	68	0	912	35	0	0	32	0	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	513	-	-	456
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.26	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	483	0	0	640
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	483	-	-	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	483	-	-	-	-	640
HCM Lane V/C Ratio	0.065	-	-	-	-	0.036
HCM Control Delay (s)	13	-	-	-	-	10.8
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	42	1015	1	48	872	75	23	41	110	57
v/c Ratio	0.37	0.47	0.00	0.41	0.42	0.07	0.17	0.17	0.62	0.23
Control Delay	71.3	19.4	0.0	72.4	18.1	0.1	60.7	1.6	74.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.3	19.4	0.0	72.4	18.1	0.1	60.7	1.6	74.9	2.2
Queue Length 50th (ft)	39	273	0	44	221	0	21	0	102	0
Queue Length 95th (ft)	80	485	0	88	400	0	47	0	163	0
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	199	2178	1063	227	2104	1047	261	338	200	259
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.47	0.00	0.21	0.41	0.07	0.09	0.12	0.55	0.22

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	7	31	934	1	44	802	69	10	11	38	93	8
Future Volume (vph)	7	31	934	1	44	802	69	10	11	38	93	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1793	3541	1647	1752	3372	1599		1856	1615		1777
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1793	3541	1647	1752	3372	1599		1856	1615		1777
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	1015	1	48	872	75	11	12	41	101	9
RTOR Reduction (vph)	0	0	0	0	0	0	30	0	0	38	0	0
Lane Group Flow (vph)	0	42	1015	1	48	872	45	0	23	3	0	110
Heavy Vehicles (%)	14%	0%	4%	0%	2%	6%	0%	0%	0%	0%	3%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		7.7	83.0	83.0	8.1	83.9	83.9		8.9	8.9		14.0
Effective Green, g (s)		7.7	83.0	83.0	8.1	83.9	83.9		8.9	8.9		14.0
Actuated g/C Ratio		0.06	0.59	0.59	0.06	0.60	0.60		0.06	0.06		0.10
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		98	2099	976	101	2020	958		117	102		177
v/s Ratio Prot		0.02	c0.29		c0.03	0.26			c0.01			c0.06
v/s Ratio Perm				0.00			0.03			0.00		
v/c Ratio		0.43	0.48	0.00	0.48	0.43	0.05		0.20	0.03		0.62
Uniform Delay, d1		64.0	16.3	11.6	63.9	15.2	11.6		62.2	61.5		60.5
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		3.0	0.8	0.0	3.5	0.7	0.1		0.8	0.1		6.6
Delay (s)		67.0	17.1	11.6	67.4	15.8	11.7		63.0	61.6		67.1
Level of Service		E	B	B	E	B	B		E	E		E
Approach Delay (s)			19.0			18.0			62.1			63.7
Approach LOS			B			B			E			E

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1375
Flt Permitted	1.00
Satd. Flow (perm)	1375
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	57
RTOR Reduction (vph)	51
Lane Group Flow (vph)	6
Heavy Vehicles (%)	18%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	14.0
Effective Green, g (s)	14.0
Actuated g/C Ratio	0.10
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	137
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	56.9
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	57.1
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	6	15	44	14	11	14	24	84	7	18	122	5
Future Vol, veh/h	6	15	44	14	11	14	24	84	7	18	122	5
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	9	0	0	0	0	0	13	0
Mvmt Flow	7	16	48	15	12	15	26	91	8	20	133	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	280	327	71	264	325	50	138	0	0	99	0	0
Stage 1	176	176	-	147	147	-	-	-	-	-	-	-
Stage 2	104	151	-	117	178	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.1	7.1	6.28	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.09	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	743	688	999	693	597	1017	1458	-	-	1507	-	-
Stage 1	881	819	-	860	770	-	-	-	-	-	-	-
Stage 2	939	830	-	892	749	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	702	665	997	630	577	1017	1458	-	-	1507	-	-
Mov Cap-2 Maneuver	702	665	-	630	577	-	-	-	-	-	-	-
Stage 1	864	808	-	844	755	-	-	-	-	-	-	-
Stage 2	893	814	-	819	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.4	1.6	0.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	864	708	1507	-	-
HCM Lane V/C Ratio	0.018	-	-	0.082	0.06	0.013	-	-
HCM Control Delay (s)	7.5	0	-	9.5	10.4	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	1	91	128	16	111	1	90	1	14	1	1	1
Future Vol, veh/h	1	91	128	16	111	1	90	1	14	1	1	1
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	11	7	1	0	0	0	0	0	0	0
Mvmt Flow	1	99	139	17	121	1	98	1	15	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	126	0	0	239	0	0	329	332	172	341	401	126
Stage 1	-	-	-	-	-	-	172	172	-	160	160	-
Stage 2	-	-	-	-	-	-	157	160	-	181	241	-
Critical Hdwy	4.1	-	-	4.17	-	-	7.5	6.9	6.4	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.263	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1473	-	-	1299	-	-	606	570	869	678	604	946
Stage 1	-	-	-	-	-	-	819	746	-	885	804	-
Stage 2	-	-	-	-	-	-	835	756	-	868	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1298	-	-	597	559	867	654	593	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	559	-	654	593	-
Stage 1	-	-	-	-	-	-	817	745	-	881	790	-
Stage 2	-	-	-	-	-	-	821	743	-	849	757	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	11.8	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	597	867	1468	-	-	1298	-	-	702
HCM Lane V/C Ratio	0.166	0.018	0.001	-	-	0.013	-	-	0.005
HCM Control Delay (s)	12.2	9.2	7.5	0	-	7.8	0	-	10.2
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	83	170	1	2	156	44	5	1	2	47	1	67
Future Vol, veh/h	83	170	1	2	156	44	5	1	2	47	1	67
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	1	2	2	1	0	2	2	2	17	2	0
Mvmt Flow	90	185	1	2	170	48	5	1	2	51	1	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	186	0	0	603	589	186	566	565	197
Stage 1	-	-	-	-	-	-	366	366	-	199	199	-
Stage 2	-	-	-	-	-	-	237	223	-	367	366	-
Critical Hdwy	4.16	-	-	4.12	-	-	7.12	6.52	6.22	6.27	5.52	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.27	4.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.27	4.52	-
Follow-up Hdwy	2.254	-	-	2.218	-	-	3.518	4.018	3.318	3.653	4.018	3.3
Pot Cap-1 Maneuver	1327	-	-	1388	-	-	411	421	856	483	508	873
Stage 1	-	-	-	-	-	-	653	623	-	813	778	-
Stage 2	-	-	-	-	-	-	766	719	-	690	689	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1326	-	-	1388	-	-	353	388	856	452	468	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	388	-	452	468	-
Stage 1	-	-	-	-	-	-	603	576	-	750	776	-
Stage 2	-	-	-	-	-	-	698	717	-	635	637	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0.1	13.8	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	419	1326	-	-	1388	-	-	628
HCM Lane V/C Ratio	0.021	0.068	-	-	0.002	-	-	0.199
HCM Control Delay (s)	13.8	7.9	0	-	7.6	0	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	161	6	19	158	51	20	1	62	31	1	19
Future Vol, veh/h	38	161	6	19	158	51	20	1	62	31	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	3	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	2	2	1	0	2	2	2	0	2	0
Mvmt Flow	41	175	7	21	172	55	22	1	67	34	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	227	0	0	182	0	0	514	530	179	537	506	200
Stage 1	-	-	-	-	-	-	261	261	-	242	242	-
Stage 2	-	-	-	-	-	-	253	269	-	295	264	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1353	-	-	1393	-	-	471	455	864	458	469	846
Stage 1	-	-	-	-	-	-	744	692	-	766	705	-
Stage 2	-	-	-	-	-	-	751	687	-	718	690	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1353	-	-	1393	-	-	442	434	864	406	447	846
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	434	-	406	447	-
Stage 1	-	-	-	-	-	-	722	671	-	743	693	-
Stage 2	-	-	-	-	-	-	719	675	-	641	669	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.6	10.9	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	696	1353	-	-	1393	-	-	407	846
HCM Lane V/C Ratio	0.13	0.031	-	-	0.015	-	-	0.085	0.024
HCM Control Delay (s)	10.9	7.7	-	-	7.6	0	-	14.7	9.4
HCM Lane LOS	B	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	80	1	116	1	415	107	97	359	1
Future Vol, veh/h	1	1	1	80	1	116	1	415	107	97	359	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	1	0	6	1	5	5	0
Mvmt Flow	1	1	1	87	1	126	1	451	116	105	390	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	829	1170	196	859	1054	226	391	0	0	567	0	0
Stage 1	601	601	-	453	453	-	-	-	-	-	-	-
Stage 2	228	569	-	406	601	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.3	7.3	7.32	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.2	-	-	2.25	-	-
Pot Cap-1 Maneuver	292	222	828	209	180	761	1179	-	-	981	-	-
Stage 1	491	527	-	507	518	-	-	-	-	-	-	-
Stage 2	779	542	-	546	431	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	198	828	191	161	761	1179	-	-	981	-	-
Mov Cap-2 Maneuver	223	198	-	191	161	-	-	-	-	-	-	-
Stage 1	491	471	-	506	517	-	-	-	-	-	-	-
Stage 2	648	541	-	486	385	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1	22.3	0	1.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1179	-	-	279	191	761	981	-	-
HCM Lane V/C Ratio	0.001	-	-	0.012	0.461	0.166	0.107	-	-
HCM Control Delay (s)	8.1	-	-	18.1	39	10.7	9.1	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.2	0.6	0.4	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	3	17	1	20	13	503	14	16	420	3
Future Vol, veh/h	1	1	3	17	1	20	13	503	14	16	420	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	6	0	5	0	0	4	0
Mvmt Flow	1	1	3	18	1	22	14	547	15	17	457	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	795	1083	230	838	1069	274	460	0	0	562	0	0
Stage 1	493	493	-	575	575	-	-	-	-	-	-	-
Stage 2	302	590	-	263	494	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.32	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	226	162	754	228	187	696	1112	-	-	1019	-	-
Stage 1	464	480	-	432	460	-	-	-	-	-	-	-
Stage 2	633	423	-	694	506	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	157	754	221	181	696	1112	-	-	1019	-	-
Mov Cap-2 Maneuver	213	157	-	221	181	-	-	-	-	-	-	-
Stage 1	458	472	-	426	454	-	-	-	-	-	-	-
Stage 2	604	418	-	678	497	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	16.3	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1112	-	-	332	221	613	1019	-	-
HCM Lane V/C Ratio	0.013	-	-	0.016	0.084	0.037	0.017	-	-
HCM Control Delay (s)	8.3	-	-	16	22.8	11.1	8.6	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	126	17	81	3	3	3	116	401	32	7	380	53
Future Vol, veh/h	126	17	81	3	3	3	116	401	32	7	380	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	3	0	0	33	1	5	0	0	3	8
Mvmt Flow	137	18	88	3	3	3	126	436	35	8	413	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	901	1152	207	920	1175	218	471	0	0	471	0	0
Stage 1	429	429	-	688	688	-	-	-	-	-	-	-
Stage 2	472	723	-	232	487	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.96	7.5	6.5	7.56	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.33	3.5	4	3.63	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	233	199	796	229	193	699	1094	-	-	1101	-	-
Stage 1	574	587	-	407	450	-	-	-	-	-	-	-
Stage 2	542	434	-	756	554	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	207	175	796	170	170	699	1094	-	-	1101	-	-
Mov Cap-2 Maneuver	207	175	-	170	170	-	-	-	-	-	-	-
Stage 1	508	583	-	360	398	-	-	-	-	-	-	-
Stage 2	473	384	-	646	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.5	21.2	1.8	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1094	-	-	207	175	796	170	273	1101	-	-
HCM Lane V/C Ratio	0.115	-	-	0.662	0.106	0.111	0.019	0.024	0.007	-	-
HCM Control Delay (s)	8.7	-	-	51	28	10.1	26.6	18.5	8.3	-	-
HCM Lane LOS	A	-	-	F	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	4	0.3	0.4	0.1	0.1	0	-	-

LANE LEVEL OF SERVICE

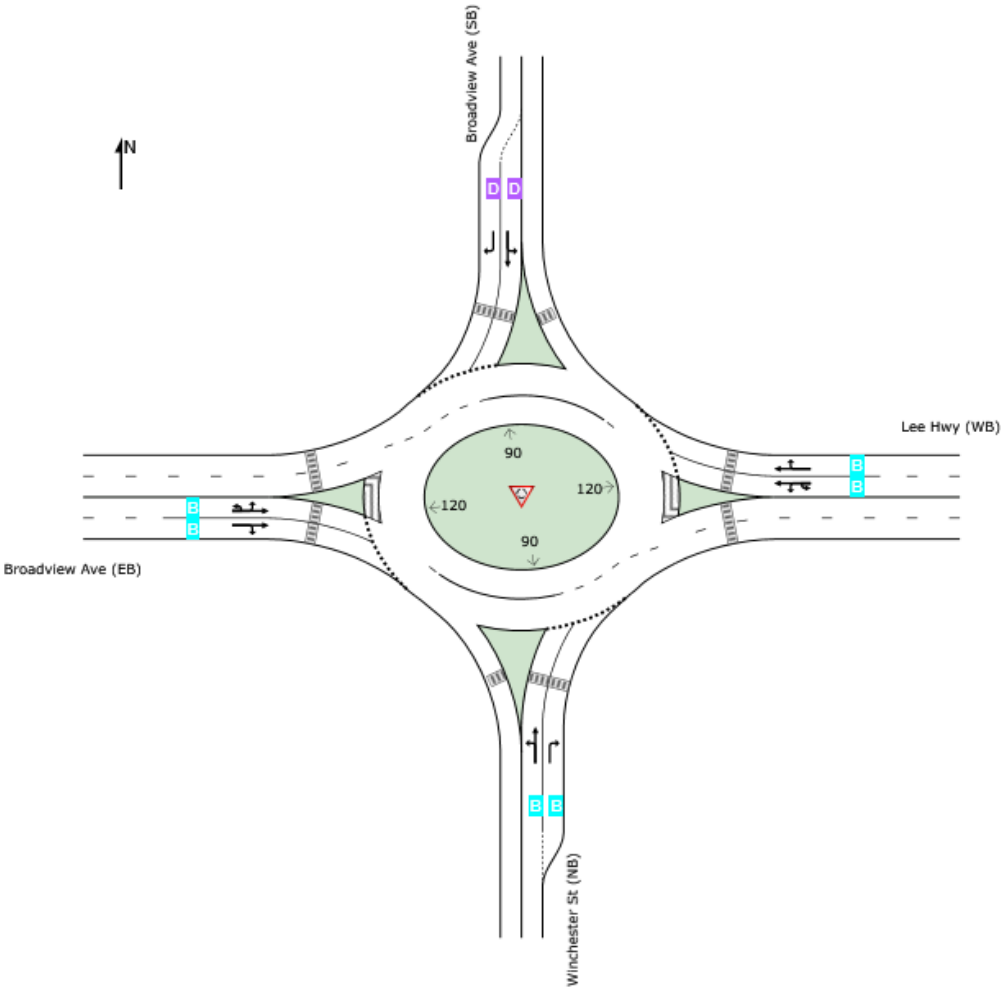
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 TF PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
PM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	D	B	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 TF PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
PM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	235	0.5	235	0.5	556	0.423	100	13.2	LOS B	2.5	62.1	Full	1600	0.0	0.0
Lane 2	77	0.0	77	0.0	361	0.214	100	13.7	LOS B	0.9	23.2	Short	250	0.0	NA
Approach	313	0.4	313	0.4		0.423		13.3	LOS B	2.5	62.1				
East: Lee Hwy (WB)															
Lane 1	623	1.7	623	1.7	857	0.726	100	17.7	LOS B	10.7	271.5	Full	1600	0.0	0.0
Lane 2[d]	761	2.0	761	2.0	1047	0.726	100	15.3	LOS B	11.5	291.4	Full	1600	0.0	0.0
Approach	1383	1.9	1383	1.9		0.726		16.3	LOS B	11.5	291.4				
North: Broadview Ave (SB)															
Lane 1	347	0.7	347	0.7	426	0.815	100	39.5	LOS D	7.1	177.8	Short	215	0.0	NA
Lane 2[d]	413	4.0	413	4.0	487	0.848	100	39.7	LOS D	8.4	216.0	Full	1600	0.0	0.0
Approach	759	2.5	759	2.5		0.848		39.6	LOS D	8.4	216.0				
West: Broadview Ave (EB)															
Lane 1	547	2.5	547	2.5	913	0.599	100	12.4	LOS B	6.7	169.7	Full	1600	0.0	0.0
Lane 2[d]	664	1.9	664	1.9	1108	0.599	100	10.8	LOS B	6.8	171.5	Full	1600	0.0	0.0
Approach	1210	2.2	1210	2.2		0.599		11.5	LOS B	6.8	171.5				
All Vehicles	3666	2.0	3666	2.0		0.848		19.3	LOS B	11.5	291.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	122	114	-	235	0.5		556	0.423	100	NA	NA
Lane 2	-	-	77	77	0.0		361	0.214	100	0.0	1
Approach	122	114	77	313	0.4			0.423			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	70	543	-	623	1.7	857	0.726	100	NA	NA
Lane 2	-	-	638	123	761	2.0	1047	0.726	100	NA	NA
Approach	10	70	1180	123	1383	1.9		0.726			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	249	98	-	347	0.7		426	0.815	100	0.0	2
Lane 2	-	-	413	413	4.0		487	0.848	100	NA	NA
Approach	249	98	413	759	2.5			0.848			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	293	252	-	547	2.5	913	0.599	100	NA	NA
Lane 2	-	-	618	46	664	1.9	1108	0.599	100	NA	NA
Approach	2	293	870	46	1210	2.2		0.599			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	3666	2.0	0.848

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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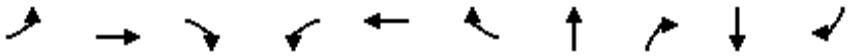
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1075	83	0	1247	104	0	0	25	0	0	80
Future Vol, veh/h	0	1075	83	0	1247	104	0	0	25	0	0	80
Conflicting Peds, #/hr	0	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	2	0	0	0	4	0	0	0
Mvmt Flow	0	1156	89	0	1341	112	0	0	27	0	0	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	578	-	-	675
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.28	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	433	0	0	493
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	433	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.9	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	433	-	-	-	-	491
HCM Lane V/C Ratio	0.062	-	-	-	-	0.175
HCM Control Delay (s)	13.9	-	-	-	-	13.9
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	149	1006	2	68	1243	151	36	79	204	152
v/c Ratio	0.72	0.48	0.00	0.54	0.70	0.17	0.31	0.30	0.80	0.41
Control Delay	82.8	22.5	0.0	82.0	32.7	2.3	72.2	3.0	83.9	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	22.5	0.0	82.0	32.7	2.3	72.2	3.0	83.9	9.8
Queue Length 50th (ft)	148	333	0	68	508	0	36	0	201	0
Queue Length 95th (ft)	224	441	0	123	675	28	73	0	#344	58
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	260	2078	960	157	1773	876	202	327	268	377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.48	0.00	0.43	0.70	0.17	0.18	0.24	0.76	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	9	133	956	2	65	1181	143	17	17	75	176	18
Future Volume (vph)	9	133	956	2	65	1181	143	17	17	75	176	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	1.00	0.97	1.00	1.00	0.98		1.00	1.00		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1807	3682	1602	1787	3504	1558		1854	1615		1810
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1807	3682	1602	1787	3504	1558		1854	1615		1810
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	140	1006	2	68	1243	151	18	18	79	185	19
RTOR Reduction (vph)	0	0	0	1	0	0	74	0	0	74	0	0
Lane Group Flow (vph)	0	149	1006	1	68	1243	77	0	36	5	0	204
Confl. Peds. (#/hr)				2			2					
Heavy Vehicles (%)	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		17.2	83.4	83.4	9.3	76.0	76.0		9.5	9.5		21.2
Effective Green, g (s)		17.2	83.4	83.4	9.3	76.0	76.0		9.5	9.5		21.2
Actuated g/C Ratio		0.11	0.56	0.56	0.06	0.51	0.51		0.06	0.06		0.14
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		207	2047	890	110	1775	789		117	102		255
v/s Ratio Prot		c0.08	0.27		0.04	c0.35			c0.02			c0.11
v/s Ratio Perm				0.00			0.05			0.00		
v/c Ratio		0.72	0.49	0.00	0.62	0.70	0.10		0.31	0.05		0.80
Uniform Delay, d1		64.1	20.3	14.8	68.6	28.3	19.2		67.1	66.0		62.3
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		11.4	0.8	0.0	9.9	2.3	0.2		1.5	0.2		16.3
Delay (s)		75.4	21.2	14.8	78.5	30.6	19.4		68.6	66.2		78.6
Level of Service		E	C	B	E	C	B		E	E		E
Approach Delay (s)			28.2			31.7			67.0			69.1
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	36.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	144
Future Volume (vph)	144
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1607
Flt Permitted	1.00
Satd. Flow (perm)	1607
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	152
RTOR Reduction (vph)	131
Lane Group Flow (vph)	21
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	1%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	21.2
Effective Green, g (s)	21.2
Actuated g/C Ratio	0.14
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	227
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.09
Uniform Delay, d1	56.0
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	56.2
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	77	120	45	50	41	97	101	12	48	75	32
Future Vol, veh/h	17	77	120	45	50	41	97	101	12	48	75	32
Conflicting Peds, #/hr	0	0	14	14	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	2	5	0	2	0	0	3	0
Mvmt Flow	18	80	125	47	52	43	101	105	13	50	78	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	476	515	70	507	525	59	111	0	0	118	0	0
Stage 1	195	195	-	314	314	-	-	-	-	-	-	-
Stage 2	281	320	-	193	211	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.14	7.1	6.14	6.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.5	4.02	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	589	586	994	479	483	988	1492	-	-	1483	-	-
Stage 1	866	810	-	701	678	-	-	-	-	-	-	-
Stage 2	802	756	-	813	744	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	471	524	982	336	432	988	1492	-	-	1483	-	-
Mov Cap-2 Maneuver	471	524	-	336	432	-	-	-	-	-	-	-
Stage 1	803	781	-	650	629	-	-	-	-	-	-	-
Stage 2	652	701	-	607	717	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	16	3.6	2.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1492	-	-	701	467	1483	-	-
HCM Lane V/C Ratio	0.068	-	-	0.318	0.303	0.034	-	-
HCM Control Delay (s)	7.6	0.1	-	12.5	16	7.5	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.4	1.3	0.1	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	3	116	119	31	128	2	118	2	39	1	5	1
Future Vol, veh/h	3	116	119	31	128	2	118	2	39	1	5	1
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	0	4	1	0	3	0	3	0	0	0
Mvmt Flow	3	126	129	34	139	2	128	2	42	1	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	255	0	0	408	410	193	433	473	144
Stage 1	-	-	-	-	-	-	197	197	-	212	212	-
Stage 2	-	-	-	-	-	-	211	213	-	221	261	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.53	6.9	6.43	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.527	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1450	-	-	1298	-	-	527	511	837	605	562	927
Stage 1	-	-	-	-	-	-	785	726	-	843	775	-
Stage 2	-	-	-	-	-	-	771	713	-	836	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1445	-	-	1298	-	-	511	494	836	557	543	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	511	494	-	557	543	-
Stage 1	-	-	-	-	-	-	783	725	-	839	751	-
Stage 2	-	-	-	-	-	-	743	691	-	788	747	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	13.2	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	511	836	1445	-	-	1298	-	-	579
HCM Lane V/C Ratio	0.255	0.051	0.002	-	-	0.026	-	-	0.013
HCM Control Delay (s)	14.4	9.5	7.5	0	-	7.8	0	-	11.3
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	170	5	6	226	14	3	1	1	67	1	52
Future Vol, veh/h	42	170	5	6	226	14	3	1	1	67	1	52
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	0	2	2	2	0	2	2
Mvmt Flow	46	185	5	7	246	15	3	1	1	73	1	57

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	262	0	0	190	0	0	577	556	190	552	551	255
Stage 1	-	-	-	-	-	-	280	280	-	269	269	-
Stage 2	-	-	-	-	-	-	297	276	-	283	282	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	6.1	5.52	5.72
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.1	4.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.1	4.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.318
Pot Cap-1 Maneuver	1302	-	-	1384	-	-	428	439	852	522	515	812
Stage 1	-	-	-	-	-	-	727	679	-	799	740	-
Stage 2	-	-	-	-	-	-	712	682	-	788	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1301	-	-	1384	-	-	383	418	851	501	491	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	383	418	-	501	491	-
Stage 1	-	-	-	-	-	-	698	652	-	766	735	-
Stage 2	-	-	-	-	-	-	657	677	-	753	704	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.2	13.3	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	439	1301	-	-	1384	-	-	600
HCM Lane V/C Ratio	0.012	0.035	-	-	0.005	-	-	0.217
HCM Control Delay (s)	13.3	7.9	0	-	7.6	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	167	22	62	217	2	12	1	39	11	1	27
Future Vol, veh/h	5	167	22	62	217	2	12	1	39	11	1	27
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	3	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	2	2	2	0	2	2	2	0	2	0
Mvmt Flow	5	182	24	67	236	2	13	1	42	12	1	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	239	0	0	206	0	0	590	577	194	598	588	238
Stage 1	-	-	-	-	-	-	204	204	-	372	372	-
Stage 2	-	-	-	-	-	-	386	373	-	226	216	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1340	-	-	1365	-	-	419	427	847	417	421	806
Stage 1	-	-	-	-	-	-	798	733	-	653	619	-
Stage 2	-	-	-	-	-	-	637	618	-	781	724	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1339	-	-	1365	-	-	384	401	847	377	395	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	401	-	377	395	-
Stage 1	-	-	-	-	-	-	795	730	-	650	583	-
Stage 2	-	-	-	-	-	-	578	582	-	738	721	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.7	11	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	652	1339	-	-	1365	-	-	378	805
HCM Lane V/C Ratio	0.087	0.004	-	-	0.049	-	-	0.035	0.036
HCM Control Delay (s)	11	7.7	-	-	7.8	0	-	14.9	9.6
HCM Lane LOS	B	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	4	111	1	145	2	376	96	97	510	2
Future Vol, veh/h	2	1	4	111	1	145	2	376	96	97	510	2
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	0	2	0	3	4	1	4	0
Mvmt Flow	2	1	4	121	1	158	2	409	104	105	554	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	978	1287	282	902	1184	206	560	0	0	514	0	0
Stage 1	769	769	-	414	414	-	-	-	-	-	-	-
Stage 2	209	518	-	488	770	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.32	7.3	7.34	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.32	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	232	191	732	192	147	782	1021	-	-	1055	-	-
Stage 1	397	450	-	537	544	-	-	-	-	-	-	-
Stage 2	798	568	-	478	348	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	169	171	730	175	132	781	1018	-	-	1054	-	-
Mov Cap-2 Maneuver	169	171	-	175	132	-	-	-	-	-	-	-
Stage 1	395	404	-	535	542	-	-	-	-	-	-	-
Stage 2	634	566	-	427	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	33.7	0	1.4
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1018	-	-	302	174	781	1054	-	-
HCM Lane V/C Ratio	0.002	-	-	0.025	0.7	0.202	0.1	-	-
HCM Control Delay (s)	8.5	-	-	17.2	63.4	10.8	8.8	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	4.2	0.8	0.3	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1	17	40	1	39	15	425	28	43	576	6
Future Vol, veh/h	10	1	17	40	1	39	15	425	28	43	576	6
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	5	0	3	0	0	3	0
Mvmt Flow	11	1	18	43	1	42	16	462	30	47	626	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	993	1253	322	902	1226	231	638	0	0	492	0	0
Stage 1	729	729	-	494	494	-	-	-	-	-	-	-
Stage 2	264	524	-	408	732	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	154	123	650	203	147	748	956	-	-	1082	-	-
Stage 1	314	352	-	489	506	-	-	-	-	-	-	-
Stage 2	673	461	-	557	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	115	647	187	138	748	952	-	-	1082	-	-
Mov Cap-2 Maneuver	137	115	-	187	138	-	-	-	-	-	-	-
Stage 1	307	335	-	481	497	-	-	-	-	-	-	-
Stage 2	623	453	-	516	362	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.7	20.3	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	952	-	-	259	187	674	1082	-	-
HCM Lane V/C Ratio	0.017	-	-	0.118	0.233	0.065	0.043	-	-
HCM Control Delay (s)	8.8	-	-	20.7	30	10.7	8.5	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.9	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	103	61	173	44	27	25	88	340	79	7	512	114
Future Vol, veh/h	103	61	173	44	27	25	88	340	79	7	512	114
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	1	0	0	0	1	3	0	0	4	1
Mvmt Flow	112	66	188	48	29	27	96	370	86	8	557	124

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	971	1224	279	893	1262	194	681	0	0	459	0	0
Stage 1	573	573	-	565	565	-	-	-	-	-	-	-
Stage 2	398	651	-	328	697	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.92	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.31	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	207	181	721	239	171	821	914	-	-	1113	-	-
Stage 1	472	507	-	482	511	-	-	-	-	-	-	-
Stage 2	599	468	-	664	446	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	155	161	721	110	152	815	914	-	-	1110	-	-
Mov Cap-2 Maneuver	155	161	-	110	152	-	-	-	-	-	-	-
Stage 1	422	503	-	430	456	-	-	-	-	-	-	-
Stage 2	482	418	-	423	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35.9	40.7	1.6	0.1
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	914	-	-	155	161	721	110	250	1110	-	-
HCM Lane V/C Ratio	0.105	-	-	0.722	0.412	0.261	0.435	0.226	0.007	-	-
HCM Control Delay (s)	9.4	-	-	72.8	42.2	11.7	60.8	23.6	8.3	-	-
HCM Lane LOS	A	-	-	F	E	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	4.3	1.8	1	1.9	0.8	0	-	-

J. Turn Lane Warrant Tables and Charts

Left Turn Lane Warrant Assessment

Two-Lane Highways

Based on AASHTO / VDOT RDM Appendix F

Background:

Warrants for left-turn storage lanes on two-lane highways at unsignalized intersections are based on Figure 3-4 to Figure 3-21 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). The figures provide a graphical representation for determining the necessity of a left turn lane by comparing the advancing volumes of a given approach and the respective opposing volumes and are differentiated by design speed and percent left turning volume.

Project Information:

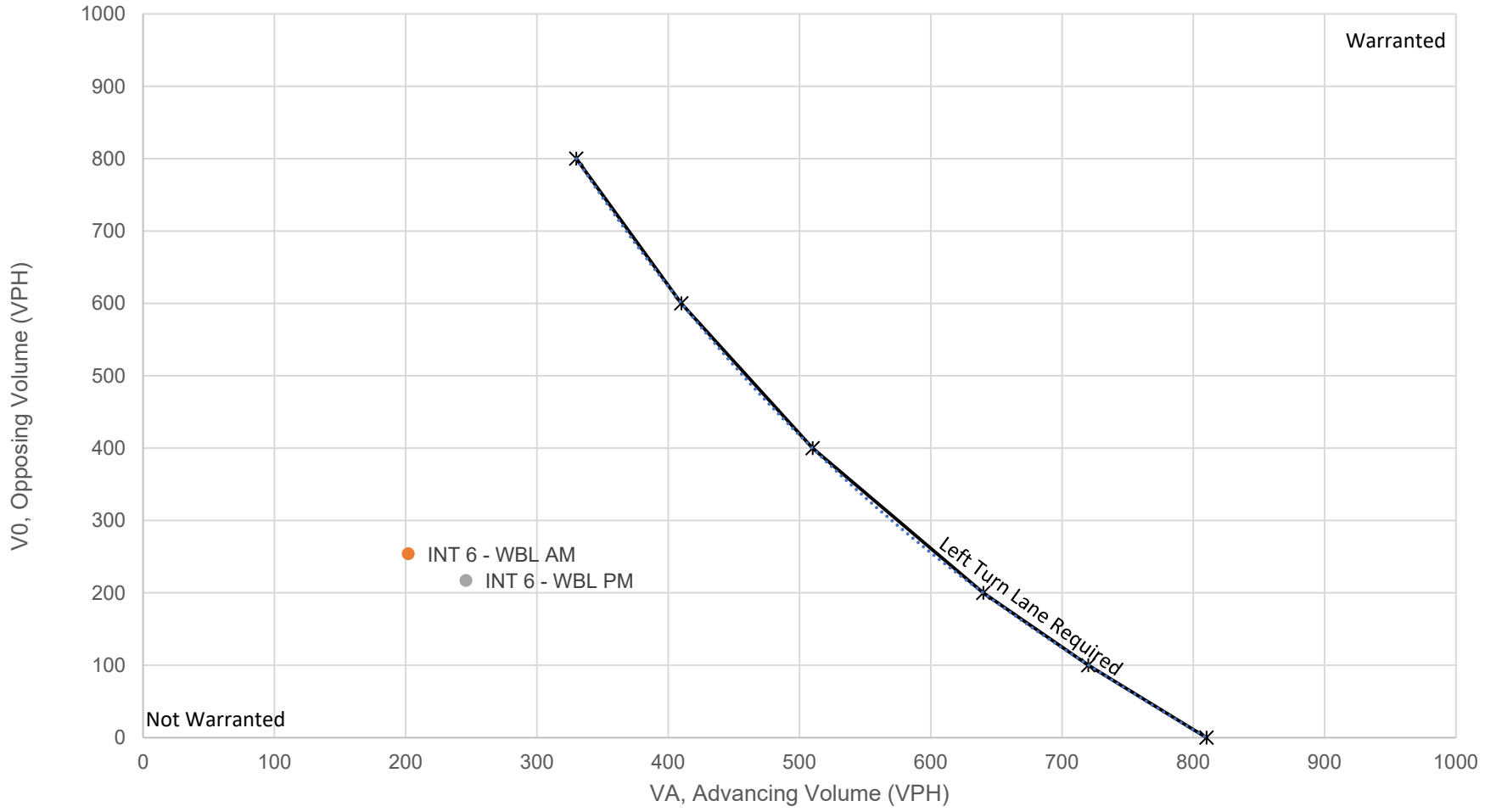
Project:	Warrenton Village
Project ID:	
Intersection(s) and Movement(s):	6 - Oak Springs Drive at Hastings Lane / Future Access (WB) 7 - Oak Springs Drive at High School Driveway / Future Garage Access (WB)
Scenario:	2027 Future Conditions with Development
Analysis:	Gorove Slade

Design Speed (mph):	**40**	**(40, 50, or 60?)**

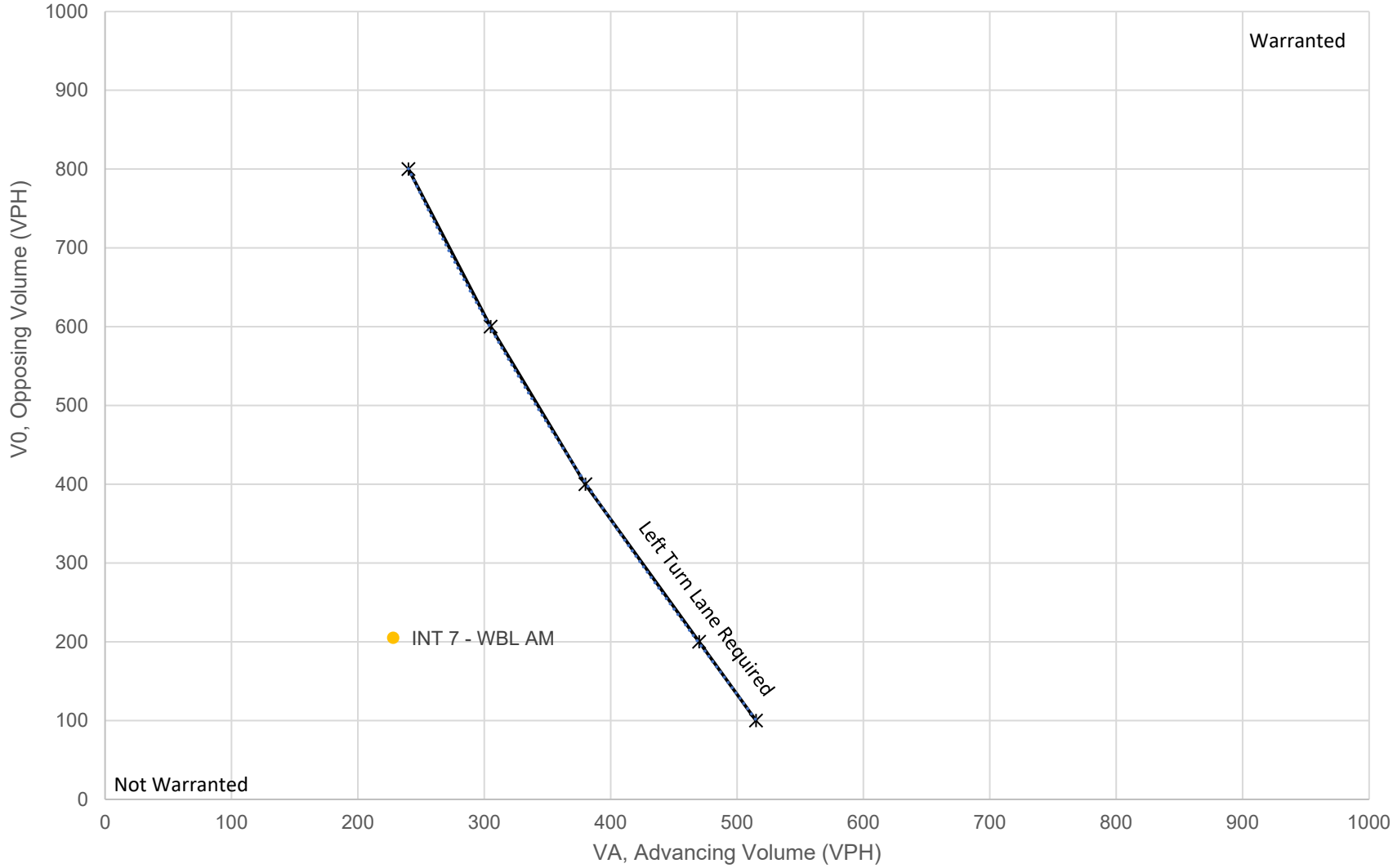
Assessment Summary:

Input				VDOT Calculated Thesholds			
Study Scenario	**Opposing Vol. (VPH)**	**Advancing Vol. (VPH)**	**Left Turn Vol. (VPH)**	**Left Turn %**	**Minimum Opposing Threshold (VPH)**	**VDOT RDM F Figure**	**Treatment**
INT 6 - WBL AM	254	202	2	0.99%	1,208	Fig. 3-4	Not Warranted
INT 6 - WBL PM	217	246	6	2.44%	1,054	Fig. 3-4	Not Warranted
INT 7 - WBL AM	205	228	19	8.33%	841	Fig. 3-5	Not Warranted
INT 7 - WBL PM	194	281	62	22.06%	274	Fig. 3-8	Not Warranted

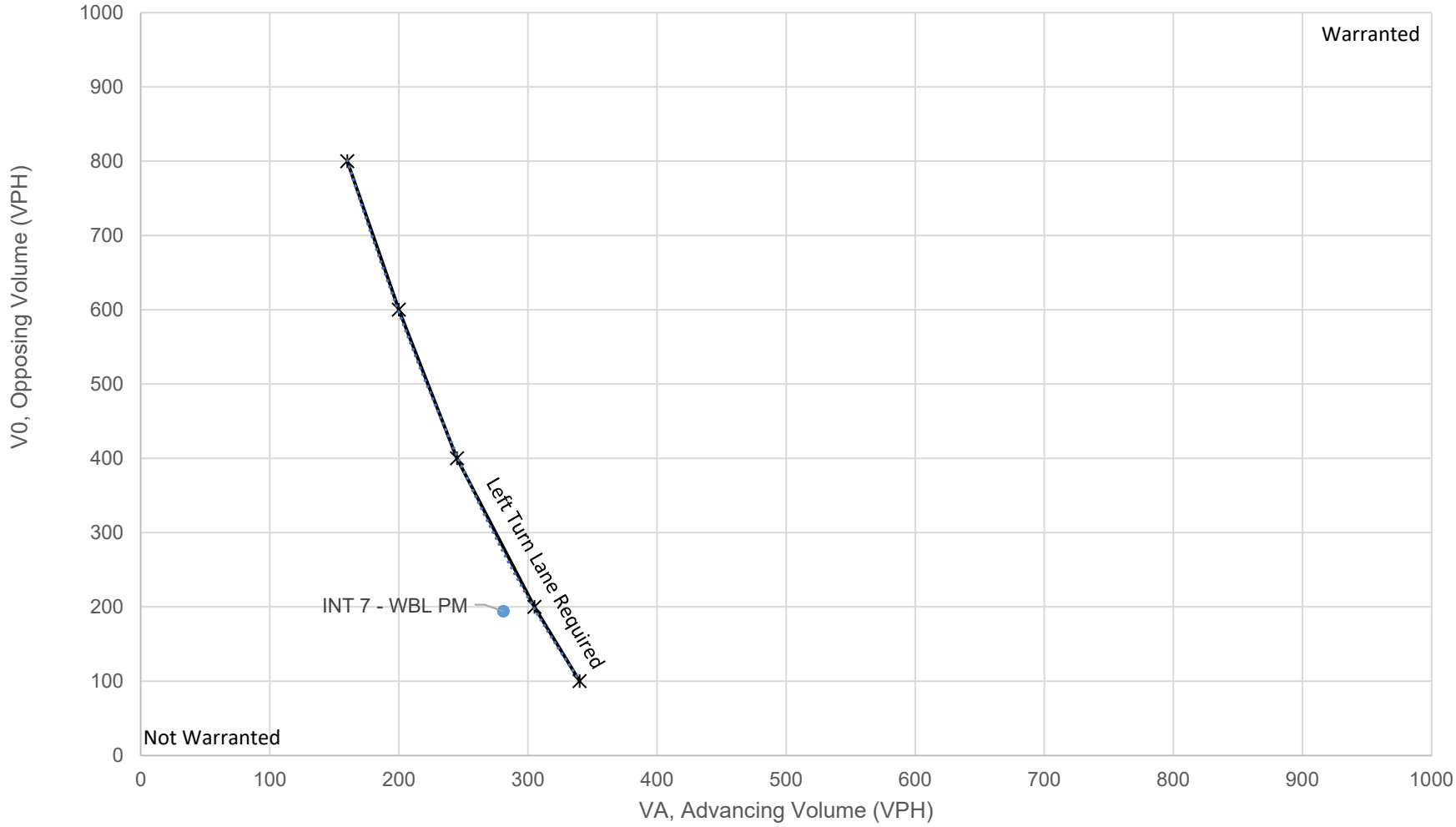
VDOT RDM-F Figure 3-4
Warrant for Left Turn Storage Lanes on 2-Lane Highways at 40-mph & 5% Left Turns



VDOT RDM-F Figure 3-5
Warrant for Left Turn Storage Lanes on 2-Lane Highways at 40-mph & 10% Left Turns



VDOT RDM-F Figure 3-8
Warrant for Left Turn Storage Lanes on 2-Lane Highways at 40-mph & 30% Left Turns



Left Turn Lane Warrant Assessment
Four-Lane Highways

Background:

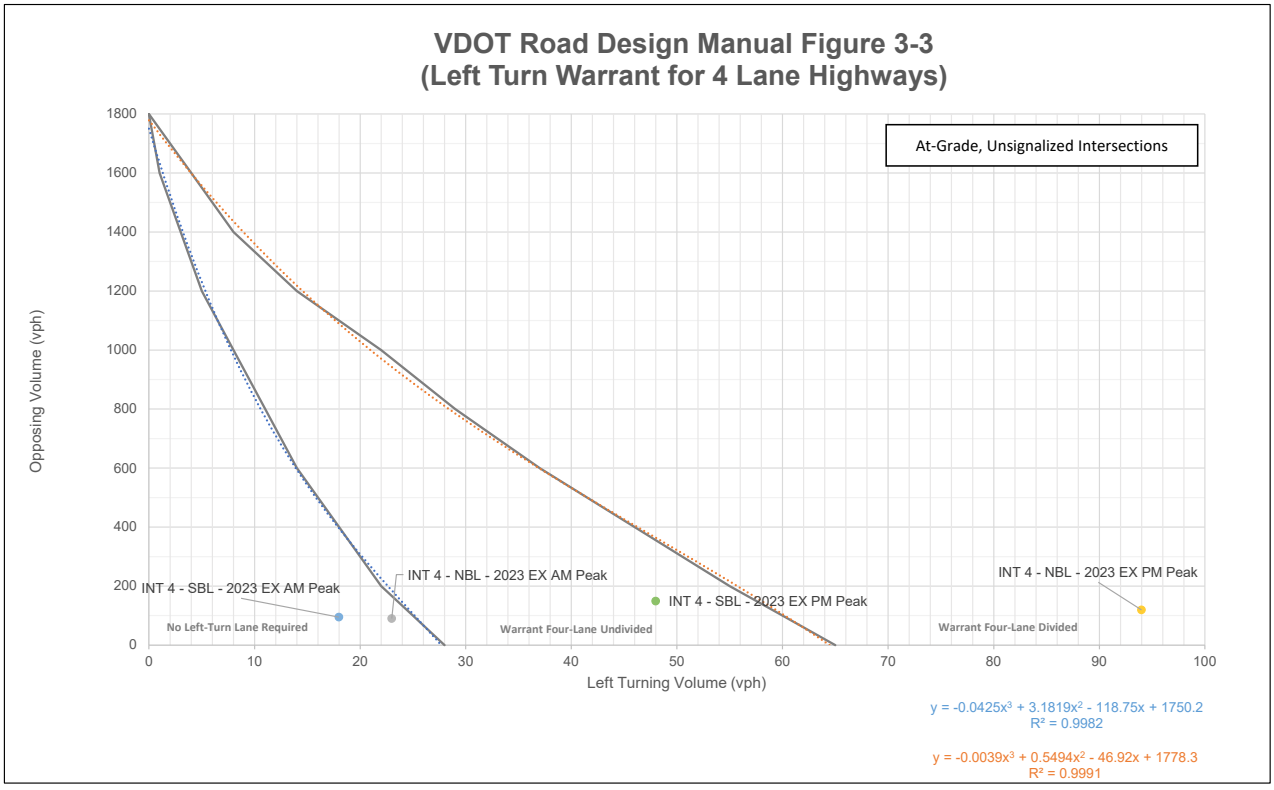
Warrants for left-turn storage lanes on four-lane highways at unsignalized intersections are based on Figure 3-3 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). The figure provides a graphical representation for determining the necessity of a left turn lane for divided and undivided roadway conditions by comparing the left turning volumes of a given approach and the respective opposing traffic volume.

Project Information:

Project:	
Project ID:	
Intersection(s) and Movement(s):	4 - Branch Drive at Warrenton Village Center Driveway / Safeway Driveway (NBL & SBL)
Scenario:	2023 Existing Conditions
Analysis:	Gorove Slade

Assessment Summary:

Input				Result	
Study Scenario	**Opposing Vol. (VPH)**	**Advancing Vol. (VPH)**	**Left Turning Vol. (VPH)**	**Left Turn %**	**Treatment**
INT 4 - NBL - 2023 EX AM Peak	90	95	23	24.2%	Not Warranted
INT 4 - NBL - 2023 EX PM Peak	119	149	94	63.1%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2023 EX AM Peak	95	90	18	20.0%	Not Warranted
INT 4 - SBL - 2023 EX PM Peak	149	119	48	40.3%	Full-width Turn Lane and Taper Warranted (for Undivided)



Left Turn Lane Warrant Assessment

Four-Lane Highways

Background:

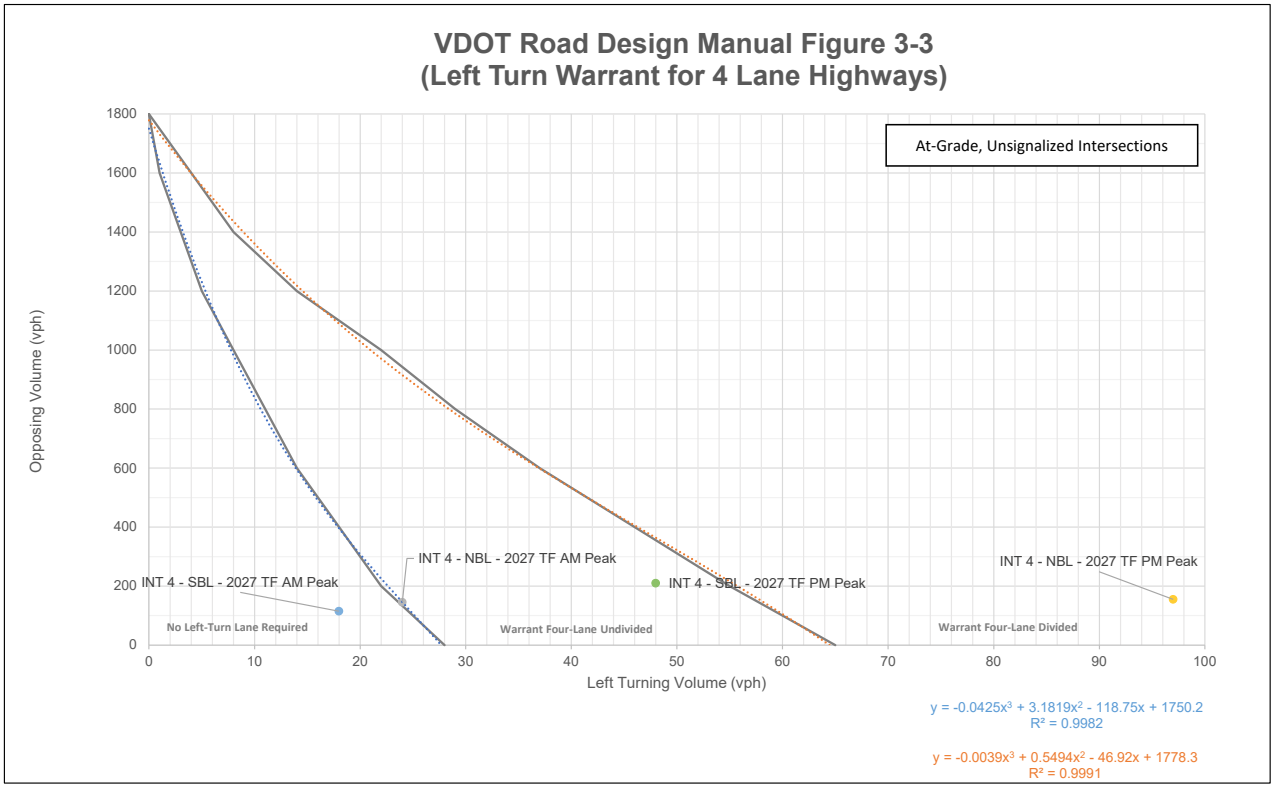
Warrants for left-turn storage lanes on four-lane highways at unsignalized intersections are based on Figure 3-3 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). The figure provides a graphical representation for determining the necessity of a left turn lane for divided and undivied roadway conditions by comparing the left turning volumes of a given approach and the respective opposing traffic volume.

Project Information:

Project:	Warrenton Village Center
Project ID:	
Intersection(s) and Movement(s):	4 - Branch Drive at Warrenton Village Center Driveway / Safeway Driveway (NBL & SBL)
Scenario:	2027 Future Conditions with Development
Analysis:	Gorove Slade

Assessment Summary:

Input				Result	
Study Scenario	**Opposing Vol. (VPH)**	**Advancing Vol. (VPH)**	**Left Turning Vol. (VPH)**	**Left Turn %**	**Treatment**
INT 4 - NBL - 2027 TF AM Peak	145	115	24	20.9%	Not Warranted
INT 4 - NBL - 2027 TF PM Peak	155	210	97	46.2%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2027 TF AM Peak	115	145	18	12.4%	Not Warranted
INT 4 - SBL - 2027 TF PM Peak	210	155	48	31.0%	Full-width Turn Lane and Taper Warranted (for Undivided)



Right Turn Lane Warrant Assessment

Two-Lane Highways

Based on NCHRP Report 279 / VDOT RDM Appendix F
"Intersection Channelization Guide"

Background:

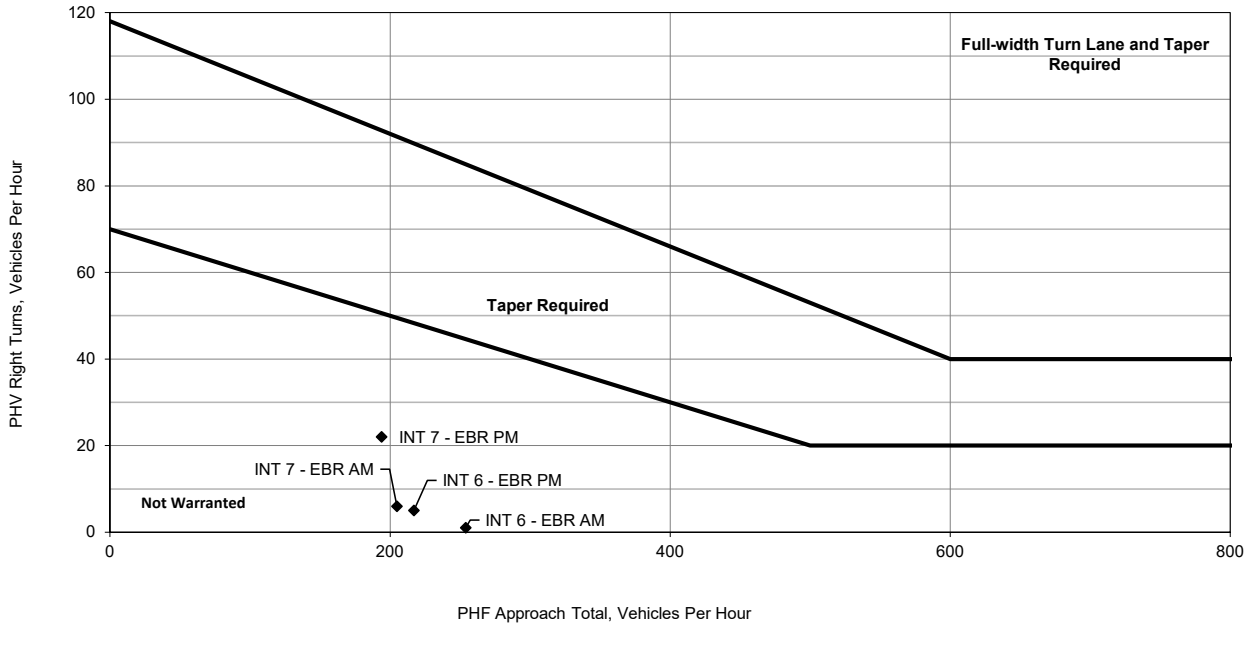
Warrants for right-turn storage lanes on two-lane highways at unsignalized intersections are based on Figure 3-26 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). This figure provides a graphical representation for determining the necessity of a right turn lane and / or taper by comparing the total volumes of a given approach with their respective right turn volumes.

Project Information:

Project:	Warrenton Village Center
Project ID:	
Intersection(s) and Movement(s):	6 - Oak Springs Drive at Hastings Lane / Future Access (EB)
	7 - Oak Springs Drive at High School Driveway / Future Garage Access (EB)
Scenario:	2027 Future Condtitions with Development
Analyst:	Gorove Slade

Study Scenario	Approach Volume	Right Turn Volume	Minimum Right Turn Taper Threshold	Minimum Right Turn Full Lane Threshold	Treatment
INT 6 - EBR AM	254	1	45	85	Not Warranted
INT 6 - EBR PM	217	5	48	90	Not Warranted
INT 7 - EBR AM	205	6	50	91	Not Warranted
INT 7 - EBR PM	194	22	51	93	Not Warranted

Right Turn Lane Warrant for 2-Lane Highways
(VDOT RDM Appendix F Figure 3-26)



Right Turn Lane Warrant Assessment

Four-Lane Highways

Based on NCHRP Report 279 / VDOT RDM Appendix F
"Intersection Channelization Guide"

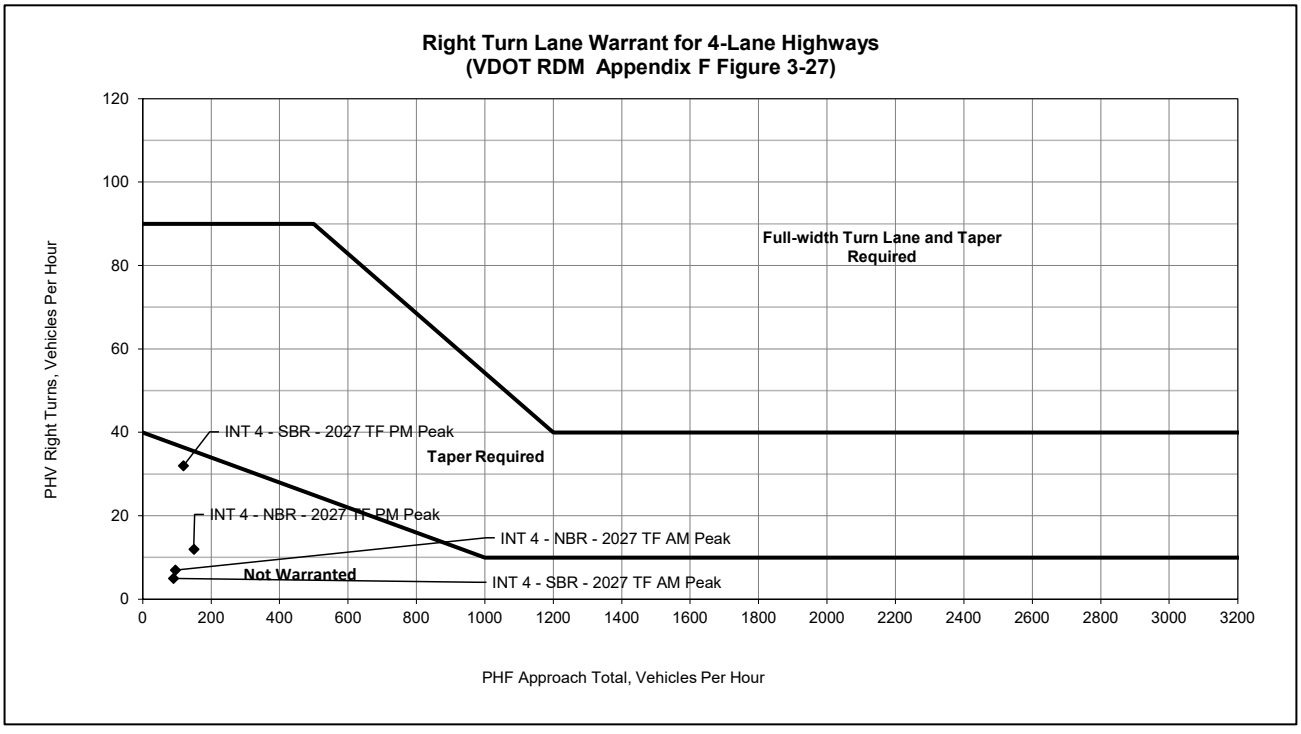
Background:

Warrants for right-turn storage lanes on four-lane highways at unsignalized intersections are based on Figure 3-27 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). This figure provides a graphical representation for determining the necessity of a right turn lane and / or taper by comparing the total volumes of a given approach with their respective right turn volumes.

Project Information:

Project:	
Project ID:	
Intersection(s) and Movement(s):	4 -Branch Drive at Warrenton Village Center Driveway / Safeway Driveway (NBR & SBR)
Scenario:	2027 Future Conditions with Development
Analyst:	Gorove Slade

Study Scenario	Approach Volume	Right Turn Volume	Minimum Right Turn Taper Threshold	Minimum Right Turn Full Lane Threshold	Treatment
INT 4 - NBR - 2027 TF AM Peak	95	7	37	90	Not Warranted
INT 4 - NBR - 2027 TF PM Peak	149	12	36	90	Not Warranted
INT 4 - SBR - 2027 TF AM Peak	90	5	37	90	Not Warranted
INT 4 - SBR - 2027 TF PM Peak	119	32	36	90	Not Warranted



K. MUTCD 4-Hour Warrant

CHAPTER 4C. TRAFFIC CONTROL SIGNAL NEEDS STUDIES

Section 4C.01 Studies and Factors for Justifying Traffic Control Signals

Standard:

01 **An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.**

02 **The investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:**

Warrant 1, Eight-Hour Vehicular Volume
Warrant 2, Four-Hour Vehicular Volume
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volume
Warrant 5, School Crossing
Warrant 6, Coordinated Signal System
Warrant 7, Crash Experience
Warrant 8, Roadway Network
Warrant 9, Intersection Near a Grade Crossing

03 **The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.**

Support:

04 Sections 8C.09 and 8C.10 contain information regarding the use of traffic control signals instead of gates and/or flashing-light signals at highway-rail grade crossings and highway-light rail transit grade crossings, respectively.

Guidance:

05 *A traffic control signal should not be installed unless one or more of the factors described in this Chapter are met.*

06 *A traffic control signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection.*

07 *A traffic control signal should not be installed if it will seriously disrupt progressive traffic flow.*

08 *The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count when evaluating the count against the signal warrants listed in Paragraph 2.*

09 *Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. The site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left-turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles.*

10 *Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.*

11 *At a location that is under development or construction and where it is not possible to obtain a traffic count that would represent future traffic conditions, hourly volumes should be estimated as part of an engineering study for comparison with traffic signal warrants. Except for locations where the engineering study uses the satisfaction of Warrant 8 to justify a signal, a traffic control signal installed under projected conditions should have an engineering study done within 1 year of putting the signal into stop-and-go operation to determine if the signal is justified. If not justified, the signal should be taken out of stop-and-go operation or removed.*

12 *For signal warrant analysis, a location with a wide median, even if the median width is greater than 30 feet, should be considered as one intersection.*

Option:

13 At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher of the major-street left-turn volumes as the "minor-street" volume and the corresponding single direction of opposing traffic on the major street as the "major-street" volume.

14 For signal warrants requiring conditions to be present for a certain number of hours in order to be satisfied, any four sequential 15-minute periods may be considered as 1 hour if the separate 1-hour periods used in the warrant analysis do not overlap each other and both the major-street volume and the minor-street volume are for the same specific one-hour periods.

15 For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians.

Support:

16 When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians.

Option:

17 Engineering study data may include the following:

A. The number of vehicles entering the intersection in each hour from each approach during 12 hours of an average day. It is desirable that the hours selected contain the greatest percentage of the 24-hour traffic volume.
B. Vehicular volumes for each traffic movement from each approach, classified by vehicle type (heavy trucks, passenger cars and light trucks, public-transit vehicles, and, in some locations, bicycles), during each 15-minute period of the 2 hours in the morning and 2 hours in the afternoon during which total traffic entering the intersection is greatest.
C. Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts in Item B and during hours of highest pedestrian volume. Where young, elderly, and/or persons with physical or visual disabilities need special consideration, the pedestrians and their crossing times may be classified by general observation.
D. Information about nearby facilities and activity centers that serve the young, elderly, and/or persons with disabilities, including requests from persons with disabilities for accessible crossing improvements at the location under study. These persons might not be adequately reflected in the pedestrian volume count if the absence of a signal restrains their mobility.
E. The posted or statutory speed limit or the 85th-percentile speed on the uncontrolled approaches to the location.
F. A condition diagram showing details of the physical layout, including such features as intersection geometrics, channelization, grades, sight-distance restrictions, transit stops and routes, parking conditions, pavement markings, roadway lighting, driveways, nearby railroad crossings, distance to nearest traffic control signals, utility poles and fixtures, and adjacent land use.
G. A collision diagram showing crash experience by type, location, direction of movement, severity, weather, time of day, date, and day of week for at least 1 year.

18 The following data, which are desirable for a more precise understanding of the operation of the intersection, may be obtained during the periods described in Item B of Paragraph 17:

A. Vehicle-hours of stopped time delay determined separately for each approach.
B. The number and distribution of acceptable gaps in vehicular traffic on the major street for entrance from the minor street.
C. The posted or statutory speed limit or the 85th-percentile speed on controlled approaches at a point near to the intersection but unaffected by the control.
D. Pedestrian delay time for at least two 30-minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or Sunday.
E. Queue length on stop-controlled approaches.

Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume

Support:

01 The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

02 The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

03 It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

Standard:

04 **The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

05 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Guidance:

06 *The combination of Conditions A and B is intended for application at locations where Condition A is not satisfied and Condition B is not satisfied and should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.*

Standard:

07 **The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 80 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 80 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures

[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Option:

08 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

Section 4C.03 Warrant 2, Four-Hour Vehicular Volume

Support:

01 The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Standard:

02 **The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.**

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-2 may be used in place of Figure 4C-1.

Section 4C.04 Warrant 3, Peak Hour

Support:

01 The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

Standard:

02 **This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.**

03 **The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:**

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

Option:

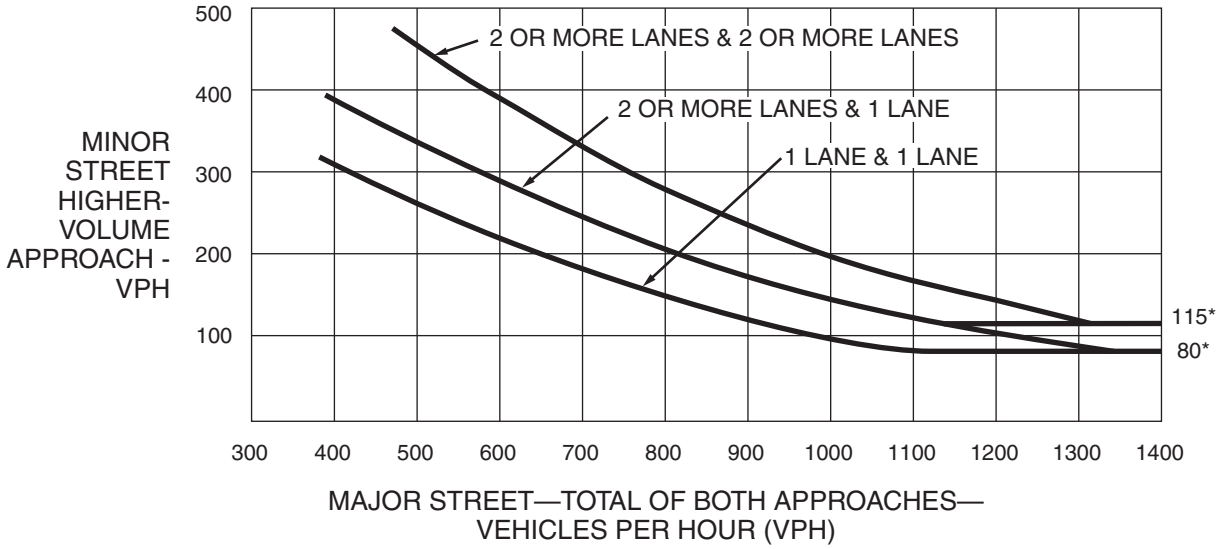
04 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3 to evaluate the criteria in the second category of the Standard.

05 If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

Guidance:

06 *If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal should be traffic-actuated.*

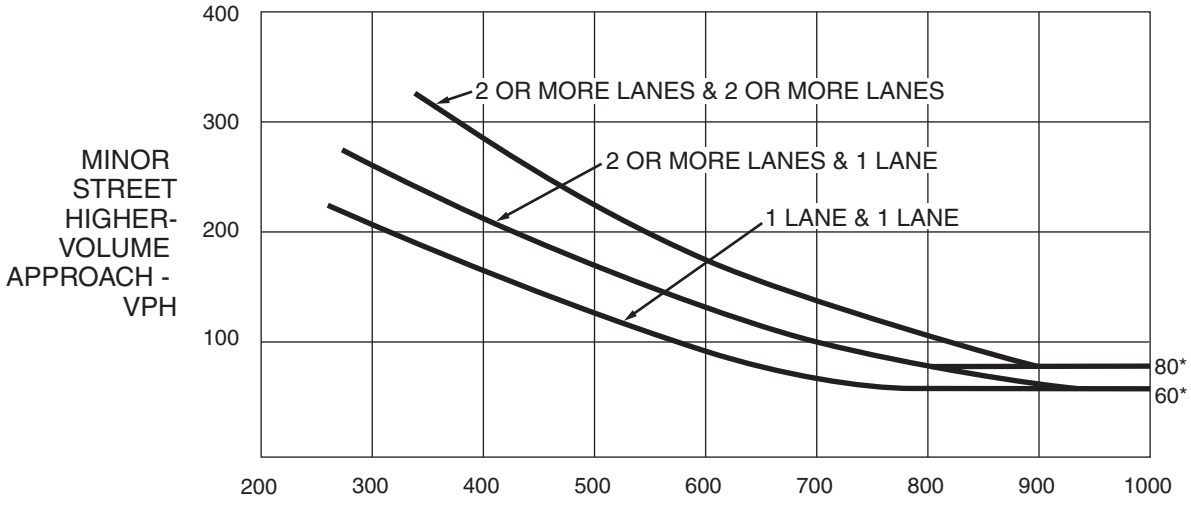
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Market and Fiscal Impacts Analyses
Warrenton Village
Town of Warrenton, Virginia

Prepared for:
Jess Achenbach
Castle Development Partners

June 2023

▪ S. PATZ & ASSOCIATES, INC ▪
▪ REAL ESTATE CONSULTANTS ▪

June 12, 2023

Jess Achenbach
Castle Development Partners
230 Court Square, Suite 202
Charlottesville, Virginia 22902

Jess:

Attached is our full-narrative market study and resulting Fiscal Impacts Analysis (FIA) for the proposed Warrenton Village proposal, to include 376 rental units. The proposal is for three residential components: a 320-unit elevator-served apartment building alongside 36 two-over-two and 20 townhome units. All rental units proposed for Warrenton Village will have market rents and no age restrictions.

The report is presented in three sections. The first is a description of the study site and development proposal. Detailed data describe the Warrenton Village site. The second section is a brief market analysis for the new rental units planned. The market study is not prepared in the same depth as a study for a lender package, as all building and unit designs are not yet set, but sufficient data are provided to determine market support for the proposed 376 rental units. The third section, based on market data, shows the net tax benefits to the Town of Warrenton from the development proposal. The analysis to follow shows full market support for the apartment units at the proposed rents.

The FIA, based on the result of the market analysis, shows a net benefit for the proposal to the Town of Warrenton at $46,100± annually, after build-out. Most of the revenue to the Town will be generated from off-site impacts, as the Town of Warrenton levies low real estate and personal property tax rates. This is reflected in the General Fund revenues. The following table presents the FIA conclusions at build-out.

Summary of On-Site and Off-Site Fiscal Impacts of Apartments, Warrenton Village at Build-Out, Warrenton, Virginia (Constant 2023 Dollars)			
Source of Fiscal Impacts on the Town	**Impacts On-Site in Warrenton**	**Impacts Off-Site in Warrenton**	**Total Fiscal Impacts**
Apartments (320 Units)			
Revenues to the Town	$117,560	$338,870	$456,430
Town Costs	-$280,280	-$145,920	-$426,200
Subtotal	*-$162,720*	*$192,950*	*$30,230*
Two-Over-Two (36 Units)			
Revenues to the Town	$14,550	$55,520	$70,070
Town Costs	-$42,740	-$23,490	-$66,230
Subtotal	*-$28,190*	*$32,030*	*$3,840*
Townhomes (20 Units)			
Revenues to the Town	$8,050	$41,150	$49,200
Town Costs	-$23,310	-$13,860	-$37,170
Subtotal	*-$15,260*	*$27,290*	*$12,030*
Total Residential (376 units)			
Revenues to the Town	$140,160	$435,540	$575,700
Town Costs	-$346,330	-$183,270	-$529,600
Net Fiscal Benefits	**-$206,170**	**$252,270**	**$46,100**
Source: Town of Warrenton, VA; S. Patz & Associates, Inc.			

All detailed market and economic data that support our findings and conclusions are presented in the attached report. Please call if additional data or clarification are needed.

Sincerely,

Ariel Goldring

Ariel Goldring
President

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Section I: Introduction

This will set forth our market and Fiscal Impacts Analysis (FIA) for the proposed Warrenton Village apartment community, planned for a well-located 6.46-acre site along the south side of Oak Springs Drive and just north of W. Lee Highway in the Town of Warrenton, Virginia. The vacant property benefits from its close proximity to several large shopping centers, including the Safeway-anchored Warrenton Village, Marshalls-anchored Warrenton Center, and Giant-anchored Oak Springs Plaza. The site is currently zoned C (Commercial). The sponsor is submitting for a Special Use Permit under the existing zoning.

The proposal is for an attractive 376-unit rental community consisting of 320 elevator-served apartment units, alongside 36 two-over-two and 20 townhome units. The complex will offer a wide range of amenities, including a clubhouse, fitness center and outdoor swimming pool. No such concept currently exists in the Town of Warrenton or elsewhere in Fauquier County, and once built, Warrenton Village will be a "step above" the existing apartment market in the Town and County. Construction is planned to begin in late-2024 with a late-2026 delivery.

The Special Use Permit requires a Fiscal Impacts Analysis (FIA), which calculates the net tax benefits that will accrue to the Town of Warrenton at project build-out. The FIA to follow includes net tax benefits from on-site development and off-site expenditures in the Town, as will be fully explained later in the report. The FIA is based on the ability of the site to be developed, as planned, which is described in the market analysis undertaken for this report.

The report to follow is presented in three sections. The first, the Introduction, is an analysis of the Warrenton Village site and a description of the development proposal. Also part of the description is an analysis of the local economy, which shows the level of job growth that supports the magnitude of new housing unit demand planned for the study site.

Section II is an overview analysis of the Warrenton area apartment market. This is not a full-narrative market analysis that would be acceptable by a lender or investor. Rather, it provides

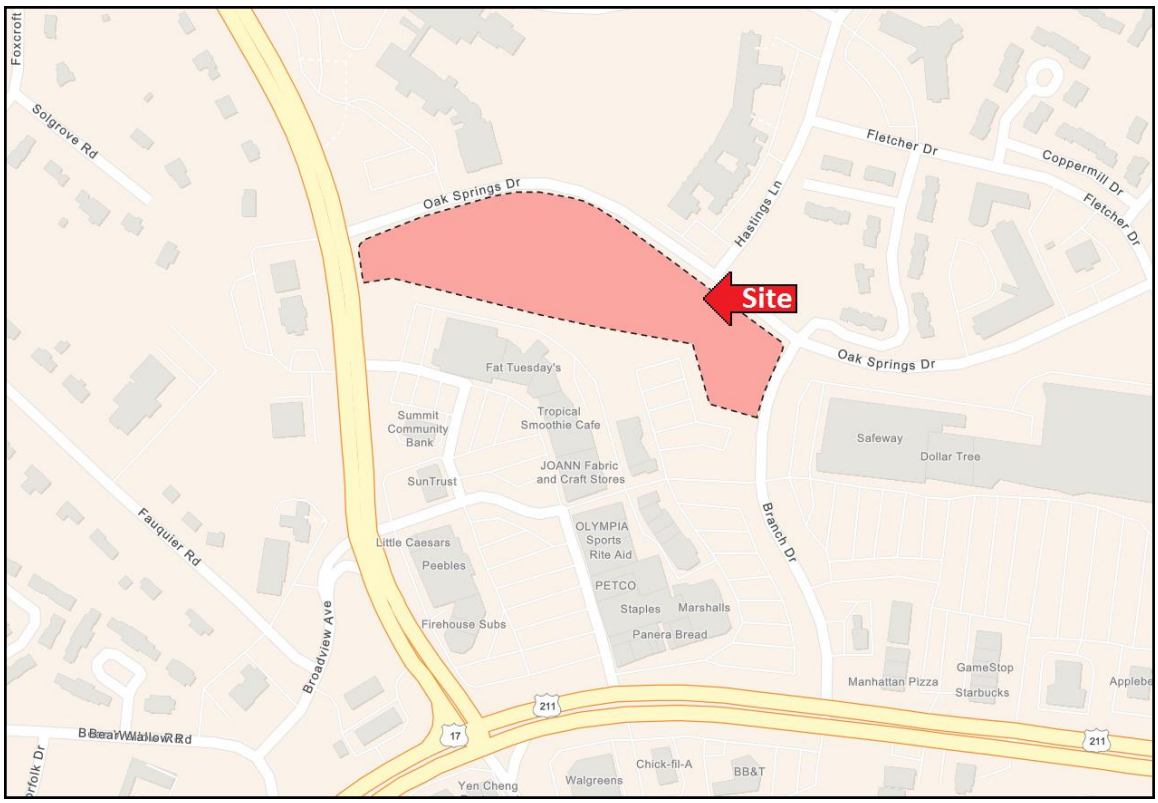
sufficient market data to support the development proposal, as planned. The Conclusions of the market analysis will be the base data for the preparation of the FIA.

Section III is the calculation of the full-narrative FIA that documents annual net tax revenue from the Warrenton Village proposal, based on on-site and off-site revenues from on-site expenditures. Town costs are subtracted from the revenue estimates to establish a net fiscal benefit. For this analysis, all tax revenue and cost data are presented in constant 2023 dollars.

Warrenton Village

Site Description

Map A shows the location of the study site along the southern side of Oak Springs Drive in the Town of Warrenton. The site is bounded to the west by Broadview Drive and to the east by Branch Drive. Its southern boundary is the Warrenton Village Shopping Center, with tenants including Petco, Staples and Marshalls. The study site is shown to be near W Lee Highway, which is a major arterial roadway in the Town that provides direct access to Fauquier Health in the south and U.S. Route 15 in the east.

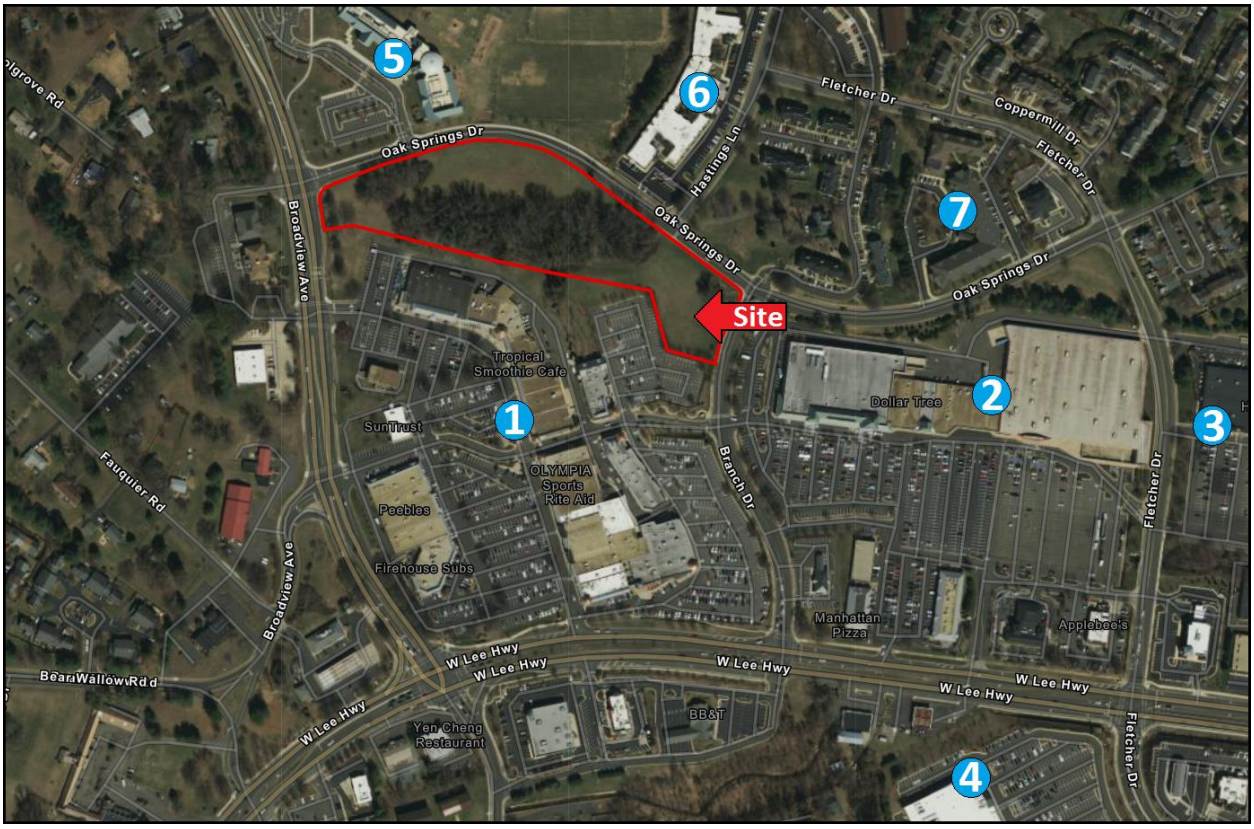


Map A – Site Location

Shown next is a northern aerial of the study site. The aerial shows the irregularly shaped site to be located within a mixed-use setting. Commercial uses generally flank W Lee Highway to the south. This includes the Marshalls-anchored Warrenton Center (Note 1), Safeway-anchored Warrenton Village (Note 2), Giant-anchored Oak Springs Plaza (Note 3) and Harris Teeter-anchored North Rock Shopping Center (Note 4). This is the largest commercial concentration in the Warrenton area. Many of the area restaurants and retailers are within walking distance of the Warrenton Village site.

To the north of the study site is a large private school with over 500 students called Highland School (Note 5) as well as the 130-bed Brookside Rehab & Nursing Center (Note 6). Residential areas are situated to the northeast of the study site and include The Oaks of Warrenton (Note 7), a 111-unit affordable, age-restricted apartment community that was built in two phases

in 1996 and 2001. Most of the other nearby homes are townhomes and condos that have generally sold in the $200,000s and $300,000s.



Northern Aerial

Overall, the study site is well-located and in close proximity to local arterial streets, an interchange with U.S. Route 15, nearby employment centers, and a host of big-box and small retailers that serve the existing residential market.

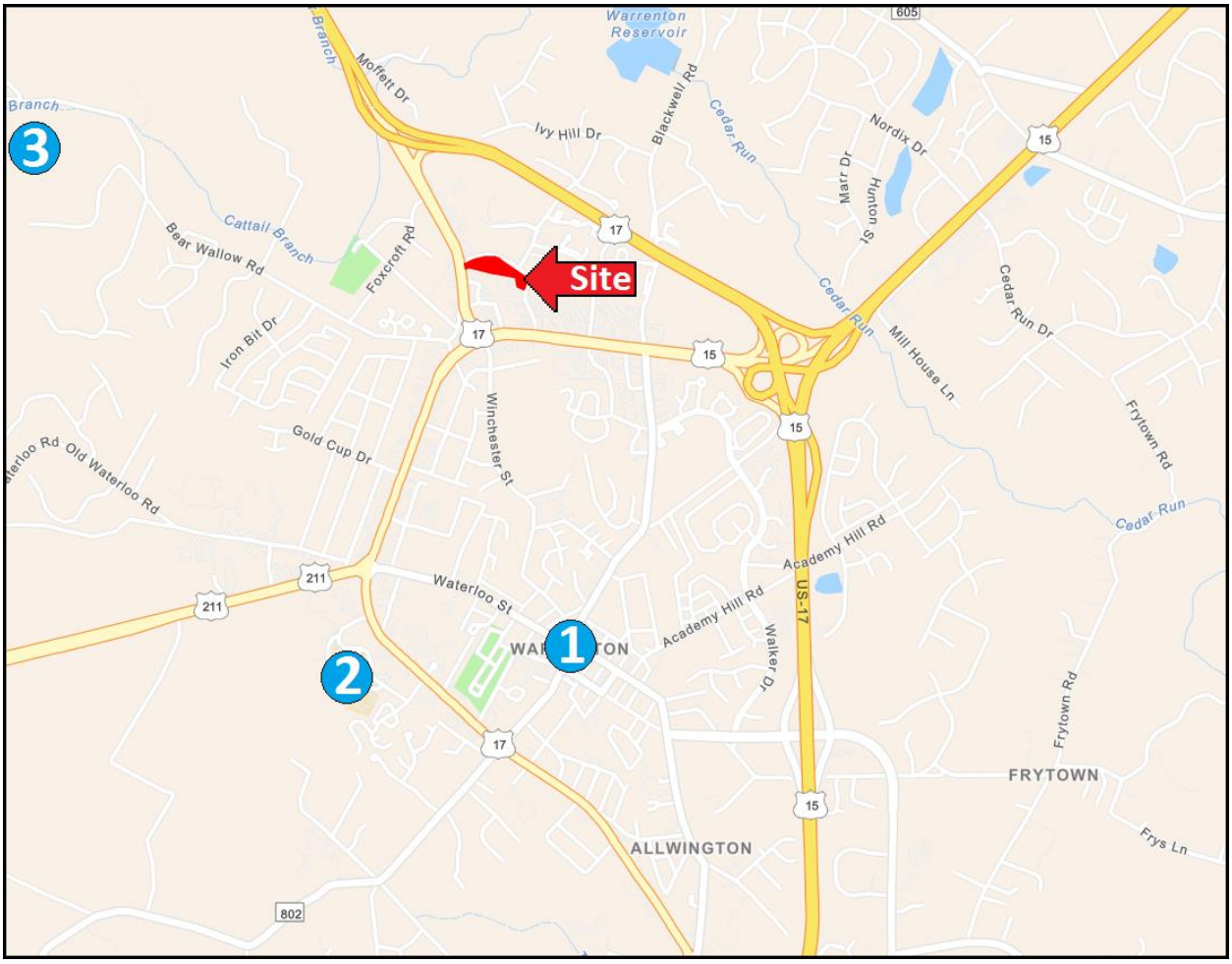
Map C, on page 10, depicts the site setting within the Town of Warrenton. As previously noted, the site is located near W Lee Highway, which accesses U.S. Route 15 less than a mile to the east. This roadway provides direct access to the greater Gainesville/ Haymarket area of western Prince William County, which is the nearest employment cluster outside of Fauquier County. Gainesville is an approximately 12-mile drive from the study site and is the location of

an interchange with I-66 that extends to other major employment centers elsewhere in Northern Virginia.

U.S. Route 17 is also shown to be located just north of the study site via Broadview Avenue. This roadway accesses the community of Marshall at the northern edge of Fauquier County, as well as Bealeton to the south. Both locations are primarily residential. In addition, Map C shows the site's close proximity to Downtown Warrenton, approximately 1.5 miles from the study site. This is the location of several restaurants, specialty retailers and professional office space.

Also shown to be located near the study site is Fauquier Hospital (Note 2), which is located at 500 Hospital Drive in Warrenton. This is a 97-bed, acute care hospital offering surgical services (including robotics), a 24-hour Emergency Department, extensive medical imaging capabilities and an Intensive Care Unit. Construction was recently completed in 2020 on the hospital's new 25,640± square foot Cancer Center. There is approximately 50,000 square feet of medical office space adjacent to Fauquier Hospital. North of the hospital is the large Fauquier Health Rehabilitation and Nursing Center and four office structures that are occupied by County officials.

Map C also shows the site to be located within close proximity of the Warrenton Training Center (Note 3), which is a 346-acre classified United States government communication complex. County staff estimate that the complex employs approximately 350 people.



Map C - Site Setting

Shown next are photos of the study site. The site is shown to be partially wooded and fully vacant.




Southern View of site from Oak Springs Drive

Development Program

The development program for Warrenton Village involves the development of a vacant 6.46-acre parcel with a mix of an elevator-served apartment building alongside two-over-two and townhomes for rent.

Table 1 provides a detailed description of the study proposal, with data on unit sizes, unit mix and proposed rents. The table shows a mix of 133 one-bedroom, 159 two-bedroom and 84 three-bedroom units. One-bedroom apartment units will be spacious and range in size between 642 and 950 square feet, or an average of 771 square feet. Two-bedroom units, each with two full bathrooms will also be large, ranging in size between 980 and 1,184 square feet, or an average of 1,103 square feet. The three-bedroom apartment units will range in size between 1,388 and 2,583 square feet. The three-bedroom two-over-two units will be 1,586 and 2,583 square feet. The three-bedroom townhome units will all measure 2,050 square feet. The three-bedroom units will have between 2.0 and 3.5 bathrooms.

Rents will exclude utilities but will include in-unit washers and dryers at no additional cost to the tenant. One-bedroom rents are proposed to range between $1,650 and $1,900, or an average of $1,750. The smaller two-bedroom apartment units will rent for $2,200 while the larger two-bedroom apartment units will rent for $2,350. The two-bedroom units will rent for an average of $2,250. The three-bedroom apartment units will rent for between $2,400 and $2,550. The three-

bedroom two-over-two units will rent for between $2,800 and $3,000. The three-bedroom townhome units will rent for between $3,100 and $3,200.

Table 1: Proposed Unit Characteristics, Warrenton Village, June 2022

	Unit Type	Bathrooms	Total Units	Unit Sizes (Sq. Ft.)	Proposed Rents 1/
One-Bedroom					
A1	Apartment	1.0	50	642	$1,650
A2	Apartment	1.0	28	725	$1,725
A3	Apartment	1.0	2	790	$1,750
A4	Apartment	1.0	22	768	$1,750
A5	Apartment	1.0	11	850	$1,800
A5A	Apartment	1.0	3	950	$1,900
A6	Apartment	1.0	6	750	$1,750
A7A	Apartment	1.0	4	724	$1,700
A7B	Apartment	1.0	4	738	$1,725
A8	Apartment	1.0	3	775	$1,750
Subtotal/ Average			*133*	*771*	*$1,750*
Two-Bedroom					
B1	Apartment	2.0	92	1,054	$2,200
B2	Apartment	2.0	45	1,167	$2,300
B3	Apartment	2.0	7	1,040	$2,200
B4	Apartment	2.0	4	1,130	$2,300
B5A	Apartment	2.0	3	1,184	$2,350
B5B	Apartment	2.0	4	1,164	$2,300
B6	Apartment	2.0	4	980	$2,100
Subtotal/ Average			*159*	*1,103*	*$2,250*
Three-Bedroom					
C1	Apartment	2.0	17	1,388	$2,400
C2	Apartment	2.0	4	1,425	$2,500
C3	Apartment	3.0	7	1,496	$2,550
D1	Two-Over Two	2.5	18	1,586	$2,800
D2	Two-Over Two	2.5	18	2,583	$3,000
E1	Townhome	2.5	10	2,050	$3,100
E2	Townhome	3.5	10	2,050	$3,200
Subtotal/ Average			*84*	*1,797*	*$2,793*
Total			**376**		

Notes: 1/ Excludes utilities. Includes washer/ dryers.

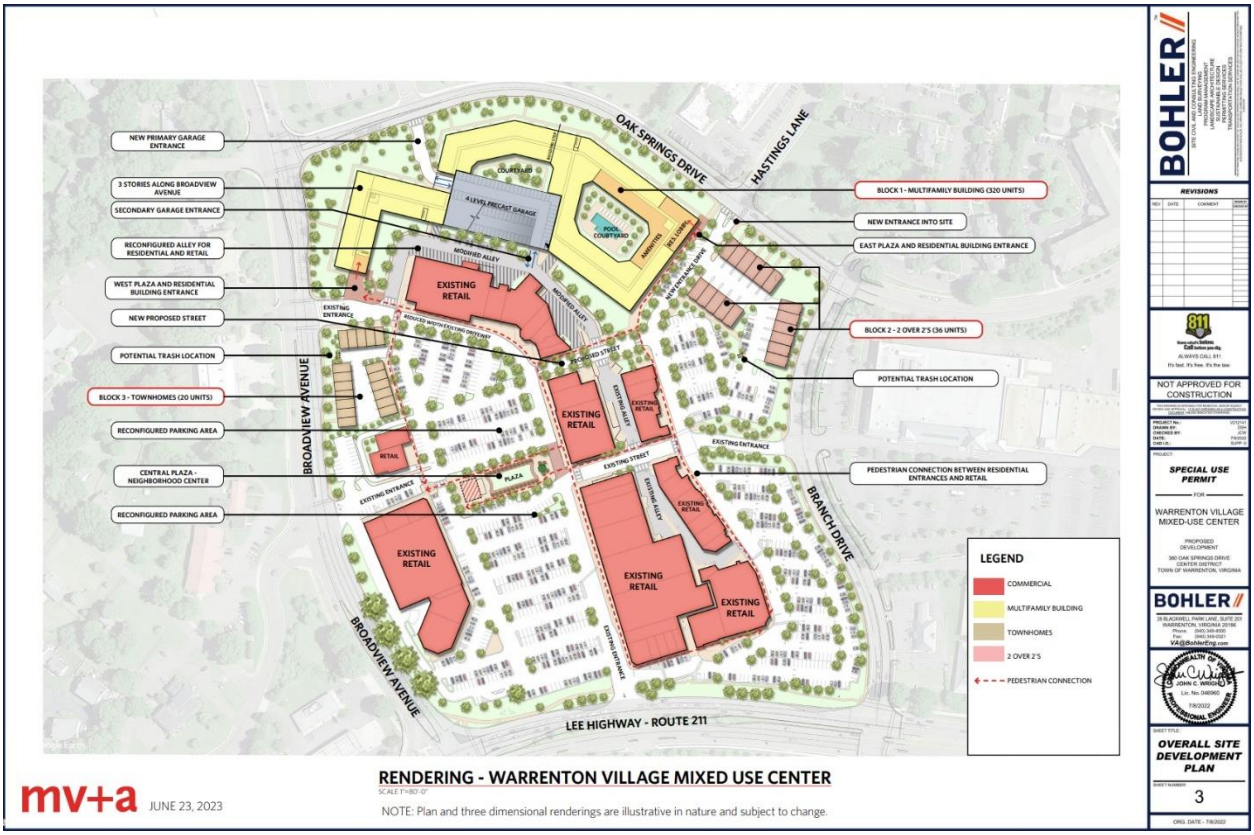
Source: Castle Development Partners

The Warrenton Village proposal will considerably exceed the quality, designs, finishes, and amenities at the market area's apartment properties. The rental units will be comparatively large and, unlike any other rental units in the market area, within walking distance of a host of area retailers and restaurants. Unit features will include granite countertops, stainless steel

appliances, LVT plank throughout (with exception of carpet in bedrooms), 9' ceilings, LED lights, and balconies in all apartment units.

Shown next is the proposed site plan for Warrenton Village. The site plan shows that the apartment community will be accessed from Oak Springs Drive in the north by a newly built roadway.

The community will consist of two development areas. To the west will be a large three- and four-story 320-unit, elevator apartment building. This building will contain 10,000± square feet of amenity space, including a leasing office, large clubroom, fitness center and business center. It will also contain two landscaped courtyards, one of which will include a large outdoor swimming pool. The building will also access a four-story, 445-space parking garage. The eastern side of the property will include the remaining rental units. There will be a total of 574 parking spaces. This equates to a parking ratio of 1.53 spaces per housing unit.



Warrenton Village Site Plan

A rendering of the proposed apartment community is presented next. The renderings show a contemporary and attractive flat roof design that is well above the competition in terms of curb appeal and design features. The building exteriors will contain a mix of masonry, wood siding and white cement panel. Overall, Warrenton Village will be an attractive, upscale community with no direct area competition.



Warrenton Village Rendering

Market Area Economic Overview

This part of Section I of the market analysis presents an economic overview of Fauquier County, with base data for all of Fauquier County, which includes the Town of Warrenton. Data from the U.S. Bureau of Labor Statistics do not provide employment data on the Town level. Three economic factors are presented and analyzed to show the economic stability of the County: (1) at-place job growth, (2) employment and labor force trends, and (3) an evaluation of active development plans that are expected to generate new job and employment growth. These are the primary factors that show the level of economic stability in the market area and the ability for new investments, particularly for new housing.

The three economic factors under study are analyzed in the paragraphs to follow. Key to this analysis is that job growth supports growth in population and households, and therefore,

housing unit demand, particularly of the type of housing under study. Thus, the establishment of the market area's economic stability is a key issue related to the demographic growth of the market area. The economic analysis is presented to support the demographic projections used to support future apartment unit demand.

At-Place Jobs

At-place employment refers to jobs physically based at employers in Fauquier County, whether the job is based in private sector or government offices, manufacturing facilities, schools, retail stores, restaurants, nursing home or other facilities. As of year-end 2019, and prior to the more recent pandemic-induced job losses, Fauquier County had 22,250± at-place jobs, which exceeds the 2008 total by over 850 jobs, or four percent.

The County faced heavy job losses between 2008 and 2010 due to the recession of that time and a period in which at-place employment declined by 1,250±. Net job growth began soon after in 2011, with at-place jobs exceeding the pre-recession peak in 2013. Most recently, employment expanded by 300± in 2018, but fell by 170± in 2019. The job losses in 2019 were not associated with any mass layoffs and were principally driven by the loss of 120± jobs in the Accommodations/ Food sector.

Public sector jobs account for the majority of employment in the County, with nearly 20 percent of jobs in Fauquier County associated with local, state of federal employment. Most of these public sector jobs are associated with local government and tied to the Fauquier County School Board. Much of the federal employment is related to the U.S. Department of Transportation, which operates a facility in Warrenton. Public sector employment has also been a source of modest job growth, with nearly 360 public sector jobs added since 2008.

The largest private employment sector in Fauquier County is the Retail Trade sector, which accounts for nearly 13 percent of County-wide employment. Much of this employment is clustered in and around Warrenton, and to a smaller extent the Bealeton area. Several of the

County's larger employers are in this sector, including Walmart, Food Lion and Home Depot. Employment in this sector has expanded by 160± since 2008.

The next largest private employment sector in the County is the Health Care sector, accounting for 2,550± jobs, or 11.5 percent of County employment. Much of this employment is associated with the Fauquier Health System, which is the largest private employment in the County with over 1,000 employees.

Several other employment sectors have recorded job growth during this period. These include Professional/ Technical Services (420± new jobs), Accommodations/ Food (230± new jobs), Administrative/ Waste Services (160± new jobs), Education (120± new jobs), Education (120± new jobs), Other Services (80± new jobs), Finance/ Insurance (70± new jobs), Manufacturing (60± new jobs) and Real Estate (40± new jobs).

Only four employment sectors have recorded a net loss of jobs since 2008. The heaviest job losses were concentrated in the Construction sector, which has 350 fewer jobs as of year-end 2019 compared to year-end 2018. Most of these losses, however, occurred in the years immediately following the Great Recession. Construction employment has grown every year since 2014, with over 500 jobs added since that time. Other sectors with job losses since 2008 include Wholesale Trade (240± jobs lost), Information (70± jobs lost) and Management of Companies (40± jobs lost).

Table 2: Trends in Average At-Place Employment, Fauquier County, Virginia, 2008-2019

Industry	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	550	393	401	ND	ND	ND	396	396	392	ND	ND	ND
Mining	57	53	51	ND	ND	ND	54	56	64	ND	ND	ND
Utilities	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	116
Construction	2,880	2,316	2,248	2,112	2,066	2,023	2,117	2,210	2,292	2,350	2,459	2,530
Manufacturing	863	797	756	794	798	825	873	918	950	958	935	923
Wholesale Trade	727	615	546	563	481	448	420	434	448	507	490	485
Retail Trade	2,713	2,573	2,637	2,673	2,790	2,864	2,859	2,994	3,044	2,950	2,899	2,873
Transport./ Wareh.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	239
Information	246	197	162	147	160	101	113	128	133	140	137	181
Finance/Insurance	479	445	486	509	501	504	515	467	497	496	526	553
Real Estate	218	315	318	308	365	377	363	288	262	271	253	258
Prof./Tech.	1,307	1,339	1,352	1,632	1,662	1,658	1,654	1,716	1,761	1,690	1,792	1,727
Mgmt of Co.s	212	213	192	ND	242	175	174	181	178	176	167	169
Admin./Waste	487	432	413	ND	534	485	472	484	522	548	622	645
Education	365	350	319	322	339	338	342	421	448	482	524	484
Health Care	2,415	2,499	2,386	2,386	2,703	2,781	2,747	2,686	2,575	2,532	2,544	2,549
Arts/Enter./Rec.	442	414	467	444	417	411	359	346	334	328	303	306
Accom./Food	2,067	1,932	1,962	1,969	2,025	2,095	2,050	2,201	2,370	2,407	2,414	2,293
Other Services	998	943	972	972	1,081	1,009	1,060	1,110	1,119	1,154	1,192	1,080
Local Gov.	3,199	3,268	3,264	3,434	3,314	3,302	3,226	3,194	3,263	3,280	3,314	3,350
State Gov.	392	398	401	389	404	413	409	393	391	390	394	394
Federal Gov.	421	435	454	564	623	610	597	581	601	610	618	625
Total	**21,395**	**20,273**	**20,145**	**20,781**	**21,387**	**21,213**	**21,076**	**21,549**	**22,054**	**22,116**	**22,417**	**22,249**

Notes: ND = Data do not meet BLS or State agency disclosure standards.

Source: United States Department of Labor, Bureau of Labor Statistics

Table 3 shows the net change in at-place job totals since 2008. Very few sectors experienced job losses during this period. Job growth has been spread among a diverse set of sectors. The key figure shown in Table 3 is the 4.0 percent net growth in new jobs since 2008, for a net increase of 850± jobs.

Table 3: Change in Average At-Place Employment, Fauquier County, Virginia, 2008-2019

Industry	Net Change	Percent Change
Construction	-350	-12.2%
Manufacturing	60	7.0%
Wholesale Trade	-242	-33.3%
Retail Trade	160	5.9%
Information	-65	-26.4%
Finance/Insurance	74	15.4%
Real Estate	40	18.3%
Prof./Tech.	420	32.1%
Mgmt of Co.s	-43	-20.3%
Admin./Waste	158	32.4%
Education	119	32.6%
Health Care	134	5.5%
Arts/Enter./Rec.	-136	-30.8%
Accom./Food	226	10.9%
Other Services	82	8.2%
Local Gov.	151	4.7%
State Gov.	2	0.5%
Federal Gov.	204	48.5%
Total	**854**	**4.0%**

Notes: ND = Data do not meet BLS or State agency disclosure standards.
Source: United States Department of Labor, Bureau of Labor Statistics

Next shown, in Table 4, are the employment changes that occurred in 2020, which is an outlier year given the unusual impact of the COVID-19 pandemic. The data show a significant loss of jobs, with a reduction in employment of over 880, or by 4.0 percent.

These losses occurred across most employment sectors, with the heaviest job losses impacting the Accommodations/ Food services sector (370± jobs lost), Local Government sector (190± jobs lost) and Health Care sector (170± jobs lost). Although these losses are sizeable, many of these layoffs are expected to be temporary and will likely be recovered once 2021 employment data are released. The local housing market has not been negatively affected by these job losses.

Of note is that several employment sectors did add jobs in 2020, including the Professional/ Technical Services sector (130± new jobs), Retail Trade sector (50± new jobs) and the Transportation/ Warehousing sector (50± new jobs).

Data for 2021 show an increase of 440± jobs in Fauquier County, which signals a continued recovery. Several employment categories recorded net job growth. There are just over 430 fewer at-place jobs at year-end 2021 compared to the pre-pandemic peak.

Table 4: Change in Total At-Place Employment, Fauquier County, Virginia, 2019-2021

	2019	2020	2021	Net Change
Utilities	116	122	117	1
Construction	2,530	2,527	2,624	94
Manufacturing	923	841	960	37
Wholesale Trade	485	473	454	-31
Retail Trade	2,873	2,921	2,944	71
Transportation/Warehousing	239	286	311	72
Information	181	163	179	-2
Finance/Insurance	553	550	549	-4
Real Estate	258	260	268	10
Professional/Technical Services	1,727	1,859	1,871	144
Management of Companies	169	158	126	-43
Admin./Waste Services	645	593	622	-23
Educational Services	484	460	504	20
Health Care	2,549	2,379	2,269	-280
Arts/Entertainment/Recreation	306	235	241	-65
Accommodations/Food	2,293	1,926	2,058	-235
Other Services	1,080	955	1,061	-19
Local Government	3,350	3,161	3,209	-141
State Government	394	396	362	-32
Federal Government	625	652	659	34
Total	**22,249**	**21,370**	**21,813**	**-436**

Source: United States Department of Labor

The U.S. Bureau of Labor Statistics has not yet released year-end data for 2022. However, as of September 2022, the date for which the most recent data are available, Fauquier County totals nearly 22,400 at-place jobs, which is in line with pre-pandemic employment levels.

Employment and Labor Force

Employment differs from at-place jobs as it refers to the number of market area residents who are employed, no matter where the job is located. At-place jobs refer to where the job is located, i.e., within Fauquier County. Data are current to year-end 2021 for Employment and Labor Force.

Fauquier County realized a net increase in employment of 770± over the twelve-year period between 2008 and 2019. Like at-place job trends, employment grew early in the decade, up until 2008, when employment reached a pre-recession peak of 36,400± jobs.

Employment totals are larger than at-place job totals, which means net out-commuting occurs into neighboring jurisdictions. These trends are an indication of the market for housing in Fauquier County, with a high percentage of County labor force working across the Washington Region. However, they are selecting homes in Fauquier County.

Employment fell sharply in 2009 when 940± jobs were lost, pushing the unemployment rate from 3.6 percent to 5.6 percent in a single year. A slow recovery began soon after in 2011. Growth in employment occurred every year since, with total employment exceeding pre-recession levels in 2019. The labor force has also grown every year between 2015 and 2019, suggesting sustained confidence in the labor market. This has pushed the overall unemployment rate higher than it otherwise would be.

Recent years have been characterized by a steady increase in the pace of job growth. Employment grew by 350± in 2017, 1,010± in 2018 and 1,070± in 2019. This exceeds the level of growth of at-place jobs and denotes that part of the growth in the resident population of Fauquier County was driven by new jobs in neighboring communities.

Data in Table 5 show that the unemployment rate was a low 2.4 percent in 2019, down from 3.9 percent in 2015. The low unemployment rate means that new job growth will require new residents for the County.

Total employment declined by 2,110± in 2020, pushing the unemployment rate up from a low 2.4 percent in 2019 to 4.7 percent, the highest unemployment rate since 2013. Data for 2021 show some improvements, with employment expanding by 80±. The labor for declined by 560± in 2021, which contributed to the low unemployment rate of 3.0 percent.

Table 5: Trends in Employment and Unemployment, Fauquier County, Virginia, 2008-2021

	Labor Force	Employment	Unemployment	Percent Unemployed
2008	37,765	36,403	1,362	3.6%
2009	37,560	35,459	2,101	5.6%
2010	35,805	33,536	2,269	6.3%
2011	36,073	34,092	1,981	5.5%
2012	35,975	34,162	1,813	5.0%
2013	35,928	34,198	1,730	4.8%
2014	36,049	34,427	1,622	4.5%
2015	35,873	34,477	1,396	3.9%
2016	35,977	34,745	1,232	3.4%
2017	36,269	35,091	1,178	3.2%
2018	37,054	36,096	958	2.6%
2019	38,085	37,168	917	2.4%
2020	36,777	35,058	1,719	4.7%
2021	36,217	35,138	1,079	3.0%
Net Change	**-1,548**	**-1,265**	**-283**	**-0.6%**

Source: United States Department of Labor, Bureau of Labor Statistics

COVID-19 and Employment

Table 6 shows monthly employment data as of April 2023 in Fauquier County to illustrate the local employment impact of the COVID-19 pandemic. This is the date for which the most recent data are available. Trend data show that total employment has increased by nearly 1,400 since January 2020, with the number of unemployed shrinking by over 120. These data show considerable economic improvements.

The unemployment rate, as of April 2023, is a very low 2.1 percent, down from 9.1 percent in April 2020. The low unemployment rate reflects the difficulty that local employers report in hiring new staff and necessitates new residents to the County to fill vacant and future jobs.

Table 6: Trends in Employment and Unemployment, Fauquier County, Virginia, 2020-2023 YTD

	Labor Force	Employment	Unemployment	Percent Unemployed
January 2020	37,631	36,674	957	2.5%
February 2020	37,692	36,824	868	2.3%
March 2020	37,237	36,207	1,030	2.8%
April 2020	35,897	32,638	3,259	9.1%
May 2020	35,376	32,643	2,733	7.7%
June 2020	36,700	33,899	2,801	7.6%
July 2020	36,521	34,131	2,390	6.5%
August 2020	36,545	34,630	1,915	5.2%
September 2020	35,851	34,310	1,541	4.3%
October 2020	36,555	35,198	1,357	3.7%
November 2020	36,289	34,973	1,316	3.6%
December 2020	36,117	34,929	1,188	3.3%
January 2021	36,048	34,716	1,332	3.7%
February 2021	35,894	34,635	1,259	3.5%
March 2021	36,013	34,747	1,266	3.5%
April 2021	36,141	35,085	1,056	2.9%
May 2021	36,334	35,173	1,161	3.2%
June 2021	37,478	36,109	1,369	3.7%
July 2021	37,536	36,293	1,243	3.3%
August 2021	37,231	36,054	1,177	3.2%
September 2021	36,740	35,719	1,021	2.8%
October 2021	37,217	36,329	888	2.4%
November 2021	36,843	36,218	625	1.7%
December 2021	37,157	36,284	873	2.3%
January 2022	37,155	36,215	940	2.5%
February 2022	37,078	36,203	875	2.4%
March 2022	37,349	36,459	890	2.4%
April 2022	37,520	36,729	791	2.1%
May 2022	37,611	36,624	987	2.6%
June 2022	38,342	37,327	1,015	2.6%
July 2022	38,549	37,524	1,025	2.7%
August 2022	38,216	37,051	1,165	3.0%
September 2022	37,678	36,664	1,014	2.7%
October 2022	38,207	37,193	1,014	2.7%
November 2022	37,968	36,945	1,023	2.7%
December 2022	37,974	37,115	859	2.3%
January 2023	38,232	37,132	1,100	2.9%
February 2023	38,299	37,320	979	2.6%
March 2023	38,759	37,783	976	2.5%
April 2023	38,846	38,012	834	2.1%
Net Change	**1,215**	**1,338**	**-123**	**-0.4%**

Notes: 1/ Preliminary. Subject to change.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Current Developments

Most businesses in Fauquier County are small, with over 90 percent having fewer than 20 employees. The largest employer in the County is the Fauquier County School Board, with over 1,900 employees. The second largest employer is the Fauquier Health System, which employs over 1,000 people. The next two largest employers are the U.S. Department of Transportation and Walmart. All of these employers are located within quick driving distance of the Warrenton Village site.

The agriculture and forestry industries directly employ over 500 people, with many more employed in related industries. Tourism represents a growing segment of the economic sector in Fauquier County with nearly 30 vineyards and wineries spread across the County. More recently, the County has also targeted defense and other government contractors as a vital sector, with over 100 firms operating in the County.

Recent job generating development activity in Fauquier County include:

- **E-Z Treat**, a manufacturer of residential and commercial wastewater treatment systems, announced in December 2022 that it would expand its Catlett operations with a new 33,000± square foot building that will generate 16 new engineering and manufacturing jobs.

- **Silver Branch Brewing**, a Maryland-based brewery, announced in June, 2023 that it would open a location in Fauquier County, adding 38 new jobs. The expansion will be the second location for the brewery. Silver Branch is taking over the Warrenton location of the former Wort Hog Brewing Co., which closed in early-2022. The brewery will have 18 to 24 rotating taps at each location. The Warrenton location will add between 750 to 1,000 barrels of capacity. The facility is expected to open in the fall of 2023.

- **Piedmont Urgent Care** announced in September 2021 that it would build a single-story, 7,540± square foot urgent care facility and pharmacy on the corner of Blackwell Road and Walker Drive in Warrenton. The facility has since opened.

- **Oak View National Bank** announced in May 2021 that it would build a 7,000± square foot building on a vacant lot on Waterloo Street, near its current headquarters on Broadview Avenue in Warrenton. The new Warrenton facility will feature a drive thru. Construction was completed in 2022.

- **Lord Fairfax Community College**. Construction was completed in June 2022 on a new science and technology building on the Fauquier campus of Lord Fairfax Community College to be called Eleanor C. and William A. Hazel Hall. The two-story, 40,000± square foot building houses a nursing skills lab, science labs, engineering and fabrication labs, classrooms, a board room, faculty offices, study spaces and a lounge and a conference center with banquet seating for 275 people. The college also has plans currently under review to construct a single-story, 8,130± square foot trades lab building. The new building will allow the college to offer trades classes for the first time on the Fauquier Campus, including a new carpentry program. Other programs planned for the new building include electrical, HVAC, plumbing and heavy equipment operator.

- **Catlett Data Center Park**. This is a proposal to construct two data centers of 1.4 million square feet at Route 28 and Gaskins Lane.

- **Royal Farms**. Construction was completed in 2022 on new Royal Farms at the southwest corner of Routes 17 and 29 at Opal. The development includes a 4,650± square foot convenience store and 14 fuel pumps. Future development of the remaining 2.1 acres calls for an unspecified 3,160± square foot fast-food restaurant, which would share the same entrance with Royal Farms.

- **Hilton Home2 Suites at Mintbrook**. This is proposed four-story, 90- to 100-room hotel planned for a site within the Mintbrook development in Bealeton. The proposal is currently under review.

- **Puller Veterans Care Center**. Construction was completed in March 2022 on this long-term care center at Vint Hill for military veterans at Vint Hill Road and MacIntosh Drive in eastern Fauquier. The 145,000± square foot, 128-bed facility has eight, 16-bed "houses" flanking the "community center." Each resident has a private room and bathroom. The center has a large dining area, but each house also has a kitchen for smaller meal gatherings, including those with family members. The facility employs approximately 220 people.

- **Lock-It-Up Self Storage**. Plans were submitted in mid-2022 to construct a self-service storage facility, to include storage units and an office, at 10526 Global Way in Bealeton. The facility will consist of six self-storage buildings, totaling 65,750± square feet. The individual storage buildings range from 4,400± square feet to 21,750± square feet. Approximately 1,050± square feet within one of the buildings will be dedicated for office space for the facility.

- **Wexford Village**. Plans were submitted in mid-2022 for commercial development on the west side of Marsh Road across from Village Center Drive in Bealeton. Plans call for a car wash as well as a total of 90,000± square feet of warehouse/self-storage facility use.

- **The Bank of Clarke County** opened a new branch at 530 Blackwell Road in Warrenton in July 2022.

- **17/66 Industrial Park Lot 8**. Plans were submitted in mid-2022 for the construction of a 104,700± square foot warehouse building along Whitting Road between the Norfolk Southern Railroad and Brampton Court. The proposal is still under review.

- **Vint Hill Independent /Assisted Living**. This is a proposal for a retirement community to be built near the intersection of Rogues Road and Farm Station Road in the Vint Hill area. The facility, which is currently under review, is proposed for 90 apartment units.

- **Amazon Web Services** announced in June 2022 that it would build a 220,200± square foot data center in Warrenton, at the intersection of Blackwell Road and Lee Highway. The Warrenton Town Council approved a special use permit for the project in February 2023. The facility is expected to employ approximately 52 people.

It is difficult to quantify the level of future job growth in Fauquier County, as many employers are small and therefore their expansion plans are not tracked by local or state economic development agencies. Economic development officials note that many local employers have vacant positions that they are struggling to fill, partially due to housing availability for prospective employees.

In addition is a significant level of future job growth in neighboring Prince William County. Data in Table 3 and Table 5 above show that Fauquier County is the location of a considerable number of commuters, and thus the local housing market is greatly impacted by job growth elsewhere in Northern Virginia.

Research from S. Patz & Associates has identified at least 3,500 new jobs that have been publicly announced over the next few years within neighboring Prince William County. This total likely undercounts the level of future job growth as many expansions are smaller in scale and not publicly reported. Many of these jobs are in the western portion of Prince William County and near Fauquier County. In addition are several million square feet within multiple data centers that are planned and under construction in this part of the county that will generate new, high-paid jobs.

Demographic Trends and Projections

Demographic trends for Fauquier County, which include the Town of Warrenton, as well as the adjacent areas of western Prince William County, are presented in Table 7. The Prince William County portion of the market area includes the community of Gainesville and the Town of Haymarket. This portion of Prince William County was included in the market area based on interviews with area apartment managers who note a very limited supply of upscale apartment units in Warrenton, with Warrenton likely to compete with the greater Gainesville/ Haymarket area for the upscale rental market.

The market area's population, as of 2022, is estimated to total 203,890±, based on calculations from the Weldon Cooper Center for Public Service and derived from the most recent 2020 U.S. Census count. For Fauquier County, the 2022 population total of 73,540± exceeds the 2010 census count by 8,340±, or an annual population growth rate of nearly 700. This means that population growth in the County for the 2010 decade is below the rate of the 2000 decade, when the population increased by an annual average of approximately 1,000 people. The Prince William County portion of the market area had a significant increase in population since 2010, with the population expanding by over 28,000. This was a slower pace of population growth compared to the 2000s.

The slower level population growth that has occurred in Fauquier County and western Prince William County since 2010 is due to a lack of new housing development and readily available land for the development of new homes. Modest employment growth in Fauquier County is a second factor. The analysis to follow shows only a limited number of new and proposed apartment communities in the market area at this time. Based on population trends, planned housing developments and some job growth, the market area population is projected to reach 219,280± by 2027.

The target market for the new apartment units at Warrenton Village is renter households earning incomes of $66,000 and above, when incomes are reported in constant 2023 dollars.

Households in this income category can afford net rents of $1,650 and above, based on 30 percent of income allocated toward net rents.

As of 2022, the market area has approximately 8,780 renter households in the target income category. This total is 2,640± more than in 2010, with much of this growth supported almost by renters in scattered rental units within for-sale subdivisions. As will be shown below, the market area has very few "upscale" apartment communities, and most are now mature. Trend data and future employment growth support a continued net increase in renters within this income category, with an expectation to reach 9,880± target renter households by 2027, the forecast date of this report. This represents an increase of 1,100± households.

Table 7: Trends and Projections of Population and Households, Warrenton Village Market Area, 1990-2027
(Constant 2023 dollars)

	1990	2000	2010	2022	2027
Market Area Population	69,950	93,140	166,960	203,890	219,280
Fauquier County	48,740	55,140	65,200	73,540	--
Prince William County Portion 3/	21,210	38,000	101,760	130,350	--
Group Quarters Population	1,470	770 1/	750	1,150	1,150
Household Population	68,480	92,370	166,210	202,740	218,130
Persons Per Household	2.84	2.74	2.91	2.90	2.89
Total Households	24,140	33,770	57,040	71,630	75,480
Renter Households	7,100	8,740	13,240	18,160	20,210
Percent Renter Households	29.4%	25.9%	23.2%	25.4%	26.7%
Target Market ($66,000+)					
Total Households	3,070	3,960	6,140	8,780	9,880
Percent of Renter Households	43.2%	45.3%	46.4%	48.3%	48.9%

Notes: 1/ Decline due to closure of Vint Hill Station in 1997, a U.S. Army and NSA signals intelligence and electronic warfare facility.
2/ Growth driven by opening of White Springs Senior Living, Poet's Walk Warrenton, The Villa at Suffield Meadows, and Puller Veterans Station.
3/ Includes the following U.S. Census tracts in Prince William County, VA: 9014.03, 9014.07, 9014.08, 9014.09, 9014.10, 9014.11, 9014.12, 9014.13, 9014.14, 9014.15, 9014.16, 9014.17, 9015.03, 9015.04, 9015.05, 9015.06, 9015.07, 9015.08, 9015.09, 9015.10 and 9015.11.

Source: U.S. Census Bureau; Weldon Cooper Center for Public Service; S. Patz & Associates, Inc.

It should be noted that the demographic trends and projections detailed in Table 7 include the Town of Warrenton. Demographic trends and projections are analyzed for the entire market area, which is comprised of Fauquier County (including Warrenton), as well as the adjacent areas of Gainesville and Haymarket in Prince William County. The market area is the geographic area from which the majority of future tenants at Warrenton Village are expected to originate from and where the competitive rental housing alternatives are located. An analysis of demographic trends and projections of only the Town of Warrenton would understate the market for future renters.

Data in Table 8 show the demographic trends and projections within the Town of Warrenton for comparison purposes. The projections shown are opportunity projections, as they rely on the ability of the Warrenton Village proposal to be built and occupied. Absent this proposal, the projected population in the Town would be reduced.

The data show modest growth among target income households prior to 2022, which is principally due to a lack of new apartment unit development targeting the upscale market. A comparison to the data in Table 7 shows that most target income households have resorted to renting outside of the Town of Warrenton.

Table 8: Trends and Projections of Population and Households, Town of Warrenton, Virginia, 1990-2027
(Constant 2023 dollars)

	1990	2000	2010	2022	2027
Town of Warrenton Population	4,830	6,670	9,610	10,200	10,850
Group Quarters Population	270	410	340	340	340
Household Population	4,560	6,260	9,270	9,860	10,510
Persons Per Household	2.34	2.34	2.48	2.48	2.47
Total Households	1,950	2,680	3,740	3,980	4,260
Renter Households	920	1,140	1,510	1,570	1,950
Percent Renter Households	47.1%	42.3%	40.3%	39.5%	45.8%
Target Market ($66,000+)					
Total Households	460	440	590	630	1,030
Percent of Renter Households	50.0%	38.6%	38.9%	40.1%	52.8%

Source: U.S. Census Bureau; S. Patz & Associates, Inc.

The key point in Table 8 is that the Town of Warrenton has historically had a small number of renter households, particularly in the targeted income range under study. This is a supply, rather than a demand issue, as the shortage of quality rental housing has pushed prospective renters outside of the Town and in many cases outside of Fauquier County. The construction of a new and attractive rental community, of the type proposed for Warrenton Village, provides an opportunity to reverse these past trends. Again, it should be noted that while Warrenton Village will clearly impact the Town of Warrenton the most, it is likely to attract renters from outside of the Town as well.

Section II: Apartment Market Analysis

This part of the report studies the depth of the greater Warrenton area "better" apartment market. The analysis is intended to determine market support for the apartment units proposed at Warrenton Village. As will be shown, there are no upscale, professionally managed market rate apartment properties in Fauquier County.

In addition to the analysis of the current apartment market, the last subsection of Section II studies the apartment unit pipeline in the market area. These apartment properties are studied for development status, project size and comparison with the Warrenton Village proposal.

Characteristics of the Current Apartment Market

Competitive Apartment Market

The existing professionally managed apartment market in the greater Warrenton area is small, with nearly all professionally managed apartment buildings having income- or age-restrictions in place. Thus, most apartment communities in the Warrenton area and elsewhere in Fauquier County serve a separate population compared to the Warrenton Village proposal. The small number of market rate apartment units in the area are mature, and not fully competitive with the upscale and fully-amenitized Warrenton Village proposal.

The existing market rate apartments in the greater Warrenton area include the 100-unit Aspen Apartments South, 24-unit Green Street Apartments and 24-unit Victoria Gardens Apartments. These are mature, modest rental properties that were built between the 1960s and 1980s and are routinely at full occupancy. They serve a more modest income market compared to the Warrenton Village proposal with lower, non-competitive rents. They therefore do not represent true competition for the Warrenton Village proposal.

The demographic analysis shown above in Table 7 identifies a considerable number of higher-income renter households in the market area, with over 40 percent of renters earning

annual incomes over $66,000. These renters almost entirely occupy scattered townhomes and single-family homes that were not initially built as rental properties, but are instead leased by private individuals, realtors and property management firms. Most are two- and three-bedroom units, with two-bedroom units renting between $1,600 and $2,100 and three-bedroom units primarily renting for over $2,000. Essentially all of these homes are occupied at this time. Data in Table 8 show that a small share of these households currently resides in the Town of Warrenton, with the small percentage due to the persistent limited supply of upscale rental housing.

The closest upscale apartment cluster to Warrenton is the greater Gainesville/ Haymarket area of western Prince William County, which is an approximately 20-minute drive from Warrenton. Management at apartment properties in this area note that they partially compete with the Warrenton market given the severely limited supply of "better" apartments there. There are only three "somewhat" upscale apartments in this part of western Prince William County, as detailed in Table 9 below.

All are now becoming somewhat mature, with two properties—Somerhill Farms and Marque Apartments—now 17 years old, and one property—Somerset Pointe—over 20 years old. Marque Apartments generates one-bedroom rents of between $2,205 and $2,215. Two-bedroom rents at Somerhill Farms and Marque Apartments exceed $2,200. Somerset Pointe has more modest rents as this is an older apartment property. These rents have been readily accepted by the market as all three properties are at or near full occupancy.

The one-bedroom rents at Warrenton Village are proposed to be below the one-bedroom rooms at Marque Apartments and Somerhill Farms. The two-bedroom rents proposed for Warrenton Village will be approximately $200 below the two-bedroom rents at Marque Apartments and Somerhill Farms, on average. The proposed three-bedroom rents of between $2,400 and $3,000 are similar to the rents being generated at area scattered three-bedroom units, most of which offer no on-site amenities and require tenants to cover the costs of landscaping and snow removal. Most are now at least a decade old and with lesser levels of unit finishes and

features compared to the Warrenton Village proposal. The proposed three-bedroom rents are above the rents at Somerset Pointe, which is now over two decades old.

Table 9: Characteristics of Better Apartment Communities, Gainesville/Haymarket, VA, June 2022

	Year Built	Total Units	Vacant Units	One-Bedroom	Two-Bedroom	Three-Bedroom
Residences at Somerhill Farms 1/	2006	140	1	$1,893-$1,967	$2,262-$2,924	$2,398
Marque Apartments	2006	200	7	$2,205-$2,215	$2,214-$2,466	$2,963-$2,998
Somerset Pointe	2001	173	3	$1,517	$1,815	$2,088
Proposed Rents				**$1,650-$1,900**	**$2,200-$2,350**	**$2,400-$3,000**

Notes: 1/ Rent data only provided for vacant and soon-to-be vacant units.
Source: Field and Telephone Survey by S. Patz and Associates, Inc.

Shown next are photos of the above apartment properties. All are multi-level buildings, but none have contemporary designs, and none are as attractive as the Warrenton Village proposal.



Somerhill Farms



Marque Apartments



Somerset Pointe

The key point is that the Town of Warrenton does not currently offer any upscale, professionally managed apartment units that would be fully competitive with Warrenton Village. The same is true for other locations in Fauquier County. Western Prince William County does have a small number of more upscale apartment units, but these are now becoming mature and do not offer the same level of amenities and features as other newly built apartment properties in Northern Virginia.

Despite the lack of inventory, the market area does have a considerable number of higher-income renter households, with nearly half of these renters earning annual incomes above $66,000. This denotes that most of these renters are leasing scattered, non-amenitized townhomes and single-family homes. Many of these households can afford "better" apartment units but have few available options. Most of the newer scattered rental units are renting at similar rents to those proposed for Warrenton Village. There is clearly a market for upscale rental housing that is not being adequately served at this time.

Apartment Pipeline

There is currently only one apartment community in active planning in Fauquier County, and none under construction. Vint Hill Lofts is proposed for 183 apartment units to be built at

the former Vint Hill Farm Station Barrack at 4221 Sigler Road and 4285 Bludau Drive. The community will contain a mix of 29 studio, 128 one-bedroom and 26 two-bedroom apartment units. Studio rents will start at $1,175, one-bedroom rents will start at $1,550 and two-bedroom rents will start at $2,050. Rents will include water, sewage, trash and basic high-speed internet. All units will be equipped with a washer and dryer. The developers, Echelon Resources, have not yet secured all County approvals.

Apartment Market Summary and Demand Analysis

At this time, the rental market under study is fully occupied and a sizable pent-up demand exists due to job growth in Warrenton, elsewhere in Fauquier County and neighboring jurisdictions in Northern Virginia. Coupled with this job growth is the longstanding lack of upscale apartment unit development in the area. Area employers, many of which are actively filling open positions, report challenges with attracting new employees, which is partially a function of a very limited supply of apartments in the greater Warrenton area.

The Town of Warrenton and Fauquier County have not been the location of new market rate apartment unit development in several decades. This is despite the fact that the number of higher income renters has steadily increased in the area since 2000, denoting that many of these households have resorted to renting scattered, non-amenitized rental units within for-sale subdivisions. Western Prince William County has also not been the location of new apartment unit development, with the newest apartments now 17 years old. This is partially due to a lack of property zoned land for apartment unit development. The better apartment properties in this portion of Prince William County are typically fully occupied or with very few vacant apartment units.

Many protentional renters who are employed locally have resorted to renting outside of the market area due to the limited apartment unit supply, a trend that could be reversed if a new attractive apartment community were to be built in Warrenton. Additionally, commuters who may want to select Warrenton as an attractive location to relocate have limited options. Some

renters have also resorted to leasing less desirable units due to the extremely limited rental housing supply.

The net demand analysis is shown below based on the projection of new apartment units less vacant and pipeline proposals. From the 1,100± total apartment unit demand projection is subtracted 183 pipeline apartment units proposed for Vint Hill Lofts and the 376-unit Warrenton Village proposal. There are essentially no vacancies in the market area for comparable upscale rental units. The net demand analysis shows an underserved market, resulting in a surplus demand of 540± apartment units.

The 1,100 figure is an extrapolation from the analysis of demographic trends and projections, which begins on Page 27. This number represents the total growth in demand for the competitive apartment market area, distinct from the County itself. The boundaries of the market area are detailed in Table 8, which includes small portions of Prince William County.

Our demand projection is likely to "be in the ballpark," but it is difficult to make projections within a marketplace that has not added new market rate apartment units in several years. Nevertheless, the demand analysis is defined as positive.

Net Demand Analysis
(2022-2027)

	Total Units
Demand	1,100
Less:	
Pipeline Units	183
Warrenton Village	376
(Subtotal)	*(559)*
Surplus Demand	**541**

We are aware that the Warrenton Village proposal is large, but the analysis above clearly indicates a pent-up demand for new, upscale apartment units. The proposal offers a diversity of unit types, including three-bedroom townhomes attractive to families, and elevator-served apartment units that will likely attract young professionals and active seniors. The contemporary

design, expansive amenity package and walkability to area retailers, grocery stores and restaurants will set Warrenton Village apart from all of the existing apartments in Fauquier County and the greater Gainesville area. If built as proposed, Warrenton Village should be successful in terms of lease up and at the rents proposed.

Section III: Fiscal Impacts Analysis

This section of the report outlines the methodology and findings of the Fiscal Impacts Analysis (FIA) for the proposed residential development comprising Warrenton Village in the Town of Warrenton at build-out. The FIA compares the tax revenues expected from the proposal, as previously described, with the tax-supported costs the Town of Warrenton will incur to serve the project once it is fully developed. The net fiscal benefits will be the difference between those revenues and the various costs to the Town associated with new development. As noted above, the development plan involves constructing 376 rental units.

On-site fiscal impacts from Warrenton Village pertain to development on the site itself. Fiscal impacts generated off-site, due to the spin-off effects of resident and employee expenditures within the Town of Warrenton, are examined separately. For off-site impacts, economic impact assessments are undertaken to demonstrate how consumer expenditures will stimulate new business within the Town, based on new business receipts, employment, and employee earnings resulting from those expenditures.

Summary of Fiscal Impacts

Table 10 presents a summary of the revenues, costs and net fiscal benefits (revenue surplus or deficit) for the proposed 320 apartment, 36 two-over-two and 20 rental townhome units that are proposed for the Warrenton Village site and for the economic activity that would be generated in the Town of Warrenton by residents off-site.

The data in Table 10 show negative on-site impacts, which is primarily due to two factors. For one, the Town of Warrenton levies a low real estate tax rate of only $0.0401 per $100 of value. Thus, while Warrenton Village will likely be assessed at over $100 million, the taxable amount to the Town of Warrenton for the property would be relatively modest. Second, the largest revenue sources for the General Fund Budget are other local taxes. These include nine different local taxes, most of which do not generate on-site revenues. The majority of local tax revenues, for instance,

are generated by the Meals Tax, BPOL and Local Sales Taxes. As a consequence of the above two factors, a large share of total fiscal impacts will be generated by off-site economic activity.

In total, and at build-out, the full development and occupancy of the new rental units at Warrenton Village will generate a positive annual fiscal benefit of approximately $46,100, reported in constant 2023 dollars.

Table 10: Summary of On-Site and Off-Site Fiscal Impacts of Apartments, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

Source of Fiscal Impacts on the Town	Impacts On-Site in Warrenton	Impacts Off-Site in Warrenton	Total Fiscal Impacts
Apartments (320 Units)			
Revenues to the Town	$117,560	$338,870	$456,430
Town Costs	-$280,280	-$145,920	-$426,200
Subtotal	*-$162,720*	*$192,950*	*$30,230*
Two-Over-Two (36 Units)			
Revenues to the Town	$14,550	$55,520	$70,070
Town Costs	-$42,740	-$23,490	-$66,230
Subtotal	*-$28,190*	*$32,030*	*$3,840*
Townhomes (20 Units)			
Revenues to the Town	$8,050	$41,150	$49,200
Town Costs	-$23,310	-$13,860	-$37,170
Subtotal	*-$15,260*	*$27,290*	*$12,030*
Total Residential (376 units)			
Revenues to the Town	$140,160	$435,540	$575,700
Town Costs	-$346,330	-$183,270	-$529,600
Net Fiscal Benefits	**-$206,170**	**$252,270**	**$46,100**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

In addition to the on-site fiscal impacts, the economic impacts off-site in the Town of Warrenton from new resident expenditures would generate additional tax revenue. Based on anticipated household incomes, resident expenditures could equal approximately $26.4 million annually at businesses in the Town, with another $52.3 million in business expenditures to be generated by the "ripple effect" of resident expenditures across the local economy. This would generate a total of over $78.6 million in business activity in the Town.

The off-site expenditures will generate new jobs. These would be added region-wide and not just in the Town of Warrenton. Annual earnings from these new jobs would provide additional fiscal impacts across the region. These calculations were reduced by 30 percent to account for consumer expenditures outside of the Town, particularly elsewhere in Fauquier County and in neighboring communities such as Prince William County. Thus, the off-site calculations capture expenditures only within Warrenton.

The following analysis presents the derivation of the fiscal impacts to be derived from the development at the Warrenton Village site. These impacts include the net fiscal benefits of the proposed rental units, being the difference between tax revenue generated for the Town of Warrenton and the costs of public services to serve residents of the new development. As stated above, economic impacts include new business revenue, employees, and employee earnings that would accrue in the Town as a result of resident expenditures in the Town annually.

On-Site Fiscal Impacts: From New Rental Units

The following analyses derive the revenues generated for the Town of Warrenton from Warrenton Village "on-site." "On-site" denotes revenues that are derived directly from real estate development and personal property taxes, while "off-site" impacts are generated from local business growth based on new resident expenditures. Off-site impacts will be treated separately as "economic impacts," although their fiscal benefits are also assessed. Data in the tables to follow are rounded off to the nearest ten dollars and represent annual amounts after build-out. All data are presented in constant 2023 dollars.

Table 11 summarizes the various revenues to accrue to the Town of Warrenton from the development and lease-up of the 376 rental units to be built at the study site. Real Estate taxes would account for nearly 38 percent of the revenue to be generated on-site. Personal Property and Consumer Utility taxes would account for the remainder of the $140,160 in on-site tax revenue.

Table 11: Summary of Annual On-Site Revenues, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Amount	Percent of Total
Apartments		
Real Estate Tax	$44,060	37.5%
Personal Property Tax	$13,980	11.9%
Consumer Utility Tax	$59,520	50.6%
Subtotal	*$117,560*	*100.0%*
Two-Over-Two		
Real Estate Tax	$5,530	38.0%
Personal Property Tax	$2,300	15.8%
Consumer Utility Tax	$6,720	46.2%
Subtotal	*$14,550*	*100.0%*
Townhomes		
Real Estate Tax	$3,150	39.1%
Personal Property Tax	$1,250	15.5%
Consumer Utility Tax	$3,650	45.3%
Subtotal	*$8,050*	*100.0%*
Total		
Real Estate Tax	$52,740	37.6%
Personal Property Tax	$17,530	12.5%
Consumer Utility Tax	$69,890	49.9%
Total Revenue	**$140,160**	**100.0%**

Source: Town of Warrenton; S. Patz & Associates, Inc.

Each revenue source will be explained in the paragraphs to follow. A separate section of the report will address the costs of services and facilities that the Town of Warrenton must provide to serve the future development.

Real Estate Tax

Development costs for Warrenton Village are detailed in Table 12. Total development costs are expected to be approximately $343,277 per apartment unit, $383,277 per two-over-two and $393,277 per townhome unit, including site preparation and land acquisition costs. These costs are based on data provided by the sponsor and are consistent with developments costs for other new, upscale rental communities in this part of Virginia. The total property development cost is approximately $131.5 million. At the Town's real estate tax rate of $0.0401 per $100 of

assessed value, real estate taxes would total $52,740 each year after buildout, in constant 2023 dollars.

Table 12: Real Estate Tax, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Cost/Price per Unit	$343,277	$383,277	$393,277	$349,852
Number of Units	320	36	20	376
Total Cost	$109,880,640	$13,797,972	$7,865,540	$131,544,152
Tax Rate	$0.0401/$100	$0.0401/$100	$0.0401/$100	$0.0401/$100
Real Estate Tax	**$44,060**	**$5,530**	**$3,150**	**$52,740**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

Personal Property Tax

Personal property taxes for residences in Virginia are based on the depreciated values of vehicles used solely for residential purposes. Residents at Warrenton Village are projected to own approximately 575 vehicles, based on an estimated 1.53 vehicles per apartment unit and 2.00 per two-over two and townhome units at the community. This is in line with the average car ownership rate in the Town of Warrenton.

Residents of Warrenton are required to pay a flat fee of $25 per vehicle, as well as a personal property tax on vehicles at a rate of $1.00 per $100 in assessed value. The Town exempts the personal property tax on vehicles valued at less than $20,000 and exempts the tax on the first $20,000 of value for those that are worth more. To be conservative, only 15 percent of vehicles are estimated to be valued above $20,000. At this value, the total on-site personal property value for residents would come to approximately $298,000. At the tax rate of $1.00 per $100 of assessed value, on-site personal property taxes would be $2,980 annually in constant 2023 dollars. Added to this total is a flat fee of $25 per vehicle, which adds an additional revenue of $14,550 for a total revenue of $17,530. This is shown in Table 13.

Table 13: Personal Property Taxes, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Number of Units	320	36	20	376
Percent Occupied	97.0%	97.0%	97.0%	97.0%
Occupied Units	310	35	19	364
Vehicles per Unit	1.53	2.00	2.00	1.60
Number of Vehicles	474	70	38	582
Number of Vehicles above $20,000 (15%)	71	11	6	88
Depreciated Value Per Vehicle (Above $20,000)	$3,000	$5,000	$5,000	$3,350
Total Depreciated Value	$213,000	$55,000	$30,000	$298,000
Tax at $1.00/$100	**$2,130**	**$550**	**$300**	**$2,980**
+$25/Vehicle	**$11,850**	**$1,750**	**$950**	**$14,550**
Total Tax	**$13,980**	**$2,300**	**$1,250**	**$17,530**

Source: Town of Warrenton; S. Patz & Associates, Inc.

Consumer Utility Tax

Consumer utility taxes are taxes on expenditures on consumer utilities including electricity, natural gas and telephone utilities. These taxes are collected by the utility companies and remitted to the Town. While the tax rates for the different utilities vary, experience has shown that the average tax is about $4.00 per utility, per month. This analysis assumes an occupancy rate of 97 percent to allow for lease-up and normal turnover. At this rate, there would be 364 occupied rental units. For four utilities per household, averaging $4.00 per utility per month for 12 months, the total utility tax for Warrenton Village would be $69,890 annually. This is shown in Table 14.

Table 14: Consumer Utility Taxes, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Number of Units	320	36	20	376
Percent Occupied	97.0%	97.0%	97.0%	97.0%
Occupied Units	310	35	19	364
Utilities Per Unit	4	4	4	4
Each Utility Average	$4.00	$4.00	$4.00	$4.00
Number of Months	12	12	12	12
Total Utility Tax	**$59,520**	**$6,720**	**$3,650**	**$69,890**

Source: Town of Warrenton; S. Patz & Associates, Inc.

On-Site Fiscal Impacts: Town Costs to Serve Warrenton Village

The focus of the on-site fiscal impacts of costs to the Town of Warrenton from Warrenton Village is the General Fund Budget expenditures expressed on a per capita basis. Per capita expenditures are allocated (by type) to residents and businesses (in terms of numbers of employees) on a proportional basis according to utilization by each type of persons. These costs cover both other operations for services and capital improvements in the form of annual debt service to support the capital improvements programs of the Town. There are no impacts on schools, as public schools are funded by county, state and federal sources.

Budget expenditures will be discussed below, and per capita costs will be calculated based on current types of users. Applying these costs per capita to the residents of Warrenton Village produces an estimate of the annual costs to the Town for services to the proposed new apartment units.

For the Town's adopted FY 2023 budget, approximately 67.8 percent of all General Fund expenditures are supported by local taxes, the remainder being revenues from the state and federal governments. An examination of budgeted revenues for the year will demonstrate this proportion. The fiscal impact costs are based on General Fund expenditures supported by local taxes.

Table 15: General Fund Revenue by Type from Local Taxes, Town of Warrenton, Virginia

	Amount	Percent of Total
General Property Taxes	$1,449,235	8.8%
Other Local Taxes	$9,675,138	58.9%
Subtotal Local Taxes	*$11,124,373*	*67.8%*
Non-Tax Revenue	$5,288,712	32.2%
Total General Fund Revenue	**$16,413,085**	**100.0%**

Source: Adopted FY 2023 Budget for the Town of Warrenton

When the expenditures for each type of user are determined, and the tax-supported proportions are calculated, these costs are divided by the number of persons by type. The population of the Town of Warrenton is estimated to total 10,330± as of 2023, based on recent census data. Regarding jobs in the Town, data from the U.S. Bureau of Labor Statistics (BLS) only track the number of at-place jobs at the county-wide level and not the town level. This is the standard source of employment data for analyses of this type. Data from the Fauquier County Department of Economic Development show that approximately 14,000 people are employed within the Town limits. This is nearly 70 percent of total employment in Fauquier County.

When the expenditures for each type of user are determined, and the tax-supported proportions are calculated, these costs are divided by the number of persons by type. For residents, this is calculated at $558 per person, while it stands at $388 per employee for businesses. The disparity is due to approximately $2.61 million allocated to the Town's Parks and Recreation department.

The budget total for the Town for FY 2023, is $16.41 million, with 42.5 percent of that cost for the Town's population and 57.5 percent for employment, or persons with jobs in the Town.

Table 16: Allocation of General Fund Expenditures by Type for Residents (Population) and Businesses (Employees), Town of Warrenton, Virginia
(Constant 2023 dollars)

	Adopted FY 2023 Population	Adopted FY 2023 Employment	Adopted FY 2023 Total
General Gov't Admin.	$915,956	$1,241,372	$2,157,328
Public Safety	$1,806,918	$2,448,872	$4,255,790
Public Works	$1,939,681	$2,628,802	$4,568,483
Parks, Rec. & Culture	$2,608,455	$0	$2,608,455
Community Development	$571,657	$774,754	$1,346,411
Contributions	$29,022	$39,332	$68,354
Non-departmental	$149,726	$202,919	$352,645
Dept Service	$358,785	$492,341	$855,618
Transfer to Capital	$84,916	$115,084	$200,000
Total General Fund Expenditures	**$8,465,114**	**$7,943,477**	**$16,413,084**
Percent Tax Support	67.78%	67.78%	67.78%
Tax-supported Expenditures	$5,737,440	$5,383,888	$11,124,372
Number of Persons	10,330	14,000	24,330
Per Capita Tax Support	$555	$385	$457

Sources: FY 2023 Adopted Budget for Town of Warrenton, VA; U.S. Census Bureau, Fauquier County Department of Economic Development;

Tax-Supported Costs of Warrenton Village

As explained above, costs to the Town to serve Warrenton Village are derived by multiplying the per capita costs of residents and employees by the numbers of those persons. These are tax-supported costs, to be compared to the taxes generated by Warrenton Village. The costs will cover costs of facilities in terms of debt service for capital improvements.

There is expected to be about 624 residents at Warrenton Village at build out, at a ratio of 1.3 people for one-bedroom units, 1.8 people for two-bedroom units and 2.2 persons for three-bedroom units. These data are based on current demographic trends at the existing newly built apartment complexes in the market area. Data were derived from interviews with on-site property managers in the region.

It was shown above in Table 16 that the average tax-supported cost for residents in the Town is $555 per resident. For the residents of Warrenton Village, total tax-supported costs to the

Town of Warrenton would be approximately $346,330. This calculation is presented in Table 17 below.

Table 17: Tax Supported Costs for Residents, Warrenton Village, at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Number of Units	320	36	20	376
Percent Occupied	97.0%	97.0%	97.0%	97.0%
Occupied Units	310	35	19	364
Persons per Unit	1.63	2.20	2.20	1.71
Residents	505	77	42	624
Expenditure Per Capita	$555	$555	$555	$555
Population Expenditures	**$280,280**	**$42,740**	**$23,310**	**$346,330**

Source: Town of Warrenton; S. Patz & Associates, Inc.

On-Site Fiscal Impacts

Data in Table 18 below compares the calculated on-site tax revenues expected from Warrenton Village at build-out with the tax-supported costs required to serve the residents of the new rental units to be built. The annual net fiscal benefit will be a deficit of $206,170, in constant 2023 dollars.

Table 18: Net On-Site Fiscal Tax Benefit, Warrenton Village, at Build-Out, Warrenton, Virginia
(Constant 2023 dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Total Tax Revenue	$117,560	$14,550	$8,050	$140,160
Population Expenditures	-$280,280	-$42,740	-$23,310	-$346,330
Net Fiscal Benefit	**-$162,720**	**-$28,190**	**-$15,260**	**-$206,170**

Source: Town of Warrenton; S. Patz & Associates, Inc.

Off-Site Impacts: Economic and Fiscal

In addition to the revenues and costs that accrue to the Town of Warrenton from the apartments "on-site" – that is, due to the apartments and residents themselves in their dwellings, there are also off-site impacts that occur, as residents spend part of their income in the Town for consumer goods, and as businesses re-spend the income from purchases by residents by the

purchase of goods and services from other vendors in the Town. Calculations to follow are reduced by 30 percent to account for expenditure that occurs to businesses outside of the Town. This ratio is based on the number of employees in the Town relative to the County. This is a conservative estimate.

The U.S. Bureau of Labor Statistics details average consumer expenditure by location and income levels. There is no direct budget information for Fauquier County or the Town of Warrenton. Instead, national data for a budget for household incomes, based on national averages, has been chosen for this calculation. Among the larger expenditures by consumers are over 20± percent for housing and over 25± percent for retail trade, including automobiles.

Consumer expenditures made off-site in Warrenton are translated into economic impacts in the Town using multiplier matrices provided for the local area by the U.S. Bureau of Economic Analysis, Department of Commerce. These multipliers capture the round-by-round flows of expenditures in the Town initiated by residents at the new homes. There are separate matrices for business receipts, employment and employee earnings. The items in the consumer budget are multiplied in turn by these expenditure-specific categories in each matrix and summed to give the "ripple effect" of circulation of money through the economy. The ripple effects, plus the original consumer expenditures, equal the total economic impacts of homes residents on the Town economy.

Business Receipts

Residents of Warrenton Village are anticipated to allocate approximately 78.9 percent of their total income towards non-housing expenditures. The residual income is predominantly apportioned towards taxes and personal savings. The income estimates of future tenants are deduced from the proposed rents outlined in Table 1, with an assumption that a typical household will have an income that is approximately 15.0 percent higher than the minimum required to qualify for residency in the community. This requirement stipulates that a minimum of 30 percent of income be allocated towards net rent. This income range is conservative and is

representative of the anticipated typical renter demographic within the community, as the majority are expected to earn above the established minimum threshold.

Overall, this equates to $26.4 million in annual consumer expenditures from the expected residents at full build-out. The ripple, or multiplier effect, will generate another $52.3 million in annual receipts among Town businesses, for a total business receipts impact of $78.6 million. These business receipts will form the basis for many tax receipts for the Town of Warrenton from the impacted businesses.

Source of Impact	Apartments	Two-Over-Two	Townhomes	Total
Direct Consumer Expenditures	$20,324,220	$3,268,300	$2,753,100	$26,345,620
Indirect Ripple Effect	$41,637,240	$6,695,610	$3,948,100	$52,280,950
Total Business Receipts	**$61,961,460**	**$9,963,910**	**$6,701,200**	**$78,626,570**

Employment and Earnings

Since there are only a few employees on-site for the apartment units, essentially all employment and employee earnings impacts come from the ripple or multiplier effects on businesses, i.e., employee earnings that support increased business receipts in the Town. There will be approximately 476 new full-time equivalent employment positions created from resident expenditures at Warrenton Village, over time, with total earnings for these employees of $21.5 million.

Spinoff Employment and Salaries			
	Employees	Average Salary	Total Earnings
Apartments	379	$45,185	$17,125,115
Two-Over-Two	61	$45,183	$2,756,163
Townhomes	36	$45,450	$1,636,200
Total/ Average	**476**	**$45,273**	**$21,517,478**

The new jobs to be created by the construction of Warrenton Village would not only enhance Warrenton's economic vitality but also diversify the employment base. The creation of these new jobs will span various sectors, reflecting the broad impact of the proposed

development. It is important to underscore that this job growth will have a multiplier effect, stimulating other sectors of the local economy indirectly. The new jobs, along with the associated attraction of new residents and increased patronage of local businesses, would significantly contribute to attracting further investment from potential employers.

Furthermore, the proposed development aligns with Warrenton's comprehensive plan which envisions the Town as a hub for culture, entertainment, and the arts. The design elements of the project are formulated to enrich the Town's cultural fabric, including providing a diversity of home types. As such, the merits of this development extend beyond immediate economic advantages and aim to cultivate a long-term vision for Warrenton.

Off-Site Fiscal Impact

Table 19 summarizes the revenues and costs to the Town of Warrenton from the off-site impacts of Warrenton Village. These impacts derive primarily from the $78.6 million in new business receipts in the Town, plus estimates of real property and business personal property for a typical commercial operation. It is proper to look at these impacts as long-term. That is, it is not likely that the projected 476 new employees will be immediate or lead to abrupt expansion of the property tax base, but this should happen over time as part of business expansion in the Town.

Other tax receipts should accrue as soon as consumers at Warrenton Village begin making expenditures, that is, as soon as the property is built out and stabilized occupancies are achieved. In the short run, revenues should start at approximately $65,330 rising to $435,540 as businesses expand physically. Costs are based on 476 new employees within the Town at a cost to the Town of $385 per employee, as derived above in Table 16. With costs of $183,270, the net fiscal benefits from off-site expenditures from Warrenton Village residents should be approximately $252,270.

Table 19: Off-Site Fiscal Impact of Consumer Expenditures by Type, Residents of Warrenton Village, at Build-Out, Warrenton, Virginia
(Constant 2023 dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Annual Revenues for the Town:				
Real Estate Tax	$12,150	$1,950	$1,640	$15,740
Business Property Tax	$37,870	$6,090	$5,100	$49,060
Cigarette Tax	$2,190	$350	$210	$2,750
Machinery and Tools Tax	$34,820	$5,600	$4,720	$45,140
Retail Sales Tax	$38,890	$6,250	$5,270	$50,410
BPOL Tax	$37,910	$6,100	$5,130	$49,140
Transient Occupancy Tax	$24,880	$4,000	$3,370	$32,250
Utility Tax	$13,040	$2,130	$1,290	$16,460
Bank Franchise Tax	$10,950	$2,760	$1,640	$15,350
Meals Tax	$105,680	$16,990	$10,020	$132,690
Motor Vehicle Licenses	$10,650	$1,720	$1,430	$13,800
Personal Property Tax	$9,840	$1,580	$1,330	$12,750
Total Revenue	**$338,870**	**$55,520**	**$41,150**	**$435,540**
Less Costs to the Town	**-$145,920**	**-$23,490**	**-$13,860**	**-$183,270**
Net Fiscal Benefit to the Town	**$192,950**	**$32,030**	**$27,290**	**$252,270**

Source: RIMS II Modeling System; U.S. Bureau of Economic Analysis; S. Patz & Associates, Inc.

Warrenton Village Conclusions

Table 20 shows a summary of net tax benefits for the proposed rental units at Warrenton Village. On-site benefits will produce a deficit of $206,170 due to the Town's low real estate tax rates. The off-site benefits will total $252,270, and therefore fully offset any on-site losses. Combined, this will generate a fiscal surplus of $46,100 annually at build-out for the Town of Warrenton.

Table 20: Summary of On-Site and Off-Site Fiscal Impacts of Apartments, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

Source of Fiscal Impacts on the Town	Impacts On-Site in Warrenton	Impacts Off-Site in Warrenton	Total Fiscal Impacts
Apartments (320 Units)			
Revenues to the Town	$117,560	$338,870	$456,430
Town Costs	-$280,280	-$145,920	-$426,200
Subtotal	*-$162,720*	*$192,950*	*$30,230*
Two-Over-Two (36 Units)			
Revenues to the Town	$14,550	$55,520	$70,070
Town Costs	-$42,740	-$23,490	-$66,230
Subtotal	*-$28,190*	*$32,030*	*$3,840*
Townhomes (20 Units)			
Revenues to the Town	$8,050	$41,150	$49,200
Town Costs	-$23,310	-$13,860	-$37,170
Subtotal	*-$15,260*	*$27,290*	*$12,030*
Total Residential (376 units)			
Revenues to the Town	$140,160	$435,540	$575,700
Town Costs	-$346,330	-$183,270	-$529,600
Net Fiscal Benefits	**-$206,170**	**$252,270**	**$46,100**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Planning Commission Work Session
SUP 2022-04 Warrenton Village Center Mixed Use
March 19, 2024

PC Decision Deadline June 27,2024 Unless Applicant Defers

Special Use Permit Application

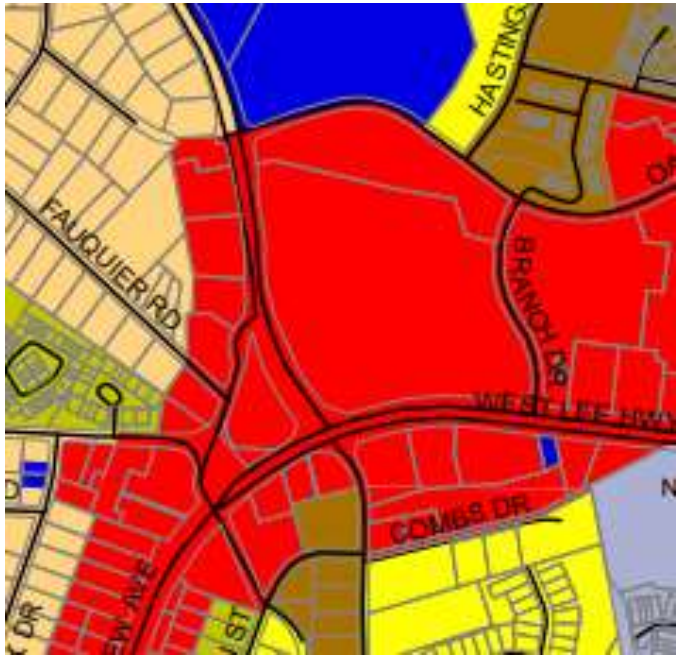
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, Castle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 36 2 over 2
  - Approximately 30 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map



Existing Commercial

Public/Semi Public School

Senior Care

Apartments



Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







Proposal



Proposal Includes

- 320 Apartments 1-3 BD, 4 story parking garage
- 36 2 over 2 4 story, 1 car garage
- 30 Townhomes 3 Story, 2 car garage
- 10% Affordable Dwellings
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Elevations





Elevations





Agency Reviews

- Full site
- Transportation and Internal Circulation
- Parking
- Walkability/Bicycle/Grid Connections
- Landscaping/Signage
- Lighting
- VDOT Pipeline Study/Smart Scale
- Plan Warrenton 2040

Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview

NEWCASTLE
DEVELOPMENT GROUP

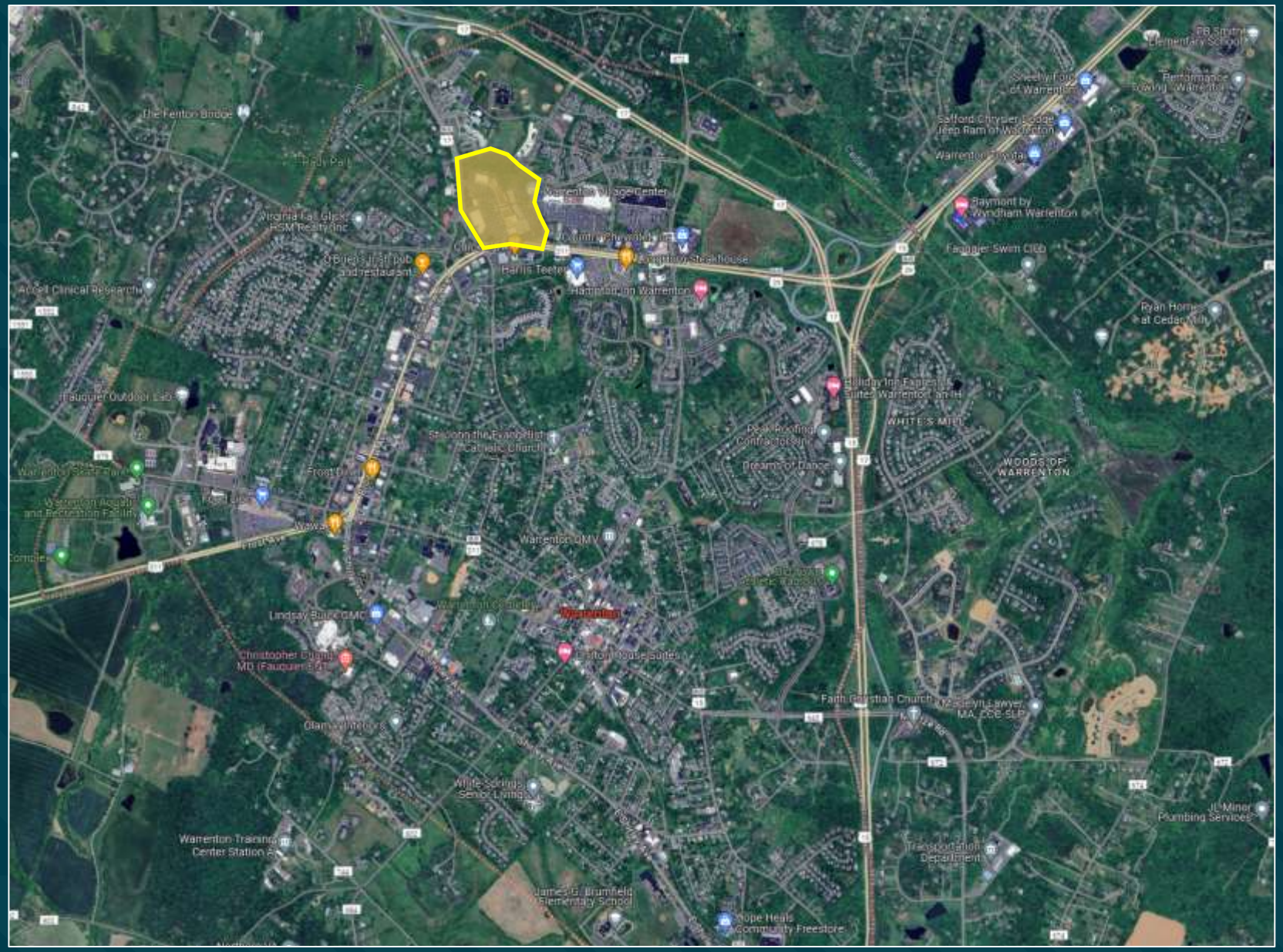
SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
MARCH 19, 2024



LOCATION



Warrenton Village Center
Built in 1959

West Lee Hwy.
Warrenton, VA 20186

218,000 SF
Existing Commercial Space

~6.5 acres
Currently Vacant Land

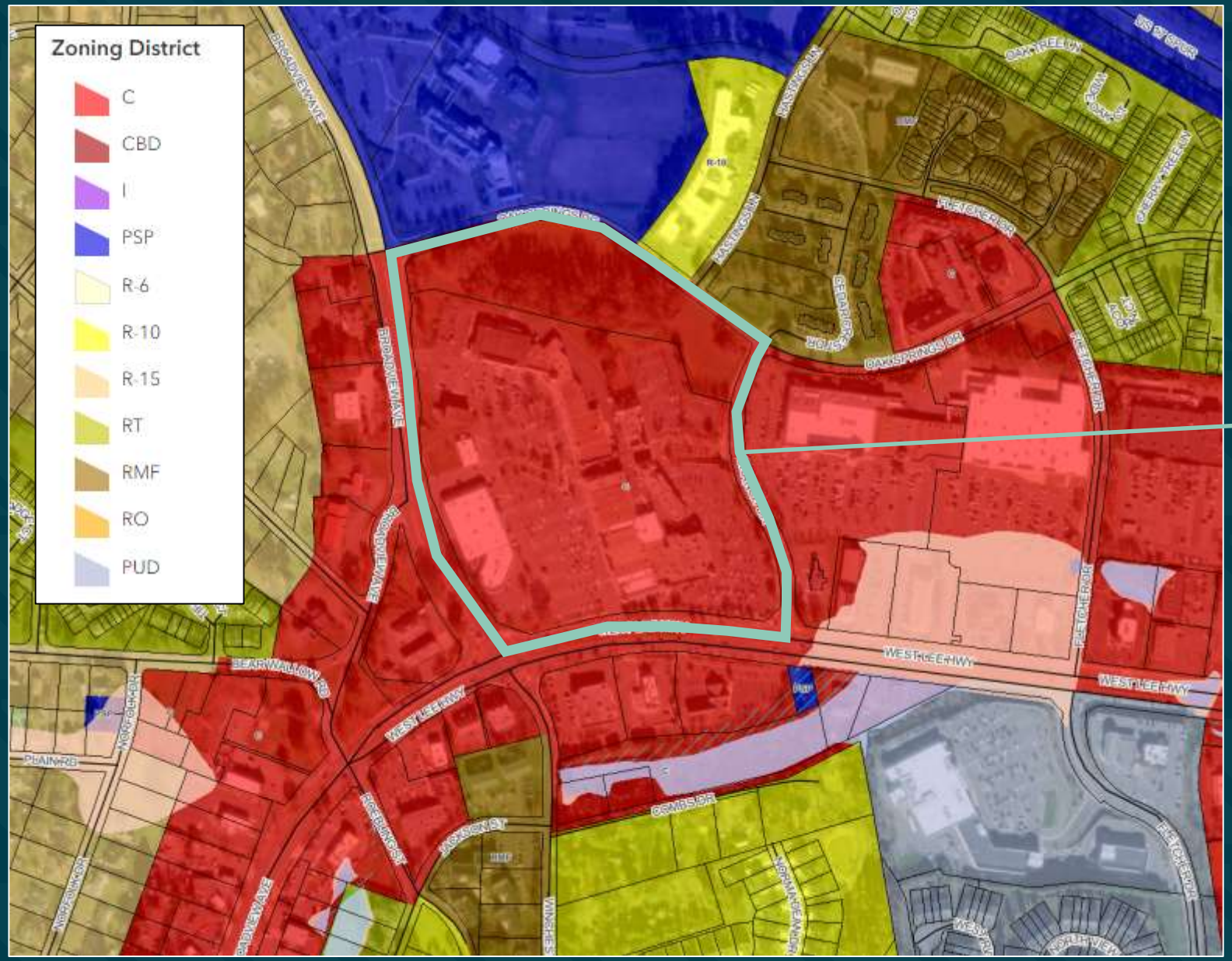
EXISTING CONDITIONS



Proposed Development Area

Existing Commercial Center

ZONING



Commercial (C)

COMPREHENSIVE PLAN

EXPERIENCE WARRENTON VIRGINIA

ADOPTED COPY APRIL 13, 2021

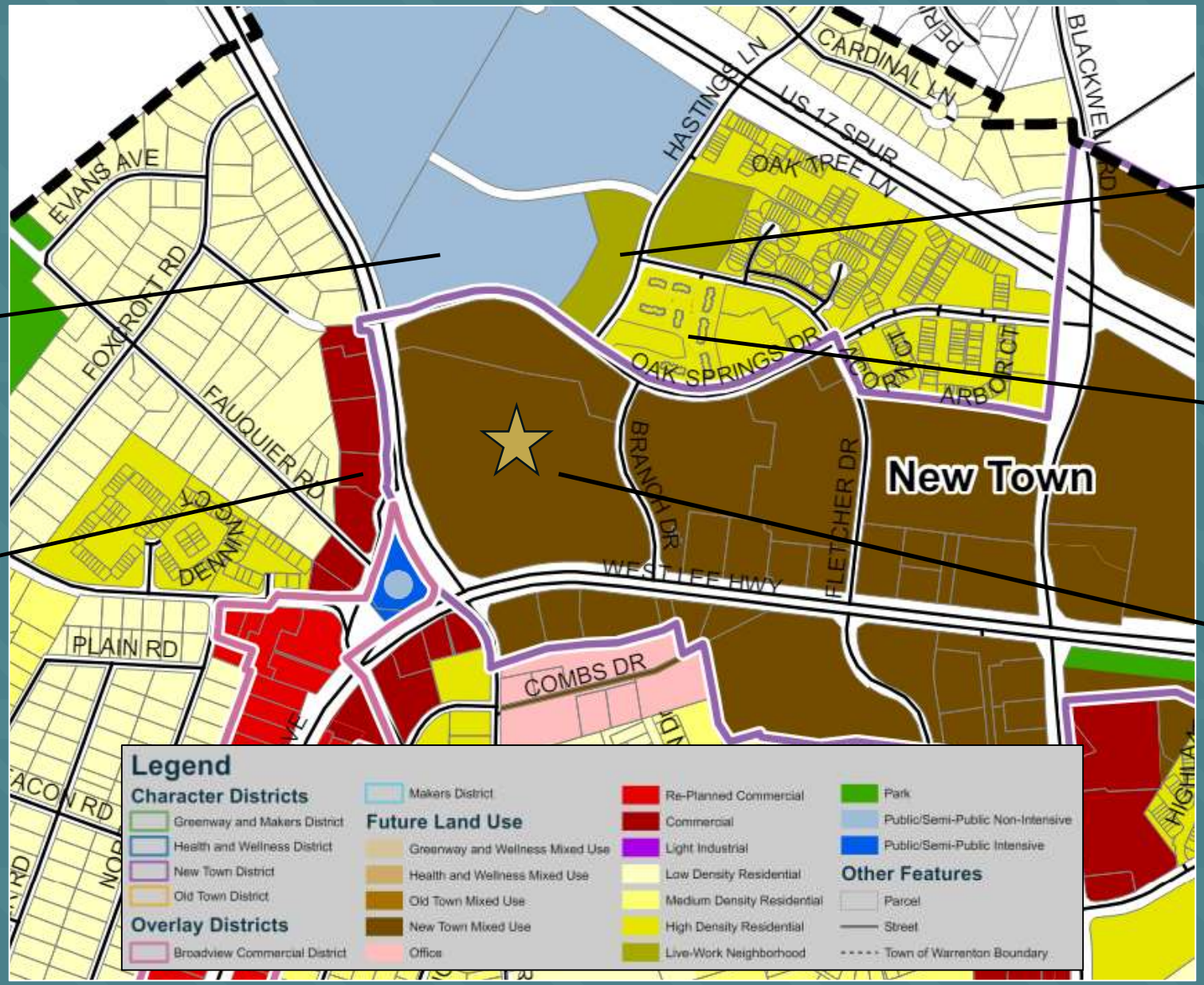
PLAN WARRENTON 2040



FUTURE LAND USE MAP

Public/Semi-Public Non-Intensive

Commercial



Live-Work Neighborhood

High Density Residential

New Town Mixed Use

CHARACTER DISTRICTS



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

THE TEN GUIDING PRINCIPLES FOR CHARACTER DISTRICTS

1. **A discernible center.** Every neighborhood should have a discernible center that is walkable within a quarter-mile radius. The center can accommodate programmed or spontaneous events, or simply be a place people relax or meet friends. The center is often a hardscaped plaza or a green or park space; sometimes it can even be a busy street corner or a main street.
2. **Connected sidewalks with a clear pedestrian path, street trees, and lighting.** Streets within the Character District form a connected network, which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination. There is an interconnected street grid network that disperses traffic and eases walking.
3. **Buildings that are placed close to the street to create a sense of place.** All buildings are directly accessible with front doors from the street.
4. **Parking placed behind buildings and away from street frontages.** Interior access roads to services and parking are designed into the site plan.
5. **Complete streets create a balance between cars, pedestrians, and bicyclists.** Complete Streets have no singular design prescription. Each one is unique and responds to its community context; however, complete streets are designed to balance drivers, pedestrians, and bicyclists.
6. **Compact street blocks encourage walking.** Compact street blocks that are 200 to 400 feet wide and up to 600-feet deep provide a comfortable neighborhood scale that facilitates a fine-grain development pattern and walking experience. For blocks that exceed the maximum recommended length of 600 feet, a mid-block pedestrian path is recommended to allow for passage.
7. **A park, trail, or activity center is within a half mile walking radius.** Linkages to pedestrian amenities can be made with continuous sidewalks, street trees, and through-block pedestrian pathways.
8. **A variety of dwelling types accommodates a wide range of family sizes and income levels and commercial activity.** The variety provides synergy among uses and creates an immediate critical mass to sustain retail and commercial uses.
9. **Neighborhood identity connects district wayfinding and identification with a larger marketing effort to bring private investment to the neighborhood.** Neighborhood identity provides the brand and image of the area, and a basis for a marketing strategy to promote businesses, events, and future development opportunities.
10. **The neighborhood edge provides the means of transition from the Character District to adjoining properties.** The edge would transition to adjacent established neighborhoods and future land-use categories and exhibit compatibility in scale, massing, and setback with existing and planned developed on adjacent land.

COMPREHENSIVE PLAN

WHAT CAN NEW TOWN WARRENTON DISTRICT BE IN THE YEAR 2040?



Internal walkable streets and hardscaped plazas that can accommodate events and pedestrian activity.



Multi-purpose public areas can accommodate annual and regional events.



A mix of employment, residential, and commercial uses can be designed around public amenities.



The development along the neighborhood edge is compatible with adjoining neighborhoods.

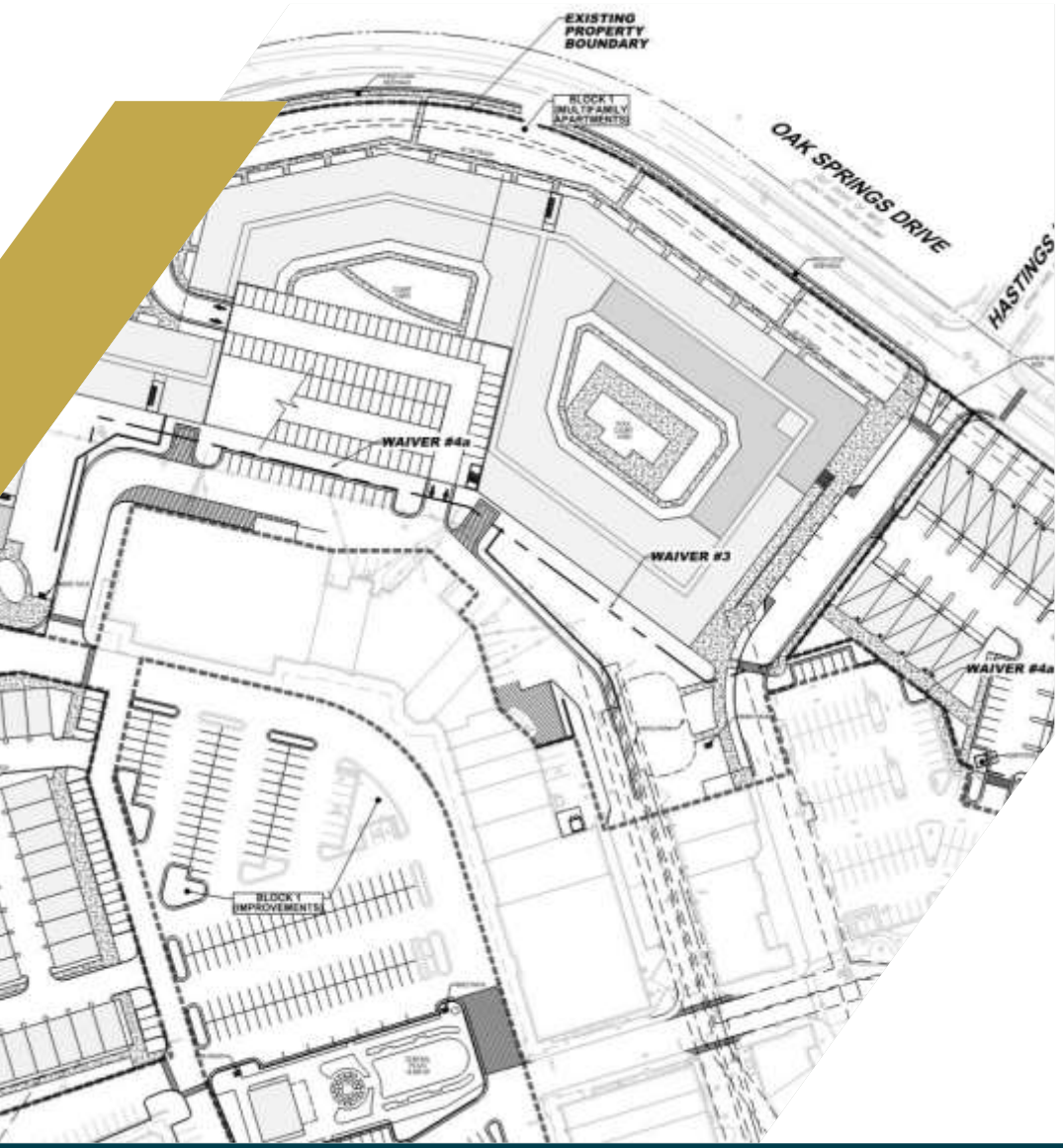


Daylighting flood plains (as a flood control project) provides an opportunity to create park with pedestrian amenities. Carroll Creek Park. Frederick, MD



Create residential communities with visual sight lines through the development, and where possible, with pedestrian pathways.

SUP MODIFICATION & WAIVERS



- **Waiver Request #1:** Increase density to 386 units or 13.28 per acre
- **Waiver Request #2:** Decrease minimum setback to 14′ along Broadview Avenue
- **Waiver Request #3:** Decrease side/rear yard setbacks to 0′
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0′
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14′
- **Waiver Request #5:** Increase height limit for dwellings as follows:
  - 54′ max height for Block 1, Oak Springs Drive Frontage
  - 36′ max height for Block 1, Broadview Drive Frontage
  - 45′ max height for Block 2
  - 36′ max height for Block 3

BENEFITS OF PROPOSAL

PLAN 2040

Advances all goals of Plan 2040 Character Districts

HOUSING SUPPLY

Provides much needed additional housing supply near retail and other services/facilities via infill development and not urban sprawl

HOUSING TYPES

Provides much needed housing types unique to the Town, including "missing middle" townhomes, 2-over-2s and the first new multifamily community in decades

AFFORDABLE HOUSING

10% of units within each residential block will be dedicated as Affordable Dwelling Units, restricted to residents with household incomes below 80% AMI at restricted rental rates

PEDESTRIAN ACCESS

Provides new and improved, safe pedestrian access to and circulation within Warrenton Village Center for new residents and existing neighbors

PUBLIC SPACES

The Central Plaza will be the new centerpiece of the Center, featuring activity and eating areas and a splashpad; a new dog park and picnic area will also be open to for public use

INCREASED PATRONAGE

New resident supply will provide increased patronage to all of Warrenton's existing businesses

ECONOMIC IMPACT

$46,100 projected annual surplus for the Town of Warrenton

RESIDENTIAL BLOCK 1

Multi-Family Apartments

- Location: Vacant land on north side of the Center along Oak Springs Drive
- Units: Up to 320 total units
- Types: 1-, 2-, and 3-bedroom apartment units
- Parking: Internal 4-level parking garage
- Amenities:
  - 10,000 square foot leasing and amenity center
  - Central Plaza
  - East & West “Entrance” Plazas
  - Dog Park & Picnic Area
  - Pedestrian connectivity and circulation



RESIDENTIAL BLOCK 1



West facing elevation from Hastings Lane



East facing elevation from Broadview Ave

RESIDENTIAL BLOCK 1



South facing elevation from Oak Springs Drive (left side)



South facing elevation from Oak Springs Drive (right side)

RESIDENTIAL BLOCK 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



RESIDENTIAL BLOCK 1

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



RESIDENTIAL BLOCK 1

View from intersection of Oaks Springs Drive & Broadview Avenue



RESIDENTIAL BLOCK 1

View from Broadview Avenue entrance into Warrenton Village Center



RESIDENTIAL BLOCK 1

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (2-Over-2s) on right*



RESIDENTIAL BLOCK 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



RESIDENTIAL BLOCK 2

Multi-Family 2-Over-2

- Location: Vacant land at northeast corner of the Center at intersection of Oak Springs Drive and Branch Drive
- Units: Up to 36 total units
- Widths: Units currently proposed with 24' widths, yielding a plan count of 34 units. Proposal is up to 36 total units to account for width flexibility, which could impact total unit count.
- Types: 2-story, 3-bedroom "condo" units
- Parking: Each unit has one internal parking garage and one dedicated exterior surface space



RESIDENTIAL BLOCK 2



Front and side elevations

RESIDENTIAL BLOCK 2



View from Oak Springs Drive

RESIDENTIAL BLOCK 3

Multi-Family Townhomes

- Location: West side of the Center along Broadview Avenue, currently occupied by Summit Community bank and a vacant commercial bank building
- Units: Up to 30 total units
- Widths: Units currently proposed with 20' widths, yielding a plan count of 29 units. Proposal is up to 30 total units to account for width flexibility, which could impact total unit count.
- Types: 3-story, 3-bedroom townhome units
- Parking: Each unit has two internal parking garages and two dedicated exterior surface spaces



RESIDENTIAL BLOCK 3



Front and side elevations

RESIDENTIAL BLOCK 3



View from Broadview Avenue

RESIDENTIAL BLOCK 3



View of townhomes from within the Center

PROJECT IMPROVEMENTS

CENTRAL PLAZA

A new vehicular and pedestrian hub that will function as the heart of the Center and is sized, programmed, and planned to allow for community activities as well as everyday use

EAST & WEST PLAZAS

Smaller public plazas are proposed at the Broadview Avenue entrance and the Hasting Lane entrance to serve as “doorways” into the Center and enhance walkability between uses

DOG PARK / PICNIC AREA

New off-leash, fenced dog park and picnic areas will be accessible to the public.

OAK SPRINGS CROSSWALKS

Two crosswalks are proposed on Oak Springs Drive—one at Hastings Lane and one at the Highland School entrance, which will provide safe access for neighbors to the north

SIDEWALK RING COMPLETION

Proposal will complete a full ring of sidewalk around the entire Center, including the addition of a missing section of sidewalk behind Galaxy Strike Bowling

HASTINGS LANE EXTENSION

New vehicular and pedestrian entrance into the Center is proposed at the Oak Springs Drive and Hastings Lane intersection

MODIFIED ALLEY

Will serve as a secondary vehicular ingress/egress into the garage, as well as provide both residential and commercial loading and trash pickup areas

PEDESTRIAN CIRCULATION

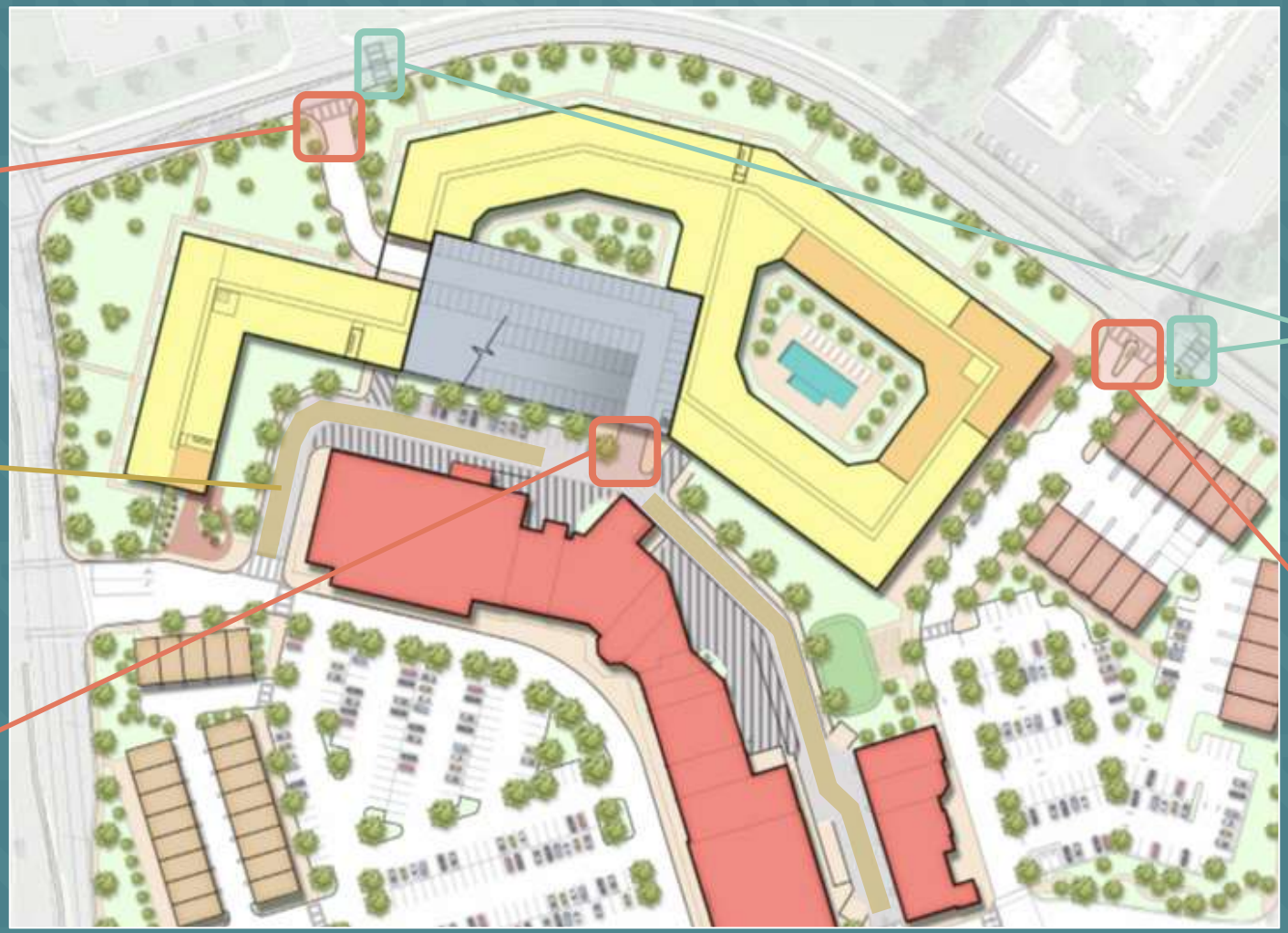
Proposal includes an enhanced system of sidewalks, crosswalks and wayfinding to improve the safety and ease of pedestrian access the Center’s businesses

PROJECT IMPROVEMENTS – TRAFFIC

Oak Springs Entrance

Modified Alley

Secondary Garage Entrance



Oak Springs Crosswalks

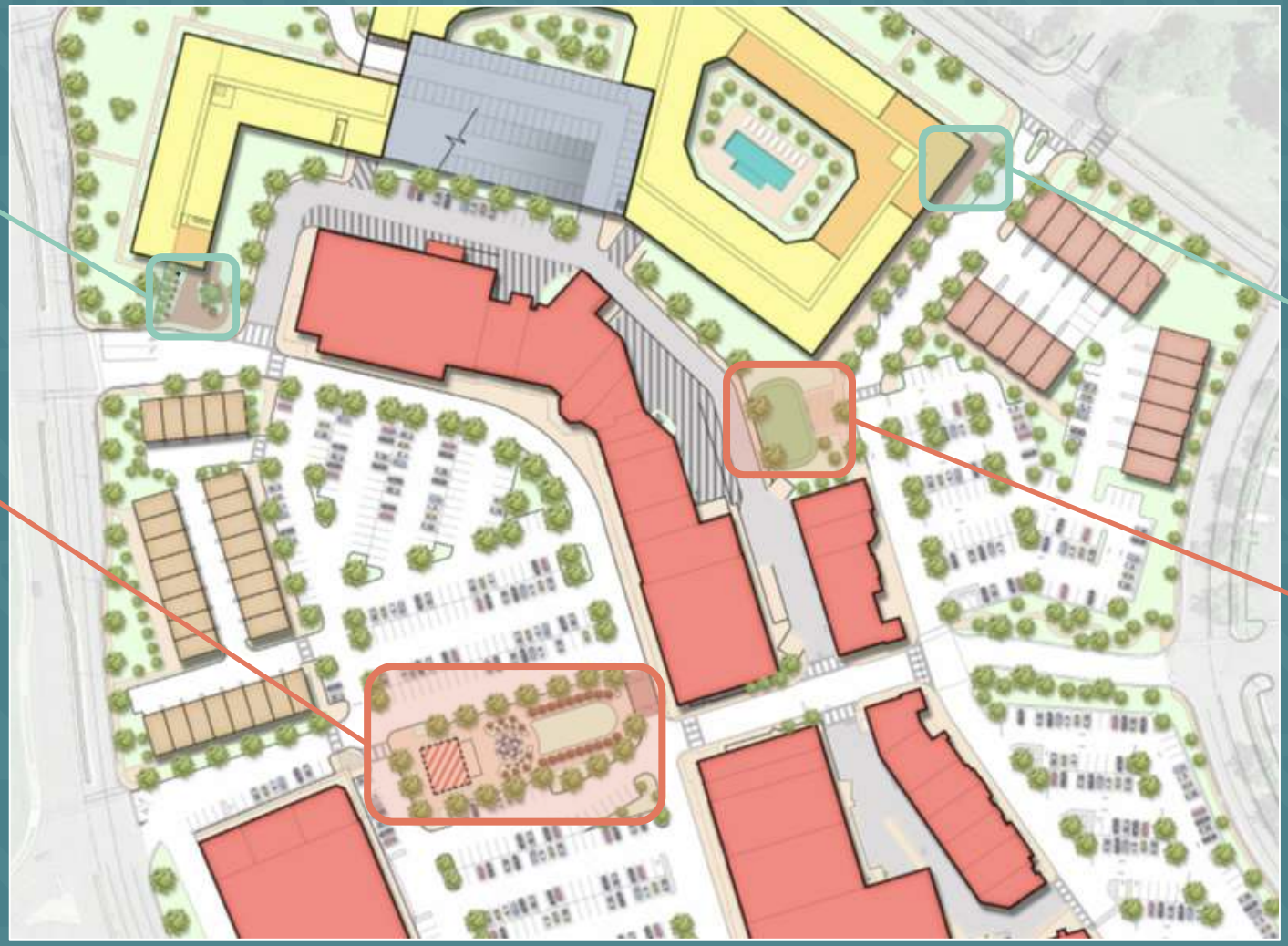
Hastings Lane Entrance

PROJECT IMPROVEMENTS – PUBLIC SPACE

West Plaza

Central Plaza

Pedestrian Circulation



East Plaza

Dog Park & Picnic Area

PROJECT IMPROVEMENTS



Bird's eye view of Central Plaza

PROJECT IMPROVEMENTS



Alternate bird's eye view of Central Plaza (Note Blocks 1 & 2 in background)

PROJECT IMPROVEMENTS



Ground level view of Central Plaza

PROJECT IMPROVEMENTS



Ground level view within Central Plaza (Note Blocks 1 & 3 in background)

PROJECT IMPROVEMENTS



Ground level view of pedestrian access to Central Plaza (Note Block 3 in background)

PROJECT IMPROVEMENTS



Ground level view of Central Plaza

PROJECT IMPROVEMENTS



Ground level view of West Plaza

PROJECT IMPROVEMENTS



Ground level view of East Plaza

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
APRIL 16, 2024



AGENDAS

WORK SESSION #2 – APRIL 16TH, 2024

- A Product of Plan Warrenton 2040
- Warrenton Housing Market & Economic Impacts
- Architecture
- Public Improvements

WORK SESSION #3 – APRIL 23RD, 2024

- Modification/Waiver Requests
- Water/Sewer Impacts
- Transportation
- Schools

A PRODUCT OF PLAN WARRENTON 2040

WHY HERE, WHY NOW?

Warrenton Economic White Papers

- Plan Warrenton 2040 Economic Goals & Fiscal Sustainability
  - Emphasis on Mixed-Use Development, Infill Revitalization, Live/Work/Play
    - Creation of the New Town Character District
      - Warrenton Village Center SUP Proposal

WHITE PAPER FINDINGS – ECONOMIC BASE (RKG)

- Since the ‘08 Recession, the Regional economy has become more robust with more high-skilled, high paying occupations compared to Warrenton
- Three primary factors that have driven Regional economic growth, relative to Warrenton:
    1) Strong integration of services and entertainment venues with work locations
    2) Strong transportation connectivity between employment and residences
    3) Diversity in housing types and prices
- The strongest growth markets have created the strongest live-work-play environments
- These markets attract workers at all skill levels
- Warrenton does not offer the same amenities and housing options that draw a more diverse workforce and makes attracting companies more challenging given their respective options regionally

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

- An economic model was created to determine the impact of land use decisions and the resulting economic ramifications
- The model weighed the cost of the Town's desired capital projects against different growth scenarios:

Scenario	Intended Growth Strategy	New Housing Units (by 2039)	Annual Net Fiscal Impact
1	Minimal growth, i.e. 2010 – 2019 trends	Minimal	($508,808)
2	Become a stronger livable community	750+	($240,682)
3	Become a livable destination community	1,150+	$102,185
4	Become a regional live/work community	2,100+	$335,535

RKG Conclusion:

- To achieve the level of services and amenities desired by the citizens of Warrenton, the Town must increase its development activity
- Warrenton cannot "save its way" (i.e. cut back on spending) to fiscal sustainability
- Without residential development, "the Town does not have the demand to continue to increase retail services."

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

RKG summarizes,

"Balancing the uses between residential and nonresidential uses will be critical from both a market perspective and a fiscal one. Simply put, growth in commercial development (particularly retail and dining venues) will require greater consumer spending, which primarily comes from local households… Having a high quality, well-integrated live/work/recreate community is a fundamental need to attracting these workers (and as a result, their companies)."

PLAN WARRENTON 2040

- The White Paper recommendations, particularly with respect to the need for additional housing, heavily influenced the creation of the Warrenton 2040 Plan
- It is incorporated by reference into the Plan
- The ability to satisfy this housing need is addressed throughout the Plan: **Specifically, Character Districts are envisioned to contain a variety of attainable housing types**

> **H-2.2:** Increase opportunities for multi-family and mixed-use residential development by updating the commercial corridors in the Character Districts to allow for appropriate use and scale transitions into existing neighborhoods.



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

GOALS

H-1: Ensure equitable, attainable housing opportunities across residents of all ages, incomes, and abilities by catering to the needs of a diverse community, including young families, professionals early in their careers, essential workforce, and those entering retirement.

POLICIES & STRATEGIES

H-1.1: Encourage development of the "Missing Middle" housing types beyond traditional single-family homes, townhouses, and apartments by updating the Zoning Ordinance to create a beneficial mix.

H-2: Character Districts will accommodate a balance of available housing typologies that are compatible to existing neighborhoods in scale, character, and transition.

WHY HERE, WHY NOW?

The Warrenton Village Center SUP proposal is the desired result of a lengthy process of review, comparison analysis and decision making by the Town of Warrenton – from the White Papers through the Plan Warrenton 2040 drafting and adoption – and will serve as the building block upon which to create a highly desirable live/work/play community that is the goal of the Plan Warrenton 2040 New Town Character District

WARRENTON HOUSING MARKET & ECONOMIC IMPACTS

IMPACT OF THE WARRENTON HOUSING SUPPLY

- As forecast by the White Papers, the lack of housing supply and typology has had impacts that we can see on today's Warrenton housing market and overall economics:
  - Potential renters who are employed locally must often rent outside of Warrenton
  - Commuters to D.C. based jobs can't consider Warrenton when searching for relocation options
  - Area employers have challenges attracting new employees
- Due to the scarcity of rental units, potential renters do one of three things:
  - 1) pay above market rents for the few desirable units available
  - 2) resort to leasing less desirable units
  - 3) look elsewhere, outside of Warrenton
- These outcomes are all detrimental to the Warrenton economy and the existing community

CURRENT RENTAL ENVIRONMENT

1) APARTMENT COMMUNITIES

- There are six (6) apartment communities in the Warrenton area that are income and/or age restricted
- There is one (1) market rate apartment community in Warrenton
- Per a 4/4/24 search, there were zero (0) apartment units available for immediate occupancy in any of Warrenton's apartment communities

Apartment Communities	Year Built	Total Units	Available Units*	Age Restricted	Income Restricted
Moffett Manor	2007	98	0	Senior (55+)	50% & 60% AMI Programs
Steeplechase	2000	56	0	Senior (55+)	50% & 60% AMI Programs
The Oaks	1996	111	0	Senior (55+)	50% & 60% AMI Programs
Highland Commons	1994	96	0	No	50% & 60% AMI Programs
Warrenton Manor	1985	98	0	Senior (55+)	30%, 50%, 60% & 80% AMI Programs
Academy Hill	1983	31	0	No	USDA Section 515 Rental Program
Victoria Gardens	1979	24	0	None	None – Market Rate
Totals		514	0		

**Per Apartments.com results taken on 4/4/24*

CURRENT RENTAL ENVIRONMENT

2) SINGLE FAMILY OR CONDO RENTAL DWELLINGS

- Per a 4/4/24 search, there were eight (8) rental units available for immediate occupancy in single family rentals and condo buildings
- With the exception of a single unit built in 2006, all available units are 30+ years old

Unit Type	Condo Apartment	Townhomes	Houses	Total Units
1-Bedroom	2 Units $1,500 (1975) $1,665 (1949)			2
2-Bedroom		3 Units $1,600 (1993) $1,750 (1975) $1,750 (1980)		3
3-Bedroom			2 Units $1,695 (1978) $2,875 (1986)	2
4-Bedroom			1 Unit $3,500 (2006)	1
Totals				8 units

**Per Zillow.com results taken on 4/4/24*

RENTAL SUPPLY VERSUS DEMAND

RENTAL SUMMARY

- Assuming current growth trends (i.e. “status quo” with no increased growth plan), the Warrenton rental market area will have a rental housing demand of 1,100 units between 2022 and 2027*
- As of 4/4/24, there were eight (8) available rental dwelling units in all of Warrenton and only one pipeline apartment community in the market (Vint Hill Lofts, 183 units)
  - Demand: 1,100
  - New Units: 183
  - **Rental Shortage: 917**

This number will go up significantly if Warrenton continues to encourage live/work/play environments that will attract new companies and additional renters

*Market and Fiscal Impacts Analysis, S. Patz & Associates

WHEN PEOPLE CAN'T FIND HOUSING IN WARRENTON…

- The new commercial amenities and services that are so desired by the existing community are not fiscally achievable without the economic improvement generated by an increase in residents
- Not only will new and improved retail not come to Warrenton, existing retail will continue to decline and deteriorate
- Consumer spending is trending down, commercial vacancy is trending up – these trends will continue
- Existing retailers will continue to see diminished business activity, leading to potential viability concerns
- New potential retailers will choose alternative destinations outside of Warrenton

WARRENTON POPULATION & EMPLOYMENT GROWTH

- Warrenton's population has remained relatively stagnant over the last 15 years
- An increased growth rate is not anticipated going forward
- Lack of growth is largely due to lack of available housing
- Warrenton's employment increased by 574 jobs between 2006-2019—a growth rate of 0.4% per year
- Over that same period of time, the Northern Virginia Region increased its jobs by 1.9% annually—**nearly five times the Town's growth rate**

Year	At-Place Jobs	# Change	% Change
1990	4,830		
2000	6,670	1,840	38.1%
2010	9,622	2,952	44.3%
2011	9,721	99	1.0%
2012	9,784	63	0.7%
2013	9,829	(28)	(0.3%)
2014	9,831	47	0.5%
2015	9,857	(34)	(0.3%)
2016	9,891	60	0.6%
2017	9,898	69	0.7%
2018	9,949	51	0.5%
2019	10,038	89	0.9%
2020	10,043	5	0.1%
2021	10,174	131	1.3%
2022	10,197	23	0.2%
2023	10,274	77	0.8%
2024	10,351	77	0.8%
2025	10,428	77	0.7%

**Source: Worldpopulationreview.com*

ECONOMIC IMPACTS

- The Market and Fiscal Impacts Analysis performed by S. Patz & Associates, Inc. concluded the following:
  - The project will have a Net Fiscal Benefit to the Town of Warrenton—meaning that the taxes generated by the project (both direct and indirect) will outweigh the capital expenditures connected with the project
  - At full buildout, residents will generate $26.4M in direct annual consumer expenditures (i.e. business activity)
  - The project, along with the increased business activity that it generates, will yield 476 new full-time jobs in the community

AFFORDABLE DWELLING UNITS

- In accordance with the Plan Warrenton 2040 guidelines, the proposal conditions that 10% of all units will be leased to households earning less than 80% of AMI and rents will be capped at 80% AMI rental rate limits
- 80% AMI income and rent limits are defined as the current Fauquier County Area Median Income published by the U.S. Department of Housing and Urban Development (HUD)
- 10% of the units within each individual residential block will be allocated as affordable dwelling units

ARCHITECTURE

WARRENTON VILLAGE CENTER

DESIGN STORY

WARRENTON, VIRGINIA | FEBRUARY 14, 2024

NEWCASTLE DEVELOPMENT GROUP

DYNAMIK INTERIORS DYNAMIK DESIG









DESIGN OBJECTIVE

To transform the existing Warrenton Village retail center into a thriving, walkable, mixed-use, community destination with a sense of place that celebrates the character of Warrenton, while introducing a new, fresh, modern aesthetic.









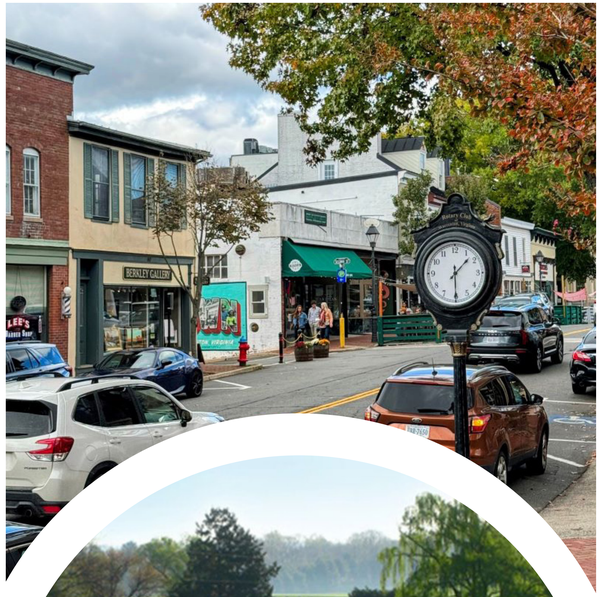
DESIGN IMPLEMENTATION

- Purposeful integration of new buildings to create a Live/Work/Play community in line with the goals of the 2040 Warrenton Plan.
- Revitalization of the existing retail with new public gathering spaces, pedestrian connectivity, reduced vehicles speeds, a new Central Plaza for village events, enhanced green spaces, and activated streetscapes.
- Fusion of a new contemporary aesthetic with the warmth of local and historical design influences.

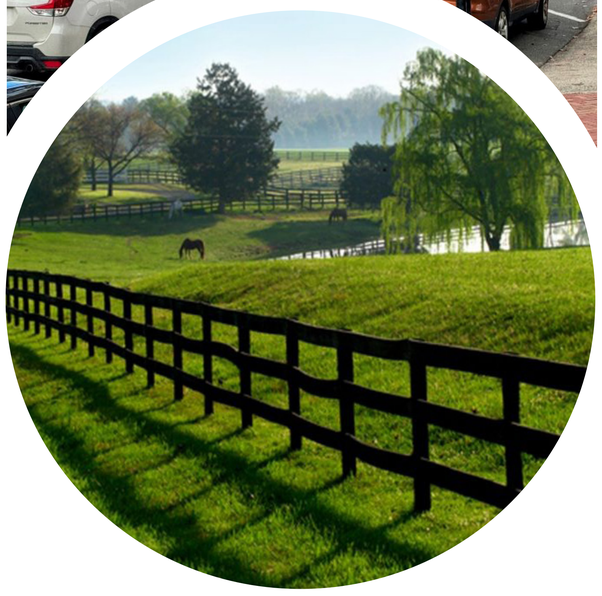














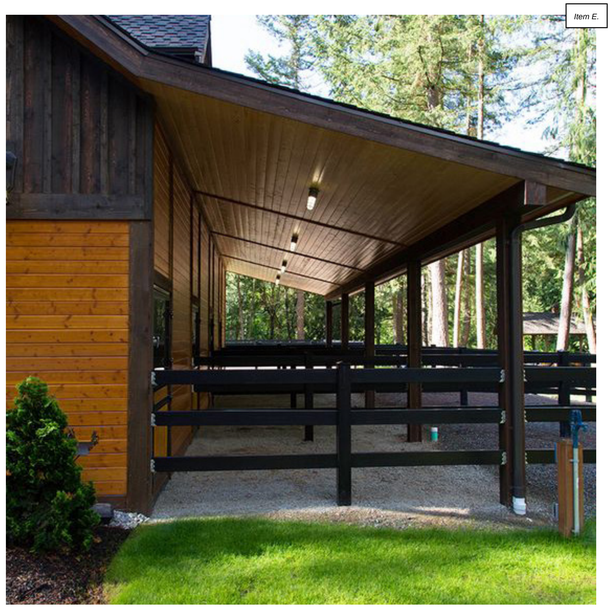
WARRENTON CONTEXT

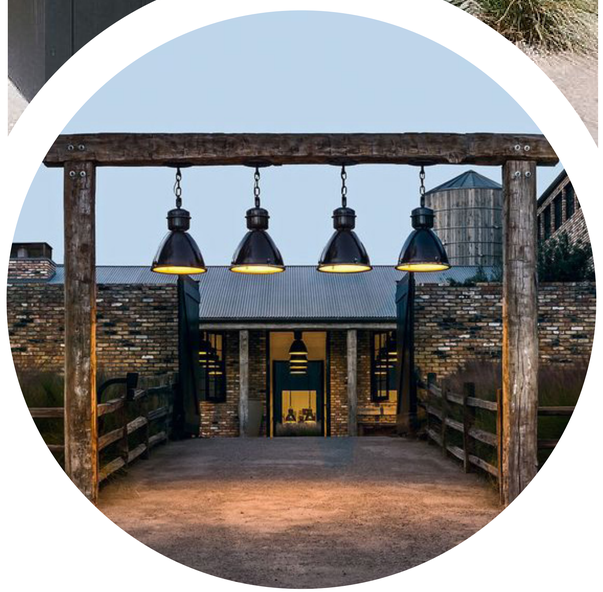
- Historical downtown Warrenton provides inspiration with its textures of brick and stone, dark metal accents and awnings, historical lighting fixtures, traditional lap siding, classic masonry banding and detailing, large windows with dark mullions, and pedestrian friendly streetscapes.
- The greater Warrenton area has deep equine and agricultural industry roots, featuring iconic horse farms and celebrated bucolic landscapes. Inspirations include classic equestrian design features, rich colors and textures, dark metal accents, warm woods, and farmhouse inspired lap siding and stone.





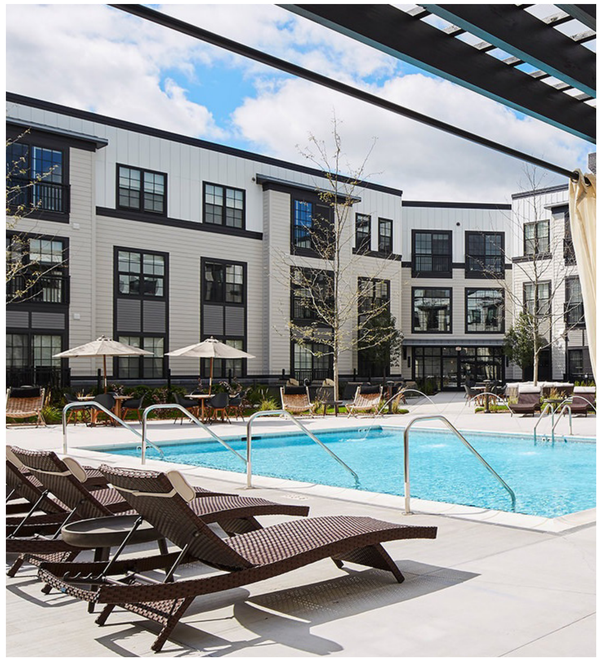












DESIGN APPLICATION

Warrenton's past becomes Warrenton's future. The rich palette of historic materials, textures, and architectural details are reclaimed with a fresh perspective and contemporary context.

RESIDENTIAL DESIGN

The three and four story massing of the residential development is designed to emulate the scale of a walkable town center. A clean, light modern aesthetic is grounded with rich masonry and architectural detailing. The street level is activated with resident access, generous sidewalks and rich landscaping. The articulated façade and generous fenestration break down the scale of the buildings and create visual interest for pedestrians.





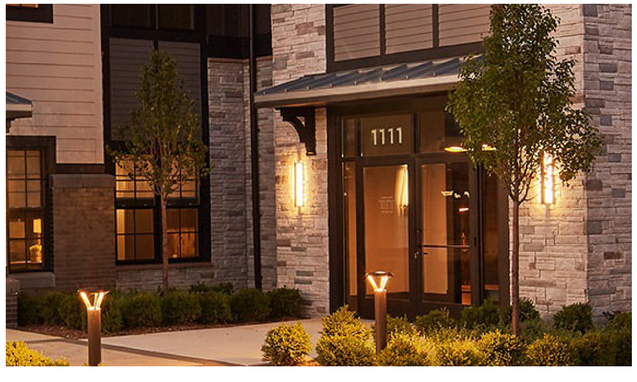




MATERIALS

- Stacked stone
- Masonry with banding and detailing
- Exterior reveal panel system
- Classic lap siding
- Brick masonry with contemporary color palette
- Wood tones to infuse warmth







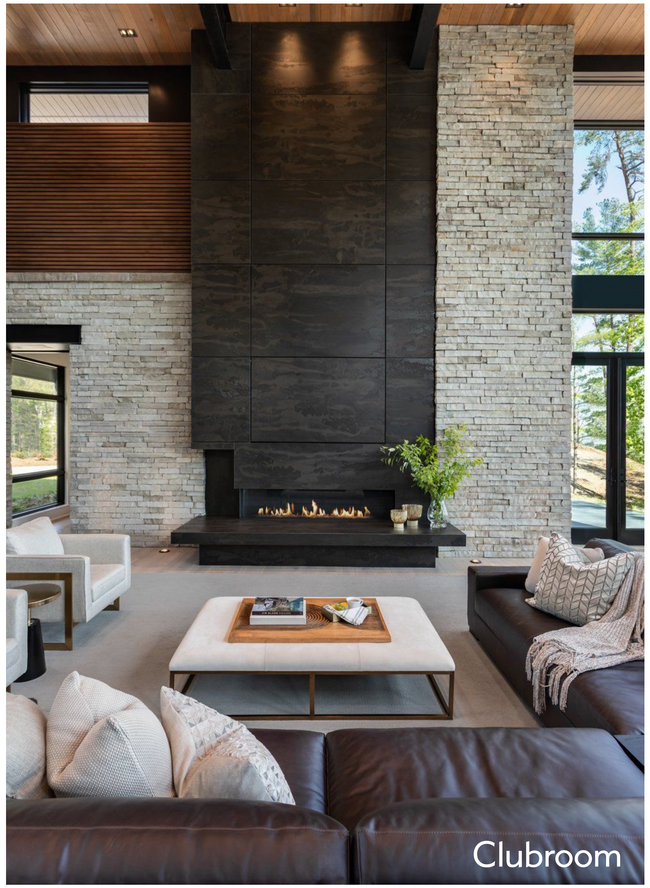


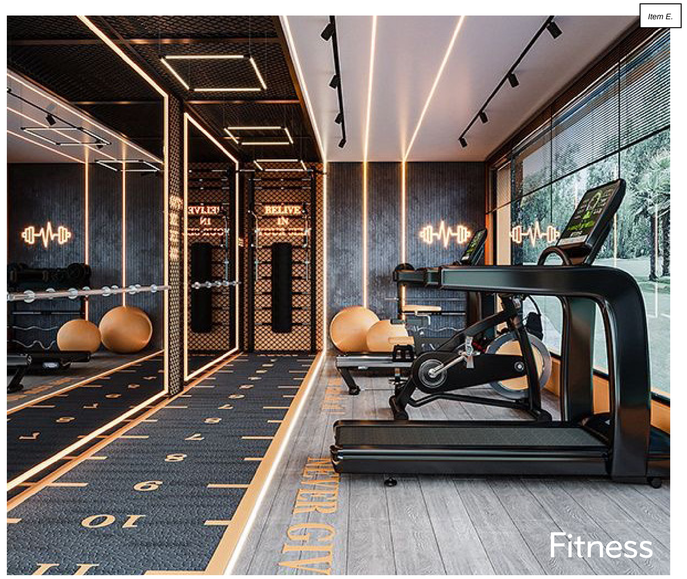
ACCENT FEATURES & STREETSCAPE

- Metal accents & awnings
- Equestrian inspired light fixtures
- Large windows with dark mullions and lintels
- Architectural detailing to provide visual interest at pedestrian level
- Residential street level entries activating the sidewalk
- Pedestrian Connectivity
- Walkable Environment

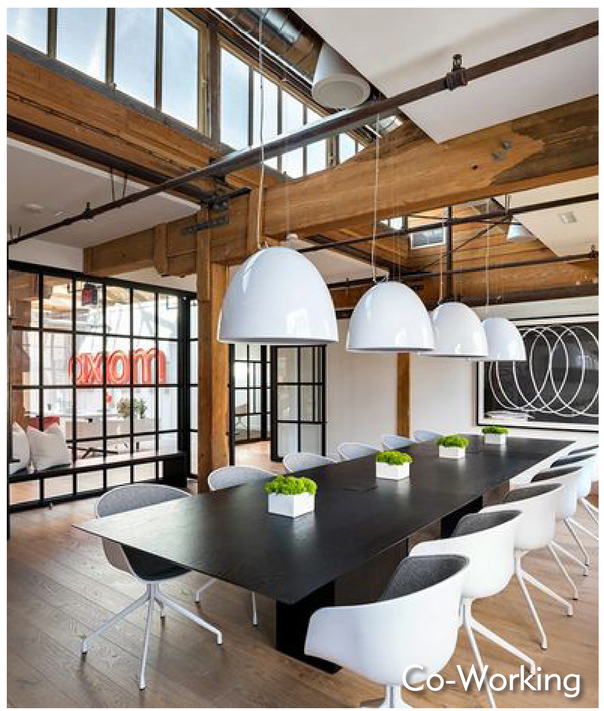


















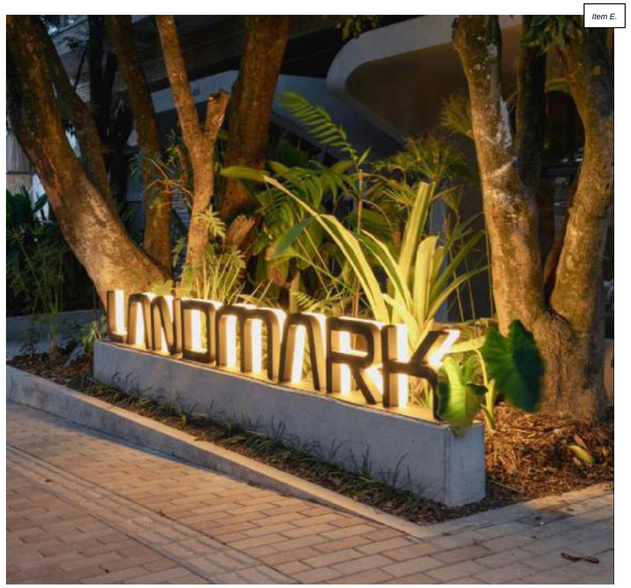
INTERIOR DESIGN CONCEPT

Urban Farmhouse aesthetic blends classic, timeless materials and natural textures with crisp, clean lines, neutral color palettes and light, open spaces. Old is blended with the new to provide spaces that are comfortable and approachable with a nod toward the trends of tomorrow.

















SIGNAGE

Signage and wayfinding are designed to combine key historical elements or notable community themes with clean, sophisticated materials, fonts and applications, bridging the old and the new.

RESIDENTIAL BLOCK 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



RESIDENTIAL BLOCKS 1 & 2

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



RESIDENTIAL BLOCK 1

View from intersection of Oaks Springs Drive & Broadview Avenue



RESIDENTIAL BLOCK 1

View from Broadview Avenue entrance into Warrenton Village Center



RESIDENTIAL BLOCKS 1 & 2

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (2-Over-2s) on right*



RESIDENTIAL BLOCK 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



RESIDENTIAL BLOCK 2



View from Oak Springs Drive

RESIDENTIAL BLOCK 3



View from Broadview Avenue

RESIDENTIAL BLOCK 3



View of townhomes from within the Center

PUBLIC IMPROVEMENTS

LIST OF IMPROVEMENTS FOR PUBLIC USE & BENEFIT

- Central Plaza
- East & West Plazas
- Dog Park and Picnic Area
- Oak Springs Drive Pedestrian Crosswalks
- Completion of outer sidewalk ring around Warrenton Village Center
- Internal pedestrian system – sidewalks, crosswalks, wayfinding, vehicle slowing measures
- Hastings Lane extension

CENTRAL PLAZA



Bird's eye view of Central Plaza

CENTRAL PLAZA



Alternate bird's eye view of Central Plaza (Note Blocks 1 & 2 in background)

CENTRAL PLAZA

View of splashpad at Central Plaza



CENTRAL PLAZA



Ground level view of Central Plaza

CENTRAL PLAZA



Ground level view within Central Plaza (Note Blocks 1 & 3 in background)

CENTRAL PLAZA



Ground level view of pedestrian access to Central Plaza (Note Block 3 in background)

CENTRAL PLAZA



Ground level view of Central Plaza

WEST PLAZA



Ground level view of West Plaza

EAST PLAZA



Ground level view of East Plaza

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
APRIL 23, 2024



AGENDAS

WORK SESSION #2 – APRIL 16TH, 2024

- A Product of Plan Warrenton 2040
- Warrenton Housing Market & Economic Impacts
- Architecture
- Public Improvements

WORK SESSION #3 – APRIL 23RD, 2024

- Water/Sewer Impacts
- Transportation
- Schools
- Modification/Waiver Requests

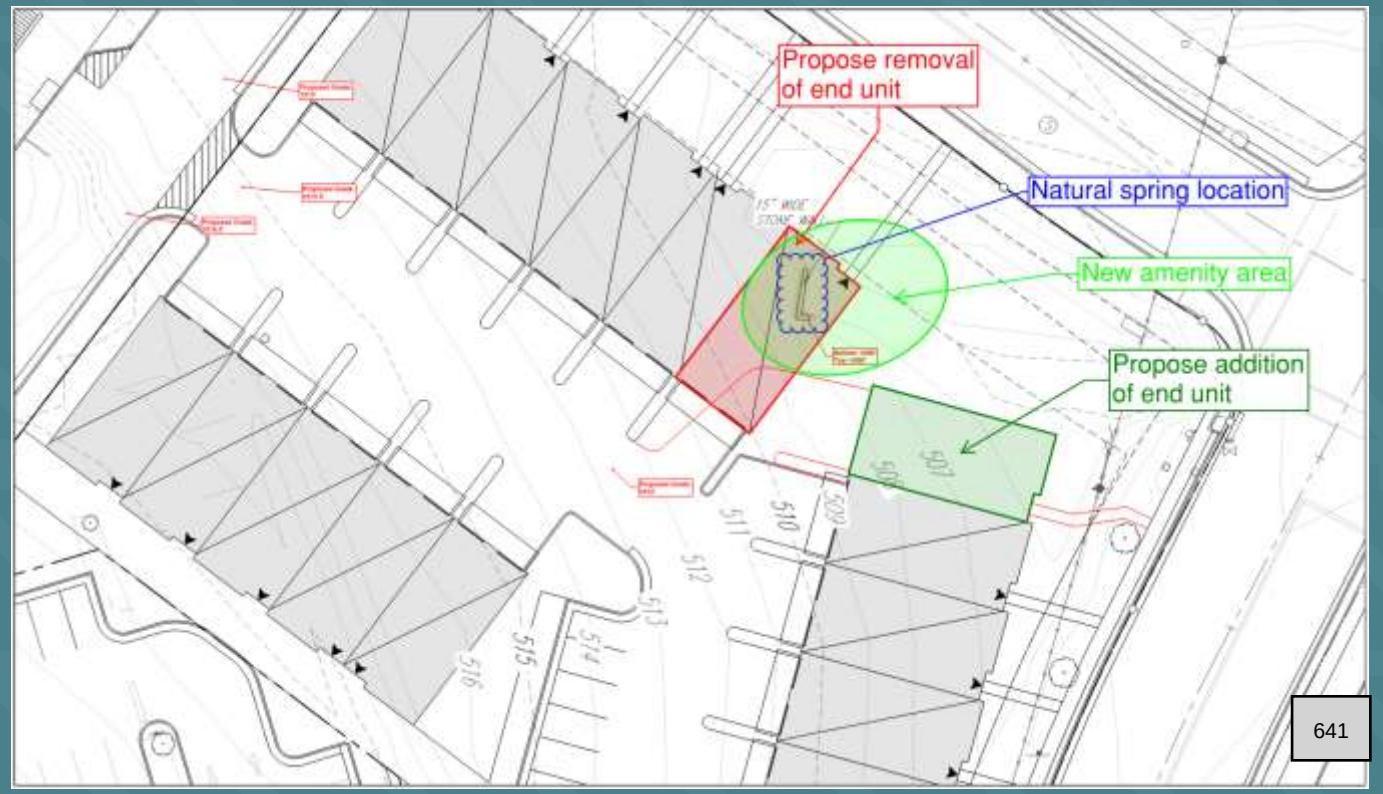
FOLLOW UP FROM WORK SESSION #2 (4/16/23)

OAK SPRING

- It has been requested that we explore the preservation and restoration of Oak Spring—located near the intersection of Oak Spring Drive and Branch Drive
- Restoration of this natural spring will preserve a unique piece of Warrenton history and character
- We are looking into a site plan revision that will allow the spring to be preserved and reconditioned into a public amenity







INCREASE SHADE AT SPLASHPAD

- Shade trees have been added to the Central Plaza to provided coverage for the surrounding seating areas



STORMWATER MANAGEMENT

Storm Water Management Plan is conceptual at this time and will be fully designed and approved during Site Development Plan.

Bohler Engineering is here tonight to answer general questions pertaining to the potential system; however, the scope and methodology of the system are yet to be determined.

ARCHITECTURE

- While the goal of our proposed aesthetic is to introduce a modern and fresh design to Warrenton, we recognize the request to incorporate more components that reflect the character of the community
- Renderings here show a revised color pallet, with incorporation of beige brick in lieu of white and softening of previously dark gray siding to a lighter brown
- Our team is currently studying additional design enhancements with the goal of implementing features that are more representative of the Town's character





WATER / SEWER IMPACTS

WATER / SEWER IMPACTS

- NewCastle's average daily water usage across its Virginia apartment community portfolio:

Community	Units	Total Usage (GAL)	Total Daily Usage (GAL)	Daily Usage Per Unit (GAL)
Community 1	250	3,295,006	9,027	36.1
Community 2	316	7,344,232	20,121	63.7
Community 3	212	5,543,803	15,188	71.6
Community 4	280	6,729,187	18,436	65.8
Community 5	242	5,181,400	14,196	58.7
Community 6	452	14,757,676	33,449	74.0
Avg. / Total **	1,752		20,278	67.0

*Data is from January ,1 2023 through December 31, 2023
**Community 1 was finishing lease up for the first half of 2023 so data does not represent a full calendar year of stabilized occupancy. Community 1 data has been excluded from average data presented and was excluded from usage analysis.

- Average daily community usage across Virginia portfolio is 20,278 gallons per day (GPD)
- Assuming the daily usage per unit of 67.0 GPD, we would project 25,862 GPD for Warrenton Village Center (386 units x 67.0 GPD)

WATER / SEWER IMPACTS

- Town of Warrenton uses their own daily usage amounts when making their capacity determination:
  - For 386 residential units, the Town assumes 116,000 gallons per day
- This is significantly higher than the data collected across NewCastle's Virginia communities – 25,862 GPD vs. 116,000 GPD

- **Even with the assumed usage of 116,000 GPD, the Public Works Department has determined that there is adequate capacity for this project**

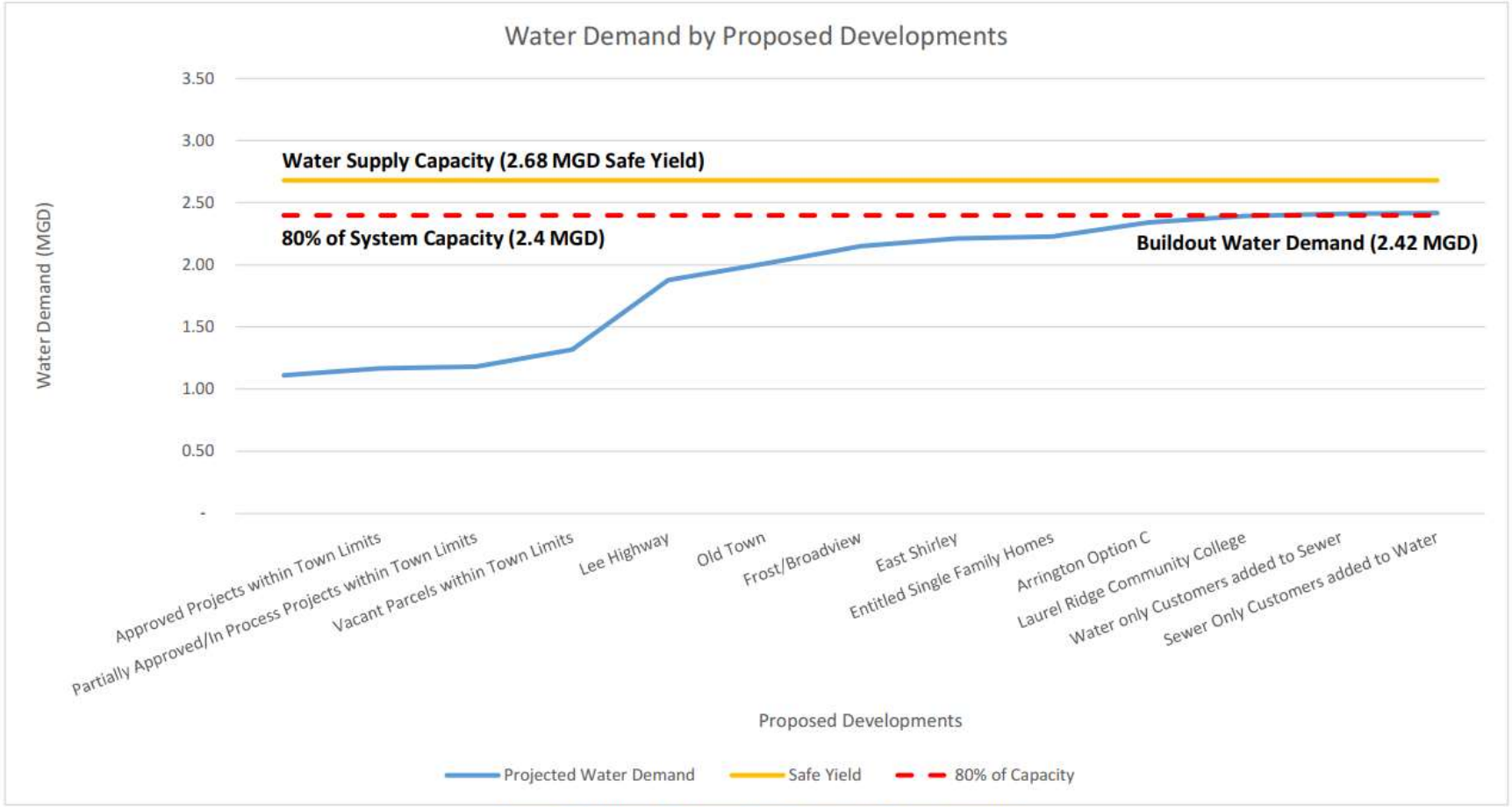


Figure 5.1: Water Demand by Proposed Developments

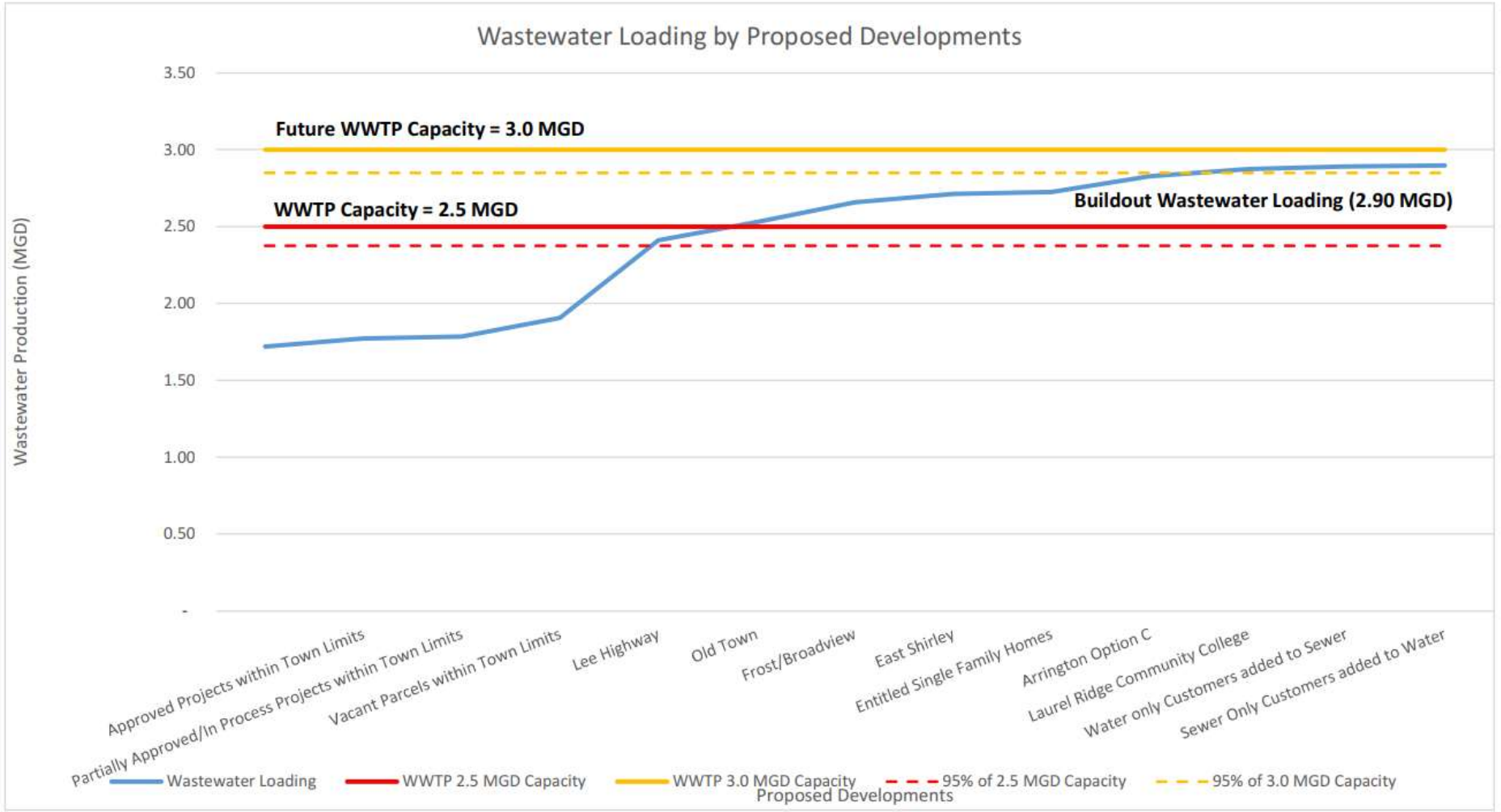


Figure 6.1: Wastewater Loading by Proposed Developments

TRANSPORTATION

SITE PLAN OVERVIEW

Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets



SITE PLAN OVERVIEW

Pedestrian Connectivity:

- Extensive sidewalk network proposed along all streets and within site to promote walkability
- Connects to and augments pedestrian network within existing center
- Crosswalks will be added on Oak Spring Dr at Hastings Ln and Highland School to promote safe pedestrian access from the north
- Retain crosswalks on Broadview Ave and Branch Dr



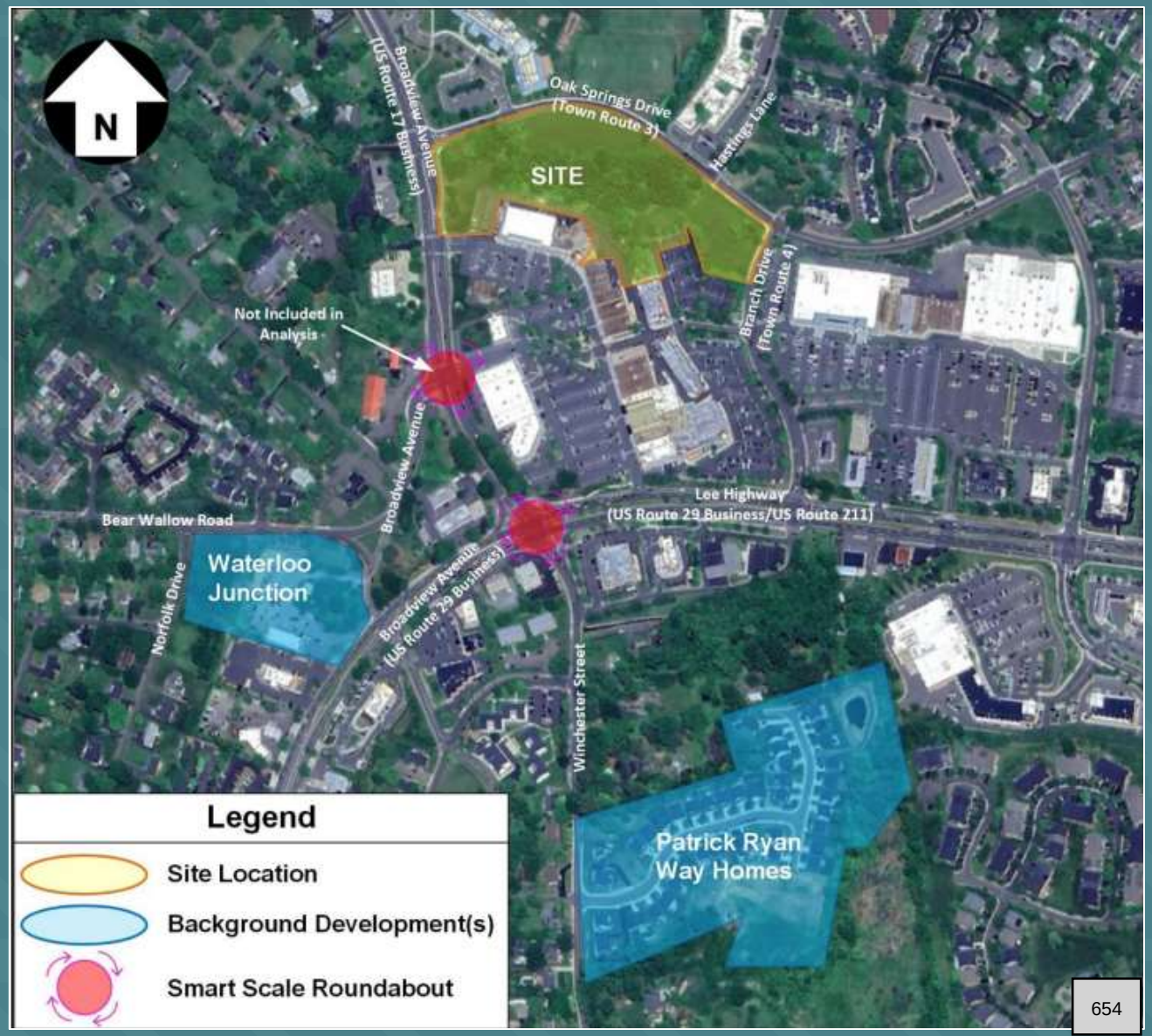
TRAFFIC STUDY AREA



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions:

- Accounted for 1% annual regional growth on Lee Hwy mainline
- Other approved developments in the area will add some traffic, including 47 new townhomes and 40 new single-family homes
- Roundabout at Broadview Avenue, Broadview Avenue, and shopping center entrance not funded through SMARTScale



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions (cont.):

- Planned Roundabout at Rt 29/211 and Broadview Ave Intersection:
  - Separate VDOT project, not triggered by this development
  - $29M in SMARTScale funding awarded for this and Blackwell Road roundabout
  - Expected to improve traffic operations and safety
  - Includes accommodations for pedestrians

DRPT · Office of Intermodal Planning and Investment · VDOT

PROJECT PIPELINE

Roundabout: reconfigures the intersection to a multi-lane hybrid roundabout. The roundabout can improve operations by 60%, reduce crashes up to 60%, and improve the safety of pedestrian crossings.

Figure 17. Broadview Avenue Roundabout Concept



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Traffic Operations:

- Overall, the road network assuming the "future without development" condition is expected to continue operating similar to the existing conditions
- Some minor increases in delays are projected for some movements at unsignalized intersections, but signalized intersections and the new roundabout would operate efficiently
- The maximum "future without development" increase in delay at any study intersection is 7 seconds, as compared to existing conditions
- The planned infrastructure improvements, like the roundabout, will improve traffic flow compared to existing conditions

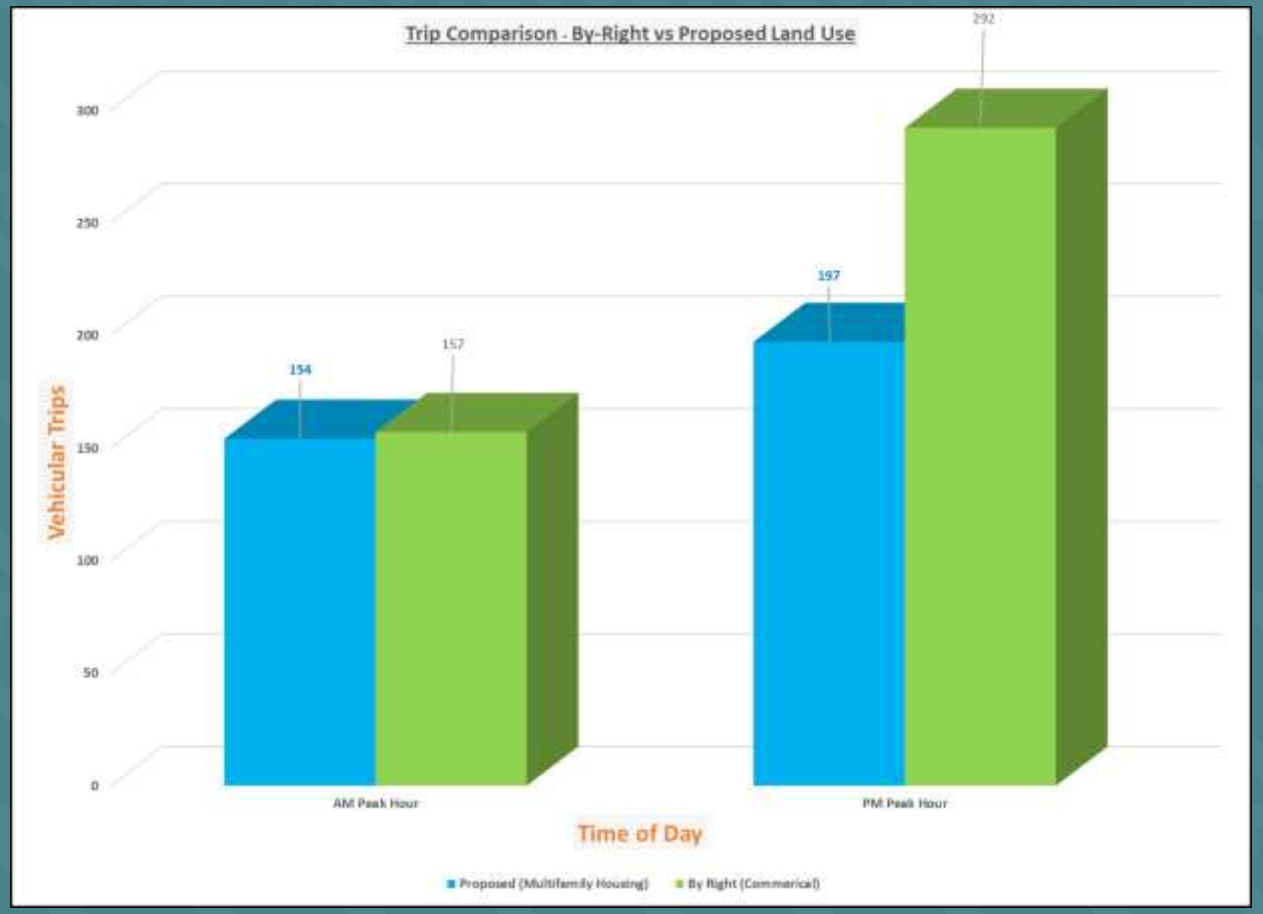
SITE TRIP GENERATION

New Trips Generated by the Development:

- The proposed 386 new residential units are expected to generate around 154 new vehicle trips during the morning commute hour and 197 new vehicle trips during the evening commute hour
- These are distributed across the internal connections and 6 access points, reducing impact at any single location

Less Than By-Right Commercial Development:

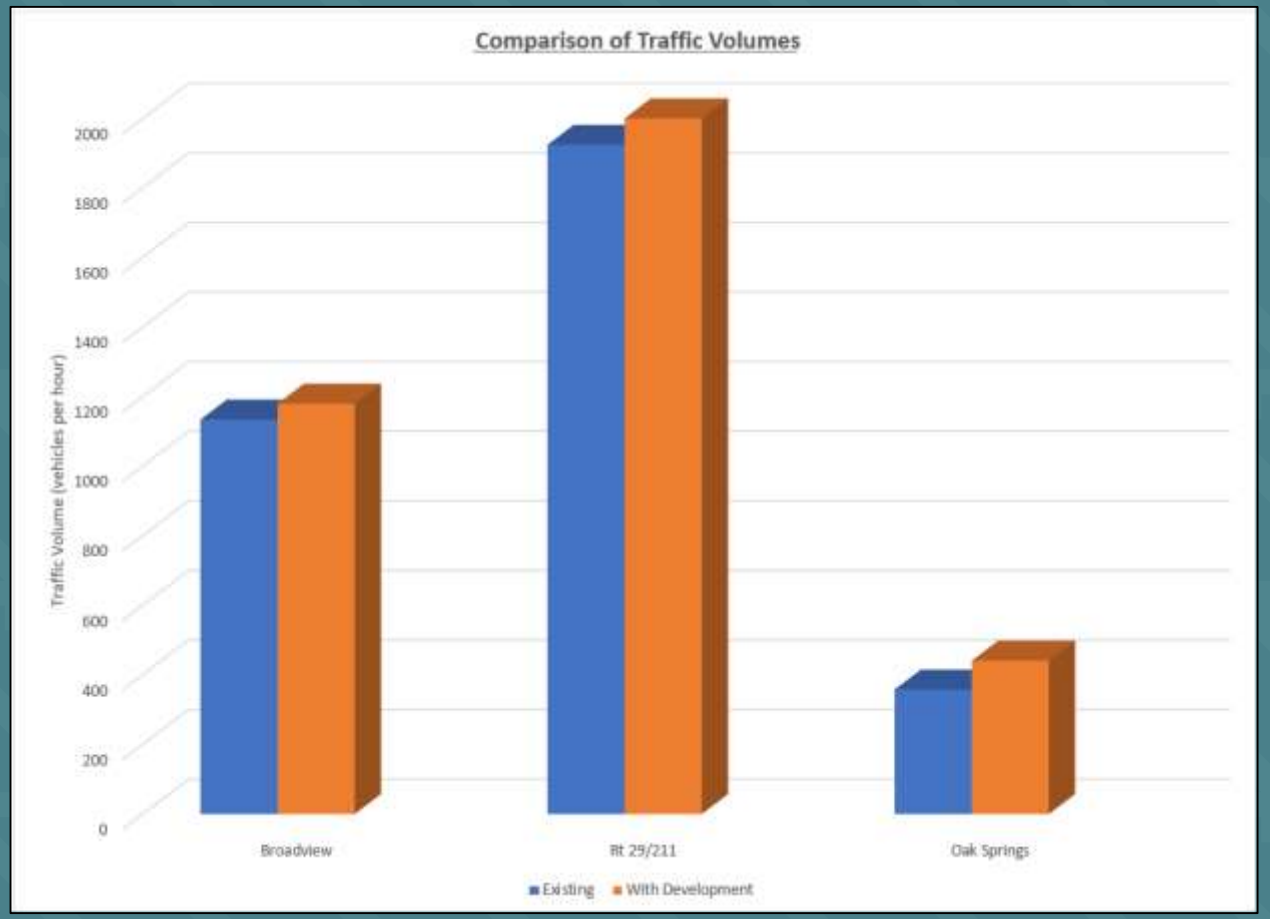
- The residential traffic volumes are lower than what would be seen if the site was developed by right with 40,000 sf of retail instead



SITE TRIP IMPACTS

Minimal Traffic Impact:

- Site-generated traffic represents a small percentage of the existing volumes:
  - 3 - 4% on Broadview Avenue
  - 0.1 - 4% on Rt 29/211
  - Greater proportion on Oak Spring Dr and Branch Dr, where current volumes are lower
- Capacity analysis confirms these modest additions can be accommodated by the surrounding road network without degrading operations



INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

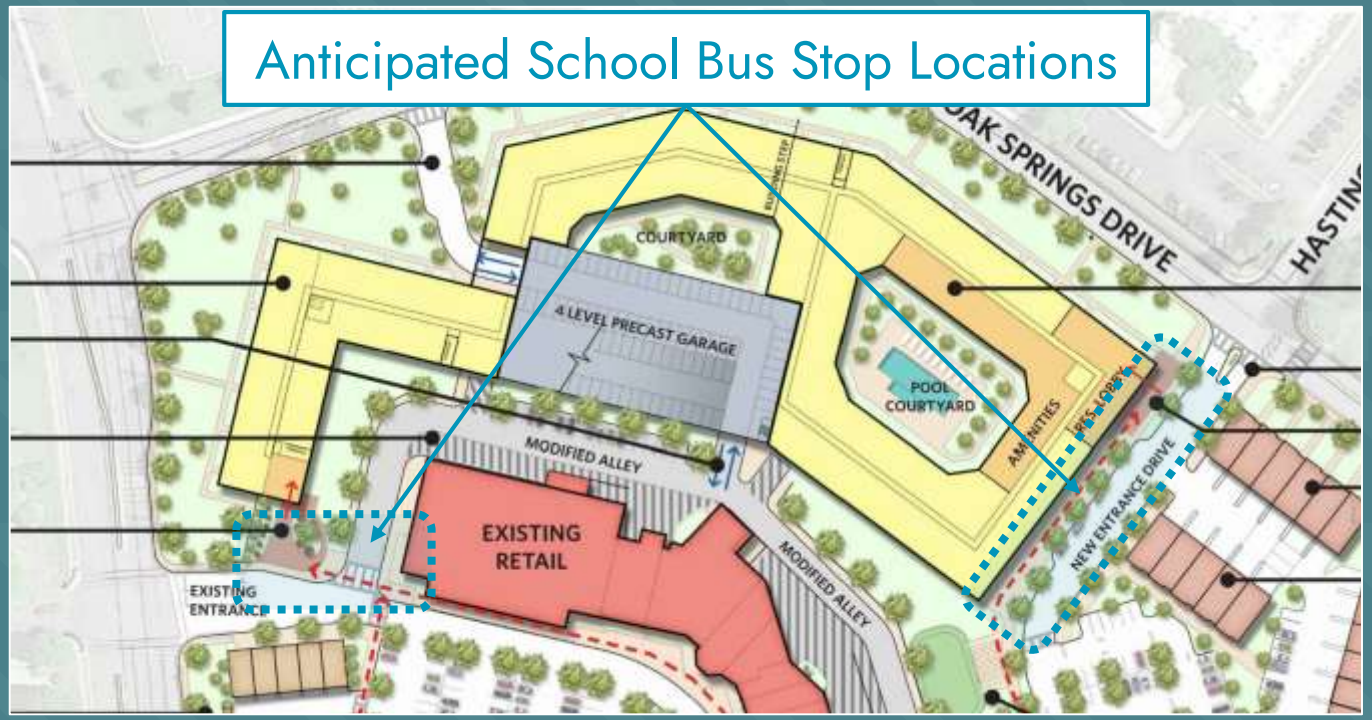
SCHOOL BUS ACCOMMODATIONS

School Bus Stops:

- The developer will work with County schools on exact locations of school bus stops
- Expected to be near the residential lobbies

Impact on Traffic:

- Anticipated that buses will stop on internal streets, rather than adjacent public roads
- Maintain the flow of through traffic on the surrounding streets during peak school travel times



HIGHLAND SCHOOL TRAFFIC

Balancing Access and Minimizing Disruption:

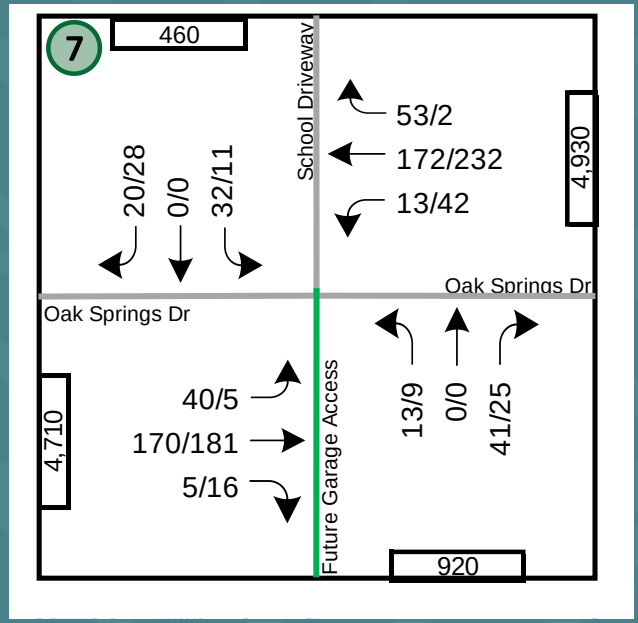
- The proposed parking deck entry is positioned across from the Highland School driveway to balance access needs while minimizing disruption to the existing intersection

Minimizing Conflicts with School Peak Hours:

- Analysis found Highland School and residential AM peak hours have a 15-minute overlap, during which conflicts are expected to be minimal
- Analysis found no overlap in PM peak hours
- It is anticipated that residents will use secondary garage entrance during AM peak hours, which will further reduce conflicts

Accommodating School Operations:

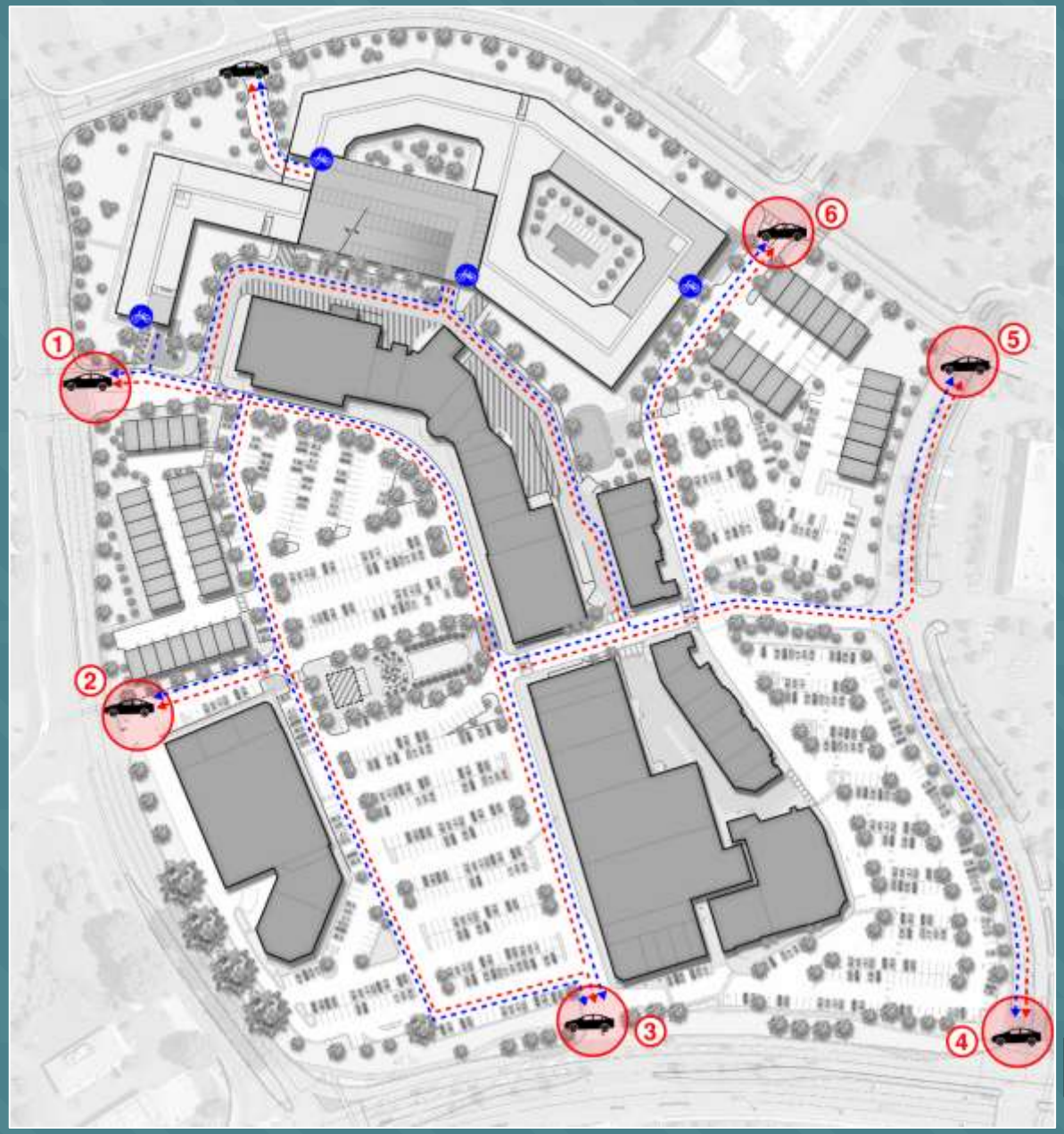
- Observations showed limited queuing of vehicles along Oak Springs Dr at the existing Highland School access point, even during peak times
- The school has multiple pickup/drop-off locations and two entrances, which helps distribute the traffic



Overall, the traffic impacts from the proposed development are not anticipated to significantly disrupt or impede the normal operations of Highland School

HIGHLAND SCHOOL TRAFFIC

- Residents of Warrenton Village Center will want to avoid traffic as much as those dropping off/picking up students at Highlands School
- The site provides 6 alternative points of ingress/egress for vehicles and bicycles that will be the preferable route of travel during peak traffic hours to avoid congestion on Oak Springs Drive
- These alternative points of ingress/egress will further reduce what the Traffic Impact Analysis has determined to be minimal conflicts to the Highland School traffic



ROAD IMPROVEMENTS

Turn Lane Warrant Analysis:

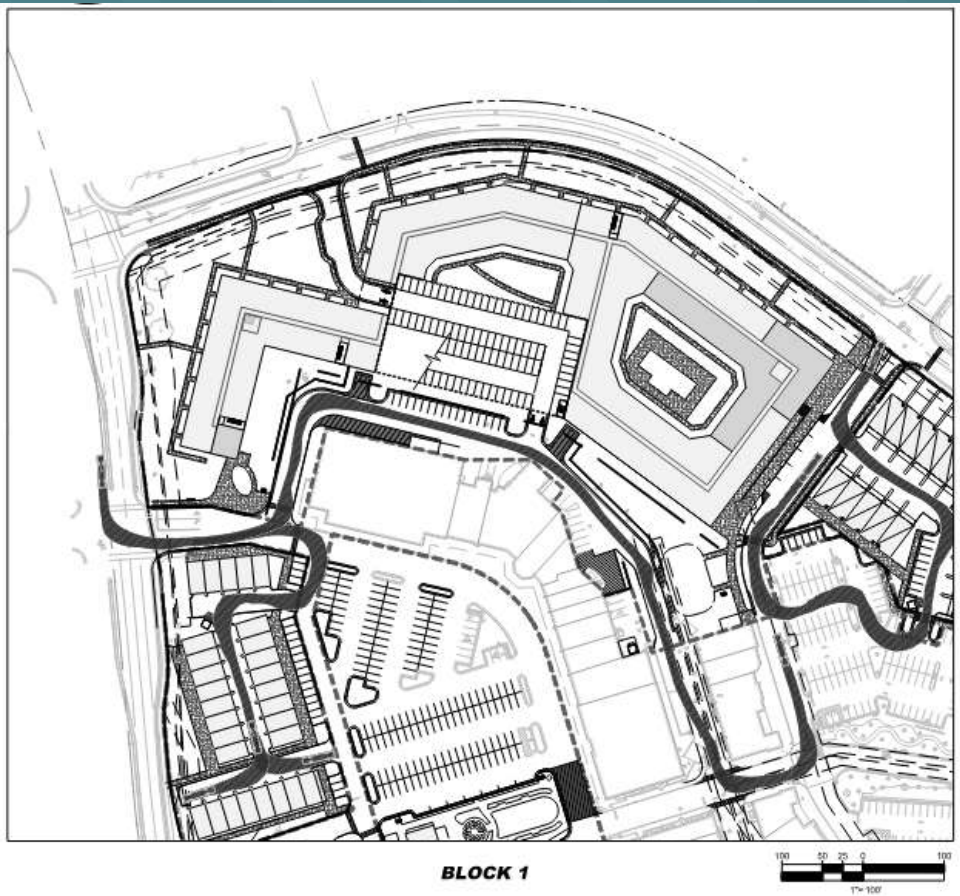
- No new turn lanes warranted at proposed site access points per VDOT standards
- No new turn lanes recommended to be constructed by the development

Signal Warrant Analysis:

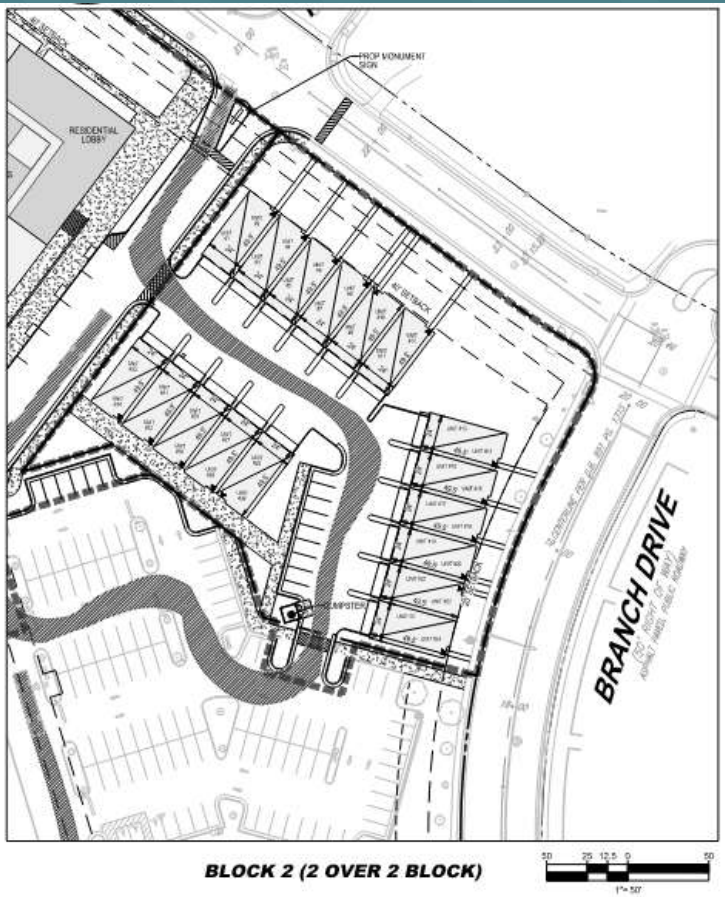
- Signal warrant analysis performed for Broadview Ave/Oak Springs Rd intersection
- Traffic volumes do not meet MUTCD signal warrants, so signalization is not recommended
- Unsignalized operations projected to function acceptably at LOS C or better

The Warrenton Village Center development does not necessitate any additional roadway improvements beyond what is already planned by VDOT and the Town

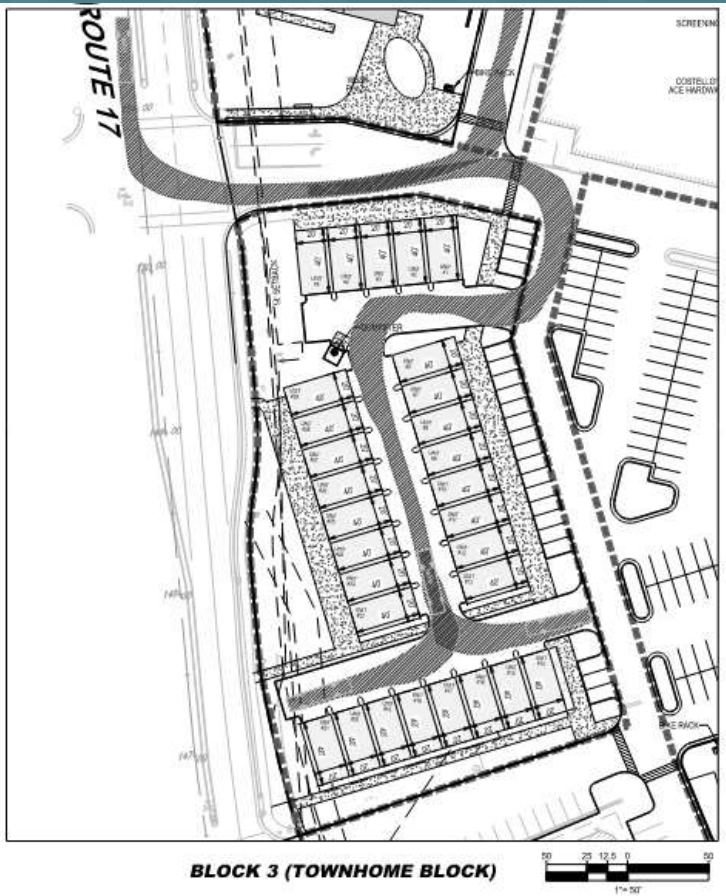
EMERGENCY & DELIVERY VEHICLE MOVEMENTS



BLOCK 1

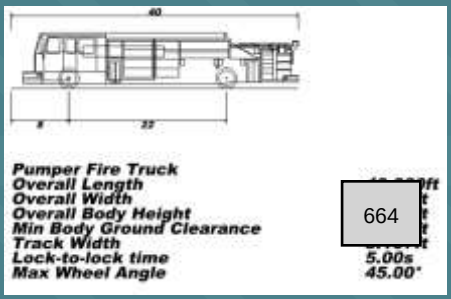


BLOCK 2 (2 OVER 2 BLOCK)



BLOCK 3 (TOWNHOME BLOCK)

- Vehicle turning analysis has confirmed maneuverability throughout all blocks
- Mountable curbs can be included at desired locations during site plan



SUMMARY OF IMPACTS

Additional Traffic:

- The proposed 386 residential units will generate 154 new trips in the AM peak and 197 in the PM peak hour
- This equates to about 4% of the current traffic on most surrounding roadways

Dispersed Access Points:

- Multiple entry/exit locations directly to Oak Springs Dr and through shopping center driveways
- Distributes new trips across the road network, avoiding concentration at a single point

SUMMARY OF IMPACTS

Leveraging Existing and Planned Infrastructure:

- The mixed-use nature of the development will help reduce external trips generated, as some trips can be captured internally
- Surrounding street grid offers multiple route choices, dispersing trips
- Planned roundabout will improve operation at Rt 29/211 and Broadview Ave
- Capacity analysis confirms surrounding intersections and roads can accommodate the new traffic with minimal impact

Outcome:

- The Warrenton Village Center development would improve walkability, vibrancy, and housing choices, with a marginal increase in traffic that does not warrant new road improvements

SCHOOLS

PROJECTED STUDENTS

Fauquier County Student Generation Calculation:

- 0.72 students per single family detached dwelling
- 0.45 students per single family attached dwelling
- 0.20 students per apartment dwelling

- Allocation per school type assumption is:
  - 52% elementary school
  - 22% middle school
  - 26% high school

PROJECTED STUDENTS

Warrenton Village Center Projection at Full Buildout and Occupancy:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

- Allocation per school:
  - Bradley (52%) = 49
  - Taylor (22%) = 21
  - FHS (26%) = 24

FAUQUIER COUNTY ENROLLMENT PROJECTIONS

Enrollment Projection

This is an 5-year analysis of program capacity based on projected enrollment. This analysis is a cohort progression model, looking at birth rates and considers a growth factor. Areas of concern are:

- Elementary (South and Central)
- Middle School Growth
- Liberty HS

	Program Capacity	95% Cap	Actual Enrollment 2019-20	2020-21	2021-22	2022-23	2023-24	% Cap	Projected Enrollment 2024-25	2025-26	2026-27	2027-28	2028-29
ES South													
Miller	580	551	493	476	484	489	506	87.2%	503	492	504	505	522
Pearson	532	505	385	347	365	367	381	71.6%	397	394	407	422	433
Pierce	560	532	550	487	514	531	533	95.2%	537	548	554	543	551
Walter	588	559	410	363	412	399	396	67.3%	409	430	451	452	474
Subtotal South	**2,260**	**2,147**	**1,838**	**1,673**	**1,775**	**1,786**	**1,816**	**80.4%**	**1,846**	**1,864**	**1,916**	**1,922**	**1,980**
ES Central													
Bradley	588	559	369	332	339	356	349	59.4%	341	354	355	363	360
Brumfield	716	680	495	458	482	492	508	70.9%	530	560	580	608	644
Greenville	604	574	531	437	479	495	494	81.8%	506	506	498	468	471
Ritchie	548	521	483	416	478	491	522	95.3%	532	529	543	547	563
Smith	572	543	414	356	414	418	393	68.7%	418	443	465	505	524
Subtotal Central	**3,028**	**2,877**	**2,292**	**1,999**	**2,192**	**2,252**	**2,266**	**74.8%**	**2,327**	**2,394**	**2,441**	**2,491**	**2,562**
ES North													
Coleman	520	494	347	276	311	332	315	60.6%	312	302	280	270	266
Thompson	368	350	254	224	257	256	262	71.2%	267	280	310	327	344
Subtotal North	**888**	**844**	**601**	**500**	**568**	**588**	**577**	**65.0%**	**579**	**582**	**590**	**597**	**610**
TOTAL ELEMENTARY	**6,176**	**5,867**	**4,731**	**4,172**	**4,535**	**4,626**	**4,659**	**75.4%**	**4,752**	**4,840**	**4,947**	**5,010**	**5,152**
Available Capacity			**1,445**	**2,004**	**1,641**	**1,550**	**1,517**	**24.6%**	**1,424**	**1,336**	**1,229**	**1,166**	**1,024**
Middle Schools													
Auburn	622	591	568	513	575	552	578	92.9%	588	590	613	647	668
Cedar Lee	900	855	650	622	613	596	837	93.0%	877	864	805	851	859
Marshall	654	621	466	445	419	408	405	61.9%	396	391	391	413	414
Taylor	618	587	470	422	435	424	607	98.2%	607	601	569	601	606
Warrenton	-	-	432	368	366	392	-		-	-	-	-	-
TOTAL MIDDLE	**2,794**	**2,654**	**2,586**	**2,370**	**2,408**	**2,372**	**2,427**	**86.9%**	**2,468**	**2,445**	**2,379**	**2,512**	**2,547**
Available Capacity			**208**	**424**	**386**	**422**	**367**	**13.1%**	**326**	**349**	**415**	**282**	**247**
High Schools													
Fauquier	1,612	1,531	1,254	1,217	1,170	1,134	1,122	69.6%	1,089	1,111	1,153	1,147	1,170
Kettle Run	1,360	1,292	1,184	1,147	1,112	1,172	1,164	85.6%	1,165	1,214	1,233	1,241	1,267
Liberty	1,370	1,302	1,250	1,252	1,259	1,324	1,300	94.9%	1,261	1,283	1,328	1,341	1,368
TOTAL HIGH	**4,342**	**4,125**	**3,688**	**3,616**	**3,541**	**3,630**	**3,586**	**82.6%**	**3,515**	**3,608**	**3,714**	**3,729**	**3,805**
Available Capacity			**654**	**726**	**801**	**712**	**756**	**17.4%**	**827**	**734**	**628**	**613**	**537**
District Total	**13,312**	**12,646**	**11,005**	**10,158**	**10,484**	**10,628**	**10,672**	**80.2%**	**10,735**	**10,893**	**11,040**	**11,251**	**11,504**

*Data provided by Fauquier County Public Schools

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

MODIFICATIONS & WAIVERS

ZONING ORDINANCE 9-25: MIXED-USE DEVELOPMENT OPTIC

The mixed-use development option is created within the Commercial District to allow a mixture of uses when consistent with the Comprehensive Plan. The mixed-use option is intended to encourage development in a creative and integrated manner that encourages pedestrian walkability, shared open spaces and an alternative form of housing within the Town.

Section J. – Modifications:

Modifications from the standards set forth in Section 9-25 may be approved by Town Council in conjunction with the Special Use Permit upon a determination that the intent of the Comprehensive Plan is being met.

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #1



- Section 3-4.10.3 of the Zoning Ordinance provides that density in a mixed-use development within a Commercial zone may be calculated pursuant to Sec. 9-25 of the Zoning Ordinance
- Sec. 9-25 allows for calculation of density in a mixed-use development to be up to 1 dwelling unit per 500 square feet of non-residential space. This section also provides that density above 5 units per acre must be approved by the Town Council.
- While this is a modification of Sec. 3-4.10.3, the requested density is fully consistent with the provisions of Sec. 9-25 for a mixed-use development, and less than what could be achieved
- This modification will allow for realization of the concentrated increased density that is a primary objective of the New Town Character District
- **Waiver Request #1:** Increase density above 5 units per acre to 13.28 units per acre, which will yield 386 units

DENSITY CALCULATIONS

By-Right Density Calculation:

- 5 dwelling units per acre
- 5 x 29.05 acres = 145 units

By-Right Density Calculation, with affordable housing bonus:

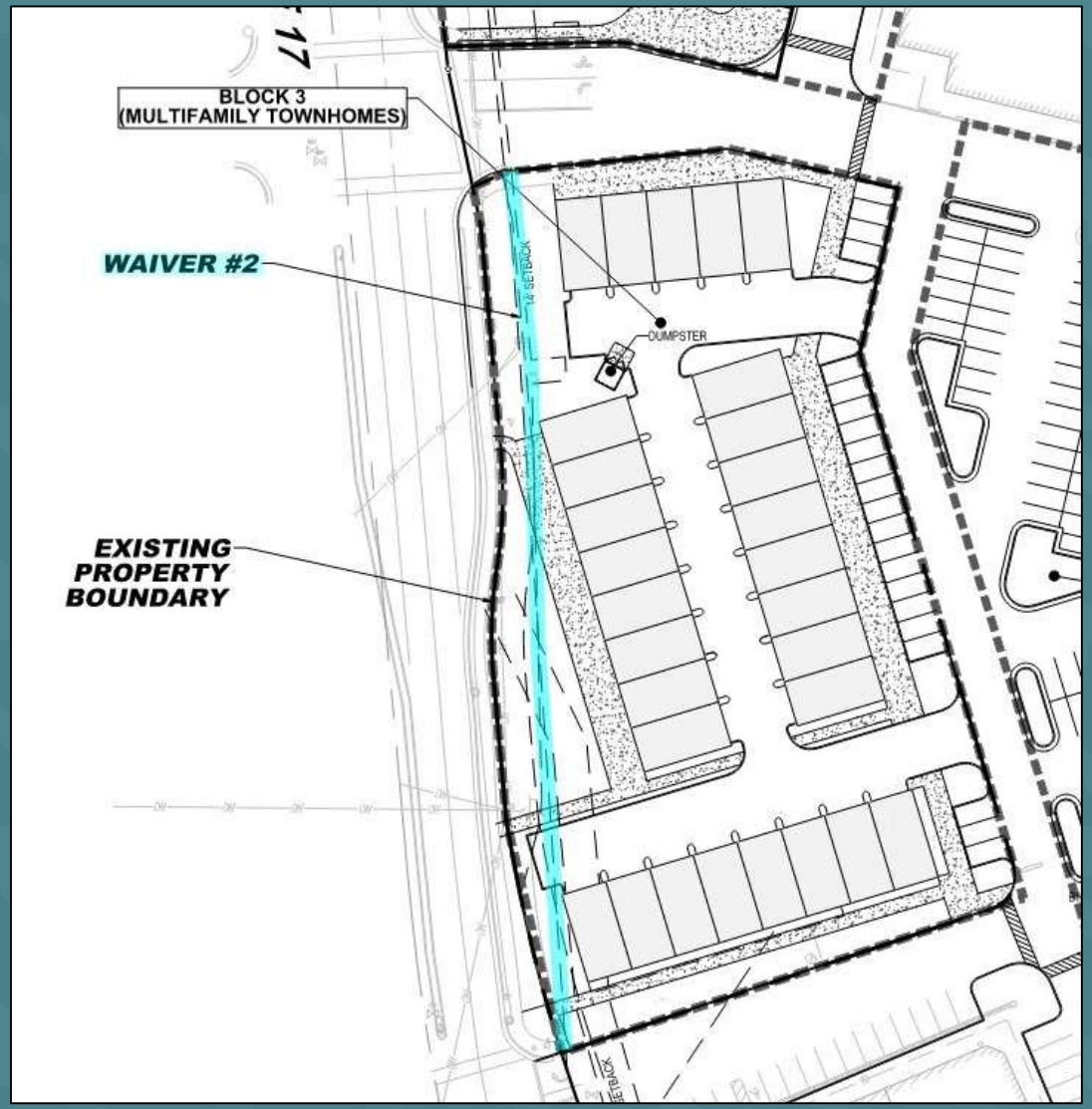
- 10 dwelling units per acre
- 10 x 29.05 acres = 290 units

Mixed-Use Density Calculation (with SUP approval):

- 1 dwelling unit per 500 GSF of non-residential floor space
- 218,142 GSF / 500 = 436 units (15 units per acre)

- Requested Density = 386 (13.28 units per acre)

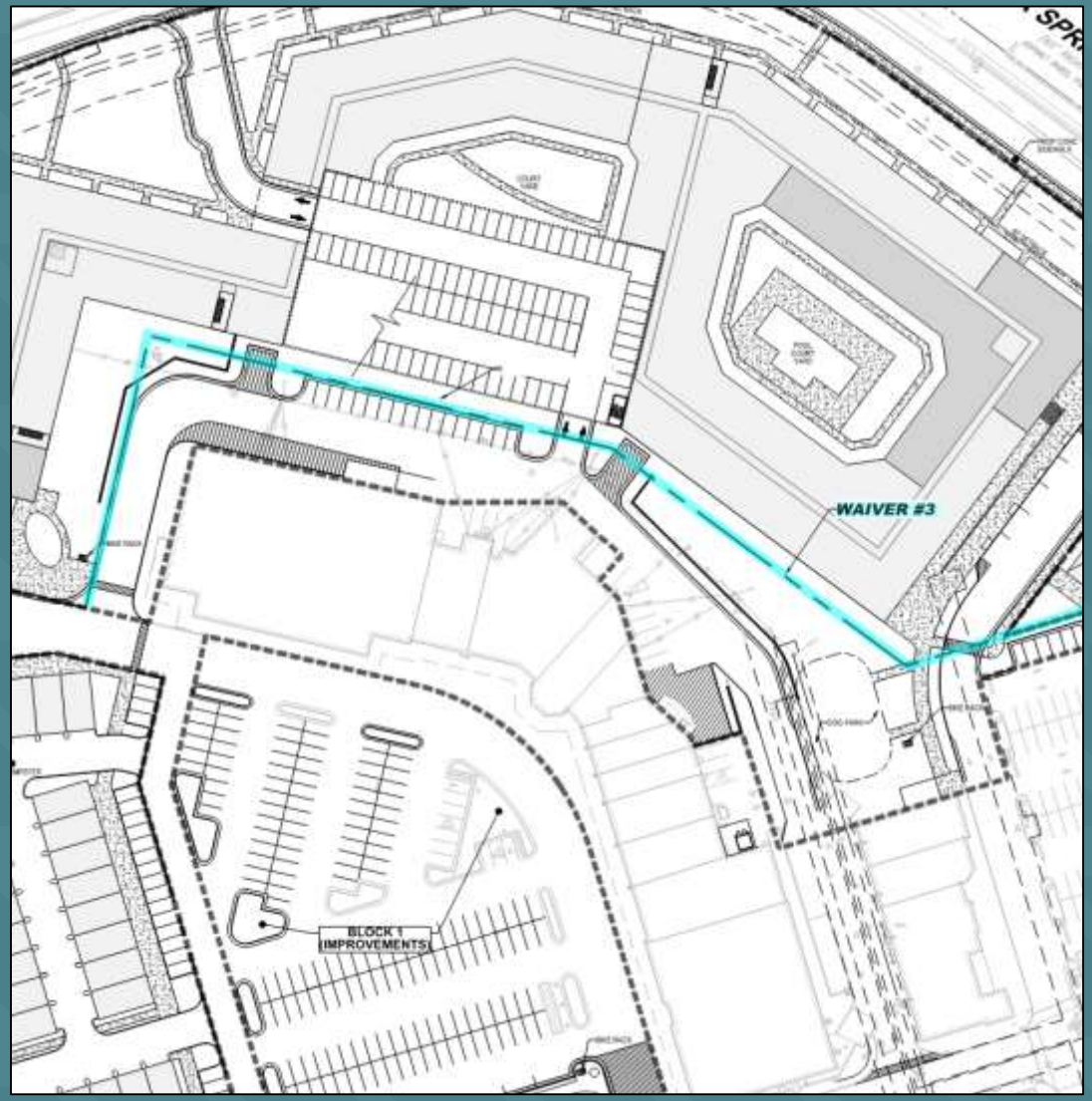
SUP MODIFICATION & WAIVERS – WAIVER REQUEST #2



- Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #2**: Decrease minimum setback to 14' along Broadview Avenue

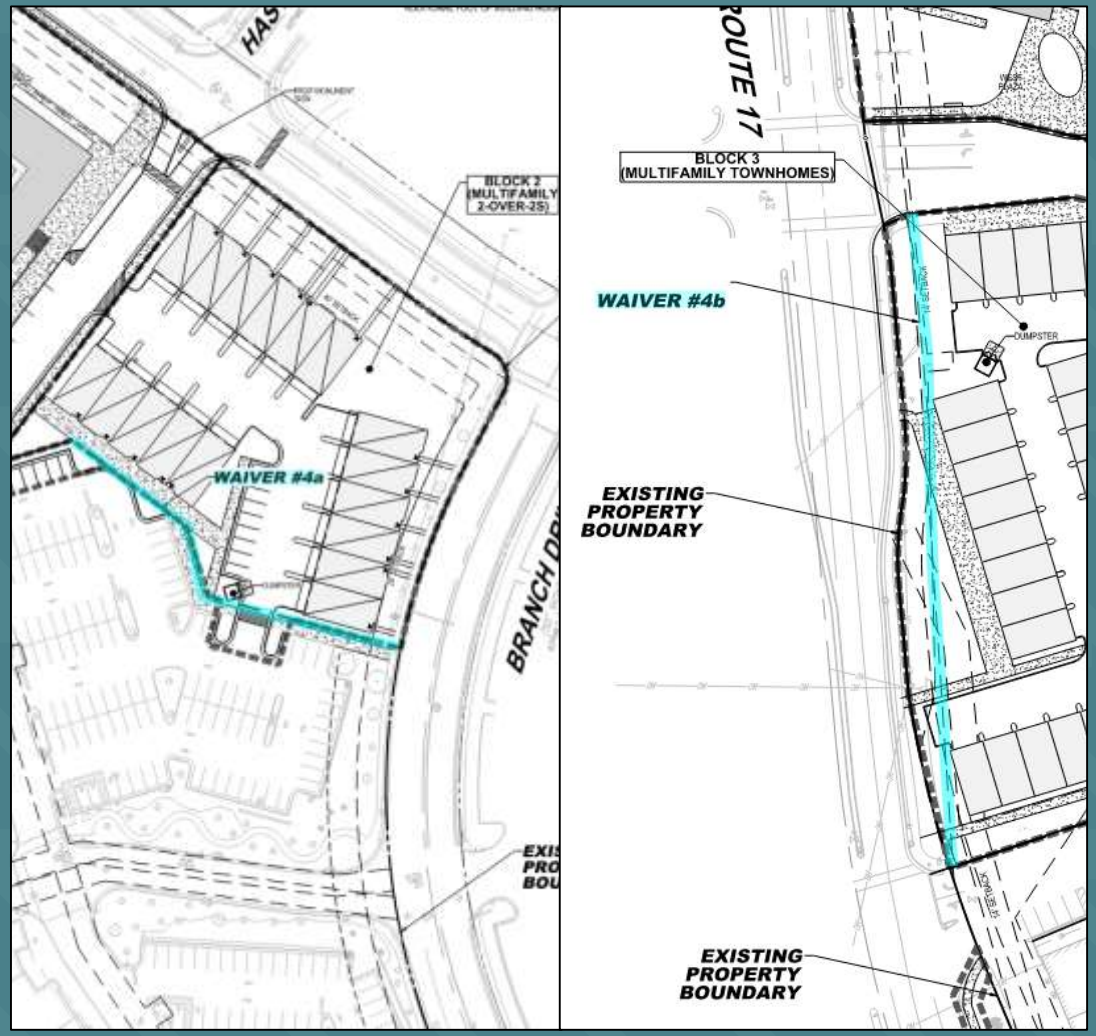


SUP MODIFICATION & WAIVERS – WAIVER REQUEST #3



- Article 3-4.10.4: Required side/rear yard setbacks is 5′ minimum.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- **Waiver Request #3:** Decrease side/rear yard setbacks along internal proposed and existing property lines to 0′

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #4



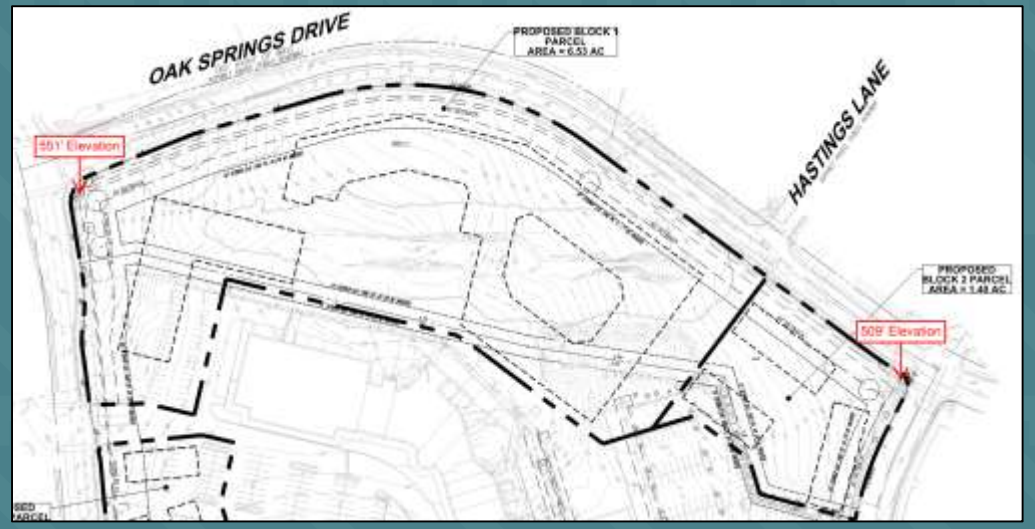
- Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0'
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #5

- Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and rear setbacks increase 1' for each additional foot of building height over 35'.
- **Waiver Request #5**: Increase height limit for dwellings as follows:
  - 54' max height for Block 1, Oak Springs Drive Frontage
  - 36' max height for Block 1, Broadview Drive Frontage
  - 45' max height for Block 2
  - 36' max height for Block 3

WHY ADDITIONAL HEIGHT IS NEEDED

- Site drops 42’ from Broadview Avenue to Branch Drive
- The building starts as 3-stories on the west side at the higher elevation and increases to 4-stories on the east side as the elevation drops
- Increasing height as a building moves down a hill is a technique to keep consistency in scale across a building’s elevation, as well as a way to conceal retaining walls within the building’s foundation, as opposed to creating unsightly external walls

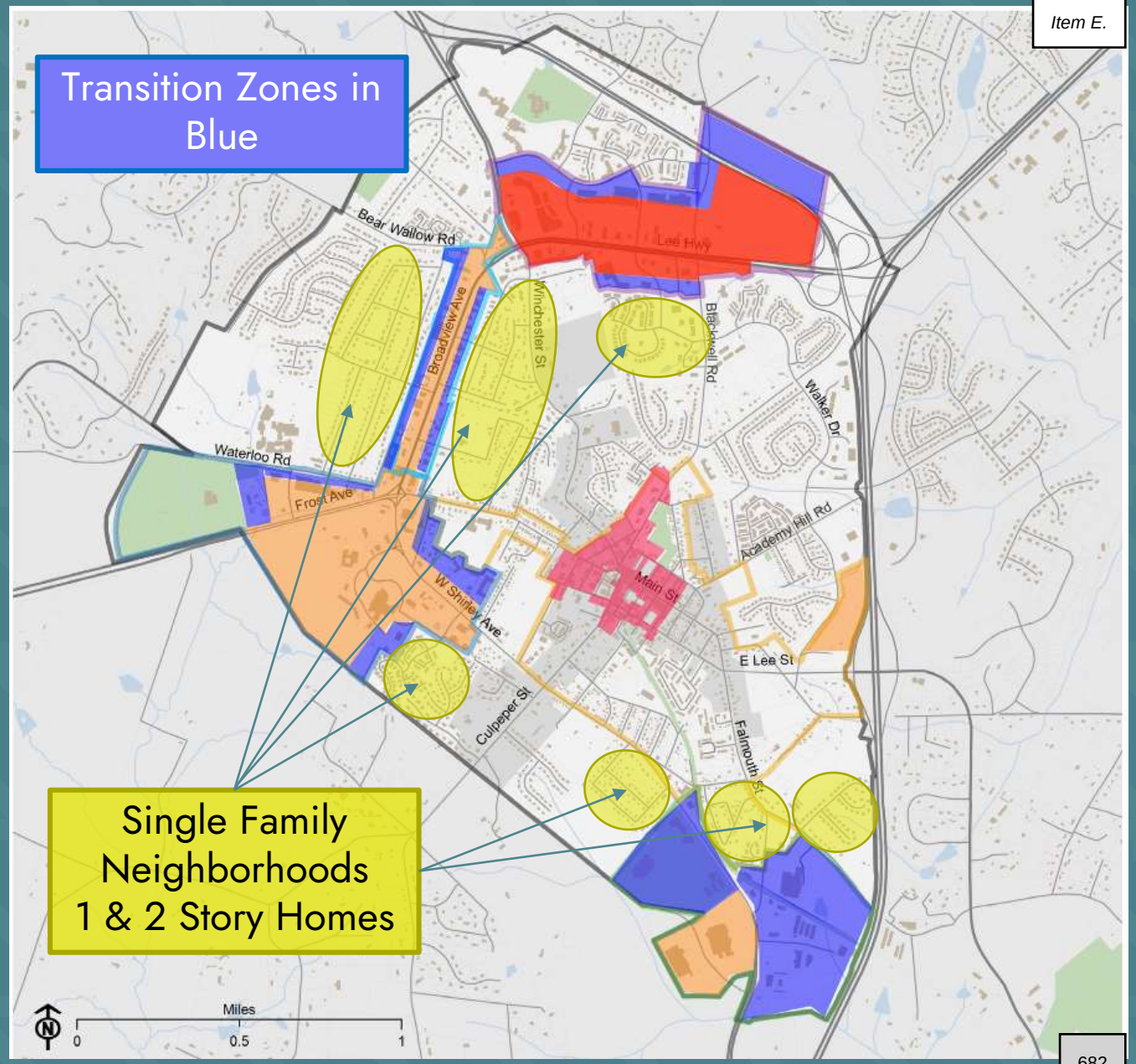


WHY ADDITIONAL HEIGHT IS NEEDED

- The New Town Character District has been established in Plan Warrenton 2040 as a designated area of high density—3-story residential does not allow for the concentrated density desired in the District
- The New Town Character District calls for "greater intensity of mixed-use and strong live, work, and play options" and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this Character District.
- 4-stories allows for the internal parking garage to be hidden from the exterior of the building

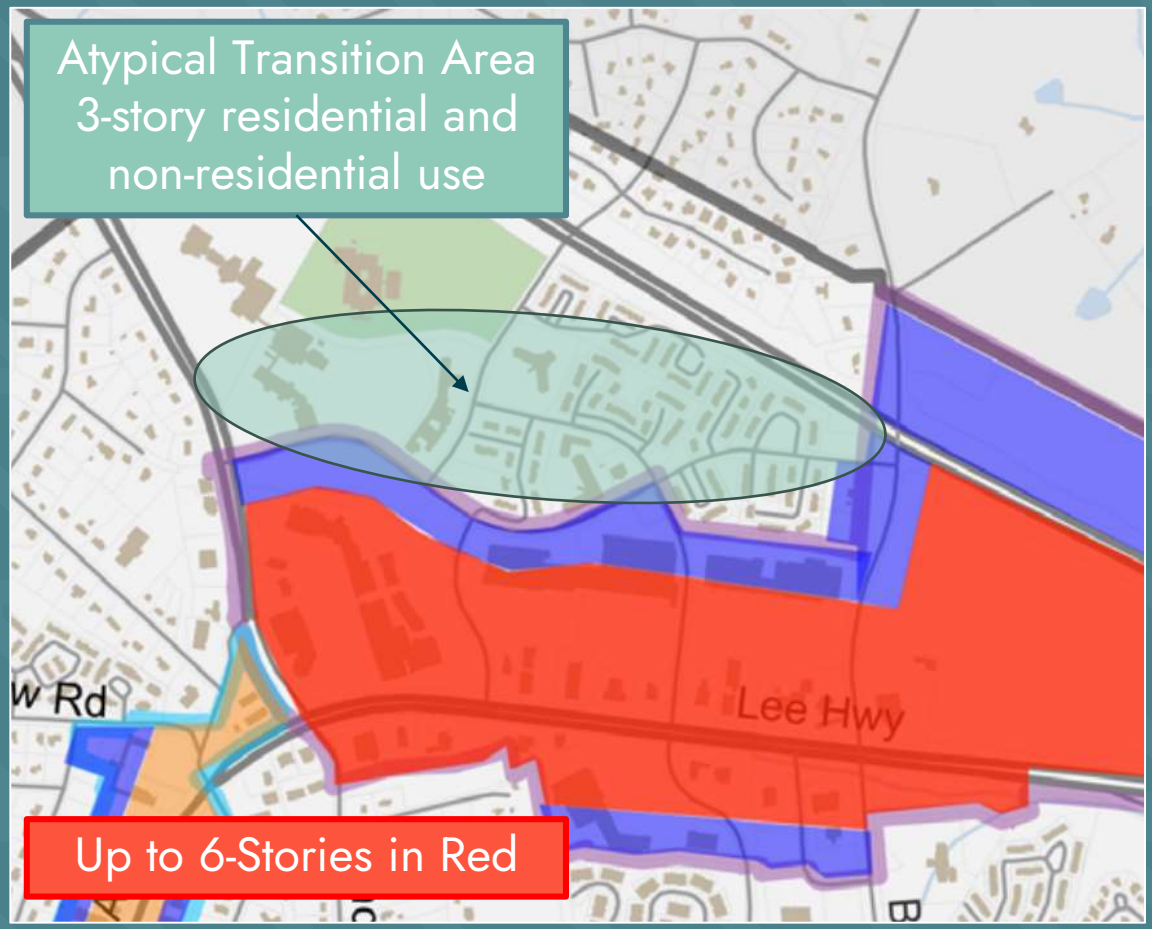
TRANSITION ZONES

- The area along the south side of Oak Springs Drive is located within in a “Transition Zone” as defined by Plan Warrenton 2040
- Transition Zones are “specifically defined as adjoining neighborhoods to articulate a step down in the number of stories for greater compatibility to adjoining single-family neighborhoods”
- These areas are intended to be a max of 3-stories to provide a step down to the adjacent 1- and 2-story single family neighborhoods
- Transition Zones have been placed in accordance with this definition across the Future Land Use map



TRANSITION ZONES

- With the exception of the Transition Zone placed along Oak Springs Drive
- The uses on the north side of Oak Springs Drive are not 1- & 2-story single family neighborhoods
- This area is occupied with 3- & 4-story apartments, 3-story townhomes, Brookside Rehab & Nursing Center and Highland School
- Because of this, increasing building heights to 4-stories at Warrenton Village Center still provides the intended step-down affect, given that the uses on the north side are atypical, 3-story and non-residential uses and the uses along Lee Hwy may go up to 6-stories



SURROUNDING BUILDING HEIGHTS



NOTABLE WARRENTON BUILDING HEIGHTS

- Warrenton Manor Apartments
  - Stories: 4
  - Location: Hastings Lane
  - Zoning: Residential Multi-Family
  - Future Use: Live-Work Neighborhood



- 98 Alexandria Pike Office Building
  - Stories: 5
  - Location: North of Old Town
  - Zoning: Central Business District
  - Future Use: Old Town Mixed Use



NOTABLE WARRENTON BUILDING HEIGHTS

- 28 Blackwell Park Lane Office Building
  - Stories: 3
  - Location: Blackwell Business Park
  - Zoning: Commercial
  - Future Use: Commercial



- Hampton Inn
  - Stories: 5
  - Location: Blackwell Road
  - Zoning: Commercial
  - Future Use: Commercial



NOTABLE WARRENTON BUILDING HEIGHTS

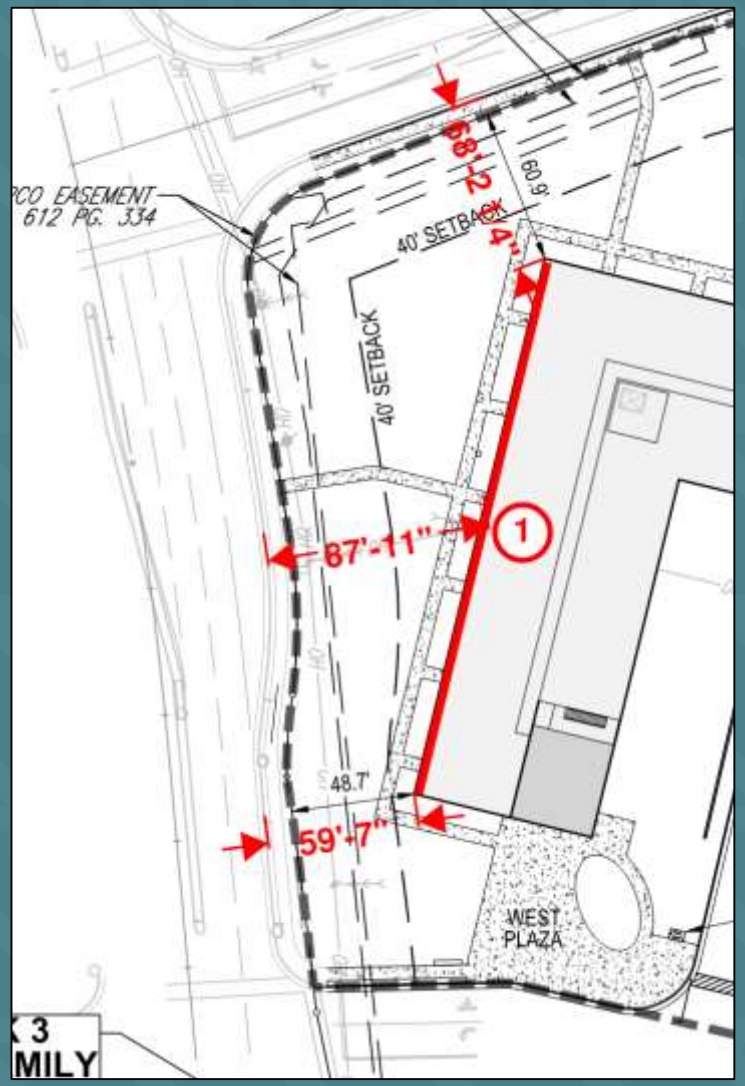
- Fauquier County High School
  - Stories: 4
  - Location: 705 Waterloo Road
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Non-Intensive



- Fauquier Health
  - Stories: 5
  - Location: 500 Hospital Drive
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Intensive



BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW



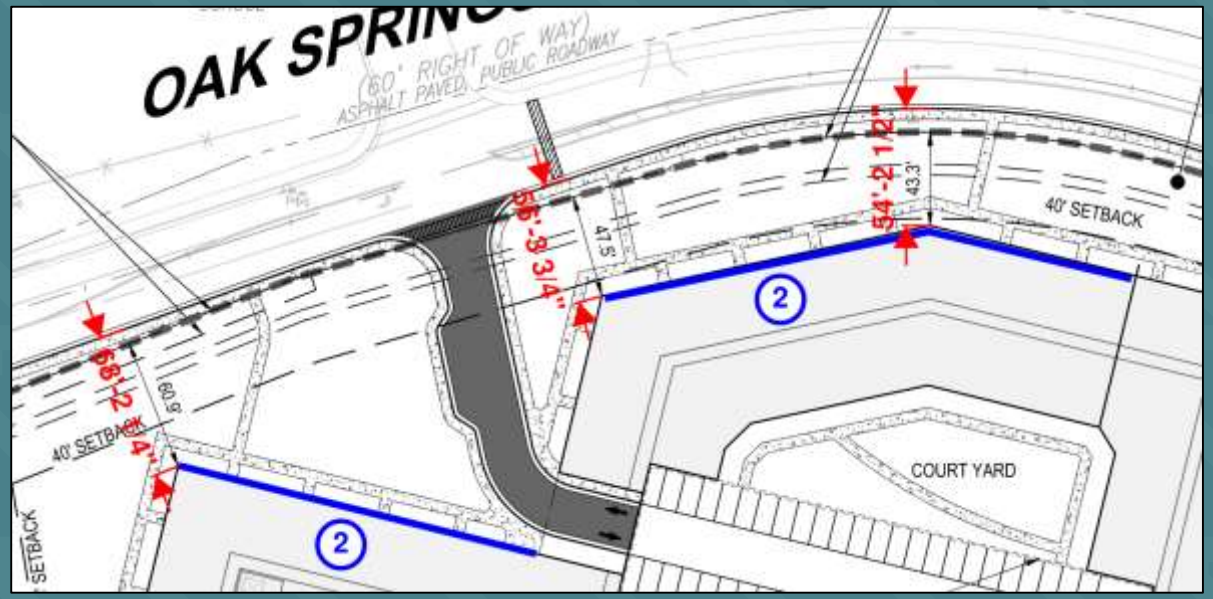


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	59′-7″

- Setback to Height Ratio = 1.7 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS



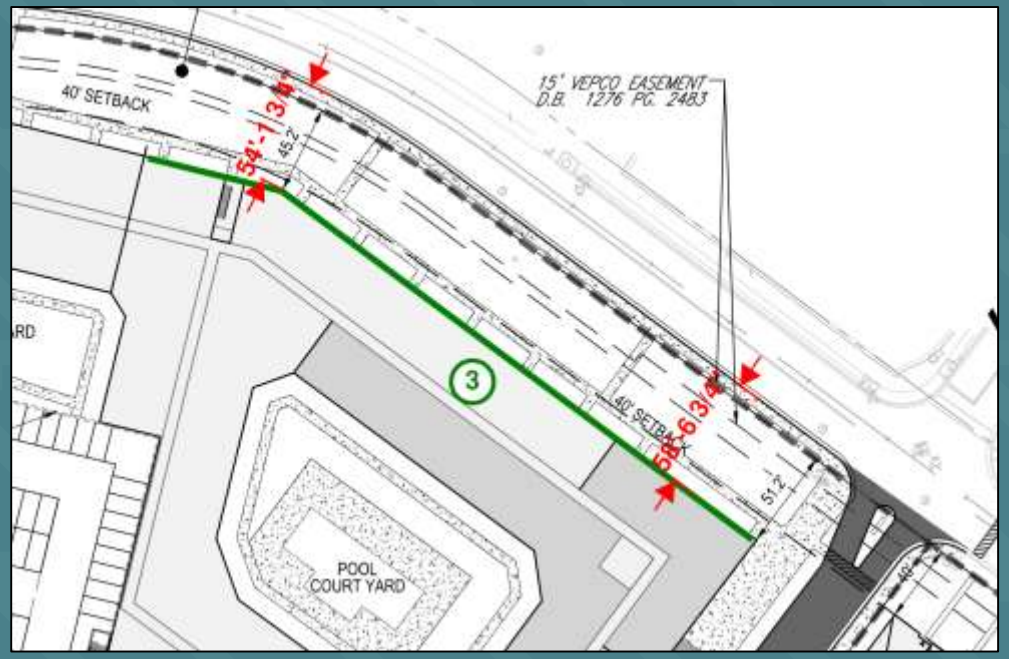


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	42′-11″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS





Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	45′-0″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS

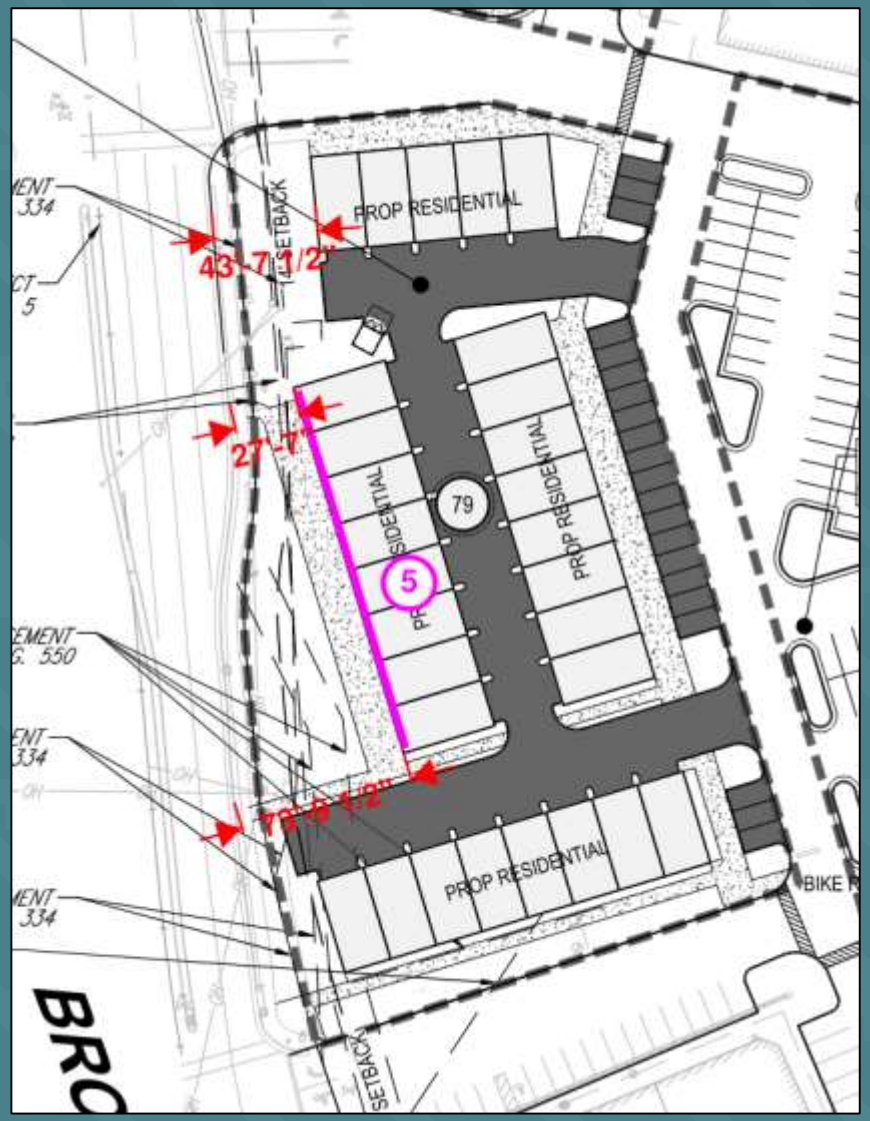




Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb (Oak Springs Dr.)	Minimum Setback from Curb (Branch Dr.)
4	43′-6″	45′-0″	46′-11″	21′-6″

- Setback to Height Ratio = ~1 : 1 on Oak Springs Dr
- Setback to Height Ratio = ~0.5 : 1 on Branch Dr

BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW

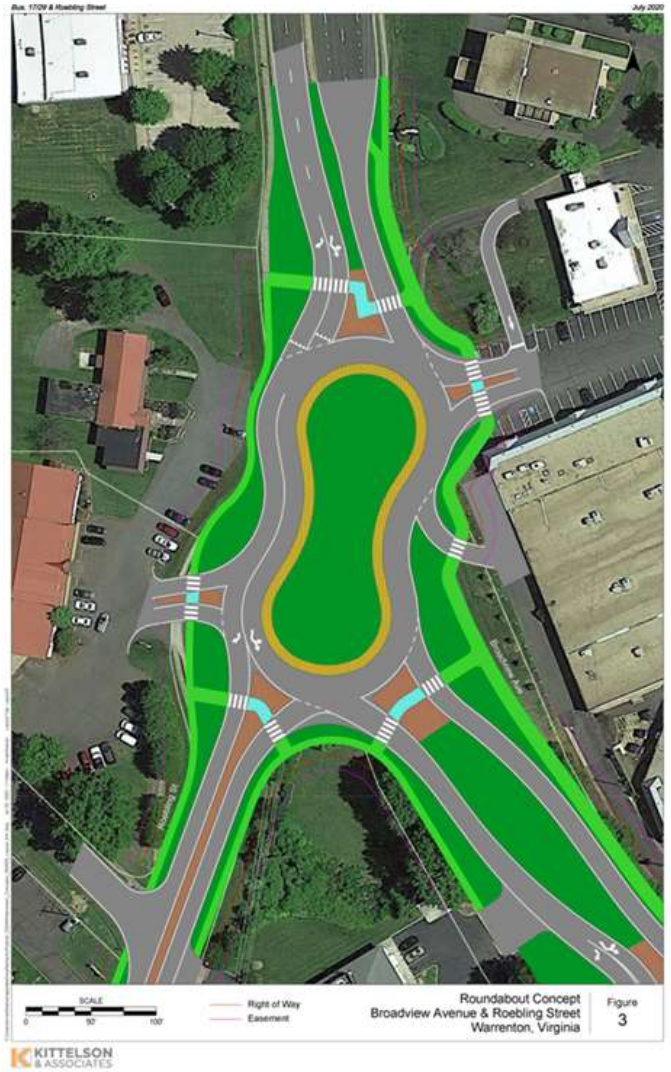


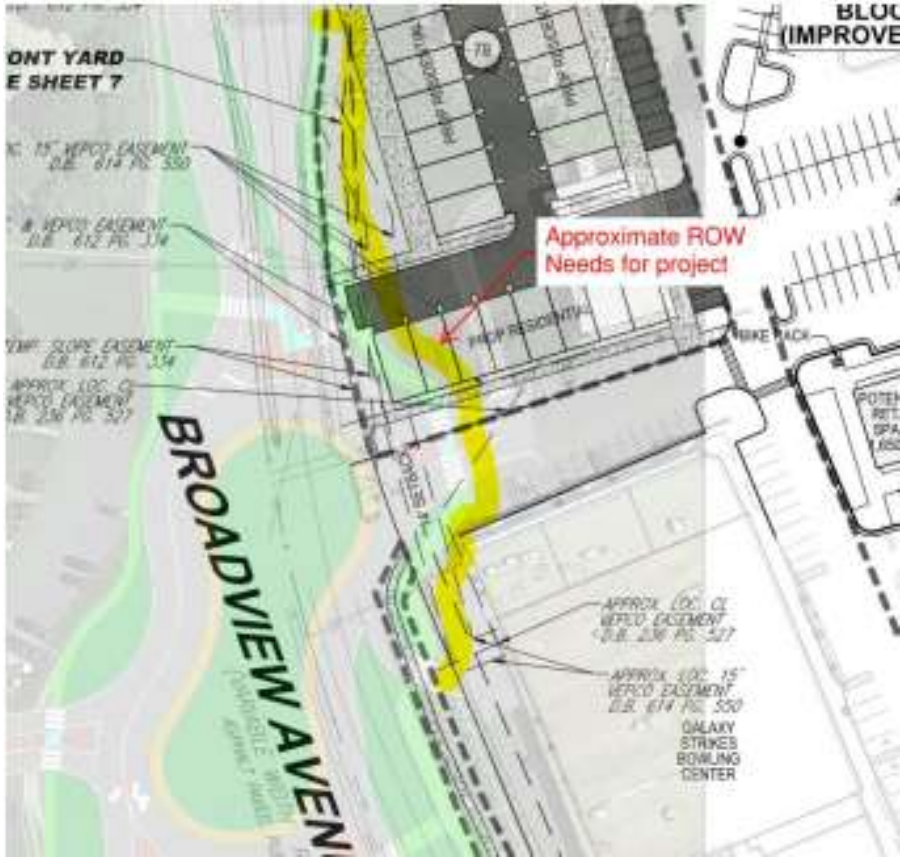


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	27′-7″

- Setback to Height Ratio = 0.8 : 1

TOWN OF WARRENTON SMART SCALE ROUND 6 – DRAFT CONCEPT





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NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
APRIL 23, 2024



AGENDAS

WORK SESSION #2 – APRIL 16TH, 2024

- A Product of Plan Warrenton 2040
- Warrenton Housing Market & Economic Impacts
- Architecture
- Public Improvements

WORK SESSION #3 – APRIL 23RD, 2024

- Water/Sewer Impacts
- Transportation
- Schools
- Modification/Waiver Requests

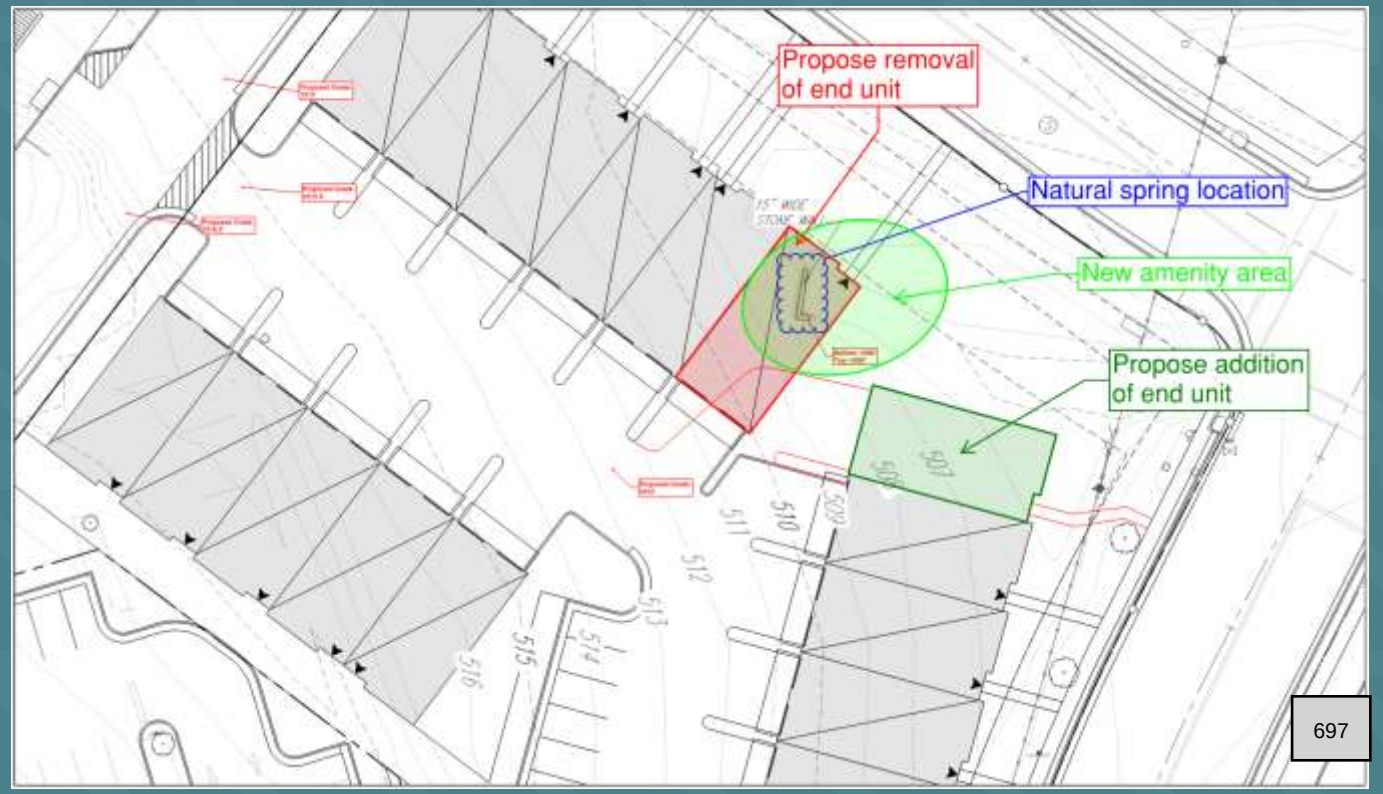
FOLLOW UP FROM WORK SESSION #2 (4/16/23)

OAK SPRING

- It has been requested that we explore the preservation and restoration of Oak Spring—located near the intersection of Oak Spring Drive and Branch Drive
- Restoration of this natural spring will preserve a unique piece of Warrenton history and character
- We are looking into a site plan revision that will allow the spring to be preserved and reconditioned into a public amenity







INCREASE SHADE AT SPLASHPAD

- Shade trees have been added to the Central Plaza to provided coverage for the surrounding seating areas



STORMWATER MANAGEMENT

Storm Water Management Plan is conceptual at this time and will be fully designed and approved during Site Development Plan.

Bohler Engineering is here tonight to answer general questions pertaining to the potential system; however, the scope and methodology of the system are yet to be determined.

ARCHITECTURE

- While the goal of our proposed aesthetic is to introduce a modern and fresh design to Warrenton, we recognize the request to incorporate more components that reflect the character of the community
- Renderings here show a revised color pallet, with incorporation of beige brick in lieu of white and softening of previously dark gray siding to a lighter brown
- Our team is currently studying additional design enhancements with the goal of implementing features that are more representative of the Town's character





WATER / SEWER IMPACTS

WATER / SEWER IMPACTS

- NewCastle's average daily water usage across its Virginia apartment community portfolio:

Community	Units	Total Usage (GAL)	Total Daily Usage (GAL)	Daily Usage Per Unit (GAL)
Community 1	250	3,295,006	9,027	36.1
Community 2	316	7,344,232	20,121	63.7
Community 3	212	5,543,803	15,188	71.6
Community 4	280	6,729,187	18,436	65.8
Community 5	242	5,181,400	14,196	58.7
Community 6	452	14,757,676	33,449	74.0
Avg. / Total **	1,752		20,278	67.0

*Data is from January ,1 2023 through December 31, 2023
**Community 1 was finishing lease up for the first half of 2023 so data does not represent a full calendar year of stabilized occupancy. Community 1 data has been excluded from average data presented and was excluded from usage analysis.

- Average daily community usage across Virginia portfolio is 20,278 gallons per day (GPD)
- Assuming the daily usage per unit of 67.0 GPD, we would project 25,862 GPD for Warrenton Village Center (386 units x 67.0 GPD)

WATER / SEWER IMPACTS

- Town of Warrenton uses their own daily usage amounts when making their capacity determination:
  - For 386 residential units, the Town assumes 116,000 gallons per day
- This is significantly higher than the data collected across NewCastle's Virginia communities – 25,862 GPD vs. 116,000 GPD

- **Even with the assumed usage of 116,000 GPD, the Public Works Department has determined that there is adequate capacity for this project**

TRANSPORTATION

SITE PLAN OVERVIEW

Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets



SITE PLAN OVERVIEW

Pedestrian Connectivity:

- Extensive sidewalk network proposed along all streets and within site to promote walkability
- Connects to and augments pedestrian network within existing center
- Crosswalks will be added on Oak Spring Dr at Hastings Ln and Highland School to promote safe pedestrian access from the north
- Retain crosswalks on Broadview Ave and Branch Dr



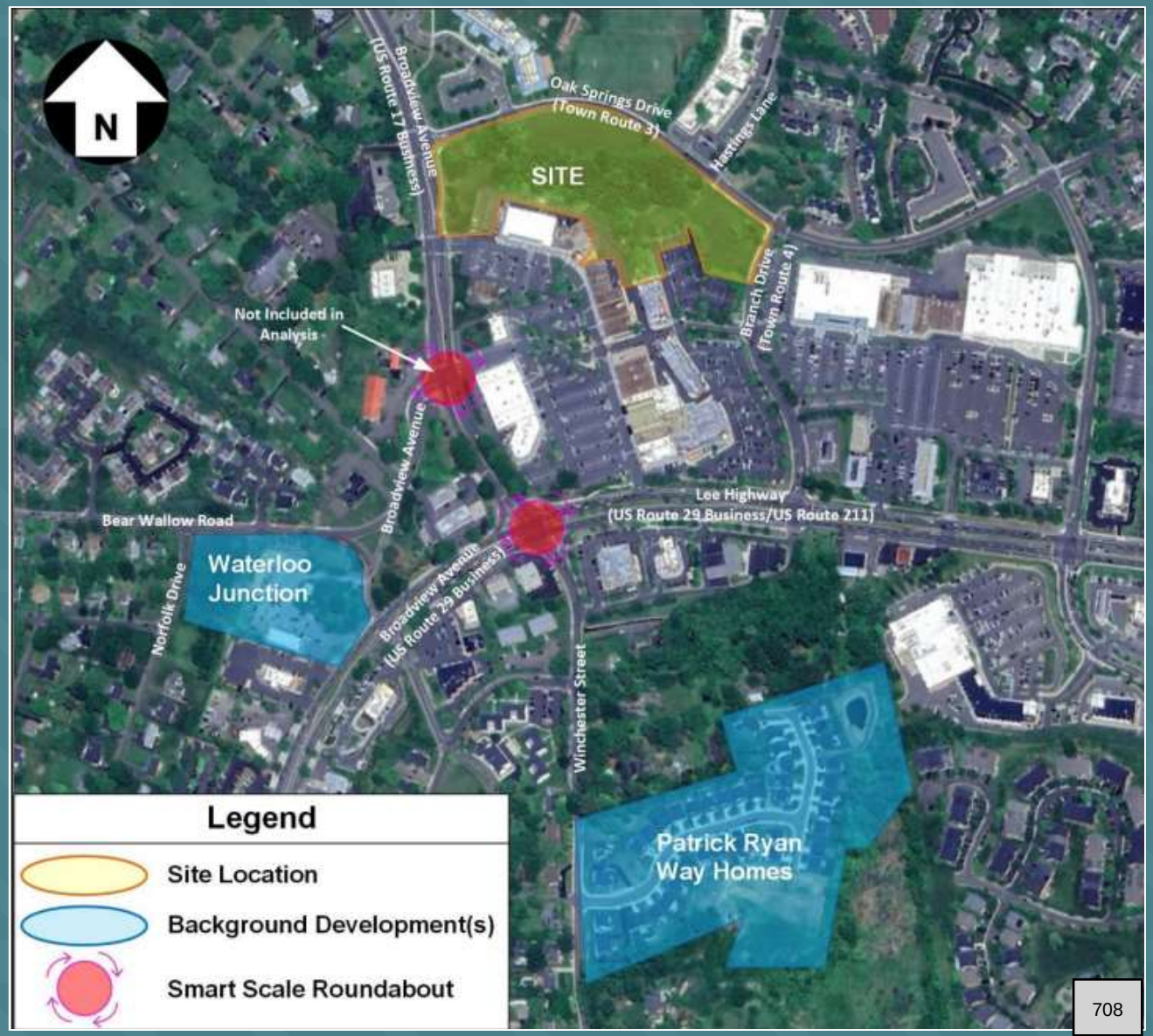
TRAFFIC STUDY AREA



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions:

- Accounted for 1% annual regional growth on Lee Hwy mainline
- Other approved developments in the area will add some traffic, including 47 new townhomes and 40 new single-family homes
- Roundabout at Broadview Avenue, Broadview Avenue, and shopping center entrance not funded through SMARTScale



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions (cont.):

- Planned Roundabout at Rt 29/211 and Broadview Ave Intersection:
  - Separate VDOT project, not triggered by this development
  - $29M in SMARTScale funding awarded for this and Blackwell Road roundabout
  - Expected to improve traffic operations and safety
  - Includes accommodations for pedestrians

DRPT · Office of Intermodal Planning and Investment · VDOT

PROJECT PIPELINE

Roundabout: reconfigures the intersection to a multi-lane hybrid roundabout. The roundabout can improve operations by 60%, reduce crashes up to 60%, and improve the safety of pedestrian crossings.

Figure 17. Broadview Avenue Roundabout Concept



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Traffic Operations:

- Overall, the road network assuming the "future without development" condition is expected to continue operating similar to the existing conditions
- Some minor increases in delays are projected for some movements at unsignalized intersections, but signalized intersections and the new roundabout would operate efficiently
- The maximum "future without development" increase in delay at any study intersection is 7 seconds, as compared to existing conditions
- The planned infrastructure improvements, like the roundabout, will improve traffic flow compared to existing conditions

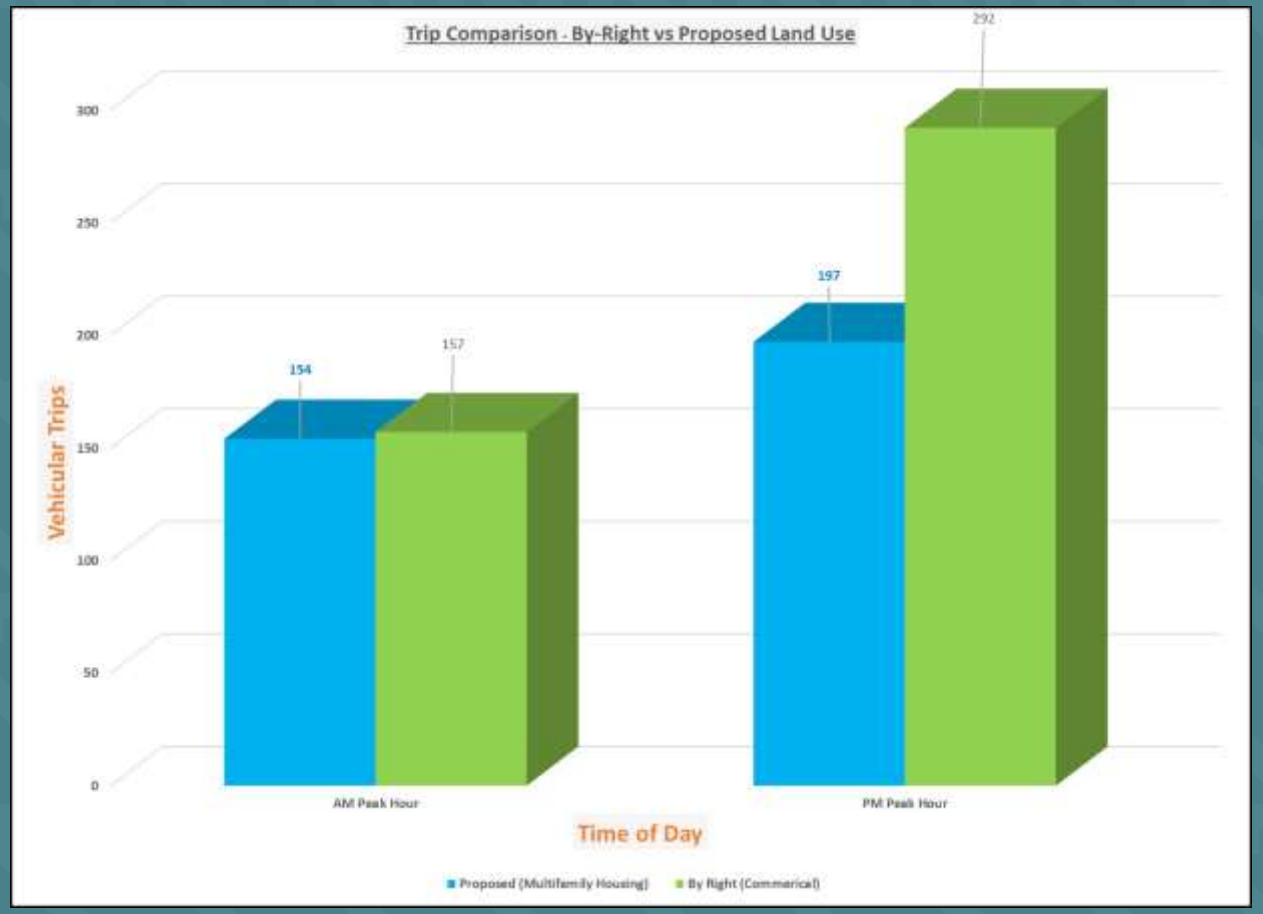
SITE TRIP GENERATION

New Trips Generated by the Development:

- The proposed 386 new residential units are expected to generate around 154 new vehicle trips during the morning commute hour and 197 new vehicle trips during the evening commute hour
- These are distributed across the internal connections and 6 access points, reducing impact at any single location

Less Than By-Right Commercial Development:

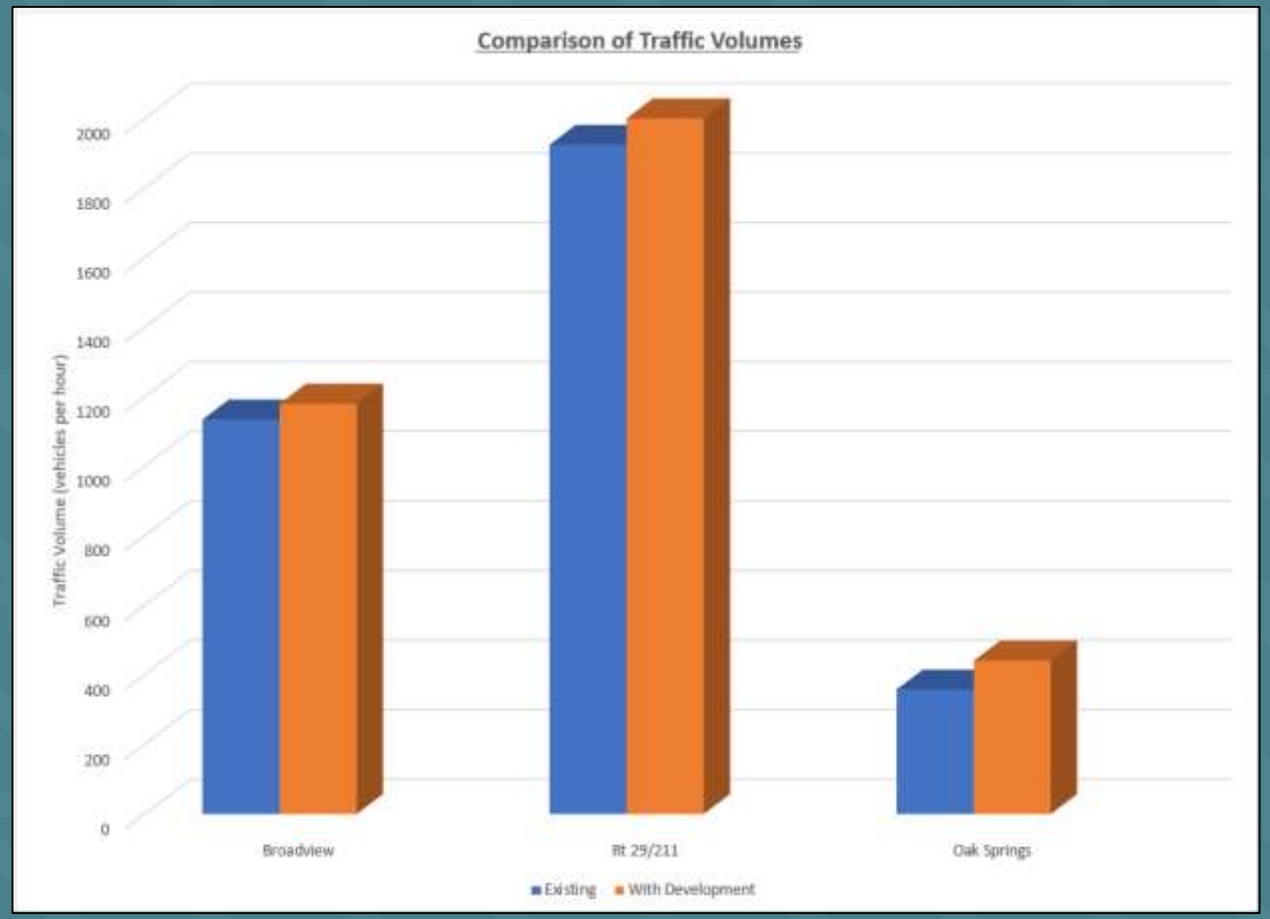
- The residential traffic volumes are lower than what would be seen if the site was developed by right with 40,000 sf of retail instead



SITE TRIP IMPACTS

Minimal Traffic Impact:

- Site-generated traffic represents a small percentage of the existing volumes:
  - 3 - 4% on Broadview Avenue
  - 0.1 - 4% on Rt 29/211
  - Greater proportion on Oak Spring Dr and Branch Dr, where current volumes are lower
- Capacity analysis confirms these modest additions can be accommodated by the surrounding road network without degrading operations



INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

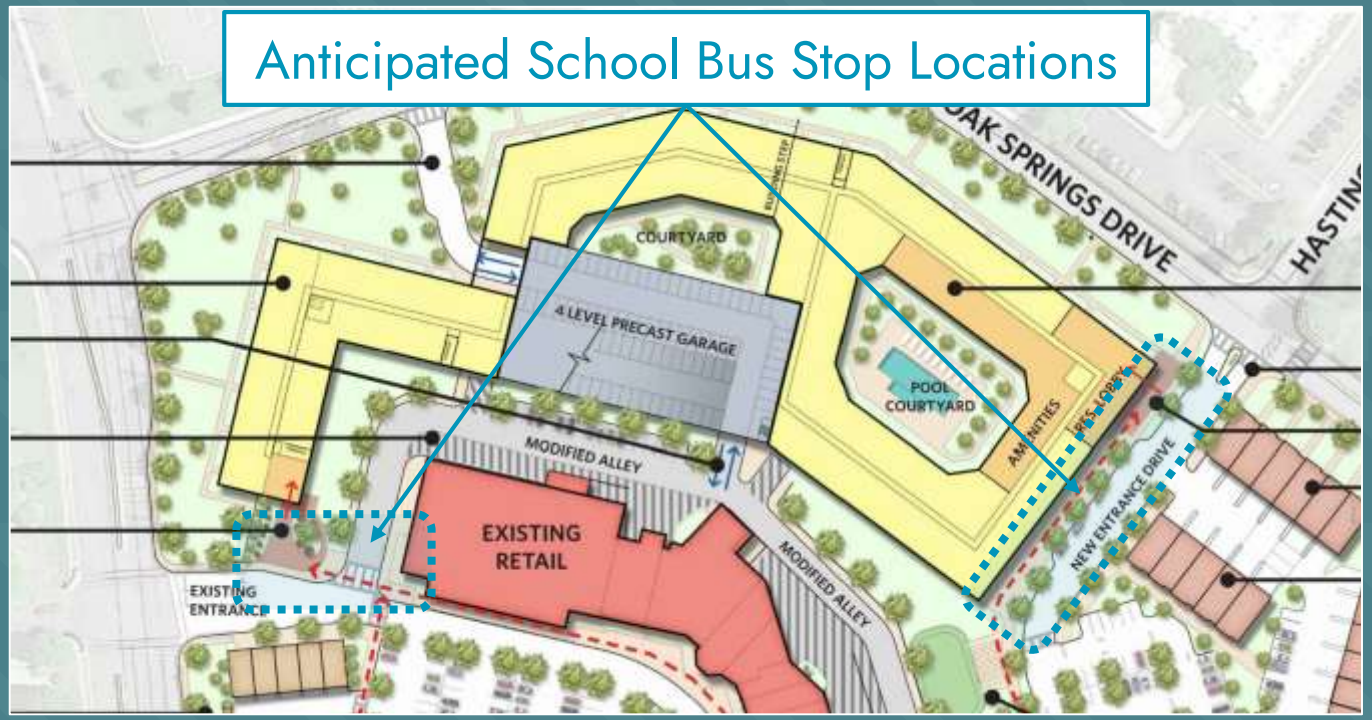
SCHOOL BUS ACCOMMODATIONS

School Bus Stops:

- The developer will work with County schools on exact locations of school bus stops
- Expected to be near the residential lobbies

Impact on Traffic:

- Anticipated that buses will stop on internal streets, rather than adjacent public roads
- Maintain the flow of through traffic on the surrounding streets during peak school travel times



HIGHLAND SCHOOL TRAFFIC

Balancing Access and Minimizing Disruption:

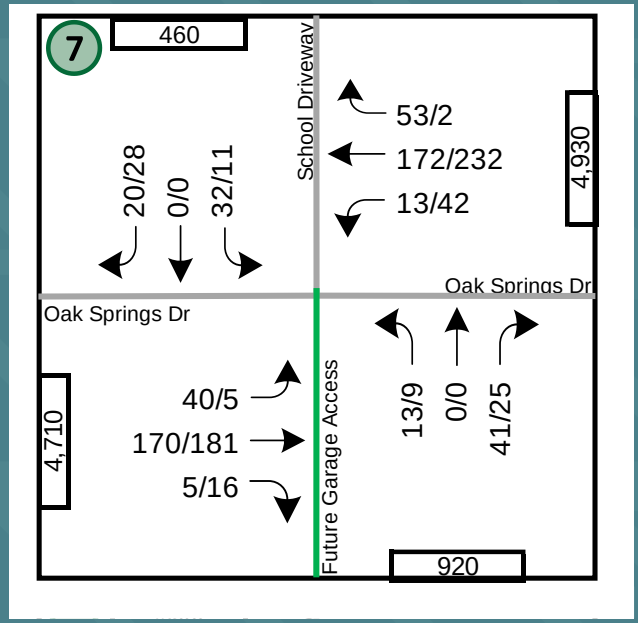
- The proposed parking deck entry is positioned across from the Highland School driveway to balance access needs while minimizing disruption to the existing intersection

Minimizing Conflicts with School Peak Hours:

- Analysis found Highland School and residential AM peak hours have a 15-minute overlap, during which conflicts are expected to be minimal
- Analysis found no overlap in PM peak hours
- It is anticipated that residents will use secondary garage entrance during AM peak hours, which will further reduce conflicts

Accommodating School Operations:

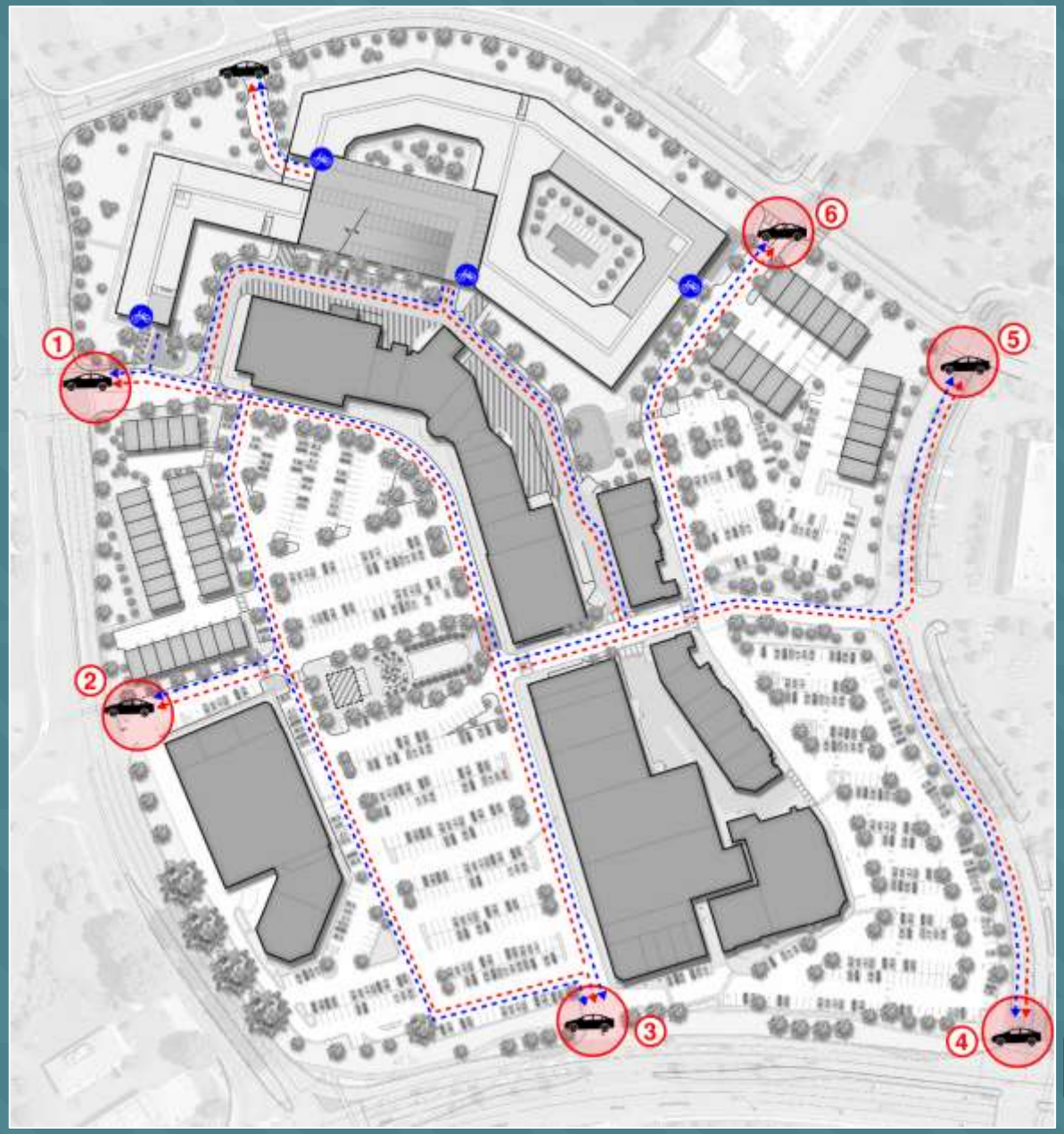
- Observations showed limited queuing of vehicles along Oak Springs Dr at the existing Highland School access point, even during peak times
- The school has multiple pickup/drop-off locations and two entrances, which helps distribute the traffic



Overall, the traffic impacts from the proposed development are not anticipated to significantly disrupt or impede the normal operations of Highland School

HIGHLAND SCHOOL TRAFFIC

- Residents of Warrenton Village Center will want to avoid traffic as much as those dropping off/picking up students at Highlands School
- The site provides 6 alternative points of ingress/egress for vehicles and bicycles that will be the preferable route of travel during peak traffic hours to avoid congestion on Oak Springs Drive
- These alternative points of ingress/egress will further reduce what the Traffic Impact Analysis has determined to be minimal conflicts to the Highland School traffic



ROAD IMPROVEMENTS

Turn Lane Warrant Analysis:

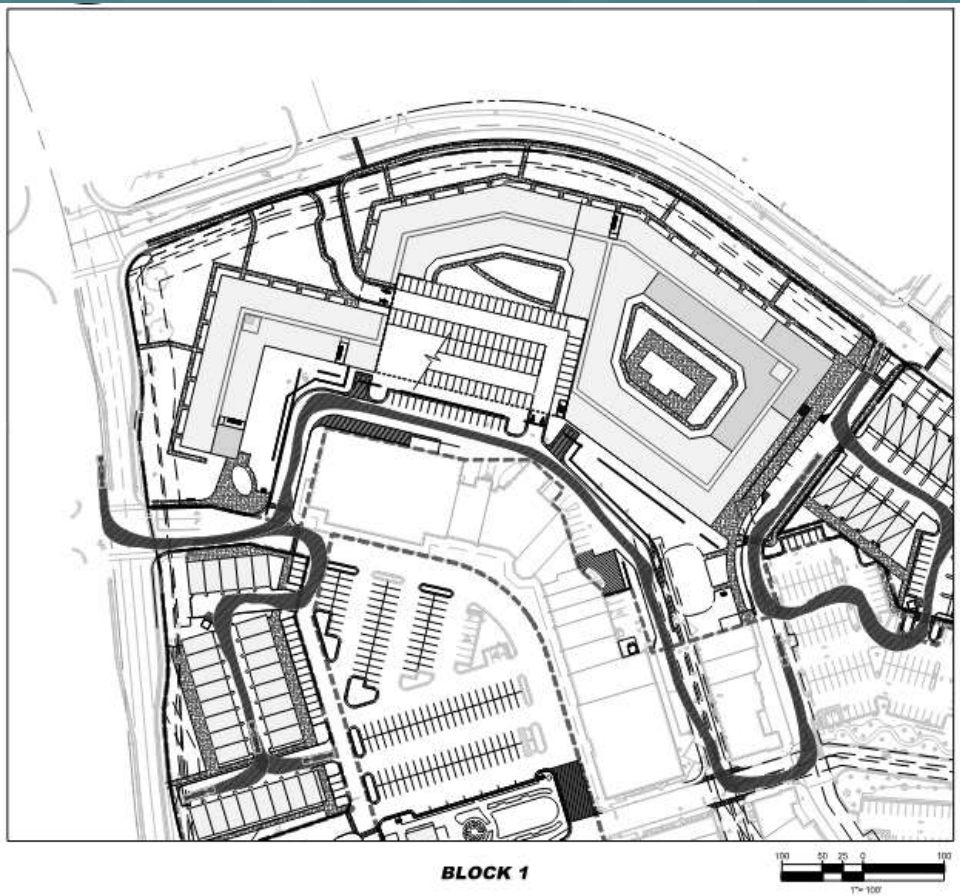
- No new turn lanes warranted at proposed site access points per VDOT standards
- No new turn lanes recommended to be constructed by the development

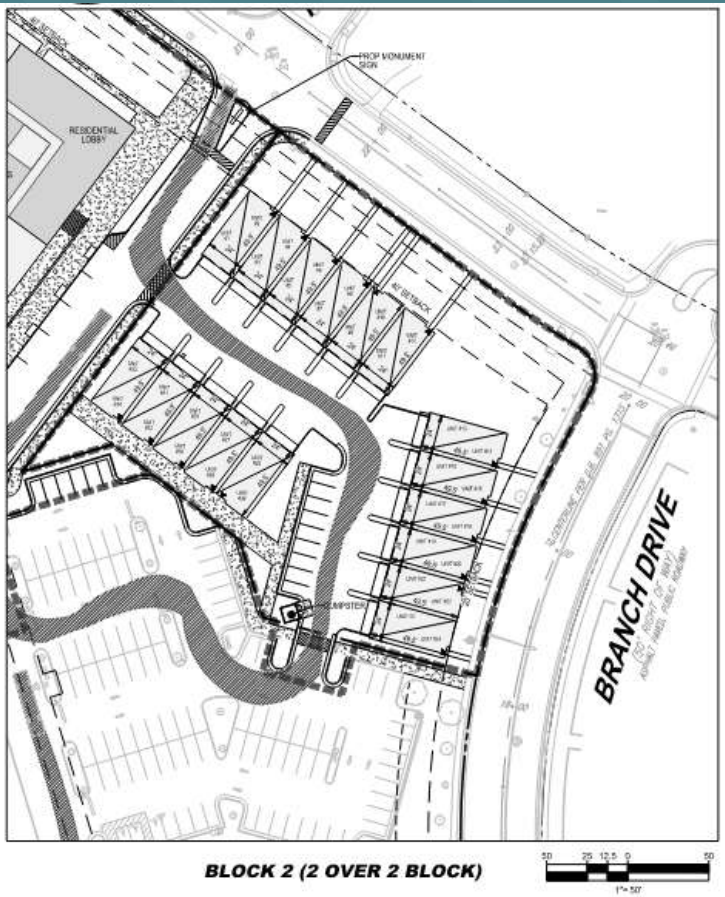
Signal Warrant Analysis:

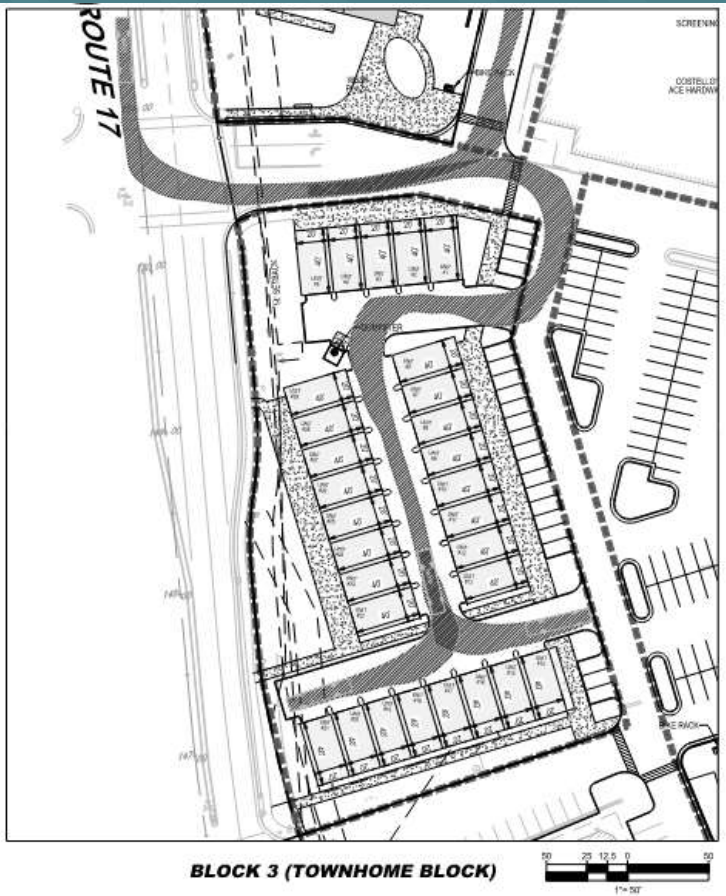
- Signal warrant analysis performed for Broadview Ave/Oak Springs Rd intersection
- Traffic volumes do not meet MUTCD signal warrants, so signalization is not recommended
- Unsignalized operations projected to function acceptably at LOS C or better

The Warrenton Village Center development does not necessitate any additional roadway improvements beyond what is already planned by VDOT and the Town

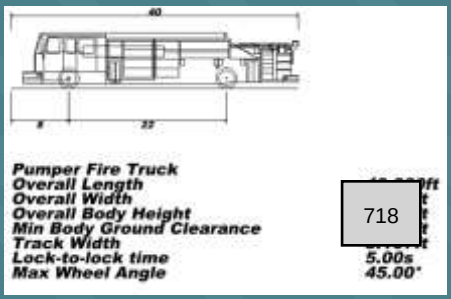
EMERGENCY & DELIVERY VEHICLE MOVEMENTS







- Vehicle turning analysis has confirmed maneuverability throughout all blocks
- Mountable curbs can be included at desired locations during site plan



SUMMARY OF IMPACTS

Additional Traffic:

- The proposed 386 residential units will generate 154 new trips in the AM peak and 197 in the PM peak hour
- This equates to about 4% of the current traffic on most surrounding roadways

Dispersed Access Points:

- Multiple entry/exit locations directly to Oak Springs Dr and through shopping center driveways
- Distributes new trips across the road network, avoiding concentration at a single point

SUMMARY OF IMPACTS

Leveraging Existing and Planned Infrastructure:

- The mixed-use nature of the development will help reduce external trips generated, as some trips can be captured internally
- Surrounding street grid offers multiple route choices, dispersing trips
- Planned roundabout will improve operation at Rt 29/211 and Broadview Ave
- Capacity analysis confirms surrounding intersections and roads can accommodate the new traffic with minimal impact

Outcome:

- The Warrenton Village Center development would improve walkability, vibrancy, and housing choices, with a marginal increase in traffic that does not warrant new road improvements

SCHOOLS

PROJECTED STUDENTS

Fauquier County Student Generation Calculation:

- 0.72 students per single family detached dwelling
- 0.45 students per single family attached dwelling
- 0.20 students per apartment dwelling

- Allocation per school type assumption is:
  - 52% elementary school
  - 22% middle school
  - 26% high school

PROJECTED STUDENTS

Warrenton Village Center Projection at Full Buildout and Occupancy:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

- Allocation per school:
  - Bradley (52%) = 49
  - Taylor (22%) = 21
  - FHS (26%) = 24

FAUQUIER COUNTY ENROLLMENT PROJECTIONS

Enrollment Projection

This is an 5-year analysis of program capacity based on projected enrollment. This analysis is a cohort progression model, looking at birth rates and considers a growth factor. Areas of concern are:

- Elementary (South and Central)
- Middle School Growth
- Liberty HS

	Program Capacity	95% Cap	Actual Enrollment 2019-20	2020-21	2021-22	2022-23	2023-24	% Cap	Projected Enrollment 2024-25	2025-26	2026-27	2027-28	2028-29
ES South													
Miller	580	551	493	476	484	489	506	87.2%	503	492	504	505	522
Pearson	532	505	385	347	365	367	381	71.6%	397	394	407	422	433
Pierce	560	532	550	487	514	531	533	95.2%	537	548	554	543	551
Walter	588	559	410	363	412	399	396	67.3%	409	430	451	452	474
Subtotal South	**2,260**	**2,147**	**1,838**	**1,673**	**1,775**	**1,786**	**1,816**	**80.4%**	**1,846**	**1,864**	**1,916**	**1,922**	**1,980**
ES Central													
Bradley	588	559	369	332	339	356	349	59.4%	341	354	355	363	360
Brumfield	716	680	495	458	482	492	508	70.9%	530	560	580	608	644
Greenville	604	574	531	437	479	495	494	81.8%	506	506	498	468	471
Ritchie	548	521	483	416	478	491	522	95.3%	532	529	543	547	563
Smith	572	543	414	356	414	418	393	68.7%	418	443	465	505	524
Subtotal Central	**3,028**	**2,877**	**2,292**	**1,999**	**2,192**	**2,252**	**2,266**	**74.8%**	**2,327**	**2,394**	**2,441**	**2,491**	**2,562**
ES North													
Coleman	520	494	347	276	311	332	315	60.6%	312	302	280	270	266
Thompson	368	350	254	224	257	256	262	71.2%	267	280	310	327	344
Subtotal North	**888**	**844**	**601**	**500**	**568**	**588**	**577**	**65.0%**	**579**	**582**	**590**	**597**	**610**
TOTAL ELEMENTARY	**6,176**	**5,867**	**4,731**	**4,172**	**4,535**	**4,626**	**4,659**	**75.4%**	**4,752**	**4,840**	**4,947**	**5,010**	**5,152**
Available Capacity			**1,445**	**2,004**	**1,641**	**1,550**	**1,517**	**24.6%**	**1,424**	**1,336**	**1,229**	**1,166**	**1,024**
Middle Schools													
Auburn	622	591	568	513	575	552	578	92.9%	588	590	613	647	668
Cedar Lee	900	855	650	622	613	596	837	93.0%	877	864	805	851	859
Marshall	654	621	466	445	419	408	405	61.9%	396	391	391	413	414
Taylor	618	587	470	422	435	424	607	98.2%	607	601	569	601	606
Warrenton	-	-	432	368	366	392	-		-	-	-	-	-
TOTAL MIDDLE	**2,794**	**2,654**	**2,586**	**2,370**	**2,408**	**2,372**	**2,427**	**86.9%**	**2,468**	**2,445**	**2,379**	**2,512**	**2,547**
Available Capacity			**208**	**424**	**386**	**422**	**367**	**13.1%**	**326**	**349**	**415**	**282**	**247**
High Schools													
Fauquier	1,612	1,531	1,254	1,217	1,170	1,134	1,122	69.6%	1,089	1,111	1,153	1,147	1,170
Kettle Run	1,360	1,292	1,184	1,147	1,112	1,172	1,164	85.6%	1,165	1,214	1,233	1,241	1,267
Liberty	1,370	1,302	1,250	1,252	1,259	1,324	1,300	94.9%	1,261	1,283	1,328	1,341	1,368
TOTAL HIGH	**4,342**	**4,125**	**3,688**	**3,616**	**3,541**	**3,630**	**3,586**	**82.6%**	**3,515**	**3,608**	**3,714**	**3,729**	**3,805**
Available Capacity			**654**	**726**	**801**	**712**	**756**	**17.4%**	**827**	**734**	**628**	**613**	**537**
District Total	**13,312**	**12,646**	**11,005**	**10,158**	**10,484**	**10,628**	**10,672**	**80.2%**	**10,735**	**10,893**	**11,040**	**11,251**	**11,504**

*Data provided by Fauquier County Public Schools

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

MODIFICATIONS & WAIVERS

ZONING ORDINANCE 9-25: MIXED-USE DEVELOPMENT OPTIC

The mixed-use development option is created within the Commercial District to allow a mixture of uses when consistent with the Comprehensive Plan. The mixed-use option is intended to encourage development in a creative and integrated manner that encourages pedestrian walkability, shared open spaces and an alternative form of housing within the Town.

Section J. – Modifications:

Modifications from the standards set forth in Section 9-25 may be approved by Town Council in conjunction with the Special Use Permit upon a determination that the intent of the Comprehensive Plan is being met.

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #1



- Section 3-4.10.3 of the Zoning Ordinance provides that density in a mixed-use development within a Commercial zone may be calculated pursuant to Sec. 9-25 of the Zoning Ordinance
- Sec. 9-25 allows for calculation of density in a mixed-use development to be up to 1 dwelling unit per 500 square feet of non-residential space. This section also provides that density above 5 units per acre must be approved by the Town Council.
- While this is a modification of Sec. 3-4.10.3, the requested density is fully consistent with the provisions of Sec. 9-25 for a mixed-use development, and less than what could be achieved
- This modification will allow for realization of the concentrated increased density that is a primary objective of the New Town Character District
- **Waiver Request #1:** Increase density above 5 units per acre to 13.28 units per acre, which will yield 386 units

DENSITY CALCULATIONS

By-Right Density Calculation:

- 5 dwelling units per acre
- 5 x 29.05 acres = 145 units

By-Right Density Calculation, with affordable housing bonus:

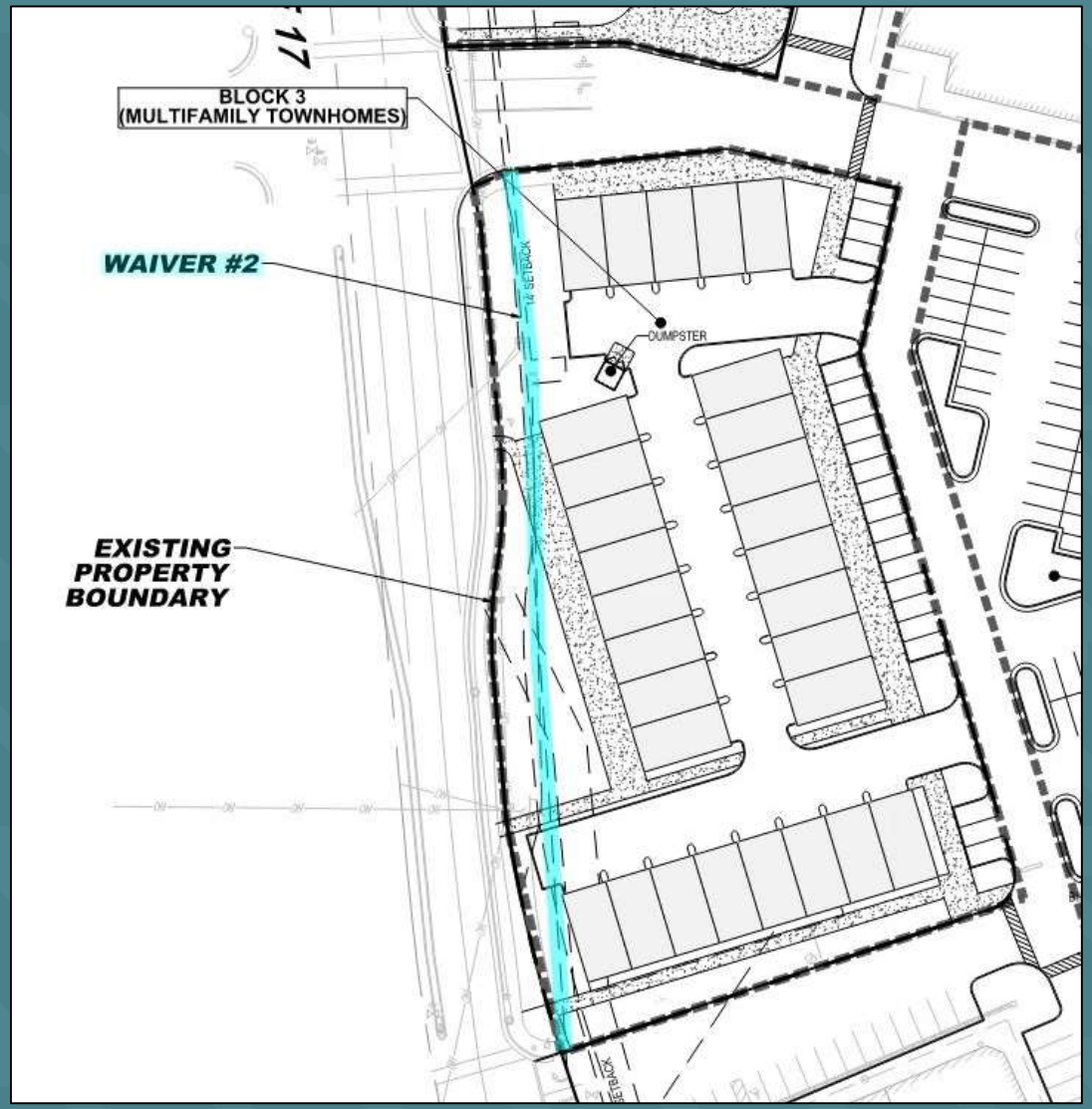
- 10 dwelling units per acre
- 10 x 29.05 acres = 290 units

Mixed-Use Density Calculation (with SUP approval):

- 1 dwelling unit per 500 GSF of non-residential floor space
- 218,142 GSF / 500 = 436 units (15 units per acre)

- Requested Density = 386 (13.28 units per acre)

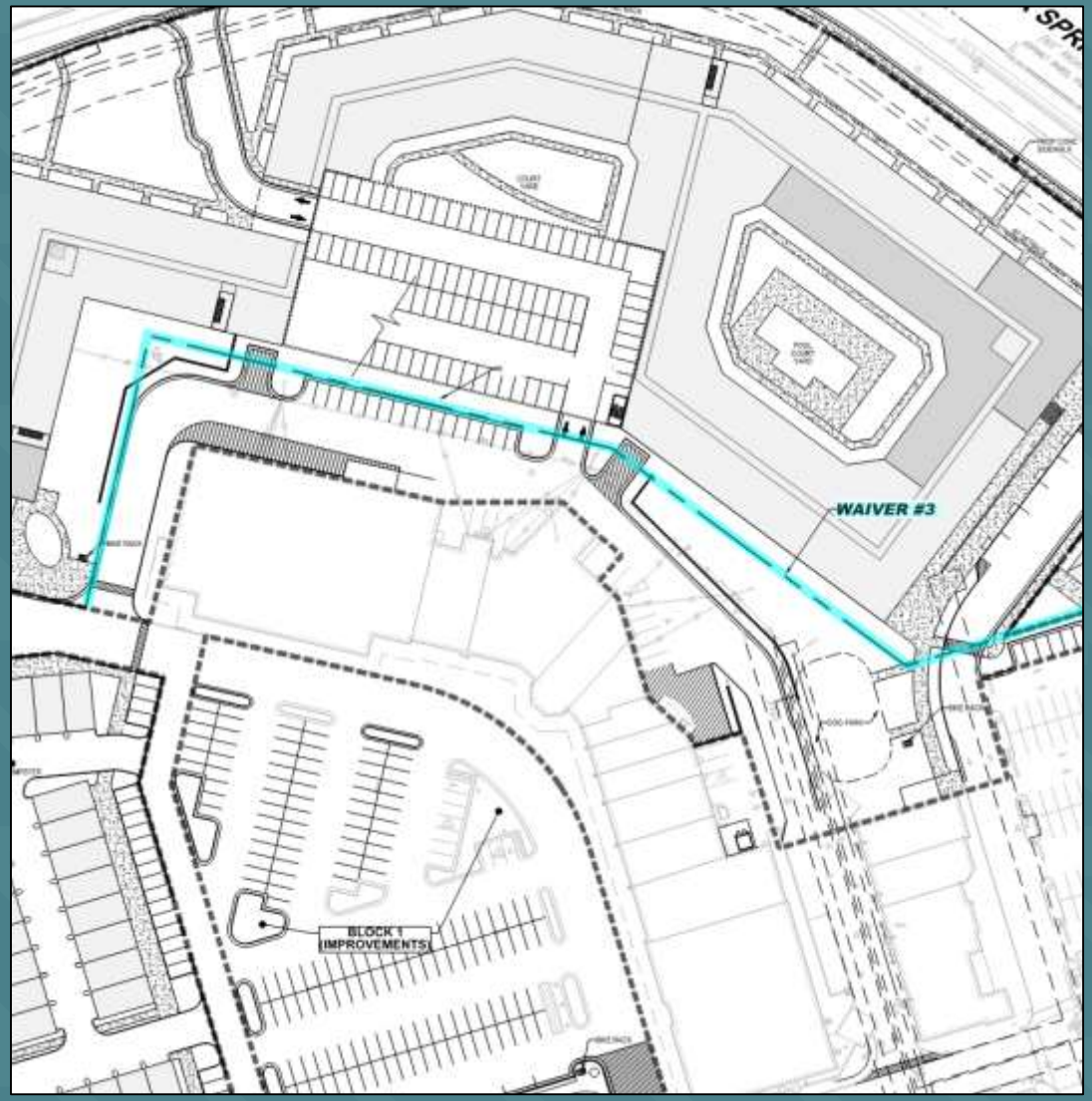
SUP MODIFICATION & WAIVERS – WAIVER REQUEST #2



- Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #2**: Decrease minimum setback to 14' along Broadview Avenue

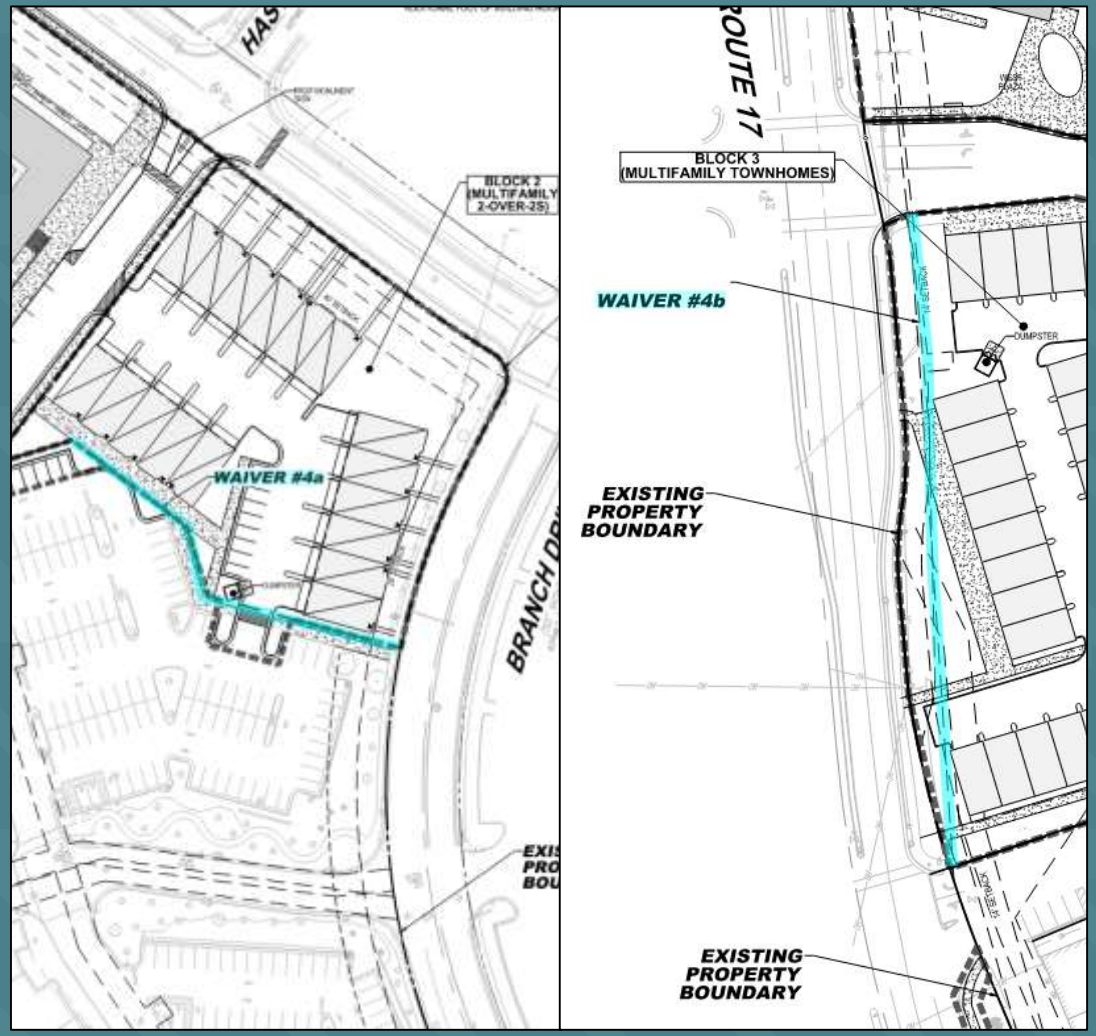


SUP MODIFICATION & WAIVERS – WAIVER REQUEST #3



- Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- **Waiver Request #3:** Decrease side/rear yard setbacks along internal proposed and existing property lines to 0'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #4



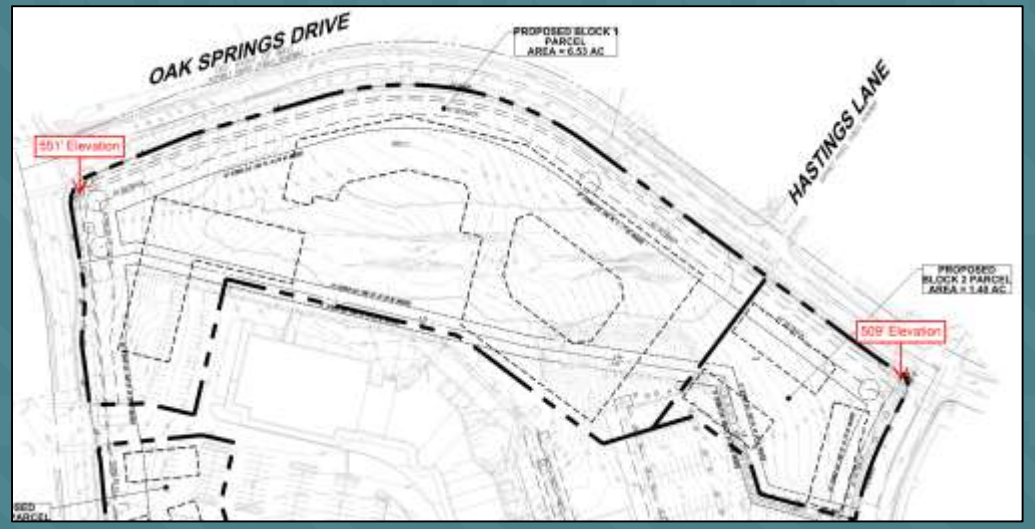
- Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0'
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #5

- Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and rear setbacks increase 1' for each additional foot of building height over 35'.
- **Waiver Request #5**: Increase height limit for dwellings as follows:
  - 54' max height for Block 1, Oak Springs Drive Frontage
  - 36' max height for Block 1, Broadview Drive Frontage
  - 45' max height for Block 2
  - 36' max height for Block 3

WHY ADDITIONAL HEIGHT IS NEEDED

- Site drops 42’ from Broadview Avenue to Branch Drive
- The building starts as 3-stories on the west side at the higher elevation and increases to 4-stories on the east side as the elevation drops
- Increasing height as a building moves down a hill is a technique to keep consistency in scale across a building’s elevation, as well as a way to conceal retaining walls within the building’s foundation, as opposed to creating unsightly external walls

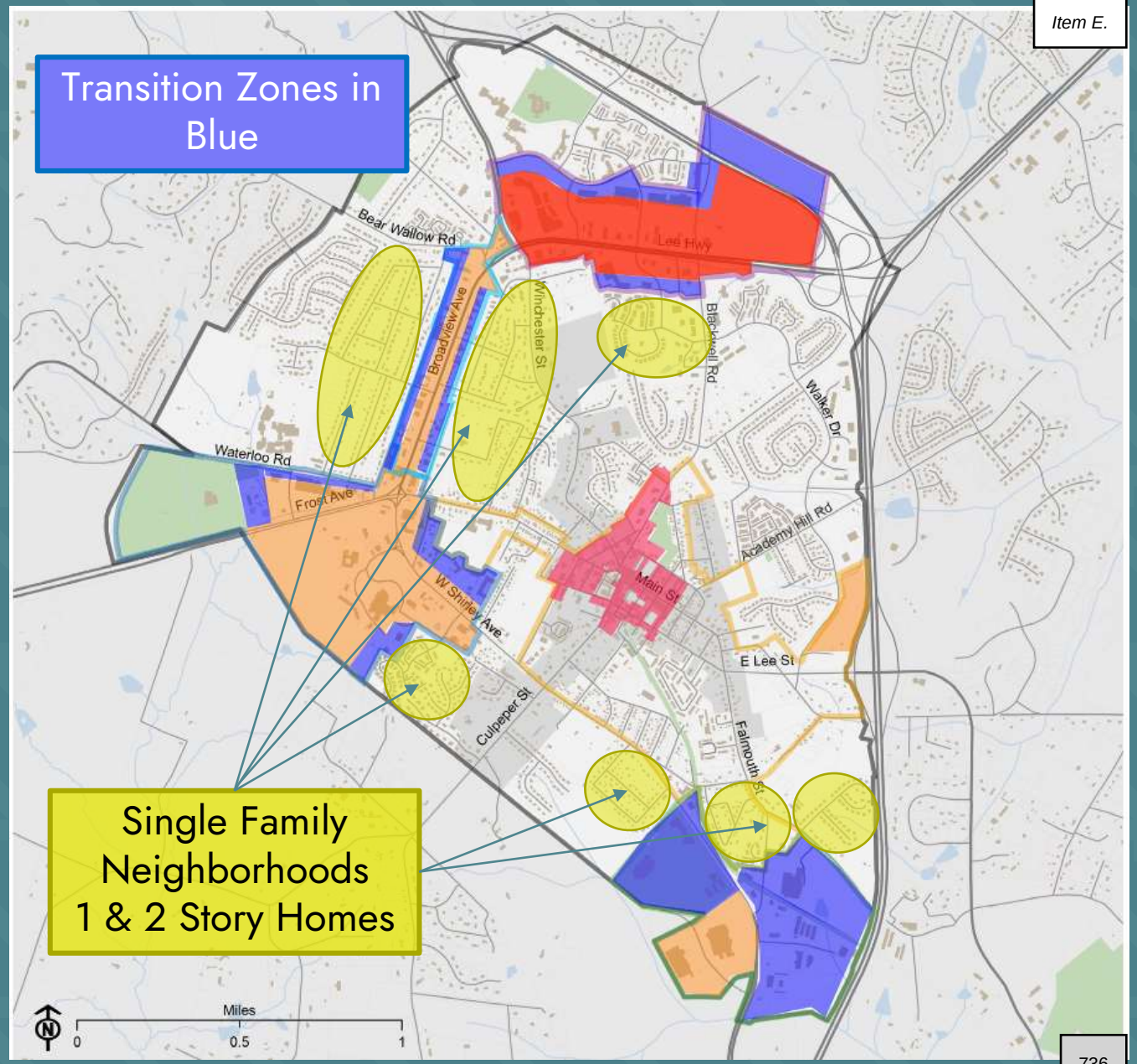


WHY ADDITIONAL HEIGHT IS NEEDED

- The New Town Character District has been established in Plan Warrenton 2040 as a designated area of high density—3-story residential does not allow for the concentrated density desired in the District
- The New Town Character District calls for "greater intensity of mixed-use and strong live, work, and play options" and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this Character District.
- 4-stories allows for the internal parking garage to be hidden from the exterior of the building

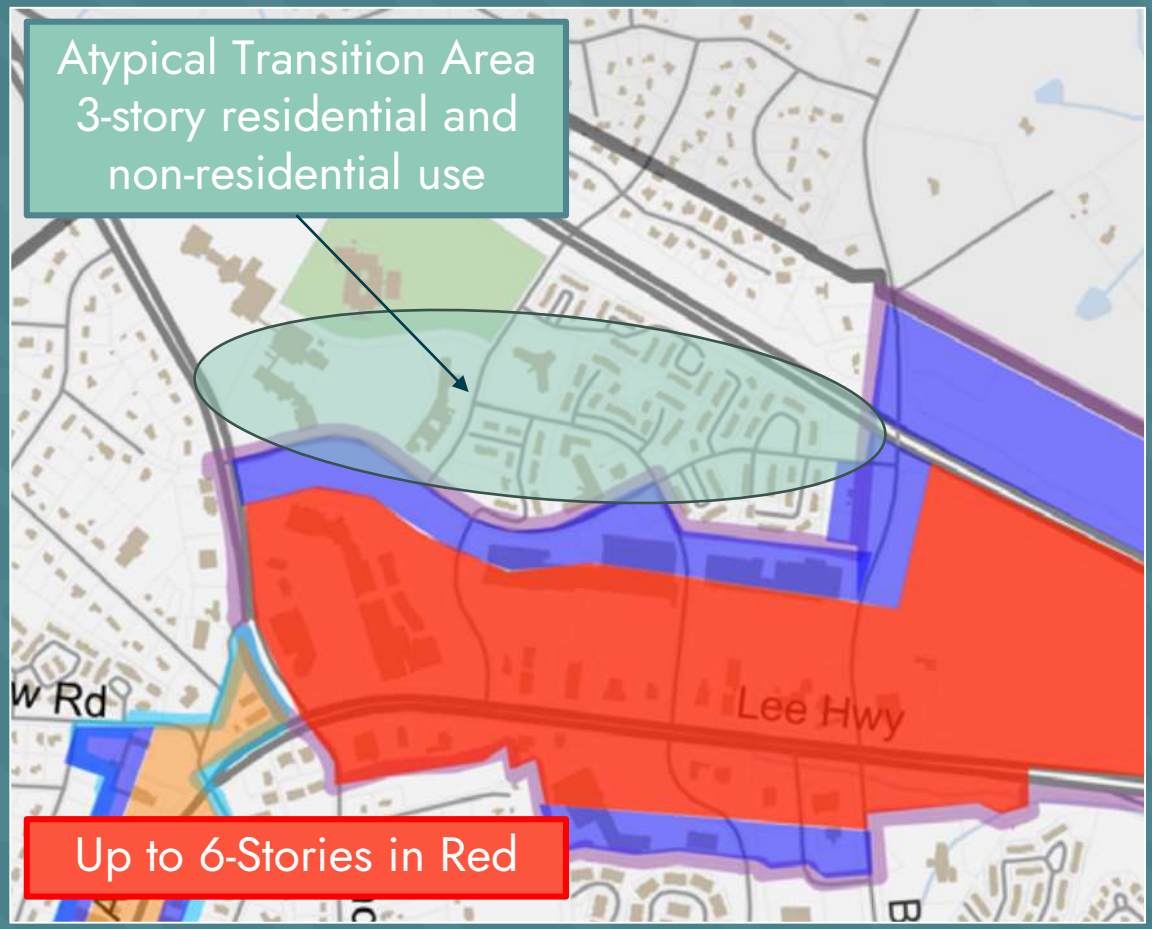
TRANSITION ZONES

- The area along the south side of Oak Springs Drive is located within in a “Transition Zone” as defined by Plan Warrenton 2040
- Transition Zones are “specifically defined as adjoining neighborhoods to articulate a step down in the number of stories for greater compatibility to adjoining single-family neighborhoods”
- These areas are intended to be a max of 3-stories to provide a step down to the adjacent 1- and 2-story single family neighborhoods
- Transition Zones have been placed in accordance with this definition across the Future Land Use map



TRANSITION ZONES

- With the exception of the Transition Zone placed along Oak Springs Drive
- The uses on the north side of Oak Springs Drive are not 1- & 2-story single family neighborhoods
- This area is occupied with 3- & 4-story apartments, 3-story townhomes, Brookside Rehab & Nursing Center and Highland School
- Because of this, increasing building heights to 4-stories at Warrenton Village Center still provides the intended step-down affect, given that the uses on the north side are atypical, 3-story and non-residential uses and the uses along Lee Hwy may go up to 6-stories



SURROUNDING BUILDING HEIGHTS



NOTABLE WARRENTON BUILDING HEIGHTS

- Warrenton Manor Apartments
  - Stories: 4
  - Location: Hastings Lane
  - Zoning: Residential Multi-Family
  - Future Use: Live-Work Neighborhood



- 98 Alexandria Pike Office Building
  - Stories: 5
  - Location: North of Old Town
  - Zoning: Central Business District
  - Future Use: Old Town Mixed Use



NOTABLE WARRENTON BUILDING HEIGHTS

- 28 Blackwell Park Lane Office Building
  - Stories: 3
  - Location: Blackwell Business Park
  - Zoning: Commercial
  - Future Use: Commercial



- Hampton Inn
  - Stories: 5
  - Location: Blackwell Road
  - Zoning: Commercial
  - Future Use: Commercial



NOTABLE WARRENTON BUILDING HEIGHTS

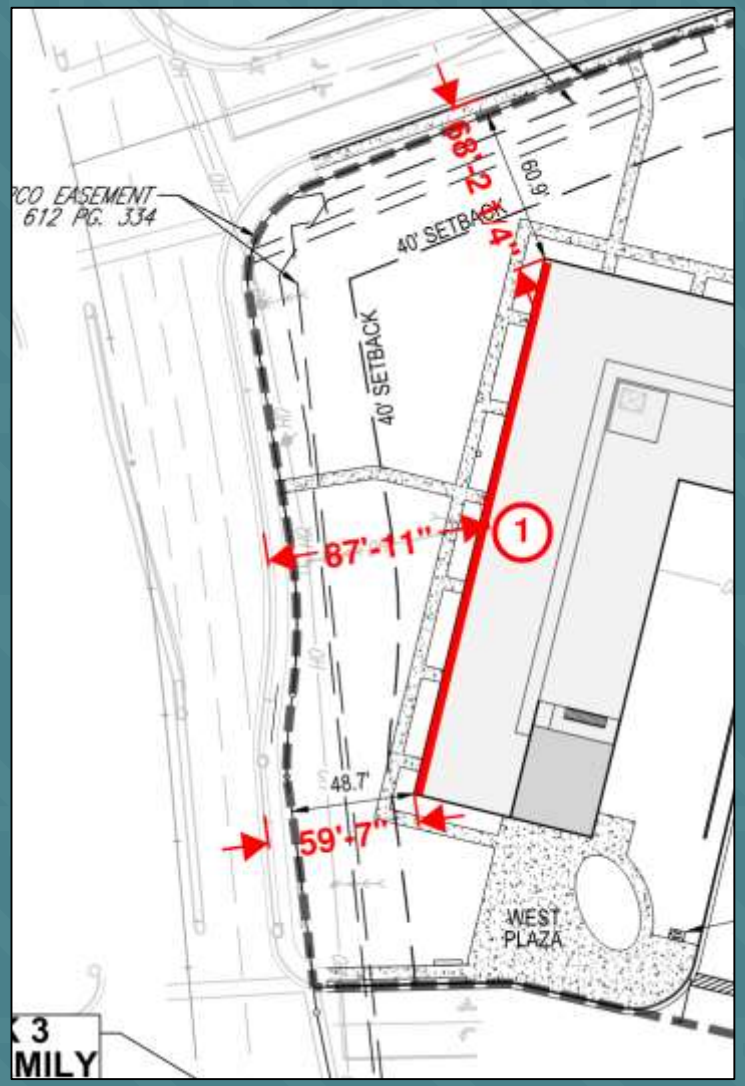
- Fauquier County High School
  - Stories: 4
  - Location: 705 Waterloo Road
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Non-Intensive



- Fauquier Health
  - Stories: 5
  - Location: 500 Hospital Drive
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Intensive



BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW



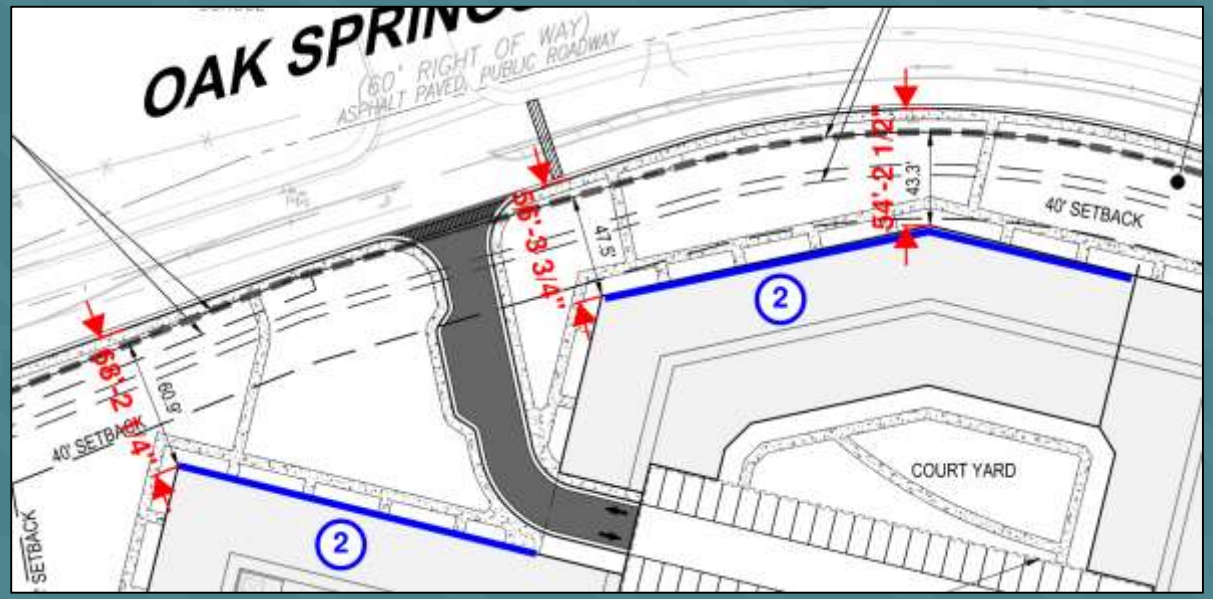


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	59′-7″

- Setback to Height Ratio = 1.7 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS



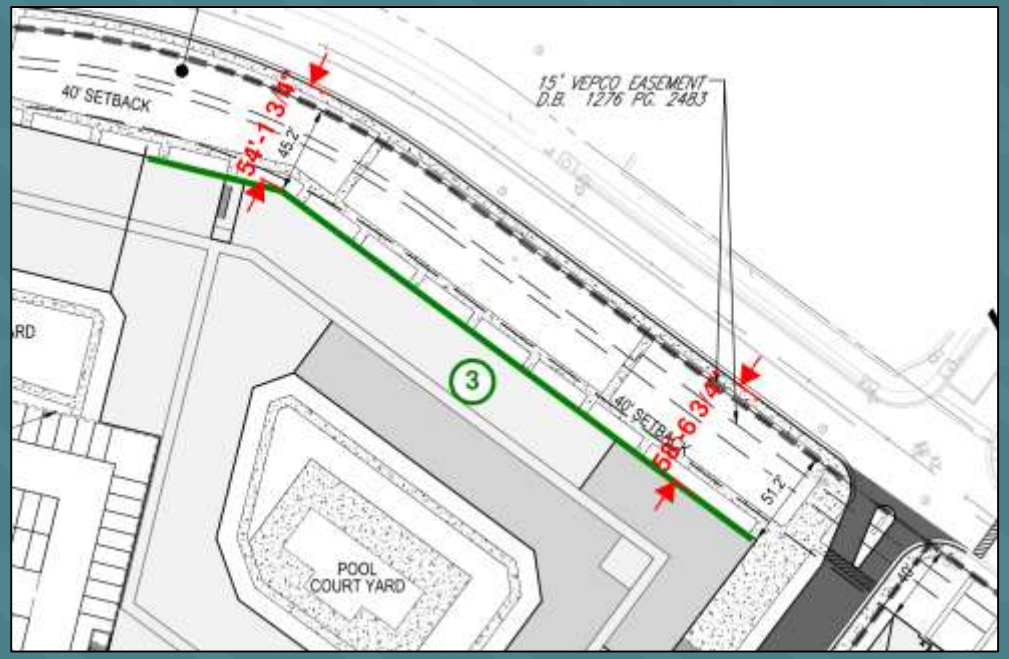


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	42′-11″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS





Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	45′-0″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS

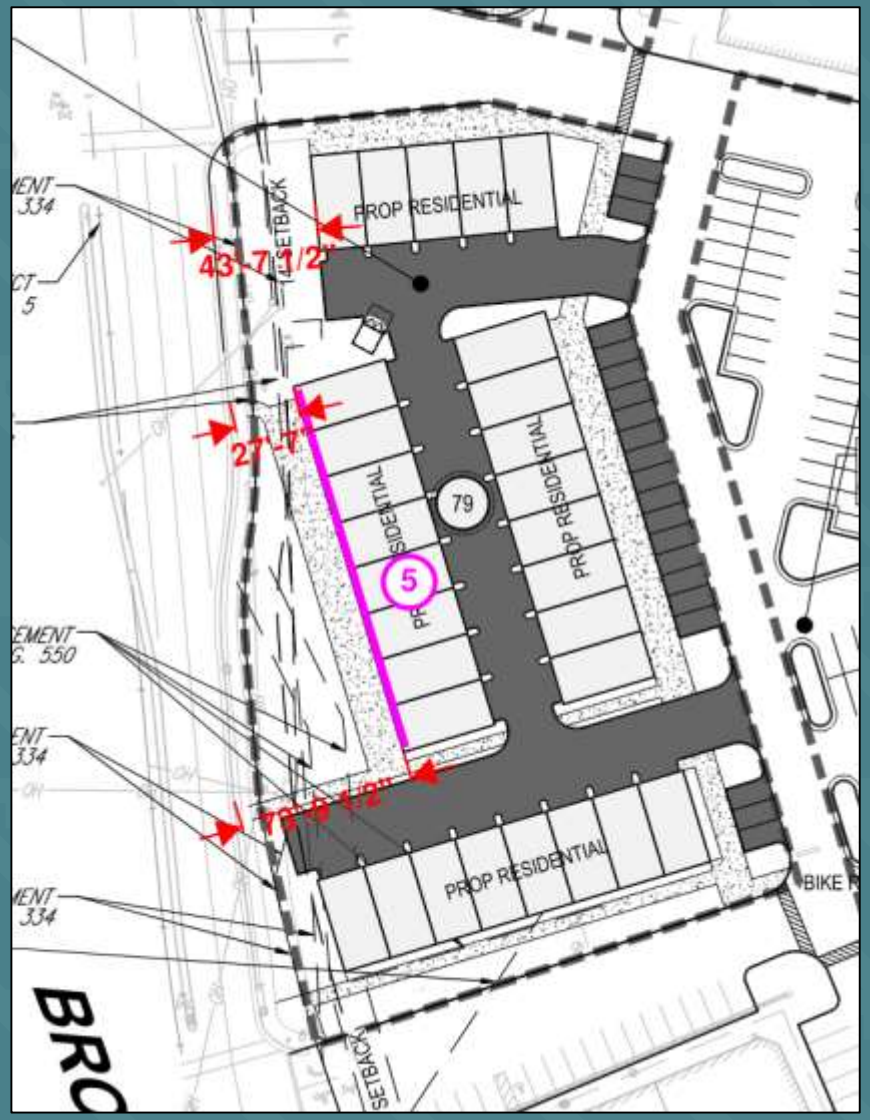




Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb (Oak Springs Dr.)	Minimum Setback from Curb (Branch Dr.)
4	43′-6″	45′-0″	46′-11″	21′-6″

- Setback to Height Ratio = ~1 : 1 on Oak Springs Dr
- Setback to Height Ratio = ~0.5 : 1 on Branch Dr

BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW





Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	27′-7″

- Setback to Height Ratio = 0.8 : 1

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION PUBLIC HEARING
JUNE 18, 2024



REQUESTS/PROCESS

- Recommendation of approval of Special Use Permit in accordance with Sec. 11-3.10
- Permitted under Sec. 9-25 as Mixed-Use Development, which permits waivers of standards
- Project Timeline:



SUPPORTED BY POLICY DOCUMENTS

- Town commissioned study calls for growth as only way to avoid budget shortfalls.
- Comprehensive Plan calls for achieving this growth through Character Districts, and this location is designated as part of the New Town Character District.
- Zoning Ordinance amendments allow for development in accordance with the Plan.

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

- An economic model was created to determine the impact of land use decisions and the resulting economic ramifications
- The model weighed the cost of the Town's desired capital projects against different growth scenarios:

Scenario	Intended Growth Strategy	New Housing Units (by 2039)	Annual Net Fiscal Impact
1	Minimal growth, i.e. 2010 – 2019 trends	Minimal	($508,808)
2	Become a stronger livable community	750+	($240,682)
3	Become a livable destination community	1,150+	$102,185
4	Become a regional live/work community	2,100+	$335,535

RKG Conclusion:

- To achieve the level of services and amenities desired by the citizens of Warrenton, the Town must increase its development activity
- Warrenton cannot "save its way" (i.e. cut back on spending) to fiscal sustainability
- Without residential development, "the Town does not have the demand to continue to increase retail services."

PLAN WARRENTON 2040



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

GOALS

H-1: Ensure equitable, attainable housing opportunities across residents of all ages, incomes, and abilities by catering to the needs of a diverse community, including young families, professionals early in their careers, essential workforce, and those entering retirement.

POLICIES & STRATEGIES

H-1.1: Encourage development of the "Missing Middle" housing types beyond traditional single-family homes, townhouses, and apartments by updating the Zoning Ordinance to create a beneficial mix.

H-2: Character Districts will accommodate a balance of available housing typologies that are compatible to existing neighborhoods in scale, character, and transition.

WATER / SEWER IMPACTS

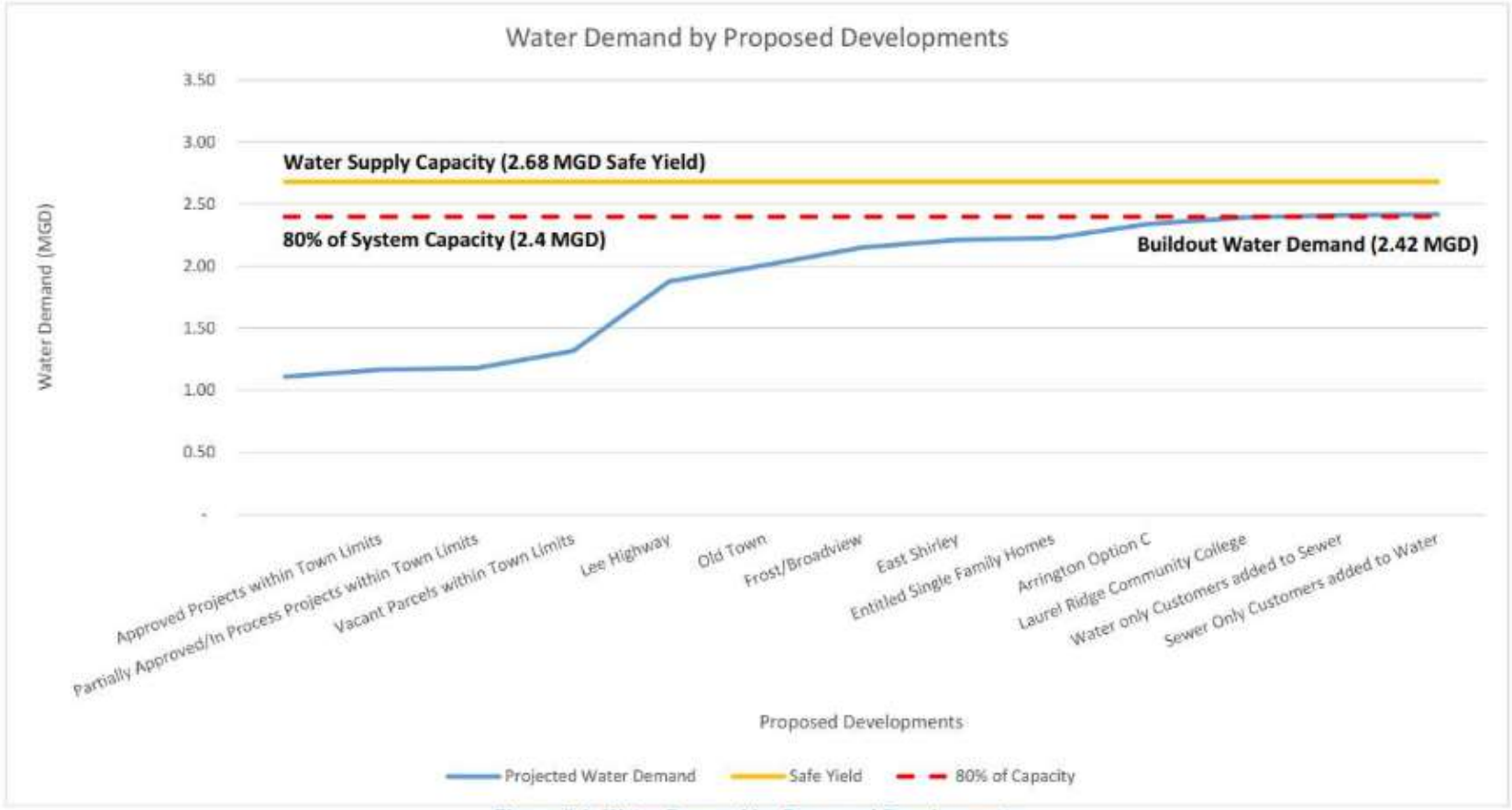


Figure 5.1: Water Demand by Proposed Developments

WATER / SEWER IMPACTS

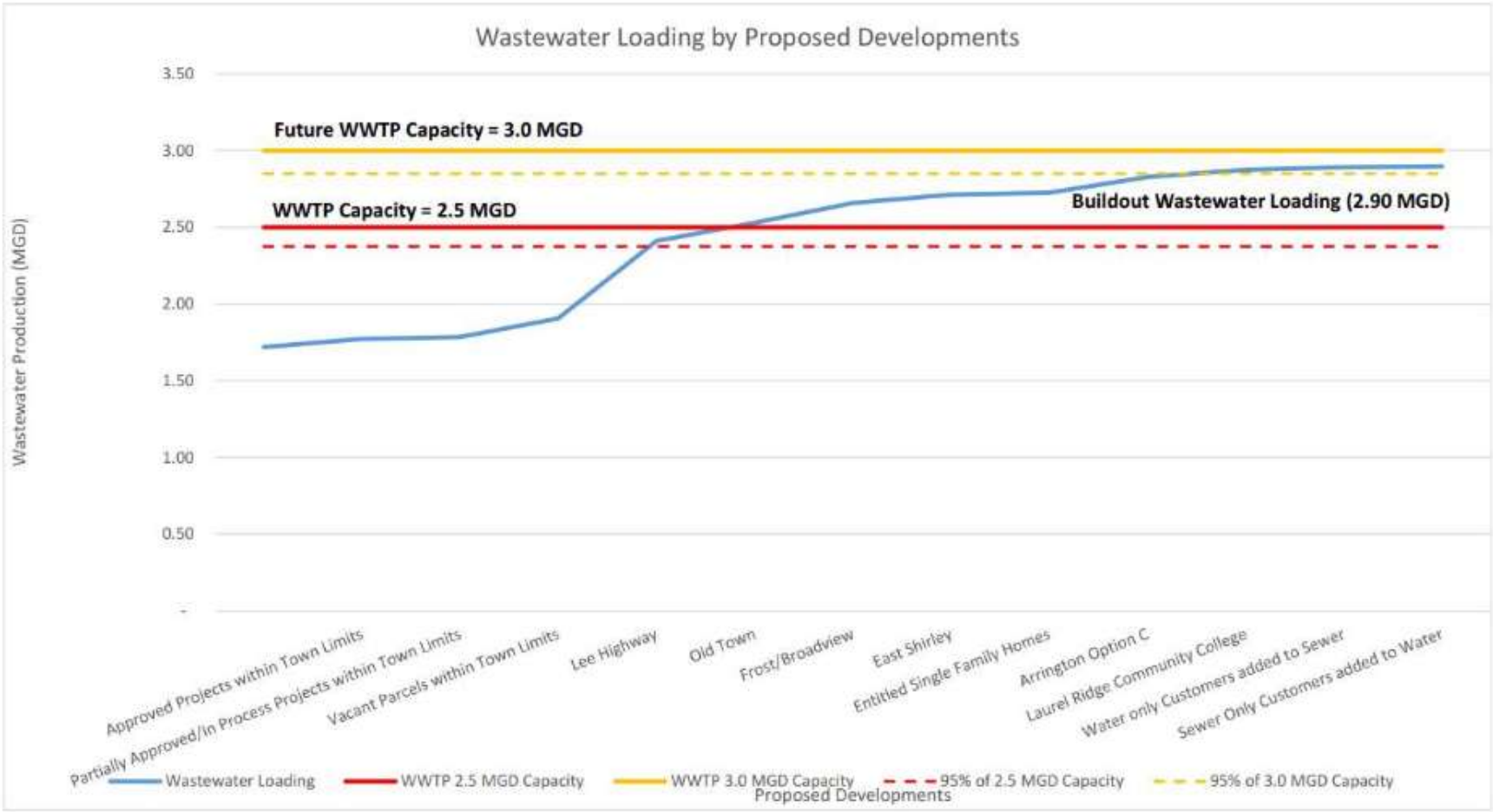


Figure 6.1: Wastewater Loading by Proposed Developments

INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

WHY HERE, WHY NOW?

The Warrenton Village Center SUP proposal is the desired result of a lengthy process of review, comparison analysis and decision making by the Town of Warrenton – from the White Papers through the Plan Warrenton 2040 drafting and adoption – and will serve as the building block upon which to create a highly desirable live/work/play community that is the goal of the Plan Warrenton 2040 New Town Character District

WHAT WE HAVE HEARD

- As shown above, this proposal has gone through significant public review, both through public work sessions with the PC and individual meetings with stakeholders
- Topics of discussion included:
  - Affordable Housing
  - Architecture
  - Traffic
  - Oak Springs Impacts
- We have taken this feedback into account and made changes to the proposal to address these issues

AFFORDABLE DWELLING UNITS

- ADU Unit Counts:
  - 80% AMI ADUs: 39 units
  - 70% AMI ADUs: 10 units
  - 60% AMI ADUs: 5 units
  - TOTAL ADUs: 54 units (14% of total proposed units)
- Income and rent limits will be in accordance with the current Multifamily Tax Subsidy Program (MTSP) Income and Rent Limits for Fauquier County as published by the Virginia Housing (formerly VHDA).

EXISTING CONDITIONS



Proposed Development Area

Existing Commercial Center

RESIDENTIAL BLOCK 1

Multi-Family Apartments

- Location: Vacant land on north side of the Center along Oak Springs Drive
- Units: Up to 320 total units
- Types: 1-, 2-, and 3-bedroom apartment units
- Parking: Internal 4-level parking garage
- Amenities:
  - 10,000 square foot leasing and amenity center
  - Central Plaza
  - East & West “Entrance” Plazas
  - Dog Park & Picnic Area
  - Pedestrian connectivity and circulation



760

RESIDENTIAL BLOCK 2

Multi-Family Townhomes

- Location: Vacant land at northeast corner of the Center at intersection of Oak Springs Drive and Branch Drive
- Units: Up to 26 townhome units
- Widths: Units currently proposed with 20' widths, yielding a plan count of 26 units. Proposal is up to 26 total units to account for width flexibility, which could impact total unit count.
- Types: 3-story, 3-bedroom townhome units
- Parking: Each unit has two internal parking garages



761

RESIDENTIAL BLOCK 3

Multi-Family 2-Over-2s

- Location: West side of the Center along Broadview Avenue, currently occupied by Summit Community bank and a vacant commercial bank building
- Units: Up to 40 total units
- Widths: Units currently proposed with 24′ and 20′ widths, yielding a plan count of 40 units. Proposal is up to 40 total units to account for width flexibility, which could impact total unit count.
- Types: 2-story, 3-bedroom 2-over-2 “condo” units
  3-story, 3-bedroom townhome units
- Parking: Each unit has one internal parking garage and one dedicated exterior surface space



762

PROJECT AMENITY IMPROVEMENTS

CENTRAL PLAZA

A new vehicular and pedestrian hub that will function as the heart of the Center and is sized, programmed, and planned to allow for community activities as well as everyday use

EAST & WEST PLAZAS

Smaller public plazas are proposed at the Broadview Avenue entrance and the Hasting Lane entrance to serve as “doorways” into the Center and enhance walkability between uses

DOG PARK / PICNIC AREA

New off-leash, fenced dog park and picnic areas will be accessible to the public.

OAK SPRINGS CROSSWALKS

Two crosswalks are proposed on Oak Springs Drive—one at Hastings Lane and one at the Highland School entrance, which will provide safe access for neighbors to the north

SIDEWALK RING COMPLETION

Proposal will complete a full ring of sidewalk around the entire Center, including the addition of a missing section of sidewalk behind Galaxy Strike Bowling

HASTINGS LANE EXTENSION

New vehicular and pedestrian entrance into the Center is proposed at the Oak Springs Drive and Hastings Lane intersection

MODIFIED ALLEY

Will serve as a secondary vehicular ingress/egress into the garage, as well as provide both residential and commercial loading and trash pickup areas

PEDESTRIAN CIRCULATION

Proposal includes an enhanced system of sidewalks, crosswalks and wayfinding to improve the safety and ease of pedestrian access the Center’s businesses

SITE PLAN OVERVIEW

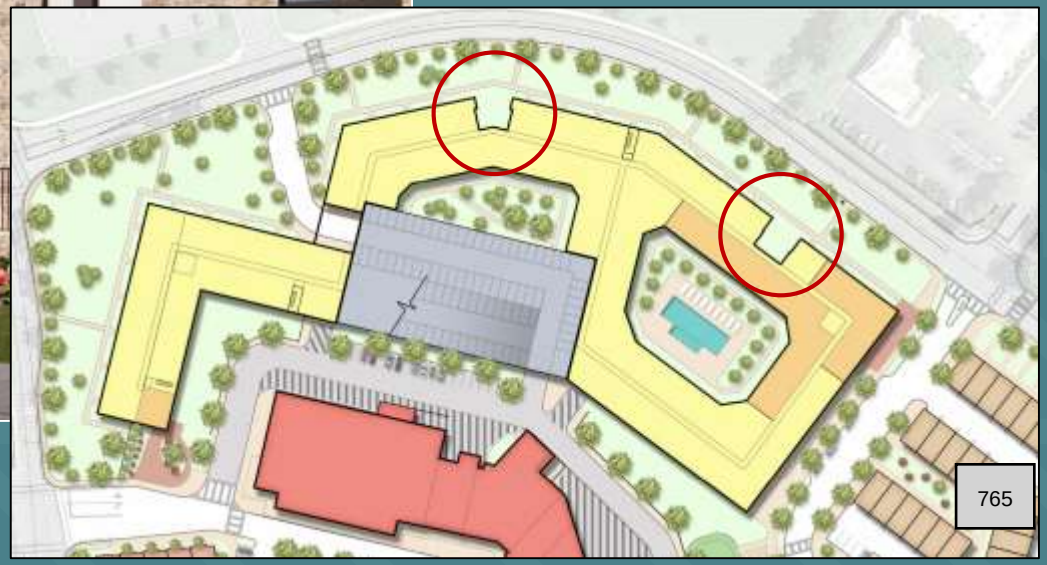
Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets
- Agree to install traffic mitigation measures at Oak Springs Drive garage exit during Highland School “peak” hours – access gate, signage, lighting, etc.



BLOCK 1 BUILDING “INSETS”





RESIDENTIAL BLOCK 1 – *WEST FACING ELEVATION FROM HASTINGS LANE*





RESIDENTIAL BLOCK 1 – *EAST FACING ELEVATION FROM BROADVIEW AVE*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS DRIV*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS D*





RESIDENTIAL BLOCK 2





RESIDENTIAL BLOCK 3





ARCHITECTURAL OPTION 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 2

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 1

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 2

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 1

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 2

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 2

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 1



View from Oak Springs Drive

ARCHITECTURAL OPTION 2



View from Oak Springs Drive

ARCHITECTURAL OPTION 1



View from Broadview Avenue

ARCHITECTURAL OPTION 2



View from Broadview Avenue

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Planning Commission Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
June 18, 2024

PC Decision Deadline June 27,2024 Unless Applicant Defers

Special Use Permit Application

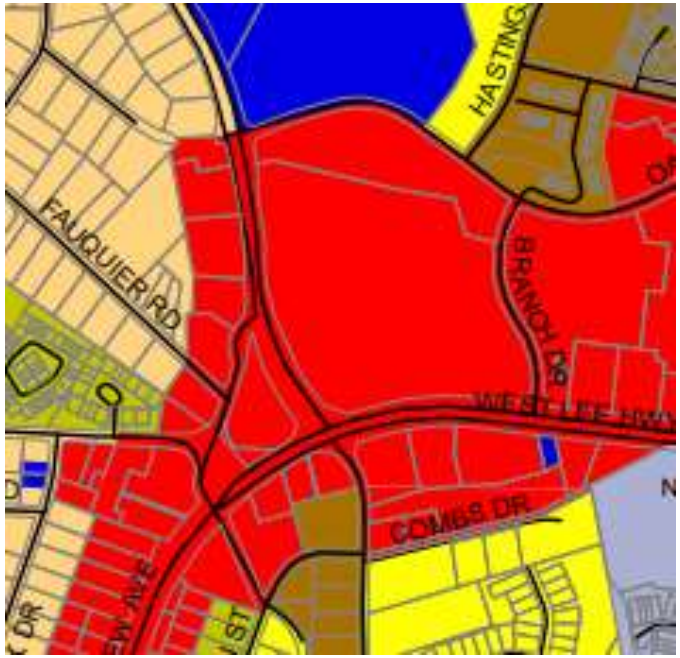
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, NewCastle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 34 2 over 2
  - Approximately 32 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map



Existing Commercial

Public/Semi Public School

Senior Care

Apartments

Zoning Districts

- R-15
- R-10
- R-6
- RT
- RMF
- RO
- PSP
- C

Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







PC Work Sessions

- Full site Design
- Schools
- Traffic Impact Analysis/Transportation
- Walkability/Bicycle/Grid Connections
- Open Space/Historic Resources/Public Amenities
- Affordable Dwelling Units
- Water and Sewer
- Plan Warrenton 2040

Proposal



Proposal Includes

- BLOCK 1 - 320 Apartments 1-3 BD, 4 story parking garage
- BLOCK 2 – 26 Townhomes 3 story
- BLOCK 3 - 34 2 over 2 4 story, 6 Townhomes 3 Story garage
- 10% Affordable Dwellings at 80%; 10 at 70%; 5 at 60%
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Elevations

5/31/2024

vs

2/13/2024





Elevations

Multi Family





Elevations

4 Story





Elevations

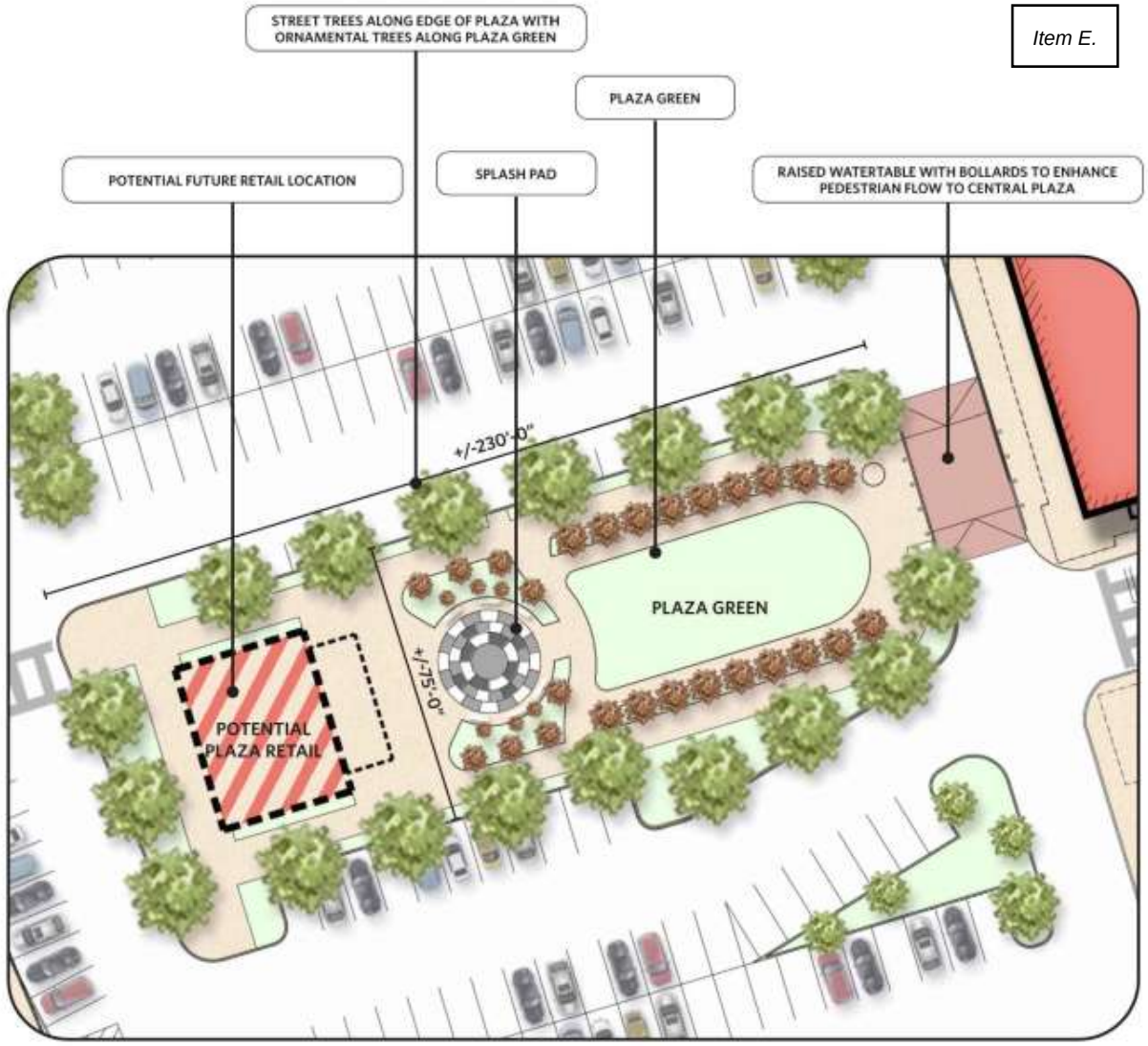
3 Story





Central Plaza





ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"

Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview
- Allow Retaining Walls over Six Feet

Draft Conditions of Approval

- Block 1, 2, or 3 in any order with triggers
- Elevations for 2/14/24 and 5/31/24
- Parking Garage South Facing Screening
- National Green Building Standard
- Prohibited Materials
- Signage and Lighting
- Refuse and Site Maintenance

Draft Conditions of Approval

- Affordable Dwelling Units 25 Years
  - 10% in each block at 80% AMI
  - Additional 10 in Block 1 70% AMI
  - Additional 5 in Block 1 60% AMI
  - Multifamily Tax Subsidy Program VA Housing
  - Similar architecture/fixtures
  - Warrenton/Fauquier Resident Preference
  - Condo Sale Provisions

Draft Conditions of Approval

- Transportation
  - Parking Garage
  - Sidewalks
  - Crosswalks on Oak Springs
  - EV Charging Stations
  - Modified Alley
  - Loading and Unloading

Draft Conditions of Approval

- Waivers and Modifications
  - Article 2-6.1 allow for increased density for 386 units/13.28 units per acre
  - Article 3-4.10.4 decrease Broadview Avenue front yard setback to 14', side/rear yard setback to 0'
  - Article 8-8.5 decrease buffer width commercial and residential to 0', decrease rear buffer for residential uses from public ROW to 14'
  - Article 2-20 Increase heights Block 1 54' Oak Springs Drive, Block 1 36' Broadview Ave, Block 2 36', Block 3 45'
  - Article 3-4.4.5.3 Allow TH grouping from 6 to 7
  - Article 2-19 Allow retaining walls and fences over 6'

Next Steps

- Hold Public Hearing
- Resolution for Recommendation to Town Council
- Decision Deadline June 27, 2024 – Unless Applicant Defers

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Planning Commission Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
June 18, 2024

PC Decision Deadline June 27,2024 Unless Applicant Defers

In Town

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: noreply@civicplus.com
Sent: Sunday, May 12, 2024 6:31 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Joyce Lisbeth
Address	[redacted]
City	Warrenton
State	VA
Zip Code	20186
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Town Council
Agenda Item	Warrenton Village Shopping Center High-Density
Comment	No no no! We live in Warrington to escape this nonsense. Are you going to build new schools first? Do we really need the traffic of northern Virginia every day in our little town? Whoever proposed to the traffic circles around here and the 4 way stops when people don't understand driving laws hence how to use them is bad enough. And another increase in the water and sugar bills? Almost a 50% hike in those costs in 1 year is absolutely ridiculous. People are having trouble providing food for their families with this inflation and you're going to make water and sewer another stress?

Email not displaying correctly? View it in your browser.

Matthew Cute

From: noreply@civicplus.com
Sent: Wednesday, May 8, 2024 7:13 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Benjamin Maas
Address	[redacted]
City	Warrenton
State	VA
Zip Code	20186
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Town Council
Agenda Item	High density housing
Comment	I enthusiastically support the planned housing development. Our community lacks the kind of housing that will draw our children back to Warrenton as adults. We also lack an adequate inventory of "affordable" housing for those who educate our children, care for our infirm, and protect our community. This is but a start and this is a far far cry from plunging off a cliff into becoming (pick your overgrown northern Virginia community). This is smart and necessary growth.

Email not displaying correctly? View it in your browser.

Matthew Cute

From: noreply@civicplus.com
Sent: Tuesday, April 30, 2024 12:18 PM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Carol C Colins
Address	[redacted]
City	Warrenton
State	va
Zip Code	20186
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	*Field not completed.*
Agenda Item	Warrenton Village Center
Comment	If this kind of high-density is within the town plan, I believe we need a revision to that plan. While the proposed project is attractive, the density is overwhelming to a modest-sized town such as ours. We are already concerned about capacity of water and sewer services; and already have increased traffic, thanks to development in our neighboring county of Culpeper. If you can keep this from going forward that would be in our best interest. A similar development--of a much smaller size--would be more appropriate.

Email not displaying correctly? View it in your browser.

Matthew Cute

From: William Goodrich [redacted]
Sent: Tuesday, April 16, 2024 4:15 PM
To: Planning Department
Subject: Warrenton Village Center Project

Some people who received this message don't often get email from williamgoodrich@hotmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I live in Warrenton on Broadview and I do not want a project that big going up just across the street from me. The reason I moved her is to avoid this kind of living. People move to Warrenton to escape Northern Virginia. Keep that crap out of here. Thank you

Matthew Cute

From: Michele Burwitz [redacted]
Sent: Monday, April 15, 2024 5:20 PM
To: Planning Department
Subject: Proposed Warrenton Village Center

Some people who received this message don't often get email from mlburwitz@yahoo.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hello. I live in the town of Warrenton in the Bear Wallow Knolls townhomes. I want to share my thoughts on the proposed Warrenton Village Center, and I hope you will consider my views in your decision making.

I am against this proposed project for a couple of reasons. I was born and raised in this area, and Warrenton has always been my home for the last 52 years. I love living here, because it still feels like a small town, despite its recent growth. While I believe there are already too many people in this town, it is still relatively quiet and has maintained its quaint appeal. I believe what you are proposing will completely change the atmosphere for the worse. The last thing I want to see when I walk my dog or look across my back yard is a four-story apartment building, including a hideous parking garage as well as three-story townhouses crowding and towering above the beautiful landscape that is Warrenton. Also, the traffic has gotten worse and is already congested. This proposed population increase would only further congest Warrenton and make the traffic unbearable. There is plenty of land on the outskirts of town and out of town limits for all these buildings to go.

I realize that it is always nice to add income to the town, but not at the expense of those of us already living here. I live in Warrenton, because it isn't Gainesville or Manassas. Look what all the growth has done to those cities. I do not want it here.

Please consider my views when you are planning for the future of this town. I am a lifetime Warrenton resident, and it is my future too.

Thank you,

Michele Burwitz
[redacted]

Matthew Cute

From: joanne nistico [redacted]
Sent: Monday, April 15, 2024 4:18 PM
To: Planning Department
Subject: High - density housing project

Some people who received this message don't often get email from joannenistico@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Planning Commission, **I am expressing my strong opposition to the proposed high-density housing project.**

This development does not align with our community's existing character and housing mix and poses significant safety concerns for the children who attend school near the complex.

Please represent our interests in opposing this project and working towards restoring Warrenton's planning and zoning to a more sensible approach that remains in line with our community's values.

Sincerely,

Joanne Nistico

[redacted]

--

Joanne Nistico CTA, CWE
[redacted]

Matthew Cute

From: Denise Harris
Sent: Monday, April 8, 2024 9:01 AM
To: Jess Achenbach
Subject: FW: Historic Preservation Opportunity with Warrenton Village Center Development
Attachments: IMG_2326.jpeg; IMG_2328.jpeg; IMG_2327.jpeg

FYI

From: Steven and Ann Rose Wojcik [redacted]
Sent: Monday, April 8, 2024 8:57 AM
To: Planning Department <Planning@warrentonva.gov>; Carter Nevill <cnevill@warrentonva.gov>; Paul Mooney <pmooney@warrentonva.gov>; David McGuire <dmcguire@warrentonva.gov>; Eric Gagnon <egagnon@warrentonva.gov>; Heather Sutphin <hsutphin@warrentonva.gov>; Brett Hamby <bhamby@warrentonva.gov>; James Hartman <jhartman@warrentonva.gov>; William Semple <wsemple@warrentonva.gov>
Cc: Rob Walton <rwalton@warrentonva.gov>; Denise Harris <dharris@warrentonva.gov>; Casey Squyres <csquyres@warrentonva.gov>
Subject: Historic Preservation Opportunity with Warrenton Village Center Development

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Mr. Mayor, members of the Planning Commission, and members of the Town Council:

While there are many issues you are considering as you weigh the SUP for the Warrenton Village Center development, there is also an opportunity for restoration and reviving of a historic natural resource on the property in consideration, which, if taken, would emphasize the unique history and character of Warrenton. I hope it will be part of this project if it is approved. I appreciate the opportunity for you and the developer to consider it. It would be an amenity for the whole community that would not require altering the current plans of the developer and I believe would not add much to the developer's costs.

At the northwest tip of the property along the corners of Oak Springs Drive and Branch Drive amidst overgrown vegetation and fallen tree limbs lies Oak Spring, the natural spring with its stone fortifications that gave its name to the colonial era estate that once existed on this and the surrounding land. The spring gave its name to Oak Spring Manor, which still exists across the street from the spring. The spring, the house, and part of the family cemetery a few blocks further, are all that remain of the estate of the Edmonds Blackwell family, early settlers of the area during the colonial period, one of whose members was an officer in the Revolutionary War.

It would be an asset to the community to restore the stonework, clear the deadwood and vegetative overgrowth around the spring, plant a few oaks, add a few benches and a walkway, and install a plaque with historic information about Oak Spring Manor on this corner. Upon examining the developer's plans presented to the town, approximately a half acre of green space is planned on this

spot in residence block #2 of the proposal. So it appears that adding the enhancements suggested above to the plans would not affect the rest of the project. It would also be an amenity to the new residences as well as something the broader community could enjoy. As a natural spring exists there, I do not believe that any structure could be built there anyway. I know of at least one other property in town with continuous problems since a parking lot sits on top of a spring.

Restoring and enhancing this historic, natural component would ground the development in its surroundings and history. It would also connect the development to the surrounding Oak Springs neighborhood and help preserve this part of Warrenton's sense of place. Thirdly, it would be an additional green space for residents of Warrenton to enjoy nature and perhaps learn about this part of the town's history. As the developer stated at the planning commission work session, the proposed development "aims to honor the town's unique history." Restoring the spring's stonework and creating a green space around it for townspeople to enjoy would be a fitting, meaningful, ideal way to do this. In my view, it's a win-win for both townspeople and the developer.

I am attaching photos of the current state of the spring as well as a video history of the spring and Oak Spring Manor. Tho local historian talks about the spring starting at 2 minutes 20 seconds into the video and ends around the 3 minute mark. Link to video: https://www.youtube.com/watch?v=22A-UD7uy2s

Thank you for consideration of this small, but important proposal as you consider the SUP. It is an opportunity to add to the historic and natural amenities of the town.

Best regards,

Steve Wojcik
621 Old Meetze Rd
Warrenton, VA 20186
540 878-2009

Out of Town

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: noreply@civicplus.com
Sent: Wednesday, June 12, 2024 11:30 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Kaitlyn Worley
Address	[redacted]
City	Warrenton
State	VA
Zip Code	20187
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Planning Commission
Agenda Item	SUP 2022-05 Warrenton Village Center
Comment	*Revised with proper Agenda Item name and details.*

Hello,

I would like to share my support for the Warrenton Village Center development project. I believe this form of mixed use development would be a wonderful addition to the Warrenton housing supply and business community. I believe that the proposed location seems very appropriate for this sort of development. I believe the addition of smaller housing units, placed on top of business units is a responsible use of space and has the opportunity to provide housing for a variety of individuals and families, including but not limited to those in need or in search of affordable housing and walkable

amenities. I hope that the developer allows for a variety of income levels to have the opportunity to reside in this community.

My family includes two young boys who attend or will attend Highland School. I would ask that all plans for development ensure the fullest, most robust possible pedestrian safety measures not only for residents, business owners, and visitors who drive to the Warrenton Village Center, but also for those of us who will walk from the surrounding residential communities, other businesses along Broadview Avenue, or schools (Highland School and CM Bradley Elementary School) to visit the development. Pedestrian safety should be a critical design measure along Oak Springs Drive, Business 17, and Business 29. Speed reductions along these routes should be considered to allow for the safest possible pedestrian experience within and surrounding this mixed-use community.

Safety should also be highly considered with parking and pedestrian interactions within the development itself - Ideally, people and car interactions should be limited as much as possible to allow for a fully walkable experience. This would also provide more opportunities for safe, relatively quiet outdoor dining and/or recreation spaces. Eating a meal and engaging in conversation while sitting close to moving traffic isn't such an enjoyable experience.

Thank you,
Kaitlyn

Email not displaying correctly? View it in your browser.

Matthew Cute

From: Barbara [redacted]
Sent: Tuesday, April 16, 2024 4:45 PM
To: Planning Department
Subject: High-Density Housing at Warrenton Village Shopping Center

Some people who received this message don't often get email from bcominsky@aol.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

We are county residents and have lived in Fauquier County since 1989 where we started our business, raised our family and enjoyed the life of residential Virginia with its small-town atmosphere. We have enjoyed the quiet, peaceful small-town/county life until recent pushes to make us into "Northern Virginia". Let this pass from us and go to another county who would welcome the hustle/bustle, increased traffic, crime, residential growth creating stress on roads, schools, water/sewer, and just life in general. I understand the tax revenues look enticing, but life in the country doesn't need all the whistles and bells to be a rewarding/well-lived community, as we have experienced since 1989!

We already have bumper to bumper traffic coming into Warrenton now with the new homes off 211. The water/sewer system is beyond what it can handle now and in desperate need of a rebuild - building it to accommodate what is being proposed will be beyond belief. The school system struggles now to accommodate Warrenton's young people - not to mention trying to recruit teachers/staff at the low salaries being offered in Fauquier County. The electric grid will struggle to keep up with the staggering usage of all these proposed townhouses, homes, condos, etc.... Not to mention the horrendous traffic that will be coming into the town/county especially within Warrenton proper.

My husband and I strongly urged this proposal be voted DOWN to allow Warrenton to remain the beautiful, country community it is known for.

Ken & Barbara Cominsky
[redacted]

Matthew Cute

From: noreply@civicplus.com
Sent: Friday, April 5, 2024 9:32 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

You don't often get email from noreply@civicplus.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	MICHAEL Allen MAYS
Address	[redacted]
City	Warrenton, VA 20187
State	VA
Zip Code	20187
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Town Council
Agenda Item	Proposed development on Oak Springs Drive
Comment	My wife and I strongly object to the proposed development on Oak Springs Road which is an extension of the Warrenton Village Center. We live in the Ivy Hill Subdivision, less than a mile from the proposed development. Hastings Lane, which intersects with Oak Springs Drive, comes directly into Ivy Hill. Now, many non-residents use Oak Springs Drive and Hastings Lane to come through Ivy Hill to avoid lights on Rt 29 and to make a short cut from Oak Springs Drive to Ivy Hill Drive. If this development is approved and built, we foresee a significant increase in the amount of vehicle traffic on Oak Springs Drive and Hastings Lane. This will significantly reduce the quality of life in our neighborhood and could reduce our home values as well. We object.

Organizations

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: Jody Warfield [redacted]
Sent: Monday, April 22, 2024 3:13 PM
To: Planning Department; Denise Harris
Subject: Highland School information for 4-23-24 work session on Warrenton Village Center SUP
Attachments: Highland School letter to Warrenton Planning Commission for 4-23-24 work session on WVC.pdf

Some people who received this message don't often get email from jwarfield@highlandschool.org. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

As a preliminary matter, Highland School understands that this proposal is still in the Staff/Applicant work session phase. We also respect that public comment is not generally accepted during the work session phase. However, we note that all the substantive waiver requests by the Applicant with regard to the impacts on traffic, transportation and schools – among other areas – will be discussed on April 23. We believe that this summary of serious concerns should be forwarded now in order to assure a next meaningful work session.

Please see the attached, which contains contact information for representatives for Highland School during this phase of your review and work.

Sincerely,
Jody Warfield, Chair
Highland School Board of Trustees

HIGHLAND SCHOOL

To: Warrenton Planning Commission
From: Highland School and Highland School Educational Foundation
Re: SUP 2022-03 Warrenton Village Center
Date: April 23, 2024

Introduction

As a preliminary matter, Highland School understands that this proposal is still in the Staff/Applicant work session phase. We also respect that public comment is not generally accepted during the work session phase. However, we note that all the substantive waiver requests by the Applicant with regard to the impacts on traffic, transportation and schools – among other areas – will be discussed on April 23. We believe that this summary of serious concerns should be forwarded now in order to assure a next meaningful work session.

To provide additional context, the entrance to Highland School's Lower School is located directly across Oak Springs Drive from the entrance to Block 1of 320 units and parking garage as currently sought. Of course, we value good neighbor relationships and being a good Town citizen. That said, we believe that noting those areas where it appears the Applicant and its experts were not aware of certain important factors that impact one of its closest and largest neighbors as well as ready access to the Applicant's parking garage serves all parties at this stage. Accordingly, we note certain assertions made by the Applicant and additional relevant facts not apparent in its Application below.

Of course, we are happy to host a site visit to the Highland School grounds to review and illustrate the facts discussed here, as well as other impact areas pertinent to your deliberations on the applicant's proposed waivers vs the goals and particular zoning requirements of Plan Warrenton 2040.

Highland School will be making further comments on the Applicant's proposal and waiver requests during the public comment phase, but to make the most efficient use of your time, this document focuses on only the issues the Chair indicated will be discussed in the April 23 work session.

Peak Traffic Hours

Applicant's Current Position: Applicant's Traffic Impact Analysis, and all waiver requests impacting traffic, assert that Highland School has only 1 peak time in the morning and 1 in the afternoon. Applicant's documents also refer to the School as "Highland High School".

Additional Facts:

1) Highland School is a pre-K2 through grade 12 school. The division of Highland School located along Oak Springs Drive is our preschool and lower school – accommodating grades PK-2 through 4, with children from ages 2 to 10. These are the students most vulnerable to negative impacts of high density traffic.

2) Highland's preschool and lower school have two morning drop off times – 7:30-8:00 and 8:30-9:00. The 8:30-9:00 peak traffic time is actually the larger of the two, but the Applicant's SUP and Traffic Impact Study do not appear to capture these 2 different peak times.

3) Highland's preschool and lower school have three afternoon pick up times – 11:45-12:15, 12:45-1:15 and 2:45-3:30. None of these times are included as peak traffic hours in the Applicant's materials.

4) At all of the peak times listed above, cars are waiting in both the westbound and eastbound lanes of Oak Springs Drive to turn into the School. Highland takes every measure possible to move cars through the pickup and dropoff process promptly, but even the minimal traffic on Oak Springs Drive with its current density causes 3 significant backups: i) on Oak Springs at the School entrance; ii) at the Oak Springs Drive intersection with Broadview Avenue (especially for those turning left); iii) and in the left turn lane for Oak Springs Drive from Broadview Avenue southbound.

Construction Impacts

Applicant's Current Position: The Statement of Justification with regard to Construction Impacts states that its Traffic Impact Analysis concludes "turn lanes are not warranted on Oak Springs Drive".

Additional Facts:

1) The existing left turn lane on Oak Springs Drive eastbound at the Highland School driveway accommodates only 4-5 vehicles. At all 5 peak times for Highland School ingress and egress, that turn lane is at capacity, thus often causing longer wait times and backups in the existing turn lanes from Broadview Avenue southbound and northbound at the intersection with Oak Springs Drive.

2) The lack of a right turn lane on Oak Springs Drive westbound at the Highland School driveway results in a line of waiting cars – from 2 to 10 – at all 5 peak times for the School.

3) The current traffic load consists almost exclusively of personal automobiles. The additional impact of construction vehicles and building supply delivery vehicles will significantly increase the per-vehicle impact on Oak Springs Drive and Broadview Avenue, and the residents of both.

4) The placement of the driveway to the WVC parking garage – the primary ingress and egress for both the garage and the delivery area alley for the retail shops, according to applicant's documents – directly across from Highland's driveway places the highest impact of traffic at the exact site of the highest level of current traffic and peak time usage.

Traffic Impacts

Applicant's Current Position: Applicant's Traffic Impact Study states that the WVC, with its requested density of 386 dwelling units, will generate only "154 new trips during AM peak hours and 197 new trips during the PM peak hours."

Additional Facts:

1) With 386 units designed primarily as workforce, or "missing middle", housing, even if there were only 1 resident per unit, these numbers are significantly understated. Plan Warrenton 2040 envisions the New Town Character District's mixed-use developments as serving the population of working singles and young families for whom affordable rental housing currently does not exist. Presumably, at least one resident in most of the 386 dwelling units will be leaving home to go to work each weekday, and the vast majority (320 of the 386 units) of those "new trips" outbound will occur from the parking garage exit directly across from the Highland driveway during the School's AM peak hours.

2) The bottleneck at the intersection of the Highland School's driveway and the WVC parking garage driveway will make left turns out of the WVC virtually impossible, thus forcing more of the traffic load eastbound on Oak Springs Drive, causing a significant increase in traffic past the residential areas – which include a nursing/rehab facility, the entrance road to Bradley Elementary School, the senior living complex of The Oaks, and the family-oriented townhouses at the east end of Oak Springs.

Applicant's Current Position: Applicant touts the crosswalks it will construct across Oak Springs Drive at the intersection of the parking garage and the Highland School driveway, and at the existing and proposed extension of Hastings Lane.

Additional Facts: The exponential increase in traffic from the proposed 386 dwelling units – 320 of them served by the parking garage that will exit directly onto Oak Springs Drive at the Highland School driveway – will make safe pedestrian crossings impossible. This is true

especially if they are parents walking their young children to either Highland School or Bradley Elementary School, or senior citizens walking to the retail establishments from the Brookside Rehab facility or The Oaks residential complex.

Schools Impact

Applicant's Current Position: Applicant states the 386 new dwelling units will produce only 26 school-age children for the Fauquier County Public Schools. Applicant also claims the FCPS are currently under capacity by 477 students.

Additional Facts: While Highland School cannot speak to the argument that Fauquier County Public Schools are under capacity by 477 students, it is highly unlikely that one of the two target demographics for the dwelling units – people in the 25-35 age group – would produce only 26 school-age children, based on the age range of parents of Highland's current student body. Highland School would not be a likely recipient of these children, as our independent school tuition can be a barrier for families who are seeking rental housing in the affordable, "missing middle" category.

Design Plans vs Plan Warrenton 2040 Goals

Applicant's Current Position: "The overall aesthetic of the new WVC brand and identity will be a contemporary design that thoughtfully incorporates Warrenton's rich history, focusing on equestrian inspired materials and character." (page 30 of the Statement of Justification dated 2-14-24 – hereinafter "SOJ 2-14-24)

Additional Facts: The modern, industrial flat-roofed design conflicts directly and substantively with the gabled roofs and standing-seam roof materials of the existing Warrenton Center buildings and the neighboring Highland School, and which are prominent throughout the homes and farms of the Warrenton area.

Applicant's Current Position: "The buildings are designed to scale appropriately with the adjacent current and future uses ...". (page 31 of SOJ 2-14-24)

Additional Facts: The waiver request for 4-story buildings along the entire expanse of Oak Spring Drive to Hastings Lane would tower over the Highland School buildings, which are two stories, with a peaked roof creating a 3-story height, but start from a level substantially below the grade of the proposed development. The combination of the modern/industrial design and the substantial height difference create a jarring, rather than appropriate, transition.

Applicant's Current Position: "Noise & Exhaust: The proposed development will not produce any noticeable increase in noise or odor." (page 26 of SOJ 2-14-24)

Additional Facts: 386 residential units, with even just one car per unit, and the trash generated by this density, cannot possibly produce no increase in noise and odor.

Applicant's Current Position: "Open Space, Parks & Environmental Goals: Goals P-3 and P-3.1 focus on providing residents with access to green and public spaces. The Proposal meets this goal by providing significant open space in close proximity to new residential housing, most notably, at the newly proposed Central, East and West plazas." (page 27 of SOJ 2-14-24)

Additional Facts: "Central Plaza" in the 2-14-24 Statement of Justification was later identified in the applicant's 4-16-24 presentation as the "dog park". It cannot be both, and its small size cannot possibly accommodate all the residents of the 386 new units PLUS "all residents of Warrenton" – either as a site for "community activities" or as a "dog park". Further, the East and West "plazas" are simply slightly expanded concrete sidewalk areas, with no green space included.

.....

In conclusion, we are happy to answer any questions the Planning Commission or Staff may have on these issues. Please contact either of the following representatives of Highland School:

Jody Warfield, Chair, Highland School Board of Trustees
(jwarfield@highlandschool.org).

Donna Tomlinson, Assistant Head for Institutional Advancement
(DTomlinson@Highland School.org).

Jeremy B. Root, Partner
Blankingship & Keith, PC
(jroot@bklawva.com)

Wells+Associates
6.14.2024

Peak Period Traffic Summary Data
Highland (Lower) School – Oaks Spring Drive Entrance

- AM Peak Hour: (8:37-9:12 AM)
  - 26 EBL + 29 WBR= 55 total inbound vehicles
  - 9 NBL + 6 NBR= 15 total outbound vehicles
  - 70 Total AM peak hour trips

- Mid-Day Peak Hour: (11:42-11:51 AM)
  - 8 EBL + 4 WBR= 12 total inbound vehicles
  - 3 NBL + 1 NBR= 4 total outbound vehicles
  - 16 Total Mid-Day peak hour trips

- PM Peak Hour: (2:56-3:30 PM)
  - 26 EBL + 43 WBR= 69 total inbound vehicles
  - 23 NBL + 14 NBR= 37 total outbound vehicles
  - 106 Total PM peak hour trips

- 70/16/106 (AM/MD/PM) Total Peak Hour Volumes

Matthew Cute

From: NAACP7059 Housing [redacted]
Sent: Monday, April 22, 2024 10:07 PM
To: Carter Nevill; Brett Hamby; David McGuire; Eric Gagnon; Heather Sutphin; James Hartman; Planning Department; Paul Mooney; William Semple
Cc: DEBRA COPELAND; connie630@fastmail.fm; Denise Harris; naacpfauquiercounty@gmail.com; townmanager
Subject: Concerns regarding recent flyers and fair process

Some people who received this message don't often get email from naacpfauquierco.housing@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

To Town council members, Planning commission members, Mayor and staff,

It has come to our attention that council-member Eric Gagnon of Ward 5, on copy, has distributed flyers to his constituents in opposition to the proposed mixed use development at Warrenton Village Center. (See attached)

In reviewing the flyers, they appear to violate the Town's Code of Ethics. The inflammatory language and grotesque cartoon play into xenophobic stereotypes and communicate that only a certain type of person is welcome in Warrenton. The NAACP has been fighting these types of inflammatory images, veiled language and dog whistles since 1909.

These flyers serve to sow division in our community and sully the process to fairly evaluate these proposals.

We want to emphasize the importance of making decisions on this proposal and future proposals based on their merits as described in the ethics code.

We understand that you have new council and commission members and suggest you revisit the code of ethics, comprehensive plan, and also reach out to the PD9 staff to get an update on the state of the housing needs in our county and the town of Warrenton.

Providing affordable housing to our community is a multifaceted effort. It's not just one project, one policy or one zoning update. It can include developments like Heroes Bridge, adding Accessory Dwelling Units, adding more market rate apartment buildings/townhouses with an affordable component, fully income restricted development, missing middle and more.

Now is the time for all of us to FAIRLY evaluate affordable housing options for our community. Our friends, our neighbors, and our loved ones can't afford to stay here and people who serve our communities, who work in our stores, teach our children, respond to our emergencies can't afford to live here.

We are hosting a fair housing webinar on June 18, 2024 at 7PM with Housing Opportunities Made Eq
(HOME) whose mission is to ensure equal access to housing for all people. We'll be sure to send along
that invite.

Thank you all for your service to our community.

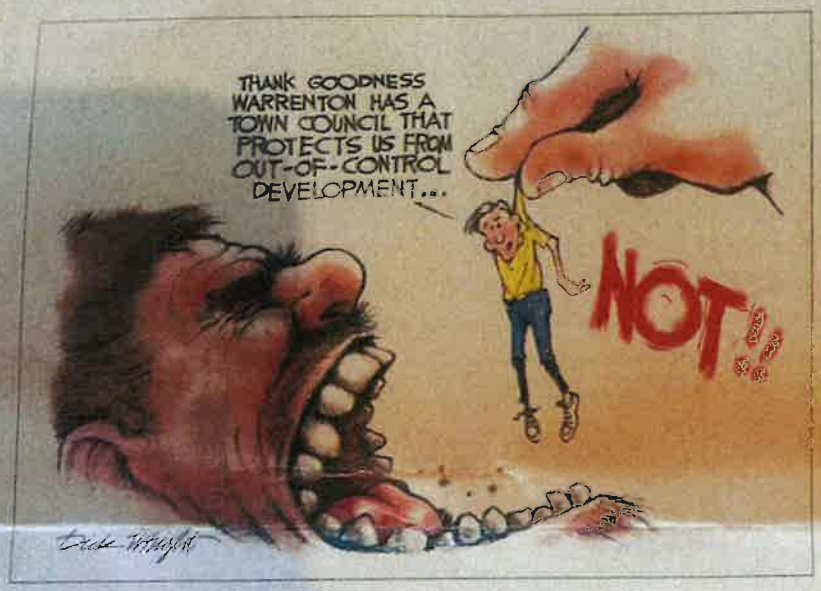
Thank you,

Conway Porter, Branch President
Miggy Strano, Housing Committee Chair
Fauquier NAACP Branch 7059

Take Action Now—Here's What You Can Do:

The Warrenton Village Center project is currently being reviewed by the Warrenton Planning Commission. If you are against this project, they need to hear from you:

Best Option: **Show up and speak out at the upcoming Planning Commission meeting, April 16th, 7:00 P.M. at Town Hall, 21 Main Street.** Speaking out in person makes a big difference—the more citizens they hear from, the better;



Send e-mail to the Planning Commission at:
planning@warrentonva.gov

Contact me directly, at
(540) 645-6156, or at
egagnon@warrentonva.gov

Your Voice Matters—Now Is the Time to Speak Out If You Are Against This Proposed Development

As your Town Council Representative, my job is to represent your interests in Warrenton, and to serve and protect your public health, safety, and welfare.

All too often, we don't hear about these development projects until it's too late to do anything about them, and I'm determined to change this.

So, if you are against this project, it's not to late to stop it. Make your voice heard and let me know what you think, and I will represent your interests when this project comes to a final vote on the Town Council.

As always, contact me if you have any questions about this or any other issue that's important to you and your life here in Warrenton.

Best Wishes,

ERIC

Eric Gagnon
Town Council • Ward 5
Cell: (540) 645-6156
egagnon@warrentonva.gov

Attention Neighbors On: Fauquier Road • Foxcroft Road • Broadview Avenue • Solgrove Road • Denning, Forest, and Tiffany Courts • Bear Wallow Road

Proposed High-Density Housing Development Near You At The Warrenton Village Shopping Center



An artist's rendering of the proposed mixed-use development at Warrenton Village Center.
Courtesy of MV+A Architects



Dear Neighbor:

As your Town Council representative, I want to alert you to a new development that is proposed to be built across from your neighborhood at the Warrenton Village Shopping Center, between the Ace Hardware Store and the Highland School on Broadview Avenue (see map above).

This proposed development, called the Warrenton Village Center, would be a high-density housing project with a proposed multi-story, 450-space parking garage, a four-story apartment building with 386 units, 30 stacked, three-story townhouses and 36 two-story townhouses, estimated by the developer to add over 700 new residents—a 7% population increase for our Town.

In my view, the high-density design of this project will bring unwanted Manassas- and Reston-style development to Warrenton that is grossly out of character with the conventional mix of housing in our community. Additionally, there are legitimate concerns about the significant increase in traffic on Broadview Avenue and surrounding roadways, as well as serious concern about the strain of this development on our Town's water and sewer systems.

As a nearby homeowner, you will be negatively impacted by this project if it is built: Higher traffic and potential congestion, four-story apartment and parking garage buildings nearby, in a high-density project that looks more like it belongs in Manassas, Reston, or Arlington.

This and other proposed housing projects threaten to destroy the small-town character of the Warrenton we all know and love.

Turn Over for Action Steps You Can Take To Make Your Voice Heard . . .

Take Action Now—Here's What You Can Do:

The Warrenton Village Center project is currently being reviewed by the Warrenton Planning Commission. If you are against this project, they need to hear from you:

Best Option: Show up and speak out at the upcoming Planning Commission meeting, April 16th, 7:00 P.M. at Town Hall, 21 Main Street. Speaking out in person makes a big difference—the more citizens they hear from, the better;

Send e-mail to the Planning Commission at: **planning@warrentonva.gov**

Contact me directly, at (540) 645-6156, or at **egagnon@warrentonva.gov**

Scan this code below with your phone to cast your "vote" in my online survey on this issue:

Your Voice Matters—Now Is the Time to Speak Out If You Are Against This Proposed Development

As your Town Council Representative, my job is to represent your interests in Warrenton, and to serve and protect your public health, safety, and welfare.

All too often, we don't hear about these development projects until it's too late to do anything about them, and I'm determined to change this.

So, if you are against this project, it's not to late to stop it. Make your voice heard and let me know what you think, and I will represent your interests when this project comes to a final vote on the Town Council.

As always, contact me if you have any questions about this or any other issue that's important to you and your life here in Warrenton.

Best Wishes,

ERIC

Eric Gagnon
Town Council • Ward 5
Cell: (540) 645-6156
egagnon@warrentonva.gov

Unknown Address

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: M RGR [redacted]
Sent: Sunday, May 12, 2024 8:25 AM
To: Planning Department
Subject: Housing Proposal near Warrenton Village

Some people who received this message don't often get email from mbr.19552019@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Members of the Planning Commission-
As residents of the Town of Warrenton, we are **highly concerned and also AGAINST** this big housing proposal. Aside from the strain on all the Town services, (water /sewer) we are already at the brink with the increased traffic in the Town Limits. We understand the need for revenue, but it should not be accomplished at the expense of the existing community. Another important issue, as a long-time teacher in FCPS, will be the increase in the school population, especially at Taylor Middle, where #s are already an issue and will remain so until the new school is built.
Solutions:

- Build a bi-pass that will take care of the traffic headed towards 211 and from 211 to areas past Warrenton,
- Design the "new housing plan" along that route- outside our Town Limits.
- Just as families do, year to year, look at the budget and examine where all our tax dollars are being spent. Is there over/ wasteful spending?

Bottom line, we do not want to become Manassass.

Most Sincerely-
Ken and Magaly Reder

Matthew Cute

From: Jim [redacted]
Sent: Sunday, May 5, 2024 11:50 AM
To: Planning Department
Subject: Warrenton Village Center project

Some people who received this message don't often get email from jim415680@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon,

I strongly object to the proposed project. This kind of development will bring too much traffic and congestion to that area. In addition, it is not the kind of residential development the town needs. The town already has too much traffic through Broadview Avenue. Leave these kinds of creations to other areas like Gainesville and Fairfax. We don't need parking garages. The water and sewer plant is already falling apart. This will not help the situation at all. Thank you for your consideration.

Matthew Cute

From: Mary Judkins [redacted]
Sent: Friday, April 26, 2024 4:03 PM
To: Planning Department
Subject: Proposed high density development at Warrington Village

Some people who received this message don't often get email from maryjdkns@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am vehemently opposed to this, in particular due to the size.

Mary Judkins
Warrenton

Matthew Cute

From: Tammy Lake [redacted]
Sent: Monday, April 15, 2024 8:16 AM
To: Planning Department
Subject: Opposition to Proposed Warrenton Village Center Project

[Some people who received this message don't often get email from tammy.lake@gmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Planning Commission Members:

I am OPPOSED to the proposed Warrenton Village Center project.

Matthew Cute

From: Bridget Hinchman [redacted]
Sent: Thursday, March 28, 2024 9:47 AM
To: citizencomment
Subject: Future Development

You don't often get email from blhinchman@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Sir or Madam,

I read an article online about Warrenton's desire to build apartments behind the shopping center off Lee Highway.

I was talking with my son the other day because he was walking along Lee Highway to get a drink from Starbucks. He walked right by the Rip Van Winkle Hotel and Red Roof Inn.

I told him not to walk by there in the future as that area is dangerous due to the transient clients that these businesses attract. Surely, the City of Warrenton has considered development on that part of Lee Highway?

I would think the goal of adding more apartments for our community would also include eliminating businesses that would present safety concerns. This is especially true as many apartment renters are families getting started in life. Also, this area is right next to the fast food businesses, which kids from high school go to when out with their friends.

I would greatly appreciate it if this particular section of town was considered for redevelopment.

Respectfully,
Bridget Hinchman

Matthew Cute

From: Alexander Hazelworth [redacted]
Sent: Monday, March 25, 2024 6:41 PM
To: citizencomment
Subject: Public Comment on SUP 2022-03 GPINs 6985-20-7247 and 6984-29-6753
Attachments: Alternative3.jpeg; Alternative1.jpg; Alternative2.jpg

You don't often get email from hazelworth.alexander@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hello,

This is a comment pertaining to SUP 2022-03, GPINs 6985-20-7247 and 6984-29-6753. I support the direction this plan takes Warrenton. I greatly do not support this shoebox style of architecture. I have attached some alternative renders with their proposal and what is more beautiful and cohesive. They could have greenish roofs like their current Safeway building to stay consistent. If this is approved with the proposed architecture style then it sets a low bar for future Warrenton projects.

Thank you,
-Alexander


WARRENTON







WARRENTON VILLAGE / NEW CASTLE DEVELOPMENT "NO" FOR SO MANY REASONS

DENSITY & HEIGHT

Warrenton Village's non-conforming height and over-concentrated density is *in the wrong place*...just as Amazon's hulking, walled-off data center will be allowed *in the wrong place*.

This project alone could swell Town population 10%. The Prince William Times called New Castle's Development's proposal "radical" - meaning *extreme* change. Warrenton Planning Commissioner James Lawrence adeptly cautioned: *"I think all of us are concerned; can the town handle this traffic, infrastructure, etc.? How badly does the town need this?"*

A special-use permit exception to increase the 3-story limit on Oak Springs drive would also be *in the wrong place*. Why should these 3 too-condensed in-town complexes *tower over* the rooftops of two 1-story shopping centers, buildings across Rte 17, two adjacent 1-story schools, a 1-story nursing home, two elderly apartment complexes, and every other of the neighboring residential units? Why did everyone else agree to conform to the 3-story limit except New Castle? A 4-story apartment complex and a 4-story garage is an aesthetic affront to all those unfortunate to live around Warrenton Village, and to all town residents.

"AFFORDABLE" HOUSING

New Castle Development Group *knows* the term "*affordable*" is chump bait. Our Council would be shamefully gullible to bite that hook. Of the 320 apartments and 66 townhomes only 10% may be "low-income." That's only 38 units, whereas 333 units, 90% will NOT be low-income, NOT be so affordable. And Developers have not been transparent on just how "affordable" their cheapest *initial* rental rate will be for their most undesirable units.

There's also snake oil in Warrenton Village hawking RENTALS, because that is an ever-escalating income stream. New Castle are not altruists; they seek hand-over-fist rental profits. Rentals return far more than sales. HUD reports: *last year alone*, rental rates soared 12.6% to home sales' 8.3%. The Town's support would subjugate these renters to recurrent landlord profiteering increases - most egregiously for the 10% of affordable's.

And 20% of all renters fall behind on payments. So, would Council approval of Warrenton Village create the region's 'eviction central' for those 76, or more rent-delinquent families?

PARKING GARAGE

Warrenton's 2040 comprehensive plan calls for "*creating a sense of place.*" A 4-story garage would be antithetical in every way and definition – destroying our small Town's not out-of-scale, not out-of-portion, bucolic, and Historic and Landmarks Register *character.*

Mixed retail-residential Gainesville does not have a parking garage. Culpeper does not have a garage. Neither Haymarket, or Marshall has a garage, nor New Baltimore, Vint Hill, Bealton, or Catlett. If an elevated concrete garage is incongruous for *every one* of our neighboring communities, who is our Town Council wanting us to be, *Fairfax*?

Our Eastern gateway will be degraded by Amazon's fenced, behemoth concrete data-bunker. On our Southern gateway, Arrington Developers' splay of 217 homes will rival

Please, Deny Warrenton Village

We beg you, *please* shoulder the responsibility *to your own community residents* and DO NOT sell-out to the Warrenton Village / New Castle Developers.

Their hulking apartments-townhouses-garage complex will NOT benefit our Town; rather it is *entirely contrary* to our Warrenton lifestyle. An indefensible approval would be a subjugation to, and gifted windfall income-stream for the private-equity group - *at our expense. Please,* don't play 'Santa' to New Castle to our detriment.

Warrenton Village is masquerading under a guise of "low-income" housing. A *mere* 38 "low-income" rentals are NOT a justifiable, equitable trade-off for *three* 4-story towers of **333** NOT low-income units, and a **4**-story **450** car parking garage. Such over-scaled monstrosities would irreparably destroy the character of our bucolic, historic small Town. Towers and a Parking Deck are antithetical to what our motto means "Experience Warrenton." *Please,* don't *cram-in* hi-rise towers here *like Fairfax.*

4-stories that would front, and desecrate our Town's northern gateway are unconscionable *in a 1-story setting* of a nursing home, two senior residences, two schools, and family homes. *None of them were exempted* from the 3-story height limit. It is the wrong setting for *towers*...the wrong setting for *unprecedented density.*

There is no comparable obesely-dense concentration of residences on such a small parcel here. And there is no capacity for, nor betterment when 450 garaged cars choke Oak Springs Drive to Broadview Avenue at its busiest bend-in-the-road every day of every year.

4 developers (New Castle, Arrington, Farish Properties, Heroes Bridge) purport *at-minimum* an avalanche of 1,500 added residents that would swell our Town's population well over 10%. If not untenable, that size of influx *will* inarguably, radically overwhelm us, our traffic lights and roads, all our services, and all the aesthetic, in-proportion good balance-and-scaling we have striven to achieve. *Please,* don't *adulterate* and vote-away our small town's soul.

Warrenton *does not* have the infrastructure, and certainly does *not* have the *homeowner* tax base to carry the increased costs for 4 new developments' added needs. Renters will not contribute to our tax base. And no New Castle token proffer will ameliorate those deficiencies. You will condemn Warrenton *homeowners* to the quicksand of ever-ballooning costs by your approval. Culpeper can substantiate that their town's expansion of residential housing has failed to offset all of the increased costs incurred for community services. *Please,* heed that 'red flag.'

Warrenton Village's colossus structures and Amazon's foreboding data center would be *only .4 of a mile apart!* WHY must just this one area pay the punishing full-price for *all* of our town's growth? Quaint, quiet Oak Springs Drive would become Warrenton's '*street from hell.*' By allowing these two affronts to Oak Springs neighborhood residents, the Planning Commission will diminish their homes' marketable values by concentrating there the *worst* two environments in all of Warrenton.

Please, do not do uncalculatable harm. Deny approval to New Castle Developers.

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Work Session
SUP 2022-05 Warrenton Village Center Mixed Use
July 9, 2024

Special Use Permit Application

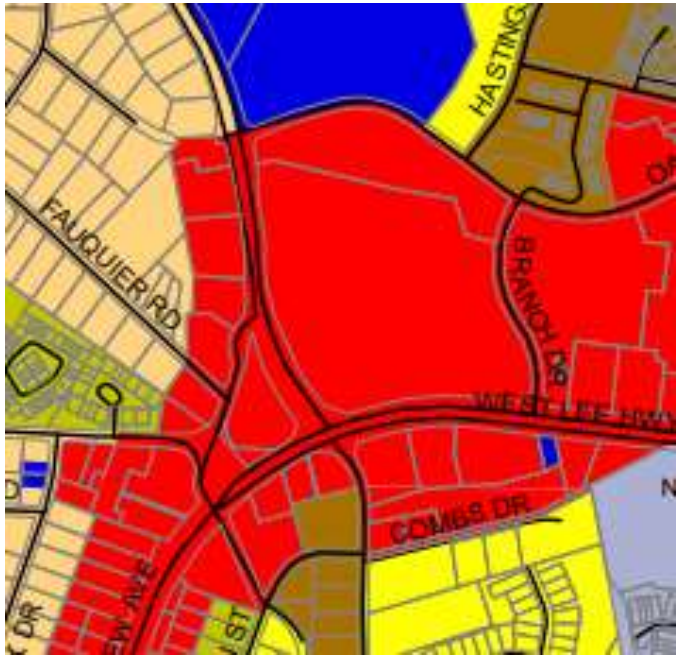
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, NewCastle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 34 2 over 2
  - Approximately 32 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map

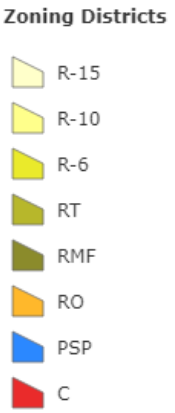


Existing Commercial

Public/Semi Public School

Senior Care

Apartments



Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







Three PC Work Sessions

- Full site Design
- Schools
- Traffic Impact Analysis/Transportation
- Walkability/Bicycle/Grid Connections
- Open Space/Historic Resources/Public Amenities
- Affordable Dwelling Units
- Water and Sewer
- Plan Warrenton 2040

Proposal

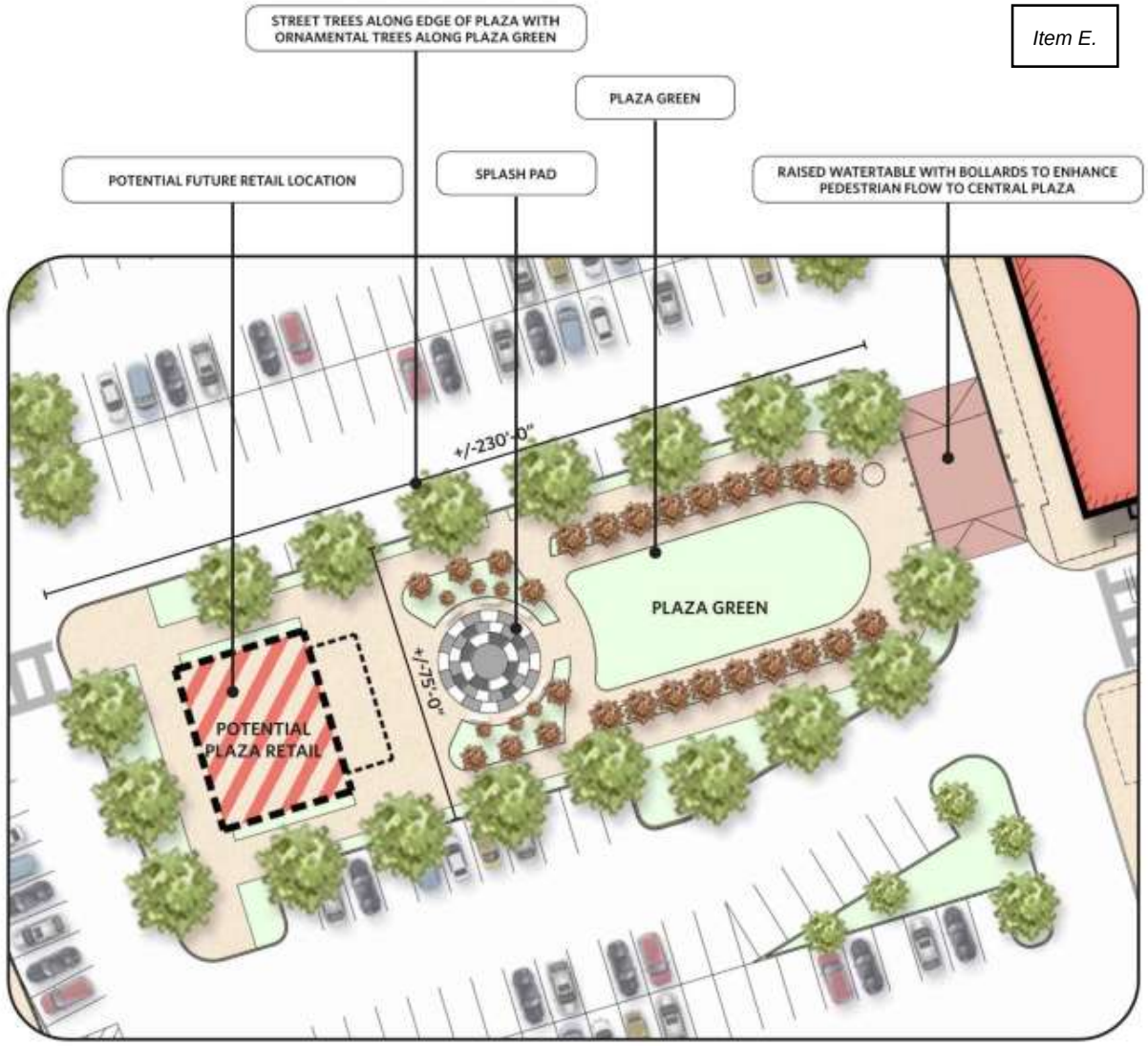


Proposal Includes

- BLOCK 1 - 320 Apartments 1-3 BD, 4 story parking garage
- BLOCK 2 – 26 Townhomes 3 story
- BLOCK 3 - 34 2 over 2 4 story, 6 Townhomes 3 Story garage
- 10% Affordable Dwellings at 80%; 10 at 70%; 5 at 60%
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Central Plaza





ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"

Elevations

5/31/2024

vs

2/13/2024





Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview
- Allow Retaining Walls over Six Feet

Planning Commission Recommendation

- June 18, 2024 Public Hearing
- 12 Citizens Spoke
- Voted 4-0-1 (Ainsworth Absent) Recommend Approval with Conditions of Approval

Draft Conditions of Approval

- Block 1, 2, or 3 in any order with triggers
- Elevations for 2/14/24 and 5/31/24
- Parking Garage South Facing Screening
- National Green Building Standard
- Prohibited Materials
- Signage and Lighting
- Refuse and Site Maintenance

Draft Conditions of Approval

- Affordable Dwelling Units 25 Years
  - 10% in each block at 80% AMI
  - Additional 10 in Block 1 70% AMI
  - Additional 5 in Block 1 60% AMI
  - Multifamily Tax Subsidy Program VA Housing
  - Similar architecture/fixtures
  - Warrenton/Fauquier Resident Preference
  - Condo Sale Provisions

Draft Conditions of Approval

- Transportation
  - Parking Garage
  - Sidewalks
  - Crosswalks on Oak Springs
  - EV Charging Stations
  - Modified Alley
  - Loading and Unloading

Draft Conditions of Approval

- Waivers and Modifications
  - Article 2-6.1 allow for increased density for 386 units/13.28 units per acre
  - Article 3-4.10.4 decrease Broadview Avenue front yard setback to 14', side/rear yard setback to 0'
  - Article 8-8.5 decrease buffer width commercial and residential to 0', decrease rear buffer for residential uses from public ROW to 14'
  - Article 2-20 Increase heights Block 1 54' Oak Springs Drive, Block 1 36' Broadview Ave, Block 2 36', Block 3 45'
  - Article 3-4.4.5.3 Allow TH grouping from 6 to 7
  - Article 2-19 Allow retaining walls and fences over 6'

Next Steps

- Hold Work Session
  - Applicant to Speak to Application Details
  - Subject Matter Experts on Transportation, Water and Sewer
- August Public Hearing

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Work Session
SUP 2022-05 Warrenton Village Center Mixed Use
July 9, 2024

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

TOWN COUNCIL WORK SESSION
JULY 9, 2024



EXISTING CONDITIONS



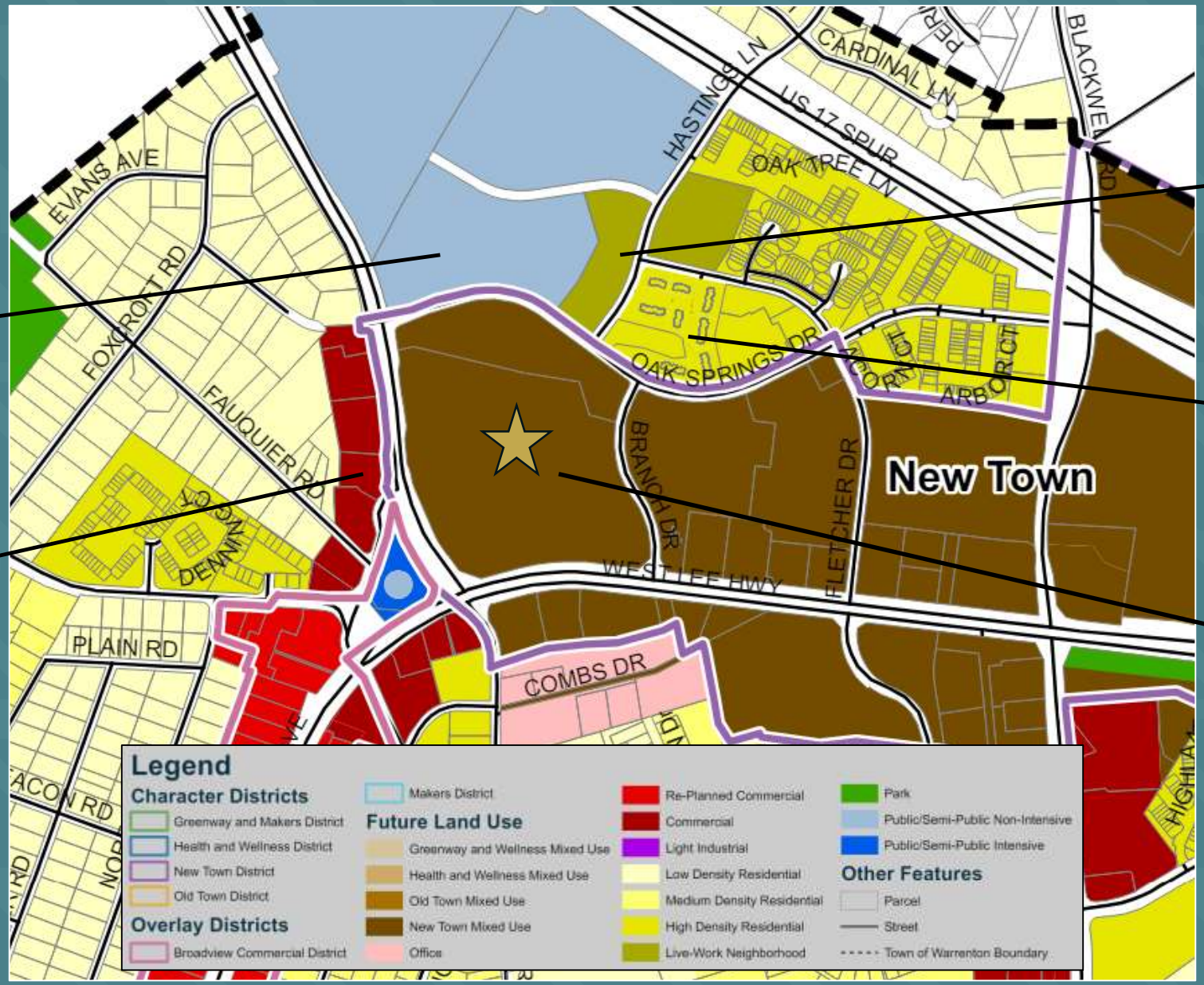
Proposed Development Area

Existing Commercial Center

FUTURE LAND USE MAP

Public/Semi-Public Non-Intensive

Commercial



Live-Work Neighborhood

High Density Residential

New Town Mixed Use

RESIDENTIAL BLOCK 1

Multi-Family Apartments

- Location: Vacant land on north side of the Center along Oak Springs Drive
- Units: Up to 320 total units
- Types: 1-, 2-, and 3-bedroom apartment units
- Parking: Internal 4-level parking garage
- Amenities:
  - 10,000 square foot leasing and amenity center
  - Central Plaza
  - East & West “Entrance” Plazas
  - Dog Park & Picnic Area
  - Pedestrian connectivity and circulation



RESIDENTIAL BLOCK 2

Multi-Family Townhomes

- Location: Vacant land at northeast corner of the Center at intersection of Oak Springs Drive and Branch Drive
- Units: Up to 26 townhome units
- Widths: Units currently proposed with 20' widths, yielding a plan count of 26 units. Proposal is up to 26 total units to account for width flexibility, which could impact total unit count.
- Types: 3-story, 3-bedroom townhome units
- Parking: Each unit has two internal parking garages



RESIDENTIAL BLOCK 3

Multi-Family 2-Over-2s

- Location: West side of the Center along Broadview Avenue, currently occupied by Summit Community bank and a vacant commercial bank building
- Units: Up to 40 total units
- Widths: Units currently proposed with 24′ and 20′ widths, yielding a plan count of 40 units. Proposal is up to 40 total units to account for width flexibility, which could impact total unit count.
- Types: 2-story, 3-bedroom 2-over-2 “condo” units
  3-story, 3-bedroom townhome units
- Parking: Each unit has one internal parking garage and one dedicated exterior surface space



BENEFITS OF PROPOSAL

PLAN 2040

Advances all goals of Plan 2040 Character Districts

HOUSING SUPPLY

Provides much needed additional housing supply near retail and other services/facilities via infill development and not urban sprawl

HOUSING TYPES

Provides much needed housing types unique to the Town, including "missing middle" townhomes, 2-over-2s and the first new multifamily community in decades

AFFORDABLE HOUSING

10% of units within each residential block will be dedicated as Affordable Dwelling Units, restricted to residents with household incomes below 80% AMI at restricted rental rates

PEDESTRIAN ACCESS

Provides new and improved, safe pedestrian access to and circulation within Warrenton Village Center for new residents and existing neighbors

PUBLIC SPACES

The Central Plaza will be the new centerpiece of the Center, featuring activity and eating areas and a splashpad; a new dog park and picnic area will also be open to for public use

INCREASED PATRONAGE

New resident supply will provide increased patronage to all of Warrenton's existing businesses

ECONOMIC IMPACT

$46,100 projected annual surplus for the Town of Warrenton

MODIFICATIONS & WAIVERS

ZONING ORDINANCE 9-25: MIXED-USE DEVELOPMENT OPTIC

The mixed-use development option is created within the Commercial District to allow a mixture of uses when consistent with the Comprehensive Plan. The mixed-use option is intended to encourage development in a creative and integrated manner that encourages pedestrian walkability, shared open spaces and an alternative form of housing within the Town.

Section J. – Modifications:

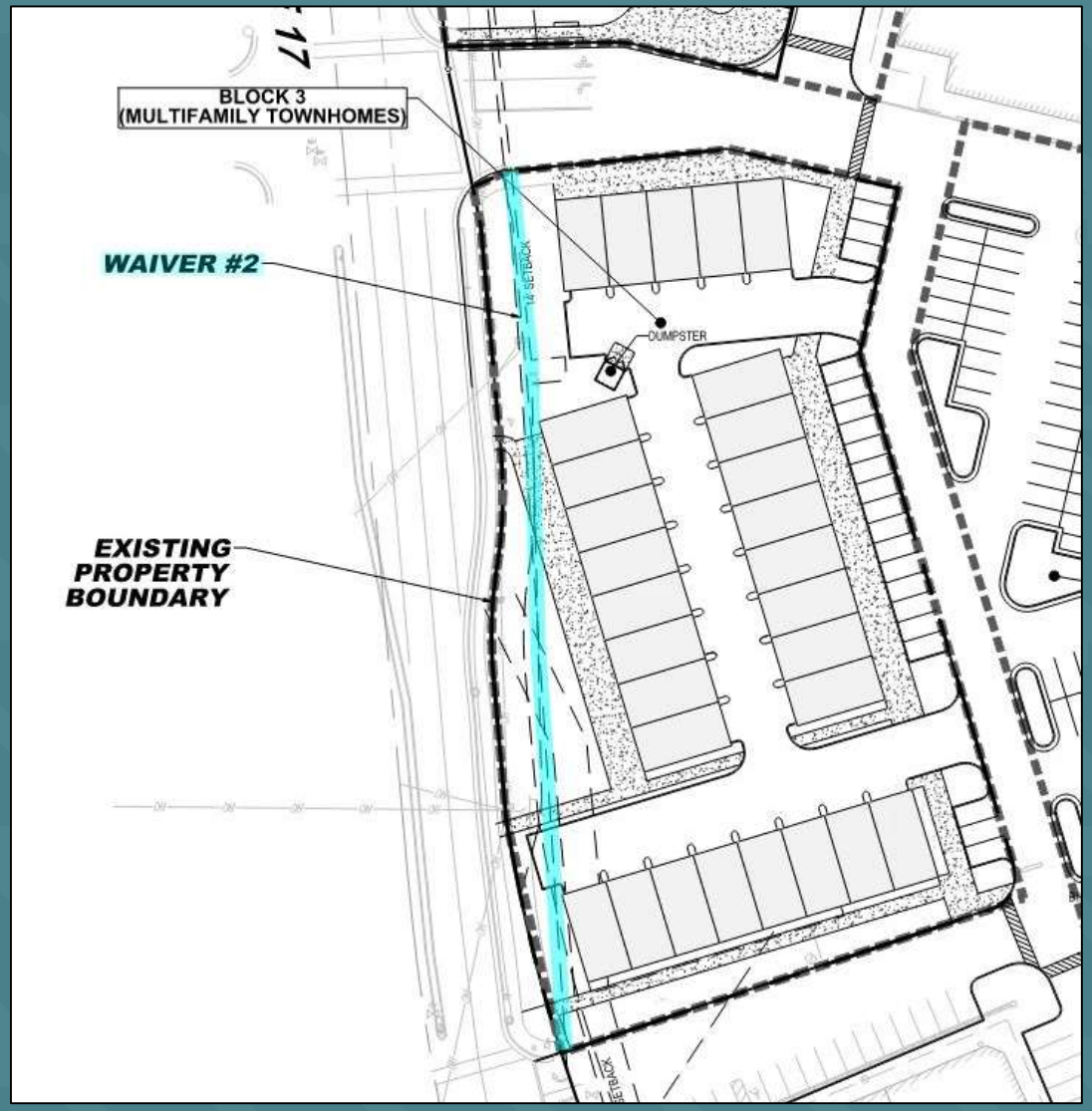
Modifications from the standards set forth in Section 9-25 may be approved by Town Council in conjunction with the Special Use Permit upon a determination that the intent of the Comprehensive Plan is being met.

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #1



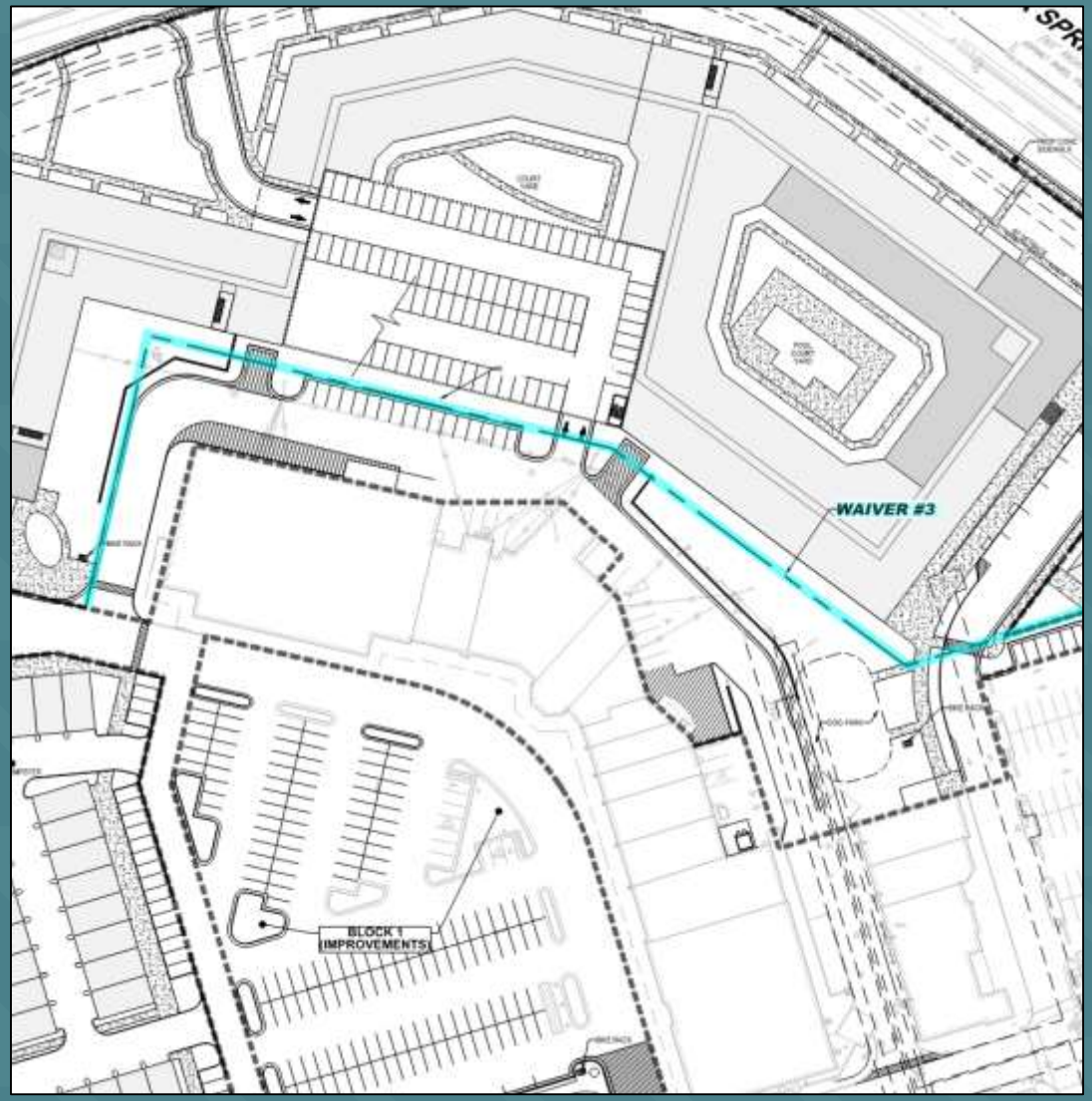
- Section 3-4.10.3 of the Zoning Ordinance provides that density in a mixed-use development within a Commercial zone may be calculated pursuant to Sec. 9-25 of the Zoning Ordinance
- Sec. 9-25 allows for calculation of density in a mixed-use development to be up to 1 dwelling unit per 500 square feet of non-residential space. This section also provides that density above 5 units per acre must be approved by the Town Council.
- While this is a modification of Sec. 3-4.10.3, the requested density is fully consistent with the provisions of Sec. 9-25 for a mixed-use development, and less than what could be achieved.
- This modification will allow for realization of the concentrated increased density that is a primary objective of the New Town Character District
- **Waiver Request #1:** Increase density above 5 units per acre to 13.28 units per acre, which will yield 386 units

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #2



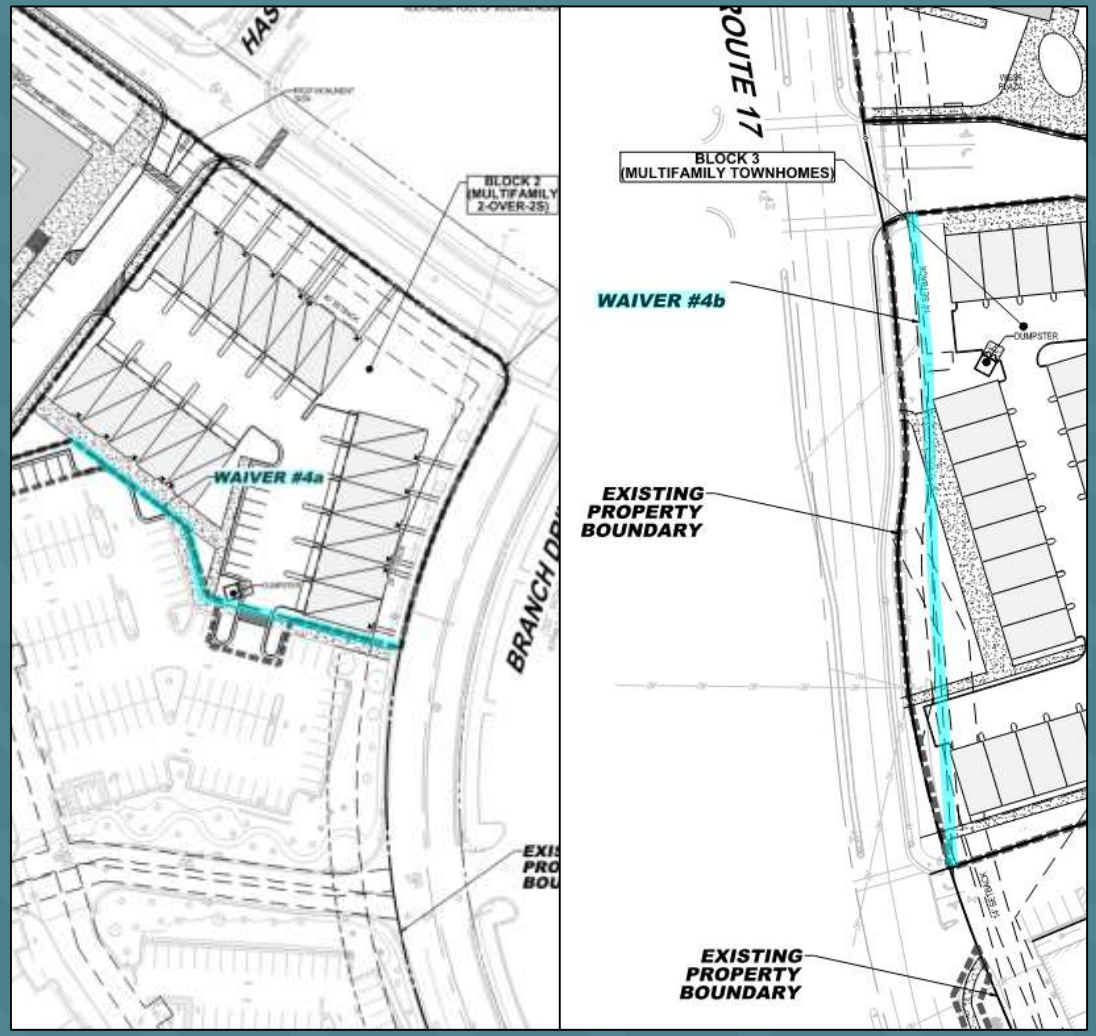
- Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district.
- **Waiver Request #2**: Decrease minimum setback to 14' along Broadview Avenue

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #3



- Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- **Waiver Request #3:** Decrease side/rear yard setbacks along internal proposed and existing property lines to 0'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #4



- Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district.
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0'
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #5

- Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and rear setbacks increase 1' for each additional foot of building height over 35'.
- **Waiver Request #5**: Increase height limit for dwellings as follows:
  - 54' max height for Block 1, Oak Springs Drive Frontage
  - 36' max height for Block 1, Broadview Drive Frontage
  - 45' max height for Block 2
  - 36' max height for Block 3

WHY ADDITIONAL HEIGHT IS NEEDED

- The New Town Character District has been established in Plan Warrenton 2040 as a designated area of high density—3-story residential does not allow for the concentrated density desired in the District
- The New Town Character District calls for "greater intensity of mixed-use and strong live, work, and play options" and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this Character District.
- 4-stories allows for the internal parking garage to be hidden from the exterior of the building

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #6



- Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
- This modification is necessary to provide increased supply of "missing middle" housing type and aligns with several other existing residential communities in Warrenton include grouping of seven or eight units.
- **Waiver Request #6:** Increase maximum grouping of townhouse units from six to seven

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #7



- Article 2-19.4: Retaining walls shall not exceed a height of 6′.
- This modification is necessary to mitigate the grade change along the Block 1 apartment building. These walls will appear as part of the building foundation and will provide sidewalk access to all first-floor units.
- **Waiver Request #6:** Allow retaining walls in excess of 6′

A PRODUCT OF PLAN WARRENTON 2040

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

- An economic model was created to determine the impact of land use decisions and the resulting economic ramifications
- The model weighed the cost of the Town's desired capital projects against different growth scenarios:

Scenario	Intended Growth Strategy	New Housing Units (by 2039)	Annual Net Fiscal Impact
1	Minimal growth, i.e. 2010 – 2019 trends	Minimal	($508,808)
2	Become a stronger livable community	750+	($240,682)
3	Become a livable destination community	1,150+	$102,185
4	Become a regional live/work community	2,100+	$335,535

RKG Conclusion:

- To achieve the level of services and amenities desired by the citizens of Warrenton, the Town must increase its development activity
- Warrenton cannot "save its way" (i.e. cut back on spending) to fiscal sustainability
- Without residential development, "the Town does not have the demand to continue to increase retail services."

PLAN WARRENTON 2040

- The White Paper recommendations, particularly with respect to the need for additional housing, heavily influenced the creation of the Warrenton 2040 Plan
- It is incorporated by reference into the Plan
- The ability to satisfy this housing need is addressed throughout the Plan: **Specifically, Character Districts are envisioned to contain a variety of attainable housing types**

> **H-2.2:** Increase opportunities for multi-family and mixed-use residential development by updating the commercial corridors in the Character Districts to allow for appropriate use and scale transitions into existing neighborhoods.

WARRENTON HOUSING MARKET & ECONOMIC IMPACTS

IMPACT OF THE WARRENTON HOUSING SUPPLY

- As forecast by the White Papers, the lack of housing supply and typology has had impacts that we can see on today's Warrenton housing market and overall economics:
  - Potential renters who are employed locally must often rent outside of Warrenton
  - Commuters to D.C. based jobs can't consider Warrenton when searching for relocation options
  - Area employers have challenges attracting new employees
- Due to the scarcity of rental units, potential renters do one of three things:
  - 1) pay above market rents for the few desirable units available
  - 2) resort to leasing less desirable units
  - 3) look elsewhere, outside of Warrenton
- These outcomes are all detrimental to the Warrenton economy and the existing community

CURRENT RENTAL ENVIRONMENT

1) APARTMENT COMMUNITIES

- There are six (6) apartment communities in the Warrenton area that are income and/or age restricted
- There is one (1) market rate apartment community in Warrenton
- Per a 4/4/24 search, there were zero (0) apartment units available for immediate occupancy in any of Warrenton's apartment communities

Apartment Communities	Year Built	Total Units	Available Units*	Age Restricted	Income Restricted
Moffett Manor	2007	98	0	Senior (55+)	50% & 60% AMI Programs
Steeplechase	2000	56	0	Senior (55+)	50% & 60% AMI Programs
The Oaks	1996	111	0	Senior (55+)	50% & 60% AMI Programs
Highland Commons	1994	96	0	No	50% & 60% AMI Programs
Warrenton Manor	1985	98	0	Senior (55+)	30%, 50%, 60% & 80% AMI Programs
Academy Hill	1983	31	0	No	USDA Section 515 Rental Program
Victoria Gardens	1979	24	0	None	None – Market Rate
Totals		514	0		

**Per Apartments.com results taken on 4/4/24*

CURRENT RENTAL ENVIRONMENT

2) SINGLE FAMILY OR CONDO RENTAL DWELLINGS

- Per a 4/4/24 search, there were eight (8) rental units available for immediate occupancy in single family rentals and condo buildings
- With the exception of a single unit built in 2006, all available units are 30+ years old

Unit Type	Condo Apartment	Townhomes	Houses	Total Units
1-Bedroom	2 Units $1,500 (1975) $1,665 (1949)			2
2-Bedroom		3 Units $1,600 (1993) $1,750 (1975) $1,750 (1980)		3
3-Bedroom			2 Units $1,695 (1978) $2,875 (1986)	2
4-Bedroom			1 Unit $3,500 (2006)	1
Totals				8 units

**Per Zillow.com results taken on 4/4/24*

WHEN PEOPLE CAN'T FIND HOUSING IN WARRENTON…

- The new commercial amenities and services that are so desired by the existing community are not fiscally achievable without the economic improvement generated by an increase in residents
- Not only will new and improved retail not come to Warrenton, existing retail will continue to decline and deteriorate
- Consumer spending is trending down, commercial vacancy is trending up – these trends will continue
- Existing retailers will continue to see diminished business activity, leading to potential viability concerns
- New potential retailers will choose alternative destinations outside of Warrenton

WARRENTON POPULATION & EMPLOYMENT GROWTH

- Warrenton's population has remained relatively stagnant over the last 15 years
- An increased growth rate is not anticipated going forward
- Lack of growth is largely due to lack of available housing
- Warrenton's employment increased by 574 jobs between 2006-2019—a growth rate of 0.4% per year
- Over that same period of time, the Northern Virginia Region increased its jobs by 1.9% annually—**nearly five times the Town's growth rate**

Year	At-Place Jobs	# Change	% Change
1990	4,830		
2000	6,670	1,840	38.1%
2010	9,622	2,952	44.3%
2011	9,721	99	1.0%
2012	9,784	63	0.7%
2013	9,829	(28)	(0.3%)
2014	9,831	47	0.5%
2015	9,857	(34)	(0.3%)
2016	9,891	60	0.6%
2017	9,898	69	0.7%
2018	9,949	51	0.5%
2019	10,038	89	0.9%
2020	10,043	5	0.1%
2021	10,174	131	1.3%
2022	10,197	23	0.2%
2023	10,274	77	0.8%
2024	10,351	77	0.8%
2025	10,428	77	0.7%

*Source: Worldpopulationreview.com

ECONOMIC IMPACTS

- The Market and Fiscal Impacts Analysis performed by S. Patz & Associates, Inc. concluded the following:
  - The project will have a Net Fiscal Benefit to the Town of Warrenton—meaning that the taxes generated by the project (both direct and indirect) will outweigh the capital expenditures connected with the project
  - At full buildout, residents will generate $26.4M in direct annual consumer expenditures (i.e. business activity)
  - The project, along with the increased business activity that it generates, will yield 476 new full-time jobs in the community

PUBLIC IMPROVEMENTS

LIST OF IMPROVEMENTS FOR PUBLIC USE & BENEFIT

- Central Plaza
- East & West Plazas
- Oak Spring (natural spring) restoration
- Dog Park and Picnic Area
- Oak Springs Drive Pedestrian Crosswalks
- Completion of outer sidewalk ring around Warrenton Village Center
- Internal pedestrian system – sidewalks, crosswalks, wayfinding, vehicle slowing measures
- Hastings Lane extension

CENTRAL PLAZA



Bird's eye view of Central Plaza

CENTRAL PLAZA



Alternate bird's eye view of Central Plaza (Note Blocks 1 & 2 in background)

CENTRAL PLAZA

View of splashpad at Central Plaza



CENTRAL PLAZA



Ground level view of Central Plaza

CENTRAL PLAZA



Ground level view within Central Plaza (Note Blocks 1 & 3 in background)

CENTRAL PLAZA



Ground level view of pedestrian access to Central Plaza (Note Block 3 in background)

CENTRAL PLAZA



Ground level view of Central Plaza

WEST PLAZA



Ground level view of West Plaza

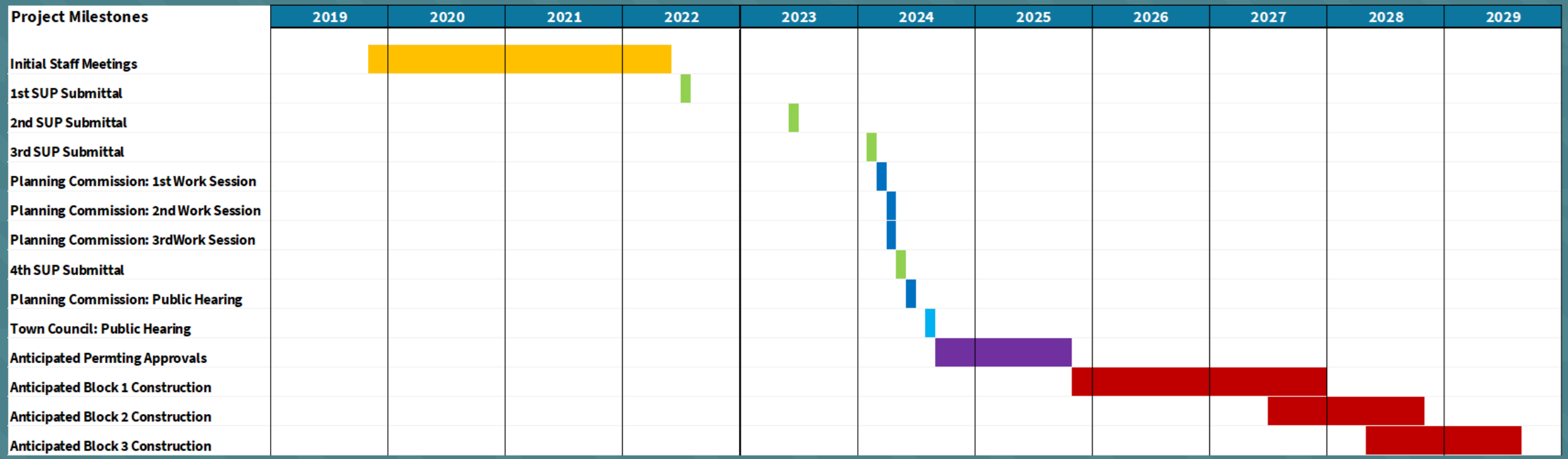
EAST PLAZA



Ground level view of East Plaza

CONCERNS ADDRESSED

PROJECT TIMELINE



WHAT WE HAVE HEARD

- As shown above, this proposal has gone through significant public review, both through public work sessions with the PC and individual meetings with stakeholders
- Primary topics of discussion included:
  - Water/Sewer Impacts
  - Transportation Impacts
  - School Impacts
  - Affordable Housing
  - Oak Springs Impacts
  - Architecture
- We have taken this feedback into account and made changes to the proposal to address these issues

WATER / SEWER IMPACTS

WATER / SEWER IMPACTS

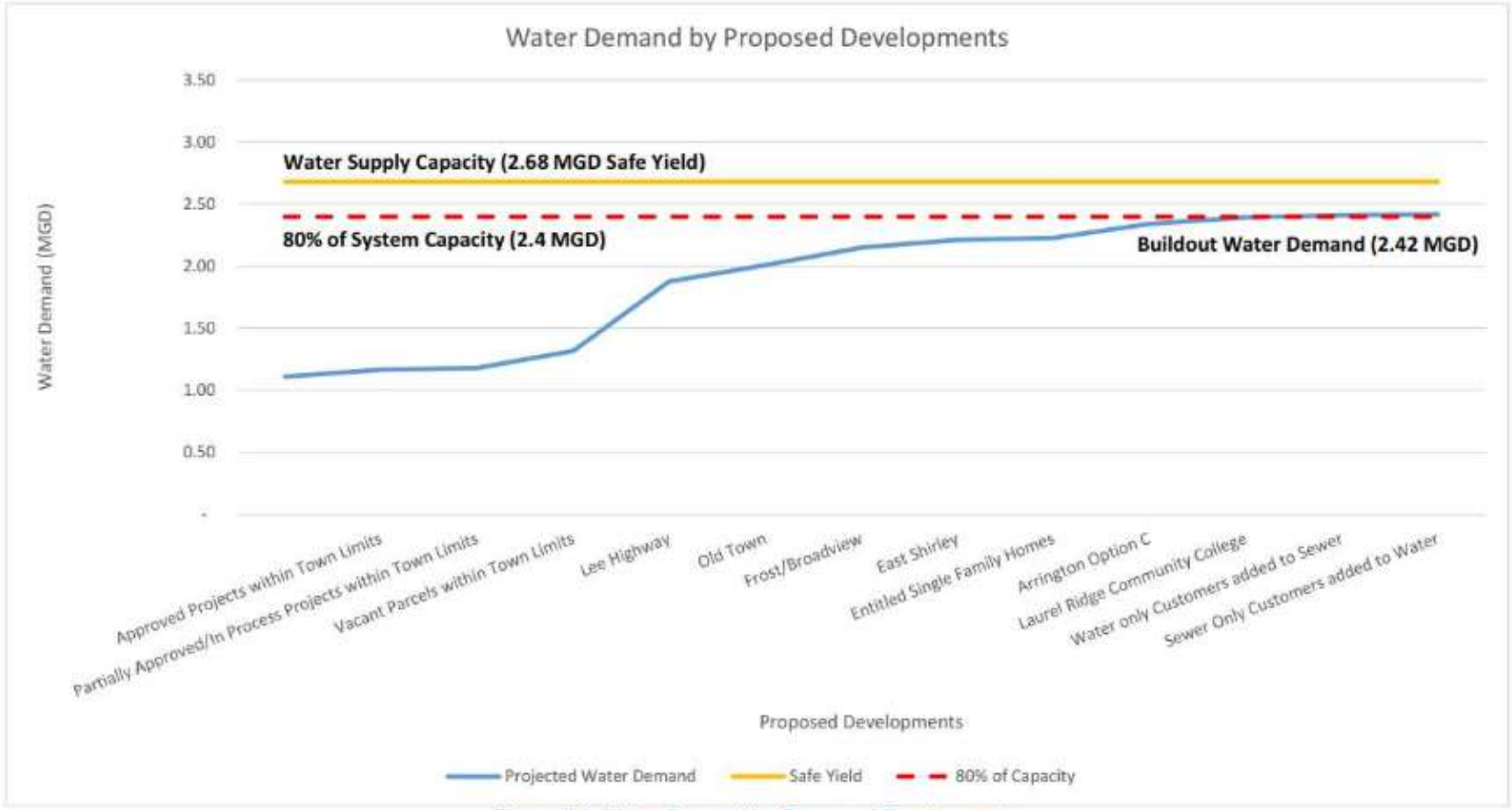


Figure 5.1: Water Demand by Proposed Developments

WATER / SEWER IMPACTS

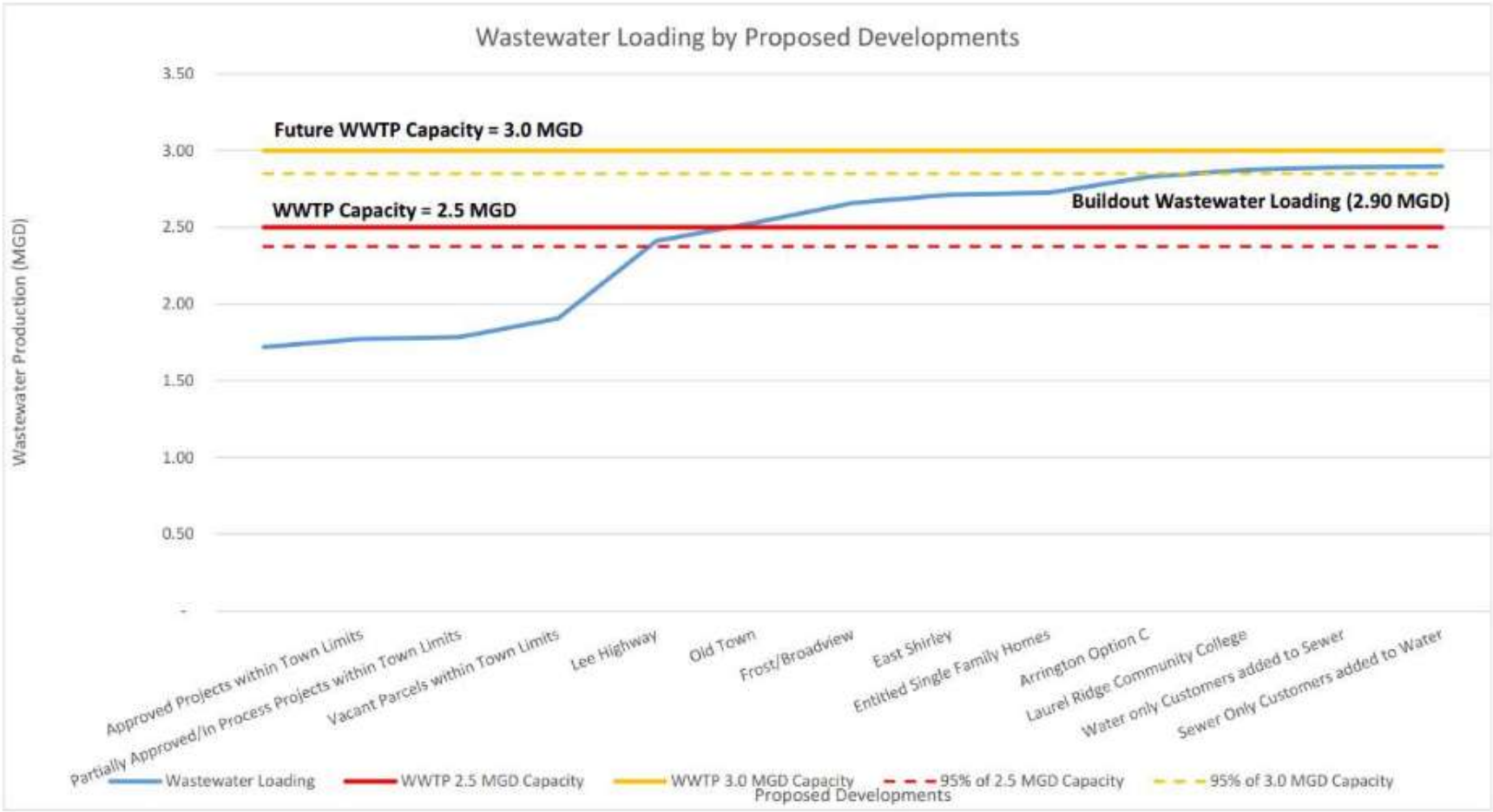


Figure 6.1: Wastewater Loading by Proposed Developments

TRANSPORTATION

SITE PLAN OVERVIEW

Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets
- Agree to install traffic mitigation measures at Oak Springs Drive garage exit during Highland School “peak” hours – access gate, signage, lighting, etc.



SITE PLAN OVERVIEW

Pedestrian Connectivity:

- Extensive sidewalk network proposed along all streets and within site to promote walkability
- Connects to and augments pedestrian network within existing center
- Crosswalks will be added on Oak Spring Dr at Hastings Ln and Highland School to promote safe pedestrian access from the north
- Retain crosswalks on Broadview Ave and Branch Dr



TRAFFIC STUDY AREA



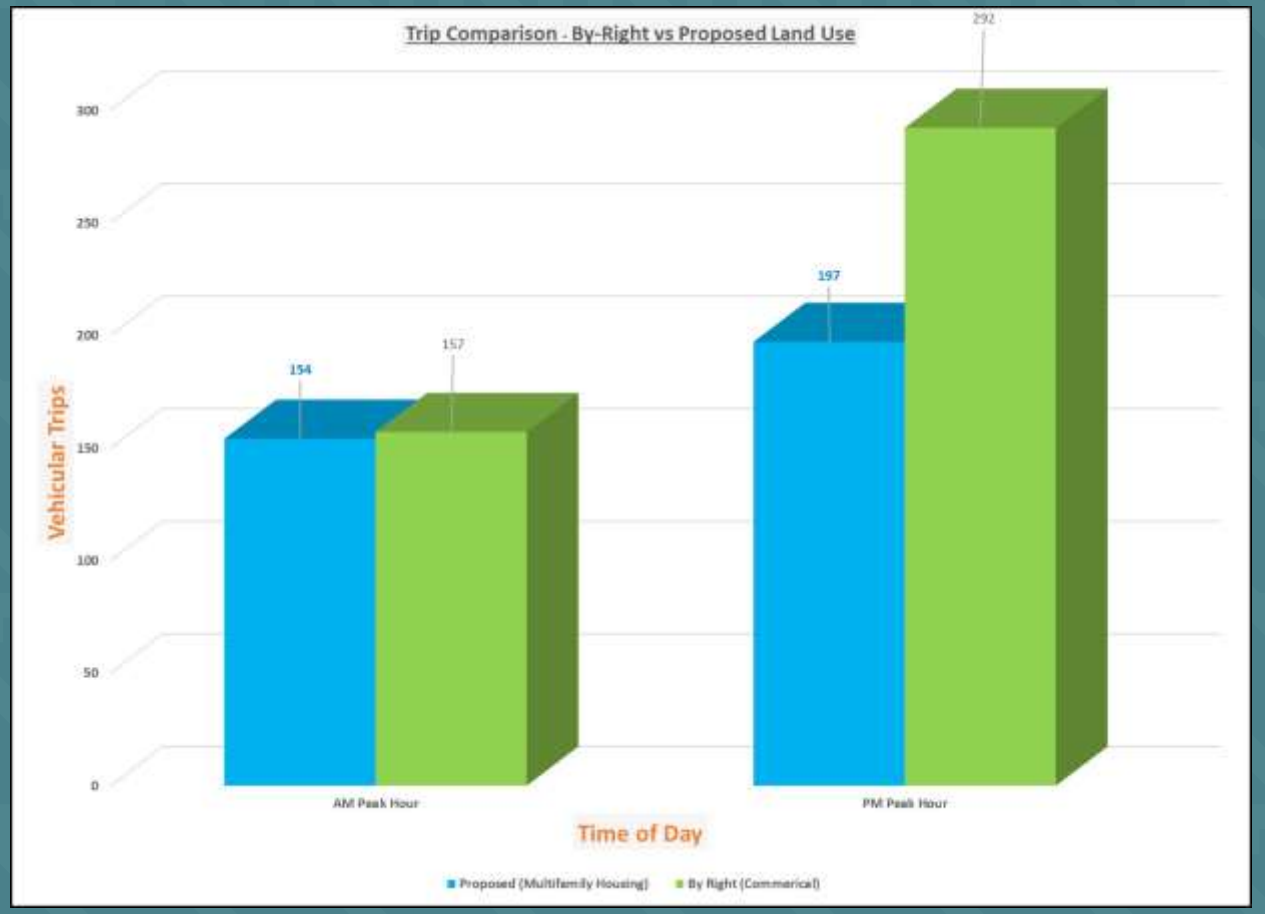
SITE TRIP GENERATION

New Trips Generated by the Development:

- The proposed 386 new residential units are expected to generate around 154 new vehicle trips during the morning commute hour and 197 new vehicle trips during the evening commute hour
- These are distributed across the internal connections and 6 access points, reducing impact at any single location

Less Than By-Right Commercial Development:

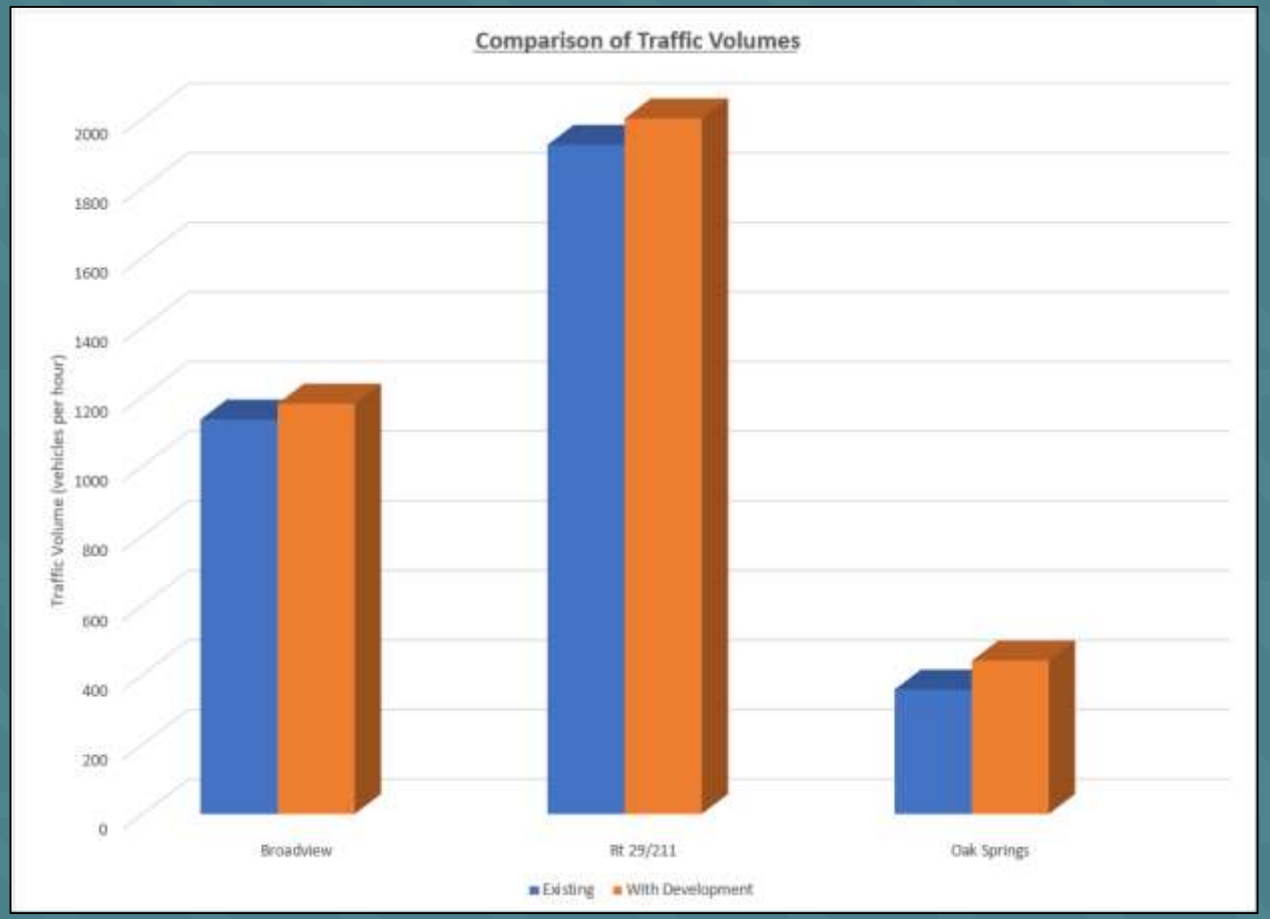
- The residential traffic volumes are lower than what would be seen if the site was developed by right with 40,000 sf of retail instead



SITE TRIP IMPACTS

Minimal Traffic Impact:

- Site-generated traffic represents a small percentage of the existing volumes:
  - 3 - 4% on Broadview Avenue
  - 0.1 - 4% on Rt 29/211
  - Greater proportion on Oak Spring Dr and Branch Dr, where current volumes are lower
- Capacity analysis confirms these modest additions can be accommodated by the surrounding road network without degrading operations



INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

HIGHLAND SCHOOL TRAFFIC

Balancing Access and Minimizing Disruption:

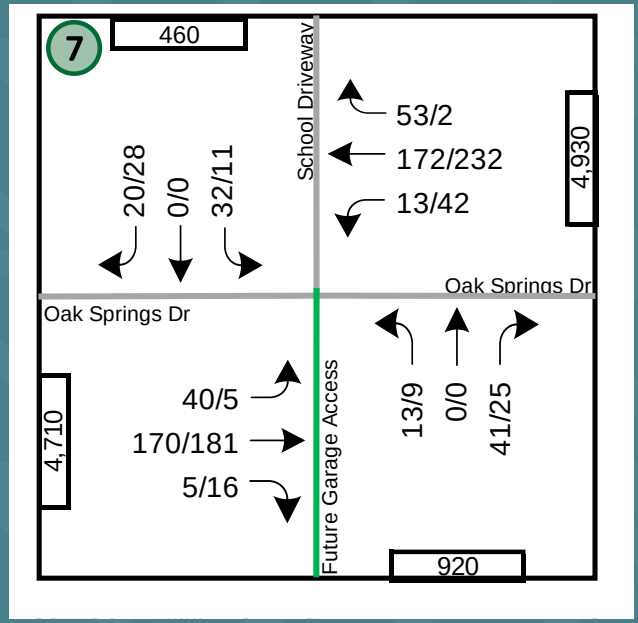
- The proposed parking deck entry is positioned across from the Highland School driveway to balance access needs while minimizing disruption to the existing intersection

Minimizing Conflicts with School Peak Hours:

- Analysis found Highland School and residential AM peak hours have a 15-minute overlap, during which conflicts are expected to be minimal
- Analysis found no overlap in PM peak hours
- It is anticipated that residents will use secondary garage entrance during AM peak hours, which will further reduce conflicts

Accommodating School Operations:

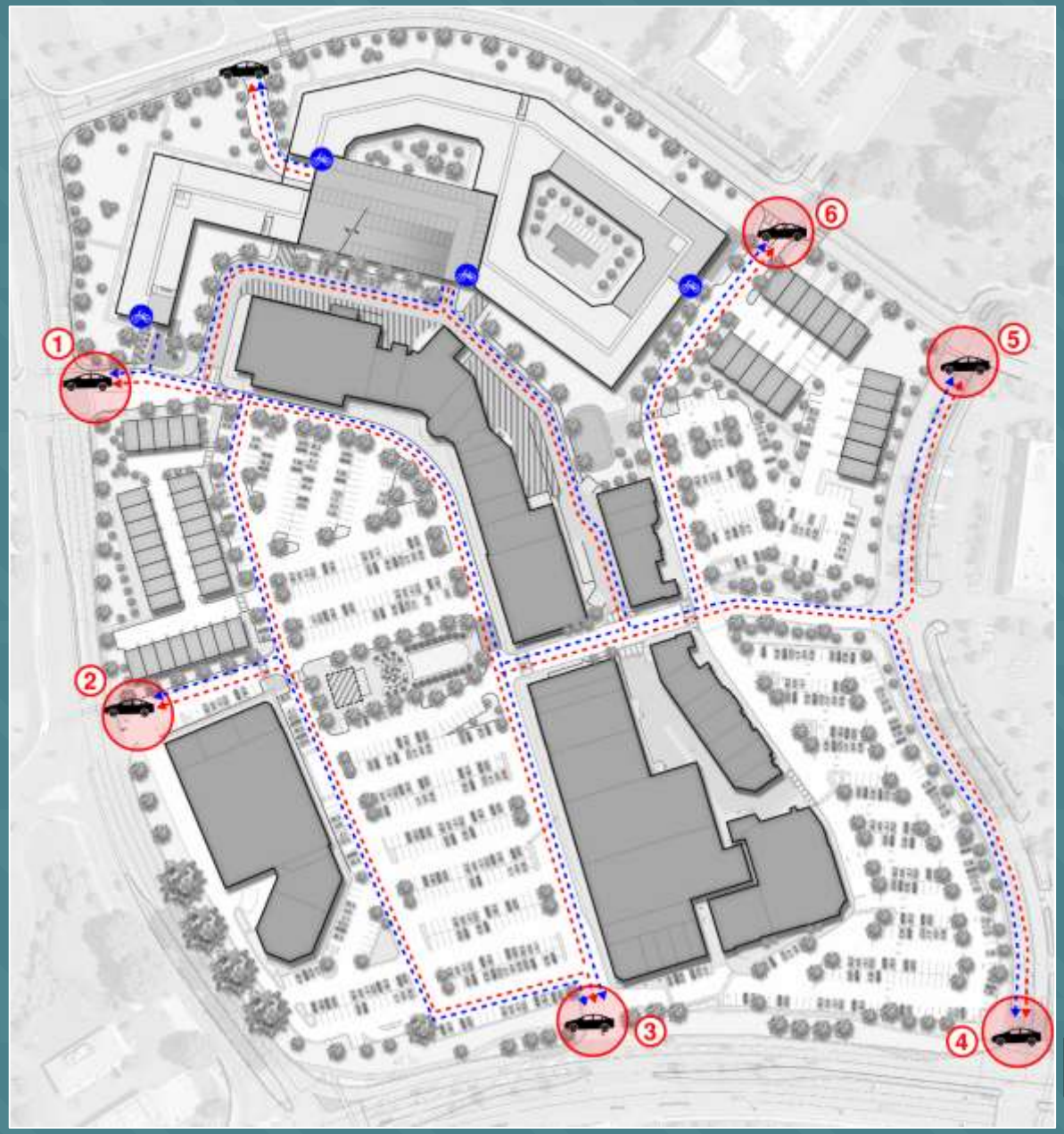
- Observations showed limited queuing of vehicles along Oak Springs Dr at the existing Highland School access point, even during peak times
- The school has multiple pickup/drop-off locations and two entrances, which helps distribute the traffic



Overall, the traffic impacts from the proposed development are not anticipated to significantly disrupt or impede the normal operations of Highland School

HIGHLAND SCHOOL TRAFFIC

- Residents of Warrenton Village Center will want to avoid traffic as much as those dropping off/picking up students at Highlands School
- The site provides 6 alternative points of ingress/egress for vehicles and bicycles that will be the preferable route of travel during peak traffic hours to avoid congestion on Oak Springs Drive
- These alternative points of ingress/egress will further reduce what the Traffic Impact Analysis has determined to be minimal conflicts to the Highland School traffic



ROAD IMPROVEMENTS

Turn Lane Warrant Analysis:

- No new turn lanes warranted at proposed site access points per VDOT standards
- No new turn lanes recommended to be constructed by the development

Signal Warrant Analysis:

- Signal warrant analysis performed for Broadview Ave/Oak Springs Rd intersection
- Traffic volumes do not meet MUTCD signal warrants, so signalization is not recommended
- Unsignalized operations projected to function acceptably at LOS C or better

The Warrenton Village Center development does not necessitate any additional roadway improvements beyond what is already planned by VDOT and the Town

SUMMARY OF IMPACTS

Additional Traffic:

- The proposed 386 residential units will generate 154 new trips in the AM peak and 197 in the PM peak hour
- This equates to about 4% of the current traffic on most surrounding roadways

Dispersed Access Points:

- Multiple entry/exit locations directly to Oak Springs Dr and through shopping center driveways
- Distributes new trips across the road network, avoiding concentration at a single point

SUMMARY OF IMPACTS

Leveraging Existing and Planned Infrastructure:

- The mixed-use nature of the development will help reduce external trips generated, as some trips can be captured internally
- Surrounding street grid offers multiple route choices, dispersing trips
- Planned roundabout will improve operation at Rt 29/211 and Broadview Ave
- Capacity analysis confirms surrounding intersections and roads can accommodate the new traffic with minimal impact

Outcome:

- The Warrenton Village Center development would improve walkability, vibrancy, and housing choices, with a marginal increase in traffic that does not warrant new road improvements

SCHOOLS

PROJECTED STUDENTS

Warrenton Village Center Projection at Full Buildout and Occupancy:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

- Allocation per school:
  - Bradley (52%) = 49
  - Taylor (22%) = 21
  - FHS (26%) = 24

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

AFFORDABLE HOUSING

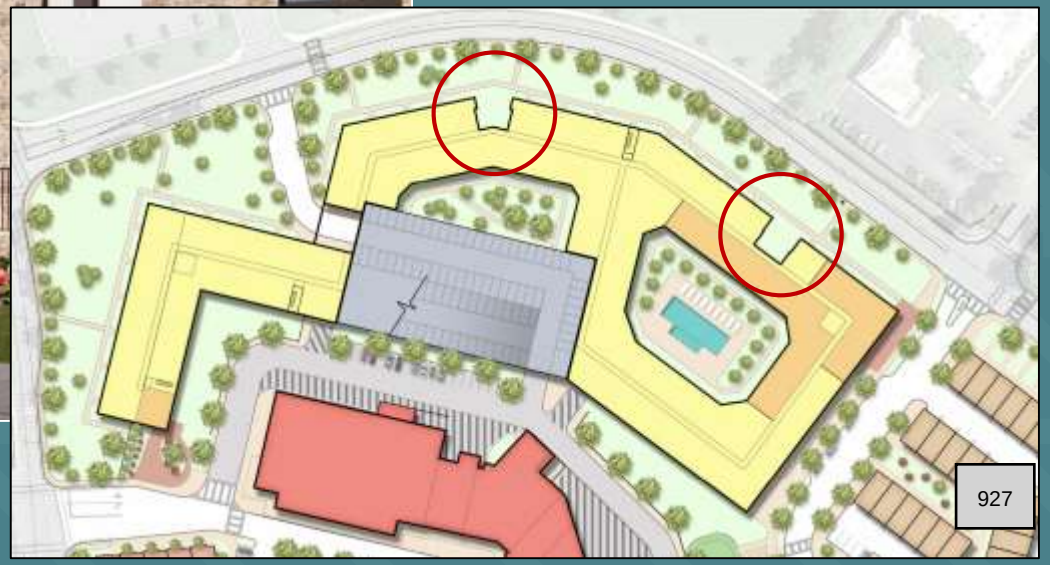
AFFORDABLE DWELLING UNITS

- ADU Unit Counts:
  - 80% AMI ADUs: 39 units
  - 70% AMI ADUs: 10 units
  - 60% AMI ADUs: 5 units
  - TOTAL ADUs: 54 units (14% of total proposed units)
- Income and rent limits will be in accordance with the current Multifamily Tax Subsidy Program (MTSP) Income and Rent Limits for Fauquier County as published by the Virginia Housing (formerly VHDA).

ARCHITECTURE

BLOCK 1 BUILDING “INSETS”





RESIDENTIAL BLOCK 1 – *WEST FACING ELEVATION FROM HASTINGS LANE*





RESIDENTIAL BLOCK 1 – *EAST FACING ELEVATION FROM BROADVIEW AVE*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS DRIV*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS D*





RESIDENTIAL BLOCK 2





RESIDENTIAL BLOCK 3





ARCHITECTURAL OPTION 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 2

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 1

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 2

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 1

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 2

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 2

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 1



View from Oak Springs Drive

ARCHITECTURAL OPTION 2



View from Oak Springs Drive

ARCHITECTURAL OPTION 1



View from Broadview Avenue

ARCHITECTURAL OPTION 2



View from Broadview Avenue

VENABLE LLP

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July 31, 2024

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KNWhitmore@Venable.com

Town of Warrenton
Community Development
Attention: Denise Harris

Re: Warrenton Village Center SUP - Conditions of Approval

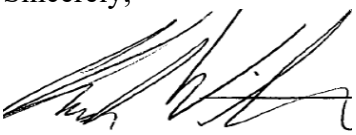
Dear Denise:

This firm represents the applicant in the above-referenced matter, NewCastle Development Group.

Please accept this letter as evidence of the applicant's agreement to add a commitment to provide low-flow toilets in the residential units that are the subject of the requested SUP.

Please let me know if I can provide anything further, thank you.

Sincerely,



Kedrick N. Whitmore

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
August 13, 2024

Special Use Permit Application

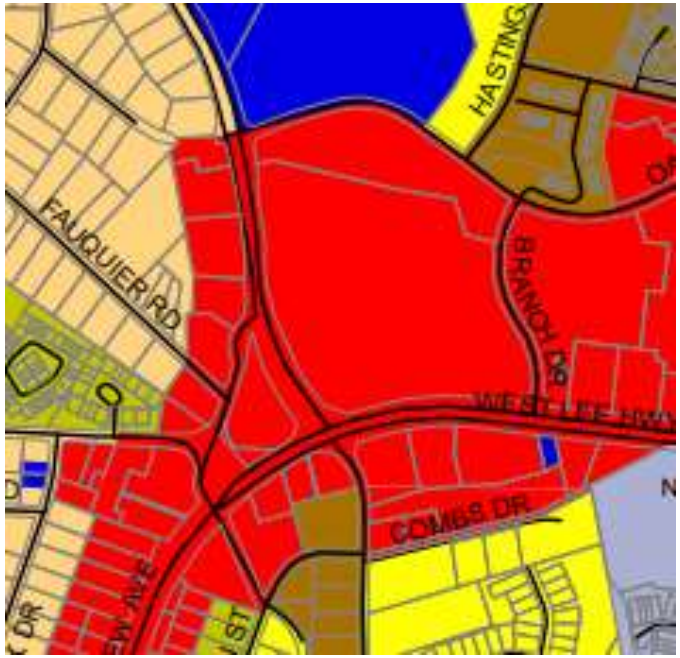
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, NewCastle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 34 2 over 2
  - Approximately 32 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map

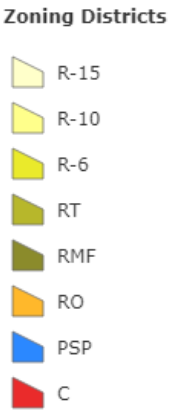


Existing Commercial

Public/Semi Public School

Senior Care

Apartments



Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







Three PC Work Sessions

- Full site Design
- Schools
- Traffic Impact Analysis/Transportation
- Walkability/Bicycle/Grid Connections
- Open Space/Historic Resources/Public Amenities
- Affordable Dwelling Units
- Water and Sewer
- Plan Warrenton 2040

Proposal

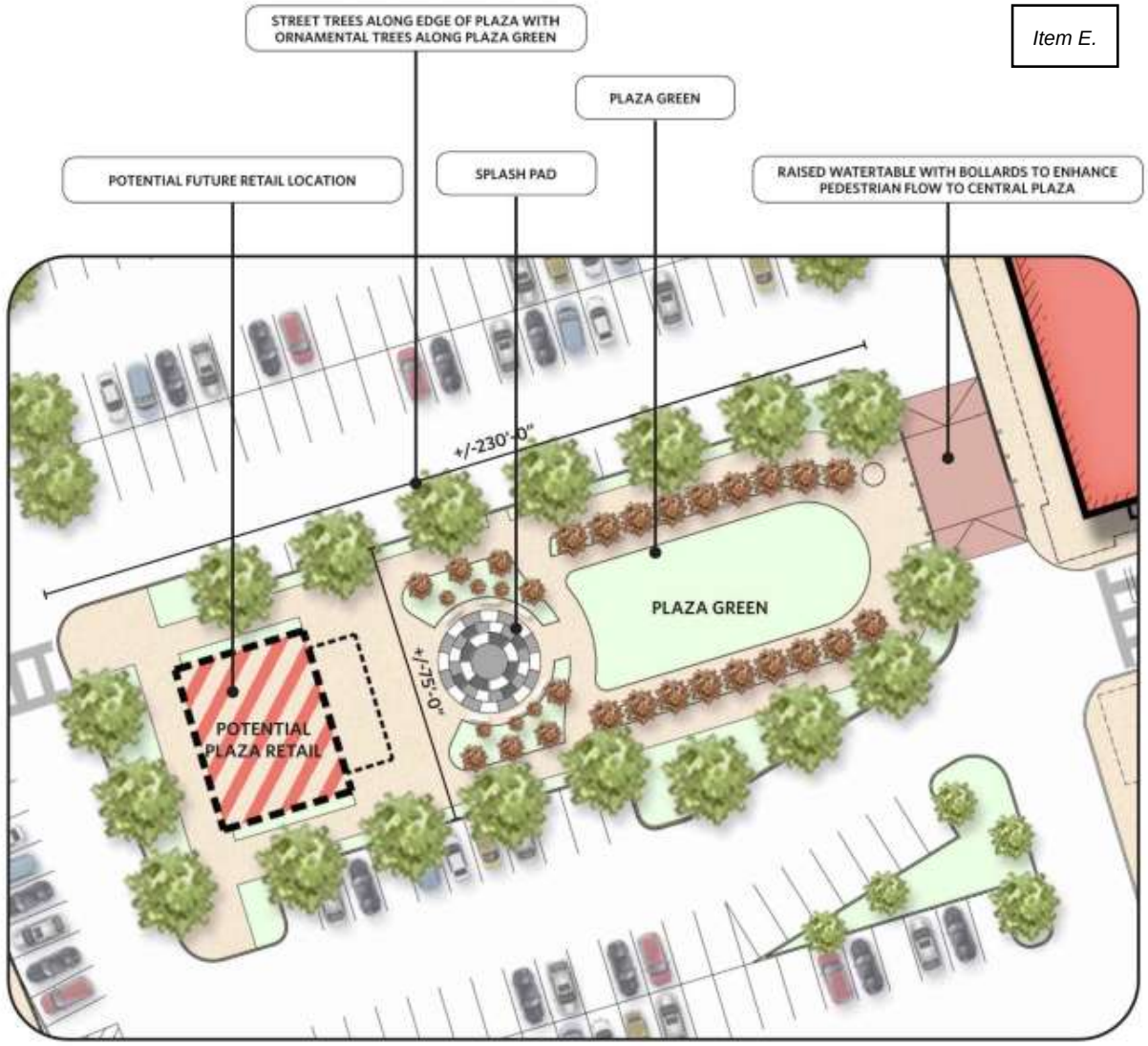


Proposal Includes

- BLOCK 1 - 320 Apartments 1-3 BD, 4 story parking garage
- BLOCK 2 – 26 Townhomes 3 story
- BLOCK 3 - 34 2 over 2 4 story, 6 Townhomes 3 Story garage
- 10% Affordable Dwellings at 80%; 10 at 70%; 5 at 60%
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Central Plaza





ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"

Elevations

5/31/2024

vs

2/13/2024





Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview
- Allow Retaining Walls over Six Feet

Planning Commission Recommendation

- June 18, 2024 Public Hearing
- 12 Citizens Spoke
- Voted 4-0-1 (Ainsworth Absent) Recommend Approval with Conditions of Approval

Draft Conditions of Approval

- Block 1, 2, or 3 in any order with triggers
- Elevations for 2/14/24 and 5/31/24
- Parking Garage South Facing Screening
- National Green Building Standard
- Prohibited Materials
- Signage and Lighting
- Refuse and Site Maintenance

Draft Conditions of Approval

- Affordable Dwelling Units 25 Years
  - 10% in each block at 80% AMI
  - Additional 10 in Block 1 70% AMI
  - Additional 5 in Block 1 60% AMI
  - Multifamily Tax Subsidy Program VA Housing
  - Similar architecture/fixtures
  - Warrenton/Fauquier Resident Preference
  - Condo Sale Provisions

Draft Conditions of Approval

- Transportation
  - Parking Garage
  - Sidewalks
  - Crosswalks on Oak Springs
  - EV Charging Stations
  - Modified Alley
  - Loading and Unloading

Draft Conditions of Approval

- Waivers and Modifications
  - Article 2-6.1 allow for increased density for 386 units/13.28 units per acre
  - Article 3-4.10.4 decrease Broadview Avenue front yard setback to 14', side/rear yard setback to 0'
  - Article 8-8.5 decrease buffer width commercial and residential to 0', decrease rear buffer for residential uses from public ROW to 14'
  - Article 2-20 Increase heights Block 1 54' Oak Springs Drive, Block 1 36' Broadview Ave, Block 2 36', Block 3 45'
  - Article 3-4.4.5.3 Allow TH grouping from 6 to 7
  - Article 2-19 Allow retaining walls and fences over 6'

Town Council Steps

- Held Work Sessions
  - July 9, 2024
  - August 13, 2024
- August Public Hearing
  - August 13, 2024

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
August 13, 2024

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August 8, 2024

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KNWhitmore@Venable.com

Town of Warrenton
Community Development
Attention: Denise Harris

Re: Warrenton Village Center SUP - Conditions of Approval

Dear Denise:

This firm represents the applicant in the above-referenced matter, NewCastle Development Group.

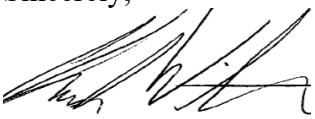
Please accept this letter as evidence of the applicant's agreement to add a commitment to provide the following:

- Installation of a traffic control device restricting non-emergency egress from the northwest entrance of the multifamily garage during an agreed upon peak time, not to exceed 1 hour per weekday.

- Installation of a small play area in the vicinity of the dog park.

Please let me know if I can provide anything further, thank you.

Sincerely,



Kedrick N. Whitmore

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13th, 2024.
Agenda Title:	Code of Conduct Committee Report
Requested Action:	Consider Recommendations of the Code of Conduct Committee
Department / Agency Lead:	Town Council
Staff Lead:	Councilmen Paul Mooney

EXECUTIVE SUMMARY

The Code of Conduct Committee was established at the March 12, 2024, Town Council Work Session. This newly formed Special Committee will be responsible for reviewing and updating the Code of Ethics for the Town Council and all boards and commissions beneath them. Staff have been instructed by the Town Manager to assist in this endeavor.

The Code of Conduct committee has reviewed the Codes of Conduct, Codes of Ethics, and their implementation across multiple jurisdictions around the Town of Warrenton. They have also incorporated references to the Virginia State Code for applicable laws and regulations.

The Code of Conduct committee comes forward with the following recommendations:

1) Review the proposed code of conduct and provide feedback no later than one week before the next Council meeting.
2) Consider the addition and updating of Citizen rules of conduct to better shape the processes of Citizen's time and public comment to align with the council's rules of decorum.
3) Consider with this change a request to the Town Manager to begin a rewrite of the Town Council Handbook to update the code of conduct sections and incorporate best practices, policies, and standard operating procedures to ensure the effective, knowledgeable, and ethical guidance of the Town's operations. Items to consider for the Town Manager for inclusion should be discussed at the next Town Council Meeting.

BACKGROUND

The Code of Conduct Committee was established at the March 12, 2024, Town Council Work Session. This newly formed Special Committee will be responsible for reviewing and updating the Code of Ethics. For the Town Council and all boards and commissions beneath them. Staff have been instructed by the Town Manager to assist in this endeavor. Consider the points of direction for them to follow. This report will lay out suggested items for the committee to focus on.

Goals of the committee:

1. Review other communities Code of Conduct.

2. Review the Virginia State Code for applicable laws and regulations.
3. Establish a new code of conduct for review and action by the Council.
4. Take into consideration the recommendations from Ms. Jane Dittmar from the Virginia institute of Government.
5. Present the information for review and action by the Council no later than the August regularly Scheduled Town Council Meeting.

As there are Two Members of the Committee, no chairperson is necessary.

As a reminder, minutes of the meeting of the committee should be taken and meetings are open to the public under FOIA. The Town Clerk can assist with this process.

The Virginia Institute of Government, with Jane Ditmar as the attending facilitator, provided a work session on code of conduct and Ethics. This work session reviewed and discussed roles, opportunities, strengths, and recommendations to move forward. The report is attached. As the top recommendation, Ms. Ditmar recommended focusing on updating and reworking the Code of Conduct for Council Members. It was determined that by working on this first, moving forward with the strategic planning initiative will be more successful.

STAFF RECOMMENDATION

Receive the information from the Committee and consider their recommendations.

Service Level/Collaborative Impact

The Code of Conduct will impact all departments, Boards, Commissions, and Committees of the Town of Warrenton.

Policy Direction/Warrenton Plan 2040

The Town Council is the guiding force behind all actions of Warrenton Plan 2040. This Code of Conduct will help guide this Council and future Councils with the

Fiscal Impact

There is a minor fiscal impact with additional staff time for this committee.

Legal Impact

The Town Attorney will be available to review the proposed Code of Conduct and discuss items with the Committee members.

ATTACHMENTS

1. Ethics Statement
2. Strategic Retreat report
3. Suggested items from the Virginia Institute of Government for Review.

Brandie Schaeffer
TOWN MANAGER
T(540) 347-1101
bschaeffer@warrentonva.gov

TOWN COUNCIL
H.E. Carter Nevill, Mayor
Renard J. Carlos
Sean M. Polster
Heather D. Sutphin
William T. Semple II
Brett A. Hamby
James N. Hartman III
Kevin T. Carter

TO: Town Council Members, Planning Commission & Board Members

FROM Brandie Schaeffer, Town Manager

DATE: July 14, 2020

RE: Code of Ethics Statements

The Town Council adopted the attached Code of Ethics at its meeting on August 9, 2016. The Code addresses how members will ethically conduct themselves to earn and maintain the public's full confidence for integrity.

The Code of Ethics is adopted for execution by each elected or appointed member of a Town public body, including the Mayor and Town Council Members, the Planning Commission, Board of Zoning Appeals and Architectural Review Board, and citizen Committee Members. It includes a statement of affirmation by individual members of each body to sign and date.

Please read the Code of Ethics sign the Member Statement and return it to Town Clerk, Elizabeth Gillie at your earliest convenience. Let me know if you have any questions.

Thank you,

Brandie M. Schaeffer
Town Manager

TOWN MISSION AND VALUES STATEMENTS

Mission: In Cooperation With and For Our Citizens ... The Mayor, Town Council and the Staff of Warrenton are dedicated to providing public safety, economic opportunity, and quality public services in an attractive, well-planned community with historic character for the benefit, enjoyment and accessibility of all.

Values: To Achieve Our Mission, We Strive To. . . Provide high level services in a cost-effective manner; display honesty, respectfulness, and fairness in all relationships; support the health and economic well-being of our citizens and businesses; preserve our historic small-town character; encourage opportunities, services and infrastructure that allow people of all means to live, work and visit here; and address public concerns and opportunities promptly and effectively.

We recognize our Mission can be achieved only by the exchange of information and that through team work we can maintain an environment in which we can maximize our potential.

TOWN OF WARRENTON CODE OF ETHICS

The Town Council adopted the attached Code of Ethics at its meeting on August 9, 2016. The Code addresses how members will ethically conduct themselves to earn and maintain the public's full confidence for integrity.

The Code of Ethics is adopted for execution by each elected or appointed member of a Town public body, including the Mayor and Town Council Members, the Planning Commission, Board of Zoning Appeals and Architectural Review Board.

Preamble

The citizens and businesses of Town of Warrenton, Virginia, are entitled to have fair, ethical and accountable local government, which has earned the public's full confidence for integrity. In keeping with the Town of Warrenton's Commitment to Excellence, the effective functioning of democratic government, therefore, requires that public officials, both elected and appointed, comply with both the letter and spirit of the laws and policies affecting the operations of government; that public officials be independent, impartial and fair in their judgment and actions; that public office is used for the public good, not for personal gain; and that public deliberations and processes be conducted openly, unless legally confidential, in an atmosphere of respect and civility.

To this end, the Town of Warrenton Town Council has adopted this Code of Ethics for members of the Council and of the Town's boards, commissions, and committees to assure public confidence in the integrity of local government and its effective and fair operation.

1. Act in the Public Interest

Recognizing that stewardship of the public interest must be their primary concern, members will work for the common good of the people of the Town of Warrenton and not for any private or personal interest, and they will assure fair and equal treatment of all persons, claims, and transactions coming before the Town of Warrenton Town Council, boards, commissions, and committees.

2. Conduct of Members

The professional and personal conduct of members must be above reproach and avoid even the appearance of impropriety. Members shall refrain from abusive conduct, personal charges, or verbal attacks upon the character or motives of other members of the Town Council, boards, commissions, and committees, the staff or public.

3. Respect for Process

   Members shall perform their duties following the processes and rules of order established by the Town Council and boards, committees, and commissions governing the deliberation of public policy issues, meaningful involvement of the public, and implementation of policy decisions of the Town Council by Town staff.

4. Conduct of Public Meetings

   Members shall prepare themselves for public issues; listen courteously and attentively to all public discussions before the body; and focus on the business at hand. They shall refrain from interrupting other speakers; making personal comments not germane to the business of the body, or otherwise interfering with the orderly conduct of meetings.

5. Decisions Based on Merit

   Members shall base their decisions on the merits and substance of the matter at hand, rather than on unrelated considerations.

6. Communication

   Members shall publicly share substantive information that is relevant to a matter under consideration by the Town Council or boards, committees, and commissions, which they may have received from sources outside of the public decision-making process.

7. Conflict of Interest

   To assure their independence and impartiality on behalf of the common good, members shall not use their official positions to influence government decisions in which they have a material financial interest, or where they have an organizational responsibility or personal relationship that may give the appearance of a conflict of interest.

   Under the law, members shall disclose investments, interests in real property, sources of income, and gifts; and they shall abstain from participating in deliberations and decision-making where conflicts may exist.

8. Gifts and Favors

   Members shall not take any special advantage of services or opportunities for personal gain, by virtue of their public office, which is not available to the public in general. They shall refrain from accepting any gifts, favors, or promises of future benefits which might compromise their independence of judgment or action or give the appearance of being compromised.

9. Confidential Information

   Members shall respect the confidentiality of information concerning the property, personnel, or affairs of the Town. They shall neither disclose confidential information without proper legal authorization nor use such information to advance their personal, financial, or other private interests.

10. Use of Public Resources

    Members shall not use public resources that are not available to the public in general, such as Town staff time, equipment, supplies, or facilities, for private gain or personal purposes.

11. Representation of Private Interests

    In keeping with their role as stewards of the public interest, members of the Council shall not appear on behalf of the private interests of third parties before the Town Council or any board, committee, commission or proceeding of the Town, nor shall members of boards, committees or commissions appear before their bodies or before the Town Council on behalf of the private interests of third parties on matters related to the areas of service of their bodies.

12. Advocacy

    Members shall represent the official policies or positions of the Town Council, boards, commissions, or committees to the best of their ability when designated as delegates for this purpose. When presenting their individual opinions and positions, members shall explicitly state they do not represent their body or the Town of Warrenton, nor will they allow the inference that they do.

13. Policy Role of Members

The Town Council determines the policies of the Town with the advice, information, and analysis provided by the public, boards, commissions, and committees, and Town staff. The Town Council delegates authority for the administration of the Town to the Town Manager.

Members, therefore, shall not interfere with the administrative functions of the Town or the professional duties of Town staff; nor shall they impair the ability of staff to implement Council policy decisions.

To prioritize staff time, Members shall not cause Town staff to spend more than one hour on any project without the specific approval of a simple majority of Council Members in an open meeting with a quorum present unless such time is the result of a closed session discussion involving duly authorized projects such as work on litigation, the sale or purchase of real property or any other issues associated with a properly authorized closed session. Any project requiring more than one hour by staff shall be brought to the attention of the Town Manager and Mayor who may place the project for discussion upon the next Town Council meeting's agenda.

14. Independence of Board and Commissions

Because of the value of the independent advice of boards, committees, and commissions to the public decision-making process, members of the Town Council shall refrain from using their positions to unduly influence the deliberations or outcomes of board, committee, or commission proceedings.

15. Positive Work Place Environment

Members shall support the maintenance of a positive and constructive work environment for Town employees and citizens and businesses dealing with the Town. Members shall recognize their special role in dealings with Town employees and in no way create the perception of inappropriate direction to staff.

16. Implementation

As an expression of the standards of conduct for members expected by the Town, the Town of Warrenton Code of Ethics is intended to be self-enforcing. It, therefore, becomes most effective when members are thoroughly familiar with it and embrace its provisions.

For this reason, ethical standards shall be included in the regular orientations for candidates for the Town Council, applicants to boards, committees, and commissions, and newly elected and appointed officials. Members entering office shall sign a statement affirming they have read and understood the Town of Warrenton Code of Ethics. In addition, the Town Council, boards, committees, and commissions, shall annually review the Code of Ethics and the Town Council shall consider recommendations from boards, committees, and commissions to update it as necessary.

17. Compliance and Enforcement

The Town of Warrenton Code of Ethics expresses standards of ethical conduct expected of members of the Town Council, boards, committees, and commissions. Members themselves have the primary responsibility to assure that ethical standards are understood and met and that the public can continue to have full confidence in the integrity of government.

The chairs of boards, committees, and commissions and the Mayor have the additional responsibility to intervene when actions of members that appear to violate the Code of Ethics are brought to their attention.

The Town Council may impose sanctions on members whose conduct does not comply with the Town's ethical standards, such as reprimand, formal censure, loss of seniority or committee assignment, or budget restriction. Where allowed by law, the Town Council also may remove members of Town-appointed boards, committees, and commissions from office.

A violation of this Code of Ethics shall not be considered a basis for challenging the validity of a Town Council, board, and committee or commission decision.

18. Email Etiquette

In an effort to ensure that all Council Members are receiving the same information, any request for information from staff by a Member shall result in the same information being disseminated to the entire Council. This shall apply to all requests concerning development projects, emergencies, capital improvement projects, or any other matter that has a direct impact on the community as a whole. It is understood that not all communications should be disseminated to prevent an inordinate amount of emails to the Council Members; however, this rule is intended to ensure that all Council Members have equal access to issues involving the Town.

A RESOLUTION TO ADOPT UPDATED MISSION AND VALUES STATEMENTS AND CODE OF ETHICS FOR THE MEMBERS OF THE WARRENTON TOWN COUNCIL AND FOR THE MEMBERS OF ALL BOARDS, COMMITTEES AND COMMISSIONS APPOINTED BY THE TOWN COUNCIL

WHEREAS, the Town Council has determined that the adoption of a Mission and Values Statements and Code of Ethics for its members and the members of all Council-appointed boards, committees and commissions will assist in achieving these ends; and

WHEREAS, the citizens and businesses of the Town of Warrenton are entitled to have fair, ethical and accountable local government which has earned the public's full confidence; and

WHEREAS, in keeping with Town Council's commitment to excellence, all public officials, both elected and appointed, must comply with both the letter and spirit of the laws and policies affecting the operation of government; and

WHEREAS, all public officials, both elected and appointed, are required to be impartial and fair in their judgment and actions and ensure that public office is used for the public good; and; now therefore, be it

RESOLVED by the Town Council 9th day of August 2016, that the following Mission and Value Statements and Code of Ethics is hereby adopted.

Model of Excellence
Town of Warrenton Town Council, Boards, Committees and Commissions

MEMBER STATEMENT

As a member of the Town Council, or of a Town of Warrenton board, committee or commission, I agree to uphold the Code of Ethics for elected and appointed officials adopted by the Town and conduct myself by the following model of excellence. I will:

- Recognize the worth of individual members and appreciate their individual talents, perspectives and contributions;
- Help create an atmosphere of respect and civility where individual members, Town staff and the public are free to express their ideas and work to their full potential;
- Conduct my personal and public affairs with honesty, integrity, fairness and respect for others;
- Respect the dignity and privacy of individuals and organizations;
- Keep the common good as my highest purpose and focus on achieving constructive solutions for the public benefit;
- Avoid and discourage conduct which is divisive or harmful to the best interests of the Town of Warrenton;
- Treat all people with whom I interact in the manner I wish to be treated;

I affirm that I have read and understand the Town of Warrenton Code of Ethics.

Name (printed): _____

Signature: _____

Date: _____

TOWN COUNCIL
H.E. Carter Nevill, Mayor
Paul W. Mooney
David A. McGuire
Heather D. Sutphin
William T. Semple II
Brett A. Hamby
James N. Hartman III, Vice Mayor
Eric F. Gagnon

TOWN MISSION AND VALUES STATEMENTS

WARRENTON TOWN COUNCIL OATH OF OFFICE:

"I do solemnly swear I will support the Constitution of the United States and the Constitution of the Commonwealth of Virginia and that I will faithfully and impartially discharge and perform all the duties incumbent upon me as a member of the Warrenton Town Council, for a term of four (4) years, according to the best of my ability, so help me God.

Mission: *In Cooperation With and For Our Citizens ... The Mayor, Town Council and the Staff of Warrenton are dedicated to providing public safety, economic opportunity, and quality public services in an attractive, well-planned community with historic character for the benefit, enjoyment and accessibility of all.*

Values: *To Achieve Our Mission, We Strive To… Provide high level services in a cost-effective manner; display honesty, respectfulness, and fairness in all relationships; support the health and economic well-being of our citizens and businesses; preserve our historic small-town character; encourage opportunities, services and infrastructure that allow people of all means to live, work and visit here; and address public concerns and opportunities promptly and effectively.*

Strategic Plan Goals and Focus Areas:

Resiliency: Financial and Workforce

Preparedness: Technology and Utilities

Livability: Affordable Housing

Preamble:

In recognition of the rights of the citizens and businesses of the Town of Warrenton, Virginia, to a local government that upholds principles of fairness, ethics, and accountability, it is imperative that public officials, whether elected or appointed, operate with integrity and earn the trust of the public. Aligned with the Town of Warrenton's Commitment to the Town's Mission, the essence of effective democratic governance lies in the unwavering commitment of officials to adhere to both the explicit and implicit regulations governing governmental operations. Upholding the values of independence, impartiality, and fairness, public officials must

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utilize their positions for the betterment of the community, free from personal motives or gains. Furthermore, it is essential that public deliberations and processes are conducted transparently, fostering an environment of mutual respect and civility.

In pursuit of these ideals, the Town of Warrenton Town Council has hereby established this Code of Conduct for members of the Council, as well as individuals serving on the Town's boards, commissions, and committees. Through the adoption of this code, we affirm our dedication to instilling public confidence in the integrity of local government and ensuring its equitable and efficient operation.

The purpose of this mission and value statement is aspirational. It does not supersede the Virgina Conflict of interest act in guiding decisions. This statement is to ensure that each member of the Town Council and appointed bodies can decide if their decisions are in line with the Town's views and beliefs.

Decision Making:

1. The Town's strategic priorities shall serve as the compass guiding the actions of both the Council and staff. These priorities will be established through a deliberate priority-setting process, ensuring alignment with the public interest.

2. Through our office's appointment, we acknowledge our adherence to the laws of the Commonwealth of Virginia, the County of Fauquier, the Town of Warrenton, and the United States of America, as well as all applicable regulations.

3. Our decisions will be grounded in the merits of the issues at hand, as developed in the legislative record.

4. We commit to treating all citizens and businesses equally based on the merits of the matter at hand and to using Town resources only for Town purposes.

5. We will uphold the will of the majority while valuing and respecting the concerns of the minority.

6. We will make decisions based solely on matters in the public record.

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7. Policy decisions and directives to the Town Manager will be communicated collectively by the entire Council. In cases of ambiguity, the Town Manager will seek clarification from the Council. No individual Councilmember will unilaterally direct policy implementation to the Town Manager.

Town Council and Staff interaction:

8. Council Members will strive to ensure that their interactions and requests to staff do not impede staff productivity. Staff members will exercise discretion and communicate the resources needed to address Council requests. Policy issues impacting workload or decisions will be routed through the Town Manager's office.

9. Communication from Council Members to staff members will be copied to the department director and the Town Manger. Urgent matters shall be clearly indicated in the subject line.

10. The Council will acknowledge the delineation between the Processes of Government and respect their requirements. The Council will focus on policy-making while staff will handle day-to-day operations and provide progress reports.

11. Concerns regarding staff performance from Council members or appointed individuals will be directed promptly to the Town Manager for resolution.

Guiding Principles:

12. We are accountable for our Wards, the entire Town, and the broader region, thus, we will diligently work for the benefit of all.

13. We will foster open communication with fellow Council members, Town Staff, the Town Manager's Office, other governing agencies, and consultants. Our communication will be constructive, positive, and guided by the pursuit of the public interest.

14. We will respect the autonomy and perspectives of the Boards and Commissions appointed by the Council to aid in governance duties. Recognizing the value of their independent advice, Council members will collaborate with and engage these bodies to serve the public interest.

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Eric F. Gagnon

15. Members must maintain exemplary professional and personal conduct, serving as role models for those who elected us. We shall refrain from abusive behavior, personal accusations, or verbal assaults on the character or motives of other Council members, boards, commissions, staff, or the public.

I affirm that I have read and understand the Town of Warrenton Code of Conduct and the Town Council Guidebook.

Name (printed): _____

Position or Title: _____

Signature: _____

Date: _____

EXPERIENCE

Motion for Convening a Closed Session

Council Meeting Date: August 13th, 2024.

I move that the Council convene in closed session to discuss the following:

____ As permitted by Virginia Code § 2.2-3711 (A)(1), a personnel matter involving:
____ Discussion, consideration or interviews of prospective candidates for employment or appointment; OR
____ assignment, appointment, promotion, performance, demotion, salaries, disciplining, or resignation of specific public officers, appointees, or employees of the Town;
specifically dealing with _____ *[Give department, job title(s), or job category].*

____ As permitted by Virginia Code § 2.2-3711 (A)(3), a matter involving:
____ discussion or consideration of the acquisition of real property for a public purpose; OR
____ disposition of publicly held real property
specifically involving _____ *[Give location of property]*, because discussion in an open meeting would adversely affect the City's bargaining position or negotiating strategy.

____ As permitted by Virginia Code § 2.2-3711 (A)(4), a matter requiring the protection of the privacy of individuals in personal matters not involving the public business.

__X__ As permitted by Virginia Code § 2.2-3711 (A)(7), consultation with legal counsel pertaining to: the pending case of **Citizens for Fauquier County v. the Town regarding exemptions under the Virginia Freedom of Information Act,**
where such consultation or briefing in open meeting would adversely affect the negotiating or litigating posture of the City.

AND

__X__ As permitted by Virginia Code § 2.2-3711 (A)(8), consultation with legal counsel regarding specific legal matters requiring the provision of legal advice by such counsel, relating to **legal issues for consideration of Special Use Permits.**

____ As permitted by Virginia Code § 2.2-371 l (A)(29), discussion of the award of a public contract for _____ *[Give nature of the contract]* involving the expenditure of public funds, including interviews of bidders or offerors, and discussion of the terms or scope of such contract, where discussion in an open session would adversely affect the bargaining position or negotiating strategy of the City Council.

____ As permitted by Virginia Code § _____, a matter involving:
_____.

[IDENTIFY THE APPLICABLE PARAGRAPH OF § 2.2-3711(A) OR OTHER LAW AND GIVE THE SUBJECT MATTER AND PURPOSE FOR THE CLOSED SESSION.]

Votes:
Ayes:
Nays:
Absent from Vote: None

CERTIFICATION MOTION AFTER RECONVENING IN PUBLIC SESSION:
(requires a recorded roll call vote)

I move that the Council certify that, in the closed session just concluded, nothing was discussed except the matter or matters (1) specifically identified in the motion to convene in closed session and (2) lawfully permitted to be discussed in a closed session under the provisions of the Virginia Freedom of Information Act as cited in that motion.

Votes:
Ayes:
Nays:
Absent from Vote: None

For Information:
Town Clerk

Effective date: August 13th, 2024.

Stephen Clough, Town Recorder
_____.

Community Development Department

STAFF REPORT

Meeting Date:	August 13, 2024
Agenda Title:	Special Use Permit 2022-05 Warrenton Village Mixed Use
Requested Action:	Hold a Work Session
Staff Lead:	Denise Harris, Planning Manager

EXECUTIVE SUMMARY

Special Use Permit (SUP) 2022-05 Warrenton Village Center, the Owners, Jefferson Associates LP and Warrenton Center, LLC with the Applicant, NewCastle Development Group, seek a Special Use Permit for two parcels totaling approximately 29.05 acres to create a mixed-use development in the existing Warrenton Village Center. The proposal includes up to 320 apartments, 34 two over twos, and 32 townhomes with the addition of central plaza, parking garage, enhanced internal road network, and pedestrian infrastructure to promote walkability. The proposal includes a 10% density bonus and several waiver/modification requests. The properties are zoned Commercial and designated in the New Town Character District of Plan Warrenton 2040. (GPINs 6985-20-7247 and 6984-29-6753)

The Town Council held a work session on July 9, 2024 on the proposal. Topics reviewed included parking, water and sewer, demographics of potential residents, transportation impacts, amenities proposed, and types of materials and fixtures. There was discussion around the difference between Section 8 Affordable Housing, US HUD Standards, and attainable housing. There was discussion around how the Town of Warrenton's Zoning Ordinance is written for affordable dwelling units and how this proposal employs it.

After the work session, the Applicant submitted a letter dated July 31, 2024, committing to providing low flow toilets. As is addressed in Attachment B Staff Analysis page B-9, Virginia State Code 15.2-2286.A.3 states the approving body shall consider the impact of SUP conditions upon the affordability of housing when the applicant is proposing affordable housing.

BACKGROUND

On March 19, 2024, the Planning Commission held a Work Session on SUP 2022-05 Warrenton Village Center Mixed Use. The Applicant, NewCastle Development Partners, presented an overview of the proposal. The Planning Commissioners asked a series of questions related to affordable dwelling units, waivers and modifications, architecture, transportation, economic impacts, water and sewer, density bonuses, walkability, schools, open space, and design. While the Applicant spoke to many of the topics at

this meeting, it was agreed upon to hold two more Work Sessions in the month of April to enable the Applicant to provide a deeper analysis on each topic.

The Planning Commission continued its Work Session on April 16, 2024, the Applicant presented to the Planning Commission information related to design of the development. Topics included affordable dwelling units, elevations and building heights, architecture, historical resources, and economic impacts. On April 23, 2024, the Planning Commission Work Session discussed transportation, schools, and water and sewer impacts, and modifications and waivers. The Planning Commission asked the Applicant to consider the character and massing of the proposed structures. At each of these meetings, subject matter experts for the Town were in attendance to answer zoning, transportation, water and sewer questions. The Applicant indicated they would look at adjustments to the plans to accommodate the requests.

On May 31, 2024, the Applicant resubmitted the SUP application for the June Public Hearing. Based on discussions at the Work Sessions, highlights of the modified application are:

- Developing a new set of elevations that include pitched roofs, stone instead of brick, and massing variations.
- Flipping the townhouses and 2 over 2 blocks to allow for the townhouses to front Branch Drive and the 2 over 2 to front Broadview.
- Added proposed language to the draft Conditions of Approval to accommodate 10% of each block to be reserved for 80% AMI affordable dwelling units, 10 additional units in Block 1 reserved for 70% AMI, and five additional units in Block 1 reserved for 60% AMI.

On June 18, 2024, the Planning Commission held a public hearing on SUP 2022-05. Twelve citizens spoke to the application (video of meeting available on the Town's website). After closing the public hearing, the Planning Commission discussed the revenue that will be generated by water and sewer taps; the perceived transportation impacts against the findings of the Transportation Impact Analysis; walkability to adjacent neighborhoods; and the desire to ensure the proposed ADUS are identical to market rate units. The Planning Commission stated this proposal meets the goals of Plan Warrenton 2040 and that the applicant has put forth a good faith effort in listening to the community. The Planning Commission then voted unanimously to recommend approval to the Town Council 4-0-1 (Ainsworth absent) with the proposed Conditions of Approval.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission recommended approval of SUP 2022-05 in a 4-0-1 vote with Conditions of Approval (Ainsworth absent) on June 18, 2024.

SPECIAL USE PERMIT CONDITIONS

Applicant: NewCastle Development Group, LLC ("The Applicant")
Owners: Jefferson Associates LP; Warrenton Center LLC
SUP 2022-05, Warrenton Village Mixed Use Center
GPINs 6985-20-7247-000; 6984-29-6753-000 (the "Property")
Special Use Permit Area: ± 29.05 acres
Zoning: Commercial (C)
Date: August 13, 2024

In approving a Special Use Permit, the Town Council may impose such conditions, safeguards, and restrictions as may be necessary to avoid, minimize, or mitigate any potentially adverse or injurious effect of such special uses upon other properties in the neighborhood, and to carry out the general purpose and intent of this Ordinance. The Council may require a guarantee or bond to ensure that compliance with the imposed conditions. All required conditions shall be set out in the documentation approving the Special Use Permit (SUP).

1. General: The property shall be developed in substantial conformance with these conditions and the plans titled "Special Use Permit for Warrenton Village Center, REVISION 3 – 5/31/2024", and prepared by Bohler Engineering. Minor changes and adjustments may be made to the road and street alignments, entrances, parking, dimensions and location of SWM/BMP facilities, the exact configuration and location of building footprints, and other similar features as shown on the SUP Plan, provided they meet the intent of these Conditions and are approved by the Director of Community Development or the Zoning Administrator.

2. Use Parameters: The Special Use Permit shall apply to the entire +/- 29.05 acre property. The property may be constructed with not more than 320 apartments, 32 townhomes, and 34 two over twos. The Zoning Ordinance 9-25 requires that residential uses shall not exceed 1 dwelling unit per 500 gross square feet of non-residential floor space within the mixed use development unless approved by Town Council through a Special Use Permit.

3. Phasing: The Applicant has the flexibility to develop Blocks 1-3 in any order. Mixed Use development approval includes the provision for construction of public amenities. To ensure that site improvements are completed in a timely manner along with the residential buildings, Applicant agrees that the Town of Warrenton will withhold Certificates of Occupancy (COs) in accordance with the following schedule:

   A. Block 1: Prior to issuance of the 1st CO within Block 1, all required infrastructure improvements for Block 1 and the following amenities shall be constructed and open for public use:

- Central Plaza
- Dog Park and Picnic Area
- West Plaza

- East Plaza
- Reconfiguration of commercial parking
- Preservation and reconditioning of Oak Spring (natural spring)
- Crosswalk across Oaks Springs Drive at Highland School entrance and Hastings Lane

B. Block 2: Prior to issuance of the 17th CO within Block 2, all required infrastructure improvements for Block 2 and the following amenities shall be constructed and open for public use:

- Central Plaza
- Reconfiguration of commercial parking
- Crosswalk across Oaks Springs Drive at Hastings Lane

C. Block 3: Prior to issuance of the 26th CO within Block 3, all required infrastructure improvements for Block 3 and the following amenities shall be constructed and open for public use:

- Central Plaza
- Reconfiguration of commercial parking
- Crosswalk across Oaks Springs Drive at Hastings Lane
- New sidewalk section on east side of Broadview Ave (behind Galaxy Strike Bowling Center building)

4. Architecture:

A. The final design of the buildings to be constructed shall generally conform to the elevations and materials included with the Special Use Permit application (hereinafter, the "Elevations"). The Elevations may be subject to minor modification approved by the Zoning Administrator in connection with Site Development Plan review. Additional changes to the design and materials may be made provided that any such changes are approved by the Zoning Administrator prior to the issuance of a building permit. Such approval shall be based on a determination that the changes result in equal to or better than the quality shown on the Building Elevations developed by Dynamik dated February 14, 2024 and/or May 30, 2024

B. The following materials are prohibited from use: vinyl siding, EIFS, corrugated metal siding, and plastic panels.

C. All residential buildings shall be designed and certified to a National Green Building Standard (NGBS), Level Bronze or higher. If NGBS is not available for this project, an equivalent certification from an alternative third-party green building rating system will be acceptable.

D. The structured parking garage in Block 1 shall include a nonreflective screening on the façade on its south facing side.

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5. Waivers and Modifications:

A. Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.
• Waiver #1: Increase density to 386 units or 13.28 per acre.

B. Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
• Waiver #2: Decrease minimum setback to 14' along Broadview Avenue.

C. Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
• Waiver #3: Decrease side/rear yard setbacks to 0'.

D. Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
• Waiver #4a: Decrease buffer width between commercial and residential uses to 0'.
• Waiver #4b: Decrease rear buffer width for residential uses from public ROW to 14'.

E. Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.
• Waiver #5: Increase height limit for dwellings as follows:
• 54' max height for Block 1, Oak Springs Drive Frontage
• 36' max height for Block 1, Broadview Avenue Frontage
• 36' max height for Block 2
• 45' max height for Block 3

F. Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
• Waiver #6: Increase maximum grouping of townhouse units from six to seven

G. Article 2-19: Fences and walls may be erected up to a height of six (6) feet in all zoning districts, except for fences or walls that extend within the required front setback.
• Waiver #7: Allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and around refuse and dumpster enclosures as approved by the Zoning Administrator.

6. Signage: All signage shall comply with the applicable provisions of Article 6 of the Town of Warrenton Zoning Ordinance.

7. Site Maintenance and Refuse Collection: The Applicant shall maintain the site in a clean and orderly manner and shall arrange for the pickup of trash, litter, and debris. Any refuse storage areas shall be screened with a solid enclosure constructed of materials that are compatible with the buildings on the property. Private refuse collection will be provided by the Homeowners' Association and non-residential businesses. The Association documents shall ensure that pickup times for refuse

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from both residential and the non-residential follow Town Code. Deliveries and refuse collection shall follow Town Code Section 11-19(9).

8. Transportation:

A. Access - Access to the site shall be provided as shown on the SUP Plan, subject to changes as may be approved at Site Development Plan review.

B. Loading/Unloading – All loading and unloading of vehicles shall take place on the Subject Property during regular hours of operation and outside of peak travel hours, to the greatest extent possible, in the Loading Area depicted on the Special Use Permit Plan.

C. Obstruction of Travel Ways – No vehicles associated with the use shall obstruct the travel ways, fire lanes, adjoining road network or encroach upon landscaped areas as shown on the Special Use Permit Plan. No vehicles shall be located within site entranceways or otherwise impede ingress, egress, and internal circulation.

D. Parking – The Subject Parcel shall meet all parking requirements as outlined in Article 7. Should it be desired to expand the use in any of the buildings located on the Subject Property, the new proposed use shall be required to apply for approvals that meet Zoning Ordinance and additional parking requirements.

E. Sidewalks - The Applicant shall install sidewalks as shown on the SUP Plan, through these Conditions of Approval, and required by the Town of Warrenton regulations. All sidewalks will be a minimum of five feet (5') in width. The Applicant will install a new section of sidewalk along the east side of Winchester Street, between Lee Highway and Broadview Avenue (behind the
Galaxy Strike Bowling Center building) as part of Block 3 improvements.

F. Oak Springs Drive Crosswalk(s) – new crosswalks will be installed on Oak Springs Drive at Hasting Lane and at the entrance to Highland School as provided for in the Phasing condition. Inclusion of these crosswalks will be contingent upon and subject to Town of Warrenton at time of Site Development Plan approval.

9. Water & Public Sewer Connection: The Property shall connect to public water and public sewer. A pre and post closed-circuit TV inspection will be required with inspection prior to residential occupancy permits.

10. Stormwater Management: The site is to be planned and designed as a redeveloped site under the State's Runoff Reduction requirements for Stormwater Management (SWM) and in compliance with the Town of Warrenton's SWM Ordinance at time of construction.

11. Affordable Dwelling Units:

A. The Applicant shall provide the following minimum number of Affordable Dwelling Units (ADUs):

- 10% of total dwelling units within each of the three blocks (Block 1,

Block 2 and Block 3) will be reserved as 80% AMI ADUs;
• Ten (10) additional dwelling units in Block 1 will be reserved as 70% AMI ADUs;
• Five (5) additional dwelling units in Block 1 will be reserved as 60% AMI ADUs

B. The Applicant shall maintain the ADU program on all rental units for a period of twenty-five (25) years from the issuance of the Special Use Permit (the "Affordability Period").

C. Within Block 1, allocation of the ADUs between 1-, 2- and 3-bedroom units will be at the discretion of the Applicant, so long as the minimum number of units defined above are maintained as ADUs. Within Block 2 and Block 3, wherein all units are 3-bedrooms, all ADUs will be 3-bedrooms. The ADUs shall be identical to the market rate units in architectural design, fixture/appliance selections and unit size. ADUs will be distributed so that no more than three (3) are adjacent in Block 1 and none shall be adjacent in Blocks 2 and 3. The ADUs shall be architecturally identical to the market rate units. The size of these units shall be identical to the market rate units.

D. "Qualified Parties" and "Rent Limits" for ADUs, are defined as:
• For the purposes of qualifying for the lease of an affordable rental ADU a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 60%, 70%, or 80% (dependent on the specific ADU) of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for Fauquier County as published by the Virginia Housing (formerly known as VHDA), at the time the rental application is opened for such Qualified Party ("AMI"). If Viginia Housing has not published the Income Limits used under this Condition 11 for a period of more than 365 days, the Zoning Administrator shall notify the property owner at the record address given in the Fauquier County tax records of a new comparable Income Limits program to be used based on the available information about income in the Warrenton or Fauquier County housing markets.
• For the purposes of determining the Rent Limits for all ADUs, monthly rental rate limits shall be equal to those published by Virginia Housing for 0-, 1-, 2-, and 3-bedroom units and corresponding 60%, 70% and 80% AMIs, with no utility allowances.
• For the purposes of qualifying for the purchase of an ADU in Block 2 or Block 3, a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 80% of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for a 4-person household in Fauquier County as published by Virginia Housing, at the time the purchase contract is executed for such Qualified Party.
• For purposes of determining the purchase price of any for-sale ADU, that price will not exceed the amount at which the monthly mortgage payment for such unit exceeds the monthly rent limits for 3-bedroom units and 80% AMI income, as published by Virginia Housing. Qualifying Parties must provide a market rate loan commitment prior to closing in order to calculate the proposed mortgage payment.

E. ADU status shall be set forth in a deed of restrictive covenants recorded against the Property and shall continue to bind the minimum ADU requirement within each block to the Property for a period of twenty five years from the issuance of this Special Use Permit; provided, however, that for rental units, the Applicant may recalculate the rental

rates for new leases or renewals in accordance with the then current rates published by Virginia Housing.

F. The Applicant shall establish in a deed of restrictive covenants a program for the administration of this ADU program according to the requirements of these conditions.

G. The Applicant shall designate on the Construction Drawings submitted for building permit approval which units will be the initial ADUs; however, the units that are selected as the initial rental ADU units are not required to remain as the designated rental ADUs for the entirety of the Affordability Period. The Applicant will have the authority to re-designate the rental ADUs from time to time based on leases and vacancies. The Applicant will maintain a building plan set at the leasing office located in the Block 1 at all times that shows which units are currently designated as rental ADUs, a copy of which shall be made available to the Zoning Administrator upon request.

H. The documents creating the ADU program shall be reviewed and approved by the Town Attorney prior to their recordation in the Land Records.

I. ADUs will first be made available to the following persons with preference to the first three bulleted items below:
- Those residing or working in the Town of Warrenton or Fauquier County
- Town of Warrenton or Fauquier County teachers
- Town of Warrenton or Fauquier County first responders
- Veterans and enlisted members of the United States Armed Forces

J. The Applicant shall contact the appropriate local Social Service and/or Housing Authority offices for help to identify and place of local residents.

K. The community's Property Management Team shall make annual reports to the Zoning Administrator as to the number, type and location of units hereunder that shall have been rented as ADUs and shall verify that they have been rented to Qualified Parties.

L. Separate entrances for ADU apartment entrances are not permitted.

M. All ADU occupants shall have the same rights and privileges to amenities as market rate unit residents, except for as provided under the condo sale provision.

N. All ADUs shall meet the US Department of Housing and Urban Development Accessibility Requirements for Multifamily Buildings under the Fair Housing Act.

12. Site Surface: All outdoor areas used for open spaces, amenities, facilities, parking, storage, loading, display and driveways shall be constructed and maintained in good repair, free of cracks or damage to the surface.

13. Electric Vehicle Charging Stations: a minimum of 2% of the total spaces

included within the Block 1 parking garage will include electric charging stations for tenant use. EV stations shall be reserved for electric vehicles only and enforcement will be monitored by the Property Management team.

14. Landscaping: All Zoning Ordinance requirements must be met for landscaping, except as provided for in approved waivers and/or modifications. The Owner shall be responsible for the maintenance and replacement of all plantings on site. Any diseased or dead landscaping shall be replaced within one season of dormancy.

15. Emergency Services:

A. All future Site Development Plans shall illustrate adequate access to the site for Emergency Service vehicles, subject to approval by the Community Development Director or Zoning Administrator. Nothing shall be placed or constructed on the site that would prohibit or restrict Emergency Service vehicles from mounting curbs or accessing structures. There shall be no parking of any vehicles in the travel ways. Mountable curbs will be required at new and/or modified entrances.

B. Fire hydrants shall be installed in locations acceptable to the Town of Warrenton.

C. Buildings shall have supra boxes installed on them with a fire alarm panel inside the front and rear entrances of the structures.

16. Lighting:

A. All outdoor lighting shall be in conformance with the Zoning Ordinance.
B. The Applicant shall prepare and submit a photometric plan in connection with Site Development Plan review.
C. All site lighting, to include both new fixtures within the new development areas as well as any non-residential area that is modified as a part of site development, must consist of fully-shielded, full cut-off fixtures to meet the requirements of Article 9, Section 9-8.
D. Color temperature of exterior light fixtures will be 3,000 degrees kelvin or lower.
E. Average horizontal illumination level of exterior light fixtures will be 3.0 footcandles or less.

17. Open Space: each residential block/parcel and the residual retail parcel will individually meet the 10% usable open space requirement. The Applicant will construct and maintain all open spaces in general conformance with the improvements noted and shown in SUP "Open Space Plan." Benches, bicycle racks, and other amenities shall be provided as shown on the SUP "Open Space Plan.".

18. Modified Alley: The Applicant will build and maintain the Modified Alley in general conformance with the improvements shown in this area on the Plan.

DRAFT

19. Three Bedroom Unit Maximum: A maximum of 10% of the units located in Block 1 will be 3-bedroom units.

20. Condo Sale of Block 2 and Block 3: Applicant will maintain the ability to sell the entirety of Block 2 (Multi-Family Townhomes) and/or the entirety of Block 3 (Multi-Family 2-Over-2 and Townhomes) as Condos. The Applicant agrees to sell all or none of the units within Block 2 or Block 3, so as to prohibit a mix of for rent and for sale units in the same block.

All conditions of the SUP will continue to be enforced in a block sale scenario through the Declarations of Restrictive Covenants that the Applicant will record and encumber the Block 2 and/or Block 3 parcels.

In a block sale scenario, Homeowner Associations will be established to maintain all conditions of the SUP and will own the block parcel, while individual condo owners will own the condo dwelling units.

In a sale scenario, residents/owners of the condos will not be tenants of the apartment community and will not have access to the rental amenities located within Block 1. In a block sale scenario, 10% of the units within the sold block will be required to be sold as ADUs, in accordance with the language outlined in Affordable Dwelling Units of this Conditions of Approval.

21. Block 1 Amenities: All amenities located within Block 1 will be available for use by tenants of residential rental units owned by the Owner in all three blocks (Block 1, 2 and 3). If residential units within Block 2 and/or Block 3 are sold by the Owner in a condo sale, the fee simple owners of the residential condos will not have access to the Block 1 amenities contained within the apartment complex. All public amenities shall continue to be open to Block 2 and 3 residents.

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June 18, 2024
Planning Commission
Regular Meeting

RESOLUTION TO RECOMMEND APPROVAL SPECIAL USE PERMIT 22-05 WARRENTON VILLAGE CENTER MIXED USE PURSUANT TO SECTION 11-3.10 OF THE ZONING ORDINANCE OF THE TOWN OF WARRENTON (GPINS 6985-20-7247 and 6984-29-6753)

WHEREAS, Warrenton, VA (Hereinafter "the Town") is a municipal corporation located within the County of Fauquier; and

WHEREAS, Warrenton Village Center, and the owners, Jefferson Associates LP and Warrenton Center, LLC, with the Applicant, NewCastle Development Group ("the Applicant"), are the requesting a Special Use Permit approval on a parcel of land containing approximately 29.05 acres, identified as GPINs 6985-20-7247 and 6984-29-6753, located at the existing Warrenton Village shopping center bordered by Oak Springs Drive, Branch Drive, Lee Highway, and Broadview Avenue in the Town of Warrenton and hereinafter referred to as the "Property"; and

WHEREAS, the Applicant has applied for a Special Use Permit pursuant to §3-4.10 and §9-25 of the Zoning Ordinance for approval to create a mixed-use development in the existing shopping center to include up to 320 apartments, up to 34 2-over-2s, and up to 32 townhomes with the addition of a central plaza, enhanced internal road network, and pedestrian infrastructure to promote walkability, hereinafter the "Special Use Permit"; and

WHEREAS, the Applicant requested waivers and modifications to the Zoning Ordinance for Article 2-6.1 to allow for density increase to 386 units at approximately 13.28 units/per acre; Article 3-4.10.4 to allow for 14' setbacks from Public Right of Way on the east side of Broadview Avenue and 0' setbacks along internal parcel lines within Warrenton Village Center; Article 8-8.5 to allow for 0' buffer width between commercial and residential uses within Warrenton Village Center and 14' buffer width between Public Right of Way and residential uses along the east side of Broadview Avenue; Article 2-20 to allow for maximum building heights of 54' along Oak Springs Drive (Block 1), 36' along Broadview Avenue (Block 1), 36' within Block 2, and 45' within Block 3; Article 3-4.4.5.3 to allow for seven multifamily townhome and/or 2-over-2 units to be grouped contiguously, and Article 2-19 to allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and

WHEREAS, the Planning Commission held three public work sessions on SUP 2022-05 on March 19, 2024; April 16, 2024; April 23, 2024; and

WHEREAS, pursuant to §11-3 of the Zoning Ordinance upon petition of the Applicant for approval of the Special Use Permit, the Planning Commission upon advertisement and notice properly given pursuant to §15.2-2204 of the Virginia Code held a Public Hearing on June 18, 2024; and

WHEREAS, the Planning Commission considered for approval of the Special Use Permit based on Conditions of Approval and Virginia State Code Section 15.2-2286.A.3; and

WHEREAS, the Planning Commission finds that the Application meets the criteria for approval found in Section 11-3.10.3 in the Town of Warrenton Zoning Ordinance; and

WHEREAS, the Planning Commission, in consideration of all of the foregoing, is of the opinion that the application for the Special Use Permit is to be recommended for approval to the Town Council subject to certain conditions;

NOW, THEREFORE, BE IT RESOLVED that the Warrenton Planning Commission on this 18th day of June 2024, that SUP 22-05 be, and is hereby, recommended for approval to Town Council, subject to the Conditions of Approval and Special Use Permit Plans dated June 30, 2023 and revised through May 31, 2024 by Bohler (Sheets 1-36).

Votes:
Ayes: Stewart, Lasher, Barbour, Lawrence
Nays: ø
Absent from Vote: S. Ainsworth
Absent from Meeting: S. Ainsworth

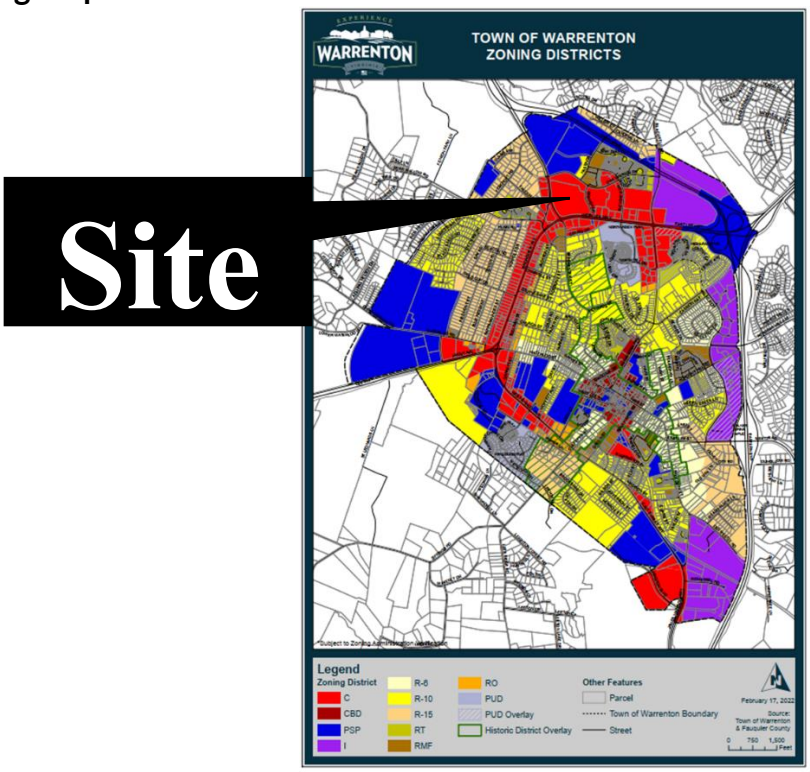
ATTEST: Darine Barbour
Darine Barbour, Planning Commission Secretary

Attachment A – Maps

Vicinity Map:



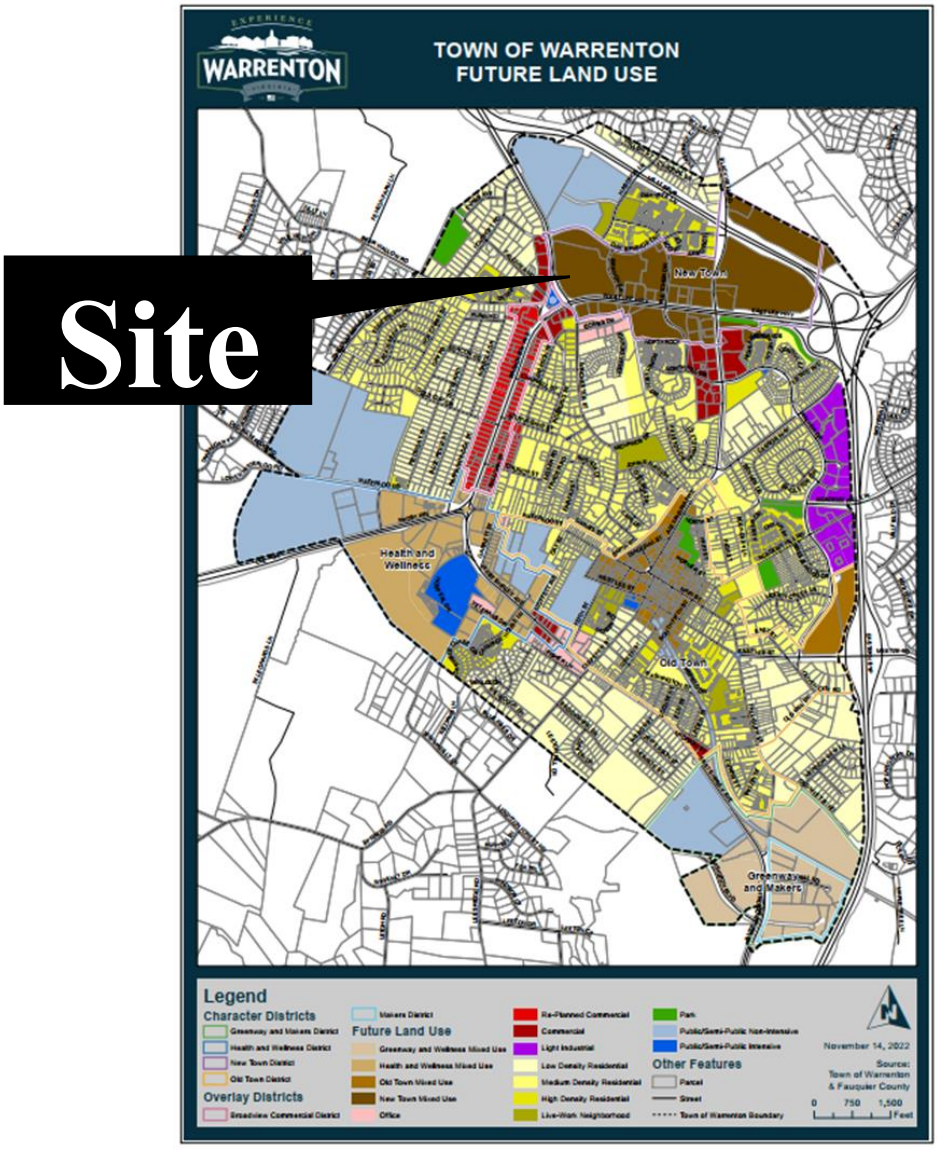
Zoning Map:



Commercial Zoning

Attachment A – Maps

Future Land Use Map:



New Town Character District

Staff Analysis

This analysis is based on the Comprehensive Plan, Zoning Ordinance, and review comments by Town Departments. The standards/analysis tables in the sections below contain the criteria for Planning Commission and Town Council consideration of Special Use Permits, per Article 11-3.10.3.

This request for a Special Use Permit for Warrenton Village Center Mixed Use with Article 3-4.10 and Article 9-25 of the Town Zoning Ordinance. The proposal includes up to 320 apartments, 34 two over twos, and 32 townhomes with the addition of central plaza, parking garage, enhanced internal road network, and pedestrian infrastructure to promote walkability. The proposal includes a 10% density bonus, provisions for affordable dwelling units, and several waiver/modification requests.

The following table summarizes the area characteristics (see maps in Attachment A):

Approx. Direction	Land Use	Future Land Use Map Designation	Zoning
North	Private School/Multi Family/Assisted Living	Public/Semi Public Non Intensive; Live/Work Neighborhood	PSP/R-10/RMF
South	Commercial	New Town District	Commercial
East	Commercial	New Town District	Commercial
West	Commercial	Commercial	Commercial

The properties totaling approximately 29.05 acres are zoned Commercial and designated in the New Town Character District of Plan Warrenton 2040. (GPINs 6985-20-7247 and 6984-29-6753)

Comprehensive Plan Future Land Use

Plan Warrenton 2040 designates Warrenton Village in the New Town Character District. The District encourages quality modern architecture that compliments the historic character of Warrenton. Open spaces contribute to this character to encourage active use tying the commercial and residential uses together. District design elements listed in the Comprehensive Plan encourage frontages with storefront awnings, gallery, arcade, stoops, porches, and yards. Internal streets are walkable and on a grid-pattern with a mix of uses at varying intensities. The summary of this district calls for the following:

"*A form-based transect approach to development would define form with greater maximum height towards Lee Highway and the center of the district, with a gradual step down in scale towards Oak Springs Drive…Frontage along the adjoining neighborhoods shall have a more residential appearance, with setbacks, stoops, and compact green yard space.*"

There are Ten Guiding Principles for all Character Districts listed in the Comprehensive Plan. The first and most emphasized feature being a discernible center. A hardscaped plaza or park *centered* within the entire

development to accommodate neighborhood interactions. Building placement, building massing and design, entrances and facades, ground floor residential use, streetscape design and walkability, multi-purpose public areas, and a mix of residential with non-residential are all part of the envisioned New Town Character District.

Standard	Analysis
Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.	The proposed use falls within the future land use designation of New Town Character District which specifically calls for redevelopment of shopping centers to be mixed use.
The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.	The Warrenton Village Center is surrounded by commercial retail, multi-family, and institutional uses. The proposed mixed use is compatible and consistent with the comprehensive plan.

Staff Findings

The Applicant has worked to integrate the proposed mixed use with the existing built environment and is proposing the creation of a central plaza with splash pad, landscaping, and seating in the existing parking lot of Warrenton Village Center. This amenity is part of the design transformation from a commercial strip mall towards a mix-use development. There will be a potential commercial/retail pad on the western side of the central plaza to activate the space. The Applicant is also proposing a dog park immediately north of the existing eastern side of the commercial development. This area currently is an underutilized grassy grove of younger trees.

The Applicant worked with Plan Warrenton 2040 Design Guidelines and the Planning Commission to refine the proposal. Retrofitting an existing shopping center to mixed use provides challenges. However, the Applicant worked to create transportation linkages by extending Hastings Lane; adjust Blocks 2 and 3 to have the more compatible townhomes located next to existing multi-family and townhomes; and developed a second set of architectural drawing to incorporate pitched roofs and stone.

The waivers and modification requests are necessary to achieve the design setbacks and mix of uses envisioned in Plan Warrenton 2040. The Applicant is asking for a height waiver along Oak Springs Drive where the comprehensive plan envisioned a “stepped down” approach to Oak Springs. Plan Warrenton 2040 is a guide that made a high-level goal for the entirety of Oak Springs Drive. The Applicant’s justification for the additional height is multi-layered due to topology, the adjacency to a school and commercial assisted living, and the provided setbacks from Oak Springs Drive. Overall, staff finds no outstanding issues.

Planning Commission

The Planning Commission requested the Applicant swap the townhouses in Block 3 fronting Broadview Avenue with the 2 over 2s in Block 2 fronting Oak Springs due the compatibility of townhouses on Oak Springs. The Applicant accommodated this request. The Planning Commission also explored the placement of open spaces, elevations, and access points with the Applicant. This resulted in the May 31,

2024, SUP Plans and included elevations.

Transportation and Circulation Analysis

A Transportation Impact Analysis was provided and is being reviewed with the SUP plans by the Virginia Department of Transportation (VDOT) and the Town's transportation consultant. In addition, conducted a "Pipeline Study" of Lee Highway that resulted in the Smartscale funding of a roundabout at the southwest corner of the proposal at the intersection of Broadview Avenue/Lee Highway/Winchester Street. A second roundabout is funded at the intersection of Lee Highway and Blackwell Road. On June 11, 2024, the Town Council passed a resolution of support to submit Smartscale applications for a roundabout at the intersection of Fletcher Drive and Lee Highway with access management improvements at Branch Drive and Village Center Drive.

The northern portion of Broadview Avenue that touches the proposed parcels is considered a Gateway Street Typology, as noted in the 2017 Complete Streets Guide. This is an alternate Boulevard designation that indicates the roadway crosses from the Town to the County. This means the development would have a more pronounced effect on the entrance impact into Warrenton.

Plan Warrenton 2040 places emphasis on appropriate circulation and connection to promote safe, equitable multimodal transportation. A key aspiration within the Comprehensive Plan states: *"Improve multimodal safety by enacting access management strategies, incorporating bike-friendly policies into new development standards, and deconflicting through-travel and local traffic movements."*

The 2017 Complete Streets Guide categorizes design elements for five distinct street classifications. Each classification encourages multi-modal considerations with an emphasis on connectivity. This is further encouraged by the goals and policies of the Comprehensive Plan to enhance the traveling experience of Warrenton. The Comprehensive Plan provides the following policies:

- *Facilitate new, compact redevelopment in Character Districts to introduce sidewalks and linkages to trails/paths and promote walkability.*
- *Provide and improve sidewalks, crosswalks, pedestrian signals, lighting, and other amenities to make it safer, easier and more comfortable for people to walk.*
- *Require that the proposed street system for new developments will be designed to provide a network of interconnected streets.*
- *In large development parcels, create compact development blocks with internal streets for pedestrian and vehicular circulation to support walk access and decrease auto-trip patterns.*

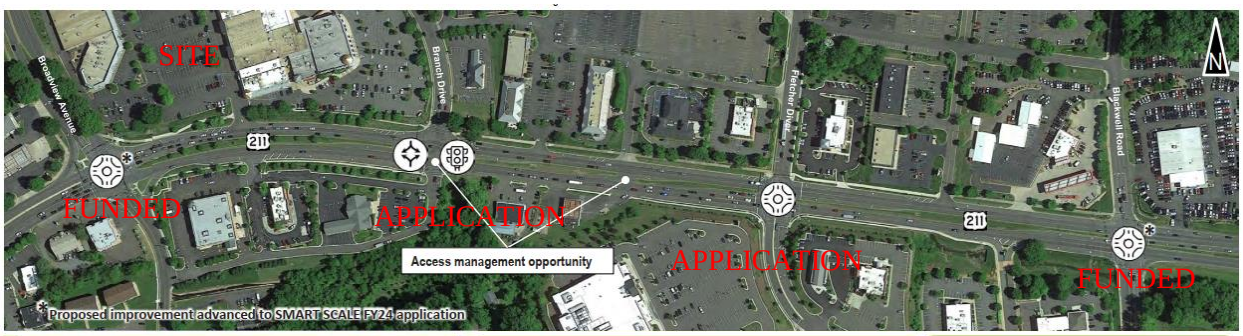
Standard	Analysis
The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.	The Applicant provided a Transportation Impact Analysis (TIA) to calculate the potential impacts of the addition. The TIA determined no adverse impacts on the surrounding road network and no signal or turn lane warrants are triggered. The Town will be constructing roundabouts on Lee Highway which studies show increase safety and transportation flow by 60%.
Whether the proposed use will facilitate orderly and safe road development and transportation.	

Staff Findings

The proposed development includes creating an extension of Hastings Lane into the site and a parking garage located behind the proposed apartments with two entry points (one off Oak Springs Drive across from Highland Lower School and one into the alley). The townhouses and two over twos will have garages. The Applicant has conducted autoturn analysis for delivery and emergency vehicles to demonstrate accessibility. The Applicant has also indicated they will work with the schools on potential bus stop locations in ternal to the site. The Applicant is also proposing pedestrian improvements throughout the site with sidewalk connections, raised crosswalks, and adding crosswalks at Hasting Lane and the intersection with Highland's Lower School to create a pedestrian network to the surrounding community.

External to the Site

Warrenton Village is bounded by several important regional roads and neighborhood streets. Lee Highway (BUS29) to the south, including Broadview Avenue (Bus17) to the west, Oak Springs Drive to the north, and Branch Drive to the east. These are roads that the Town and VDOT have been studying for years and making funding applications regardless of the proposal. Plan Warrenton 2040 listed Lee Highway in the Near-Term Recommendations for improvements. VDOT followed this up with a Lee Highway Pipeline Study in 2022 with specific intersection improvements that VDOT had vetted through a public outreach process. The Town then successfully applied for VDOT Smart Scale funding for roundabouts at Lee Highway and Winchester Street and Lee Highway and Blackwell Road. The remaining improvements in the Pipeline Study, including a roundabout at Fletcher Drive and access management improvements at Branch Drive and Village Center Drive, have been submitted for VDOT Smart Scale applications in 2024.



Town of Warrenton VDOT Smart Scale Applications

The Applicant produced a Transportation Impact Analysis (TIA) that was reviewed by the Virginia

Department of Transportation (VDOT), the Town transportation consultant (Kittelson), and Town staff. The TIA is a technical document that follows industry standards to determine transportation scenarios using today's base numbers, a percentage growth rate to account for changing needs over time that occur off site, intersection analysis of the surrounding onsite access points, and projected transportation needs based on the impacts of the proposed development and without the proposed development. The TIA was updated based on technical comments to produce a document that indicates the following:

1) Ten intersections were studied as part of the TIA.
2) Annual growth rate of 1% regional growth on Lee Highway was assumed.
3) The approved Waterloo Junction and Warrenton Crossing developments were included in the analysis.
4) Included the funded roundabout at Lee Highway and Winchester Street.
5) The proposal generates less traffic than if 40,000 square feet of by-right retail was developed.
6) The proposal anticipates approximately 154 new vehicle trips during the AM Peak Hour and 197 new vehicle trips during the PM Peak Hour across multiple access points.
7) Intersection analysis with the proposed development finds no new turn lane are warranted by VDOT standards.
8) Intersection analysis with the proposed development finds no new signals are warranted per MUTCD standards.



Bottom line is the TIA finds no additional roadway improvements are needed beyond the planned roundabout at Broadview and Winchester that is funded in VDOT's Smart Scale Round 5. The Applicant is providing sidewalks internal to the site, crosswalks on Oak Springs Drive, and the extension of Hastings Lane for interconnected transportation.

Planning Commission

The Planning Commission held a work session on transportation with the Town's staff, transportation consultant and the Applicant. They were advised by the Town Attorney about roughly proportional and essential nexus for reasonable conditions. Since the TIA found no warranted improvements, the Planning Commission encouraged the Town and the Applicant to continue working on the transportation network as a whole for safety. Town staff is already exploring, under current conditions, ways to increase safety on Broadview; adding multi-modal improvements across Broadview, Oak Springs, and Branch Drive; and traffic calming across the network.

Community Facilities and Environmental Analysis

Plan Warrenton 2040's vision includes key aspirations of fostering high quality, equitable, and accessible community facilities; make responsible and strategic community facility investments that support the Town's vision for a live/work community, sustaining its fiscal well-being and economic resiliency; and provide a high quality of life to capture economic benefits through diverse businesses, employers, and residences. The health, safety, and quality of life for residents is established in part by the community infrastructure. Goals also include:

> *CF-4: Ensure healthy, safe, adequate water and wastewater services.*
> *CF-5: To provide a fiscally responsible infrastructure that maintains a high quality of life for residents, supports current businesses, and attracts new employers with a stable tax structure.*

Standard	Analysis
Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.	The parcel is located in Town and currently served by Town Police and Fauquier County Emergency Services. There is an existing water and sewer to the site. Public Utilities has determined there is sufficient infrastructure to serve the site.
The location of any existing and/or proposed adequate on and off-site infrastructure.	

Staff Findings

Schools

Fauquier County Public Schools use a formula for all development across the county to anticipate generated school seats. Using the formula, this proposal generates:

- 49 Elementary Students
- 21 Middle School Students
- 24 High School Students

Fauquier County Public Schools anticipates the projected 2028-2029 enrollment at the currently districted schools to be with program capacity:

- Bradley Elementary: 360 enrollment/588 capacity
- Taylor Middle School: 606 enrollment/850 capacity
- Fauquier High School: 1170 enrollment/1612 capacity

Based on the Fauquier County Public School calculations, there is available capacity in the school system for this proposed development.

Environmental Building

Plan Warrenton 2040 includes the goal *"CF-3: Green infrastructure and sustainability are incorporated into community facilities to promote energy efficiency and environmental protections."* The Applicant is proposing a Condition of Approval that all residential buildings will be designed and certified to a National Green

Building Standard, Level Bronze, or higher. If the National Green Building Standard is not available for the project than an equivalent certification from an alternative third-party green building rating system will be accepted.

Water and Sewer

The Town of Warrenton conducted water and sewer availability studies to determine townwide what approved, by right, and anticipated development would generate. The WRA Water and Sewer Capacity Evaluation took into account approved projects within the Town, partially approved/in process projects in the Town, vacant parcels in the Town, and then potential future growth in various areas of the Town based on the character districts of Plan Warrenton 2040. At that time, the Warrenton Village proposal was included in the study as an "in process" development, meaning it was an active land use application. The Study assumed a usage of 166,000 gallons per day. The Town Public Utilities Department stated the residential portion will require a water and sewer demand of between 77,000 GPS and 116,000 GPD, and the commercial will require around 44,000 GPD for a total of between 121,000 and 160,000 GPD. This flow demand on top of the existing and already committed demand on the Town's water and wastewater treatment plants is a significant increase to the currently permitted treatment levels of 2.4 and 2.5 MGD respectively. If the density and type of development is deemed acceptable by Planning Commission and the Town Council, the Town's Department of Utilities will respond to meet these requirements.

Planning Commission

The Planning Commission held a work session with the Director of Public Utilities and the Applicant to discuss the water and sewer. The Applicant presented an average of the water and sewer usage of their existing apartment complexes that came out to less than was anticipated. The Director of Public Utilities walked the Planning Commission through the WRA Water and Sewer Capacity Study that allocated more water and sewer to anticipated future development on the site then is projected to be used by this proposal.

Attainable/Affordable Housing

Attainable housing for all ages, incomes, and needs is one of the main goals for Housing in Plan Warrenton 2040. Creating housing that caters to the local need while fostering and protecting the character of surrounding neighborhoods and the Town as a whole, new developments are encouraged to be interconnected with shared open spaces for a sense of place. Specifically for the New Town District, the Comprehensive Plan states:

"…each Character District is different when it comes to identifying appropriate housing typologies. For example, …the New Town Character District would promote mixed-use residential in a vertical configuration to support more retail uses."

There is a difference between attainable and affordable housing. While affordable housing is defined by housing subsidized by the government or non-profits, attainable housing is not subsidized. Plan Warrenton 2040 took these distinctions into account when formulating how to create a housing stock that allows for a diverse community. The Plan Warrenton Housing goals include:

H-1: Ensure equitable, attainable housing opportunities across residents of all ages, incomes, and abilities by

catering to the needs of a diverse community, including young families, professionals early in their careers, essential workforce, and those entering retirement.

H-2: Character Districts will accommodate a balance of available housing typologies that are compatible to existing neighborhoods in scale, character, and transition.

> *H-2.1: Place an emphasis on physical form of the housing (e.g. number of stories, building profile, and appropriate transitions to adjoining neighborhoods) by updating the Zoning Ordinance, while protecting the character of existing residential neighborhoods.*
>
> *H-2.2: Increase opportunities for multi-family and mixed-use residential development by updating the commercial corridors in the Character Districts to allow for appropriate use and scale transitions into existing neighborhoods.*

Plan Warrenton 2040 protects existing neighborhoods by promoting the Character Districts as the places to accommodate a range of housing typologies. The RKG Demographic and Housing Analysis White Paper that was adopted as part of Plan Warrenton 2040 found single family units make up 75.3% of the Town's housing inventory with the largest share built before 1980. The 2020 report found *"the Town's population trends are skewing towards older age-cohorts while younger age-cohorts have shown minimal growth since 2010. From a housing perspective, the Town appears to lack the diverse housing options (both housing price and type) desired by younger populations who may not desire or are not ready to purchase a home. Roughly, 63.4% of the Town's newly constructed building square footage is comprised of residential properties with 60.0% being single family properties while only 3.5% is classified as multifamily. Almost all of the multifamily development is age-restricted."*

The Rappahannock Rapidan Regional Housing Study confirmed those aged 65+ represent the highest increase in each jurisdiction of PD9 between 2010-2019. Housing demand was estimated at 4,600 housing units across the region and underhoused population of those aged 18-34 and living with a non-spouse/partner. The Study recommended increasing the supply of attainable housing and recognizing the need for a diverse set of housing options across the region. Under the recommendation of increasing attainable housing, the Study further encourages localities consider targeted incentives for higher density and mixed-use development in potentially designated Urban Development Areas (UDAs). The New Town Character District, where this proposal is located, is a Town adopted UDA and recognized by the Commonwealth of Virginia as such.

The Town of Warrenton Zoning Ordinance Article 9-3 defines persons eligible to rent or buy affordable dwelling units includes those eligible for assistance under the following state or federal programs:

- Virginia Housing Development Authority (now Virginia Housing)
- Section 8 Rental Assistance Program
- Department of Housing and Urban Development Community Block Grant Program
- Farmer's Home Administration Program
- Other programs similar to those named herein as approved by Town Council

Each of these programs utilizes the U.S. Housing and Urban Development (HUD) definitions and calculations for determining Area Median Income (AMI). Warrenton is designated as part of the

Washington-Arlington-Alexandria, DC, VA, MD HUD Metro Area. The following chart illustrates the current HUD calculations.

FY 2024 Income Limit Area	Median Family Income Click for More Detail	FY 2024 Income Limit Category	Persons in Family							
			1	2	3	4	5	6	7	8
Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area	$154,700	Very Low (50%) Income Limits ($) Click for More Detail	54,150	61,900	69,650	**77,350**	83,550	89,750	95,950	102,150
		Extremely Low Income Limits ($)* Click for More Detail	32,500	37,150	41,800	**46,400**	50,150	53,850	57,550	61,250
		Low (80%) Income Limits ($) Click for More Detail	68,500	78,250	88,050	**97,800**	105,650	113,450	121,300	129,100

NOTE: **Fauquier County** is part of the **Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area**, so all information presented here applies to all of the Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area. HUD generally uses the Office of Management and Budget (OMB) area definitions in the calculation of income limit program parameters. However, to ensure that program parameters do not vary significantly due to area definition changes, HUD has used custom geographic definitions for the Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area.

https://www.huduser.gov/portal/datasets/il.htm

Article 9-3 of the Zoning Ordinance further outlines how an affordable housing program would assure the availability for at least 25 years following the date of Town approval, developing in a traditional design technique, and how the units would be offered to the public. These provisions are captured in the draft Conditions of Approval. Article 9-25 for Mixed Use Development Options allows for a density bonus of up to 100% of the allowable density if no less than 10% of the residential units are defined as affordable.

Staff Findings

The Applicant is proposing 10% of the units within each residential block to be dedicated to affordable housing in each block reserved for residents with household incomes below 80% of the Area Medium Income (AMI). Further, the Applicant is proposing 10 additional dwelling units in Block One reserved for 70% AMI and five additional units in Block One reserved for 60% AMI.

Virginia State Code 15.2-2286.A.3 states *"For the granting of special exceptions under suitable regulations and safeguards; notwithstanding any other provisions of this article, the governing body of any locality may reserve unto itself the right to issue such special exceptions. Conditions imposed in connection with residential special use permits, wherein the applicant proposes affordable housing, shall be consistent with the objective of providing affordable housing. When imposing conditions on residential projects specifying materials and methods of construction or specific design features, the approving body shall consider the impact of the conditions upon the affordability of housing."*

The draft Conditions of Approval include how the program would be administered, as well as provisions that ADUs will be built to similar standards as market rate units and not clustered together in one location. Per the State Code, the Town Council needs to consider the draft Conditions of Approval impact upon the affordability of the units.

Planning Commission

The Planning Commission discussed the ADU provisions throughout the work sessions and public hearing. The Applicant offered draft Conditions of Approval that go above the requirements of the Zoning Ordinance in regards to how many are provided, the identical design and materials to market rate units, and architecture.

Historic/Environmental Resources

Plan Warrenton 2040 includes a Historic Resources chapter that envisions *"The Town and property owners will work toward a common goal of preserving the historic built environment for current and future generations, knowing their efforts will strengthen Warrenton's neighborhoods, complement place-based economic development, encourage local economic growth, promote equity of its residents, and conserve natural resources."*

The subject parcels are not located within the Town's Historic District. The existing shopping center is contained on one larger parcel with six acres of greenfield development, where Block One is located, on the northern parcel.

Staff Findings:

Plan Warrenton's goal of HR-4: Enhance the Environment Through Preservation and Sustainability Practices has been addressed by the Applicant twofold. First, a natural spring is located on the northeast portion of the site. This spring may be the original naming reason for Oak Springs Drive and the historical Oak Spring Manor. Former Architectural Review Board Chair, Steve Wojcik, brought this to the Town's attention by pointing out *"The spring, the house, and part of the family cemetery a few blocks further, are all that remain of the estate of the Edmonds Blackwell family, early settlers of the area during the colonial period, one of whose members was an officer in the Revolutionary War."* When brought to the Applicant's attention, the proposal was adjusted to preserve the spring. The Applicant also stated they are looking to recondition the spring as a public amenity.

Second, the Applicant is proposing a Condition of Approval that all residential buildings will be designed and certified to a National Green Building Standard, Level Bronze, or higher. If the National Green Building Standard is not available for the project then an equivalent certification from an alternative third party green building rating system will be accepted.

Planning Commission

The Planning Commission raised the question of the spring on the property during the design discussion with the Applicant. In future submissions, the Applicant spoke to preserving the spring as a public amenity.

Economic Resources Analysis

An economic goal of Plan Warrenton 2040 is to promote a diverse, equitable stable tax base while preserving the character of the community. The New Town District is deemed a major economic development priority with potential to be a destination center for mixed-use bridging entertainment, office, and residential. Per the Comprehensive Plan, the Character Districts are created with the intention

of being:

"…a focal point for revitalization to allow for mixed-use and multi-family development at an appropriate scale compatible with the Town's character and existing neighborhoods. Transform aging commercial corridors to vibrant mixed-use neighborhoods."

Another major economic goal of the Comprehensive Plan is to maintain the small-town character while reducing the percentage of Town residents commuting for work. Mixed use developments allow for greater walkability. Additionally, several large County employers located in Town have communicated recruitment issues due to lack of housing in the Town. Some major employers, for instance the schools and hospital, have indicated that their employees face challenges finding housing in Town due to lack of supply.

The Fiscal Sustainability Analysis that was produced as part of the Comprehensive Plan provided the community with development scenarios that walked the community through the economic realities of the Town and the long-standing desires/needs. The analysis communicated that in order for the community to have net positive fiscal impacts, it must grow its housing supply to support the underperforming retails and commercial assets.

The growth in office component will require a concerted economic development effort from the Town to succeed. Simply put, the current marketplace for office development is not robust enough to project such growth by 2039. That said, the introduction of the proposed large-scale mixed-use developments likely will have a transformative effect on how the office market views the Town, particularly how the projected development program incorporates multifamily development, a critical missing component for Warrenton to attract more of the region's younger workforce. The focus on creating a strong connection between living, working, and recreating (restaurant growth) has proven effective throughout the region.

"First, the citizens of Warrenton continue to want higher levels of services and amenities. This desire for improved facilities, expanded choices, and better connectivity will come at a cost. It is a cost that exceeds the Town's existing financial capacity. If built, the sample public enhancements researched/identified through this effort would create a negative fiscal impact on the Town if development activity does not increase to similar levels of surrounding jurisdictions. Simply put, the Town can not 'save its way' to fiscal sustainability. Improving the quality of life for existing residents will require additional revenue (either from new growth or existing residents).

Second, the mix of development matters. The market analysis reveals that the Town does not have the demand to continue to increase retail services. The existing development policies make new construction of any type challenging, even for those uses that have strong market demand (i.e. multifamily development). That said, the mix of uses that are proposed for development (or redevelopment) matter from a fiscal perspective. Residential uses with smaller household sizes will have a smaller fiscal impact on the Town's cost structure. From the nonresidential side, the modeling reveals accommodation and dining uses create a greater fiscal benefit to the Town due to their higher direct revenue streams.

Finally, balancing the mix of uses between residential and nonresidential uses will be critical from both a market perspective and a fiscal one. Simply put, growth in commercial development (particularly retail and dining venues) will require greater consumer spending, which primarily comes from local households. Much of the development projected in Scenario 2 and Scenario 3 will require more residences to increase spending. More strategically, diversifying the Town's housing stock will be important to redefine the local office market, as Millennials are becoming the largest portion of the white-collar labor force. This generation is delaying homebuying and family

household formation at a higher rate than previous ones. Having a high quality, well-integrated live/work/recreate community is a fundamental need to attracting these workers (and as a result, their companies).”

Standard	Analysis
Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.	According to all fiscal impact studies conducted previously by the Town and by the Applicant as part of this application, the proposal will result in a net positive fiscal impact.
The number of employees.	N/A
The proposed days/hours of operation.	N/A

Staff Findings

The Town has invested significant resources in determining its fiscal resiliency and what market forces are required to obtain a healthy economic scenario in Town. The findings indicate mixed use developments that add to the housing supply are critical to the fiscal success of the Town.

Planning Commission

The Planning Commission received the Fiscal Impact Analysis as part of the project application submission that was consistent with the Town’s fiscal studies, which find the overall impact to be net positive. S. Patz and Associates, Inc’s June 2023 analysis found the proposal of 320 units apartment building, 36 2 over 2s, and 20 townhomes to be a net benefit of approximately $46, 100 annually with most of the revenue generated by off-site impacts due to the *“Town of Warrenton levies low real estate and personal property taxes.”* (Page 2) Since the Planning Commission’s purview is land use, it is did explore the fiscal impact question further.

Open Space, Parks, and Environment

Plan Warrenton 2040 highlights ample open space and access to open space is a priority to public health. Providing access to an open space suitable for the development needs within walking distance is encouraged:

“*Provide a dynamic system of safe, interconnected spaces for a variety of public uses that promote healthy, active, recreational activities in spaces throughout the Town. These spaces will reflect the culture, ecology, and natural environment of Warrenton.*”

Staff Findings

The Applicant is following the Character District Design Guidelines by providing for a central plaza and other public amenities like a dog park, interconnected sidewalks, and residential units in a compact, walkable environment.

Planning Commission

The Planning Commission reviewed the open space, central plaza, sidewalks and connections to adjacent neighborhoods.

Zoning Analysis

The legislative intent of the Commercial District is to encourage the logical and timely development of land for a range of commercial and mixed-use purposes in accordance with the objectives, policies, and proposals of the Comprehensive Plan; to prohibit any use which would create undue impacts on surrounding residential areas; and to assure suitable design to protect the residential environmental of adjacent and nearby neighborhoods. It is further declared to be the intent of the district to limit traffic congestion, overcrowding of land, noise, glare, and pollution, as to lessen the danger to public safety, and to ensure convenient and safe pedestrian access to and from commercial and mixed-use sites.

Standard	Analysis
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.	The existing use is commercial/retail. All non-residential uses in Town must meet the noise ordinance and residential must meet Town Code.
The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.	The Applicant has stated they will follow Article 6 of the Zoning Ordinance. While conceptual signage was provide, a master sign plan was not included in the application.
The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.	The Applicant is seeking waivers and modifications to the height of the proposed building and possible retaining walls to a fourth story for the apartment units.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	The Applicant provided a landscaping plan and must meet all Zoning Ordinance requirements.
The timing and phasing of the proposed development and the duration of the proposed use.	The Applicant is not proposing specific phasing but is breaking the development into three distinct blocks.
Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.	The welfare of the public is promoted by contributing new housing stock and affordable dwelling units.
Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.	N/A
The location, character, and size of any outdoor storage.	N/A

Standard	Analysis
The location of any major floodplain and steep slopes.	Steep slopes are illustrated in the SUP Plans and will be addressed at time of site plan.
The location and use of any existing non-conforming uses and structures.	N/A
The location and type of any fuel and fuel storage.	N/A
The location and use of any anticipated accessory uses and structures.	The Applicant states where applicable, all accessory structures will comply with local codes and ordinances.
The area of each proposed use.	Block 1: up to 320 apartments with a 4 story parking garage Block 2: Up to 32 townhouses Block 3: Up to 34 two over twos
The location and screening of parking and loading spaces and/or areas.	Block 1 contains a 4 story parking garage with screening; Blocks 2 and 3 contain garages and driveways.
The location and nature of any proposed security features and provisions.	N/A
Any anticipated odors which may be generated by the uses on site.	Site will comply with Zoning Ordinance.
Refuse and service areas.	Private refuse collection is anticipated with dumpster areas delineated on the SUP Plans.
Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.	The Applicant is proposing to preserve a historic natural spring for a public amenity.
The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality. The location of any major floodplain and steep slopes.	The Applicant states they will comply with federal, state, or local codes and ordinances regarding wildlife habitats, sensitive land or natural features, vegetation, water quality, and air quality.
The glare or light that may be generated by the proposed use in relation to uses in the immediate area.	Fixture details/cut-sheets and new structures will be required to be provided and reviewed as part of the Site Development Plan submission.

Staff Findings

The Applicant has indicated that items like lighting, landscaping, parking, and signage will all be addressed at the time of the Site Development Plan. As with previous SUP approvals, draft Conditions of Approval attempt to address potential LED lights as the Zoning Ordinance has not yet been updated to address this

technology.

Planning Commission

The Planning Commission passed a resolution that found the Application to meets the evaluation criteria found in the Zoning Ordinance Article 11-3.10.3.

Waiver and Modification Requests

Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.

- Waiver #1: Increase density to 386 units or 13.28 per acre.

Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.

- Waiver #2: Decrease minimum setback to 14' along Broadview Avenue.

Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.

- Waiver #3: Decrease side/rear yard setbacks to 0'.

Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.

- Waiver #4a: Decrease buffer width between commercial and residential uses to 0'.
- Waiver #4b: Decrease rear buffer width for residential uses from public ROW to 14'.

Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.

- Waiver #5: Increase height limit for dwellings as follows:
- 54' max height for Block 1, Oak Springs Drive Frontage
- 36' max height for Block 1, Broadview Avenue Frontage
- 36' max height for Block 2
- 45' max height for Block 3

Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.

- Waiver #6: Increase maximum grouping of townhouse units from six to seven

Article 2-19: Fences and walls may be erected up to a height of six (6) feet in all zoning districts, except for fences or walls that extend within the required front setback.

- Waiver #7: Allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and around refuse and dumpster enclosures as approved by the Zoning Administrator.

Staff Findings

Plan Warrenton calls for mixed use developments, with design guidelines, that require modifications to the Zoning Ordinance. Mixed use developments are integrated with zero set backs and buildings closer to

the street to create a more walkable environment. The proposed waivers and modifications are requested to help meet the mixed use design guidelines as the Zoning Ordinance has not yet been updated.

Planning Commission

The Planning Commission motioned to recommend approval to the Town Council for SUP 2022-05 per the Conditions of Approval (Separate Attachment) and SUP plans. Waivers and modifications are included in the recommended Conditions of Approval.

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

LOCATION OF SITE

TOWN OF WARRENTON

FAUQUIER COUNTY, VIRGINIA 20186

PARCEL ID'S: 6985-20-7247-000, 6984-29-6753

PARCEL IDENTIFICATION TABLE

PARCEL NUMBER	OWNER	ADDRESS	AREA	CURRENT ZONE	CURRENT PLANNED LAND USE	PROPOSED PLANNED LAND USE
6985-20-7247-000	JEFFERSON ASSOCIATES LP	360 OAK SPRINGS DRIVE WARRENTON, VA 20186	6.46 ACRES	C	VACANT	MIXED USE
6984-29-6753-000	WARRENTON CENTER LLC	251 W LEE HIGHWAY WARRENTON, VA 20186	22.59 ACRES	C	RETAIL	MIXED USE
			TOTAL AREA 29.05 ACRES			

REFERENCES AND CONTACTS

REFERENCES

♦ BOUNDARY & TOPOGRAPHIC SURVEY:
ALTA/NSPS LAND TITLE SURVEY
"WARRENTON CENTER, 360 OAK SPRINGS DRIVE, CENTER DISTRICT, TOWN OF WARRENTON, VIRGINIA"
PREPARED BY: BOHLER
DATED: 11/3/21

♦ ARCHITECTURAL PLAN:
CAD FILE: WARRENTON FLOOR PLAN.DWG
PREPARED BY: DYNAMIK DESIGN
DATED: 5/21/2024
SEE GENERAL NOTES REFERENCE ON SHEET 4

GOVERNING AGENCIES

♦ TOWN OF WARRENTON
COMMUNITY DEVELOPMENT
21 MAIN STREET
WARRENTON, VA 20188-0341
CONTACT: ROB WALTON, DIRECTOR OF COMMUNITY DEVELOPMENT
PHONE: (540) 347-2405

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LOCATION MAP

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SCALE: 1" = 2,000'

SHEET INDEX

SHEET TITLE	SHEET NUMBER
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PARCEL OVERVIEW PLAN	2A
OVERALL SITE DEVELOPMENT PLAN	3
SITE PLAN DEVELOPMENT PLAN BLOCK 1	4
SITE DEVELOPMENT PLAN - BLOCKS 2 & 3	5
OPEN SPACE PLAN	6
WAIVER INFORMATION	7
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LANDSCAPE PLAN	9-10
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RENDERING	24-36

OWNER

SEE PARCEL IDENTIFICATION TABLE

DEVELOPER

NEWCASTLE DEVELOPMENT GROUP
100 10TH STREET SE, SUITE 300
CHARLOTTESVILLE, VA 22902
CONTACT: JESS ACHENBACH
PHONE: (434) 260-6628

PREPARED BY

BOHLER

CONTACT: JOHN C. WRIGHT, P.E.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
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2	2/14/2024	TOWN COMMENTS	TAL / JCW
3	5/31/2024	TOWN COMMENTS	TAL / JCW

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

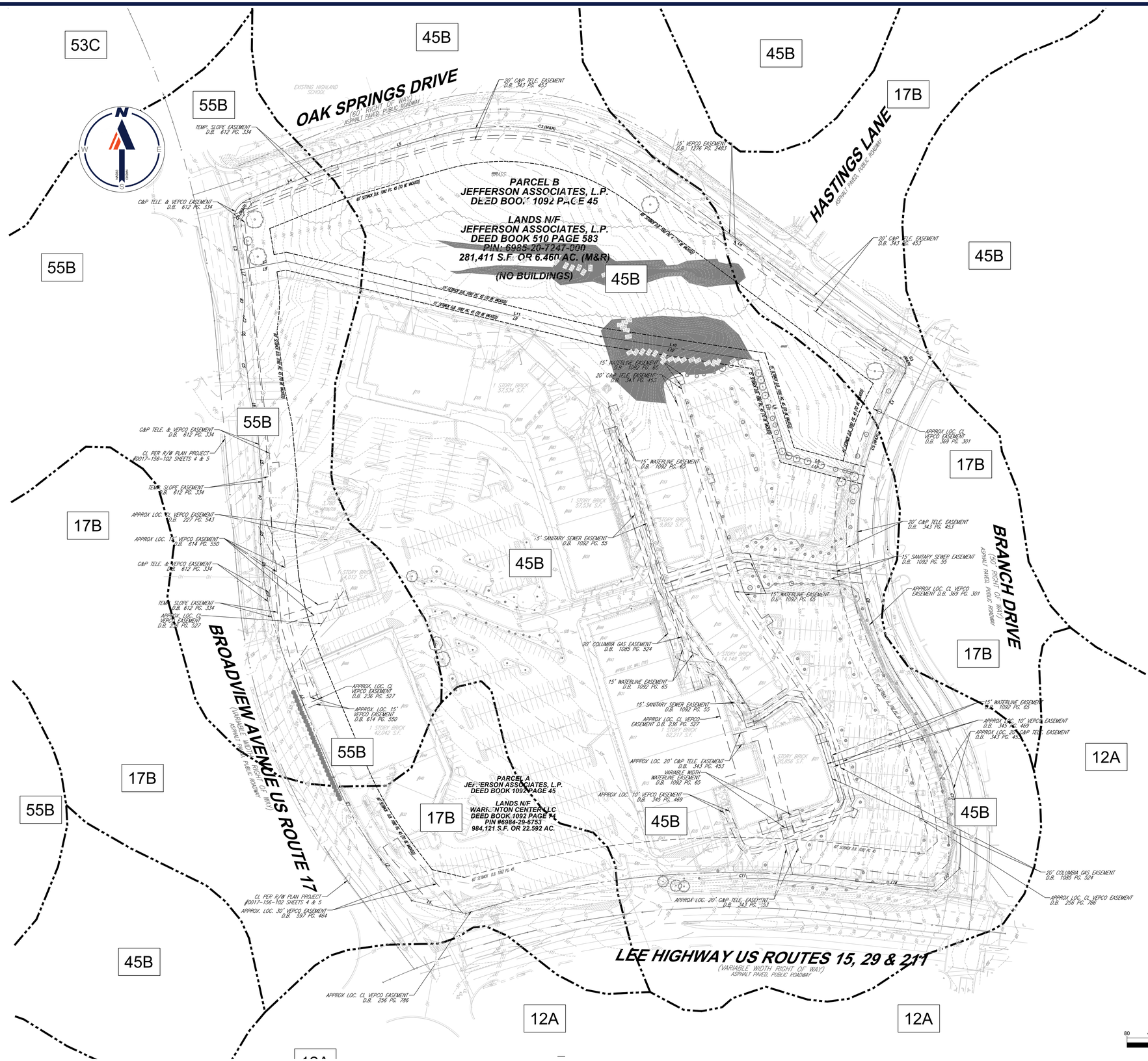
SHEET TITLE:

COVER SHEET

SHEET NUMBER:

1

REVISION 3 - 5/31/2024



HATCH LEGEND

EXTENTS OF STEEP SLOPES

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
12A	ROHRERSVILLE LOAM	0 TO 2%
17B	MIDDLEBURG LOAM	2 TO 7%
45B	FAUQUIER SILT LOAM	2 TO 7%
53C	GLENELG LOAM	7 TO 15%
55B	ELIOAK LOAM	2 TO 7%

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUP\V212141 EXST - 1 — LAYOUT 2 - EXISTING CONDITIONS PLAN

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CHECKED BY:	JCW
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CAD I.D.:	EXST -2

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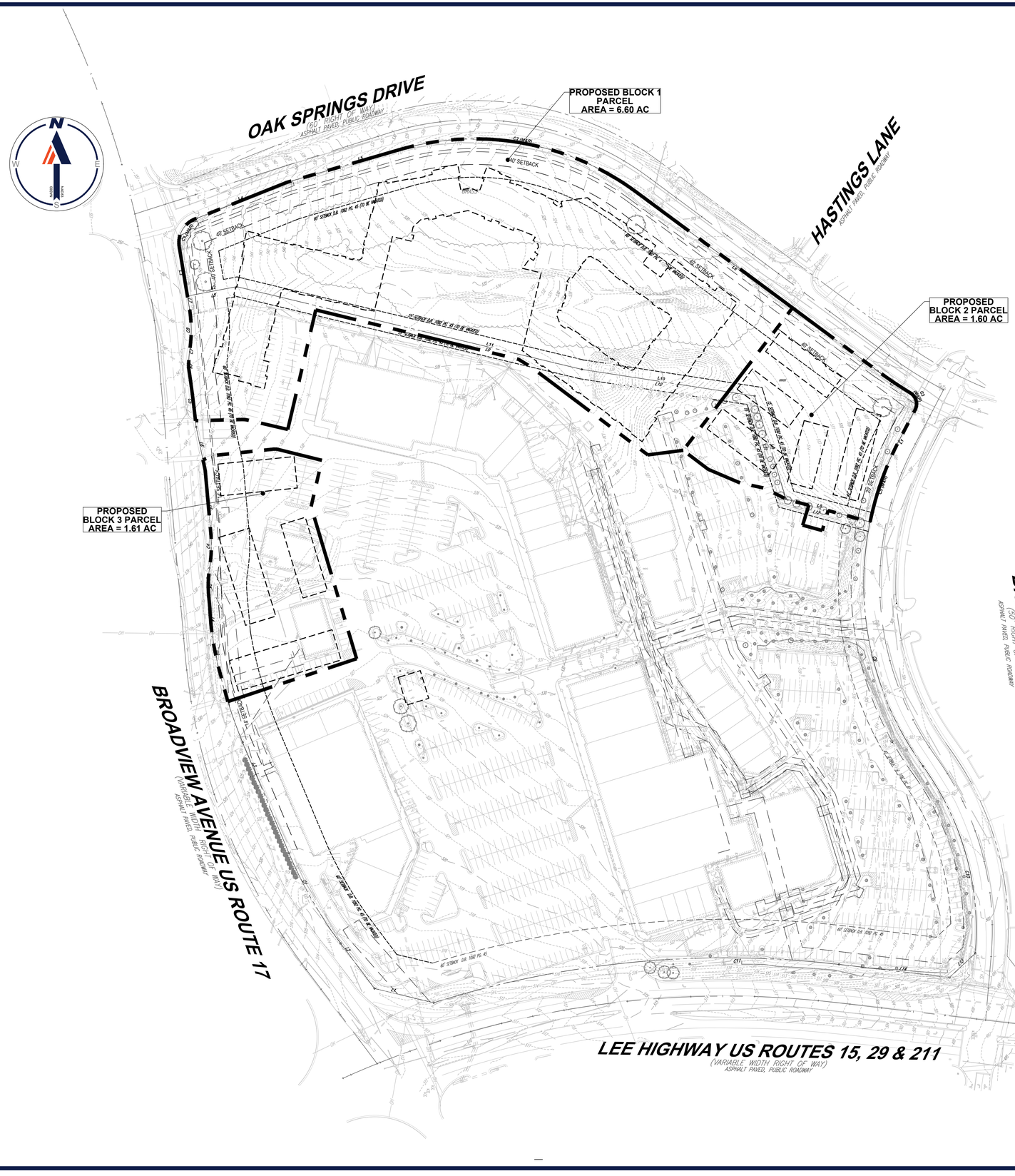
EXISTING CONDITIONS PLAN

SHEET NUMBER:

2

REVISION 3 - 5/31/2024



LEGEND

- PROPOSED BUILDING OUTLINE
- PROPOSED BLOCK PARCEL LINE

80 40 20 0 80
1"= 80'

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

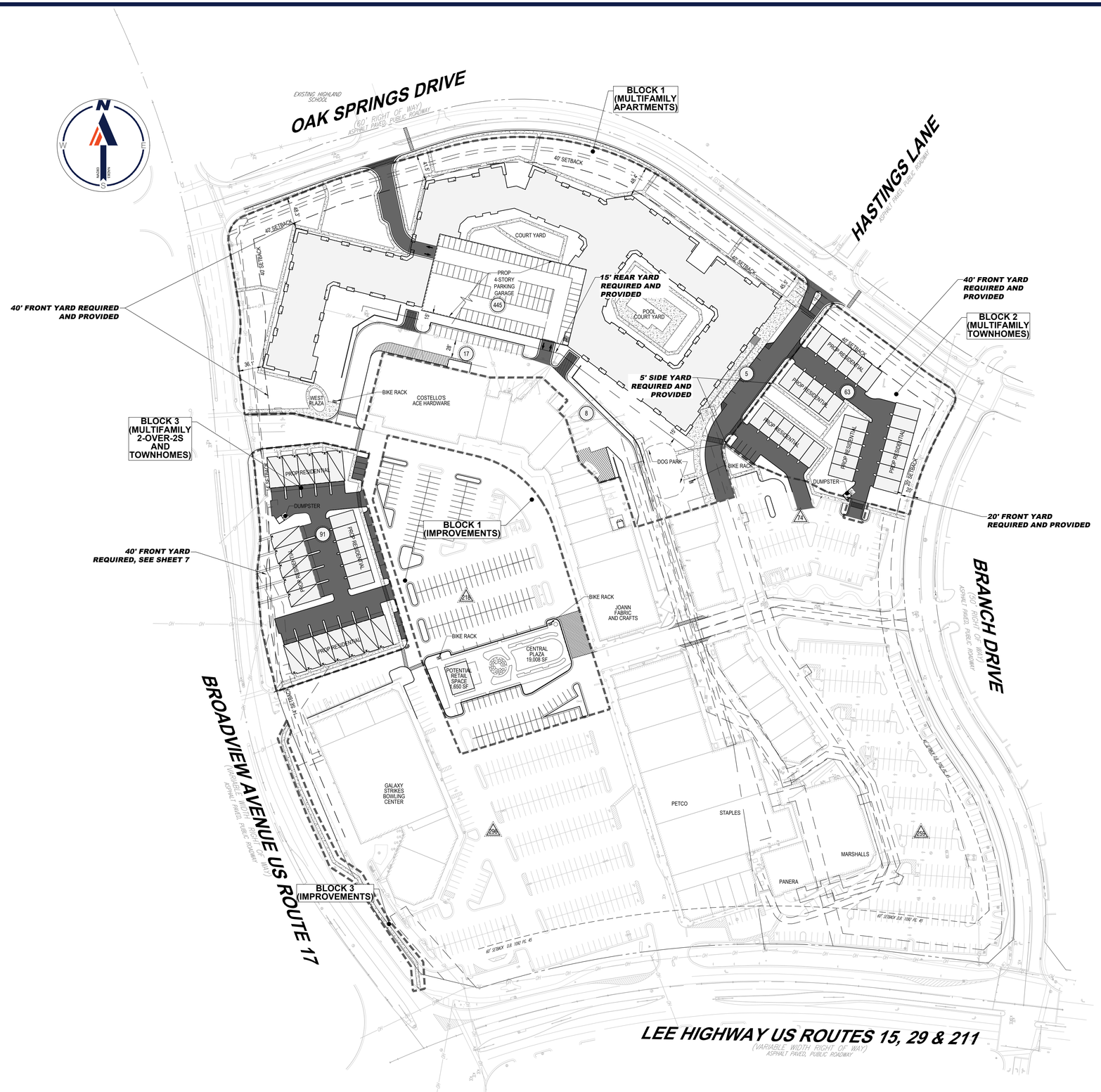
PARCEL OVERVIEW PLAN

SHEET NUMBER:

2A

REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUP\V212141 - EXST -1 —LAYOUT 2A - PARCEL OVERVIEW PLAN



ZONING TABULATION TABLE:

LOT SIZE AND YARD SETBACK REQUIREMENTS:

	REQUIRED	PROVIDED
MINIMUM LOT SIZE:	5 ACRES	29.05 ACRES
SETBACK REQUIREMENTS:		
	REQUIRED	MIN PROVIDED
FRONT YARD (OAK SPRINGS, ROW >50')	40'*	40'±
FRONT YARD (BRANCH, ROW <50')	20'*	20'±
FRONT YARD (BROADVIEW, ROW >50')	40'*	14'±
	REQUIRED	MIN PROVIDED
SIDE YARD BUILDING	5'	0'±
	REQUIRED	MIN PROVIDED
SIDE YARD BUILDING	5'	48.7'±
	REQUIRED	MIN PROVIDED
REAR YARD BUILDING	15'	15'±

LOT COVERAGE REQUIREMENTS

	MAX	PROVIDED
PROPOSED LOT COVERAGE: (IMPERVIOUS SURFACES)	85%	83%

*FRONT YARD MAY BE REDUCED BY 20' IF NO PARKING OR LOADING IS PROPOSED. A REDUCTION IN FRONT/REAR/SIDE SETBACKS IS BEING REQUESTED FROM TOWN COUNCIL AT CERTAIN LOCATIONS - SEE SHEET 7 FOR DETAIL.

GENERAL NOTES:

1. THIS PLAN IS BASED ON THE FOLLOWING:
   SURVEY CAD FILES PREPARED BY BOHLER DATED: 11/3/2021
   BUILDING FOOTPRINT CAD FILES PREPARED BY MV&A ARCHITECTS DATED: 5/21/2024
2. ZONING DATA:
   EXISTING ZONE: C - COMMERCIAL
   PROPOSED ZONE: COMMERCIAL WITH MIXED USE
3. USES:
   EXISTING USE: VACANT, RETAIL
   PROPOSED USE: MIXED USE
4. SITE AREA
   PIN'S : 6985-20-7247-0000 6.46 ACRES
   6984-29-6753-0000 22.59 ACRES
5. SITE WILL BE SERVICED BY TOWN WATER AND SEWER.
6. TOPOGRAPHIC INFORMATION:
   HORIZONTAL DATUM: NAD 83
   VERTICAL DATUM: NAVD 88
7. THE PROPOSED BUILDING, DIMENSIONAL ELEMENTS, AND OTHER SITE FEATURES, SUCH AS HARDSCAPE AREAS AND PLAZAS SHOWN ARE CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL ENGINEERING.
8. CURB AND PARKING MODIFICATIONS IN WARRENTON CENTER WILL OCCUR AS PART OF EACH DEVELOPMENT BLOCK.
9. A PROPERTY LINE ADJUSTMENT PLAT WILL BE COMPLETED WITH SITE PLAN.
10. A TREE SURVEY WILL BE PROVIDED AT TIME OF SITE PLAN.
11. A PHOTOMETRIC/LIGHTING PLAN WILL BE PROVIDED AT TIME OF SITE PLAN.
12. CONSTRUCTION DETAILS OF ALL SCREENING AND FENCING WILL BE ADDRESSED AT TIME OF SITE PLAN.

HATCH LEGEND

- CONCRETE
- PROP BUILDING (SEE ARCH DRAWINGS)
- DEVELOPMENT BLOCKS
- ASPHALT

80 40 20 0 80
1"= 80'

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

OVERALL SITE DEVELOPMENT PLAN

SHEET NUMBER:

3

REVISION 3 - 5/31/2024

May 30, 2024
H:\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1----LAYOUT 3 - OVERALL SITE PLAN
CHECKED PLOT

DEVELOPMENT TABULATION

BLOCK	BLOCK USE	LAND AREA	EXISITNG ZONE	LAND USE	RETAIL	RESIDENTIAL	MAX. ALLOWABLE DENSITY	PROPOSED MAX.	REQUIRED PARKING	PARKING PROVIDED	MAX. BUILDING HEIGHT	MAX. BUILDING HEIGHT PROVIDED
Block 1	Multifamily Apartments	6.60 Ac.	C-Commercial	Mixed Use W/ SUP	1,650	320		320	±144 - 1 bed units (1 space per 1 bed unit) ±144 - 2 bed units (1.5 spaces per 2 bed unit) ±32 - 3 bed units (2 spaces per 3 bed unit) = 320 units, 424 spaces	475 Spaces (445 Garage + 30 Surface spaces)	36'	54' (Oak Springs Drive Frontage) 36' (Broadview Drive Frontage)
Block 2	Multifamily Townhomes	1.60 Ac.	C-Commercial	Mixed Use W/ SUP	-	26		26	2 spaces per unit = 52 spaces	63 Spaces (58 garage + 5 Surface spaces)	36'	36'
Block 3	Multifamily 2-over-2s and Townhomes	1.61 Ac.	C-Commercial	Mixed Use W/ SUP	-	40		40	2 spaces per unit = 80 spaces	91 Spaces (46 Garage + 45 Surface spaces)	36'	45'
Retail	Retail	19.24 Ac.	C-Commercial	Mixed Use W/ SUP	218,142 SF	N/A			Shopping Center: 1/300 GFA for first 12,000 SF + 2 spaces for each 1,000 GFA = 449 spaces	847 spaces	45'	45'
TOTALS:	TOTALS:	29.05 Ac.	C-Commercial	Mixed Use W/ SUP	219,792 SF	391 UNITS	439 Units (See Note 1)	386 Units or 13.28 Units/Ac. 219,792 SF of Commercial	1,005 Spaces Required	1,476 Total Parking Spaces		(See Note 5)

NOTES:

1. FIVE (5) DWELLING UNITS PER ACRE OR 29.05 AC. X 5 = 145.25 UNITS, 1 DWELLING UNITS PER 500 GROSS SF OR NON-RESIDENTIAL FLOOR SPACE OR 219,792 SF/500 SF = 439 UNITS
2. DENSITY BONUS REQUESTED AS 10% OF THE TOTAL NUMBER UNITS WILL BE PROVIDED AS AFFORDABLE HOUSING.
3. 2/2 TOWNHOME UNITS INCLUDE 1 DRIVEWAY SPACE + 1 GARAGE SPACE IN TOTAL PARKING SPACE COUNT.
4. EXISTING COMMERCIAL = 218,142, PROPOSED RETAIL (PLAZA) = 1,650 SF NEW TOTAL = 219,792 SF, NOTE: RETAIL SPACE MAY INCREASE AS EXISTING SPACE IS REDEVELOPED
5. BUILDING HEIGHT MODIFICATION SECTION 9-25 BEING REQUESTED FROM TOWN COUNCIL TO INCREASE BUILDING HEIGHTS. SEE WAIVER INFORMATION ON SHEET 7.

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4. SITE AREA
   PINS : 6985-20-7247-0000 6.46 ACRES
   6984-29-6753-0000 22.59 ACRES
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10. A TREE SURVEY WILL BE PROVIDED AT TIME OF SITE PLAN.
11. A PHOTOMETRIC / LIGHTING PLAN WILL BE PROVIDED AT TIME OF SITE PLAN.
12. CONSTRUCTION DETAILS OF ALL SCREENING AND FENCING WILL BE ADDRESSED AT TIME OF SITE PLAN.
13. PROPOSED SIDEWALK WIDTH IS 5' MIN. UNLESS OTHERWISE NOTED.

HATCH LEGEND

- CONCRETE
- PROP BUILDING (SEE ARCH DRAWINGS)
- PAVEMENT & ADA STRIPING
- ASPHALT
- DEVELOPMENT AREA

1" = 50'

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

SITE DEVELOPMENT PLAN BLOCK 1

SHEET NUMBER:

4

REVISION 3 - 5/31/2024

May 30, 2024
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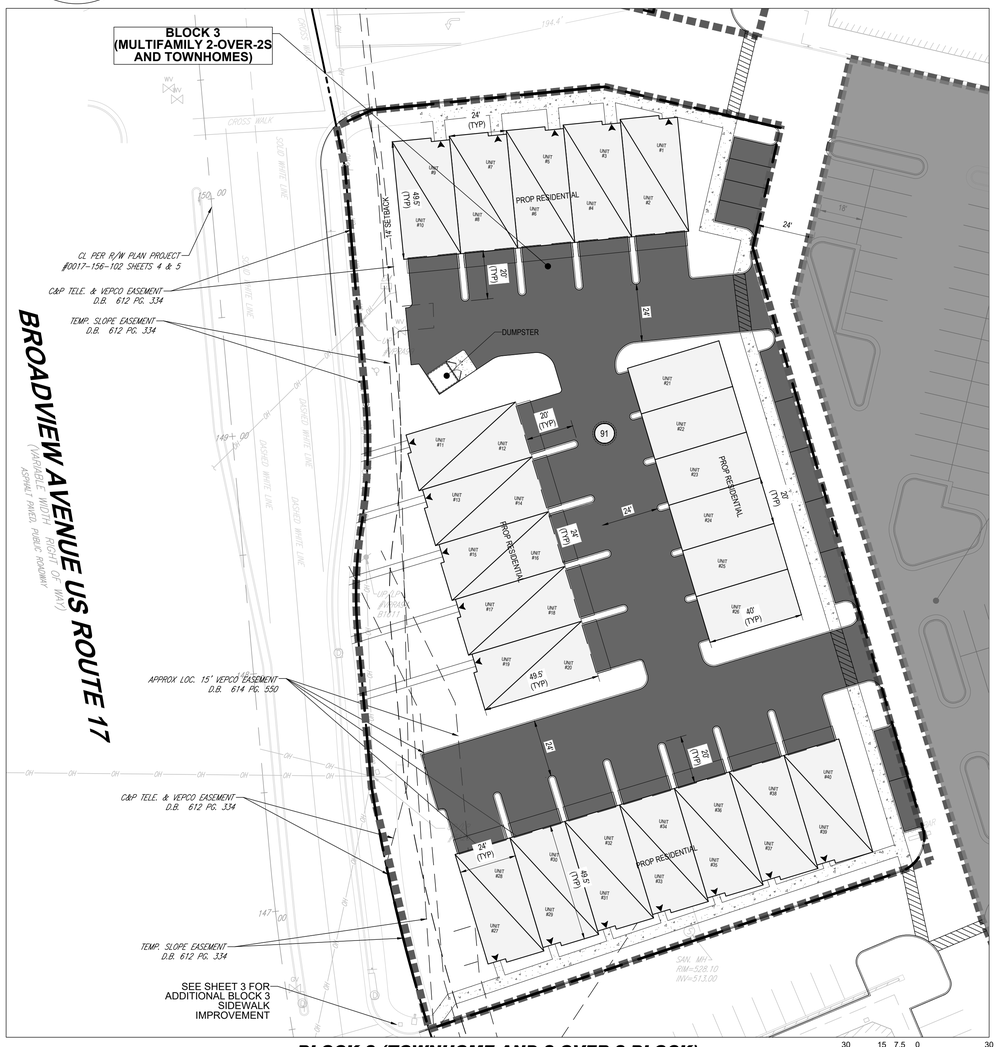
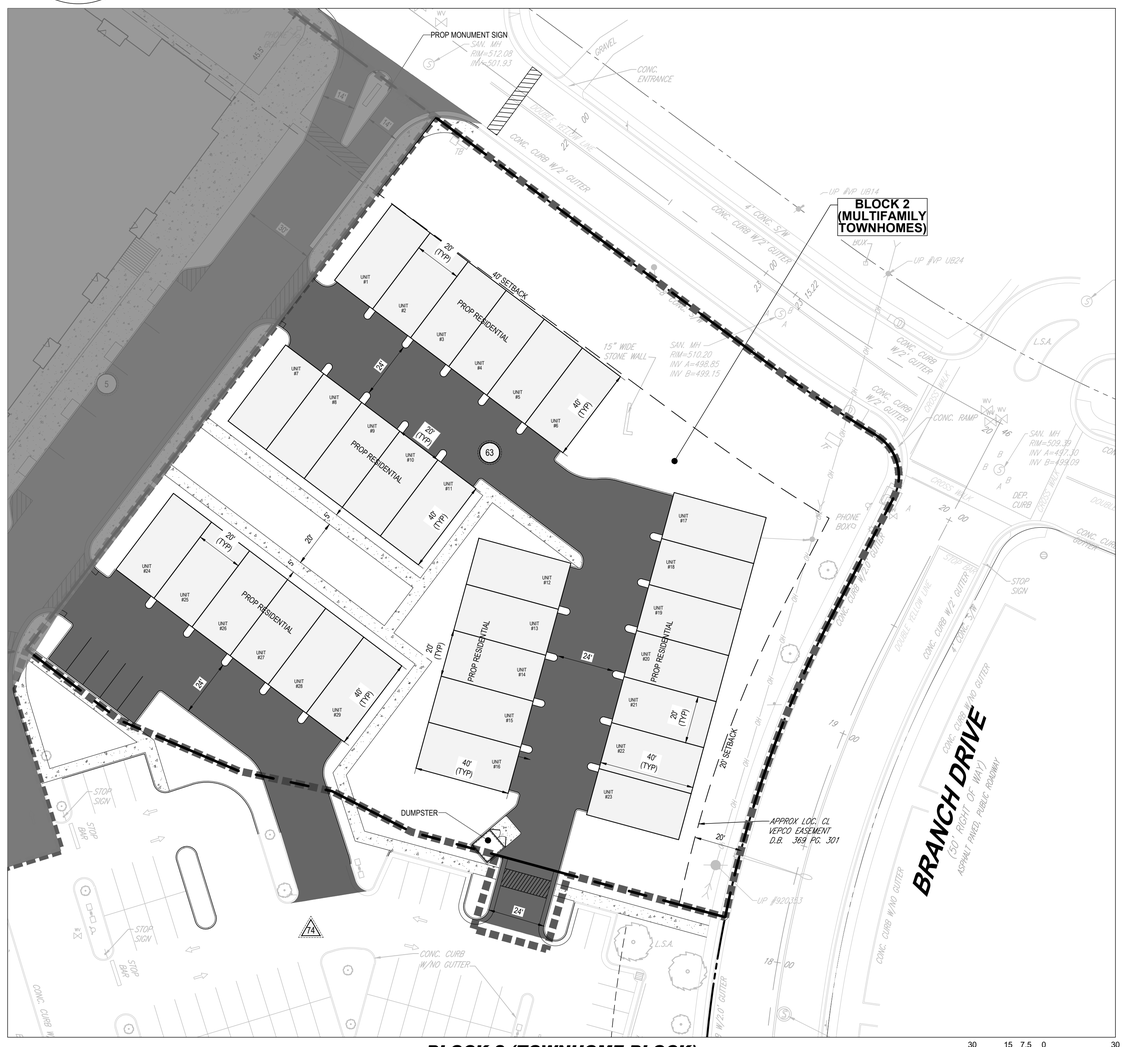
CH



BLOCK 3 (TOWNHOME AND 2-OVER-2 BLOCK)

30 15 7.5 0 30
1"= 30'



BLOCK 2 (TOWNHOME BLOCK)

30 15 7.5 0 30
1"= 30'

NOTES:

1. DECKS ARE NOT SHOWN IN FOOTPRINTS - STANDARD DECKS PROTRUDE 2' OUT FROM FOOTPRINT.

HATCH LEGEND

- CONCRETE
- PROP BUILDING (SEE ARCH DRAWINGS)
- PAVEMENT & ADA STRIPING
- ASPHALT
- DEVELOPMENT BLOCKS

Item a.

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CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

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FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

SITE DEVELOPMENT PLAN - BLOCKS 2 AND 3

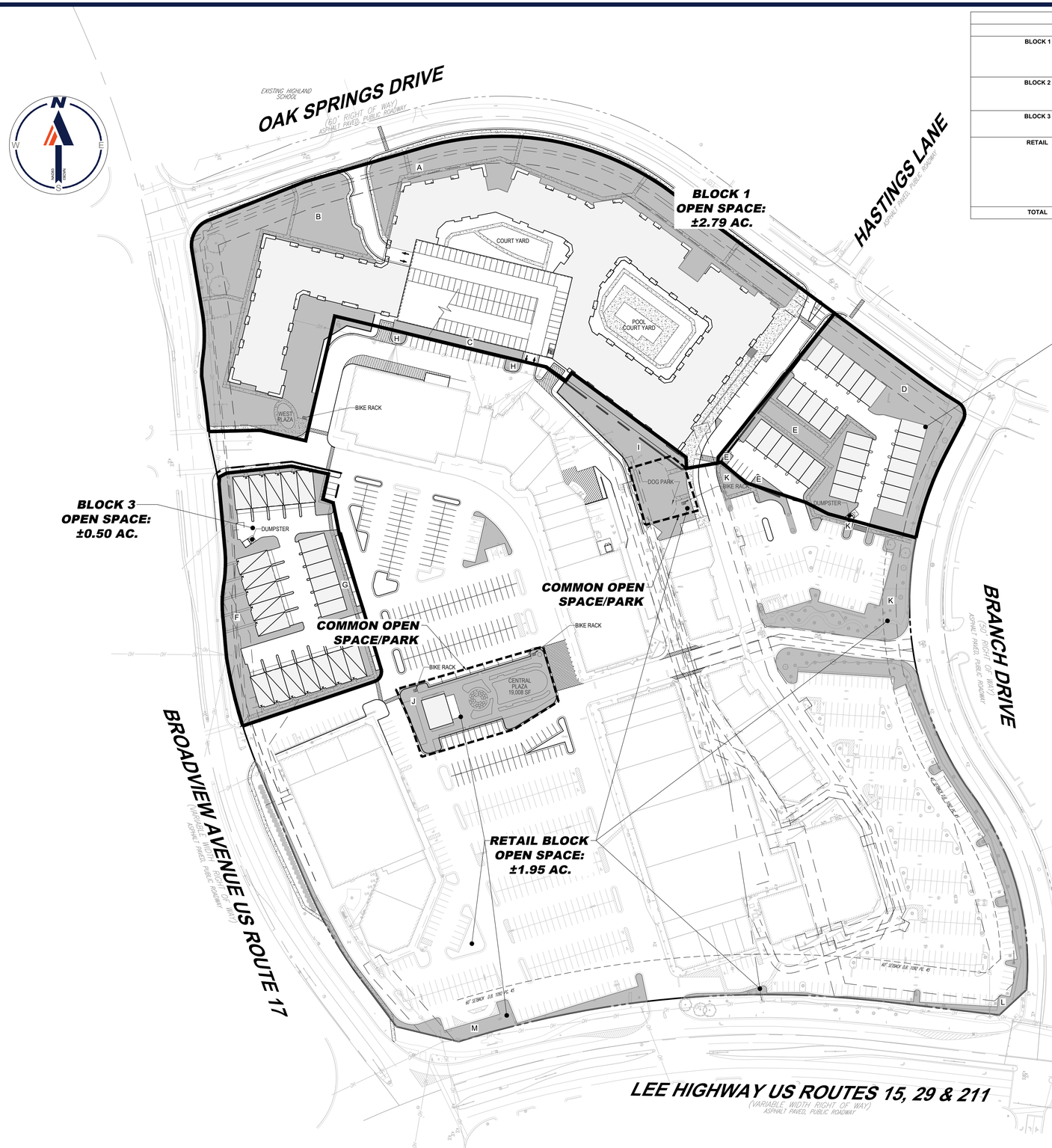
SHEET NUMBER:

5

REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1----->LAYOUT: 5 - DEVELOPMENT BLOCKS
TL

1023



OPEN SPACE TABULATION				
	AREA	OPEN SPACE REQUIRED	OPEN SPACE PROVIDED	NEW IMPROVEMENTS
BLOCK 1	±6.60 AC.	10% - 0.66 AC. (±28,750 SF)	A: 0.91 AC. (±39,640 SF) B: 1.81 AC. (±78,840 SF) C: 0.07 AC. (±3,050 SF) TOTAL BLOCK 1: 2.79 AC. (±121,530 SF) (42.2%)	A: LANDSCAPING B: RESIDENTIAL PLAZA, BENCH SEATING, BIKE RACK, LANDSCAPING C: LANDSCAPING
BLOCK 2	±1.60 AC.	10% - 0.16 AC. (±6,970 SF)	D: 0.47 AC. (±20,470 SF) E: 0.26 AC. (±11,330 SF) TOTAL BLOCK 2: 0.73 AC. (±31,800 SF) (45.6%)	D: LANDSCAPING E: RESIDENTIAL PLAZA, LANDSCAPING
BLOCK 3	±1.61 AC.	10% - 0.16 AC. (±6,970 SF)	F: 0.43 AC. (±18,860 SF) G: 0.07 AC. (±3,050 SF) TOTAL BLOCK 3: 0.50 AC. (±21,910 SF) (28%)	F: LANDSCAPING G: LANDSCAPING
RETAIL	±19.24 AC.	10% - 1.92 AC. (±83,640 SF)	H: 0.02 AC. (±870 SF) I: 0.39 AC. (±16,990 SF) J: 0.44 AC. (±19,170 SF) K: 0.41 AC. (±17,860 SF) L: 0.45 AC. (±19,600 SF) M: 0.20 AC. (±8,710 SF) LANDSCAPE ISLAND: 0.04 AC. (±1,750 SF) TOTAL BLOCK RETAIL: 1.95 AC. (±84,950 SF) (10.1%)	H: LANDSCAPING I: FENCED DOG PLAY AREA, PICNIC TABLES, BIKE RACK, LANDSCAPING J: BIKE RACK, SPLASH-PAD, LAWN AREA, BENCH SEATING, LANDSCAPING, COMMERCIAL PAD K, L, M: EXISTING CONDITIONS
TOTAL	**±29.05 AC.**	**10% - 2.90 AC. (±126,330 SF)**	**20.6% - 5.97 AC. (±260,050 SF)**	

LEGEND

- OPEN SPACE
- COMMON OPEN SPACE/PARK
- BLOCK AREA FOR OPEN SPACE TABULATION

80 40 20 0 80
1"= 80'

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PROJECT:

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

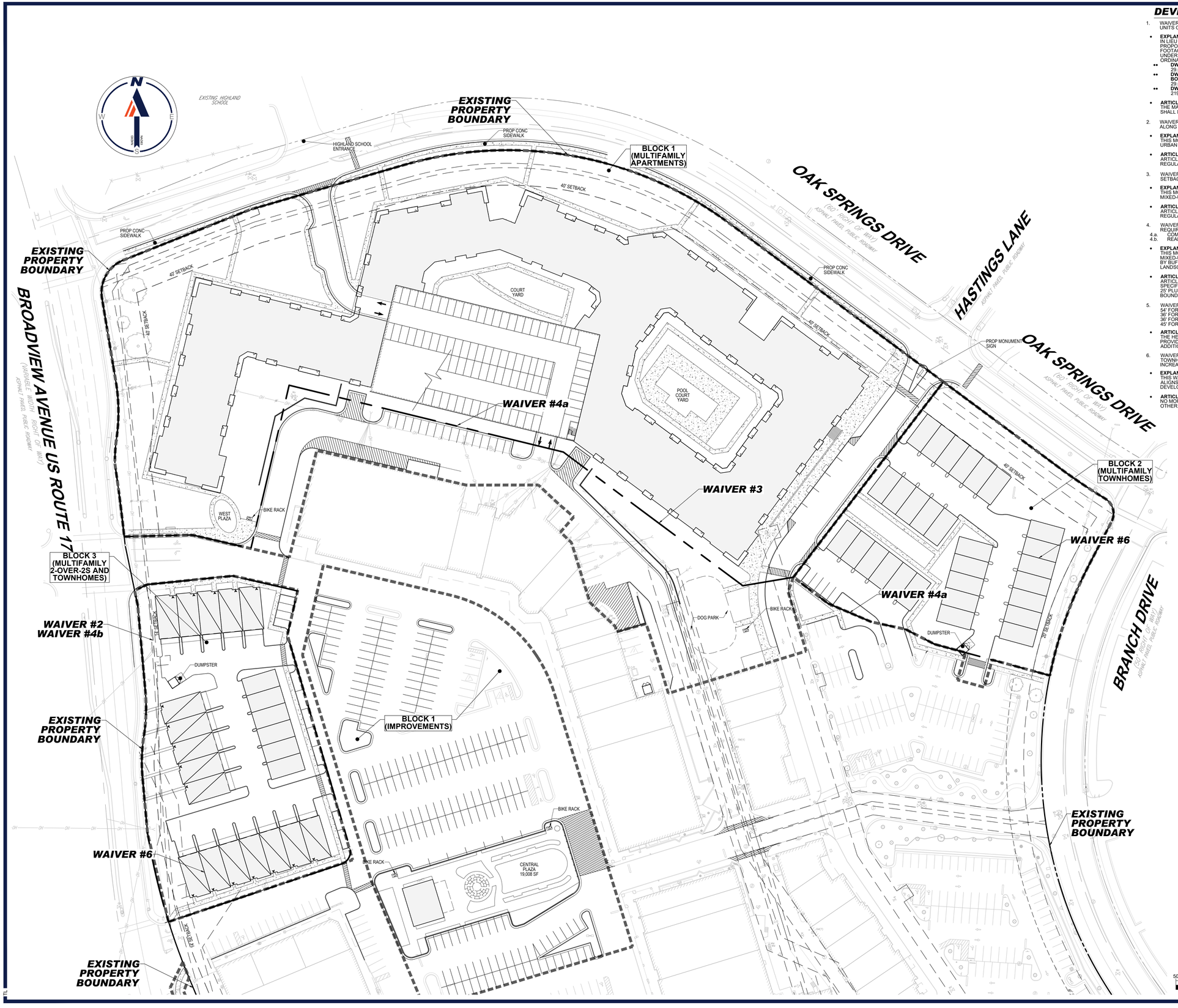
OPEN SPACE PLAN

SHEET NUMBER:

6

REVISION 3 - 5/31/2024

May 30, 2024
H:\2012141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1----LAYOUT 6 - OPEN SPACE PLAN
CH



DEVELOPMENT MODIFICATIONS/WAIVERS

1. WAIVER TO ARTICLES 2-6.1 OF THE TOWN ZONING ORDINANCE FOR DENSITY INCREASE OF 386 UNITS OR 13.28 UNITS/ACRE.

- **EXPLANATION:**
  IN LIEU OF CALCULATING DENSITY ON A DWELLING UNIT PER ACRE BASIS, APPLICANT PROPOSED TO CALCULATE RESIDENTIAL DENSITY BASED ON EXISTING COMMERCIAL SQUARE FOOTAGE (1 DWELLING PER 500 SQUARE FEET OF NON-RESIDENTIAL SPACE, AS ALLOWED UNDER THE MIXED-USE DEVELOPMENT OPTION OF THE COMMERCIAL DISTRICT ZONING ORDINANCE)
  - •• **DWELLING UNITS ALLOWED PER DU/A = 145 UNITS**
    29.05 ACRES X 5 DU/A = 145 UNITS
  - •• **DWELLING UNITS ALLOWED PER DU/A CALCULATION (ASSUMING AFFORDABLE HOUSING BONUS):**
    29.05 ACRES X 10 DU/A = 290 UNITS
  - •• **DWELLING UNITS ALLOWE PER DU/GSF CALCULATION:**
    219,792 GSF / 500 = 439 UNITS
- **ARTICLE 2-6.1:**
  THE MAXIMUM DENSITY SPECIFIED IN THE ZONING ORDINANCE FOR A GIVEN ZONING DISTRICT SHALL NOT BE EXCEEDED. THE REQUIRED MAXIMUM DENSITY IS 5 UNITS PER ACRE.

2. WAIVER TO ARTICLE 3-4.10.4 OF THE TOWN ZONING ORDINANCE FOR FRONT YARD SETBACK ALONG BROADVIEW AVENUE FOR TOWNHOME BLOCK TO BE 14' MIN.

- **EXPLANATION:**
  THIS MODIFICATION WILL ALLOW THE UNITS TO BE CLOSER TO STREET, CREATING A MORE URBAN FORM AND CHARACTER.
- **ARTICLE 3-4.10.4:**
  ARTICLE 3-4.10.4 OF THE ZONING ORDINANCE IS A TABLE STATING LOT AND YARD REGULATIONS PER USE. THE REQUIRED FRONT YARD SETBACK IS TO BE 40' MIN.

3. WAIVER TO ARTICLE 3-4.10.4 OF THE TOWN ZONING ORDINANCE FOR SIDE/REAR YARD SETBACKS ALONG INTERNAL PROPOSED/EXISTING PROPERTY LINES TO 0.

- **EXPLANATION:**
  THIS MODIFICATION WILL ALLOW THE OVERALL DEVELOPMENT TO FUNCTION AS A TRUE MIXED-USE DEVELOPMENT THAT WILL NOT BE SEGMENTED BY INTERNAL SEPARATIONS.
- **ARTICLE 3-4.10.4:**
  ARTICLE 3-4.10.4 OF THE ZONING ORDINANCE IS A TABLE STATING LOT AND YARD REGULATIONS PER USE. THE REQUIRED SIDE YARD SETBACK IS TO BE 5' MIN.

4. WAIVER TO ARTICLE 8-8.5 OF THE TOWN ZONING ORDINANCE FOR LANDSCAPE BUFFER REQUIREMENTS
   4.a. COMMERCIAL USES FROM RESIDENTIAL USES TO 0.
   4.b. REAR BOUNDARIES OF RESIDENTIAL USES FROM PUBLIC RIGHT-OF-WAYS TO 14'.

- **EXPLANATION:**
  THIS MODIFICATION WILL ALLOW THE OVERALL DEVELOPMENT TO FUNCTION AS A TRUE MIXED-USE DEVELOPMENT BY CREATING AN INTEGRATED PROJECT THAT IS NOT SEGMENTED BY BUFFER STRIPS ADJACENT TO RESIDENTIAL AND COMMERCIAL USES. THE SCHEMATIC LANDSCAPING PLAN HAS IDENTIFIED AREAS WHERE PLANTINGS ARE PROPOSED.
- **ARTICLE 8-8.5:**
  ARTICLE 8-8.5 OF THE TOWN ZONING ORDINANCE IS A TABLE STATING LOT AND BUFFER YARD SPECIFICATIONS. THE MINIMUM WIDTH FOR COMMERCIAL USES FROM RESIDENTIAL USES IS 25' PLUS 1' FOR EACH FOOT OF BUILDING HEIGHT OVER 35'. THE MINIMUM WIDTH FOR REAR BOUNDARIES OF RESIDENTIAL USES FROM PUBLIC RIGHT-OF-WAYS IS 25'.

5. WAIVER TO ARTICLE 2-20 OF THE TOWN ZONING ORDINANCE FOR BUILDING HEIGHT:
   54' FOR BLOCK 1 OAK SPRINGS DRIVE FRONTAGE
   36' FOR BLOCK 1 BROADVIEW DRIVE FRONTAGE
   36' FOR BLOCK 2
   45' FOR BLOCK 3
- **ARTICLE 2-20:**
  THE HEIGHT LIMIT FOR DWELLINGS MAY BE INCREASED UP TO 45' AND UP TO THREE STORIES PROVIDED THAT FRONT, SIDE, AND REAR YARD SETBACKS INCREASE 1' FOR EACH ADDITIONAL FOOT OF BUILDING HEIGHT OVER 35'.

6. WAIVER TO ARTICLE 3-4.4.5.3 OF THE TOWN ZONING ORDINANCE FOR MAXIMUM GROUPING OF TOWNHOUSES:
   INCREASE FROM 6 TO 7.
- **EXPLANATION:**
  THIS WAIVER IS NECESSARY FOR UNIT COUNTS TO ENSURE DEVELOPMENT FEASIBILITY AND ALIGNS SEVERAL OTHER GROUPINGS OF 7 TO 8 UNITS IN OTHER TOWNHOUSE DEVELOPMENTS THROUGHOUT THE TOWN OF WARRENTON.
- **ARTICLE 3-4.4.5.3:**
  NO MORE THAN SIX (6) TOWNHOUSE UNITIS SHALL BE GROUPED CONTIGUOUS TO EACH OTHER.

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CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

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CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

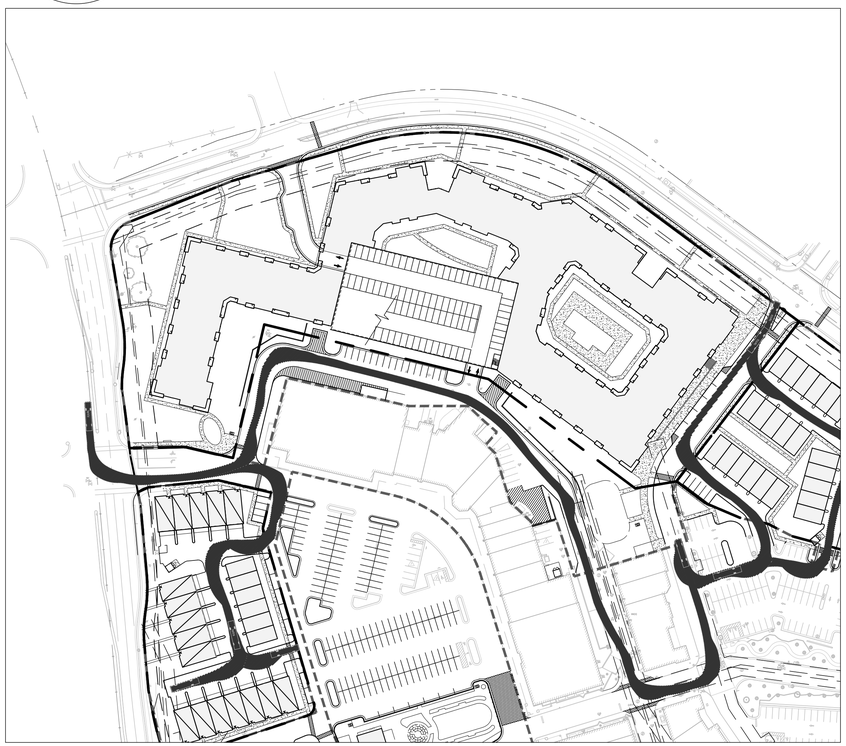
WAIVER INFORMATION

SHEET NUMBER:

7

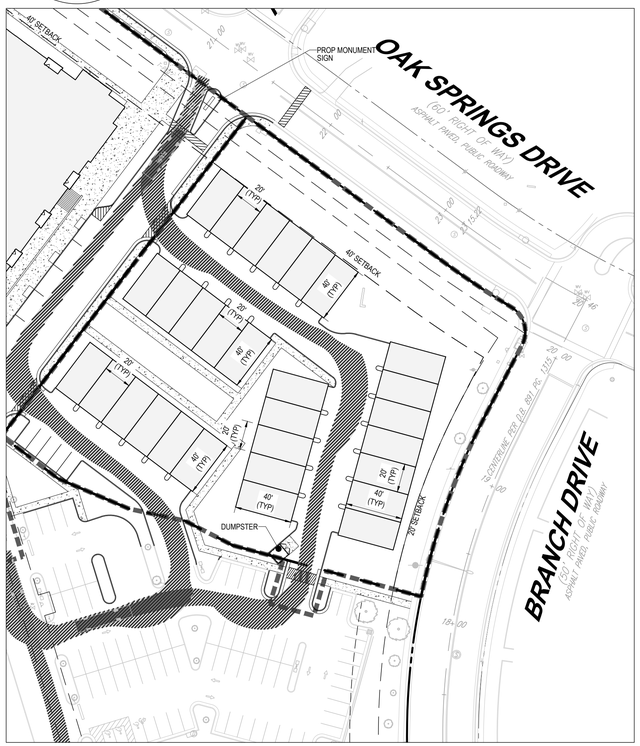
REVISION 3 - 5/31/2024

May 30, 2024
11:21 I:\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1 — LAYOUT 7 - WAIVER INFORMATION



BLOCK 1

100 50 25 0 100
1"= 100'



BLOCK 2 (2 OVER 2 BLOCK)

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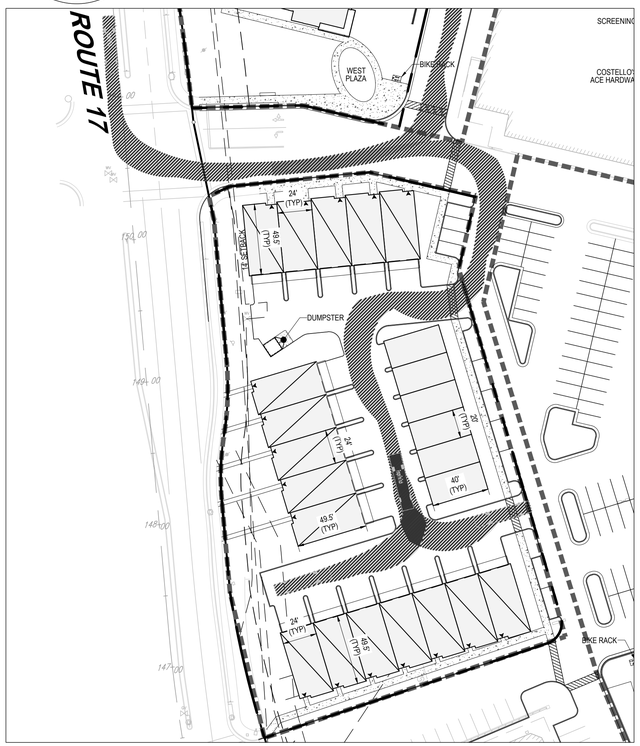
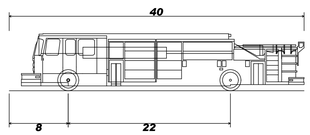
1"= 50'



BLOCK 3 (TOWNHOME BLOCK)

50 25 12.5 0 50
1"= 50'



Pumper Fire Truck	
Overall Length	***40.000ft***
Overall Width	***8.167ft***
Overall Body Height	***7.745ft***
Min Body Ground Clearance	***0.656ft***
Track Width	***8.167ft***
Lock-to-lock time	***5.00s***
Max Wheel Angle	***45.00°***

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DRAWN BY:	DSH
CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
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VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

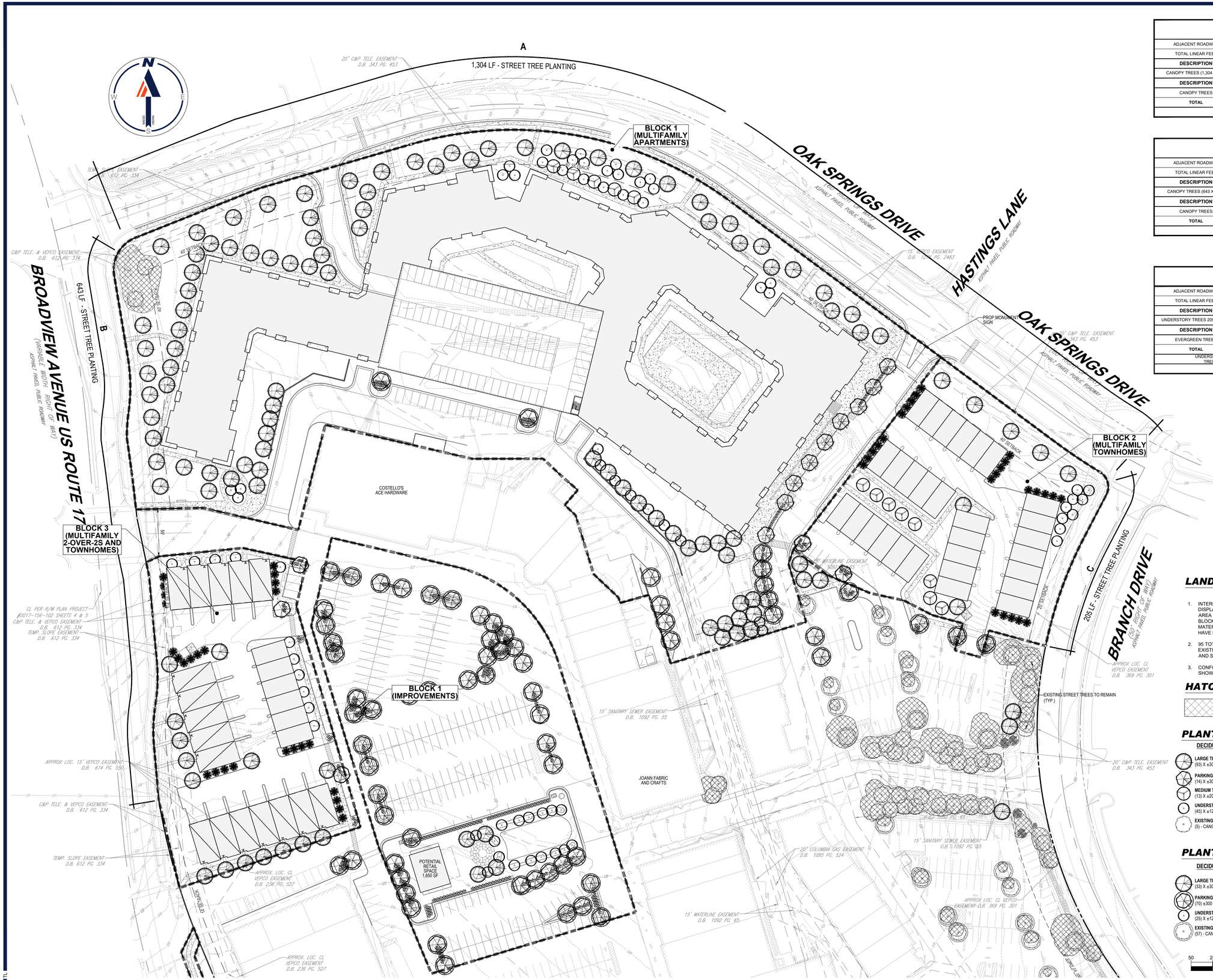
FIRE TRUCK MOVEMENT

SHEET NUMBER:

8

REVISION 3 - 5/31/2024

May 30, 2024
11:21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP -1----LAYOUT 8 - FIRE TRUCK MOVEMENT



A

STREET TREE PLANTING SECTION 8-5.5				
ADJACENT ROADWAY	OAK SPRINGS DRIVE			
TOTAL LINEAR FEET	1,304 LF			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
CANOPY TREES (1,304 X 1/50)	27		27	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	27	27	100%
TOTAL	0	27	27	100%

B

STREET TREE PLANTING SECTION 8-5.5				
ADJACENT ROADWAY	BROADVIEW AVE - VA ROUTE 17			
TOTAL LINEAR FEET	643 LF			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
CANOPY TREES (643 X 1/50)	13		14	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	14	14	100%
TOTAL	0	14	14	100%

C

STREET TREE PLANTING SECTION 8-5.5				
ADJACENT ROADWAY	BRANCH DR			
TOTAL LINEAR FEET	205 LF			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
UNDERSTORY TREES 205 X (2/50)	9		9	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
EVERGREEN TREES	0	9	9	100%
TOTAL	0	9	9	100%
UNDERSTORY TREES ARE PROPOSED IN PLACE OF CANOPY TREES DUE TO OVERHEAD LINES AT RATE OF 2 TO 1				

LANDSCAPE NOTES

1. INTERIOR PARKING LOT AND 20-YEAR TREE CANOPY ANALYSIS IS DISPLAYED FOR RESIDENTIAL BLOCK AREA. RESIDENTIAL BLOCK AREA ENCOMPASSES THE TOTAL AREA OF THE MULTIFAMILY BLOCK, 2 OVER 2 BLOCK, AND TOWNHOME BLOCK. ONLY THE MATERIAL COUNTED TOWARD THE RESIDENTIAL LANDSCAPING HAVE BEEN COUNTED FOR THE 20-YEAR TREE CANOPY.
2. 95 TOTAL TREES PROPOSED IN EXISTING PARKING LOT TO REPLACE EXISTING TREES THAT ARE TO BE REMOVED DUE TO PARKING LOT AND SITE IMPROVEMENTS.
3. CONFORMANCE WITH LANDSCAPING REQUIREMENTS WILL BE SHOWN WITH THE SITE DEVELOPMENT PLAN.

HATCH LEGEND

EXISTING TREE CANOPY TO REMAIN

PLANT LEGEND - RESIDENTIAL

DECIDUOUS	EVERGREEN
LARGE TREE (MIN. 15 FEET) (93) X ±300 SF EA = 27,900 SF	EVERGEEN TREE (MIN. 8 FEET) (52) X ±150 SF EA = 7,800 SF
PARKING LOT TREE (MIN. 15 FEET) (14) X ±300 SF EA = 4,200 SF	PARKING LOT SHRUBS (42)
MEDIUM TREE (MIN. 12 FEET) (13) X ±200 SF EA = 2,600 SF	
UNDERSTORY TREE (MIN. 6 FEET) (45) X ±125 SF EA = 5,625 SF	
EXISTING LARGE TREE (5) - CANOPY BASED ON AERIAL IMAGERY	

PLANT LEGEND - COMMERCIAL

DECIDUOUS	EVERGREEN
LARGE TREE (MIN. 15 FEET) (33) X ±300 SF EA = 9,900 SF	PARKING LOT SHRUBS (345)
PARKING LOT TREE (MIN. 15 FEET) (70) ±300 SF EA = 21,000 SF	
UNDERSTORY TREE (MIN. 6 FEET) (25) X ±125 SF EA = 3,125 SF	
EXISTING PARKING LOT TREE (57) - CANOPY BASED ON AERIAL IMAGERY	

50 25 12.5 0 50
1"= 50'

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DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: LSCP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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COMMONWEALTH OF VIRGINIA
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

9

REVISION 3 - 5/31/2024

May 30, 2024
H:\2012\V212141\CAD\DRAWINGS\PLAN SETS\SUP\V212141 - LSCP - 1 — LAYOUT 9 - LANDSCAPE PLAN



LANDSCAPE NOTES

1. INTERIOR PARKING LOT AND 20-YEAR TREE CANOPY ANALYSIS IS DISPLAYED FOR RESIDENTIAL BLOCK AREA. RESIDENTIAL BLOCK AREA ENCOMPASSES THE TOTAL AREA OF THE MULTIFAMILY BLOCK, 2 OVER 2 BLOCK, AND TOWNHOME BLOCK. ONLY THE MATERIAL COUNTED TOWARD THE RESIDENTIAL LANDSCAPING HAVE BEEN COUNTED FOR THE 20-YEAR TREE CANOPY.
2. 95 TOTAL TREES PROPOSED IN EXISTING PARKING LOT TO REPLACE EXISTING TREES THAT ARE TO BE REMOVED DUE TO PARKING LOT AND SITE IMPROVEMENTS.
3. CONFORMANCE WITH LANDSCAPING REQUIREMENTS WILL BE SHOWN WITH THE SITE DEVELOPMENT PLAN.

PLANT LEGEND - RESIDENTIAL

DECIDUOUS

- LARGE TREE (MIN. 15 FEET) (93) X ±300 SF EA = 27,900 SF
- PARKING LOT TREE (MIN. 15 FEET) (14) X ±300 SF EA = 4,200 SF
- MEDIUM TREE (MIN. 12 FEET) (13) X ±200 SF EA = 2,600 SF
- UNDERSTORY TREE (MIN. 6 FEET) (45) X ±125 SF EA = 5,625 SF
- EXISTING LARGE TREE (5) - CANOPY BASED ON AERIAL IMAGERY

EVERGREEN

- EVERGEEN TREE (MIN. 8 FEET) (52) X ±150 SF EA = 7,800 SF
- PARKING LOT SHRUBS (42)

HATCH LEGEND

- EXISTING TREE CANOPY TO REMAIN
- INTERIOR PARKING LOT AREA
- INTERIOR PARKING LOT LANDSCAPE AREA

100 50 25 0 100

1"= 100'

PLANT LEGEND - COMMERCIAL

DECIDUOUS

- LARGE TREE (MIN. 15 FEET) (33) X ±300 SF EA = 9,900 SF
- PARKING LOT TREE (MIN. 15 FEET) (70) ±300 SF EA = 21,000 SF
- UNDERSTORY TREE (MIN. 6 FEET) (25) X ±125 SF EA = 3,125 SF
- EXISTING PARKING LOT TREE (57) - CANOPY BASED ON AERIAL IMAGERY

EVERGREEN

- PARKING LOT SHRUBS (345)

INTERIOR PARKING LOT LANDSCAPING - COMMERCIAL

SECTION 8-6.2

PARKING LOT AREA	457,772 SF			
PARKING SPACES	847			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 457,772 X 10%	45,777 SF		48,163 SF (10.52%)	
SHADE TREES 847 X (1/8)	106		132	
SHRUBS 847 X (3/8)	317		348	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	57	70	127	100%
SHRUBS	0	345	345	100%
TOTAL	57	415	472	100%

INTERIOR PARKING LOT LANDSCAPING - MULTIFAMILY BLOCK 1

SECTION 8-6.2

PARKING LOT AREA	8,376 SF			
PARKING SPACES	30			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 8,376 X 10%	838 SF		1,127 SF (14.49%)	
SHADE TREES 30 X (1/8)	4		9	
SHRUBS 30 X (3/8)	12		14	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	9	9	100%
SHRUBS	0	14	14	100%
TOTAL	0	23	23	100%

INTERIOR PARKING LOT LANDSCAPING - MULTIFAMILY BLOCK 2

SECTION 8-6.2

PARKING LOT AREA	4,308 SF			
PARKING SPACES	5			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 4,308 X 10%	431 SF		672 SF (15.6%)	
SHADE TREES 5 X (1/8)	1		2	
SHRUBS 5 X (3/8)	3		9	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	2	2	100%
SHRUBS	0	9	9	100%
TOTAL	0	11	11	100%

INTERIOR PARKING LOT LANDSCAPING - MULTIFAMILY BLOCK 3

SECTION 8-6.2

PARKING LOT AREA	2,173 SF			
PARKING SPACES	11			
DESCRIPTION	**REQUIRED**		**PROVIDED**	
LANDSCAPE AREA 2,173 X 10%	217 SF		920 SF (42.34%)	
SHADE TREES 11 X (1/8)	2		3	
SHRUBS 11 X (3/8)	5		18	
DESCRIPTION	**EXISTING**	**PROPOSED**	**TOTAL QTY**	**PERCENT**
CANOPY TREES	0	3	3	100%
SHRUBS	0	18	18	100%
TOTAL	0	21	21	100%

TREE CANOPY TABLE - COMMERCIAL

SECTION 8-10.3.2

SITE AREA	838,094 SF OR 19.24 AC
PROPOSED ZONE	COMMERCIAL
20 YEAR CANOPY REQUIREMENT	10%
20 YEAR CANOPY REQUIRED	83,809 SF
PROPOSED CANOPY	34,025 SF (4.06%)
EXISTING CANOPY CONSERVATION	51,087 SF (6.10%)
TOTAL 20 YEAR CANOPY PROVIDED	85,112 SF (10.16%)

TREE CANOPY TABLE - MULTIFAMILY BLOCK 1

SECTION 8-10.3.2

SITE AREA	287,496 SF OR 6.60 AC
PROPOSED ZONE	RESIDENTIAL
20 YEAR CANOPY REQUIREMENT	10% (49 UNITS PER ACRE)
20 YEAR CANOPY REQUIRED	28,750 SF
PROPOSED CANOPY	27,825 SF (9.67%)
EXISTING CANOPY CONSERVATION	3,031 SF (1.05%)
TOTAL 20 YEAR CANOPY PROVIDED	30,856 SF (10.72%)

TREE CANOPY TABLE - MULTIFAMILY BLOCK 2

SECTION 8-10.3.2

SITE AREA	69,696 SF OR 1.6 AC
PROPOSED ZONE	RESIDENTIAL
20 YEAR CANOPY REQUIREMENT	10% (25 UNITS PER ACRE)
20 YEAR CANOPY REQUIRED	6,970 SF
PROPOSED CANOPY	8,575 SF (12.3%)
EXISTING CANOPY CONSERVATION	0 SF (0.00%)
TOTAL 20 YEAR CANOPY PROVIDED	8,575 SF (12.3%)

TREE CANOPY TABLE - MULTIFAMILY BLOCK 3

SECTION 8-10.3.2

SITE AREA	70,131 SF OR 1.61 AC
PROPOSED ZONE	RESIDENTIAL
20 YEAR CANOPY REQUIREMENT	15% (19 UNITS PER ACRE)
20 YEAR CANOPY REQUIRED	10,515 SF
PROPOSED CANOPY	10,800 SF (15.40%)
EXISTING CANOPY CONSERVATION	0 SF (0.00%)
TOTAL 20 YEAR CANOPY PROVIDED	10,800 SF (15.40%)

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CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	LSCP -2

PROJECT:

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FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
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COMMONWEALTH OF VIRGINIA
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

10

REVISION 3 - 5/31/2024

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TL



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WARRENTON VILLAGE MIXED-USE CENTER

WARRENTON, VA

RENDERING • 05-30-2024

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DYNAMIK
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PROJECT:

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

11

REVISION 3 - 5/31/2024

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MULTIFAMILY FRONT ELEVATION

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WARRENTON VILLAGE CENTER

WARRENTON, VA

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SHEET TITLE:

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SHEET NUMBER:

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MULTIFAMILY ELEVATION- 3 STORY

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WARRENTON, VA

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COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

12B

REVISION 3 - 5/31/2024

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MULTIFAMILY SIDE ELEVATION

CASTLE DEVELOPMENT PARTNERS

WARRENTON VILLAGE MIXED-USE CENTER

WARRENTON, VA

ELEVATION • 05-30-2024

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CHECKED BY:	JCW
DATE:	7/8/2022
CAD I.D.:	SUPP -2

PROJECT:

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FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

12C

REVISION 3 - 5/31/2024

May 30, 2024
H:\V\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP- 1 —LAYOUT 12C - BUILDING ELEVATIONS 4
TL



TOWNHOME - 3 STORY FRONT ELEVATION

CASTLE DEVELOPMENT PARTNERS

WARRENTON VILLAGE CENTER

WARRENTON, VA

ELEVATION • 05-30-2024

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DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

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CENTER DISTRICT
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13

REVISION 3 - 5/31/2024

May 30, 2024
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1-----LAYOUT 13 - BUILDING ELEVATIONS 3



TOWNHOME - 3 STORY REAR ELEVATION

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13B

REVISION 3 - 5/31/2024

May 30, 2024
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TOWNHOME - 4 STORY ELEVATION

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PROPOSED DEVELOPMENT

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13C

REVISION 3 - 5/31/2024

May 30, 2024
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TOWNHOME - 4 STORY REAR ELEVATION

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OAK SPRINGS DRIVE
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

13D

REVISION 3 - 5/31/2024

May 30, 2024
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MULTIFAMILY FRONT ELEVATION

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

14

REVISION 3 - 5/31/2024

May 30, 2024
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MULTIFAMILY ELEVATION- 3 STORY

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FOR

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
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TOWN OF WARRENTON, VIRGINIA

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Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

14B

REVISION 3 - 5/31/2024

May 30, 2024
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MULTIFAMILY SIDE ELEVATION

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WARRENTON, VA

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PROPOSED DEVELOPMENT

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Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

14C

REVISION 3 - 5/31/2024

May 30, 2024
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TOWNHOME - 3 STORY ELEVATION

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

15

REVISION 3 - 5/31/2024

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TOWNHOME - 4 STORY ELEVATION

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5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

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SHEET NUMBER:

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May 30, 2024
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RENDERING - WARRENTON VILLAGE CENTER

SCALE 1"=80'-0"

mv+a MAY 30, 2024

May 30, 2024
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5/31/2024
PROFESSIONAL ENGINEER

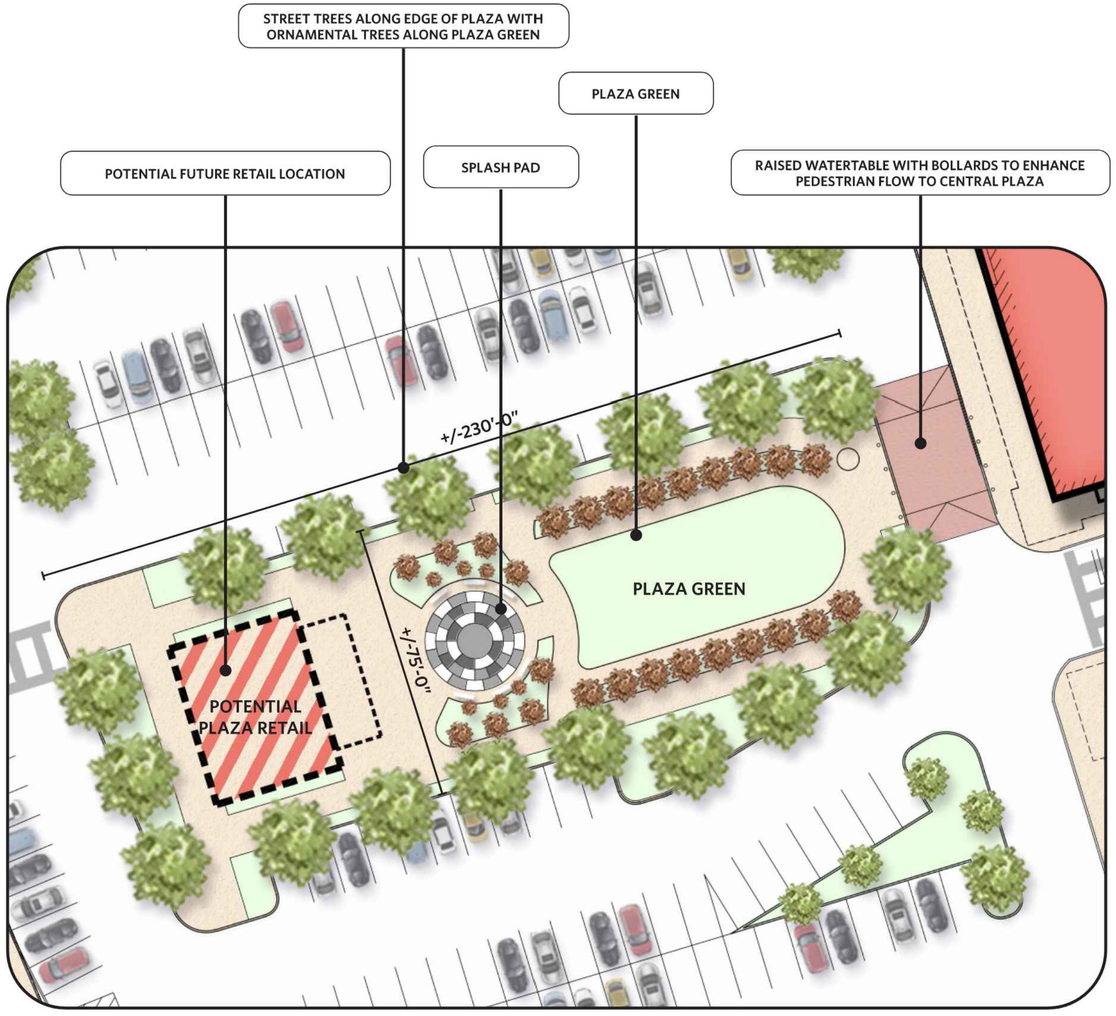
SHEET TITLE:

CONCEPTUAL PLAN RENDERING

SHEET NUMBER:

16

REVISION 3 - 5/31/2024



ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"



AERIAL VIEW OF CENTRAL PLAZA

NTS



EYE LEVEL VIEW OF CENTRAL PLAZA

NTS

mv+a MAY 30, 2024

NOTE: Retail building shown in Central Plaza is for conceptual future development purposes only. No retail building is proposed as part of this SUP.

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PROJECT No.: V212141
DRAWN BY: DSH
CHECKED BY: JCW
DATE: 7/8/2022
CAD I.D.: SUPP -2

PROJECT:

SPECIAL USE PERMIT

FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

BOHLER
28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

SHEET TITLE:

DETAIL - CENTRAL PLAZA

SHEET NUMBER:

17

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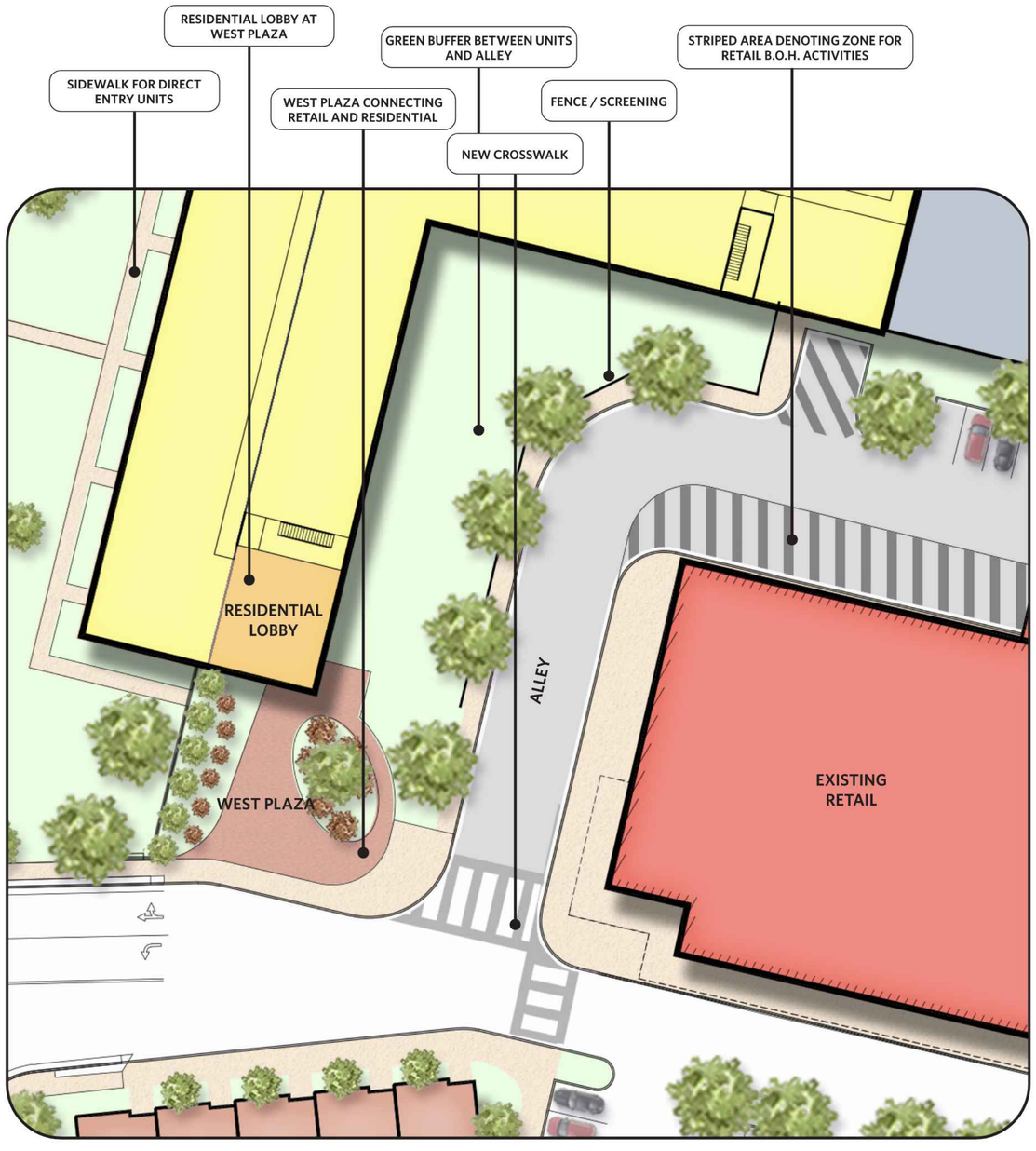
H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1---LAYOUT 17 - DETAIL - CENTRAL PLAZA



ENLARGED CONCEPTUAL WEST PLAZA PLAN

SCALE 1"=20'-0"



TYPICAL SECTION THROUGH ALLEY

SCALE 1/8"=1'-0"



VIEW OF WEST PLAZA AND EXISTING RETAIL BEYOND

NTS

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SHEET TITLE:

DETAIL - WEST PLAZA

SHEET NUMBER:

18

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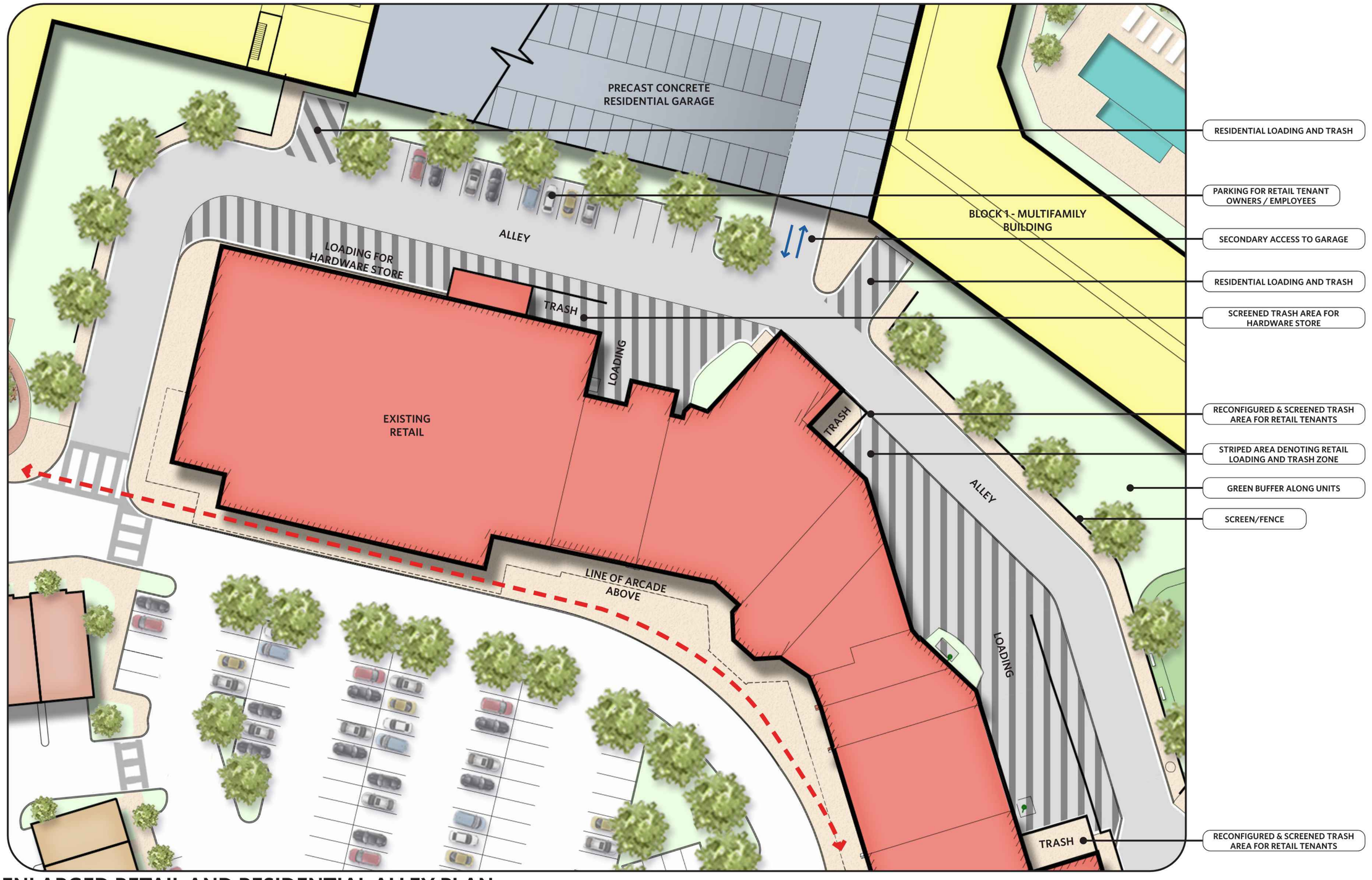

ENLARGED RETAIL AND RESIDENTIAL ALLEY PLAN

SCALE 1"=20'-0"

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Item a.

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SHEET TITLE:

DETAIL - ALLEY

SHEET NUMBER:

19

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H:\21\V212141\CAD\DRAWINGS\PLAN SETS\SUPP\V212141 - SUPP - 1------>LAYOUT: 19 - DETAIL - ALLEY
TL

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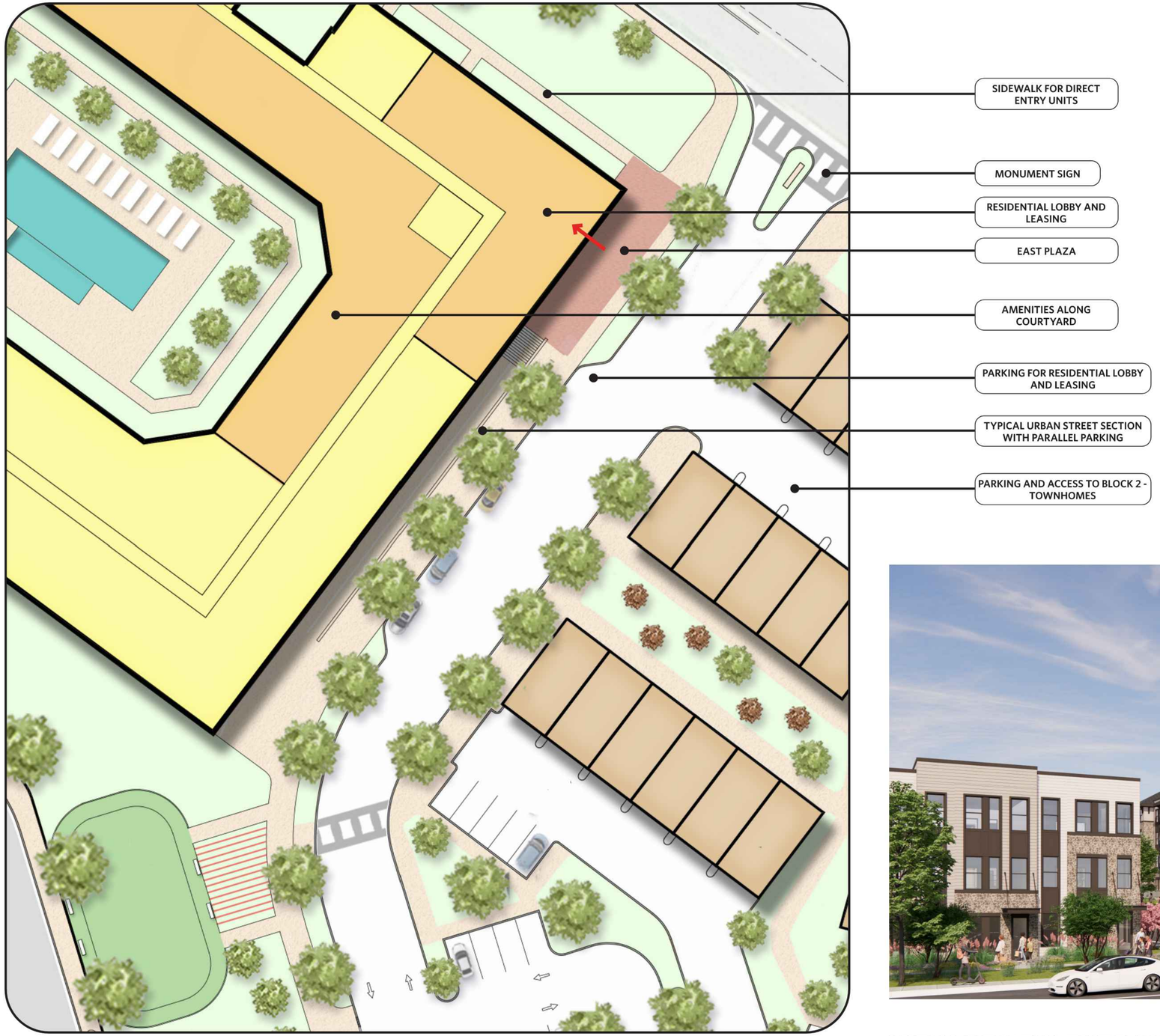

ENLARGED PLAN OF NEW ENTRANCE DRIVEWAY

SCALE 1"=20'-0"



VIEW OF NEW ENTRANCE STREET

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SHEET TITLE:

DETAIL - EAST PLAZA

SHEET NUMBER:

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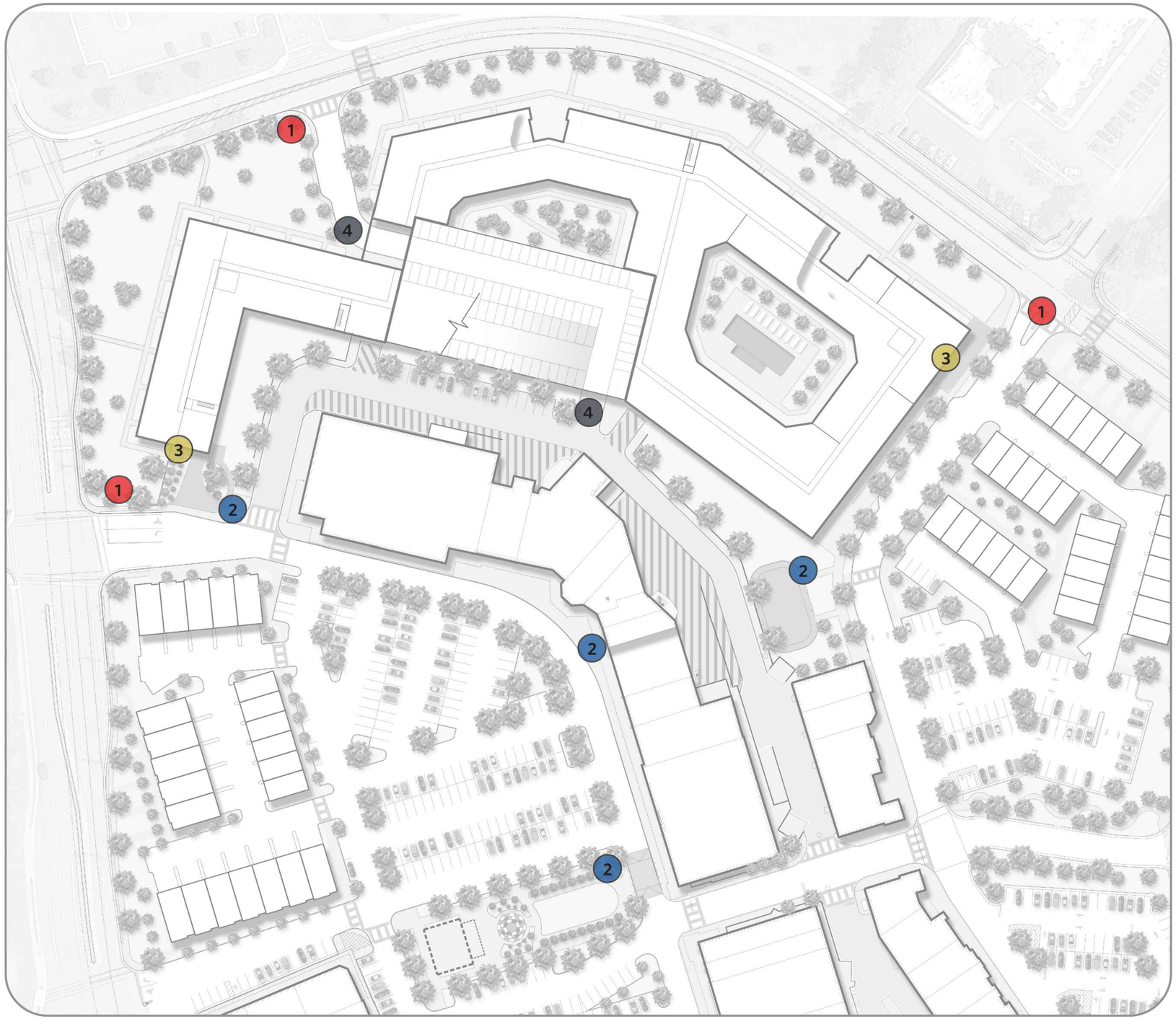

CONCEPTUAL SITE SIGNAGE PLAN

SCALE 1"=50'-0"

mv+a MAY 30, 2024

NOTE: Signage types and location shown here in this plan is conceptual and subject to change with input from stakeholders. All signs to conform to Article 6 - Signage of Zoning Ordinance



1 MONUMENT SIGNAGE

INCLUDES HORIZONTAL OR VERTICAL PYLON SIGNS , EITHER FREE STANDING OR INTEGRATED INTO THE LANDSCAPE, HIGHLIGHTING THE PROJECT/COMMUNITY NAME AND MAJOR TENANTS



2 WAYFINDING SIGNAGE

SUCH SIGNS COULD BE POST SUPPORTED OR ATTACHED TO OTHER ELEMENTS OF THE STREETSCAPE OR WITHIN LANDSCAPING AND ARE MEANT TO PROVIDE PEDESTRIANS WITH DIRECTION TO TENANTS WITHIN THE PROJECT.



3 CANOPY SIGNAGE

INCLUDES SIGNS THAT MAY BE WALL MOUNTED, CANOPY MOUNTED OR VERTICALLY MOUNTED TO THE FACADE VIA BRACKETS AND TYPICALLY ARE USED TO HIGHLIGHT THE NAME OF THE BUILDING OR THE COMMUNITY.



4 INCIDENTAL SIGNAGE

SIGNS THAT SUPPLEMENT AND PROVIDE NON-TENANT/BRAND IDENTITY INFORMATION USUALLY HIGHLIGHTING OTHER SUPPLEMENTARY PROGRAMS IN A PROJECT.

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FOR

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PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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SHEET TITLE:

CONCEPTUAL SIGNAGE PLAN

SHEET NUMBER:

21

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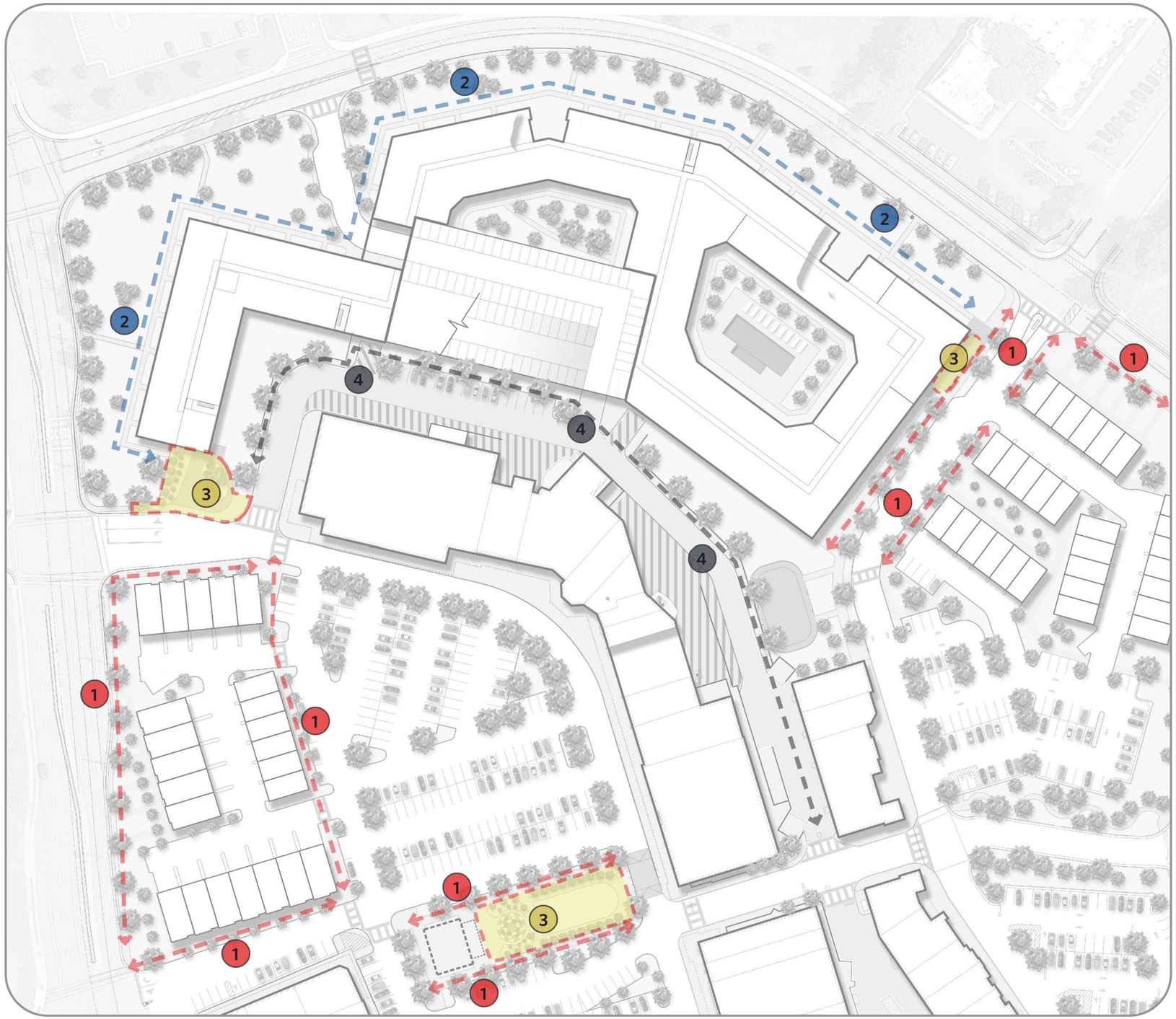

CONCEPTUAL LIGHTING PLAN

SCALE 1"=50'-0"

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1 DECORATIVE POST LIGHTING

SUCH LIGHTING ALREADY EXISTS WITHIN SELECTIVE AREAS OF THE SITE. THIS LIGHTING TYPE IS MEANT TO PROVIDE ILLUMINATION ALONG PEDESTRIAN ROUTES/STREETS AND FORMS A NECESSARY COMPONENT OF THE ENTOURAGE THAT MAKES UP URBAN STREETSCAPES.



2 WALL SCONCE LIGHTING

ACCENT LIGHTING MOUNTED ON THE BUILDING ILLUMINATING FEATURES OF THE ARCHITECTURE AS WELL AS PROVIDING UTILITY LIGHTING FOR THE IMMEDIATE SURROUNDINGS/WALKWAYS.





3 ACCENT LIGHTING - BUILDING AND LANDSCAPE

ACCENT LIGHTING UTILIZED TO EMPHASIZE BUILDING ARCHITECTURE/ CANOPY ENTRANCES AS WELL AS LANDSCAPE FEATURES - PLANTING, FURNITURE ELEMENTS, DECORATIVE WALKING PATHS, ETC.



4 UTILITY LIGHTING

POST MOUNTED OR BUILDING MOUNTED LIGHTING THAT IS MEANT TO ILLUMINATE AREAS THAT ARE NOT USUALLY ACCESSED BY PEDESTRIANS OR PART OF THE URBAN STREETSCAPES - ALLEYS, INCIDENTAL PATHS, HIGH VEHICULAR TRAFFIC AREAS

NOTE: Detailed lighting and photometric plan to be provided at site plan. All lighting to conform to Article 9 of Zoning Ordinance.

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OAK SPRINGS DRIVE
CENTER DISTRICT
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CONCEPTUAL LIGHTING PLAN

SHEET NUMBER:

22

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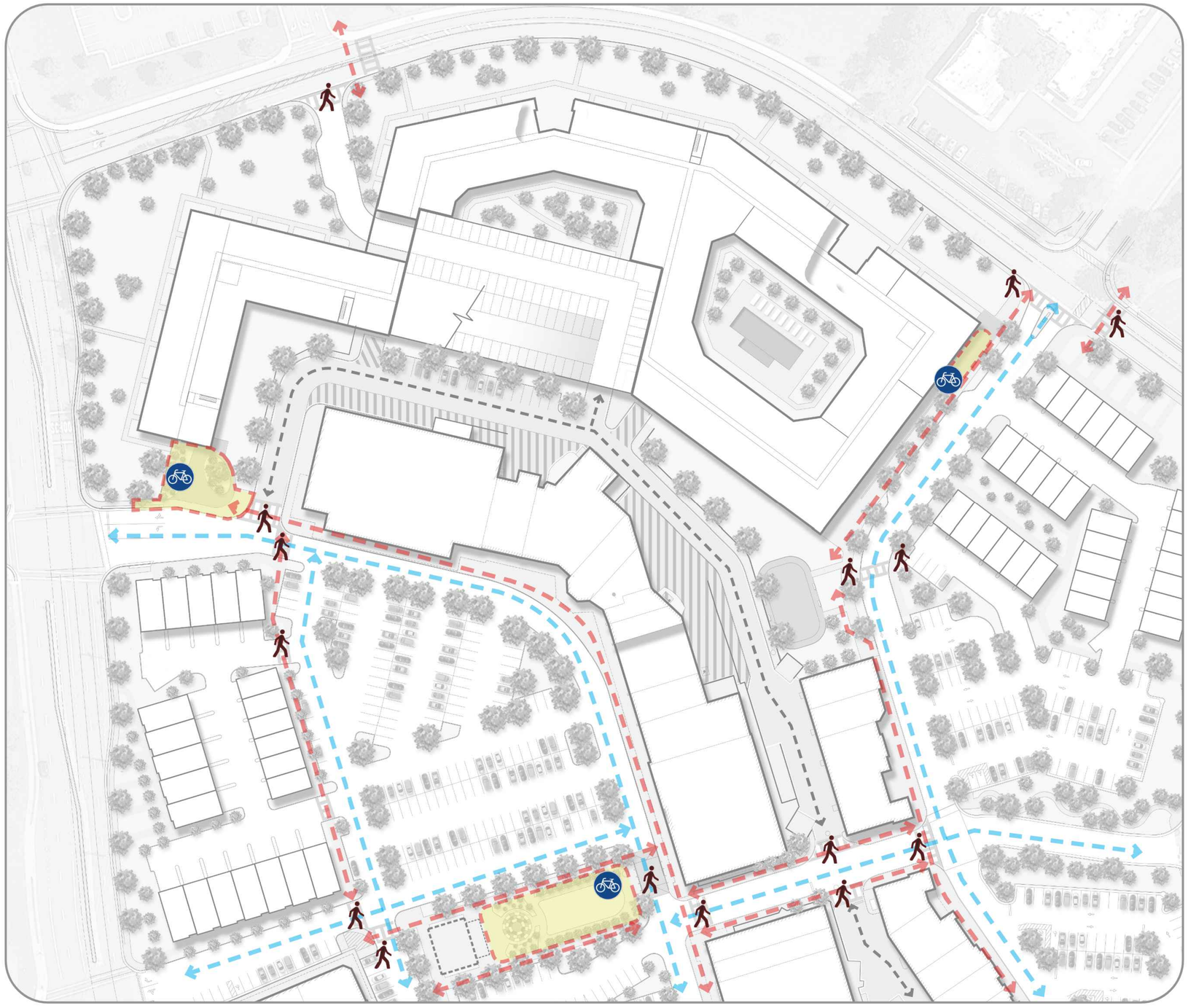

CONCEPTUAL CIRCULATION PLAN

SCALE 1"=50'-0"

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LEGEND

PLAZA / COMMUNITY AREAS

THESE COLORED REGIONS REPRESENT THE PUBLIC PLAZAS IN THE PROJECT ANCHORING BOTH RETAIL AS WELL AS RESIDENTIAL PROGRAMS.

PEDESTRIAN CIRCULATION

THIS DENOTES SOME OF THE MAJOR PEDESTRIAN CIRCULATION ROUTES WITHIN THE CENTER EFFECTIVELY CONNECTING THE NEW RESIDENTIAL PROGRAMS WITH THE EXISTING RETAIL CENTER AND COMMUNITY SPACES/ PLAZAS WITHIN THE PROJECT. CIRCULATION PATHS WILL CONSIST OF MINIMUM 5' WIDTH SIDEWALK AS REQUIRED BY ARTICLE 9-25.1 SUBSECTION G OF THE ZONING CODE.

BICYCLE AND VEHICULAR CIRCULATION

SHARED CIRCULATION CORRIDORS WITHIN THE PROJECT ON CONNECTOR STREETS - EXISTING AND PROPOSED, AS WELL AS PARKING LOTS, ALL CHARACTERISED BY LOW SPEED LIMITS. REDUCED DRIVE WIDTHS AND RAISED CROSSWALKS IN SELECTED AREAS WILL PROVIDE NECESSARY TRAFFIC CALMING AND A DETERRENT TO UNSAFE DRIVING.

SERVICE AND SECONDARY GARAGE CIRCULATION

PRIMARY USE FOR THIS CORRIDOR IS LOADING AND TRASH PICKUP FOR BOTH THE RETAIL AND RESIDENTIAL IN THE PROJECT ALONG WITH SECONDARY GARAGE ACCESS FOR BLOCK 1 - MULTIFAMILY BUILDING.

BIKE PARKING AREAS

BIKE PARKING WILL BE CLUSTERED WITHIN THE CENTRAL, EAST AND WEST PLAZAS FOR USE BY RESIDENTS OR VISITING MEMBERS OF THE COMMUNITY. ADDITIONAL BIKE PARKIING WILL BE DISPERSED ALONG THE RETAIL SIDEWALK FOR USE BY RETAIL CUSTOMERS.

CROSSWALKS

PROPOSED CROSSWALKS PROVIDE ACCESSIBLE MEANS OF CROSSING THE STREET/ALLEYS AS PEDESTRIANS MAKE THEIR WAY BETWEEN THE RESIDENTIAL AND THE RETAIL.

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23

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VIEW OF NEW ENTRANCE ACROSS FROM HASTINGS LANE LOOKING AT BLOCK 1 AND BLOCK 2

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VIEW ALONG BLOCK 1 MULTIFAMILY APARTMENT BUILDING LOOKING TOWARDS BLOCK 3

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VIEW ALONG BLOCK 3 SIDEWALK LOOKING TOWARDS THE EXISTING RETAIL

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FOR

WARRENTON VILLAGE CENTER

PROPOSED DEVELOPMENT

OAK SPRINGS DRIVE
CENTER DISTRICT
TOWN OF WARRENTON, VIRGINIA

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WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
JOHN C. WRIGHT
Lic. No. 046960
5/31/2024
PROFESSIONAL ENGINEER

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26

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AERIAL VIEW OF CENTRAL PLAZA STRETCHING BETWEEN THE RETAIL

mv+a MAY 30, 2024

NOTE: Retail building shown in Central Plaza is for conceptual future development purposes only. No retail building is proposed as part of this SUP.

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27

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AERIAL VIEW OF CENTRAL PLAZA STRETCHING ACROSS THE RETAIL

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EYE LEVEL VIEW OF CENTRAL PLAZA STRETCHING ACROSS THE RETAIL

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EYE LEVEL VIEW FROM CENTRAL PLAZA GREEN LOOKING TOWARDS RETAIL AND RESIDENTIAL

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30

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EYE LEVEL VIEW OF CONNECTION BETWEEN THE RETAIL AND CENTRAL PLAZA

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EYE LEVEL VIEW OF CENTRAL PLAZA AS APPROACHED FROM THE RETAIL

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VIEW FROM INTERSECTION OF BROADVIEW AVENUE AND EXISTING ENTRANCE

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VIEW FROM HASTINGS LANE LOOKING OUT TOWARD OAK SPRINGS

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VIEW FROM EXISTING DRIVE LOOKING OUT TO BROADVIEW AVENUE

mv+a MAY 30, 2024

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VIEW FROM INTERSECTION OF OAK SPRINGS AND BROADVIEW AVENUE

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REVISION 3 - 5/31/2024

WARRENTON VILLAGE CENTER

DESIGN STORY

WARRENTON, VIRGINIA | MAY 31, 2024

NEWCASTLE DEVELOPMENT GROUP

DYNAMIK INTERIORS DYNAMIK DESIG









DESIGN OBJECTIVE

To transform the existing Warrenton Village retail center into a thriving, walkable, mixed-use, community destination with a sense of place that celebrates the character of Warrenton, while introducing a new, fresh, modern aesthetic.





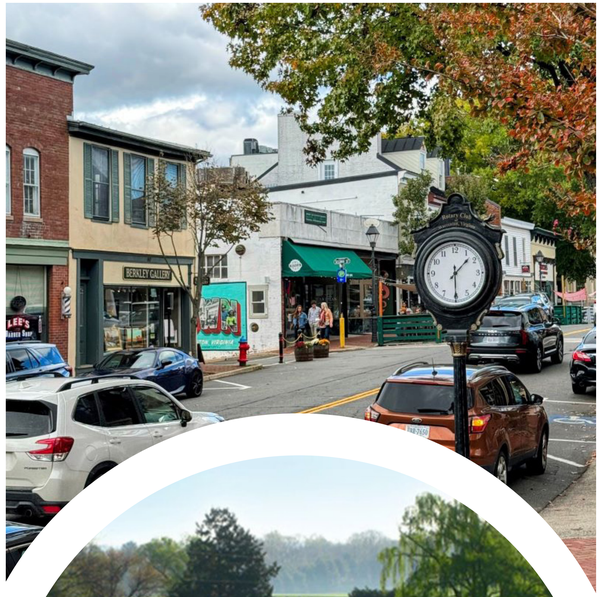


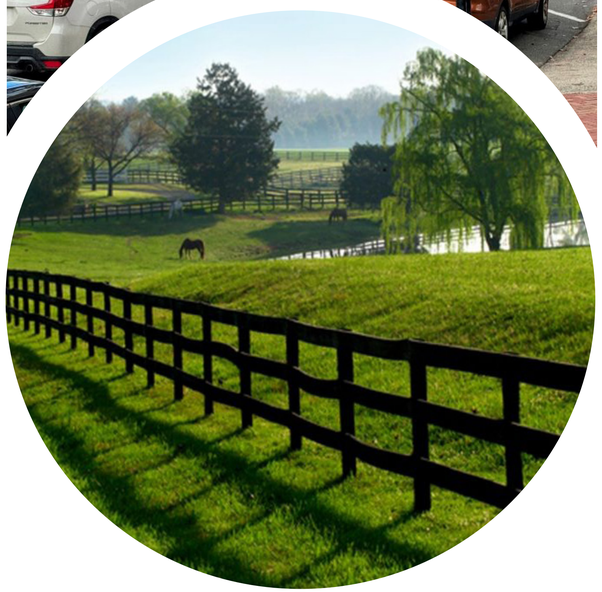


DESIGN IMPLEMENTATION

- Purposeful integration of new buildings to create a Live/Work/Play community in line with the goals of the 2040 Warrenton Plan.
- Revitalization of the existing retail with new public gathering spaces, pedestrian connectivity, reduced vehicles speeds, a new Central Plaza for village events, enhanced green spaces, and activated streetscapes.
- Fusion of a new contemporary aesthetic with the warmth of local and historical design influences.















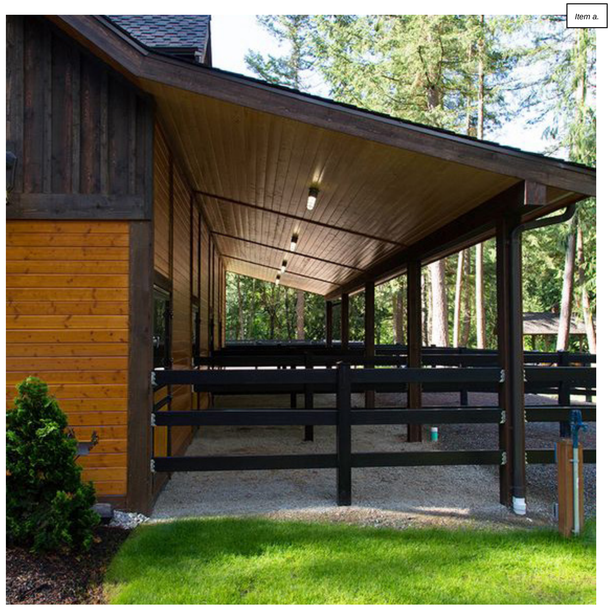
WARRENTON CONTEXT

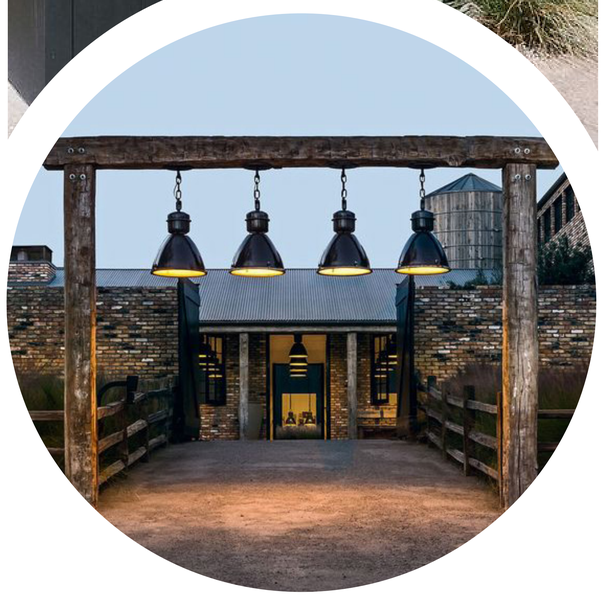
- Historical downtown Warrenton provides inspiration with its textures of brick and stone, dark metal accents and awnings, historical lighting fixtures, traditional lap siding, classic masonry banding and detailing, large windows with dark mullions, and pedestrian friendly streetscapes.
- The greater Warrenton area has deep equine and agricultural industry roots, featuring iconic horse farms and celebrated bucolic landscapes. Inspirations include classic equestrian design features, rich colors and textures, dark metal accents, warm woods, and farmhouse inspired lap siding and stone.





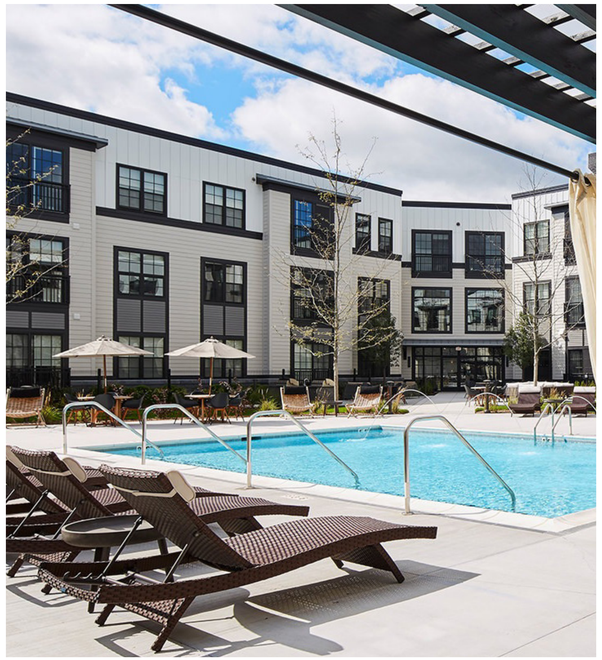












DESIGN APPLICATION

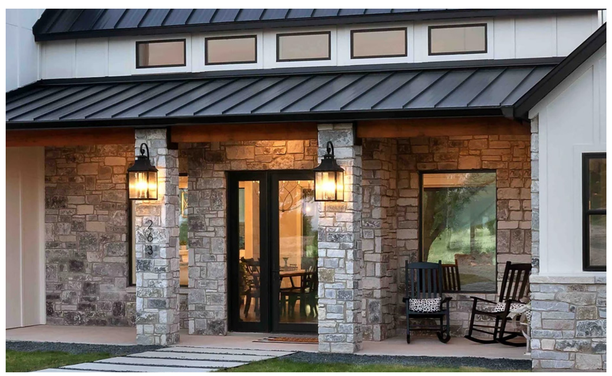
Warrenton's past becomes Warrenton's future. The rich palette of historic materials, textures, and architectural details are reclaimed with a fresh perspective and contemporary context.

RESIDENTIAL DESIGN

The three and four story massing of the residential development is designed to emulate the scale of a walkable town center. A clean, light modern aesthetic is grounded with rich masonry and architectural detailing. The street level is activated with resident access, generous sidewalks and rich landscaping. The articulated façade and generous fenestration break down the scale of the buildings and create visual interest for pedestrians.





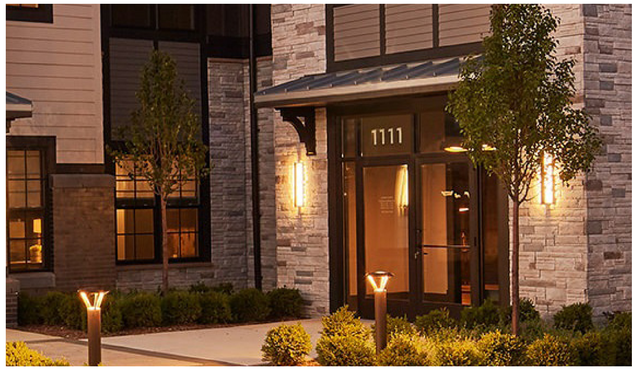




MATERIALS

- Cultured stacked farmstone
- Exterior reveal panel system
- Classic lap siding
- Selective sloped roofs to blend modern and traditional aesthetics
- Corbels
- Wood tones to infuse warmth









ACCENT FEATURES & STREETSCAPE

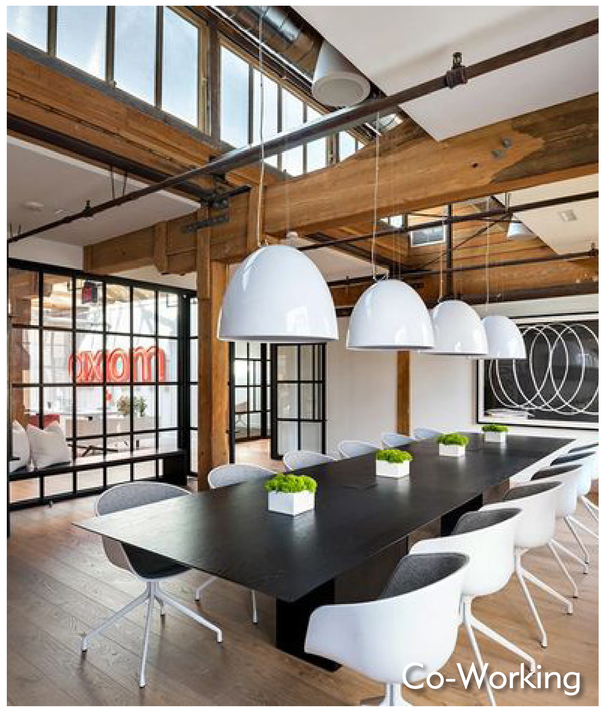
- Metal accents & awnings
- Equestrian inspired light fixtures
- Large windows with dark mullions and lintels
- Architectural detailing to provide visual interest at pedestrian level
- Residential street level entries activating the sidewalk
- Pedestrian Connectivity
- Walkable Environment



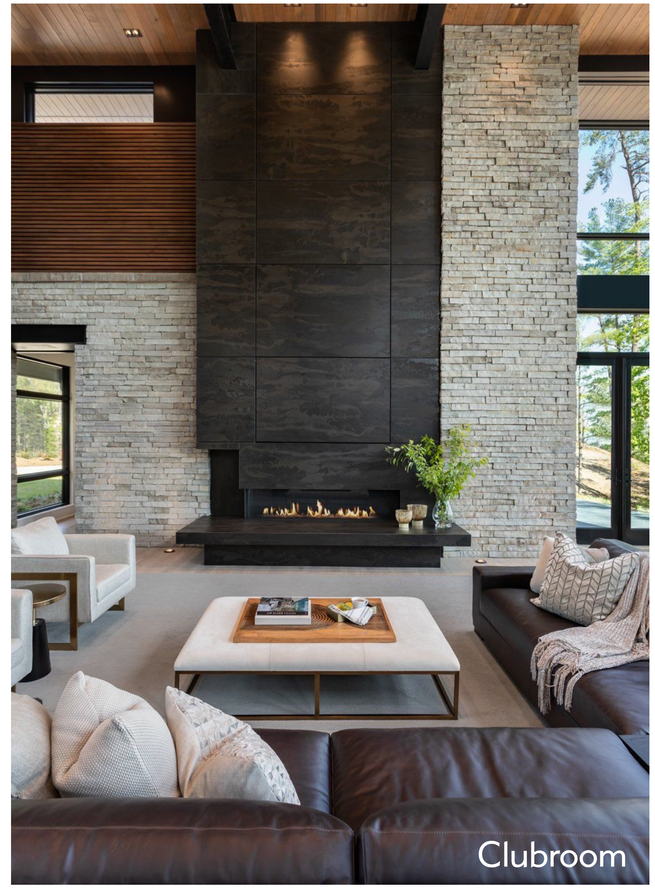




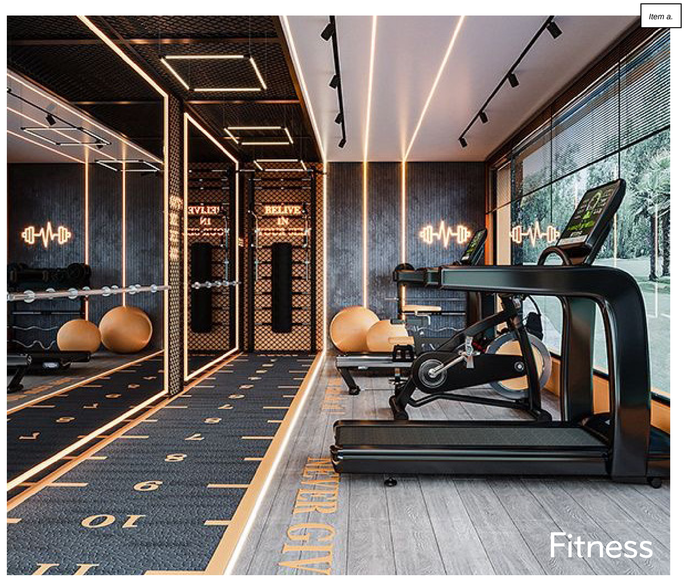

Leasing/Entry



Co-Working


Clubroom


Color Palette



Fitness


Mailroom

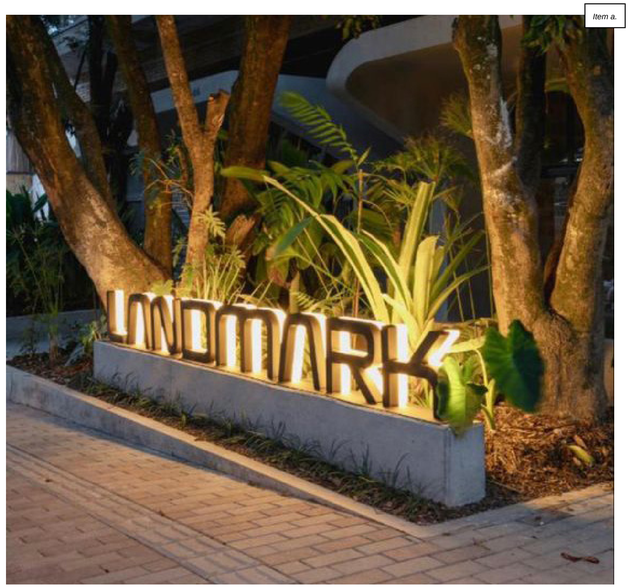
INTERIOR DESIGN CONCEPT

Urban Farmhouse aesthetic blends classic, timeless materials and natural textures with crisp, clean lines, neutral color palettes and light, open spaces. Old is blended with the new to provide spaces that are comfortable and approachable with a nod toward the trends of tomorrow.

















SIGNAGE

Signage and wayfinding are designed to combine key historical elements or notable community themes with clean, sophisticated materials, fonts and applications, bridging the old and the new.

STATEMENT OF JUSTIFICATION
WARRENTON VILLAGE CENTER
SPECIAL USE PERMIT APPLICATION

GPIN 6985-20-7247-000 and GPIN 6984-29-6753-000

Owner: Jefferson Associates L P, Warrenton Center, LLC
Applicant: NewCastle Development Group

May 31, 2024

INTRODUCTION

NewCastle Development Group (hereinafter, the "Applicant") is seeking a Special Use Permit for two parcels, totaling 29.05 acres and identified as GPINs 6984-20-7247-000 and 6984-29-6753-000 (the "Property"), to add residential units into the existing Warrenton Village Center (the "Center") in order to create a new mixed-use, live/work/play community (the "Proposal"). The Proposal seeks to bring a maximum of 386 residential dwellings to the existing commercial center through a variety of dwelling types, including traditional apartment units, 2-over-2s units and townhomes.

The Property is located within the New Town Warrenton District in the Plan Warrenton 2040 Comprehensive Plan, which is described as "a location for signature office/jobs center; with a greater intensity of mixed use and strong live, work and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks green spaces and public gathering areas." This guidance from Plan Warrenton 2040 was the framework upon which the Proposal was contemplated and designed.

The Proposal seeks to create a critical mass of residential units on the vacant land north of Warrenton Village Center via a multifamily apartment building and structured parking garage that will 1) bring much needed rental supply to the Warrenton housing market and 2) introduce a new supply of consumers to support the existing businesses of not only Warrenton Village Center, but of all of Warrenton's established commercial/retail businesses.

The Applicant proposes to offer a wider range of housing types and price points through two additional sections of housing, which will include 2-over-2 and townhome dwelling units. These infill blocks, which will provide much needed "missing middle" housing types, will be utilized to integrate residential dwellings into the existing commercial center, creating a true mixed-use environment.

Lastly, the Applicant proposes a multitude of new improvements to the existing Warrenton Village Center, including public plazas, increased pedestrian walkability, and an enhanced road network, all of which adhere to the goals and initiatives of the New Town Warrenton District's vision for mixed-use centers.

SPECIAL USE PERMIT – MODIFICATIONS/WAIVERS

The Applicant is requesting the following modifications from Town Council, via approval of a Special Use Permit:

1. Increase in Overall Project Density

- Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.
- Waiver Request #1: Increase density to 386 units or 13.28 per acre.
- In lieu of calculating density on a dwelling unit per acre basis, applicant proposes to calculate residential density based on existing commercial square footage (1 dwelling unit per 500 square feet of non-residential space, as allowed under the Mixed-Use Development Option of the Commercial District zoning ordinance)
    - Dwelling units allowed per DU/A calculation:
        - 29.05 acres x 5 DU/A = 145 units
    - Dwelling units allowed per DU/A calculation (assuming affordable housing bonus):
        - 29.05 acres x 10 DU/A = 290 units
    - Dwelling units allowed per DU/GSF calculation:
        - 219,792 GSF / 500 = 439 units
- Proposed dwelling units = 386 units

2. Front Yard Setback Modification along Broadview Avenue
    - Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
    - Waiver Request #2: Decrease minimum setback to 14' along Broadview Avenue.
    - This modification will allow the units to be closer to street, creating a more urban form and character.

3. Side & Rear Yard Setbacks along all internal property lines
    - Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
    - Waiver Request #3: Decrease side/rear yard setbacks to 0'.
    - This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.

4. Landscape Buffers along internal property lines and public ROW
    - Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
    - Waiver Request #4a: Decrease buffer width between commercial and residential uses to 0'.
    - Waiver Request #4b: Decrease rear buffer width for residential uses from public ROW to 14'.
    - This modification will allow the overall development to function as a true mixed-use development by creating an integrated project that is not segmented by buffer strips adjacent to residential and commercial uses. The schematic landscaping plan has identified areas where plantings are proposed.

5. Height Modifications
    - Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.
    - Waiver Request #5: Increase height limit for dwellings as follows:
        - 54' max height for Block 1, Oak Springs Drive Frontage
        - 36' max height for Block 1, Broadview Drive Frontage
        - 36' max height for Block 2

  - 45’ max height for Block 3
- This modification will allow for the concentration of increased density that is envisioned in Warrenton Plan 2040. With these increases in height, the desired step down in height towards adjacent properties is still achieved, relative to Warrenton Plan 2040’s proposed 6-story maximum heights along Lee Highway and 3-story maximum heights on the north side of Oak Springs Drive.

6. Maximum Multifamily Townhome Grouping
- Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
- Waiver Request #6: Increase maximum grouping of townhouse units from six to seven.
- This modification is necessary to provide increased supply of “missing middle” housing type and aligns with several other existing residential communities in Warrenton include grouping of seven or eight units.

7. Other modifications/waivers necessary to implement the proposed development plans.

CREATION OF A MIXED-USE CENTER

The goal of the new Warrenton Village Center is to create a mixed-use community that is representative of the Plan Warrenton 2040’s vision for the New Town Warrenton Character District. The New Town Warrenton District emphasizes highly visible centers with greater intensity of mixed-use and strong live, work and play options. This mix of uses is ideally located around an internal street network and public amenities, such as civic spaces, parks, green space and public gathering areas. This was the guiding directive when designing the Proposal.

The existing Warrenton Village Center is an established commercial center with a wide variety of in-place retail tenants. Due to the existing operations of these long-standing Warrenton businesses, the Proposal does not have the luxury of a “clean slate” from which to design the “quintessential” mixed-use community—impacts to tenants must be minimized, displacement of tenants may not be acceptable and the ability to demise existing structures, if possible, must be done extremely selectively.

So, while the existing commercial structures must remain as is, the Proposal seeks to improve the under-utilized commercial areas with the introduction of public amenities, increased pedestrian circulation and new interesting gathering areas—in this way, the new residential areas will offer a place to live, and the enhanced commercial areas will offer a place to “play.”

The goal of the design is not to create a new apartment community adjacent to an existing commercial center. The goal is to create an integrated village environment where both uses enjoy and thrive off one another and the lines between residential and commercial uses becomes blurred.

The Proposal focuses on two primary components to create a mixed-use community that will have little to no negative impact on existing businesses:

1) introduction of residential dwellings into the existing commercial center to create a live, work, play environment; and

2) installation of new public amenity areas and pedestrian connectivity to tie the different uses together in a cohesive manner.

1) Introduction of Residential Dwellings

The Proposal includes three new residential "blocks." Each block will submit its own Site Development Plan and will meet the general requirements of a "standalone" site plan with respect to open space requirements, parking requirements, landscaping requirements, ADU requirements, etc. While it is not possible for each of the individual blocks to satisfy all the guiding principles of the 2040 Plan, when combined, they will create a cohesive mixed-use center that exhibits all the goals of the New Town Character District. The "Block Sequencing and Required Site Improvements" section later in this Statement of Justification will provide additional detail on how the Applicant proposes to ensure that this comprehensive plan will be realized.

Block 1 (Multi-Family Apartments): located on the vacant land along Oak Springs Drive, between Broadview Avenue and Hastings Lane, this component of the SUP will include a maximum of 320 rental dwellings, comprised of 1-, 2-, and 3-bedroom units, a four-story parking garage and approximately 10,000 square feet of clubhouse and amenity space, including a state-of-the-art fitness facility, work-from-home/co-working spaces, entertainment lounges, cyber and coffee cafes, gathering spaces, and more. The building will also offer two interior courtyards that will include a saltwater pool and resort style pool deck, outdoor kitchens and grilling stations, outdoor game spaces, ample seating and lounging areas, firepits and "brew gardens."

Primary access to the internal, four-story, parking garage will be located on Oak Springs Drive, directly across from the entrance into Highland School. The residential leasing offices and amenity areas will be accessed at the corner of Oak Springs Drive and the new Hastings Lane extension. On-street parallel parking along the Hastings Lane extension will be provided for prospective tenants that are visiting the leasing facilities.

All building frontage facing Broadview Avenue and Branch Drive will be three stories, while building frontage facing Oak Springs Drive will be four stories. All first-floor units along Broadview Avenue, Oak Springs Drive, Branch Drive, and Hastings Lane will feature direct entry access to promote pedestrian walkability.

This block will include the majority of the proposed residential units and will have the greatest impact on bringing much needed housing supply and consumers to Warrenton.

Block 1 Multi-Family Apartment Building Elevation



Block 2 (Multi-Family Townhomes): a maximum of 26 townhome dwelling units are proposed in the northeast corner of the Warrenton Village Center, at the intersection of Oak Springs Drive and Hastings Lane. These will be three story units and feature a two-car garage in each unit and direct pedestrian sidewalk access to all units.

Through its rental townhome product, Block 2 will provide new supply to the highly desirable "missing middle" housing stock.

Block 2 Multi-Family Townhome Elevation



Block 3 (Multi-Family 2-over-2s): a maximum of 34 2-over-2s and 6 townhomes are proposed on the west side of Warrenton Village Center along Broadview Avenue. These buildings will be four stories, with one unit located on the 1st and 2nd floors and a second unit located on the 3rd and 4th floors of each residential "stack." All units will include a one-car garage and direct pedestrian access to first-floor units along Broadview Avenue. The townhomes included in this block will mirror the townhomes found in Block 2 and will face inward in the Center to provide direct residential access into the heart of commercial area.

Block 3 will introduce a new product type to Warrenton in its 2-over-2s and will create true infill into the existing commercial center, better integrating the two uses and promoting walkability between the Central and West Plazas. These units will add additional units to the "missing middle" housing supply.

Block 3 Multi-Family 2-over-2 Elevation



2) Installation of Public Improvements

Central Plaza: the Applicant proposes to create a new Central Plaza at the core of Warrenton Village Center. This public gathering space will include a plaza green with seating and lounging areas for visitors and provide a place for local businesses to hold activities; a splash-pad that will be a major attractor for families with young children and serve as a central landmark for the newly improved center; as well as an area for a potential future retail building that would further activate this public amenity—ownership envisions a coffee or ice cream shop with indoor/outdoor seating that will be a destination for all residents of Warrenton. This plaza will be adorned with street and ornamental trees and planting beds and feature a raised watertable street crossing that will connect the space to the existing retail in a pedestrian safe manner. The new Central Plaza will serve as Warrenton Village Center's vehicular and pedestrian crossroads, a hub that will function as the heart of the Center and is sized, programmed, and planned to allow for community activities as well as everyday use.

East and West Plazas: Smaller public plazas are proposed at the Broadview Avenue entrance and the Hasting Lane entrance into the Warrenton Village Center. These plazas are connecting points celebrating the east and west entrances to the multifamily building and will act as visual links between the residential and commercial areas. These "doorways" into the Center will enhance walkability for the residents by providing easy and direct connection to the retail areas. The plazas will also help transition from public sidewalks to private interior residential lobbies. The 24/7 illuminated interiors of the lobbies will provide visual activation for both plazas and serve as an anchoring use for the open spaces.

The East and West plazas will serve as passive, ceremonial transition zones between the private residential realm and the public retail realm. Their primary intent and use is to connect residents with the rest of the commercial center, while also allowing for a different, less active, and smaller public area for passive recreation.

Dog Park and Picnic Area: a new dog park and seating areas will be accessible to both residents and the general public. The dog park will include a fenced in area for off-leash play, pet water fountains and waste clean up stations. Just outside of the dog area will be picnic table seating areas for pet owners and guests to relax and congregate while their pets play.

Oak Springs Drive Pedestrian Crosswalks: two crosswalks are proposed on Oak Springs Drive—one at Hastings Land and one at the Highland School entrance. These new crosswalks will provide safe points of pedestrian access for people visiting the Center from the north side of Oak Springs Drive.

Completion of Outer Sidewalk Ring: the Proposal seeks to complete a sidewalk ring around the entirety of the Warrenton Village Center. Each residential block will include sidewalks along its outer rim (either along Broadview Avenue, Oak Springs Drive or Branch Drive) to piece together a fully encompassing sidewalk circle.

Additionally, there is currently a large gap in the sidewalk connection along the east side of Broadview Avenue. The Applicant proposes to install a new ~475' section of sidewalk in this area (located behind the Galaxy Strike Bowling Center building). Once completed, this section of sidewalk and the new sidewalks within the residential blocks will complete an outer ring of sidewalks around the entire Warrenton Village Center.

Internal Pedestrian Circulation: residential tenants will benefit from quick and easy access to all the businesses of Warrenton Village Center via new sidewalks, crosswalks and wayfinding markers. All new buildings will be encircled by new sidewalks and will include direct entry access to ground level units (with the exception of those units in Block 1 that will face the rear of the existing commercial building). The addition of the plazas, linked together with internal sidewalks, will serve to better activate and tie together the different uses found within the Center. Finally, new crosswalks are proposed at all primary street crossings. These improvements will not only benefit pedestrian circulation within the site, but will also allow for easier and safer travel for those accessing the site from the outside.

A Conceptual Circulation Plan for pedestrian, vehicular and bicycle traffic can be found on Sheet 23 of the SUP.

Hastings Lane Extension: a new vehicular and pedestrian entrance into the Warrenton Village Center is proposed at the Oak Springs Drive and Hastings Lane intersection. This new entrance will provide a new source of direct ingress/egress into the Center, which will help to facilitate less congestion at the Center's other entrances and result in less traffic on Oak Springs Drive and Branch Drive, as vehicles no longer have to circle around the Center to access one of the existing entrances on Broadview Avenue and Branch Drive.

Oak Spring Preservation: the natural spring from which Oak Springs Drive derives its name is located at the northeast corner of the Center. The Applicant has revised its original site plan in order to preserve this spring and proposes to recondition it into a public amenity, which will include seating areas in a natural and historical environment.

Summary of Improvements, included within each block:

Block 1:

- Multi-family building and parking garage
- Central Plaza
- West Plaza
- East Plaza
- Hastings Lane extension
- Reconfiguration of commercial parking

- Modified Alley, all improvements
- Dog park and picnic area
- Preservation and reconditioning of Oak Spring (natural spring)
- Sidewalks included in Block 1 Improvements – Sheet 4 of SUP
- Two crosswalks across Oaks Springs Drive at Hastings Lane and Highland School entrance

Block 2:
- Townhome dwelling units and parking
- Sidewalks included in Block 2 Improvements – Sheet 5 of SUP
- Restoration of Oak Spring into a natural public amenity

Block 3:
- 2-over-2 dwelling units and parking
- Townhome dwelling units and parking
- Sidewalks included in Block 3 Improvements – Sheet 5 of SUP
- New sidewalk section on east side of Broadview Ave (behind Galaxy Strike Bowling Center building)

ADDITIONAL JUSTIFICATIONS AND PROPOSAL DETAILS

Density

Plan Warrenton 2040 states that the calculation of density on a unit per acre basis can be deficient in a mixed-use environment – "when considering implementation, conventional zoning that separates land uses and measures development intensities by dwelling units per acre (DU/AC) is not compatible with a vision of mixed-use, walkable neighborhoods with a range of housing types" and "if the density requirements for a zoning district are revised accordingly, the chances are high that a typical multi-family building will be built." It recognizes that using DU/AC as a density measurement often gives a false perception of increased density with housing types that are lower in square footage and are stacked vertically, such as the apartments and "2-over-2" units included in the Proposal. To eliminate the false sense of increased density given the proposed housing types, this submittal proposes to utilize an alternative density calculation method that is included in Article 9-25.1.B of the Zoning Ordinance.

Per the Mixed-Use Development Option in Article 9-25.1.B of the Zoning Ordinance, which stipulates that a mixed-use property can be approved for up to one dwelling unit per 500 gross square feet (GSF) of non-residential floor space, the Property could be permitted to have up to 439 units with approval of an SUP, given the proposed 219,792 gross square feet of non-residential floor space (219,792 GSF / 500 GSF = 439 units).

The Warrenton Village Center proposes a maximum of 386 residential dwellings, paired with 219,792 square feet of non-residential uses. Therefore, while the Applicant is requesting a modification for increased density, the request is 53 units less than the maximum amount that can be approved via an SUP.

Plan Warrenton 2040 encourages "setting district standards based on form rather than density" to "achieve the middle-range housing types desired." Accordingly, this proposal prioritizes site design and a mix of housing types over a strict adherence to underlying density requirements. This enhanced site design will mitigate any effects of the additional density, with an emphasis on

walkability, a variety of housing types, and the integration of multiple uses within a single destination location.

Lastly, the Economic and Fiscal Resilience goals of the Plan Warrenton 2040 call for "a range of housing types and housing assistance programs for employees to live in Warrenton." This proposal accomplishes this by including affordable housing and a range of housing types that will be attractive to current Warrenton residents, as well as potential employers looking to bring new business and employees to Warrenton. This proposal supports Plan Warrenton 2040's goal to "promote Character Districts as the place to accommodate a range of housing typologies" by proposing a variety of housing types, including multi-family, 2-over-2s, and townhomes. This new stock of residential units and new housing types will bolster a housing supply that is severely underserved and sorely needed within the Town.

The Applicant's proposal meets and advances nearly all of the housing goals stated in the Plan Warrenton 2040. Additionally, it promotes consolidation of a high amount of density into an infill project, in lieu of sprawl development that is detrimental to the area's rural preservation.

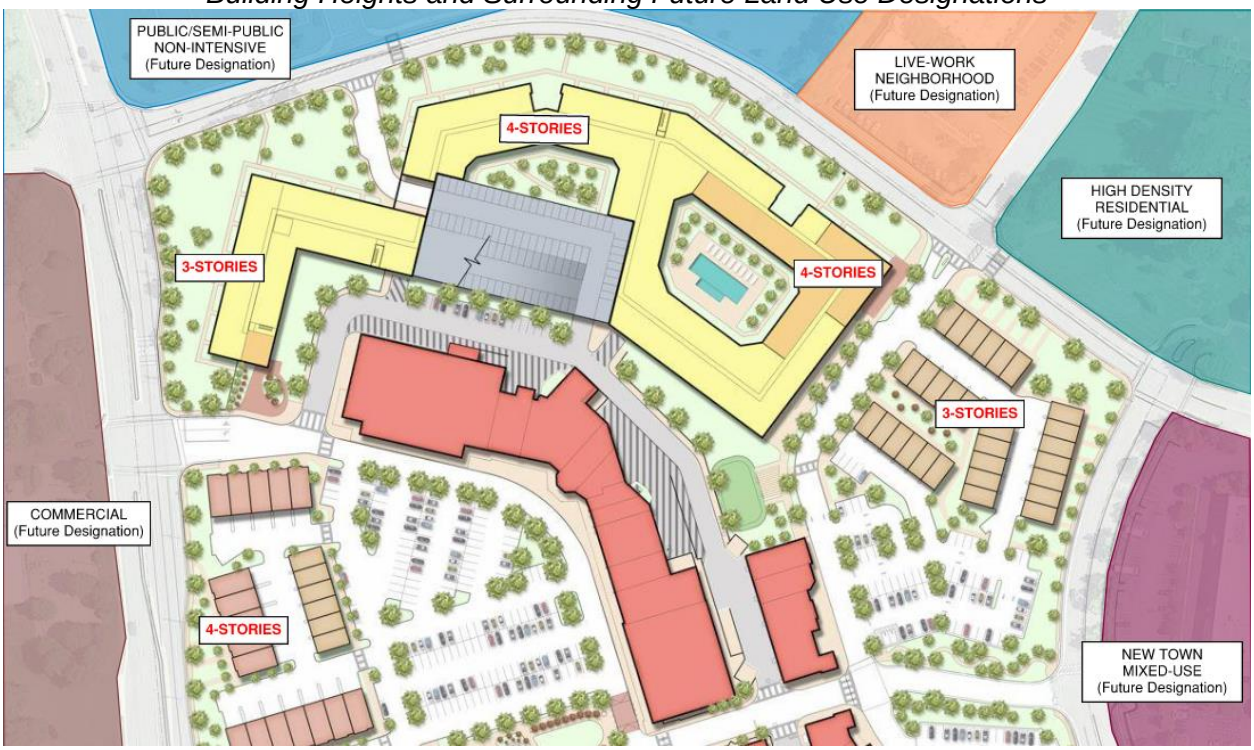
Height

The New Town Character District uses a form-based transect approach to development, which defines form with greater maximum height towards Lee Highway and the center of the district, with a gradual step down in scale towards Oak Springs Drive, where the Property is located. Since the Property is in the Transition Zone, building heights of one-to-three stories or 35' are recommended.

Applicant is seeking a modification for a fourth story along Oak Springs Drive in Block 1, which is one story greater than the three recommended in the Transition Zone. Since Plan Warrenton 2040 envisions developments along Lee Highway and east of Broadview Avenue to be up to six stories, the Property would still maintain a step down in scale towards Oak Springs Drive at four stories. Therefore, the requested height modification is still in conformance with the goal of Plan Warrenton 2040, which is to step down in height towards residential zones.

The goal of the height recommendations of Plan Warrenton 2040 is to step down towards residential zones. The Proposal achieves this goal by locating its three-story sections in the northwest and northeast corners of the Center, nearest to current and future residential uses—most notably, those neighborhoods located on the west side of Broadview Avenue and the 3-story townhome communities located to the northeast across Oaks Springs Drive—and increasing heights in areas that are adjacent to existing commercial and other non-residential uses.

Building Heights and Surrounding Future Land Use Designations



Inclusion of four-story buildings along Oak Springs Drive will provide a more gradual step down from the six stories allowed along Lee Highway to the three-stories allowed in the High-Density Residential areas shown on the Future Land Use Map on the north side of Oak Springs Drive. This will create a better design aesthetic than the stark contrast of a dramatic drop from six stories down to three stories. From a visual perspective along Oak Springs Drive, this modification would allow for three-story buildings on the north side of the street, four-story buildings on the south side of the street in the Transition Zone, then escalating up to six-story buildings along Lee Highway—a gradual and appropriate escalation in heights.

It is noteworthy that Transition Zones are intended to provide appropriate step downs to adjacent single-family residential neighborhoods, which are typically two-story—hence the recommendation of 3-story maximum heights. However, in the case of the Property, it is in a unique Transition Zone that does not adjoin any typical single-family residential. Instead, it is surrounded by commercial, non-residential, and 3- and 4-story residential uses. Therefore, the 3-story maximum is not necessary to provide the appropriate step down to single-family residential, and the proposed 4-story maximum adequately achieves the step down to the adjacent commercial, non-residential and 3- and 4-story residential uses—see adjacent building in illustration below.

Surrounding Properties – Existing Building Uses & Heights



Another transition goal of Plan Warrenton 2040 is that "the neighborhood edge provides the means of transition from the Character District to adjoining properties." Four-story apartments are an appropriate transition to the High-Density Residential areas located to the north, which will be similar in character and use. High-Density Residential will allow up to 12 units per acre, which is in line with the DU/AC proposed at Warrenton Village Center (13.28 DU/AC).

Further, the Future Land Use Plan's Character District Summaries calls for "greater intensity of mixed-use and strong live, work, and play options" in the New Town Warrenton District and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this character district.

Finally, one of the ten guiding principles for the character districts is to place parking behind buildings and away from street frontages. To accomplish this goal, the Applicant has proposed an interior structured parking garage that will not be visible from surrounding streets. Increasing building heights in select areas is the only way to create the necessary density needed to facilitate this improved parking condition and to conceal it behind building facades.

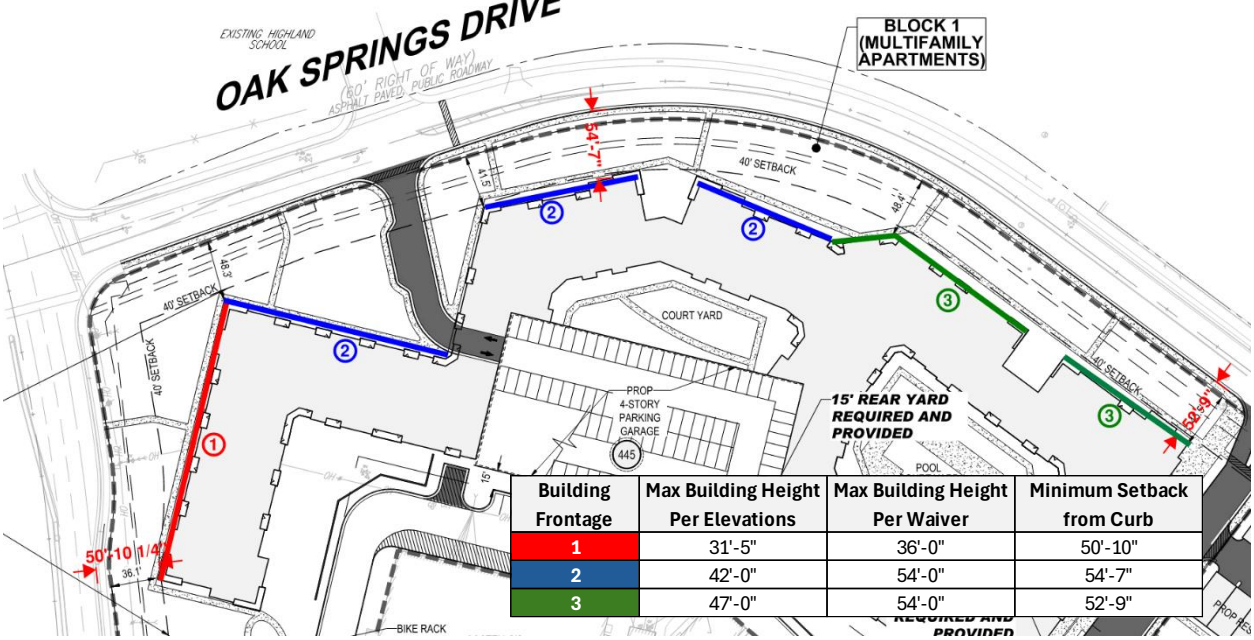
Building Heights and Setbacks

Article 2-20 allows for building height limits to increase above 35' if the corresponding setback increases by an equal amount. The intent of offering a mechanism by which an applicant can increase building heights if corresponding building setbacks are simultaneously and equally increased, is to ensure that an appropriate balance or ratio of height to depth is maintained. The general rule of thumb in land planning is that for every one foot of building height, there should be a minimum of one foot of corresponding setback. Applicant has satisfied this standard by providing appropriately sized setbacks that correspond with the proposed increases in building height limits.

The below illustration examines the three building frontages of the Block 1 apartment building. Anticipated building heights are calculated using the average ground surface elevation across a building's frontage in relation to the highest point of a flat roof (parapets have not been included

in building heights, per IBC code definition). For each building frontage, the corresponding minimum setback from the back of street curb has been provided. Along all three frontages, building setbacks are equal to or greater than the anticipated building height, confirming that the appropriate standard has been achieved.

Block 1 Building Heights and Corresponding Setbacks



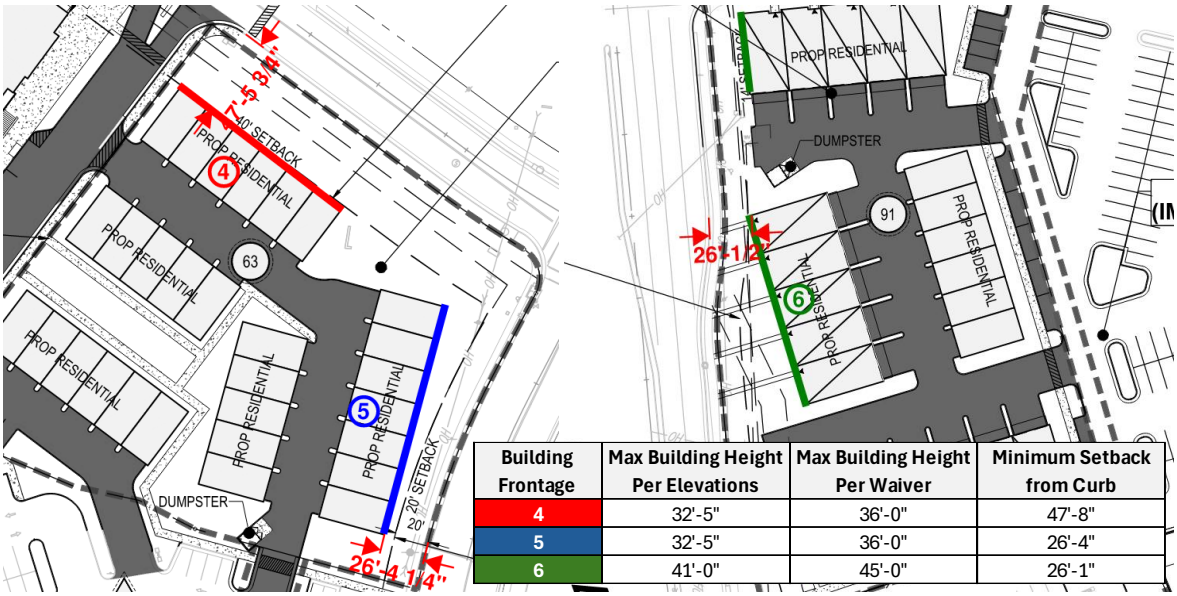
Building Frontage	Max Building Height Per Elevations	Max Building Height Per Waiver	Minimum Setback from Curb
1	31'-5"	36'-0"	50'-10"
2	42'-0"	54'-0"	54'-7"
3	47'-0"	54'-0"	52'-9"

Note—Applicant acknowledges that setbacks are defined by the Town from property lines, however, the point of this exercise is to illustrate that proper height to setback standards have been provided, which apply to the public's viewpoint (i.e. traveling the street) and not an intangible property line. Applicant is therefore requesting a height waiver because it acknowledges that adequate setbacks from property lines have not been provided.

In Block 2, proper anticipated building height to minimum setbacks ratios are provided along Frontage #4 (Oak Springs Drive), but not along Frontage #5 (Branch Drive). The Applicant feels that this is appropriate given the internal nature of Branch Drive as a "cut through" drive within the Warrenton Village Center. Branch Drive serves the Center more as an internal drive than as a primary thoroughfare, in which case it is appropriate to push buildings up onto internal street frontages.

Block 3 (Frontage #6) provides setbacks that are below the 1:1 ratio, as this area of the New Town Character District calls for taller building heights, up to 6 stories. A waiver is already being requested at this location to reduce setbacks to 14'.

Block 2 and Block 3 Building Heights and Corresponding Setbacks



Building Frontage	Max Building Height Per Elevations	Max Building Height Per Waiver	Minimum Setback from Curb
4	32'-5"	36'-0"	47'-8"
5	32'-5"	36'-0"	26'-4"
6	41'-0"	45'-0"	26'-1"

Below is the compiled list of anticipated building heights along street frontages, the maximum height allowed per the Applicant's waiver request, and the corresponding setback from back of curb. Slight height increases have been added into the maximum height limits allowed per the waiver to provide buffer for average ground surface grade changes that may occur during Site Development Plan.

Building Frontage	Location	Block	Max Building Height Per Elevations	Max Building Height Per Waiver	Minimum Setback from Curb
1	Broadview Avenue	1	31'-5"	36'-0"	50'-10"
2	Oak Springs Drive	1	42'-0"	54'-0"	54'-7"
3	Oak Springs Drive	1	47'-0"	54'-0"	52'-9"
4	Oak Springs Drive	2	32'-5"	36'-0"	47'-8"
5	Branch Drive	2	32'-5"	36'-0"	26'-4"
6	Broadview Avenue	3	41'-0"	45'-0"	26'-1"

See Elevation Sheets 11-13B of SUP for a depiction of these measurements.

Affordable Housing

To support the need for affordable housing within the Town of Warrenton, the Applicant proposes that for a minimum affordability period of twenty-five years from the issuance of this Special Use Permit (the "Affordability Period), the following units shall be designated as affordable low-income restricted units (the "Affordable Dwelling Units or ADUs"):

- A minimum of 10% of total dwelling units within each of the three blocks (Block 1, Block 2 and Block 3) will be reserved as 80% AMI ADUs
- An additional ten (10) dwelling units in Block 1 will be reserved as 70% AMI ADUs
- An additional five (5) dwelling units in Block 1 will be reserved as 60% AMI ADUs

Within Block 1, allocation of the Affordable Dwelling Units between 1-, 2- and 3-bedroom units will be at the discretion of the Applicant, so long as the minimum number of units defined above

are maintained as Affordable Dwelling Units. Within Block 2 and Block 3, wherein all units are 3-bedrooms, all ADUs will be 3-bedrooms. The ADUs shall be similar to the market rate units in architectural design, fixture/appliance selections and unit size. No more than three ADU units will be positioned adjacent to one another at any given time.

"Qualified Parties" who will be eligible to rent or purchase one of the ADUs, are defined as:

> For the purposes of qualifying for the lease of an affordable rental ADU a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 60%, 70%, or 80% (dependent on the specific ADU) of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for Fauquier County as published by the Virginia Housing & Development Authority (VHDA), at the time the rental application is opened for such Qualified Party ("AMI").
>
> For the purposes of determining the rent limits for all ADUs, monthly rental rate limits shall be equal to those published by VHDA for 0-, 1-, 2-, and 3-bedroom units and corresponding 60%, 70% and 80% AMIs, with no utility allowances.
>
> For the purposes of qualifying for the purchase of an ADU in Block 2 or Block 3, a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 80% of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for a 4-person household in Fauquier County as published by VHDA, at the time the purchase contract is executed for such Qualified Party.
>
> For purposes of determining the purchase price of any for-sale ADU, that price will not exceed the amount at which the monthly mortgage payment for such unit exceeds the monthly rent limits for 3-bedroom units and 80% AMI income, as published by VHDA. Qualifying Parties must provide a market rate loan commitment prior to closing in order to calculate the proposed mortgage payment.
>
> Persons eligible for assistance under the following state or federal programs:
>
> a. Virginia Housing Development Authority

The ADU status shall be set forth in a deed of restrictive covenants recorded against the Property and shall continue to bind the minimum ADU requirement within each block to the Property for a period of twenty-five years from the issuance of this Special Use Permit; provided, however, that for rental units, the Applicant may recalculate the rental rates for new leases or renewals in accordance with the then current rates published by VHDA.

The Applicant shall establish in a deed of restrictive covenants a program for the administration of this ADU program according to the requirements of these conditions. The Applicant (or Owners Associations with respect to any purchase units if the Applicant is no longer the Declarant) shall make each ADU available for a period of not less than 90 days for rental units and 180 days for purchase units, following the issuance of a certificate of occupancy for each unit.

The Applicant shall designate on the Construction Drawings submitted for building permit approval which units will be the initial ADUs; however, the units that are selected as the initial rental ADU units are not required to remain as the designated rental ADUs for the entirety of the Affordability Period. The Applicant will have the authority to re-designated the rental ADUs from time to time based on leases and vacancies. The Applicant will maintain a building plan set at

the leasing office located in the Block 1 at all times that shows which units are currently designated as rental ADUs.

The documents creating the ADU program shall be reviewed and approved by the Town Attorney prior to their recordation in the Land Records.

ADUs will first be made available to the following persons: those residing or working in the Town of Warrenton or Fauquier County; Town of Warrenton or Fauquier County teachers; Town of Warrenton or Fauquier County first responders; veterans and enlisted members of the United States Armed Forces. The Applicant shall contact the appropriate local Social Service and/or Housing Authority offices for identification and placement of these potential residents.

The community's Property Management Team shall make annual reports to the Zoning Administrator as to the number, type and location of units hereunder that shall have been rented as ADUs and shall verify that they have been rented to Qualified Parties.

These obligations are described in greater detail in the proposed Conditions of Approval.

Condo Sale of Block 2 and Block 3

All dwelling units in all three blocks are intended to be for rent, however, Applicant will maintain the ability to sell the entirety of Block 2 (Multi-Family Townhomes) and/or the entirety of Block 3 (Multi-Family 2-over-2s) as Condos. The Applicant agrees to sell all or none of the units within Block 2 or Block 3, so as to prohibit a mix of for rent and for sale units in the same block.

All conditions of the SUP will continue to be enforced in a block sale scenario through the Declarations of Restrictive Covenants that the Applicant will record and encumber the Block 2 and/or Block 3 parcels. In a block sale scenario, Homeowner Associations will be established to maintain all conditions of the SUP and will own the block parcel, while individual condo owners will own the condo dwelling units.

In a sale scenario, residents/owners of the condos will not be tenants of the apartment community and will not have access to the rental amenities located within Block 1.

In a block sale scenario, 10% of the units within the sold block will be required to be sold as ADUs, in accordance with the language outlined in the SUP's Affordable Housing Conditions of Approval.

Architecture

The Conditions of Approval includes language that the final design of all buildings shall be in general conformance with the materials included in this SUP submittal.

Two options for exterior elevations have been provided to Planning Commission, who will select which option is approved for Town Council review. Elevations for the two options can be found on SUP Sheets 11 – 15B.

A list of prohibited materials is also included in the Conditions of Approval.

One noteworthy architectural feature that has been added to the Block 1 apartment building design is the inclusion of two "building insets or step backs" along Oak Springs Drive. These

features have been added to lengthy sections of the building in order to break up the larger massing areas and to create the sense of agglomeration, as opposed to a single frontage.

Building "Insets" Added to Break Up Massing on Oak Springs Drive



Garage Screening

A structured parking garage is proposed in Block 1. Three of the garage's four sides will be concealed within the apartment building and not visible from the exterior. The south facing façade, while exposed, is not anticipated to be easily viewed from ground level, given its position behind the existing Warrenton Village Center commercial buildings. To mitigate concerns that may remain regarding its visibility, the Applicant will install a screen on the southern facing façade of the garage to minimize its visual impact. A concept of this screening is provided below.

Conceptual Garage Screening Design on South Facing Façade



Block Sequencing and Required Site Improvements

Applicant can develop the blocks in any order. Each block will have its own independent Site Development Plan, separately submitted and approved by the Town of Warrenton.

All improvements included within each individual block are shown on SUP Sheet 4 and Sheet 5.

To ensure that site improvements are completed in a timely manner along with the residential buildings, Applicant agrees that the Town of Warrenton will withhold Certificates of Occupancy (COs) in accordance with the following schedule:

- Block 1: the 215th CO within Block 1 will not be issued until such time as all Block 1 site improvements have been substantially completed;
- Block 2: the 19th CO within Block 2 will not be issued until such time as all Block 2 site improvements have been substantially completed;
- Block 3: the 33rd CO within Block 3 will not be issued until such time as all Block 3 site improvements have been substantially completed.

It is anticipated, but not required, that Block 1 (Multi-family Apartment Building) will commence construction first. Block 2 (Multi-Family Townhomes) is anticipated to commence simultaneously with Block 1 or shortly after, depending on market conditions. Block 3 (Multi-Family 2-over-2s) will commence last, due to in-place tenants in the current retail building at that location (Summit Community Bank). It is anticipated that Block 3 will commence upon lease expiration of current retail tenant, but exact timing is unknown.

Open Space

Each individual residential block/parcel, as well as the residual retail parcel, will individually satisfy the 10% open space requirement.

Applicant will construct all open spaces in general conformance with the renderings and materials included in the SUP and inclusive of the "New Improvements" listed on Sheet 6 "Open Space Plan."

Most Notably:

- Open Space A in Block 1 will include the West Plaza, inclusive of a hardscape residential plaza with bench seating and a bike rack;
- Open Space D in Retail Block will include a fenced in dog play area, picnic table seating and a bike rack;
- Open Space E in Retail Block will include the Central Plaza, inclusive of a lawn area, splash-pad, bench seating, two bike racks, and future commercial pad.

Site Conditions

The proposed development consists of two parcels totaling approximately 29.05 acres. Approximately 22.59 acres are the existing shopping center known as Warrenton Village Center and the remaining 6.46 acres are a vacant semi-wooded parcel with road frontage on Broadview Avenue and Oak Springs Drive. The topography of the site ranges in elevation from 550' at the northwest corner of the site at Broadview Avenue to an elevation of 505' along the eastern property line at Branch Avenue. Site soils consist of various loams such as Rohrersville, Middleburg, Fauquier Silt, Glenelg and Elioak. A detailed tree survey will be provided at the time of Site Development Plan.

The Property is surrounded by a mix of commercial, education and residential uses:

- To the north, across Oak Springs Drive, is Highland School, Brookside Rehab and Nursing Center and the Cedars of Warrenton town home community;
- To the east, across Branch Drive, is Safeway and other commercial businesses included within Warrenton Village Center;

- To the south is Warrenton Village Center;
- To the west, across Broadview Avenue, are standalone commercial and office uses and single family neighborhoods.

Construction Impacts

Construction limits of disturbance will be limited to within the Property. No neighboring or adjoining properties will be included within the limits of disturbance. All construction parking will be contained within the Property and/or specified locations within Warrenton Village Center. No offsite impacts or storage will be required. If substantial rock is discovered at the Property, blasting may be required and permitted in accordance with Town of Warrenton requirements.

Per Gorove Slade's Traffic Impact Analysis, turn lanes are not warranted at the proposed access points on Oak Springs Drive, therefore, the only impact to the public right of way will be the two new connections to Oak Springs Drive and the two new crosswalks on Oak Springs Drive.

Construction Timelines

Block 1 (Multi-family Apartments): Construction will take approximately 24 to 28 months.

Site Work Duration: 6 to 8 months
Vertical Construction Commencement: ~ Month 6
Vertical Construction Duration: 18 to 20 months
Clubhouse/Leasing Delivery: ~ Month 20
First Units Available: ~ Month 20
Construction Completion: ~ Month 26

Block 2 (Multi-family Townhomes): Construction will take approximately 16 months.

Site Work Duration: 3 to 4 months
Vertical Construction Commencement: ~ Month 4
Vertical Construction Duration: 8 to 12 months
First Units Available: ~ Month 12
Construction Completion: ~ Month 16

Block 3 (Multi-family 2-over-2s): Construction will take approximately 16 months.

Site Work Duration: 3 to 4 months
Vertical Construction Commencement: ~ Month 4
Vertical Construction Duration: 8 to 12 months
First Units Available: ~ Month 12
Construction Completion: ~ Month 16

Construction schedules included herein are estimates and subject to change based on potential unanticipated delays, such as those caused by severe weather, material shortages, etc.

Economic Impact

A Fiscal Impact Analysis by S. Patz & Associates, Inc. determined that the Proposal would result in a $46,100 annual surplus for the Town of Warrenton, plus the additional benefit of much needed housing supply.

The full report has been submitted as part of the SUP application.

Traffic Impact Analysis

New access to the Property will be provided via a parking garage entry with direct access to Oak Springs Drive (Town Route 3), a fourth-leg to the existing full-movement intersection of Oak Springs Road at Hastings Lane, and via the existing shopping center accesses to the south.

Based on the capacity and queueing analysis results, the proposed Warrenton Village Center will not have a substantial impact on the surrounding transportation and roadway network. No improvements are warranted or recommended to mitigate traffic concerns created by the Proposal.

It is anticipated that the peak activity times for the proposed residential units would have only a short overlap with the Highland School peak arrival and dismissal times. Based on existing traffic counts, the school driveway on Oak Springs Drive sees most activity after 7:45 AM and has very little traffic after 4:30 PM. Typical peak times for multi-family residences are 7:00-8:00 AM and 5:00-6:00 PM, according to the Institute of Transportation Engineers. Similarly, the Traffic Impact Study prepared for the site indicates that with both Highland School traffic and new trips from the residential units, acceptable traffic operations would be maintained at the shared entrance location during all times of day.
To help mitigate potential traffic concerns during Highland School's peak AM and PM hours, the Applicant proposes to install signage and lighting at the Primary Garage Entrance to encourage residents to use the Secondary Garage Entrance at those times—during Highland School's peak hours, a red light will turn on at the interior exit to the garage's Oak Springs Drive access point with signage saying "Highland School Peak Traffic Hours – Recommend Using Secondary Exit" (or something similar).

The full report on transportation impacts can be found in the Traffic Impact Analysis by Gorove Slade that has been submitted as part of this SUP application.

New Amenities for Public Use

In addition to the extensive package of amenities that will be offered to tenants within the Block 1 multi-family apartment building, the Proposal also includes a variety of new improvements that will be available to and benefit the general public:

- Improved walkability through an enhanced sidewalk and crosswalk network within the Center will make for a more efficient shopping experience.
- New and improved crosswalks on Oak Springs Drive at Hastings Lane and at the Highland School entrance will create easier and safer points of pedestrian access to the Center.
- Traffic slowing measures will create a safer walking environment.
- The Central Plaza will provide a new destination family attraction for residents of Warrenton with its splash-pad, activity area and future eatery.
- The Dog Park will offer a new off-leash area for pets to play, while owners can relax nearby on benches and picnic tables.
- Restoration of Oak Spring along with improved seating areas.

Impact on Community Facilities

Stormwater Management will include, but not be limited to both structural and non-structural best management practices for managing stormwater runoff. This could include underground stormwater facilities, bio-retention areas and rain gardens.

The Property will connect to public water and sewer. The Town of Warrenton Department of Public Works and Utilities has utilized a calculation of 300 gallons per day per unit and determined that there are no concerns with providing adequate capacity for the Proposal.

The Property will rely on Town Services such as fire, rescue, and police services.

Impact on Schools

School age children residing at the proposed community would attend the following public schools:

Elementary:	Bradley
Middle School:	Taylor/Warrenton
High School:	Fauquier

Per existing and projected enrollment data provided by Fauquier County Public Schools, the max capacity and projected enrollments of these schools are shown in the table below. Based on the available data, an increase of 225 elementary students, 244 middle school students and 464 high school students would be required to meet the capacity at any of these schools over the next five years.

Available Capacity at District Public Schools

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year*						
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year*						
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year*						
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

Fauquier County Public Schools uses the following calculation to estimate student generation from various housing types:

- Single Family Detached Dwelling: 0.72 students per household
- Single Family Attached Dwelling: 0.45 students per household
- Multi-Family Apartment Dwelling: 0.20 students per household

Fauquier's methodology then allocated students as follows:

- 52% to elementary school
- 22% to middle school
- 26% to high school

Based on the student generation calculation used by Fauquier County Public Schools, at full buildout, Warrenton Village Center is projected to generate the following students:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

With allocations per school as follows:

- 52% to Bradley = 49 students
- 22% to Taylor/Warrenton = 21 students
- 26% to FHS = 24 students

The chart below shows the projected students generated from Warrenton Village Center versus the minimum available capacity at those schools over the next five years.

School	Min. Capacity	New Students	Remaining Capacity
Bradley	225	49	176
Taylor/Warrenton	243	21	222
FHS	464	24	440

Topography

To address grade changes of approximately 45' from west to east across the site and approximately 10' from south to north, the architect and engineering teams have utilized different grade mitigation methods such as stepped buildings, introduction of "basement" units, small retaining walls and adding elevated stoops with sidewalk access.

Below is a building elevation to help illustrate some of these strategies—this elevation is taken from the new Hastings Lane extension, looking west at the proposed multi-family building.

Profile Illustrating the "Stepping" of the Apartment Building



In Section A, at the corner of Oak Springs and Branch Drive, the Property's elevation is at its lowest point. The leasing offices and amenity areas have been located at this corner and the finished floor elevation of the building has been dropped to mitigate the lower elevations and provide direct on-grade access at that point. These sections will also benefit from increased ceiling heights created from the "sunken" finished floor elevation.

In Section B, as the site's elevation rises, residential units will be elevated above the street level, with access to those units provided by a secondary sidewalk that sits on top of a section of masonry retaining wall. One "public" sidewalk will be placed adjacent to the street and run with the slope and a secondary "private" sidewalk will be placed adjacent to the building in an elevated, level position. The elevated residential units will have direct access to the raised secondary sidewalk, which will also create increased privacy for those ground floor residents. See image below for illustration of this concept.

View of Section B Showing "Double Sidewalk" Configuration



In Section C, the finished floor elevation of the building is on-grade at street level and no grade mitigation is required.

In Section D, where there is a steep increase in elevation, the building will step from four-stories to three-stories, utilizing a retaining wall hidden within the building's foundation to mitigate the significant grade change.

Through methods such as these around the Property, the elevation changes across the site will be mitigated in subtle and attractive ways that enhance the aesthetic of the building and avoid large and potentially unsightly retaining walls.

Geotech

A geotechnical report will be completed at the time of Site Development Plan. Results of the study will be incorporated into the certified structural design and approved during the building permit review process.

Block 2 & Block 3 Mail

Block 2 and Block 3 will require cluster mailboxes. The mailbox locations and adequate temporary parking (delivery/pickup) will be approved at Site Development Plan.

Road & Infrastructure Maintenance

The Warrenton Village Center will be owned and maintained by Jefferson Associates L P, Warrenton Center, LLC and/or affiliated entities. These entities will be responsible for the continued maintenance and cleaning of all existing and proposed improvements, including but not limited to residential buildings, private roads, sidewalks, stormwater facilities, parking areas, plazas and open space, as well as continued maintenance of landscaping, including mowing, weeding, mulching and snow removal.

Modified Alley – Improvements, Vehicular Access & Loading, and Screening

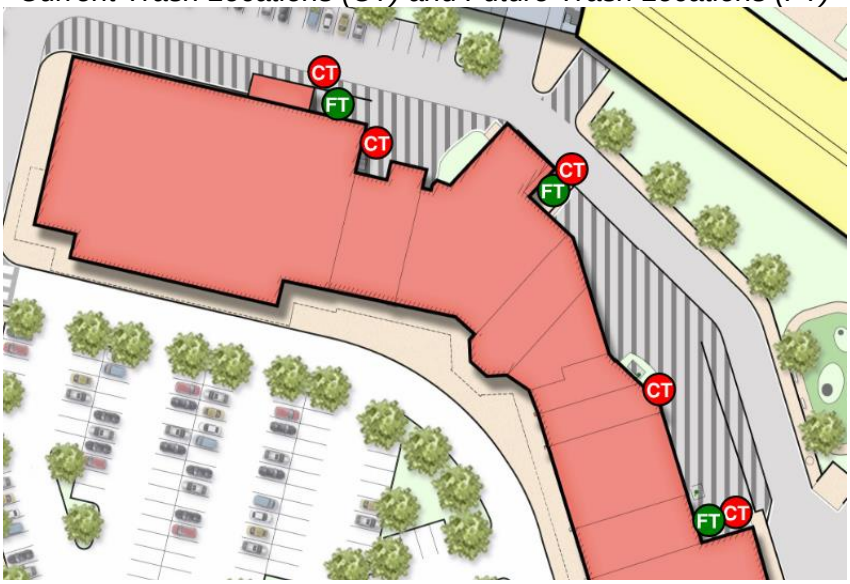
Improvements to the existing alley located behind the retail buildings are proposed with this SUP plan. The primary usage of the Modified Alley will continue to be for “back of house” loading functions and trash pickup areas for the existing commercial buildings. These functions will be improved through several enhancements, including a consolidation of existing dumpster locations into three, centrally located, screened trash areas (see Sheet 19 of SUP), removal and cleanup of existing “ancillary” structures that have been erected adjacent to the commercial buildings, painting of the rear facing commercial façade, and striping of “back of house” areas to designate retail loading and trash zones. This alley will also include approximately twenty-five parking spaces that will be reserved for employees of the commercial tenants.
The Modified Alley will also serve as a secondary vehicular ingress/egress into the garage, as well as provide Residential Loading and Trash Pickup Areas. Two residential loading and trash pickup areas have been designated within the Modified Alley. The primary ingress/egress into the garage will be located on Oak Springs Drive, so as to minimize vehicular traffic in the Modified Alley.

Vehicular studies have been performed to ensure appropriate turning radii will be provided for commercial loading vehicles and adequate lines of site around all corners/turns will be confirmed during Site Development Plan review. These studies were coordinated with the existing shopping center owner to ensure that adequate loading space will be provided for each of the business’s required loading vehicle sizes and types. Additionally, convex traffic safety mirrors can be installed at any location that poses a safety concern.

The Applicant plans to incorporate a number of visual improvements to the Modified Alley, summarized below:

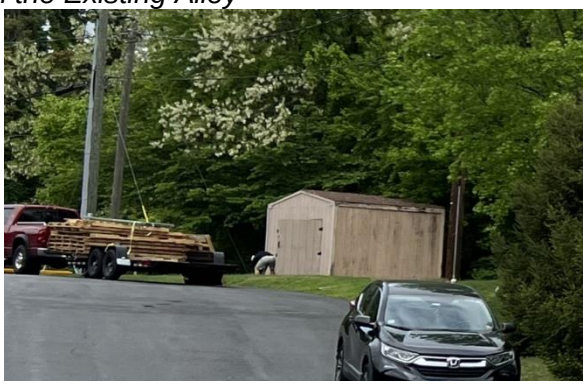
- Garage positioning: the garage has purposefully been located in a parallel position along the rear of the commercial buildings so that the majority of the multi-family building that abuts the “back of house” area is non-residential space.
- Trash screening: commercial trash areas have been consolidated into three locations, all of which will have new privacy fencing installed around the designated areas. Construction details of all screening and fencing will be addressed at the time of Site Development Plan.

Current Trash Locations (CT) and Future Trash Locations (FT)



- Landscape buffers and screening: all portions of the Modified Alley that are within the potential viewshed of residential dwelling units will include 35’ to 50’ of landscape buffers, plus privacy fencing along the drive lanes—see Sheets 18 & 19 of SUP. Construction details of all screening and fencing will be addressed at the time of Site Development Plan.
- Painting: all rear elevations of the commercial building that are adjacent to the Modified Alley will be repainted in a consistent, neutral color.
- Striping: all residential and commercial trash and loading areas will be striped to encourage loading/delivery activity to stay out of the travel way and within the designated locations.
- Demolition: all ancillary structures that have been erected adjacent to the commercial building will be demised and removed. Examples of these ancillary structures are shown below.

"Ancillary Structures" in the Existing Alley



Loading and Trash Pickup Areas

Striped loading and trash pickup areas are proposed along both sides of the Modified Alley. The loading areas are intended to be reserved for exclusive use by either the residential tenants or the commercial tenants, as outlined below:

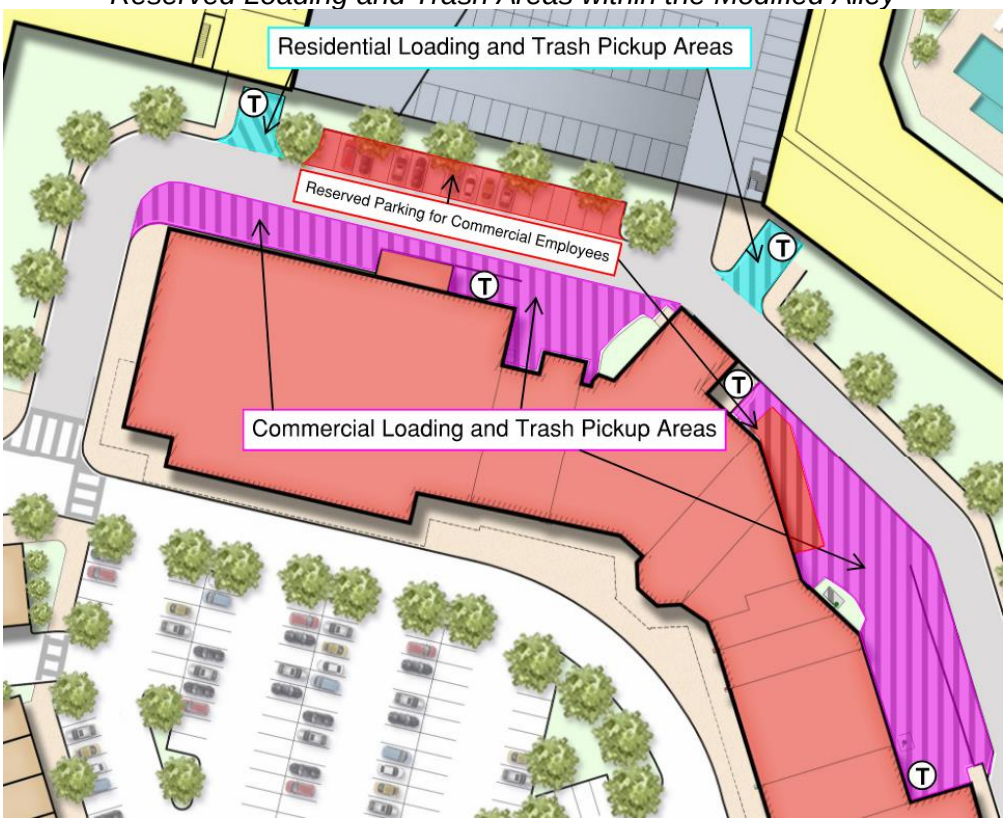
- Commercial Loading and Trash Area (PINK): these striped areas will be reserved for exclusive use by commercial tenants for "back of house" operations. These areas will provide access to necessary loading and delivery areas for the commercial tenants in accordance with their current and future needs. Existing loading areas and loading doors/docks will continue to serve the commercial building—no changes are proposed to the existing commercial loading bays and appropriate turning radii will be provided to ensure that commercial vehicles maintain access to existing loading facilities. Commercial trash dumpsters will be consolidated to the three locations marked with a "T" and will be shielded with privacy fencing. Privately contracted waste management services will pick up trash at these locations on scheduled trash days.
- Residential Loading and Trash Area (BLUE): these striped areas will be reserved for exclusive use by residential tenants for "move in / move out" purposes. Tenants will have the ability to reserve these areas on an hourly basis at specific times to facilitate move ins and move outs. Reservations for use of these spaces will be made through the property management team. These two loading areas are a minimum of 30' deep, which is adequate space to fit the maximum sized commercial rental truck (e.g. U-Haul truck). These areas will also serve as trash pickup locations for the residential building. On scheduled trash days, property management will roll dumpsters from the trash compactors

located on the interior of the building to these locations, where they will be picked up by privately contracted waste management services.

- No ground level residential units will be placed adjacent to the Residential Loading and Trash Areas. Those areas of the buildings will be designated for loading and trash services.

- Reserved Parking for Commercial Employees (RED): to ensure that employees of the commercial tenants do not utilize the loading areas for employee parking, approximately 25 parking spaces will be provided for their exclusive use along the Modified Alley. This will help to provide consistent, unimpeded trash and loading access to both the residential and commercial tenants.

Reserved Loading and Trash Areas within the Modified Alley



Trash

The Applicant shall maintain Warrenton Village Center in a clean and orderly manner and shall arrange for the pickup of trash, litter, and debris on a daily basis through a private refuse collection company.

Deliveries and refuse/solid waste collection shall follow Town Code Section 11-19(9).

Residential Trash Locations: trash facilities are proposed at three locations (found on Sheets 4 & 5 of the SUP):

1) Block 1: A trash compactor will be located within the multi-family building. Trash chutes will be located on all floors of the building for direct deposit of trash from residential floors into the trash compactor. Trash bins will be rolled out by property

management to one of the Residential Loading and Trash Pickup Areas on either side of the garage on trash pickup days.

2) Block 2: It is anticipated that each individual unit will have its own trash bin kept within that unit's garage. Residents will be responsible for rolling trash bins out to the rear alley on trash pickup days.
    a. If the municipality will not allow individual trash bins/pickup, the location for a potential trash dumpster that will serve all residents of Block 2 has been included in the SUP plans.
    b. Block 2 dumpster will be surrounded by privacy fencing, as well as landscape buffering.
3) Block 3: It is anticipated that each individual unit will have its own trash bin kept within that unit's garage. Residents will be responsible for rolling trash bins out to the rear alley on trash pickup days.
    a. If the municipality will not allow individual trash bins/pickup, the location for a potential trash dumpster that will serve all residents of Block 3 has been included in the SUP plans.
    b. Block 3 dumpster will be surrounded by privacy fencing, as well as landscape buffering.

Commercial Trash Locations: trash dumpsters behind the existing retail buildings will be consolidated into the three centrally located trash areas shown on Sheet 19 of the SUP. These trash areas will be hidden from public view with new privacy fencing.

All exterior refuse storage areas will be shielded within enclosures or privacy screening.

Wayfinding

The Applicant will include detailed locations and specifications on all proposed signage and wayfinding in the site plan. All signage will comply with the Zoning Ordinance at the time of Site Development Plan.

A Conceptual Signage Plan can be found on Sheet 21of the SUP.

Lighting

The Applicant will prepare a detailed lighting plan in conformance with §9-8 of the Zoning Ordinance and will install lighting in accordance with that plan. This will be reviewed at the time of Site Plan Development review.
Light pollution restrictions will include:

- All site lighting, to include both new fixtures within the new development areas as well as any non-residential area that is modified as a part of site development, must consist of fully-shielded, full cut-off fixtures to meet the requirements of Article 9, Section 9-8.
- Color temperature of exterior light fixtures will be 3,000 degrees kelvin or lower.
- Average horizontal illumination level of exterior light fixtures will be 3.0 footcandles or less.

A Conceptual Lighting Plan can be found on Sheet 22 of the SUP.

Bicycle Plan

The streets within the retail and residential areas are proposed to function as shared streets for both cars and bicycles. This is appropriate given the low vehicular volumes, short street segments

that limit vehicular speeds, existing and proposed character of the property with significant pedestrian/vehicle interactions, and the need to minimize street widths to keep pedestrian crossing distances short.

Eliminated/shortened travel ways, especially those encouraging speedy vehicular use between Broadview Avenue and Oak Springs Drive, change the nature of available accessways within the Center. This combined with on-street parking – parallel and head-in spaces, reduced driveway widths and raised crosswalks, will automatically provide traffic calming and slower traffic speeds, thereby making it safer for multi-modal use. Visitors entering the site are immediately confronted with a travel landscape that is unlike urban throughfares and more like parking lots with limited speeds, but good visibility. Unlike urban throughfares, which are designed for speedy travel between points A and B, visitors entering the Center will be immediately at B. The proposed streets and accessways encourage visitors to think about parking their vehicles or bikes and setting out on foot.

A Conceptual Circulation Plan, including proposed bicycle travel ways and public bike rack locations, can be found on Sheet 23 of the SUP.

Resident Connectivity to the Town of Warrenton

The Applicant believes that the new residents of Warrenton Village Center should not only benefit the commercial tenants at the Center but should provide new patronage to all of Warrenton's businesses. To do this, the Applicant desires to enhance and promote new and existing transportation networks to other areas of Warrenton.

Warrenton Circuit Rider: to encourage increased use of this public transport by residents, the Applicant proposes the following concepts:

1) There are currently Green Route and Blue Route stops within Warrenton Village Center at the current location of Joann Fabrics. If desired by the Town, the Applicant agrees to work with the Town to establish additional stops at the West Plaza and/or East Plaza residential lobbies.
2) Install permanent signage within residential lobbies to promote this public transportation option.
3) Establish a program with the Town that provides tenants with a monthly stipend for Circuit Rider fares—"Circuit Rider Cash" or something similar that would be accepted by the buses and funded by the apartment community.

Green Building Design

All residential buildings will be designed and certified to a National Green Building Standard (NGBS), Level Bronze, or higher. This certification requires minimum efficiency standards among building materials, plumbing and electrical fixtures, appliances and much more. If NGBS is not available for this project, an equivalent certification from an alternative third-party green building rating system will be acceptable.

EV Stations

To encourage continued growth of electric vehicles, a minimum of 2% of parking spaces within the Block 1 parking garage will include electric charging stations for resident use. Block 2 and Block 3 will not include charging stations, as residents will be able to utilize individual unit garages to supply EV power.

Noise & Exhaust

The proposed development will not produce any noticeable increase in noise or odor.

Emergency Services

All plans will be in conformance with Town Code and approved at Site Development Plan.

Sheet 8 of the SUP provides a Fire Truck Movement plan, confirming 360-degree fire truck access to all buildings.

Community Hours of Operations

All proposed residential rental units in all three blocks (multi-family, townhome and 2-over-2 units) will be part of the same new apartment community. All residents will have access to the community amenities found primarily at the Block 1 multi-family building. Hours of operations for the community's amenities will be as follows:

Leasing Office: 9am-6pm (Monday-Friday), 10am-5pm (Saturday), Closed (Sunday)
Mail & Packaging: 24 hours a day, 7 days a week
Bike Storage: 24 hours a day, 7 days a week
Pool and Pool Deck: 10am – 8pm, 7 days a week (Memorial Day to Labor Day)
Fitness: 24 hours a day, 7 days a week
Co-Working Space: 24 hours a day, 7 days a week
Entertainment Lounge: 24 hours a day, 7 days a week
Gathering Room: 24 hours a day, 7 days a week
Garage Parking: 24 hours a day, 7 days a week

3-Bedroom Unit Maximum

3-bedroom apartments are important to provide a wide range of housing types and price points to the residents of Warrenton. 3-bedroom units provide the lowest rental rates on a per bedroom basis and are therefore pivotal when seeking to provide lower cost options to the Town's residents. In order to minimize concerns regarding potential fiscal impacts of 3-bedroom units, the Applicant agrees to cap 3-bedroom units in Block 1 at 10% of the total Block 1 units.

PLAN WARRENTON 2040

Plan Warrenton 2040 establishes a series of goals for future development within Warrenton. This proposal advances many of these goals, which have been outlined below:

Housing Goals

Character Districts are identified as an opportunity for "expanding housing options" and to "accommodate a range of housing typologies." The Proposal advances this goal via inclusion of multiple housing types.

Goals H-1 and H-1.3 recommend the creation of workforce housing. The Proposal advances this by creating a variety of housing types to provide a wide range of rental price points, as well as inclusion of an affordable housing component.

Goal H-1.1 is to encourage “Missing Middle” housing types. The Proposal advances this goal by providing highly sought after rental dwellings in both townhome and 2-over-2 product types.

Goal H-1.2 of the Plan is to encourage the creation of a range of housing types. The Proposal meets this goal by providing 1-, 2- and 3-bedroom multi-family apartment units, as well as 2-over-2 and townhome dwelling units.

Goal H-2.2 of the Plan provides for appropriate use and scale of development and proper transitions to existing neighborhoods. The Proposal meets this goal by placing higher, four-story buildings in areas closer to existing commercial and future three-story residential, and then steps down to three-story buildings on the west side, where existing neighborhoods and future low density residential are found on the west side of Broadview Avenue.

Open Space, Parks, & Environment Goals

Goals P-3 and P-3.1 focus on providing residents with access to green and public spaces. The Proposal meets this goal by providing significant open space in close proximity to new residential housing, most notably, at the newly proposed Central, East and West Plazas.

Transportation Goals

Goals T-3.6 and T-3.10 focus on encouraging bicycle friendly policies and bicycle parking in new development standards. A bike storage room will be located within the multi-family building for use by all residents, as well as multiple bike racks throughout the site to promote bicycle transportation and recreation.

Goals T-3.4 and T-4.3 focus on creating a walkable network with sidewalk, pedestrian safety features, and increased network connectivity. An extensive new sidewalk network is being proposed throughout the Warrenton Village Center to promote walkability for residents and commercial shoppers alike. Pedestrians will have the ability to easily navigate between the residential, commercial and plaza areas with new sidewalks, crosswalks and vehicular traffic slowing measures.

Economics & Fiscal Resilience Goals

Goal E-1.2 of the Plan calls for a range of housing, with appropriate levels of density and transitions. The Proposal meets this goal by providing a variety of housing types, with height and density tapering down toward existing residential neighborhoods.

Goal E-1.5 of the Plan focuses on a diverse, equitable stable tax base. The Proposal advances this goal by providing opportunities for an increased tax base through its added housing stock.
Goal E-2.2 of the Plan promotes Warrenton’s high quality of life to attract employers to work here. The Proposal will appeal to employers wanting to offer their employees new, high quality housing options. Warrenton Village Center will provide the Town with the first new, Class A apartment community in decades.

Goal E-2.5 of the Plan calls for development of a range of housing types. The Proposal meets this goal by providing 1-, 2- and 3-bedroom multi-family apartment units, as well as 2-Over-2 and townhome dwelling units.

Goal E-3.3 of the Plan focuses on maximizing public spaces and right-of-way for outdoor gathering space. The Proposal meets this goal by adding significant publicly accessible open space to the Property, most notably, at the Central, East and West Plazas.

Land Use & Character Districts

The Plan recommends a set of ten design criteria for projects within a Character District. The proposal meets and advances all these criteria, as shown below:

1. Discernable Center

The highlight of the proposed Warrenton Village Center is the new Central Plaza. The Plaza is centrally located within the 29-acre site at the crossroads of vehicular and pedestrian circulation and positioned to benefit the new residential units and existing commercial businesses alike. The Central Plaza is proposed as approximately one-half acre and includes a spash-pad, public green, hardscapes for seating and decorative planters and flower beds. It is sized, programmed, and designed for everyday use as well as for larger community activities. Additionally, the Central Plaza is bookended by a space for future retail development that would further activate the public amenity. A new raised watertable crosswalk will provide safe pedestrian connectivity and new wayfinding will allow the entire Warrenton Village Center to easily locate and enjoy this new public space.

2. Connected sidewalks with a clear pedestrian path, street trees, and lighting

The new Warrenton Village Center will benefit from a multitude of improvements that will increase pedestrian connectivity throughout the entire site. New sidewalks will be added along the entire perimeter of all residential blocks, including direct sidewalk connectivity to all street facing, ground floor units. The extension of Hastings Lane and accompanying sidewalks will offer a new pedestrian access point from Oak Springs Drive. Multiple sidewalks will link the three new residential blocks to the new public amenities and allow maximum ease of walkability from one side of the Property to the other.

Ample street trees, landscaping and lighting will line the sidewalks along the streets and private drives, providing shade during the day and lighting during the evenings to create a pleasant and safe walking environment.

Detailed landscaping and lighting plans will be provided at Site Development Plan review. Concept plans have been included on Sheets 9 & 10 (landscape) and Sheet 22 (lighting) of the SUP.

The siting of all three blocks, the sidewalk connections leading from the residential to the retail and the consistent street wall and streetscape envisioned will allow for a familiar experience typically seen in traditional mixed-use settings.

3. Buildings that are placed close to the street to create a sense of place

All buildings have been placed along exterior streets to create desirable streetscapes and a sense of place. Majority of parking has been pulled away from streets and concealed from view within a centrally located parking garage—inclusion of the parking garage has eliminated the need for unattractive surface parking lots.

Portions of all three building types (multi-family, 2-over-2s and townhomes) have been faced inwards so that they are visible from the commercial areas to enhance the mixed-use feel of the Center.

Street-facing, ground level units in all residential buildings will have direct access from the units to the sidewalk systems installed along all public and private streets.

4. Parking placed behind buildings and away from street frontages

All parking for Block 1 will be centrally located within a four-story parking garage that has been concealed from public view within the building itself.

Block 2 and Block 3 will have interior garages (two-car garage per townhome unit and one-car garage per 2-over-2 unit), surface parking in the driveways behind all 2-over-2 garages, and visitor parking areas found within both blocks.

5. Complete streets create a balance between cars, pedestrians, and bicyclists

The street networks are designed to slow vehicular traffic, create ease of access for residents and visitors, and promote pedestrian activity.

A bike storage room will be located within the multi-family building for use by all residents, as well as multiple bike racks throughout the site to promote bicycle transportation and recreation—see Sheet 23 of the SUP.

An extensive new sidewalk network is being proposed throughout the Warrenton Village Center to promote walkability for residents and commercial shoppers alike. Pedestrians will have the ability to easily navigate between the residential, commercial and plaza areas with new sidewalks, crosswalks and vehicular traffic slowing measures.

6. Compact street blocs encourage walking

The deliberate location of the Central Plaza and reorganization of vehicular, pedestrian and bicycle traffic around it allows the center to appear as a collection of smaller blocks, providing numerous ways for residents and visitors to explore areas within the Center.

These enhancements will create smaller, more compact blocks to promote easy walkability from the new residential to the existing retail.

Further traffic calming by way of raised crosswalks/watertables at important intersections and elimination of travel ways designed for speed will encourage pedestrian use.

7. A park, trail, or activity center is within a half mile walking radius

The proposed development will link its new residents directly to the adjacent shops and businesses of Warrenton Village Center, turning the existing retail into an active pedestrian amenity. The creation of the Central Plaza, East and the West Plaza will further promote the Warrenton Village Center as a destination for not only residents of the community, but all residents of Warrenton. The location of the plazas and their use and function is directly tied to the role they are expected to play. The Central Plaza is ‘centrally’ located at the crossroads – vehicular and pedestrian to allow it to function as the neighborhood center and is sized, programmed, and

planned to allow for community activities as well as everyday use. The East and West plazas serve as passive, ceremonial transition zones between the private residential realm and the public retail realm. Their primary intent and use is to connect residents with the rest of the commercial center while also allowing for a different, less active and smaller public area for passive recreation.

8. A variety of dwelling types accommodates a wide range of family sizes and income levels and commercial activity

As the first large rental community in the area in over a decade, the proposed Warrenton Village Center will add diversity to the housing market by providing much needed market rate and affordable rental dwellings. The community will offer 1-, 2-, and 3-bedroom apartment units within Block 1, as well as unique 2-over-2 and townhome units to supply the "missing middle" in Blocks 2 and 3—all dwellings are anticipated to be for rent.

9. Neighborhood identity connects district wayfinding and identification with a larger marketing effort to bring private investment to the neighborhood

Warrenton Village Center is an existing neighborhood anchor and community shopping destination. The new Warrenton Village Center will synergistically elevate the overall development, redefining the neighborhood identity as a regional Live-Work-Play destination for both residents and visitors from the surrounding area.

The overall aesthetic of the new Warrenton Village Center brand and identity will be a contemporary design that thoughtfully incorporates Warrenton's rich history, focusing on equestrian inspired materials and textures. The sleek façade of the exterior pairs light colored brick and cementitious panels with warm stone, wood, and dark metal accents.

Signage and wayfinding will exercise these same principles to create a sense of place and affirm the character of the new development. The existing equestrian themed signage at Warrenton Village Center will be contemplated to create fresh branding and wayfinding that complements the existing infrastructure with a new modern and sleek identity.

10. The neighborhood edge provides the means of transition from the Character District to adjoining properties.

The buildings are designed to scale appropriately with the adjacent current and future uses, which are primarily commercial with some periphery residential. At four-stories, the proposed new buildings will be a step down from the six-stories allowed along Lee Highway and create an appropriate transition to the three-story residential areas allowed on the north of Oak Springs Drive.

Comprehensive Plan Future Land Use Analysis

Plan Warrenton 2040 labels this parcel in the Future Land Use Map within the New Town Character District. The New Town designation notes the district "will support the revitalization of the commercial shopping malls with a walkable development pattern that includes a mix of uses." Plan Warrenton also includes the following applicable goals:

Transportation and Circulation Goals

T-1: Improve multi-modal capacity and safety that encourages trips by walking, bicycling, and transit.

T-3 Promote livability in the Town by creating great places for residents and visitors to feel welcome and safe.

Economic and Fiscal Goals

E-1 Grow a strong, diversified, and resilient economy that supports residents and businesses a like.

E-4 Support Character Districts as unique mixed-use neighborhood centers

Standard	Analysis
Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.	The Applicant's proposal has been designed to advance the general goals of the Plan and the specific goals set forth for the New Town Character District, which is identified as "a location for signature office/jobs center; with greater intensity of mixed use and strong live, work and play options. A mix of uses cold be organized around an internal street network and public amenities, such as civic spaces, parks, green spaces and public gathering areas."
The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.	The proposed development is surrounded by a mix of commercial, education and residential: • To the north, across Oak Springs Drive, is Highland Private School, Brookside Rehab and Nursing Center and the Cedars of Warrenton town home community. • To the east, across Branch Drive, is Safeway and other commercial businesses included within Warrenton Village Center.

	• To the south is Warrenton Village Center. • To the west, across Broadview Avenue, are standalone commercial and office uses. The proposal is compatible with these uses and proposed uses and the goals of the Comprehensive Plan.

Zoning Analysis

The legislative intent of the Commercial District is to simultaneously encourage appropriate and timely land development while assuring suitable design by prohibiting uses that would create undue impacts on the surrounding residential areas.

Standard	Analysis
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.	The proposed use is a mixed-residential and retail. All non-residential uses must meet the noise standards under Article 9-14.2.
The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.	All signage shall be permitted in accordance with the Plan as shown and shall comply with any Zoning Ordinance regulations at that time.
The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.	The Applicant is seeking a minor modification to the height because it is located between Lee Highway, which allows up to six (6) stories, and Oak Springs Drive which allows up to three (3) stories. The goal of the height recommendations of Plan Warrenton 2040 is to step down towards residential zones. The proposal will achieve this goal in the Transition Zone along Oak Springs Drive. Though a fourth story is proposed by the Applicant for the apartment units, it maintains a step down in scale from the six stories permitted along Lee Highway.

	Additionally, stepping down from six stories to four stories is a more gradual approach and a better design aesthetic than the stark hierarchal contrast of a dramatic drop from six stories down to three stories. From a visual perspective along Oak Springs Drive, maintaining three stories would mean that the structures behind the residential buildings could be twice their size or more with bonus height.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	Applicant acknowledges that landscaping must meet Zoning Ordinance requirements and will be reviewed as part of the Site Development Plan.
The timing and phasing of the proposed development and the duration of the proposed use.	There is no phasing proposed.
Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.	The mixed-use development will promote the welfare of the public by reducing housing costs for renters and promoting a healthier lifestyle be encouraging outdoor activity.
Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.	No existing structures are being converted
The location, character, and size of any outdoor storage.	No outdoor storage is proposed.
The location of any major floodplain and steep slopes.	Where applicable, all paving that may interact with major floodplains or steep slopes will be done with strict compliance to the flood-proofing and related provisions contained in the Virginia Uniform Statewide Building Code and all other applicable codes and ordinances.
The location and use of any existing non-conforming uses and structures.	There are no non-conforming structures or uses on the site.
The location and type of any fuel and fuel storage.	No fuel storage areas are noted on site.

The location and use of any anticipated accessory uses and structures.	Where applicable, all accessory structure will comply with local codes and ordinances.
The area of each proposed use.	Unique housing types are proposed within each block: Block 1: Multi-Family Apartments Block 2: Multi-Family Townhomes Block 3: Multi-Family 2-over-2s and Townhomes
The location and screening of parking and loading spaces and/or areas.	The Subject Parcel shall meet all parking requirements as outlines in Article 7. Should it be desired to expand the use in any of the buildings located on the Subject Property, the new proposed use shall be required to apply for approvals that meet Zoning Ordinance and additional parking requirements.
The location and nature of any proposed security features and provisions.	Not applicable.
Any anticipated odors which may be generated by uses on site.	The site must remain in compliance with Article 9-14.5 regarding the control of odors
Refuse and service areas.	The Applicant shall maintain Warrenton Village Mixed Use Center in a clean and orderly manner and shall arrange for the pickup of trash, litter and debris on a daily basis through a private refuse collection company. Additionally, trash pickup will be scheduled through the Town of Warrenton's Public Work's & Utilities – Refuse Collection.
Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.	No significant or topographic areas are located on site.
The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality.	Except where given exceptions by the Special Use Permit, the proposal will comply with any federal, state, or local codes and ordinances regarding wildlife habitats, sensitive land or natural features, vegetation, water quality, and air quality.

The glare or light that may be generated by the proposed use in relation to uses in the immediate area.	A concept lighting plan has been provided. Fixture details/cut-sheets and new structures will be required to be provided and reviewed as part of the Site Development Plan submission.

Transportation and Circulation Analysis

The primary transportation and circulation goal for the Town of Warrenton is to "Promote livability in the Town by integrating multi-modal, interconnected transportation solutions with land use development in each mixed-use Character District and applying traffic calming techniques that foster and protect non-vehicular street activities in established residential neighborhoods." The Transportation and Circulation section of the Comprehensive Plan sets out policies and objectives that work to further this goal. The section includes recommendations addressing improvements for pedestrian use, new street connections, parking and sidewalks, trails, cost sharing, traffic calming techniques, safety, and signage.

Standard	Analysis
The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.	Mixed-use development of the property will assist in vehicular safety by reducing the amount that residents are required to drive; Additionally, no vehicles associated with the use shall obstruct the travel ways, fire lanes, adjoining road network or encroach upon landscaped areas as shown on the Special Use Permit Plan. No vehicles shall be located within site entranceways or otherwise impede ingress, egress, and internal circulation. Finally, access to the site is adequate as shown in site plan.
Whether the proposed use will facilitate orderly and safe road development and transportation.	

Community Facilities and Services Analysis

Public community facilities in the Town are provided by the Town, Fauquier County, and other public groups for the benefit of all residents. The availability and quality of these facilities, that include, schools, libraries, hospitals, parks, police and fire and rescue services, are evaluated when people are considering moving into the Town or nearby area. The provision of these facilities adds to the desirability of living in the Town. The Comprehensive Plan's primary community facilities and services goals for the Town of Warrenton are:

1. *Foster high-quality, equitable, and accessible community facilities that meet the Town's service requirements and support a high quality of life for the community.*

2. *Make responsible and strategic community facility investments that support the Town's vision for a live/work community, sustaining its fiscal well-being and economic resiliency.*

3. *Promote sustainability in all Town-owned facilities.*

4. *Reinforce the role of County community facilities into the Town fabric.*

5. *Promote livability through properly located Town services, schools, libraries, courts, and County administrative functions.*

6. *Support the connection of residential dwellings to public water and sewer.*

7. *Provide a high quality of life to capture economic benefits through diverse businesses, employers, and residences.*

Public services are essential to the community structure and quality of life, as well as to long-term economic vitality. They support existing and planned developments and contribute to the health, safety, education and general welfare of Warrenton residents.

Standard	Analysis
Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.	The Subject Parcels shall be served by public water and sewer. The Property Owner is responsible for all improvements required in order to meet the demand of the Subject Uses associated with the Property.
The location of any existing and/or proposed adequate on and off-site infrastructure.	

Economic Resources Analysis

An economic goal of Plan Warrenton 2040 is to promote a diverse, equitable stable tax base while preserving the character of the community.

Standard	Analysis
Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.	Residential use will enlarge the tax base by providing increases in property taxes and increasing the local population, allowing more money to be spent at local businesses. Additional retail space will also create new

	employment opportunities for the residents of Warrenton.
The number of employees.	No changes anticipated by applicant.
The proposed day/hours of operation.	For residential use, not applicable. For retail use, this would be subject to final decisions from the retailers.

SPECIAL USE PERMIT PROPOSED CONDITIONS
Applicant: NewCastle Development Group, LLC ("The Applicant")
Owner: Jefferson Associates LP; Warrenton Center LLC
Special Use Permit: SUP 22-5, Warrenton Village Mixed-Use Center
Address: 360 Oak Springs Drive, Center District, Town of Warrenton, Virginia 20186
GPIN #: 6984-20-7247-000; 6984-29-6753-000
Zoning: Commercial District
Special Use Permitting Area: +/- 6.46 acres; +/- 22.59 acres
Date: May 31, 2024

In approving a Special Use Permit, the Town Council may impose such conditions, safeguards, and restrictions as may be necessary to avoid, minimize or mitigate any potentially adverse or injurious effect of such special uses upon other properties in the neighborhood, and to carry out the general purpose and intent of this Ordinance. The Council may require a guarantee or bond to ensure that compliance with the imposed conditions. All required conditions shall be set out in the documentation approving the Special Use Permit (SUP).

1. Site Development – The property shall be developed in substantial conformance with these conditions and the plans titled "Special Use Permit for Warrenton Village Center, REVISION 3 – 5/31/2024", and prepared by Bohler Engineering. Minor changes and adjustments may be made to the road and street alignments, entrances, parking, dimensions and location of SWM/BMP facilities, the exact configuration and location of building footprints, and other similar features as shown on the SUP Plan, provided they meet the intent of these Conditions and are approved by the Director of Community Development or the Zoning Administrator.

2. Use Parameters

    1. Special Use Permit Area – The Special Use Permit shall apply to the entire +/- 29.05-acre property.

    2. Use Limitations – Use shall be limited to residential and retail.

3. Waivers and modifications

    1. Article 2-6.1: The maximum density specified in the zoning ordinance for a given zoning district shall not be exceeded. The maximum density is 5 units per acre or 10 units per acre with inclusion of 10% affordable dwelling units.
        - Waiver Request #1: Increase density to 386 units or 13.28 per acre.
    2. Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
        - Waiver Request #2: Decrease minimum setback to 14' along Broadview Avenue.

3. Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
    - Waiver Request #3: Decrease side/rear yard setbacks to 0'.

4. Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
    - Waiver Request #4a: Decrease buffer width between commercial and residential uses to 0'.
    - Waiver Request #4b: Decrease rear buffer width for residential uses from public ROW to 14'.

5. Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and year setbacks increase 1' for each additional foot of building height over 35'.
    - Waiver Request #5: Increase height limit for dwellings as follows:
        - 54' max height for Block 1, Oak Springs Drive Frontage
        - 36' max height for Block 1, Broadview Avenue Frontage
        - 36' max height for Block 2
        - 45' max height for Block 3
6. Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
    - Waiver Request #6: Increase maximum grouping of townhouse units from six to seven.

4. Architecture – The final design of the buildings to be constructed shall generally conform to the elevations and materials included with the Special Use Permit application (hereinafter, the "Elevations"). The Elevations may be subject to minor modification approved by the Zoning Administrator in connection with Site Development Plan review. Additional changes to the design and materials may be made provided that any such changes are approved by the Town prior to the issuance of a building permit. Such approval shall be based on a determination that the changes result in equal to or better than the quality shown on the Elevations.

5. Materials – the following materials will be prohibited from use:

    1. Vinyl siding
    2. EIFS
    3. Corrugated metal siding
    4. Plastic panels

6. Garage Screening – the structured parking garage in Block 1 will include a mesh or fabric screening on its south facing façade.

7. Green Building Design -- all residential buildings will be designed and certified to a National Green Building Standard (NGBS), Level Bronze, or higher. If NGBS is not available for this project, an equivalent certification from an alternative third-party green building rating system will be acceptable.

8. Electric Vehicle Charging Stations – a minimum of 2% of the total spaces included within the Block 1 parking garage will include electric charging stations for tenant use.

9. Affordable Dwelling Units

    1. The Applicant shall provide the following minimum number of Affordable Dwelling Units (ADUs):

        - 10% of total dwelling units within each of the three blocks (Block 1, Block 2 and Block 3) will be reserved as 80% AMI ADUs;

        - Ten (10) additional dwelling units in Block 1 will be reserved as 70% AMI ADUs;

        - Five (5) additional dwelling units in Block 1 will be reserved as 60% AMI ADUs

    2. The Applicant shall maintain the ADU program on all rental units for a period of twenty-five (25) years from the issuance of the Special Use Permit (the "Affordability Period").

    3. Within Block 1, allocation of the ADUs between 1-, 2- and 3-bedroom units will be at the discretion of the Applicant, so long as the minimum number of units defined above are maintained as ADUs. Within Block 2 and Block 3, wherein all units are 3-bedrooms, all ADUs will be 3-bedrooms. The ADUs shall be similar to the market rate units in architectural design, fixture/appliance selections and unit size. No more than three ADU units will be positioned adjacent to one another at any given time.

    4. "Qualified Parties" and "Rent Limits" for ADUs, are defined as:

        - For the purposes of qualifying for the lease of an affordable rental ADU a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 60%, 70%, or 80% (dependent on the specific ADU) of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for Fauquier County as published by the Virginia Housing & Development Authority (VHDA), at the time the rental application is opened for such Qualified Party ("AMI").

        - For the purposes of determining the Rent Limits for all ADUs, monthly rental rate limits shall be equal to those published by

VHDA for 0-, 1-, 2-, and 3-bedroom units and corresponding 60%, 70% and 80% AMIs, with no utility allowances.

- For the purposes of qualifying for the purchase of an ADU in Block 2 or Block 3, a Qualified Party shall be an individual or a family whose gross annual household income does not exceed 80% of the current Multifamily Tax Subsidy Program (MTSP) Income Limits for a 4-person household in Fauquier County as published by VHDA, at the time the purchase contract is executed for such Qualified Party.

- For purposes of determining the purchase price of any for-sale ADU, that price will not exceed the amount at which the monthly mortgage payment for such unit exceeds the monthly rent limits for 3-bedroom units and 80% AMI income, as published by VHDA. Qualifying Parties must provide a market rate loan commitment prior to closing in order to calculate the proposed mortgage payment.

5. The ADU status shall be set forth in a deed of restrictive covenants recorded against the Property and shall continue to bind the minimum ADU requirement within each block to the Property for a period of twenty-five years from the issuance of this Special Use Permit; provided, however, that for rental units, the Applicant may recalculate the rental rates for new leases or renewals in accordance with the then current rates published by VHDA.

6. The Applicant shall establish in a deed of restrictive covenants a program for the administration of this ADU program according to the requirements of these conditions. The Applicant (or Owners Associations with respect to any purchase units if the Applicant is no longer the Declarant) shall make each ADU available for a period of not less than 90 days for rental units and 180 days for purchase units, following the issuance of a certificate of occupancy for each unit.

7. The Applicant shall designate on the Construction Drawings submitted for building permit approval which units will be the initial ADUs; however, the units that are selected as the initial rental ADU units are not required to remain as the designated rental ADUs for the entirety of the Affordability Period. The Applicant will have the authority to re-designated the rental ADUs from time to time based on leases and vacancies. The Applicant will maintain a building plan set at the leasing office located in the Block 1 at all times that shows which units are currently designated as rental ADUs.

8. The documents creating the ADU program shall be reviewed and approved by the Town Attorney prior to their recordation in the Land Records.

9. ADUs will first be made available to the following persons:

    - Those residing or working in the Town of Warrenton or Fauquier County
    - Town of Warrenton or Fauquier County teachers
    - Town of Warrenton or Fauquier County first responders
    - Veterans and enlisted members of the United States Armed Forces

    The Applicant shall contact the appropriate local Social Service and/or Housing Authority offices for identification and placement of local residents.

10. The community's Property Management Team shall make annual reports to the Zoning Administrator as to the number, type and location of units hereunder that shall have been rented as ADUs and shall verify that they have been rented to Qualified Parties.

10. Block Sequencing and Required Site Improvements

1. The Applicant can develop the three blocks included within the Site Development in any order.

2. To ensure that site improvements are completed in a timely manner along with the residential buildings, Applicant agrees that the Town of Warrenton will withhold Certificates of Occupancy (COs) in accordance with the following schedule:

    - Block 1: the 215th CO within Block 1 will not be issued until such time as all Block 1 site improvements have been substantially completed;

    - Block 2: the 19th CO within Block 2 will not be issued until such time as all Block 2 site improvements have been substantially completed;

    - Block 3: the 33rd CO within Block 3 will not be issued until such time as all Block 3 site improvements have been substantially completed.

3. Site improvements allocated to each individual block are shown in SUP Sheets 4 & 5 and generally include the following:

- Block 1:
  - Multi-family building and parking garage
  - Central Plaza
  - West Plaza
  - East Plaza
  - Hastings Lane extension
  - Reconfiguration of commercial parking
  - Modified Alley, all improvements
  - Dog park and picnic area
  - Preservation and reconditioning of Oak Spring (natural spring)
  - Sidewalks included in Block 1 Improvements – Sheet 4 of SUP
  - Two crosswalks across Oaks Springs Drive at Hastings Lane and Highland School entrance

- Block 2:
  - Townhome dwelling units and parking
  - Sidewalks included in Block 2 Improvements – Sheet 5 of SUP

- Block 3:
  - 2-over-2 dwelling units and parking
  - Townhome dwelling units and parking
  - Sidewalks included in Block 3 Improvements – Sheet 5 of SUP
  - New sidewalk section on east side of Broadview Ave (behind Galaxy Strike Bowling Center building)

11. Site Surface – All outdoor areas used for shared open spaces, amenities, facilities, parking, storage, loading, display and driveways shall be constructed and maintained in good repair, free of cracks or damage to the surface.

12. Traffic

    1. Access - Access to the site shall be provided as shown on the SUP Plan, subject to changes as may be approved through at Site Development Plan review.

    2. Loading/Unloading – All loading and unloading of vehicles shall take place on the Subject Property during regular hours of operation and outside of peak travel hours, to the greatest extent possible, in the Loading Area depicted on the Special Use Permit Plan.

    3. Obstruction of Travel Ways – No vehicles associated with the use shall obstruct the travel ways, fire lanes, adjoining road network or encroach

upon landscaped areas as shown on the Special Use Permit Plan. No vehicles shall be located within site entranceways or otherwise impede ingress, egress, and internal circulation.

13. Parking – The Subject Parcel shall meet all parking requirements as outlined in Article 7. Should it be desired to expand the use in any of the buildings located on the Subject Property, the new proposed use shall be required to apply for approvals that meet Zoning Ordinance and additional parking requirements.

14. Sidewalks

    1. The Applicant shall install sidewalks as shown on the SUP Plan.

    2. All sidewalks will be a minimum of 5’.

    3. The Applicant will install a new section of sidewalk along the east side of Winchester Street, between Lee Highway and Broadview Avenue (behind the Galaxy Strike Bowling Center building) as part of Block 3 improvements.

15. Oak Springs Drive Crosswalk(s) – new crosswalks will be installed on Oak Springs Drive at Hasting Lane and at the entrance to Highland School as part of Block 1 improvements. Inclusion of these crosswalks will be contingent upon and subject to Town of Warrenton and VDOT approvals as Site Development Plan.

16. Refuse Storage Area – Any refuse storage areas shall be screened with a solid enclosure constructed of materials that are compatible with the buildings on the property.

17. Site Maintenance – The Owner shall maintain the site in a clean and orderly manner and shall pick up trash, litter and debris on a daily basis.

18. Landscaping – The Owner shall be responsible for the maintenance and replacement of all plantings on site. Any diseased or dead landscaping shall be replaced within one season of dormancy.

19. Stormwater Management – The site is to be planned and designed as a redeveloped site under the State's Runoff Reduction requirements for Stormwater Management (SWM) and in compliance with the Town of Warrenton's SWM Ordinance at time of construction.

20. Water and Sewer – The Subject Parcels shall be served by public water and sewer. The Property Owner is responsible for all improvements required in order to meet the demand of the Subject Uses associated with the Property.

21. Emergency Services

    1. All future Site Development Plans shall illustrate adequate access to the site for Emergency Service vehicles, subject to approval by the Planning Director or Zoning Administrator. Nothing shall be placed or constructed on the site that would prohibit or restrict Emergency Service vehicles from mounting curbs or accessing structures. There shall be no parking of any vehicles in the travel ways.

    2. Fire hydrants shall be installed in locations acceptable to the Town of Warrenton.

    3. Buildings shall have supra boxes installed on them with a fire alarm panel inside the front and rear entrances of the structures.

22. Signs – All signage shall be permitted in accordance with the Plan as shown and shall comply with any Zoning Ordinance regulations at that time.

23. Lighting

    1. All outdoor lighting shall be in conformance with the Zoning Ordinance.

    2. The Applicant shall prepare and submit a photometric plan in connection with Site Development Plan review.

    3. All site lighting, to include both new fixtures within the new development areas as well as any non-residential area that is modified as a part of site development, must consist of fully-shielded, full cut-off fixtures to meet the requirements of Article 9, Section 9-8.

    4. Color temperature of exterior light fixtures will be 3,000 degrees kelvin or lower.

    5. Average horizontal illumination level of exterior light fixtures will be 3.0 footcandles or less.

24. Open Space – each residential block/parcel and the residual retail parcel will individually meet the 10% open space requirement. The Applicant will construct and maintain all open spaces in general conformance with the improvements noted and shown in Sheet 6 of the SUP – “Open Space Plan.”

25. Modified Alley – The Applicant will build and maintain the Modified Alley in general conformance with the improvements shown in this area on the Plan.

26. 3-Bedroom Unit Maximum – A maximum of 10% of the units located in Block 1 will be 3-bedroom units.

27. Condo Sale of Block 2 and Block 3 – Applicant will maintain the ability to sell the entirety of Block 2 (Multi-Family Townhomes) and/or the entirety of Block 3 (Multi-Family 2-Over-2 and Townhomes) as Condos. The Applicant agrees to sell all or none of the units within Block 2 or Block 3, so as to prohibit a mix of for rent and for sale units in the same block.

    All conditions of the SUP will continue to be enforced in a block sale scenario through the Declarations of Restrictive Covenants that the Applicant will record and encumber the Block 2 and/or Block 3 parcels. In a block sale scenario, Homeowner Associations will be established to maintain all conditions of the SUP and will own the block parcel, while individual condo owners will own the condo dwelling units.

    In a sale scenario, residents/owners of the condos will not be tenants of the apartment community and will not have access to the rental amenities located within Block 1.

    In a block sale scenario, 10% of the units within the sold block will be required to be sold as ADUs, in accordance with the language outlined in Section 9 – Affordable Dwelling Units of this Conditions of Approval.

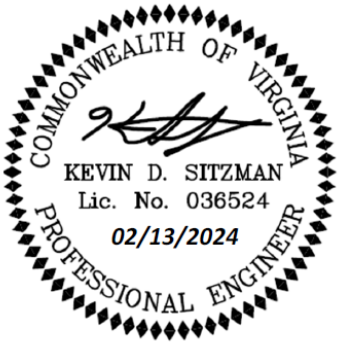
28. Block 1 Amenities – All amenities located within Block 1 will be available for use by tenants of residential rental units owned by the Owner in all three blocks (Block 1, 2 and 3). If residential units within Block 2 and/or Block 3 are sold by the Owner in a condo sale, the fee simple owners of the residential condos will not have access to the Block 1 amenities.

Traffic Impact Analysis

Warrenton Village Center

Town of Warrenton, Virginia

June 30, 2023
Revised February 13, 2024



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Executive Summary

This report presents the findings of a Traffic Impact Analysis (TIA) conducted for the proposed Warrenton Village Center development (the Site / the Development / the Property) situated in the Town of Warrenton, Virginia.

This study was developed in accordance with the Virginia Department of Transportation (VDOT) and the Town of Warrenton (the Town) transportation impact analysis guidelines. The document was prepared in accordance with best professional practices and standards that assess the impact of a proposed development on the transportation system. Traffic operational analyses, as presented in this TIA, involve the evaluation of anticipated roadway conditions with and without the proposed development. The analysis assists public officials and developers to balance the interrelations between efficient traffic movements with necessary lane access. This revised TIA is based on review comments provided by VDOT and the Town.

Site Location and Study Area

The proposed development will be located primarily along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia. The vehicular study area includes ten existing intersections along Broadview Avenue, Lee Highway, Branch Drive, and Oak Springs Drive.

Description of Proposed Development

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

This report analyzes the trips generated by the Warrenton Village Center Development and its impact on traffic operations on the surrounding road network.

Principal Findings and Conclusions

Discussions regarding the study assumptions and relevant background information were held with VDOT, County, and Town staff during January 2023. The scope details the study assumptions and relevant background information discussed. A copy of the scoping document is included in Appendix A.

The analysis contained herein presents the 2023 Existing Conditions, 2027 Future Conditions without Development, and 2027 Future Conditions with Development:

The analysis presented in this report supports the following assumptions and major findings:

Analysis Components

- 2023 existing volumes were derived via turning movement counts collected at intersections within the study area in February 2023.
- As determined based on review comments from VDOT and the Town, an inherent regional growth of 1.0% per year was applied to the Lee Highway mainline through movements at the intersection of Lee Highway at Broadview Avenue (US

Route 17 Business). The growth volumes were balanced along the road network by increasing the mainline through movements at subsequent study intersections along the road network where applicable for the period between 2023 and 2027 to account for 2027 conditions.

- The trip generation associated with the Site was based on the ITE Trip Generation Manual, 11th Edition publication. The Site in total is expected to generate approximately 154 new trips during the AM peak hour, 197 new trips during the PM peak hour, and 2,602 new daily trips on a typical weekday.
- Intersection capacity and queuing analyses were performed for all analysis scenarios at the study area intersections during the weekday morning (AM) and weekday afternoon (PM) peak hours. *Synchro*, version 11, was used to analyze the study intersections with results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) methodology and analysis guidelines provided in VDOT's Traffic Operations and Safety Analysis Manual (TOSAM) (version 2). The analysis herein includes level of service (LOS), delay, and queue length comparisons for the turning movements analyzed.
- The analysis also considers an assessment of historical crash data at all existing study intersections.
- The analysis also includes preliminary access management assessment and turn lane warrant assessments for the Site access points along Oak Springs Drive.

Analysis Results

2023 Existing Conditions

- Based on the capacity analysis of Existing Conditions, the two signalized study intersections operate at an overall level of service D or better during both the AM and PM peak hours.
- Based on the capacity analysis of Existing Conditions, three study intersections have at least one approach that operates at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that can be accommodated within the available storage length of the turn bays, except the southbound left turn movement at Study Intersection 1 (Broadview Avenue / Lee Highway at Winchester Street).

2027 Future Conditions without Development

- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B or better with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of 2027 Future Conditions without Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

2027 Future Conditions with Development

- The Site is expected to generate approximately 154 new total trips during the AM peak hour, 197 new trips during the PM peak hour and 2,602 new trips during a typical weekday.

- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of the 2027 Future Conditions with Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour (similar to 2027 Future Conditions without Development) during the AM and PM peak hours. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the queuing analysis performed for the 2027 Future Conditions with Development, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

Overall Conclusion

Based on the capacity and queueing analysis results, the proposed Development will not have a substantial impact to the surrounding transportation and roadway network, assuming that the site is constructed as depicted on the concept plan. No improvements are warranted or recommend to accommodate the proposed Development.

Introduction

This report presents the findings of a Traffic Impact Analysis (TIA) conducted for the proposed Warrenton Village Center (the Site / the Development / the Property) along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

The following tasks were completed as part of this study effort:

- A scoping meeting was held on January 3, 2023 with the Virginia Department of Transportation (VDOT), Fauquier County (the County), and the Town of Warrenton (Town) staff to discuss the parameters of this study as well as any relevant background information. A copy of the scoping document is included in Appendix A.
- Review comments of the first TIA submission were provided and addressed in this study submission.
- Existing conditions were observed in the field to verify roadway geometry, pedestrian and bicycle infrastructure, and traffic flow characteristics.
- Signal timings were acquired from VDOT and are provided in Appendix E.
- In order to determine the weekday morning and afternoon peak hour turning movement traffic volumes, traffic counts were conducted in February 2023.
- The 2027 Future Conditions without Development scenario was projected based on the existing traffic volumes, an inherent growth to account for regional growth on the roadway network, two approved background developments, and roadway improvements.
- Proposed site traffic volumes were derived based on the methodology outlined in ITE's Trip Generation Manual, 11th Edition, publication and were assigned to the road network based on the agreed-upon direction of approach discussed during the aforementioned scoping meeting.
- The 2027 Future Conditions with Development scenario was projected based on the existing traffic volumes, regional growth, and the projected trips generated by the proposed development.
- Intersection capacity and queueing analyses were performed for the identified study intersections for the 2023 Existing Conditions, 2027 Future Conditions without Development, and 2027 Future Conditions with Development scenarios during the weekday morning (AM), and weekday afternoon (PM) peak hours.
- Intersection capacity and queuing analyses were performed using *Synchro*, version 11, with LOS and delay results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) 6 methodology and in following VDOT's Traffic Operations and Safety Manual (TOSAM) (version 2).
- The analysis also considers an assessment of historical crash data at all study intersections.

- The analysis also includes preliminary access management assessment and turn lane warrant assessments for the Site access points along Oak Springs Drive.
- The study also includes preliminary discussions on the pedestrian facilities in the study area.

Sources of data for this study include the Institute of Transportation Engineers (ITE), VDOT, the County, the Town and the office files and field reconnaissance efforts of Gorove Slade.

Background Information: Proposed Development (Site & Nearby)

Description of the Existing Site

Site Location

The proposed Development will be located primarily along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia. A description of the proposed Development is provided in the *Introduction* section of this report.

Location within Jurisdiction and Region

The Site is located generally on the northern portion of Warrenton approximately 0.5 miles from the north Town line an approximately 1 mile west of the US 17 and US 29 Business interchange. A regional aerial of the Site is provided in **Figure 1.**

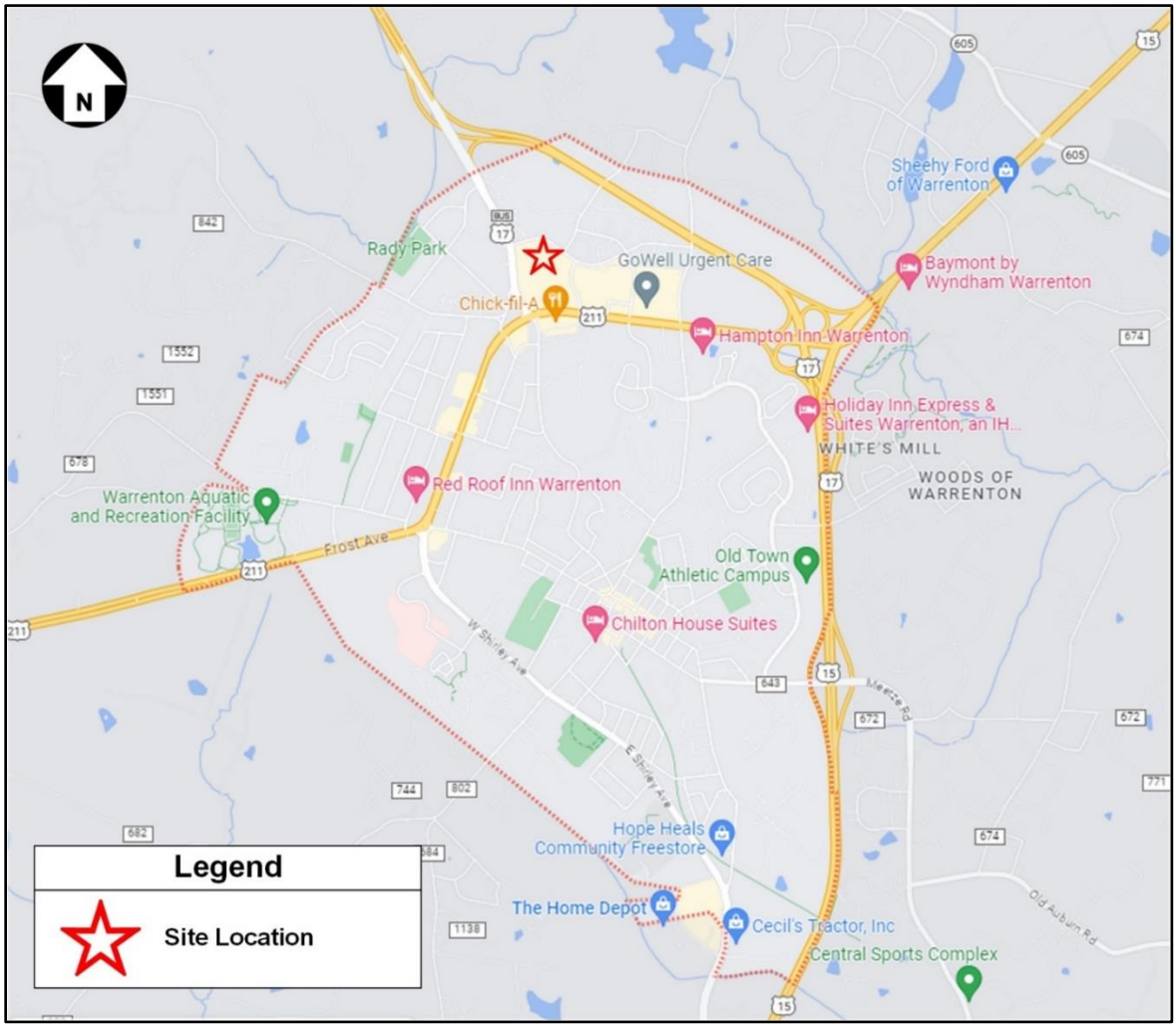

Figure 1: Regional Location

Description of the Parcel

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000 as illustrated in **Figure 2.**

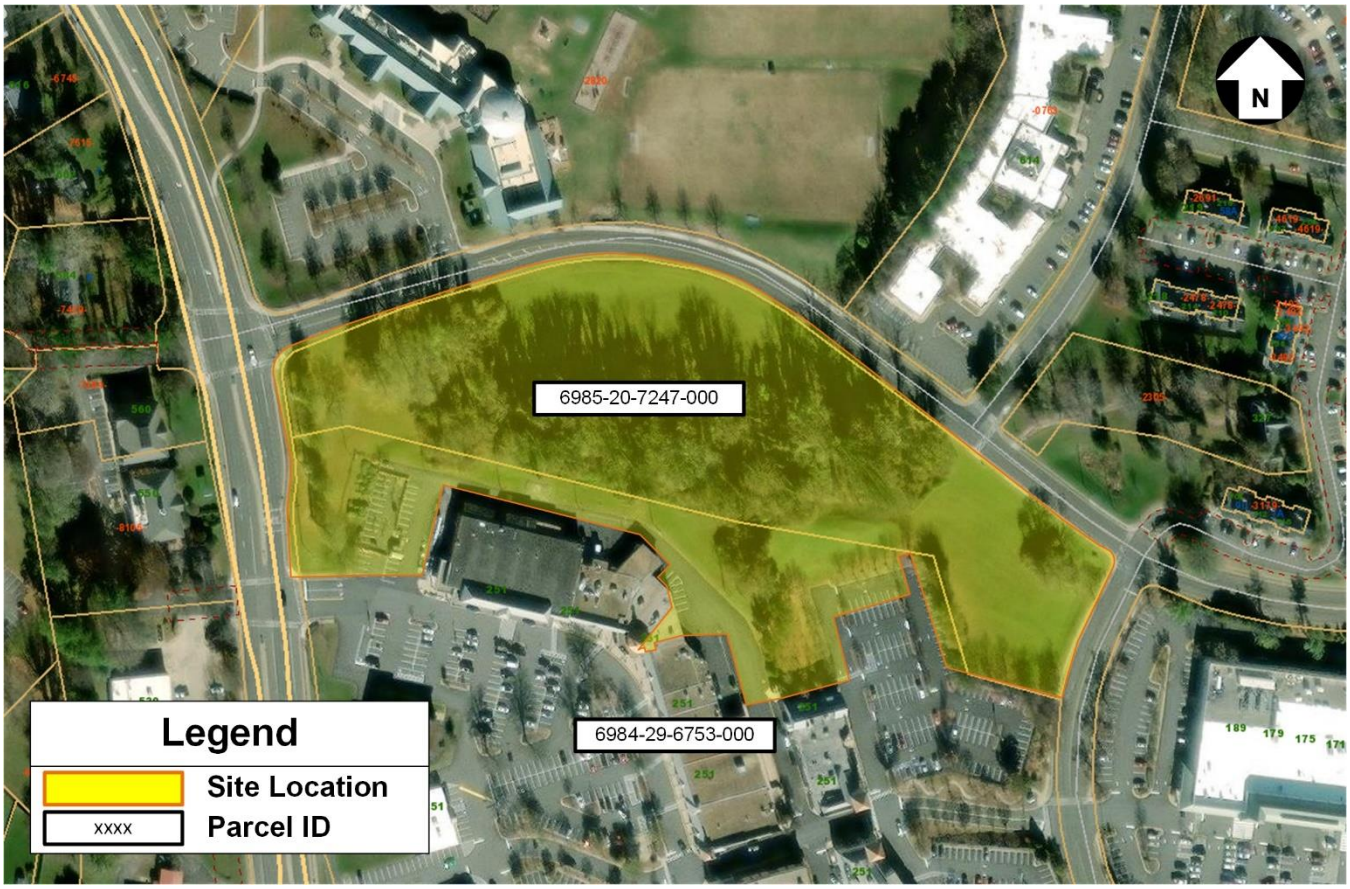

Figure 2: Parcel Map
(Source: https://fauquiergis.maps.arcgis.com/**)**

Existing Zoning and Future Land-Use

The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The existing zoning is presented in Error! Reference source not found.; the Town of Warrenton 2040 Comp Plan future land use is presented in **Figure 4**.

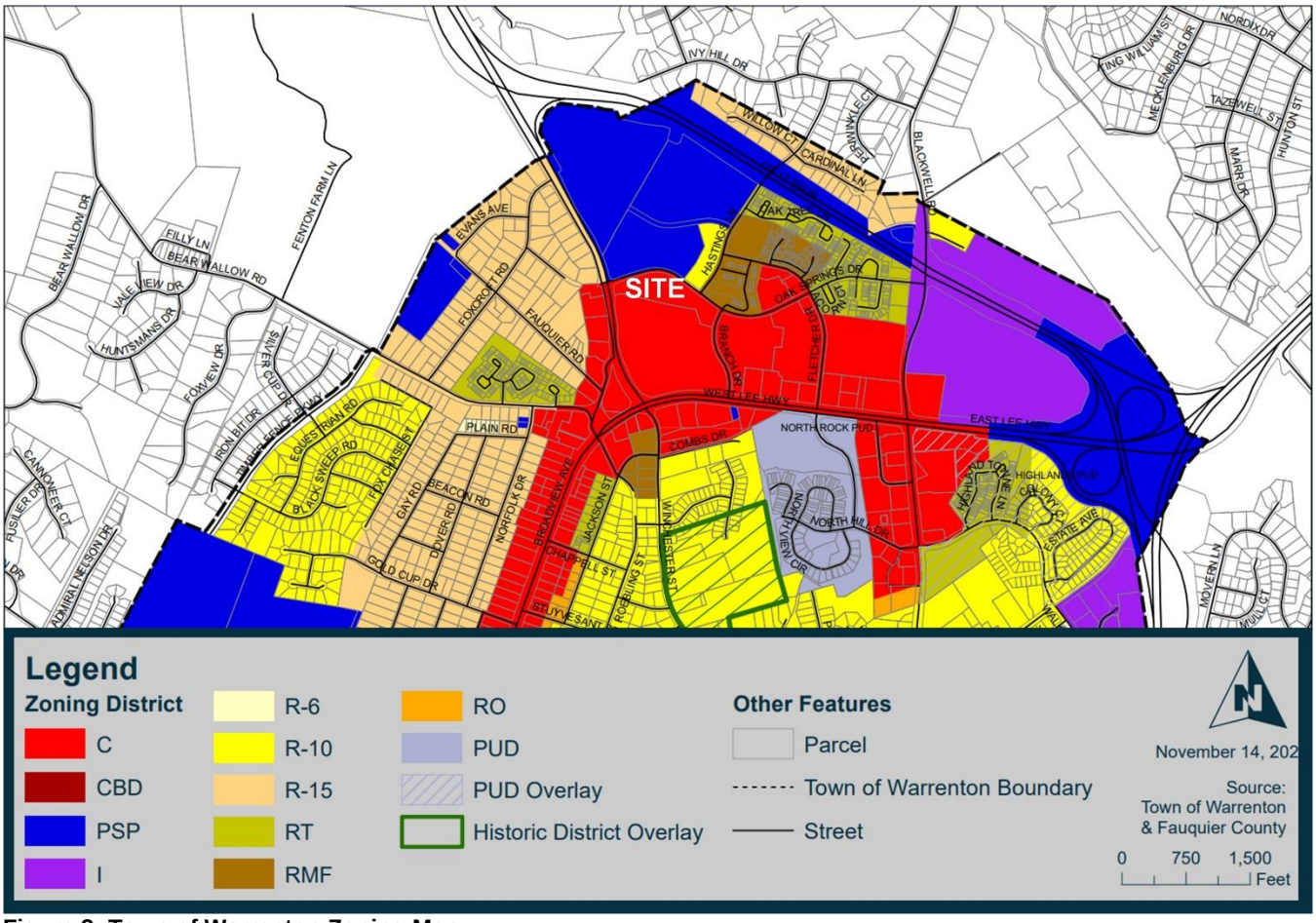

Figure 3: Town of Warrenton Zoning Map

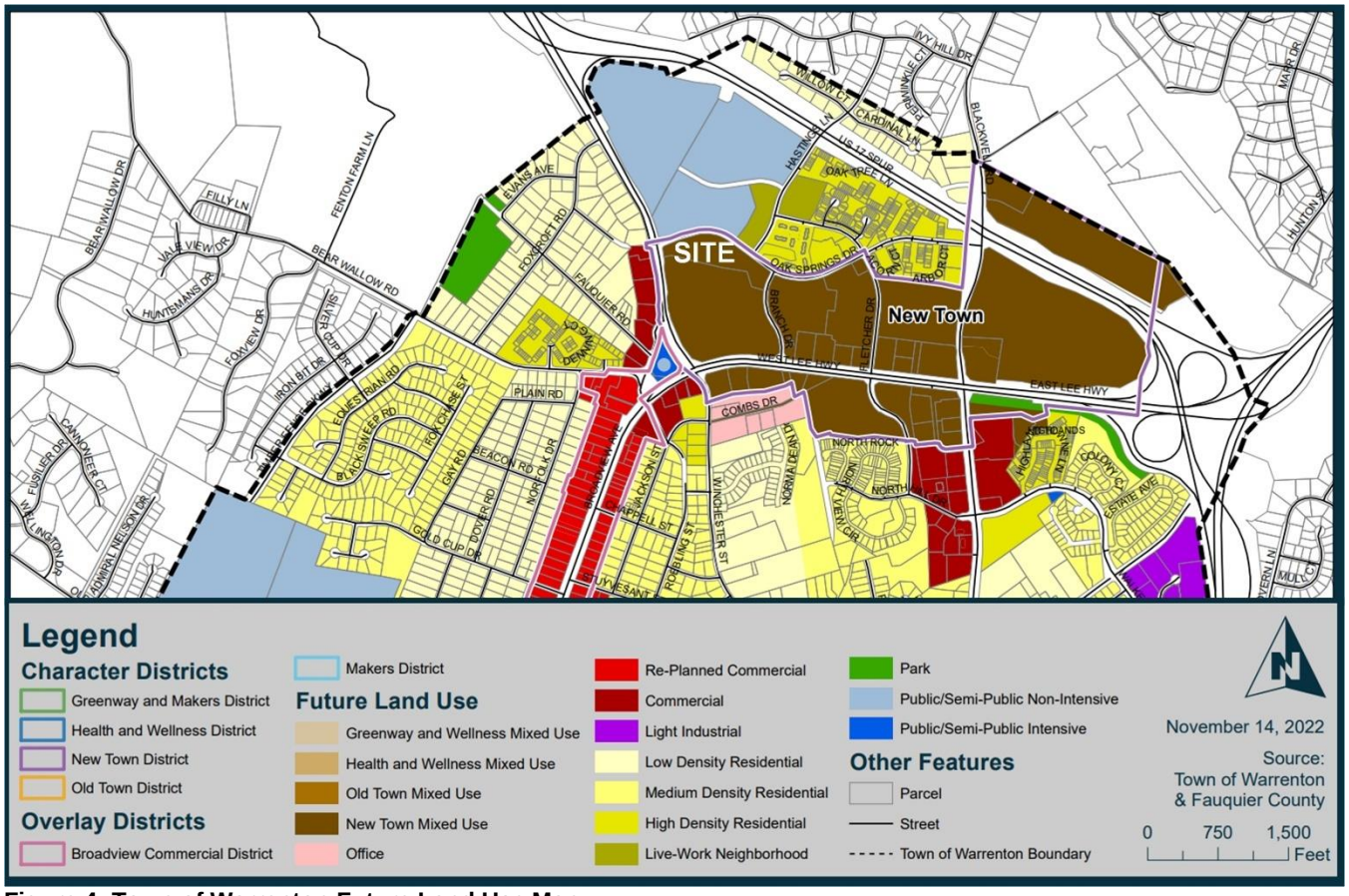

Figure 4: Town of Warrenton Future Land Use Map

Descriptions of Geographic Scope of Study and Limits of the Study Area

The geographic scope of the study area was developed in accordance with VDOT and County guidance. The vehicular study area includes ten existing study intersections. At build out of the Site, the proposed site driveways will form the fourth leg of two existing intersections.

The existing study intersections are as follows:

Intersection 1: Broadview Avenue (US Route 17) / Lee Highway at Broadview Avenue / Winchester Street [existing full-movement, signalized],

Intersection 2: Lee Highway (US Route 17) at Warrenton Village Center Driveway at Chick-fil-a Driveway [existing full-movement, unsignalized],

Intersection 3: Lee Highway (US Route 17) at Branch Drive (Town Route 4) [existing full-movement, signalized],

Intersection 4: Branch Drive (Town Route 4) at Warrenton Village Driveway / Safeway Driveway [existing full-movement, unsignalized],

Intersection 5: Oak Springs Drive (Town Route 3) at Branch Drive (Town Route 4) / Cedar Crest Drive [existing full-movement, unsignalized],

Intersection 6: Oak Springs Drive (Town Route 3) at Hastings Lane / Future Access [existing full-movement, unsignalized, future fourth leg],

Intersection 7: Oak Springs Drive (Town Route 3) at Highland School Driveway / Future Garage Access [existing full-movement, unsignalized, future fourth leg],

Intersection 8: Broadview Avenue (US Route 17 Business) at Oak Springs Drive (Town Route 3) [existing full-movement, unsignalized],

Intersection 9: Broadview Avenue (US Route 17 Business) at Warrenton Village Center South Driveway [existing full-movement, unsignalized],

Intersection 10: Broadview Avenue (US Route 17 Business) at Warrenton Village Center North Driveway [existing full-movement, unsignalized].

An aerial of the study intersections is provided in **Figure 5.**



Figure 5: Aerial of Study Boundaries (Study Intersections)

Existing Roadway Network

A description of the major roadways within the immediate vicinity of the Site is presented below in Error! Reference source not found..

Table 1: Summary of Existing Road Network

Roadway	RTE #	VDOT Classification	Legal/Design Speed Limit (mph)	Lanes	AADT (vpd)	Road Segment Between:		k-factor
Broadview Avenue	US 17 Bus	Other Principal Arterial	35	4 Div	11,000	Bus US 29 Lee Hwy	NCL Warrenton	9.7%
Oak Springs Drive	Town 3	Major Collector	25	2 Undiv	3,100	Broadview Ave	Branch Dr	10.3%
Branch Drive	Town 4	Major Collector	25	4 Undiv	4,300	Lee Highway	Oak Springs Drive	11.1%
Lee Highway	US 211/29 Bus	Other Principal Arterial	40	4 Div	26,000	US 17 Broadview	US 15 Blackwell	7.7%

Lee Highway (US Route 211/US Route 29 Business) is generally a four-lane divided Principal Arterial with a posted speed limit of 40 mph within the vicinity of the Site. The 2021 VDOT ADT on Lee Highway is 26,000 vehicles per day (vpd). For the purposes of this analysis, Lee Highway is assumed to be an east-west roadway.

Broadview Avenue (US 17 Business) is a four-lane divided Principal Arterial with a posted speed limit of 35 mph and a 2021 VDOT ADT of approximately 11,000 vpd. For the purposes of this study, Broadview Avenue is assumed to be a north-south roadway.

Branch Drive (Town Route 4) is a four-lane, undivided Major Collector with a posted speed limit of 25 mph and a 2021 VDOT ADT of approximately 4,300 vpd. For the purposes of this study, Branch Drive is assumed to be a north-south roadway.

Oak Springs Drive (Town Route 3) is a two-lane, undivided Major Collector with a posted speed limit of 25 mph and a 2021 VDOT ADT of approximately 3,100 vpd. For the purposes of this study, Oak Springs Drive is assumed to be an east-west roadway.

Analysis of 2023 Existing Conditions

Existing Roadway Safety Assessment

As agreed upon in the aforementioned scoping meeting, existing crash reports for all existing study intersections over a five-year period between May 2018 and May 2023 were provided by VDOT's Crash Analysis Tool. These reports are summarized in **Table 2** and **Table 3**.

During the five-year period, a total of 88 crashes were recorded at the ten existing study intersections as illustrated in Error! Reference source not found.. Of the 88 recorded crashes, 58 were classified as "Property Damage Only (PDO)," 30 were classified as "Injury Collision (IC), and zero fatalities occurred during the five-year period.

An aerial of the recorded crash locations is provided in **Figure 6**. The crash data by study intersection is provided in Appendix B.

The intersection crash rate was computed for the existing study intersections using the following formula and was calculated as crashes per one million entering vehicles (MEV). The approach average daily traffic volumes ($ADT_{approach}$) were derived from calculations based on the existing link ADTs.

$$Rate_{intersection} = \frac{1{,}000{,}000 * \#\ of\ Crashes}{\#\ of\ Years * 365\ \left(\frac{days}{year}\right) * ADT_{approach}}$$

It should be noted that according to the Institute of Transportation Engineers' (ITE) Transportation Impact Analysis for Site Development, a crash rate of 1.0 MEV or higher is an indication that further study may be required. A rate over 1.0 MEV does not necessarily mean there is a significant problem at an intersection, but rather it is a threshold used to identify which intersections may have an elevated crash rate due to operational, geometric, or other deficiencies. Based on the crash rates, none of the existing study intersections were considered high crash locations.

The following tables provide detailed reported crash data for all study intersections.

Table 2: Historical Crash Data Summary (May 2018 – May 2023)

	Intersection	Approximate ADT	PDO	IC	Fatality	Total	Crash Rate (Per MEV)
1	Lee Highway (US 211/US 29 BUS) at Broadview Avenue	29,125	28	12	0	40	0.75
2	Lee Highway (US 211/US 29 BUS) at Warrenton Village /	21,375	3	2	0	5	0.13
3	Lee Highway (US 211/US 29 BUS) at Branch Drive	23035	14	5	0	19	0.45
4	Branch Drive at Warrenton Village / Safeway	4485	1	1	0	2	0.24
5	Branch Drive at Oak Springs Drive	4000	2	0	0	2	0.27
6	Oak Springs Drive at Hastings Lane	No Crashes	0	0	0	0	0.00
7	Oak Springs Drive at Highland School Entrance	No Crashes	0	0	0	0	0.00
8	Broadview Avenue at Oak Springs Drive	12010	2	1	0	3	0.14
9	Broadview Avenue at Warrenton Village North	10425	2	2	0	4	0.21
10	Broadview Avenue at Warrenton Village South	13165	6	7	0	13	0.54
Total Reported Crashes Analyzed			**58**	**30**	**0**	**88**	-
Percentages			**65.9%**	**34.1%**	**0.0%**	**100.0%**	-

Based on the crash rates, none of the existing study intersections were considered high crash locations, however, Study Intersections 1 and 10 are on the Culpepper District top 100 PSI list. A pipeline study has been conducted and these locations have been identified for construction of roundabouts.

Table 3: VDOT Crash Data Summary by Type of Collision (May 2018 – May 2023)

	Intersection	Fixed Object/Single Vehicle	Head-on	Sideswipe (Same Direction)	Sideswipe (Opposite Direction)	Rear End	Angle	Backing	Pedestrian	Animal	Other	Total
1	Lee Highway (US 211/US 29 BUS) at Broadview Avenue	0	0	3	0	24	11	0	0	0	2	40
2	Lee Highway (US 211/29 BUS) at Warrenton Village /	2	0	0	0	1	2	0	0	0	0	5
3	Lee Highway (US 211/29 BUS) at Branch Drive	1	0	1	1	6	8	1	0	0	1	19
4	Branch Drive at Warrenton Village / Safeway	0	0	0	0	0	2	0	0	0	0	2
5	Branch Drive at Oak Springs Drive	0	0	0	0	0	2	0	0	0	0	2
6	Oak Springs Drive at Hastings Lane	0	0	0	0	0	0	0	0	0	0	0
7	Oak Springs Drive at Highland School Entrance	0	0	0	0	0	0	0	0	0	0	0
8	Broadview Avenue at Oak Springs Drive	0	0	0	0	0	3	0	0	0	0	3
9	Broadview Avenue at Warrenton Village North	0	0	0	0	0	3	0	0	1	0	4
10	Broadview Avenue at Warrenton Village South	0	3	1	0	1	7	0	0	0	1	13
Total Reported Crashes Analyzed		**3**	**3**	**5**	**1**	**32**	**38**	**1**	**0**	**1**	**4**	**88**
Percentages		**3.4%**	**3.4%**	**5.7%**	**1.1%**	**36.4%**	**43.2%**	**1.1%**	**0.0%**	**1.1%**	**4.5%**	**100.0%**

Approximately 43% of the crashes that occurred were classified as angle collisions and approximately 36% were classified as rear end collisions. Rear end and angle collisions are common at congested signalized intersections. Study Intersection 1 has been identified as a location for a potential roundabout.

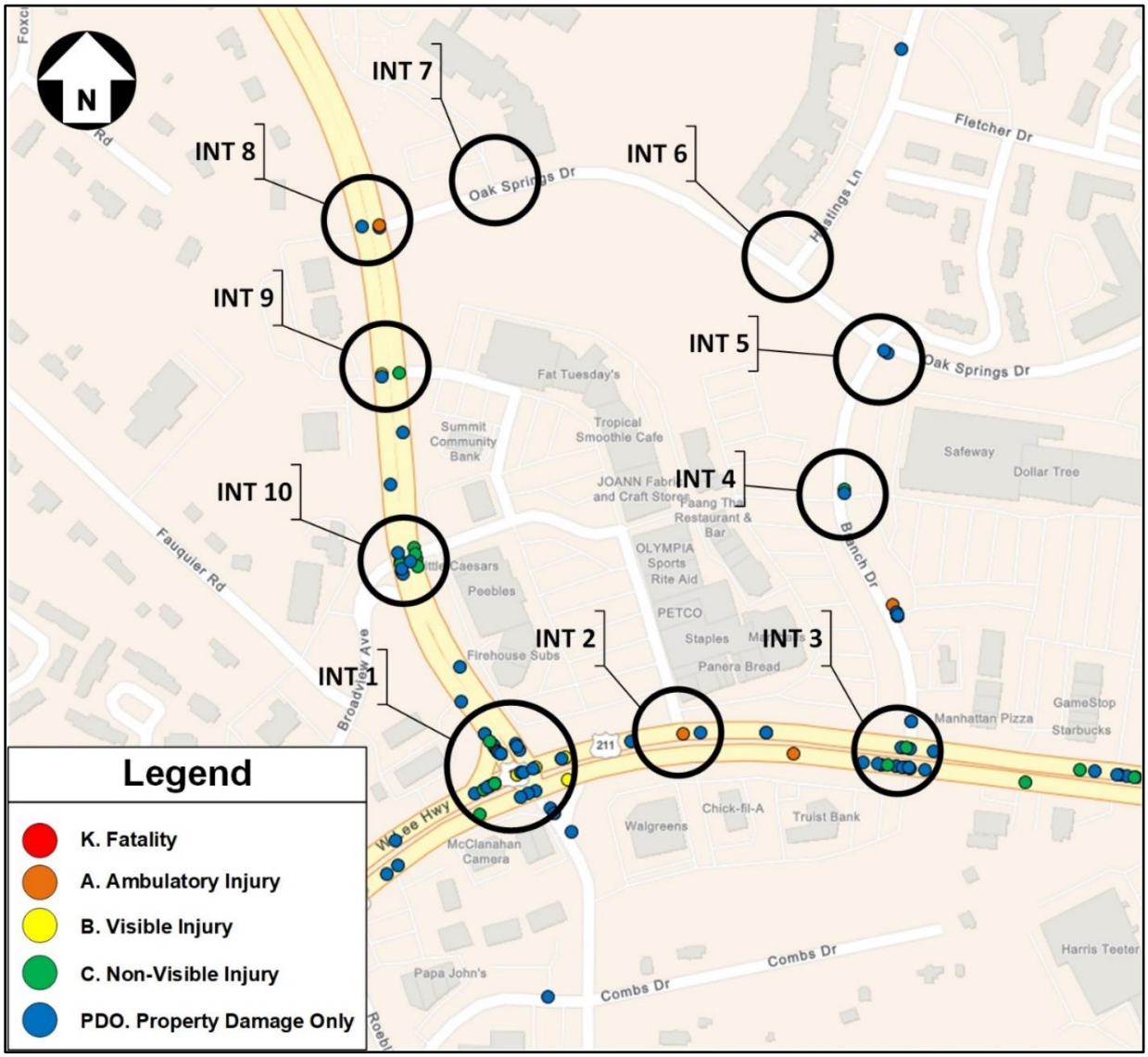

Figure 6: Recorded Crash Location Map

2023 Existing Traffic Volumes

In order to determine the weekday morning (AM) and weekday afternoon (PM) peak hour turning movement traffic volumes, turning movement counts (TMC) were collected at the study intersections in February 2023. The referenced weekday turning movement counts were collected from the hours of 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM:

- Study Intersection 1: Lee Highway (US 211/US 29 BUS) at Broadview Avenue (US 17 BUS)
- Study Intersection 2: Lee Highway (US 211/US 29 BUS) at Warrenton Village / Chick-fil-a Driveway
- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 4: Branch Drive at Warrenton Village / Safeway
- Study Intersection 5: Branch Drive at Oak Springs Drive
- Study Intersection 6: Oak Springs Drive at Hastings Lane
- Study Intersection 7: Oak Springs Drive at Highland School Entrance
- Study Intersection 8: Broadview Avenue at Oak Springs Drive
- Study Intersection 9: Broadview Avenue at Warrenton Village North
- Study Intersection 10: Broadview Avenue at Warrenton Village South

- From the turning movement counts, the following system peak hours were determined.
  - AM Peak Hour: 7:30 AM to 8:30 AM
  - PM Peak Hour: 4:00 PM to 5:00 PM

The 2023 existing road network configuration is presented in **Figure 7**. The existing AM and PM peak hour traffic volumes for the existing study intersections are shown in **Figure 8**. The ADT volumes, depicted in **Figure 8** and in subsequent volume graphics, were calculated based on VDOT published k-factors from 2021, if available, or assumed k-factors per approach of 0.10 and the PM peak hour volumes. The raw existing traffic count data is provided in Appendix C.

In addition to turning movement volumes, pedestrians crossing data was collected at all study intersections. The peak hour pedestrian crossing data is presented in **Figure 9**.

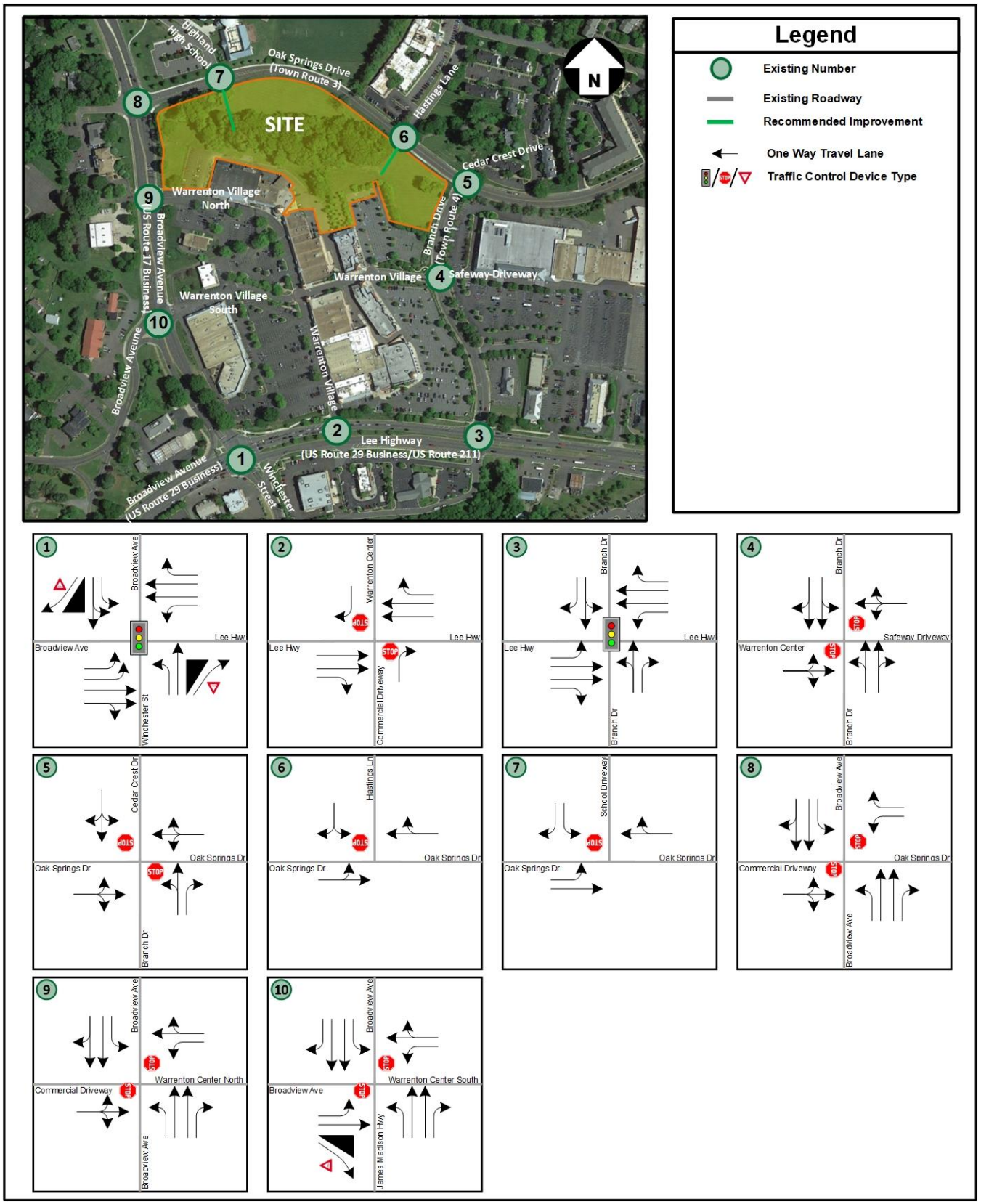

Figure 7: 2023 Existing Conditions – Roadway Network Geometric Configuration and Traffic Control Devices

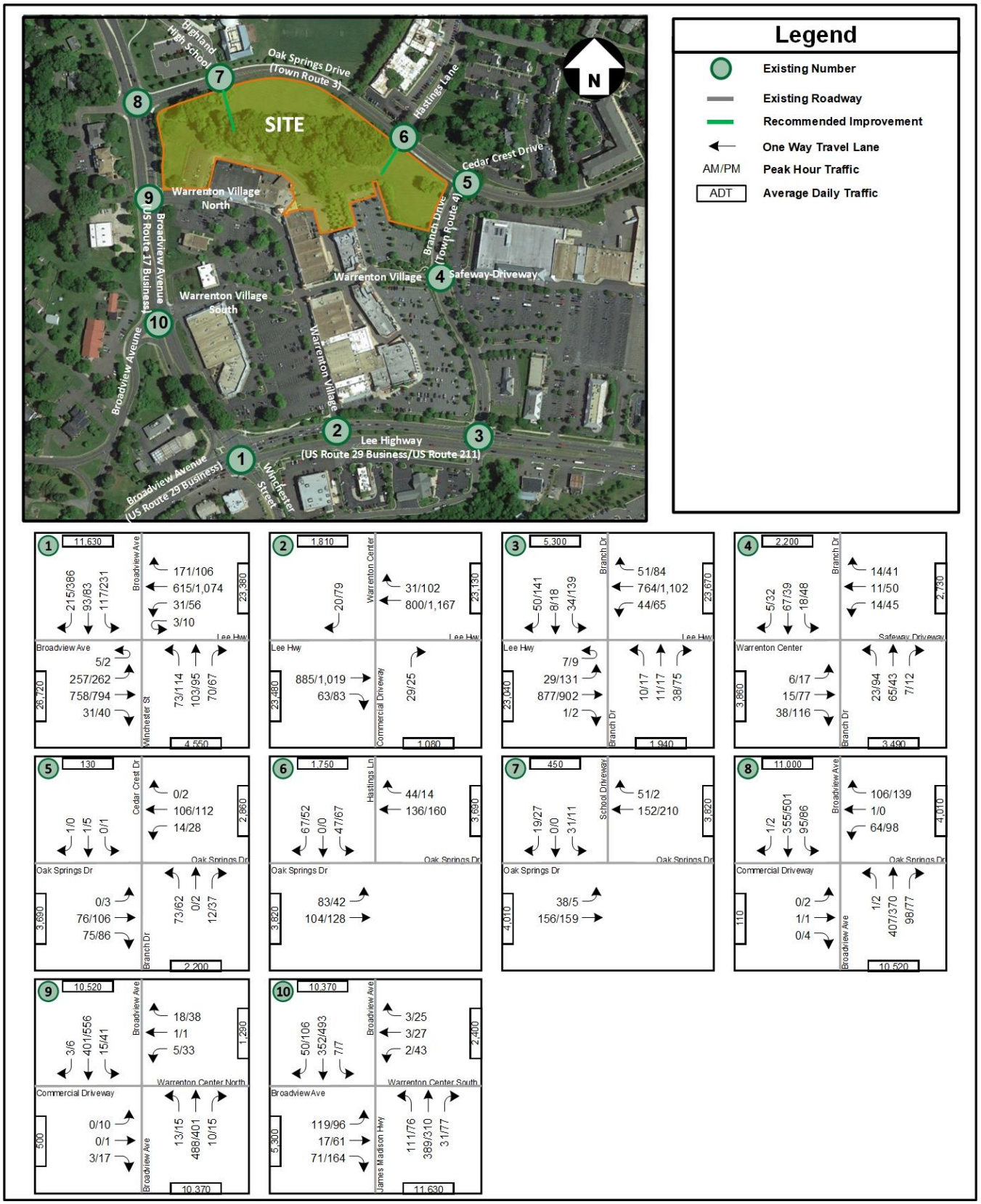

Figure 8: 2023 Existing Conditions – Vehicular Traffic Volumes

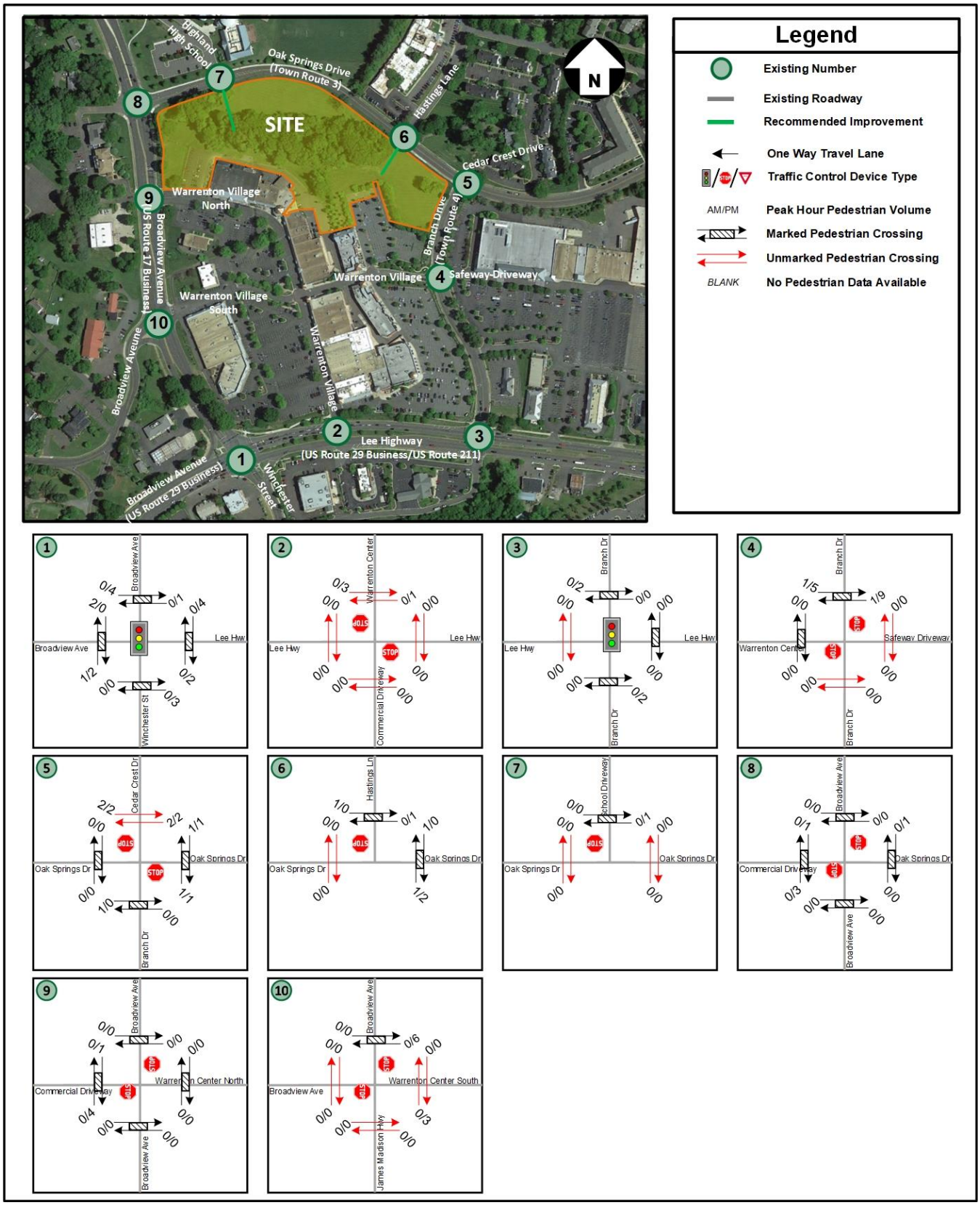

Figure 9: 2023 Existing Conditions – Pedestrian Volumes

Existing Intersection Capacity and Queueing Analysis

Intersection capacity and queuing analyses were performed for the 2023 Existing Conditions scenario at the study area intersections during AM and PM peak hours, in accordance with VDOT's *TOSAM* (version 2) guidelines. *Synchro,* version 11, was used to analyze the study intersections with results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) 6th edition methodology[1] and include level of service (LOS), delay, and queue length comparisons for the turning movements analyzed. Lane configurations at study intersections along the road network were field-verified, and the existing traffic volumes discussed in the aforementioned section as well as other relevant data were entered into the analysis models.

Signal timings were obtained from VDOT and were utilized as a base for the analysis models. Traffic operation conditions as well as lane configurations were field verified. The existing traffic volumes discussed in the aforementioned section as well as other relevant data were entered into the analysis models. For the purposes of this analysis, the existing peak hour factors (PHF) utilized in the analysis of existing conditions were based on the 2023 existing volumes and were modeled in the *Synchro* network on a by-intersection basis. PHF in the range of 0.85 to 1.00 were used for the existing scenario, as agreed to in the scoping document. The heavy vehicle percentages (HV%) utilized per movement were based on the existing traffic counts collected. Pedestrian crossing data utilized per crossing were based on the existing traffic counts collected. Based on *Synchro* guidance and pedestrian count data, all pedestrian calls at both signalized intersections were set to five calls per hour. Note that for analysis purposes, all turning movement counts were coded with a minimum volume of one vehicle in *Synchro*.

Per the scoping meeting with VDOT and Town staff, it would be considered acceptable and/or desirable to achieve an approach LOS D or better for traffic operations using HCM methodology. The results of the intersection capacity and queuing analyses from *Synchro* are presented in **Table 4** and graphically in **Figure 10**. The results are expressed in LOS and delay (seconds per vehicle) for overall signalized/all-way stop control intersections and per approach and lane group for all study intersections. Any overall signalized intersection or approach that operates at LOS E or F is displayed in red.

The queue lengths were reported as the 95th percentile queues from *Synchro* and are expressed in feet. The lane groups where the queue lengths exceeded the available effective storage capacity of existing turn lanes are displayed in red.

The description of different LOS and delay are included in Appendix D. The signal timing data provided by VDOT is included in Appendix E. The detailed analysis worksheets of 2023 Existing Conditions are contained in Appendix F.

[1] It should be noted that HCM 2000 methodology was used in lieu of HCM 6th if the HCM 6th methodology was not applicable. HCM 6th could not be applicable in such cases as nonstandard National Electrical Manufacturers Association (NEMA) configurations, shared lane configurations, placement of loop detectors, U-turns, etc.

Table 4: 2023 Existing Conditions – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
1	**Broadview Ave (E/W) at Winchester St (N/S)**							
	Overall Intersection (Signalized)		**D**	**36.4**		**D**	**39.4**	
	Eastbound Approach		***C***	***34.2***		***D***	***40.6***	
	Eastbound Left	250	E	64.9	186	E	72.0	193
	Eastbound Thru/Right		C	24.0	428	C	30.6	428
	Westbound Approach		***C***	***25.5***		***C***	***25.9***	
	Westbound Left	130	F	89.7	78	F	93.8	m119
	Westbound Thru		B	19.8	143	C	22.7	192
	Westbound Right	200	C	33.6	46	B	16.8	m15
	Northbound Approach		***E***	***60.3***		***E***	***66.6***	
	Northbound Left	250	E	61.7	126	E	74.8	188
	Northbound Thru		E	66.5	166	E	67.3	160
	Northbound Right	125	D	49.9	0	D	51.7	17
	Southbound Approach		***D***	***49.2***		***D***	***50.9***	
	Southbound Left	215	E	63.1	167	E	59.2	251
	Southbound Left/Thru		E	62.0	171	E	59.0	257
	Southbound Right		D	36.1	95	D	44.2	417
2	**Broadview Ave (E/W) at Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy (N/S)**							
	Overall Intersection (TWSC)							
	Northbound Approach		***B***	***12.6***		***B***	***13.4***	
	Northbound Right		B	12.6	5	B	13.4	5
	Southbound Approach		***B***	***10.7***		***B***	***13.3***	
	Southbound Right		B	10.7	3	B	13.3	15
3	**Broadview Ave (E/W) at Branch Dr (N/S)**							
	Overall Intersection (Signalized)		**B**	**16.2**		**C**	**31.6**	
	Eastbound Approach		***A***	***9.0***		***C***	***20.9***	
	Eastbound Left	240	F	81.5	m80	F	80.8	225
	Eastbound Thru		A	6.0	133	B	11.6	226
	Eastbound Right	330	A	9.9	m0	B	13.4	m0
	Westbound Approach		***B***	***15.8***		***C***	***28.5***	
	Westbound Left	150	E	67.4	88	E	78.5	123
	Westbound Thru		B	13.2	394	C	26.4	610
	Westbound Right	150	A	9.8	0	B	17.3	0
	Northbound Approach		***E***	***60.3***		***E***	***67.0***	
	Northbound Left/Thru		E	61.0	43	E	68.6	73
	Northbound Right	60	E	59.9	0	E	66.2	0
	Southbound Approach		***E***	***64.7***		***E***	***69.4***	
	Southbound Left/Thru		E	67.2	86	E	78.8	249
	Southbound Right		E	62.7	0	E	59.0	53
4	**Warrenton Village Center Dwy/Shopping Center Dwy (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.4***		***B***	***11.8***	
	Eastbound Left/Thru/Right		A	9.4	8	B	11.8	30
	Westbound Approach		***B***	***10.1***		***B***	***14.2***	
	Westbound Left/Thru/Right		B	10.1	5	B	14.2	28
	Northbound Approach							
	Northbound Left		A	7.4	3	A	7.5	5
	Southbound Approach							
	Southbound Left		A	7.4	0	A	7.4	3
5	**Oak Springs Dr (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	7.5	0	A	7.5	0
	Westbound Approach							
	Westbound Left		A	7.7	0	A	7.7	3
	Northbound Approach		***B***	***11.2***		***B***	***11.4***	
	Northbound Left/Thru		B	11.6	13	B	12.6	13
	Northbound Right		A	9.0	0	A	9.4	5
	Southbound Approach		***B***	***10.0***		***B***	***10.9***	
	Southbound Left/Thru/Right		B	10.0	0	B	10.9	0

Table 4 (Continued): 2023 Existing Conditions – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
6	**Oak Springs Dr (E/W) at Hastings Ln / Future Access (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	7.9	5	A	7.7	3
	Southbound Approach		***B***	***11.5***		***B***	***11.3***	
	Southbound Left/Thru/Right		B	11.5	18	B	11.3	18
7	**Oak Springs Dr (E/W) at Highland School Dwy / Future Garage Access (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left	75	A	7.8	3	A	7.7	0
	Southbound Approach		***B***	***11.2***		***B***	***10.2***	
	Southbound Left/Thru		B	12.3	5	B	11.5	3
	Southbound Right		A	9.4	3	A	9.7	3
8	**Oak Springs Dr (E/W) at Broadview Ave (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***D***	***25.2***		***C***	***16.8***	
	Eastbound Left/Thru/Right		D	25.2	0	C	16.8	3
	Westbound Approach		***C***	***23.0***		***D***	***27.5***	
	Westbound Left/Thru	125	E	42.8	53	F	51.1	83
	Westbound Right		B	10.8	15	B	10.8	18
	Northbound Approach							
	Northbound Left	90	A	8.1	0	A	8.6	0
	Southbound Approach							
	Southbound Left	225	A	9.3	10	A	8.7	8
9	**Warrenton Village North Dwy (E/W) at Broadview Ave (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.9***		***C***	***20.3***	
	Eastbound Left/Thru/Right		A	9.9	0	C	20.3	10
	Westbound Approach		***B***	***13.8***		***C***	***18.5***	
	Westbound Left		C	22.9	3	D	27.8	18
	Westbound Thru/Right		B	11.4	3	B	10.6	5
	Northbound Approach							
	Northbound Left	150	A	8.3	0	A	8.8	3
	Southbound Approach							
	Southbound Left	110	A	8.7	3	A	8.4	3
10	**Warrenton Village South Dwy/Broadview Ave (E/W) at Broadview Ave/Winchester St (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***E***	***38.8***		***D***	***28.4***	
	Eastbound Left		F	57.3	110	F	52.1	83
	Eastbound Thru		D	29.6	10	E	36.7	40
	Eastbound Right		B	10.1	8	B	11.5	25
	Westbound Approach		***C***	***21.4***		***D***	***33.0***	
	Westbound Left		D	28.0	0	E	47.2	38
	Westbound Thru/Right		C	19.2	3	C	21.3	20
	Northbound Approach							
	Northbound Left	160	A	8.7	10	A	9.2	8
	Southbound Approach							
	Southbound Left	160	A	8.4	0	A	8.2	0

NOTES:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] m: 95th percentile volume and queues (reported from Synchro) are metered by upstream signal.

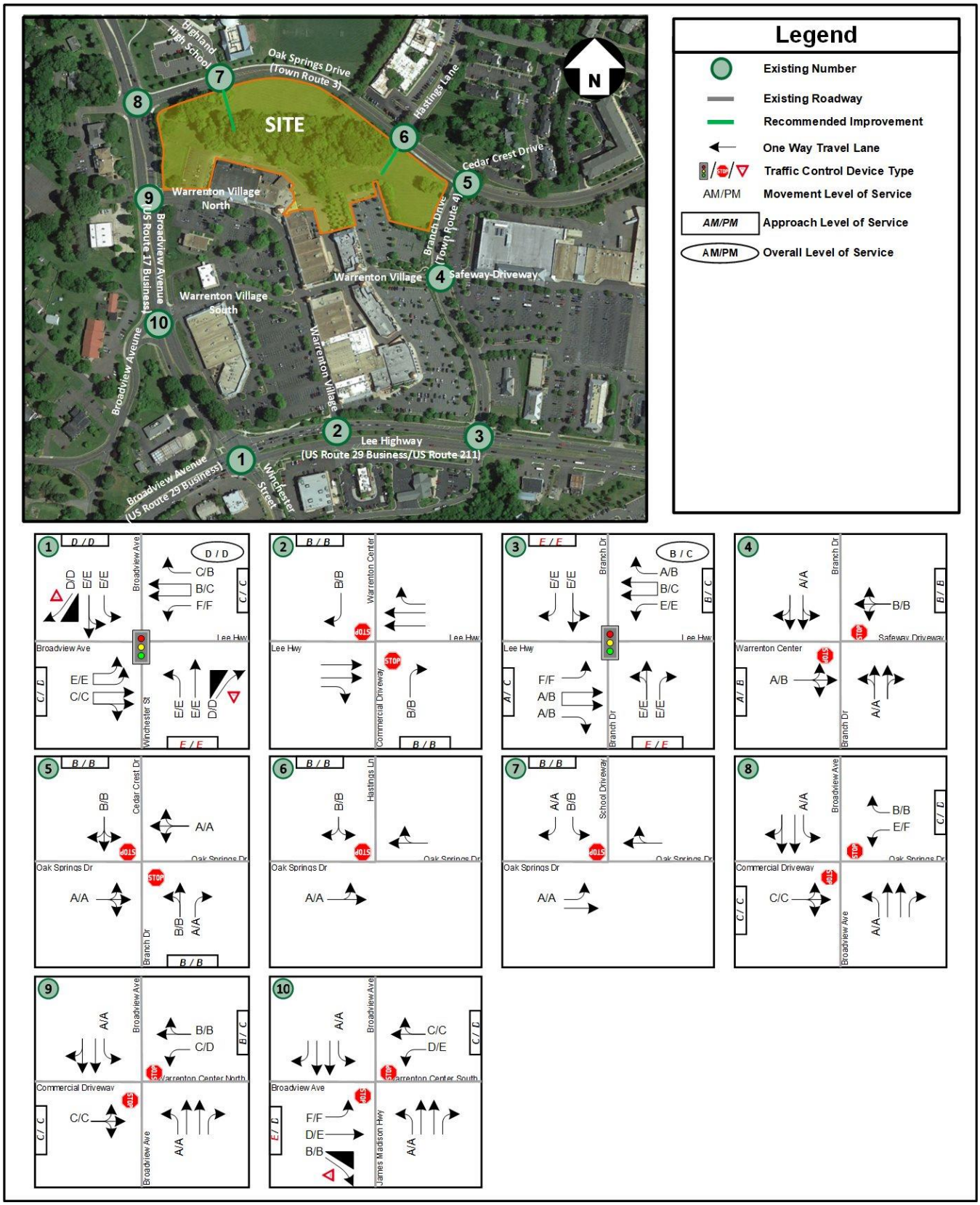

Figure 10: 2023 Existing Conditions – Level of Service Results

Based on the capacity analysis of existing conditions, the two signalized study intersections operate at overall levels of service of D or better during both the AM and PM peak hours.

Based on the capacity analysis of existing conditions, the approaches of all study intersections operate at approach levels of service of D or better during both the AM and PM peak hours, except for the following study intersections that have at least one approach that operates at levels of service E or F during at least one peak hour:

- Study Intersection 1: Lee Highway (US 211/US 29 BUS) at Broadview Avenue / Winchester Street
- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 10: Broadview Avenue at Warrenton Village South

Based on the queuing analysis performed for existing conditions, all turning movements at the study intersections have maximum queue lengths that are accommodated within the available storage lengths of the turn bays except for the southbound left turn movement at Study Intersection 1 (Lee Highway at Broadview Avenue / Winchester Street).

Analysis of 2027 Future Conditions Without Development

For the purposes of this study, the Development is anticipated to be constructed by 2027; this scenario analyzes the future without development conditions for the year 2027.

Future without Development Traffic Volumes

The derivation of future without development traffic volumes was based on assumptions and parameters discussed with VDOT and the County during the scoping process for this study. The future conditions include anticipated inherent regional growth, the inclusion of any potential background developments in the pipeline around the vicinity of the Site, and any anticipated roadway improvements.

Inherent Regional Growth

The Development is anticipated to be complete in 2027. In order to account for increased demand on the traffic network between 2023 and 2027, an inherent growth rate was applied to the future scenarios. This “inherent” growth was anticipated to account for regional development within the at-large area, which would ultimately result in increased roadway demand. Furthermore, the inherent growth was anticipated to account for any potential background developments unaccounted for within the vicinity of the study area.

To account for 2027 future conditions, an inherent growth rate of 1.0%, (compounded annually) over a four-year period, between 2023 to 2027 (and totaling 4.06% growth of the existing volumes) was applied to the Lee Highway mainline through movements at the intersection of Lee Highway at Broadview Avenue / Winchester Street. The growth volumes were balanced along the road network by increasing the mainline through movements at subsequent study intersections along the road network where applicable.

The inherent regional growth volumes (for the period between 2023 and 2027) are illustrated in **Figure 11.**

Potential Background Development(s)

In addition to the applied inherent regional growth reflecting increased regional traffic demand, a total of two “background” developments within the vicinity of the Site, with their locations depicted in **Figure 12**, were identified in the meeting with VDOT and Town staff for inclusion in this study. The background developments included are as follows:

1. Waterloo Junction
    - Located in the southeast quadrant of Bear Wallow Road and Norfolk Drive, the Waterloo Junction development is anticipated to include 47 townhomes, 6 apartments, and 3,600 square feet of retail space.
2. Patrick Ryan Way Homes
    - Located along Winchester Street at Patrick Ryan Way, this development is expected to consist of 60 single family homes. This development was partially built out at the time the turning movement counts were collected. For the purposes of this study, it was assumed that 40 of the 60 homes are built and occupied.

The assignment of the total combined background trips to the road network is depicted in **Figure 13**. Additional information, including the trips generated and the assignment of trips for each individual background development are included in Appendix G.

Potential Roadway Improvement(s)

As discussed during the scoping meeting, there is one roadway improvement within the vicinity of the site that is either fully funded or would be completely constructed by 2027.

- Smartscale project to construct a roundabout at the intersection of Lee Highway at Winchester Street / Broadview Avenue (Study Intersection 1)

There is one roadway improvement within the vicinity of the site that was previously identified for construction but was not selected for funding and therefore not included in the analysis:

- Smartscale project to construct a six-leg roundabout at the intersection of Broadview Avenue at Warrenton Village South (Study Intersection 10)

Relevant Smartscale excerpts and information are included in Appendix G.

The anticipated 2027 future road network (without the development) is illustrated in **Figure 14.**

Future without Development Traffic Volumes

In order to forecast future roadway traffic volumes for the year 2027, the 2023 existing traffic volumes were combined with the inherent regional growth traffic volumes and the combined background development trips. The 2027 future conditions without Development traffic volumes are illustrated in **Figure 15**.

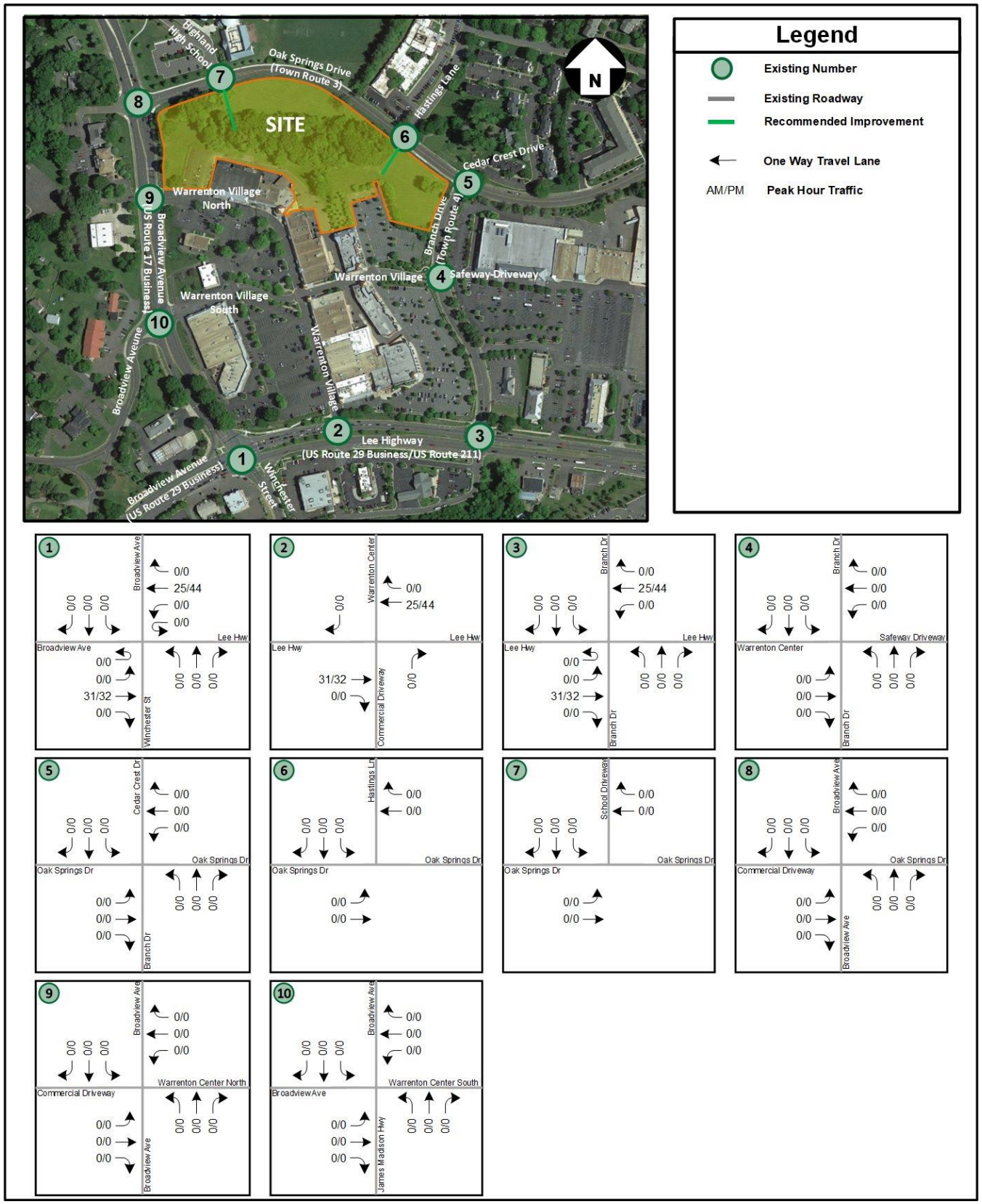

Figure 11: Projected Inherent Regional Growth Traffic Volumes (2023 to 2027)

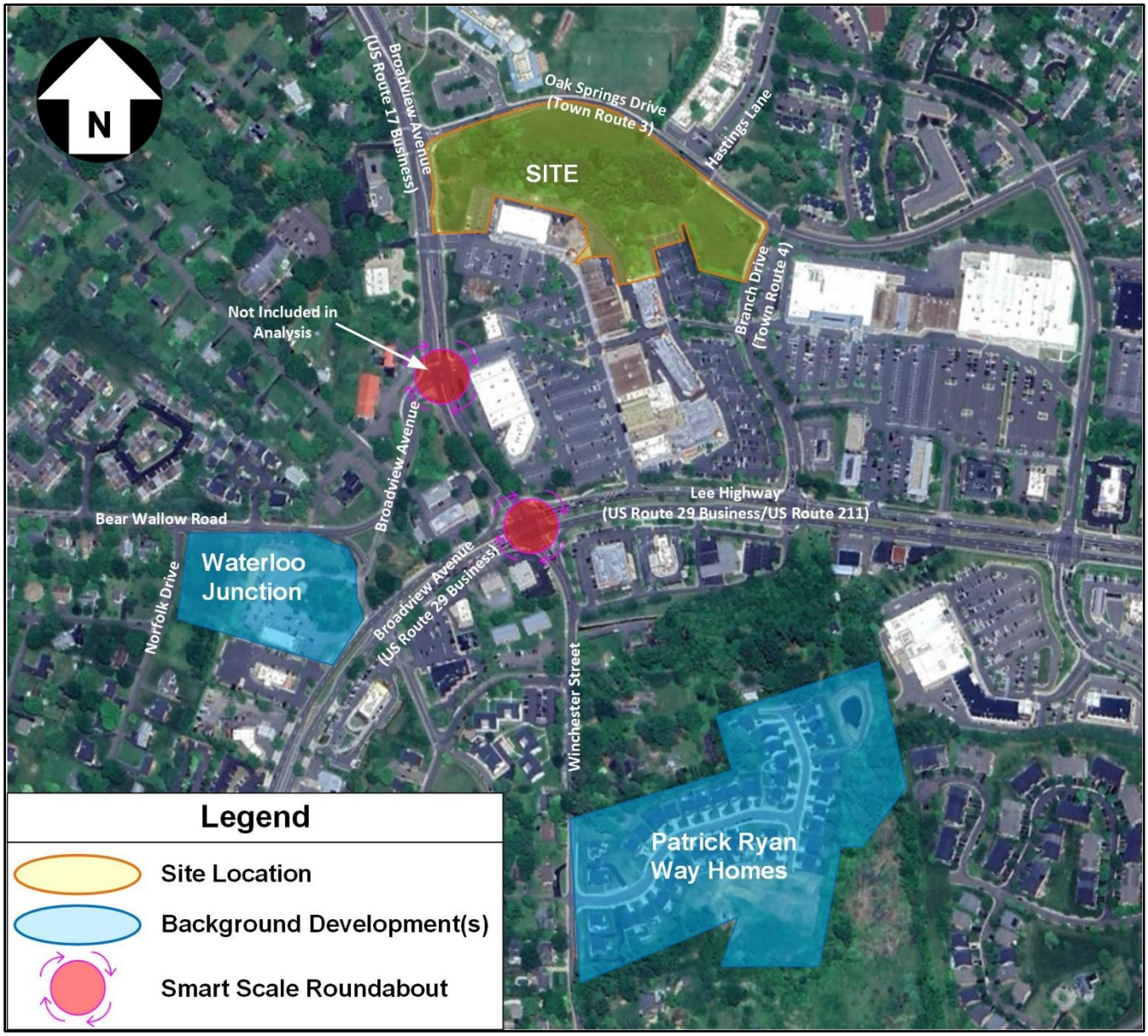

Figure 12: Background Development and Roadway Improvement Map

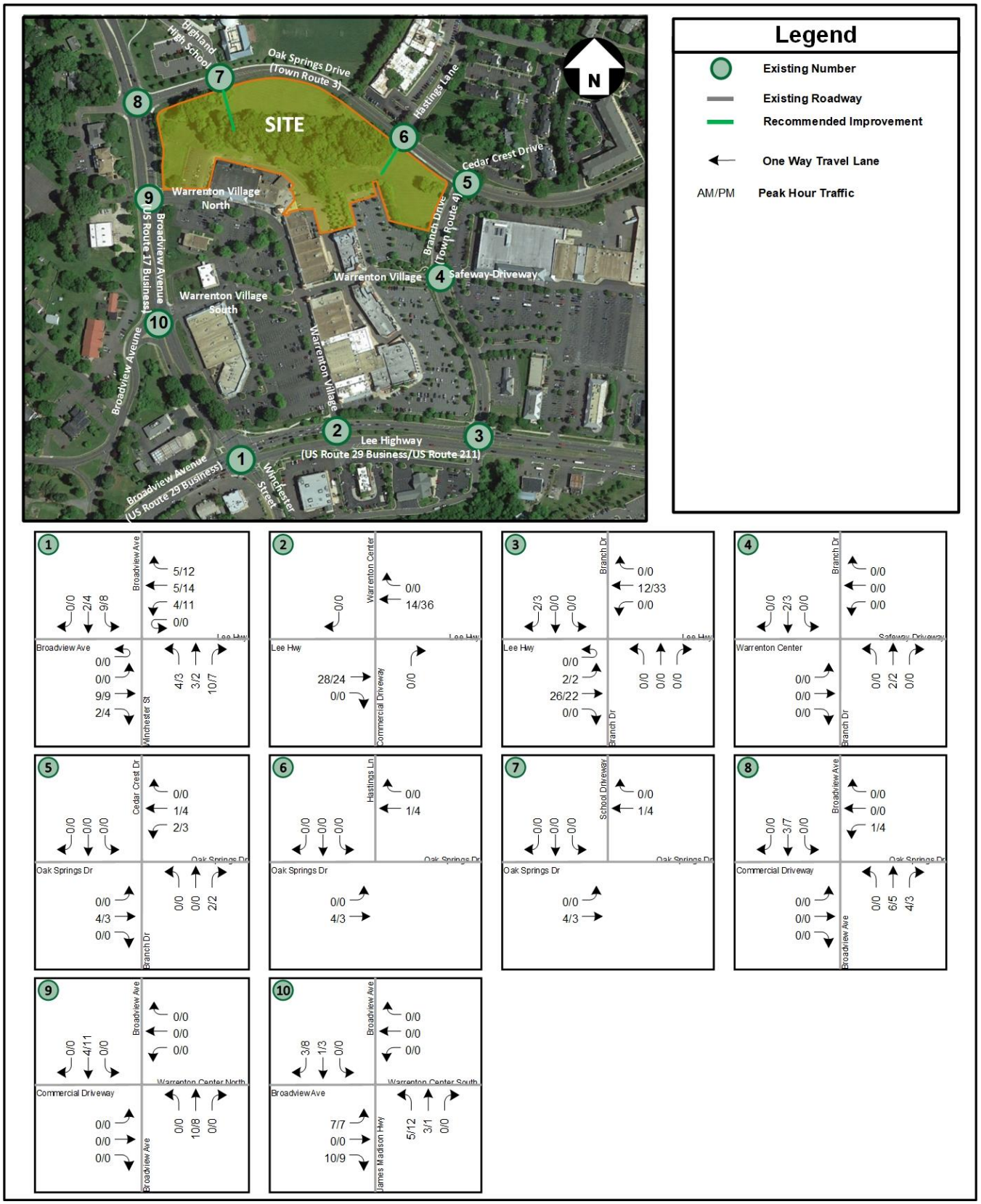

Figure 13: Total Combined Background Development Trips

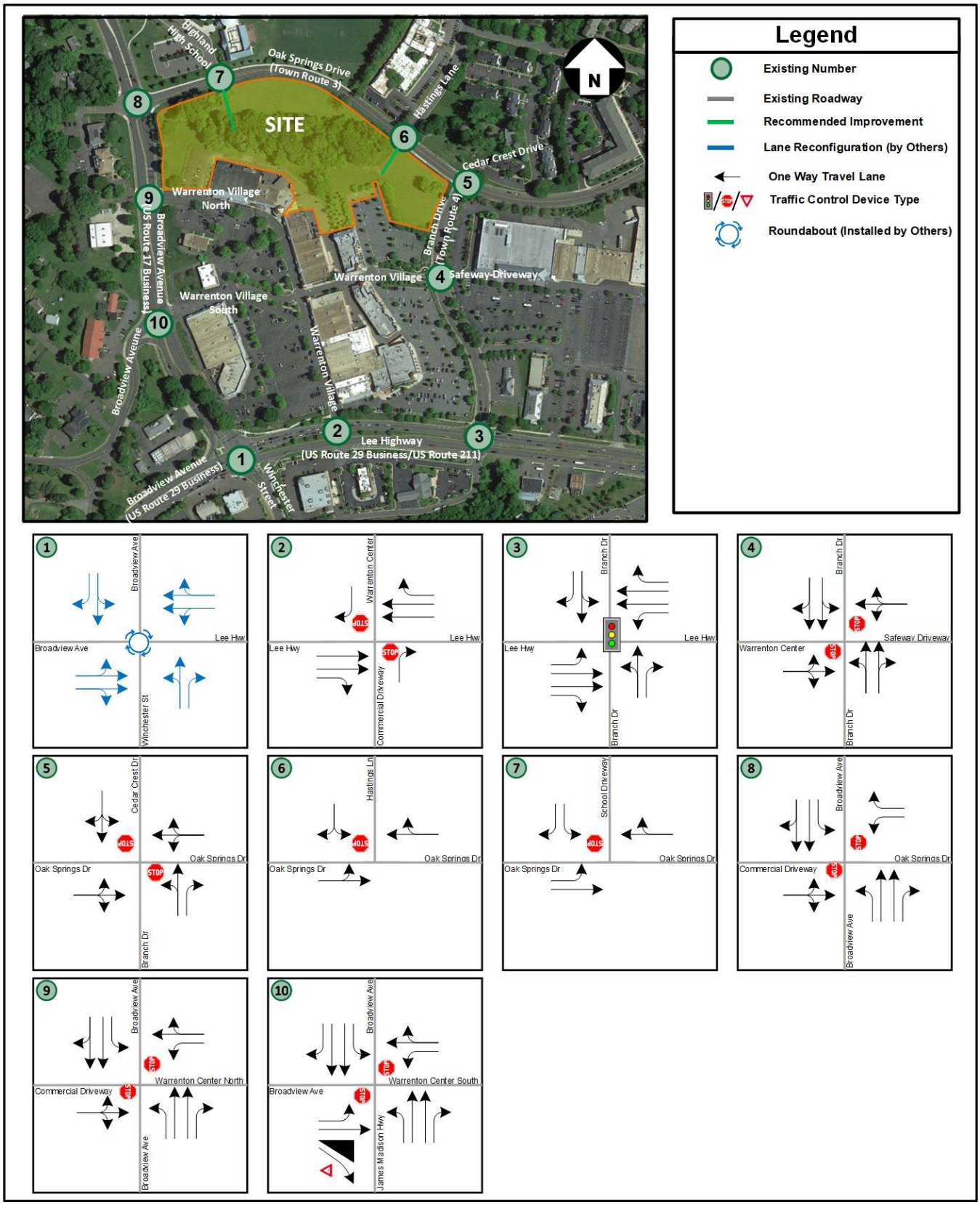

Figure 14: 2027 Future Conditions without Development – Roadway Network Geometric Configuration and Traffic Control Devices

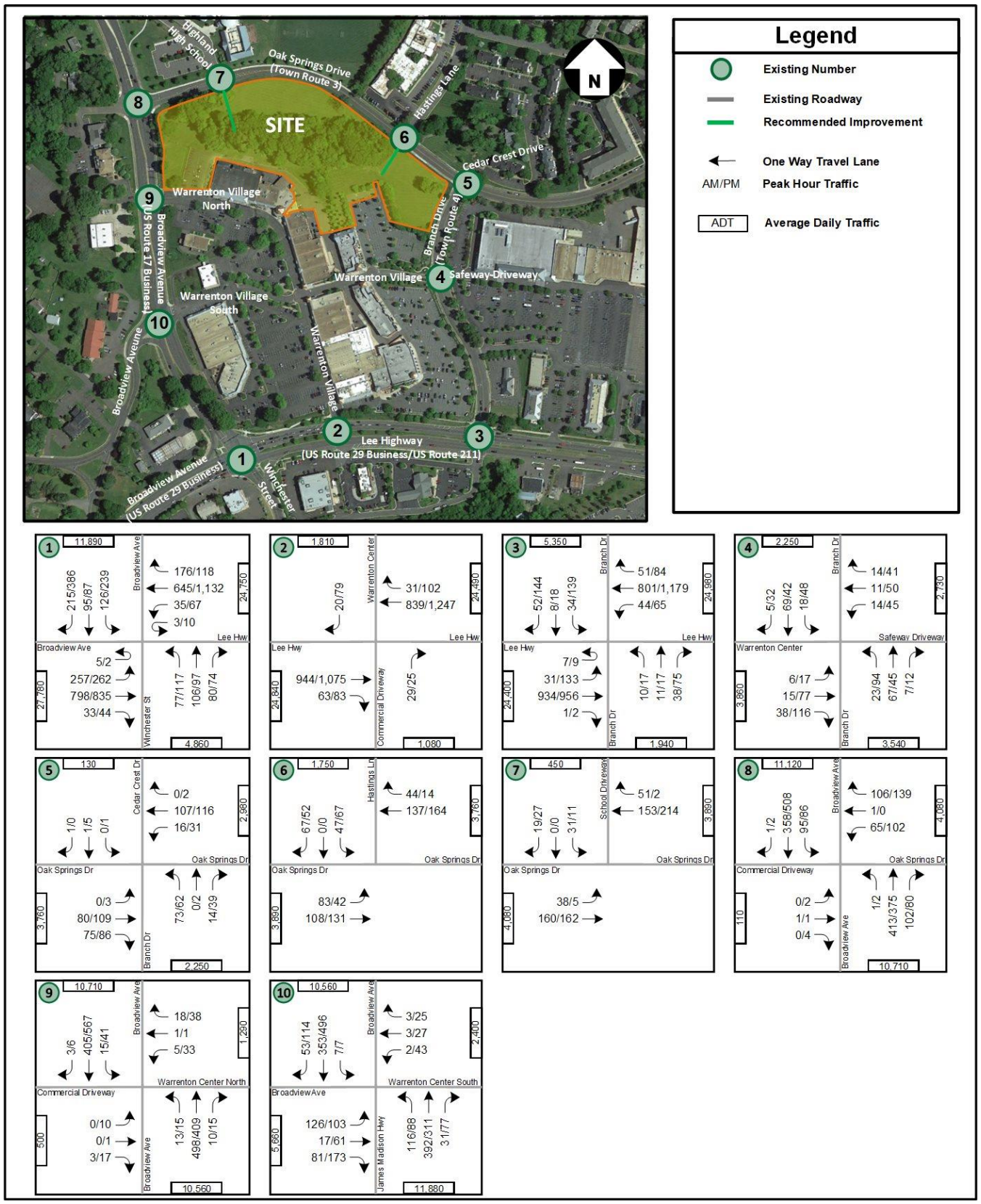

Figure 15: 2027 Future Conditions without Development – Vehicular Traffic Volumes

Future without Development Intersection Capacity and Queuing Analysis

Intersection capacity and queueing analyses were performed for the 2027 Future Conditions without Development scenario at the study area intersections during the AM and PM peak hours, in accordance with VDOT's *TOSAM* (version 2) guidelines. *Synchro,* version 11, was used to analyze the study intersections with results based on TRB's HCM 6th methodology and include LOS, delay, and queue length comparisons for the turning movements analyzed. The roundabout was analyzed using *Sidra*, version 9.

For the purposes of this analysis, the intersection PHF utilized in the analysis of future conditions was determined based on the existing traffic counts, with a minimum of 0.92 as agreed to in the scoping document. The HV% were based on the existing conditions scenario. Note that for analysis purposes, all turning movement counts were coded with a minimum volume of one vehicle in *Synchro*.

Per the scoping meeting with VDOT and County staff, it would be considered acceptable and/or desirable to achieve an approach LOS D or better for traffic operations using HCM methodology. The results of the intersection capacity and queuing analyses from *Synchro* are presented in **Table 5** and graphically in **Figure 16.** The results are expressed in LOS and delay (seconds per vehicle) for overall signalized intersections and per approach and lane group for all study intersections. Any overall signalized intersection or approach that operates at LOS E or F is displayed in red.

The queue lengths were reported as the 95th percentile queues determined from *Synchro* and are expressed in feet. The lane groups where the queue lengths exceeded the available effective storage capacity of existing turn lanes are displayed in red.

The detailed analysis worksheets of the 2027 Future Conditions without Development are contained in Appendix H.

Table 5: 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.)	LOS	Delay (sec/veh)	95th % Queue
			Synchro			Synchro		
1	**Broadview Ave (E/W) at Winchester St (N/S)**							
	Overall Intersection (Roundabout)		**A**	**8.1**		**B**	**17.6**	
	Eastbound Approach		***A***	***7.6***		***B***	***11.1***	
	Eastbound Left/Thru		A	8.0	80	B	11.9	158
	Eastbound Thru/Right		A	7.2	83	B	10.4	158
	Westbound Approach		***A***	***7.6***		***B***	***15.0***	
	Westbound Left/Thru		A	8.0	78	B	16.2	252
	Westbound Thru/Right		A	7.2	81	B	14.0	268
	Northbound Approach		***A***	***9.5***		***B***	***12.4***	
	Northbound Left/Thru		A	9.2	36	B	12.2	56
	Northbound Right		B	10.2	19	B	13.0	22
	Southbound Approach		***A***	***9.1***		***C***	***34.7***	
	Southbound Left/Thru		A	8.6	39	D	35.1	161
	Southbound Right		A	9.7	43	C	34.4	191
2	**Broadview Ave (E/W) at Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy (N/S)**							
	Overall Intersection (TWSC)							
	Northbound Approach		***B***	***13.0***		***B***	***13.9***	
	Northbound Right		B	13.0	5	B	13.9	5
	Southbound Approach		***B***	***10.8***		***B***	***13.9***	
	Southbound Right		B	10.8	3	B	13.9	15
3	**Broadview Ave (E/W) at Branch Dr (N/S)**							
	Overall Intersection (Signalized)		**B**	**19.7**		**C**	**34.0**	
	Eastbound Approach		***B***	***16.4***		***C***	***26.4***	
	Eastbound Left	240	E	67.0	80	E	75.4	224
	Eastbound Thru		B	14.3	485	B	19.1	441
	Eastbound Right	330	A	9.7	0	B	13.4	0
	Westbound Approach		***B***	***15.7***		***C***	***29.6***	
	Westbound Left	150	E	67.4	88	E	78.5	123
	Westbound Thru		B	13.3	400	C	27.8	675
	Westbound Right	150	A	9.7	0	B	17.3	0
	Northbound Approach		***E***	***60.8***		***E***	***67.0***	
	Northbound Left/Thru		E	61.5	44	E	68.6	73
	Northbound Right	60	E	60.4	0	E	66.2	0
	Southbound Approach		***E***	***64.7***		***E***	***69.3***	
	Southbound Left/Thru		E	67.2	86	E	78.8	249
	Southbound Right		E	62.7	0	E	59.1	58
4	**Warrenton Village Center Dwy/Shopping Center Dwy (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.3***		***B***	***11.8***	
	Eastbound Left/Thru/Right		A	9.3	5	B	11.8	30
	Westbound Approach		***B***	***10.0***		***B***	***14.3***	
	Westbound Left/Thru/Right		B	10.0	5	B	14.3	28
	Northbound Approach							
	Northbound Left		A	7.4	3	A	7.5	5
	Southbound Approach							
	Southbound Left		A	7.4	0	A	7.4	3
5	**Oak Springs Dr (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	7.4	0	A	7.5	0
	Westbound Approach							
	Westbound Left		A	7.6	0	A	7.7	3
	Northbound Approach		***B***	***11.0***		***B***	***11.4***	
	Northbound Left/Thru		B	11.4	10	B	12.6	10
	Northbound Right		A	9.0	3	A	9.4	5
	Southbound Approach		***A***	***9.9***		***B***	***11.0***	
	Southbound Left/Thru/Right		A	9.9	0	B	11.0	0

Table 5 (Continued): 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.)	LOS	Delay (sec/veh)	95th % Queue
			Synchro			Synchro		
6	**Oak Springs Dr (E/W) at Hastings Ln / Future Access (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left		A	7.9	5	A	7.7	3
	Southbound Approach		***B***	***11.1***		***B***	***11.0***	
	Southbound Left/Right		B	11.1	15	B	11.0	15
7	**Oak Springs Dr (E/W) at Highland School Dwy / Future Garage Access (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left	75	A	7.7	3	A	7.7	0
	Southbound Approach		***B***	***10.9***		***B***	***10.1***	
	Southbound Left		B	11.9	5	B	11.2	3
	Southbound Right		A	9.3	3	A	9.6	3
8	**Oak Springs Dr (E/W) at Broadview Ave (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***17.8***		***C***	***16.6***	
	Eastbound Left/Thru/Right		C	17.8	0	C	16.6	3
	Westbound Approach		***C***	***19.7***		***D***	***27.9***	
	Westbound Left/Thru	125	D	34.3	40	F	51.0	85
	Westbound Right		B	10.6	13	B	10.7	18
	Northbound Approach							
	Northbound Left	90	A	8.1	0	A	8.5	0
	Southbound Approach							
	Southbound Left	225	A	9.1	8	A	8.7	8
9	**Warrenton Village North Dwy (E/W) at Broadview Ave (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***15.6***		***C***	***20.0***	
	Eastbound Left/Thru/Right		C	15.6	0	C	20.0	10
	Westbound Approach		***B***	***13.2***		***C***	***18.3***	
	Westbound Left		C	21.2	3	D	27.3	15
	Westbound Thru/Right		B	11.1	3	B	10.6	5
	Northbound Approach							
	Northbound Left	150	A	8.2	0	A	8.8	3
	Southbound Approach							
	Southbound Left	110	A	8.6	0	A	8.4	3
10	**Warrenton Village South Dwy/Broadview Ave (E/W) at Broadview Ave/Winchester St (N/S)** **Overall Intersection (TWSC)**							
	Eastbound Approach		***D***	***30.7***		***D***	***31.9***	
	Eastbound Left		E	44.6	90	F	62.0	98
	Eastbound Thru		D	26.5	8	E	38.5	43
	Eastbound Right		B	10.0	10	B	11.6	25
	Westbound Approach		***C***	***19.7***		***E***	***35.5***	
	Westbound Left		D	25.4	0	F	51.8	40
	Westbound Thru/Right		C	17.8	3	C	22.1	20
	Northbound Approach							
	Northbound Left	160	A	8.6	10	A	9.3	8
	Southbound Approach							
	Southbound Left	160	A	8.3	0	A	8.2	0

NOTES:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

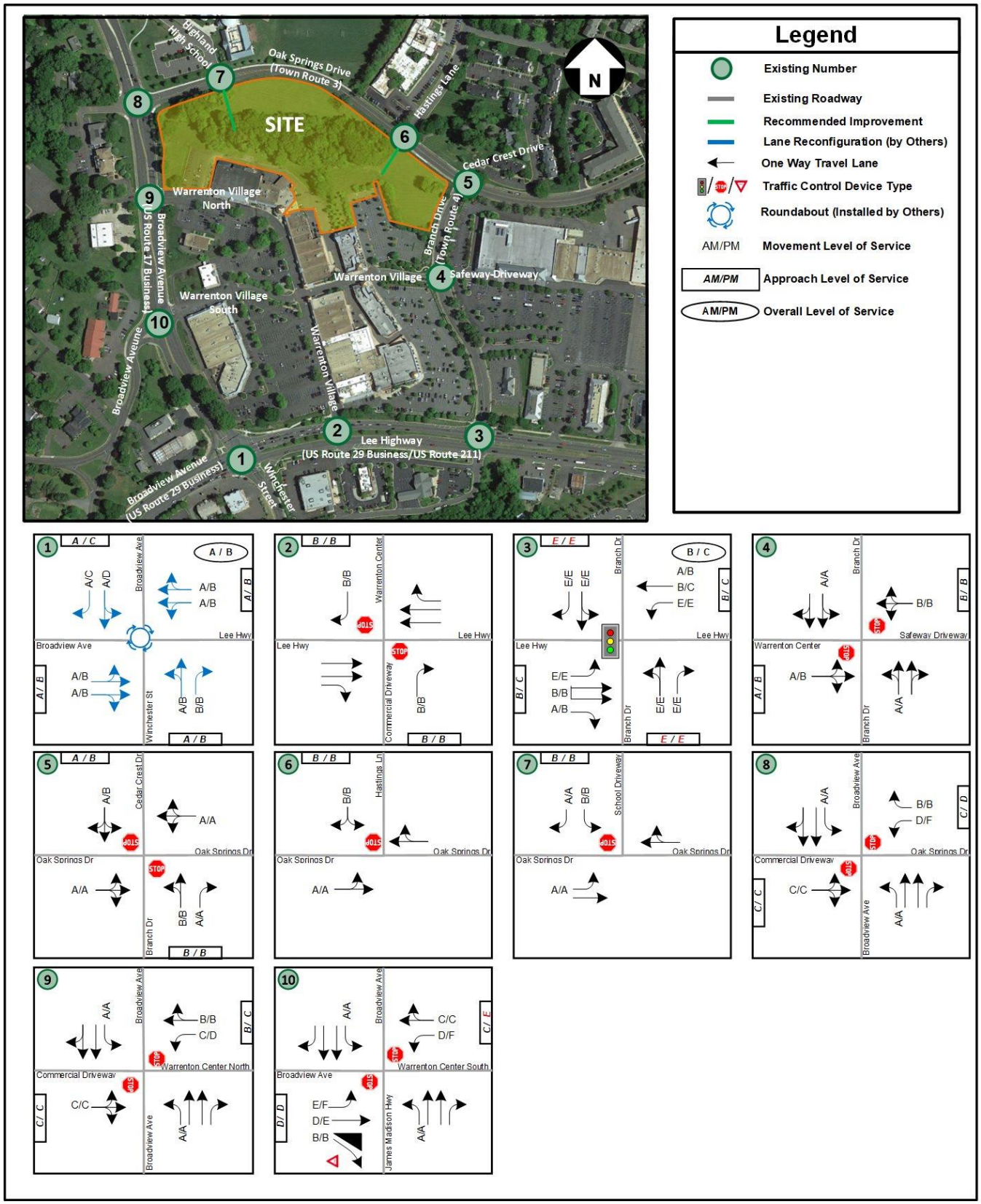

Figure 16: 2027 Future Conditions without Development – Level of Service Results

Study Intersection 1 (Lee Highway at Winchester Street / Broadview Avenue) was approved for a roundabout and received SmartScale funding. As such, this intersection was converted from a signalized intersection to a roundabout in all future conditions.

Based on the capacity analysis of 2027 Future Conditions without Development, the planned roundabout is expected to operate at overall levels of service of B or better during both the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the signalized study intersection is expected to operate at overall levels of service of C or better during both the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the approaches of all study intersections continue to operate at approach levels of service of D or better during both the AM and PM peak hours, except for the following study intersections that have at least one approach that would operates at level of service E of F during at least one peak hour:

- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 10: Broadview Avenue at Warrenton Village South

Based on the queuing analysis performed for 2027 Future Conditions without Development, all turning movements at the study intersections have maximum queue lengths that are accommodated within the available storage lengths of the turn bays.

Analysis of 2027 Future Conditions with Development

For the purposes of this study, the Development is anticipated to be constructed by 2027; this scenario analyzes the future with development conditions for the year 2027.

Site Description

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

A conceptual plan for the Site is illustrated in **Figure 17**

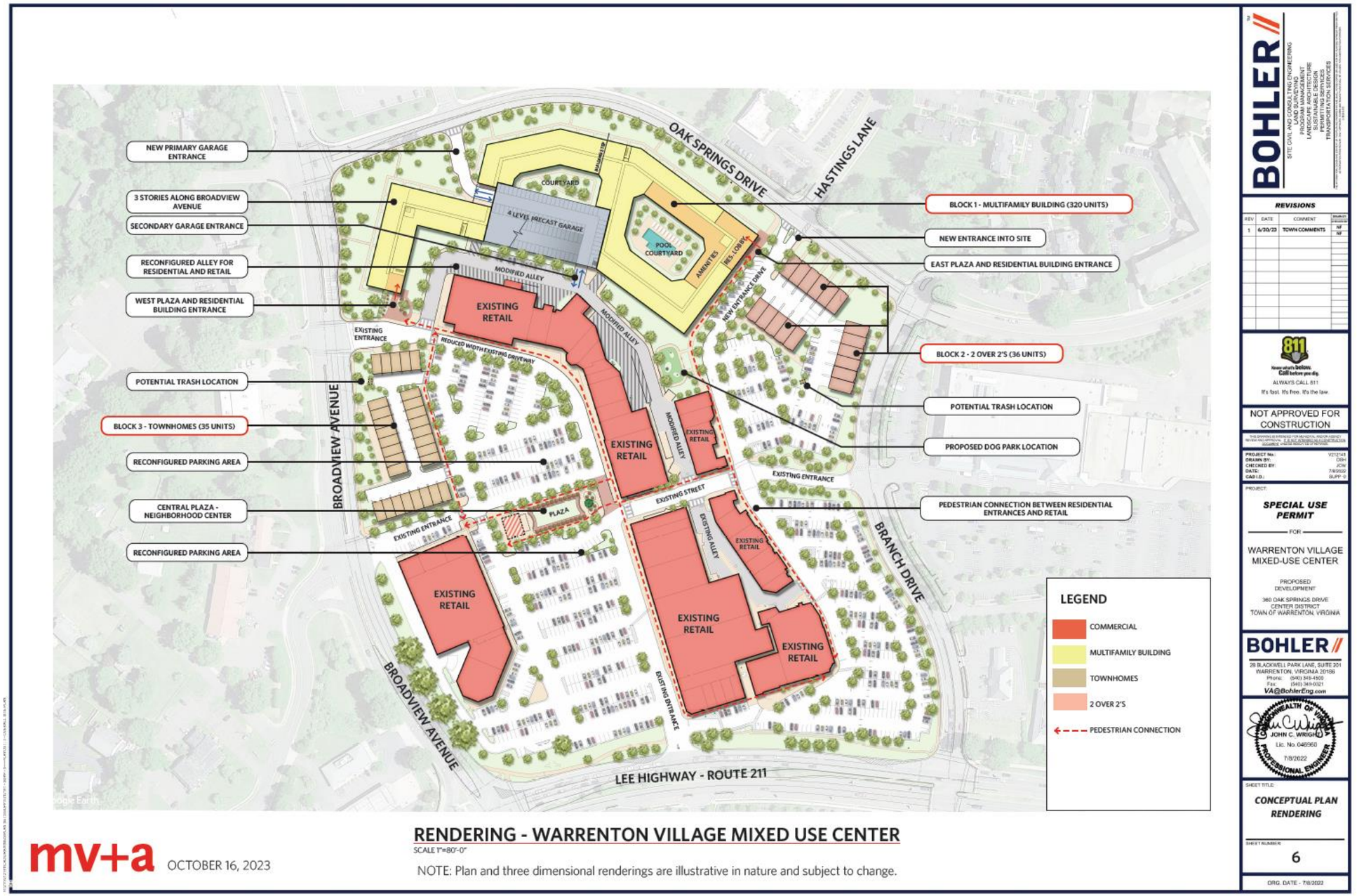

Figure 17: Conceptual Development Plan
Note: Plan provided by Bohler and is for conceptual purposes only.

Proposed Site Access

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

Projected Site Trip Generation

In order to calculate the trips generated by the proposed Development, the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, publication was used to determine the total trips going into and out of the subject study site during the AM and PM peak hours as well as the typical number of weekday daily trips. The projected trip generation for the proposed Development is depicted in **Table 6**Table 6. Of note, as agreed to in the scoping document, no internal capture or pass-by trip reductions were assumed with respect to the proposed Development, and therefore are not assumed within the table.

Table 6: Site Trip Generation (Peak Hour of the Adjacent Street; ITE 11th Ed.)

Land Use	ITE Code	Size	------ Weekday ------						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Multifamily Housing	220	386 DU	37	117	154	124	73	197	2,602

As illustrated in the table above, the Site is expected to generate approximately 154 new trips during the AM peak hour, 197 new trips during the PM peak hour, and 2,602 new daily trips on a typical weekday.

Distribution and Assignment of Site Traffic

The distribution and assignment of the site generated trips were based on the existing traffic patterns, engineering judgement, the nature of the proposed Development, and with the guidance and input from the VDOT and the Town staff. The site direction of approach and trip distribution are illustrated in **Figure 18**.

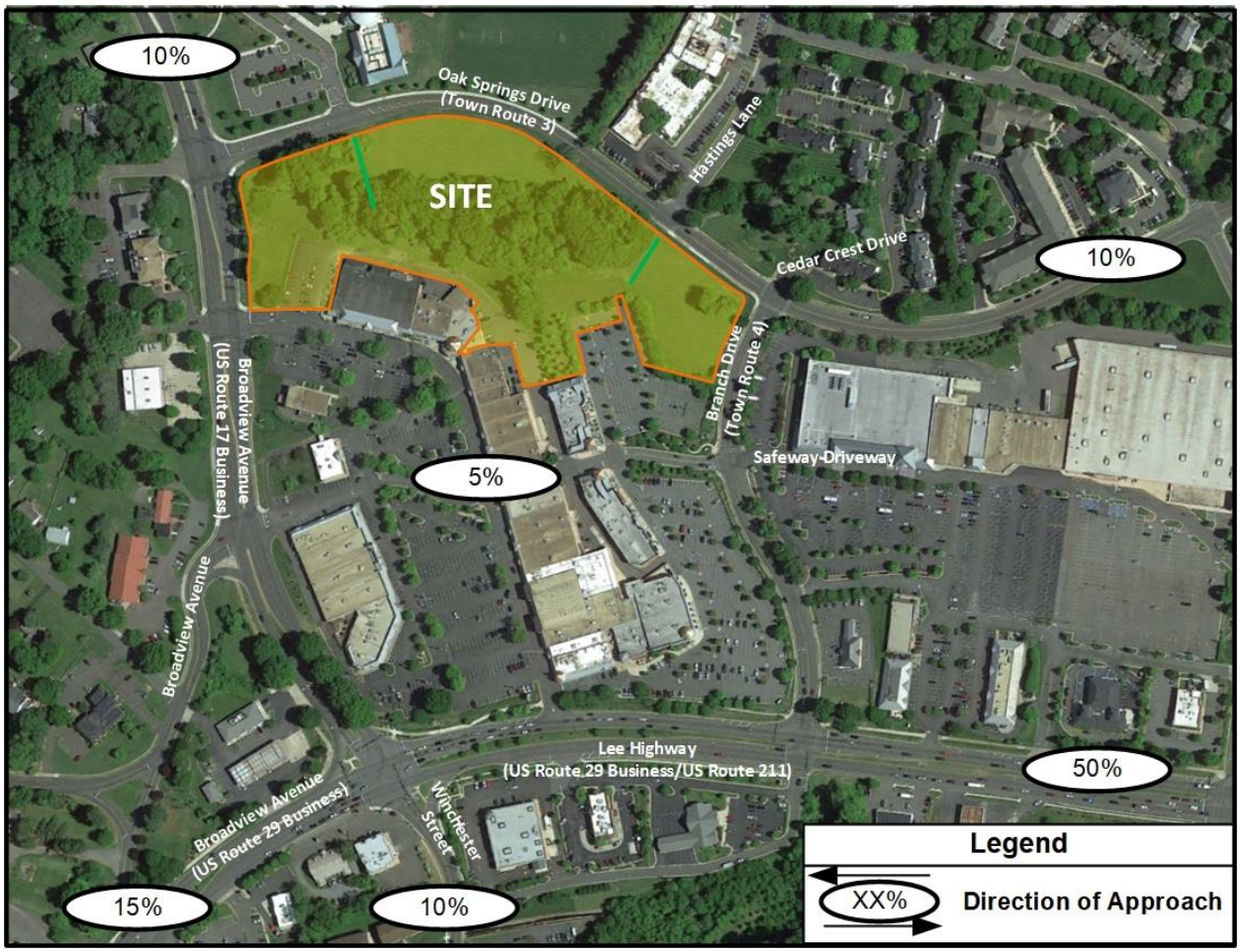

Figure 18: Global Vehicular Direction of Approach (Site Trip Distribution)

Future with Development Traffic Volumes

In order to project future traffic volumes on the roadways in the vicinity of the Development, trips generated from the Development were assigned to the road network based on the previously mentioned direction of approach. The site traffic assignment is illustrated for the AM and PM peak hours in **Figure 19.**

The future with development traffic volumes for were determined by adding the assigned site generated traffic volumes to the 2027 Future Conditions without Development traffic volumes. The 2027 Future Conditions with Development traffic volumes are depicted in **Figure 20.**

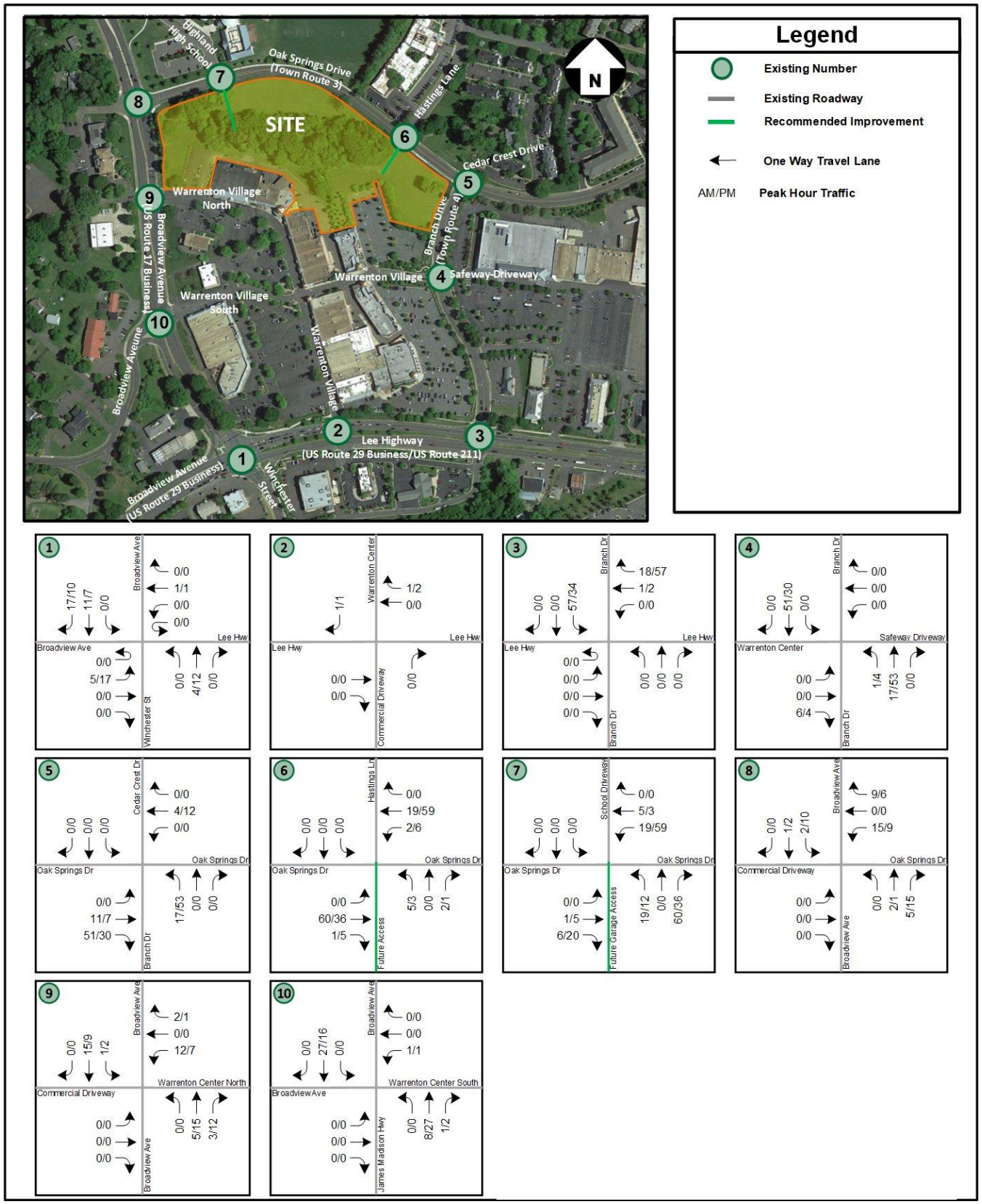

Figure 19: Site Generated Trip Assignment

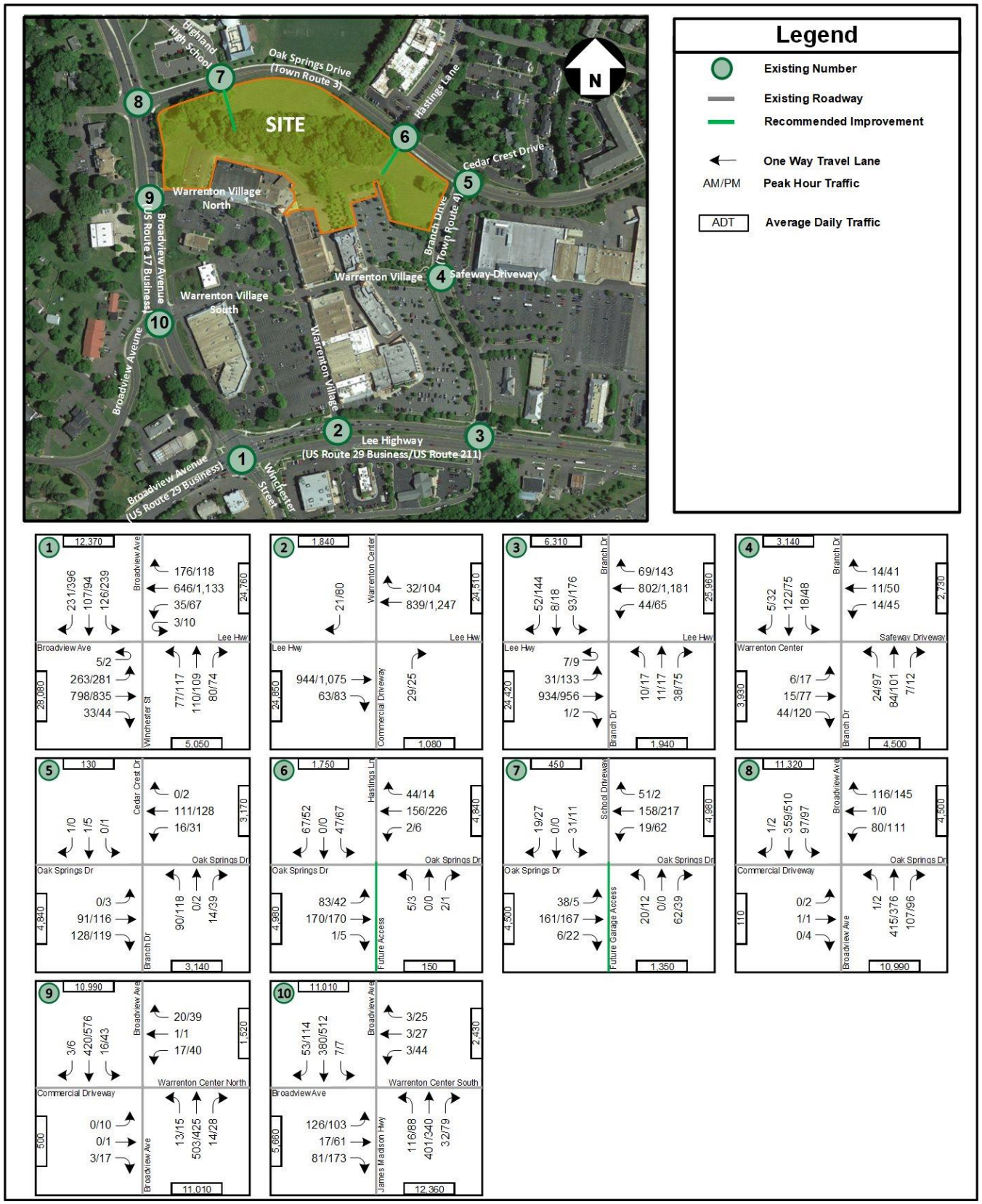

Figure 20: 2027 Future Conditions with Development

Future with Development Intersection Capacity and Queuing Analysis

Intersection capacity and queueing analyses were performed for the 2027 Future Conditions without Development scenario at the study area intersections during the AM and PM peak hours, in accordance with VDOT's *TOSAM* (version 2) guidelines. *Synchro,* version 11, was used to analyze the study intersections with results based on TRB's HCM 6th methodology and include LOS, delay, and queue length comparisons for the turning movements analyzed. Roundabouts were analyzed using *Sidra*, version 9.

For the purposes of this analysis, the intersection PHF utilized in the analysis of future conditions was determined based on the existing traffic counts, with a minimum of 0.92 as agreed to in the scoping document. The HV% were based on the existing conditions scenario, with any new approaches utilizing a default *Synchro* value of 2.0% per movement. Note that for analysis purposes, all turning movement counts were coded with a minimum volume of one vehicle in *Synchro*.

Per the scoping meeting with VDOT and the Town staff, it would be considered acceptable and/or desirable to achieve an approach LOS of D or better for traffic operations using the HCM methodology. The results of the intersection capacity and queuing analyses from *Synchro* are presented in **Table 7** and graphically in **Figure 21.** The results are expressed in LOS and delay (seconds per vehicle) for overall signalized intersections and per approach and lane group for all study intersections. The overall signalized intersections and any approaches that operate at LOS E or F are displayed in red.

The queue lengths were reported as the 95th percentile queues determined from *Synchro* and are expressed in feet. The lane groups where the queue lengths exceeded the available effective storage capacity of existing turn lanes are displayed in red.

The detailed analysis worksheets of the 2027 Future Conditions with Development scenario are contained in Appendix I.

Table 7: 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
1	**Broadview Ave (E/W) at Winchester St (N/S)**							
	Overall Intersection (Roundabout)		**B**	**10.1**		**B**	**19.3**	
	Eastbound Approach		***A***	***9.4***		***B***	***11.5***	
	Eastbound Left/Thru		A	10.0	111	B	12.4	170
	Eastbound Thru/Right		A	8.9	116	B	10.8	172
	Westbound Approach		***B***	***10.5***		***B***	***16.3***	
	Westbound Left/Thru		A	11.4	116	B	17.7	272
	Westbound Thru/Right		B	9.8	117	B	15.3	291
	Northbound Approach		***B***	***11.9***		***B***	***13.3***	
	Northbound Left/Thru		B	11.5	47	B	13.2	62
	Northbound Right		B	12.7	23	B	13.7	23
	Southbound Approach		***B***	***10.1***		***D***	***39.6***	
	Southbound Left/Thru		A	9.5	47	D	39.5	170
	Southbound Right		B	10.8	53	D	39.7	172
2	**Broadview Ave (E/W) at Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy (N/S)**							
	Overall Intersection (TWSC)							
	Northbound Approach		***B***	***13.0***		***B***	***13.9***	
	Northbound Right		B	13.0	5	B	13.9	5
	Southbound Approach		***B***	***10.8***		***B***	***13.9***	
	Southbound Right		B	10.8	3	B	13.9	15
3	**Broadview Ave (E/W) at Branch Dr (N/S)**							
	Overall Intersection (Signalized)		**C**	**23.0**		**D**	**35.8**	
	Eastbound Approach		***B***	***19.0***		***C***	***28.1***	
	Eastbound Left	240	E	67.0	80	E	75.4	224
	Eastbound Thru		B	17.0	485	C	21.1	441
	Eastbound Right	330	B	11.6	0	B	14.7	0
	Westbound Approach		***B***	***18.0***		***C***	***31.6***	
	Westbound Left	150	E	67.4	88	E	78.5	123
	Westbound Thru		B	15.8	400	C	30.4	675
	Westbound Right	150	B	11.6	0	B	19.3	26
	Northbound Approach		***E***	***62.1***		***E***	***67.0***	
	Northbound Left/Thru		E	63.0	47	E	68.6	73
	Northbound Right	60	E	61.6	0	E	66.2	0
	Southbound Approach		***E***	***63.4***		***E***	***68.7***	
	Southbound Left/Thru		E	66.7	162	E	78.1	#338
	Southbound Right		E	57.2	0	E	56.4	58
4	**Warrenton Village Center Dwy/Shopping Center Dwy (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach		***A***	***9.5***		***B***	***12.5***	
	Eastbound Left/Thru/Right		A	9.5	8	B	12.5	35
	Westbound Approach		***B***	***10.4***		***C***	***16.0***	
	Westbound Left/Thru/Right		B	10.4	5	C	16.0	33
	Northbound Approach							
	Northbound Left		A	7.5	3	A	7.6	5
	Southbound Approach							
	Southbound Left		A	7.4	0	A	7.5	3
5	**Oak Springs Dr (E/W) at Branch Dr (N/S)**							
	Overall Intersection (TWSC)							
	Eastbound Approach							
	Eastbound Left		A	0.0	0	A	7.5	0
	Westbound Approach							
	Westbound Left		A	7.8	0	A	7.8	3
	Northbound Approach		***B***	***11.8***		***B***	***13.1***	
	Northbound Left/Thru		B	12.2	15	B	14.3	25
	Northbound Right		A	9.2	3	A	9.5	5
	Southbound Approach		***B***	***10.1***		***B***	***11.3***	
	Southbound Left/Thru/Right		B	10.1	0	B	11.3	0

Table 7 (Continued): 2027 Future Conditions without Development – Intersection Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.)	AM Peak Hour			PM Peak Hour		
			LOS	Delay (sec/veh)	95th % Queue (ft.) [2]	LOS	Delay (sec/veh)	95th % Queue [2]
			Synchro			Synchro		
6	**Oak Springs Dr (E/W) at Hastings Ln / Future Access (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left		A	7.9	5	A	7.9	3
	Westbound Approach							
	Westbound Left		A	7.6	0	A	7.6	0
	Northbound Approach		***B***	***13.6***		***B***	***13.1***	
	Northbound Left/Thru/Right		B	13.6	3	B	13.1	0
	Southbound Approach		***B***	***12.1***		***B***	***12.5***	
	Southbound Left/Thru/Right		B	12.1	18	B	12.5	20
7	**Oak Springs Dr (E/W) at Highland School Dwy / Future Garage Access (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach							
	Eastbound Left	75	A	7.7	3	A	7.7	0
	Westbound Approach							
	Westbound Left		A	7.6	0	A	7.8	3
	Northbound Approach		***B***	***10.8***		***B***	***11.0***	
	Northbound Left/Thru/Right		B	10.8	10	B	11.0	8
	Southbound Approach		***B***	***12.6***		***B***	***11.1***	
	Southbound Left/Thru		B	14.6	8	B	14.7	3
	Southbound Right		A	9.4	3	A	9.6	3
8	**Oak Springs Dr (E/W) at Broadview Ave (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***18.1***		***C***	***17.1***	
	Eastbound Left/Thru/Right		C	18.1	0	C	17.1	3
	Westbound Approach		***C***	***22.4***		***D***	***32.9***	
	Westbound Left/Thru	125	E	39.0	55	F	61.8	103
	Westbound Right		B	10.7	15	B	10.8	20
	Northbound Approach							
	Northbound Left	90	A	8.1	0	A	8.5	0
	Southbound Approach							
	Southbound Left	225	A	9.1	10	A	8.8	8
9	**Warrenton Village North Dwy (E/W) at Broadview Ave (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***C***	***16.0***		***C***	***20.7***	
	Eastbound Left/Thru/Right		C	16.0	3	C	20.7	10
	Westbound Approach		***C***	***16.3***		***C***	***20.3***	
	Westbound Left		C	22.8	8	D	30.0	23
	Westbound Thru/Right		B	11.1	3	B	10.7	5
	Northbound Approach							
	Northbound Left	150	A	8.3	0	A	8.8	3
	Southbound Approach							
	Southbound Left	110	A	8.6	3	A	8.5	3
10	**Warrenton Village South Dwy/Broadview Ave (E/W) at Broadview Ave/Winchester St (N/S) Overall Intersection (TWSC)**							
	Eastbound Approach		***D***	***34.4***		***E***	***35.6***	
	Eastbound Left		F	51.0	100	F	71.7	108
	Eastbound Thru		D	27.8	8	E	42.2	45
	Eastbound Right		B	10.1	10	B	11.7	25
	Westbound Approach		***C***	***21.2***		***E***	***40.2***	
	Westbound Left		D	26.6	3	F	60.0	45
	Westbound Thru/Right		C	18.5	3	C	23.5	20
	Northbound Approach							
	Northbound Left	160	A	8.7	10	A	9.4	8
	Southbound Approach							
	Southbound Left	160	A	8.3	0	A	8.3	0

NOTES:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] #: 95th percentile queues (reported from Synchro) exceed capacity; actual queues may be longer. Queues shown are based on the maximum after two cycles.

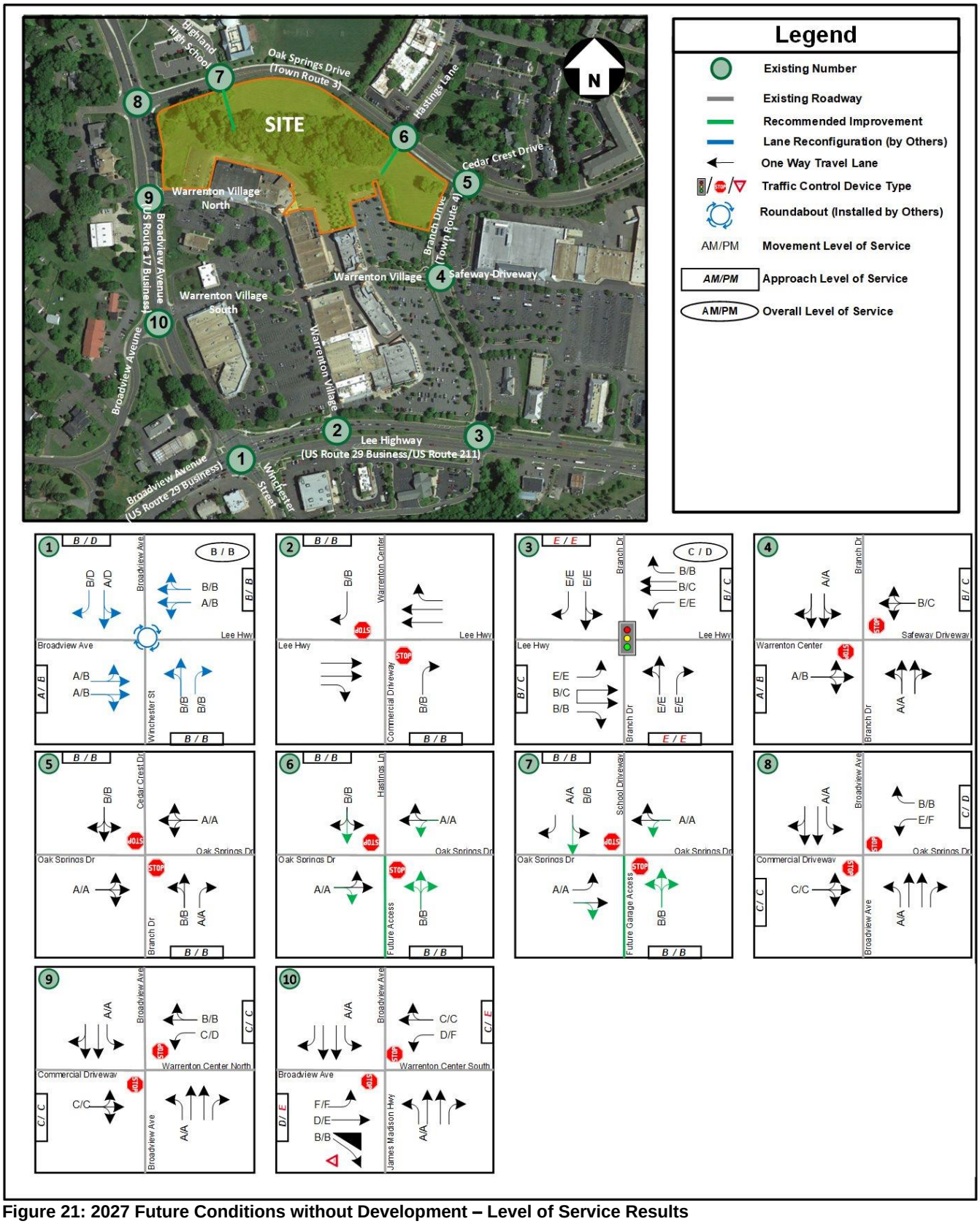

Figure 21: 2027 Future Conditions without Development – Level of Service Results

As mentioned previously, per the agreed upon scoping document, it would be considered desirable to achieve an approach LOS D or better for traffic operations using HCM methodology. Furthermore, if an overall intersection or approach was operating at an unacceptable LOS under future without development conditions, it was assumed acceptable to achieve non-degradation.

The planned roundabout is expected to operate at an overall LOS B with all approaches operating at LOS D or better during the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the signalized study intersection is expected to continue to operate at overall levels of service of D or better during both the AM and PM peak hours.

Based on the capacity analysis of 2027 Future Conditions without Development, the approaches of all study intersections continue to operate at approach levels of service of D or better during both the AM and PM peak hours, except for the following study intersections that have at least one approach that would operate at level of service E of F (similar to 2027 Future Conditions without Development) during at least one peak hour:

- Study Intersection 3: Lee Highway (US 211/US 29 BUS) at Branch Drive
- Study Intersection 10: Broadview Avenue at Warrenton Village South

Based on the queuing analysis performed for 2027 Future Conditions without Development, all turning movements at the study intersections have maximum queue lengths that are accommodated within the available storage lengths of the turn bays.

Note that Study Intersection 10 (Broadview Avenue at Warrenton Village South) was previously identified by the Town for construction of a roundabout but was not selected for funding and therefore not included in the analysis. Therefore, no improvements are recommended for construction by the proposed Development.

In general, the signalized intersection would operate with longer vehicular delays for the side-streets and mainline left turning movements. These delays are a result of VDOT prioritization of through traffic on the mainline, as is typical along commuter corridors, to accommodate the largest possible volume of through traffic in the area along the mainlines and therefore have a better overall traffic operation than if all movements were prioritized equally.

No improvements are warranted or recommended as part of the proposed Development.

Preliminary Left and Right Turn Lane Warrant Assessments

Left and right turn lane warrants are based off VDOT's Road Design Manual (RDM), Appendix F. In order to determine the need for exclusive left and/or right turn lanes or tapers at the study intersections, the traffic data and anticipated development program provided in the 2027 Future Conditions with Development scenario section were utilized.

Warrants for right-turn storage lanes on two- and four-lane highways at intersections are based on Figure 3-26 and Figure 3-27 in Appendix F of VDOT's RDM. These figures provide a graphical representation for determining the necessity of a right turn lane by comparing the total volumes of a given approach with their respective right turn volumes.

Warrants for left-turn storage lanes on two-lane highways at unsignalized intersections are based on Figure 3-5 to Figure 3-21 in Appendix F of VDOT's RDM. The figures provide graphical representations for determining the necessity of a left turn lane by comparing the advancing volumes of a given approach and the respective opposing volumes with respect to the percentage of left turning vehicles of the advancing volumes and the design speed of a given roadway.

If the turn lanes and / or tapers are not provided or would not meet the minimum requirements per VDOT's RDM, turn lane waivers requests would need to be submitted as separate documentation and be approved by VDOT.

A summary of the turn lane warrant analysis is presented in **Table 8** through **Table 11**.

Table 8: Summary of Left Turn Lane Warrants at Site Entrances (2-Lane) – Build 2027

Study Scenario	Opposing Vol. (VPH)	Advancing Vol. (VPH)	Left Turn Vol. (VPH)	Left Turn %	Minimum Opposing Threshold (VPH)	VDOT RDM F Figure	Treatment
INT 6 - WBL AM - TF 2027	254	202	2	0.99%	1,208	Fig. 3-4	Not Warranted
INT 6 - WBL PM - TF 2027	217	246	6	2.44%	1,054	Fig. 3-4	Not Warranted
INT 7 - WBL AM - TF 2027	205	228	19	8.33%	841	Fig. 3-5	Not Warranted
INT 7 - WBL PM - TF 2027	194	281	62	22.06%	274	Fig. 3-8	Not Warranted

Table 9: Summary of Right Turn Lane Warrants at Site Entrances (2-Lane) - Build 2027

Study Scenario	Approach Volume	Right Turn Volume	Minimum Right Turn Taper Threshold	Minimum Right Turn Full Lane Threshold	Treatment
INT 4 - NBR - 2027 TF AM Peak	95	7	37	90	Not Warranted
INT 4 - NBR - 2027 TF PM Peak	149	12	36	90	Not Warranted
INT 4 - SBR - 2027 TF AM Peak	90	5	37	90	Not Warranted
INT 4 - SBR - 2027 TF PM Peak	119	32	36	90	Not Warranted

Table 10: Summary of Left Turn Lane Warrants at Brach Drive (Study Intersection 4) (4-Lane) - Existing 2023

Study Scenario	Opposing Vol. (VPH)	Advancing Vol. (VPH)	Left Turning Vol.	Left Turn %	Treatment
INT 4 - NBL - 2023 EX AM Peak	90	95	23	24.2%	Not Warranted
INT 4 - NBL - 2023 EX PM Peak	119	149	94	63.1%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2023 EX AM Peak	95	90	18	20.0%	Not Warranted
INT 4 - SBL - 2023 EX PM Peak	149	119	48	40.3%	Full-width Turn Lane and Taper Warranted (for Undivided)

Table 11: Summary of Left Turn Lane Warrants at Brach Drive (Study Intersection 4) (4-Lane) – Build 2027

Study Scenario	Opposing Vol. (VPH)	Advancing Vol. (VPH)	Left Turning Vol.	Left Turn %	Treatment
INT 4 - NBL - 2027 TF AM Peak	145	115	24	20.9%	Not Warranted
INT 4 - NBL - 2027 TF PM Peak	155	210	97	46.2%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2027 TF AM Peak	115	145	18	12.4%	Not Warranted
INT 4 - SBL - 2027 TF PM Peak	210	155	48	31.0%	Full-width Turn Lane and Taper Warranted (for Undivided)

No turn lanes are warranted at the site entrances. At the request of VDOT and the Town, turn lanes were evaluated at the Study Intersection 4 (Branch Drive at Warrenton Village Driveway / Safeway Driveway). The northbound left turn lane is warranted under Build 2027 conditions, but it is also warranted under existing conditions. Therefore, a northbound left turn

lane on Branch Drive is not recommended to be installed by the proposed Development. Graphics and information regarding the methodology used to determine the turn lane warrants are provided in Appendix J.

Preliminary Access Management Evaluation (Intersection Spacing)

The minimum spacing standards for the Commonwealth of Virginia are specified in VDOT's Road Design Manual (RDM). Appendix F of the RDM focuses primarily on access management practices. The minimum spacing standard are particularly specified in Table 2-2 through Table 2-4. Table 2-2 provides guidance on the minimum spacing standard for commercial entrances, intersections, and median crossovers, and are based on a roadway's speed limit and functional classification. Table 2-3 and 2-4 provide guidance for minimum spacing standards for the spacing between interchanges and intersections or commercial entrances.

As mentioned previously, Oak Springs Road is classified by VDOT as "Major Collector," with a posted speed limit of 25 mph. Based on the applicable intersection spacing requirements (centerline-to-centerline) per RDM Appendix F Table 2-2, **Table 12** lists the summary of the future intersections with corresponding roadway information and the appropriate distance requirements. **Figure 22** shows the approximate proposed distances between the study intersections and the corresponding required distances with the proposed intersections in place for the Site.

Table 12: Future Intersection Spacing

Functional Classification	Design Speed (See Note 2)	Minimum Spacing (Distance) in Feet			
		Type 1 (Signalized)	Type 2 (Unsignalized/ Full Crossover)	Type 3 (Full Access /Directional Crossover)	Type 4 (Partial Access)
Principal Arterial	≤ 30 mph	1,050	880	440	250
	35 to 45 mph	1,320	1,050	565	305
	≥ 50 mph	2,640	1,320	750	495
Minor Arterial	≤ 30 mph	880	660	355	200
	35 to 45 mph	1,050	660	470	250
	≥ 50 mph	1,320	1,050	555	425
Collector	≤ 30 mph	660	440	225	200
	35 to 45 mph	660	440	335	250
	≥ 50 mph	1,050	660	445	360
Local Street	See Note 1				

TABLE 2-2 MINIMUM SPACING STANDARDS FOR COMMERCIAL ACCESSES, INTERSECTIONS AND MEDIAN CROSSOVERS*

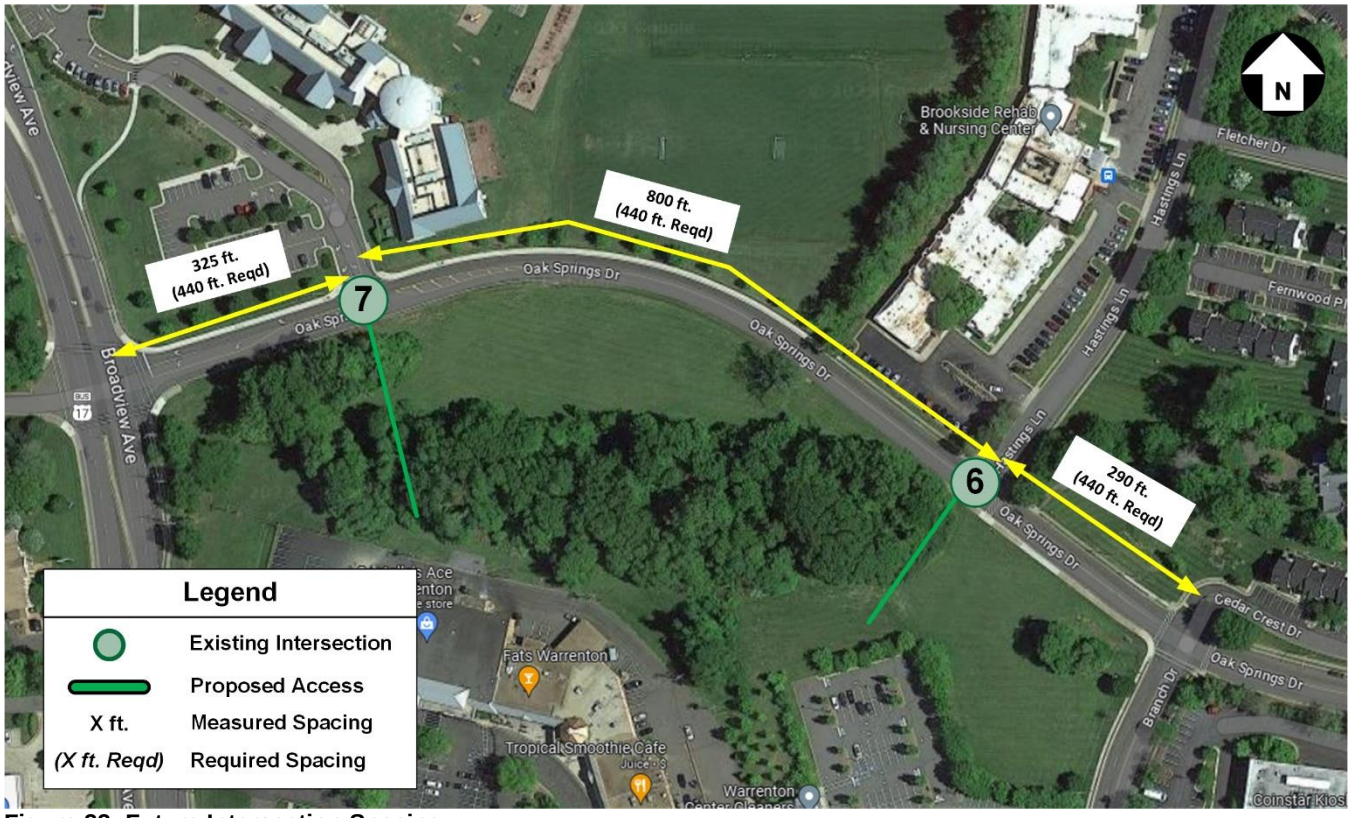

Figure 22: Future Intersection Spacing

As described in

Table 12**2** and depicted in **Figure 22,** the two proposed entrances do not meet the spacing requirements for unsignalized intersections on a 25 mph Major Collector. However, the entrances are proposed as the fourth leg to existing intersections instead of creating new entrances with offsets. However, Oak Springs Drive does not appear to be a VDOT maintained roadway, so an Access Management Exception (AM-E) request will not be submitted.

Preliminary Signal Warrant Analysis

Signal warrants are based on *Chapter 4C: Traffic Control Signal Needs Studies* of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition. Chapter 4C discusses nine (9) separate warrants, by which only one warrant needs to be satisfied to justify the installation of a traffic control signal. In order to provide an assessment for the possible signalization of Broadview Avenue at Oak Springs Road (Study Intersection 8) under the build 2027 traffic volumes, Warrant Two (Four-Hour Vehicular Volume) was analyzed, since the warrant usually is a significant factor signalization and is often the warrant that is most readily satisfied for typical conditions.

Portions of the MUTCD used in this analysis are provided in Appendix K.

Warrant Two: Four-Hour Vehicular Volume

Warrant Two is satisfied when the plotted points representing the vehicles per hour (vph) on the major street (total of both approaches and the corresponding vph on the high-volume minor-street approach (one direction only), for each of any four hours of an average day, all fall above either MUTCD Figure 4C-1 or Figure 4C-2 (depending on the applicability) for the future combination of approach lanes.

The traffic volumes utilized to evaluate Warrant Two, using Figure 4C-1 are shown in **Table 13** for the study intersection. It should be noted that the intersection was analyzed as being two lanes on the major approach and one lane on the minor approach. In addition, only two hourly volumes were utilized, the build 2027 AM and PM peak hour volumes, because it is not anticipated that the other hourly volumes would be any higher or more likely to satisfy the conditions than that of the two selected. Lastly, as the capacity analysis of future conditions indicated that 100% of right turners could perform right turn maneuvers on red from the side-street approaches and there are currently exclusive northbound and westbound right turn lanes, a 100% right turn on red (RTOR) reduction was applied to all approaches, as depicted below.

Table 13: Volume Projections – Broadview Avenue at Oak Springs Road (Intersection 8)

Time Period	Broadview Ave (NB/SB)	Oak Springs Dr (WBL)
7:30AM to 8:30 AM	872	80
4:00 PM to 5:00 PM	985	110

Note: 100% right turn reductions are applied on all approaches

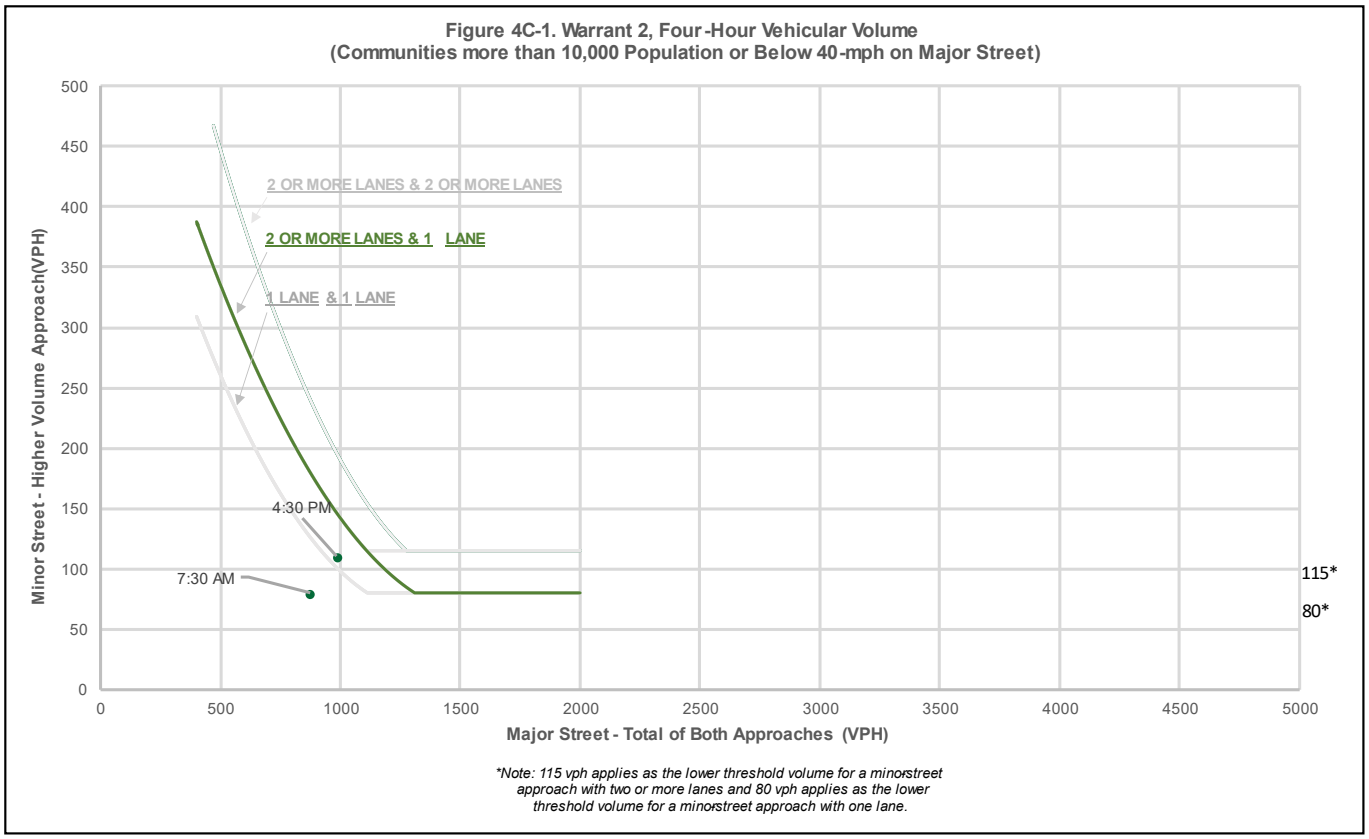

Figure 23: Four-Hour Warrant Analysis – Broadview Avenue at Oak Springs Road (Intersection 8)

As seen in the figure above, the build 2027 peak hour traffic volumes with a 100% RTOR reduction does not meet the threshold for two of the four hours required. As mentioned earlier, it is most likely that the next two hours with the highest traffic volume will generate even lower trips than the AM and PM peak hours. Therefore, based on traffic volumes, a signal would not be warranted at this intersection under this analysis.

The minor street volume is above the minimum threshold of 80 vehicles to warrant a signal; however, the major street volume is not high enough.

Additionally, the capacity analysis in the 2011 TIA shows that all reported movements at this unsignalized study intersection are anticipated to operate at LOS C or better during both AM and PM peak hours. This capacity analysis is acceptable and an indication that there is not an operational need for signalization.

Bicycle and Pedestrian Accommodations

The property currently contains a sidewalk with a buffer across the north side of the Oak Springs frontage. The existing sidewalk will be maintained with the proposed development, and sidewalk will be constructed along the south side of Oak Springs Road across the property frontage. There is at least one crosswalk at every study intersection, with the exception of Study Intersection 2 (Lee Highway at Warrenton Village / Chick-fil-a Driveway).

The school and mixed-use area create opportunities for the proposed Site to create paths and areas for multimodal connectivity. As shown on the concept plan, The Site is proposing a multitude of improvements that will increase pedestrian connectivity throughout the entire area. New sidewalks will be added along the entire perimeter of all residential blocks, including direct sidewalk connectivity to ground floor units. The extension of Hastings Lane and accompanying sidewalks will offer a new pedestrian access point from Oak Springs Drive. The proposed road that will connect the Hastings Lane extension through the existing commercial building and into the heart of the retail center via a new cut-through street that will allow maximum ease to walk from one side of the site to the other.

The unsignalized pedestrian crossings were reviewed as per TE-384.1 and will be submitted as a separate document.

Conclusions

This report presents the findings of a Traffic Impact Analysis (TIA) conducted for the proposed Warrenton Village Center (the Site / the Development / the Property) along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia

The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]).

The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 386 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 30 townhomes) and a parking deck. The site has an anticipated build-out date of 2027.

Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the fourth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.

Analysis Components

- 2023 existing volumes were derived via turning movement counts collected at intersections within the study area in February 2023.
- As determined based on review comments from VDOT and the Town, an inherent regional growth of 1.0% per year was applied to the Lee Highway mainline through movements at the intersection of Lee Highway at Broadview Avenue (US Route 17 Business). The growth volumes were balanced along the road network by increasing the mainline through movements at subsequent study intersections along the road network where applicable for the period between 2023 and 2027 to account for 2027 conditions.
- The trip generation associated with the Site was based on the ITE Trip Generation Manual, 11th Edition publication. The Site in total is expected to generate approximately 154 new trips during the AM peak hour, 197 new trips during the PM peak hour, and 2,602 new daily trips on a typical weekday.
- Intersection capacity and queuing analyses were performed for all analysis scenarios at the study area intersections during the weekday morning (AM) and weekday afternoon (PM) peak hours. *Synchro*, version 11, was used to analyze the study intersections with results based on the Transportation Research Board's (TRB) Highway Capacity Manual (HCM) methodology and analysis guidelines provided in VDOT's Traffic Operations and Safety Analysis Manual (TOSAM) (version 2). The analysis herein includes level of service (LOS), delay, and queue length comparisons for the turning movements analyzed.
- The analysis also considers an assessment of historical crash data at all existing study intersections.
- The analysis also includes preliminary access management assessment and turn lane warrant assessments for the Site access points along Oak Springs Drive.

Analysis Results

2023 Existing Conditions

- Based on the capacity analysis of Existing Conditions, the two signalized study intersections operate at an overall level of service D or better during both the AM and PM peak hours.

- Based on the capacity analysis of Existing Conditions, three study intersections have at least one approach that operates at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that can be accommodated within the available storage length of the turn bays, except the southbound left turn movement at Study Intersection 1 (Broadview Avenue / Lee Highway at Winchester Street).

2027 Future Conditions without Development

- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B or better with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of 2027 Future Conditions without Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the analysis of the Synchro 95th percentile queue lengths, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

2027 Future Conditions with Development

- The Site is expected to generate approximately 154 new total trips during the AM peak hour, 197 new trips during the PM peak hour and 2,602 new trips during a typical weekday.
- Based on the capacity analysis of 2027 Future Conditions with Development, the signalized study intersection would operate at an overall level of service D or better during both the AM and PM peak hours.
- The planned roundabout is expected to operate at an overall LOS B with all approaches operating at LOS D or better during the AM and PM peak hours.
- Based on the capacity analysis of the 2027 Future Conditions with Development, two study intersections have at least one approach that would operate at levels of service (LOS E or F) for at least one peak hour (similar to 2027 Future Conditions without Development) during the AM and PM peak hours. The remaining intersection approaches would operate at acceptable levels of service during both peak hours.
- Based on the queuing analysis performed for the 2027 Future Conditions with Development, all turning movements have queue lengths that could be accommodated within the available storage length of the turn bays.

Overall Conclusion

Based on the capacity and queueing analysis results, the proposed Development will not have a substantial impact to the surrounding transportation and roadway network, assuming that the site is constructed as depicted on the concept plan. No improvements are warranted or recommend to accommodate the proposed Development.

Transportation Technical Appendix

Warrenton Village Center

Town of Warrenton, Virginia

GOROVE SLADE
Transportation Planners and Engineers

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Appendix C –Turning Movement Counts Data

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Appendix G – Background Development and Roadway Improvement Excepts

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Appendix J – Turn Lane Warrant Tables and Charts

Appendix K – MUTCD 4-Hour Warrant

A. Signed Scoping Document

THIS IS NOT A CHAPTER 870 STUDY

VDOT Virginia Department of Transportation

PRE-SCOPE OF WORK MEETING FORM

Information on the Project
Traffic Impact Analysis Base Assumptions

The applicant is responsible for entering the relevant information and submitting the form to VDOT and the locality no less than three (3) business days prior to the meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information			
Consultant Name: Tele: E-mail:	Kevin Sitzman, Gorove Slade Associates, Inc. 703.787.9595 kevin.sitzman@goroveslade.com		
Developer/Owner Name: Tele: E-mail:	Jess Achenbach jachenbach@castledp.com		
Project Information			
Project Name:	Warrenton Village Mixed-Use Center	Locality/County:	Town of Warrenton
Project Location: (Attach regional and site specific location map)	The proposed development will be located primarily along the southern frontage of Oak Springs Drive (Town Route 3), east of Broadview Avenue (US Route 17 Business) and west of Branch Drive (Town Route 4) in the Town of Warrenton, Virginia. **(See Figure 1).**		
Submission Type	Comp Plan ☐	REZ/SUP ☒	Site Plan ☐ / Subd Plat ☐
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	The development will be situated on a single parcel of vacant land (approximately 6.46 acres) and a portion of an adjacent developed parcel of land, which can be identified on Fauquier County Tax Maps with the following GPIN #s: 6985-20-7247-000, and 6984-29-6753-000, respectively. The property is currently zoned as C (Commercial District) with a Future Land Use of Mixed Use as part of the New Town Warrenton Character District (Lee Highway Urban Development Area [UDA]). The Applicant is proposing to apply for a Special Use Permit (SUP) in order to construct approximately 376 multifamily residential dwelling units (320 multifamily apartments, 36 2-over-2 units, and 20 townhomes) and a parking deck. The site has an anticipated build-out date of 2027. Access to the site will be provided via one full movement parking deck entry along Oak Springs Drive (Town Route 3) forming the forth leg of the High School Driveway, one full movement driveway along Oak Springs Drive forming the fourth-leg to the existing full-movement intersection of Hastings Lane, and via the existing shopping center accesses to the south.		
Proposed Use(s): (Check all that apply; attach additional pages as necessary)	Residential ☒ / Commercial ☐ / Mixed Use ☐ / Other ☐		
	Residential Uses(s) ITE LU Code(s): 220 Number of Units: 376 **Other Use(s)**	**Commercial Use(s)** ITE LU Code(s): Square Ft or Other Variable:	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

	ITE LU Code(s): Square Ft or Other Variable:			
Total Peak Hour Trip Projection:	Less than 100 ☐	100 – 499 ☒	500 – 999 ☐	1,000 or more ☐

Traffic Impact Analysis Assumptions

Study Period	Existing Year: 2023	Build-out Year: 2027	Design Year: N/A
Study Area Boundaries (Attach map)	North: Oak Springs Drive (Town Route 3)		South: US Route 211 / 29 Business
	West: Broadview Avenue (US Route 17 Business)		East: Branch Drive (Town Route 4)
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	Waterloo Junction Single Family homes along Patrick Ryan Way Smart Scale Roundabouts 1. Broadview/Winchester/Lee 2. Roebling/Broadview		
Consistency With Comprehensive Plan (Land use, transportation plan)	Yes		
Available Traffic Data (Historical, forecasts)	2023 TMC's VDOT Historical AADT Data		
Trip Distribution **(Please refer to attached Figure 2 in Supplement)**	Road Name: (to/from the North) – N/A		Road Name: (to/from the South) – N/A
	Road Name: (to/from the West) – N/A		Road Name: (to/from the East) – N/A
Annual Vehicle Trip Growth Rate: (See Note 2.)	1.0%/yr. (2023 to 2027)	Peak Period for Study (check all that apply)	☒ AM ☒ PM ☐ SAT
		Peak Hour of the Adj. (to be used in study)	AM: 150 / PM: 192 / Daily: 2,534

Study Intersections and/or Road Segments (Attach additional sheets as necessary) **(Please refer to attached Figure 1.)**				
	1.	Broadview Avenue (US Route 17) / Lee Highway at Broadview Avenue / Winchester Street	6.	Oak Springs Drive (Town Route 3) at Hastings Lane / Future Access
	2.	Lee Highway (US Route 17) at Warrenton Village Center Driveway at Chick-fil-a Driveway	7.	Oak Springs Drive (Town Route 3) at Highland School Driveway / Future Garage Access
	3.	Lee Highway (US Route 17) at Branch Drive (Town Route 4)	8.	Broadview Avenue (US Route 17 Business) at Oak Springs Drive (Town Route 3)
	4.	Branch Drive (Town Route 4) at Warrenton Village Driveway / Safeway Driveway	9.	Broadview Avenue (US Route 17 Business) at Warrenton Village Center South Driveway
	5.	Oak Springs Drive (Town Route 3) at Branch Drive (Town Route 4) / Cedar Crest Drive	10.	Broadview Avenue (US Route 17 Business) at Warrenton Village Center North Driveway

Trip Adjustment Factors	Internal allowance Reduction: ☐ Yes ☒ No	Pass-by allowance Reduction: ☐ Yes ☒ No
Software Methodology	☒ Synchro ☐ HCS (v.2000/+) ☒ SIDRA ☐ CORSIM ☐ Other _____	
Traffic Signal Proposed or Affected (Analysis software to be used, progression speed, cycle length)	Existing traffic signals that could be affected: 1. Broadview Avenue (US Route 17) / Lee Highway at Broadview Avenue / Winchester Street 2. Lee Highway (US Route 17) at Branch Drive (Town Route 4) Analysis Software: Synchro version 11 Results: HCM 6 Methodology (See Note 7) Queue Lengths to be Reported: 95th Percentile	
Improvement(s) Assumed or to be Considered	Smart Scale Roundabouts 1. Broadview/Winchester/Lee 2. Roebling/Broadview	
Background Traffic Studies Considered	Waterloo Junction Single Family homes along Patrick Ryan Way	
Plan Submission	☐ Master Development Plan (MDP) ☒ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ☐ Other Plan type (Final Site, Subd. Plan)	
Additional Issues to be Addressed	☒ Queuing analysis ☐ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis ☒ Bike/Ped Accommodations ☒ Intersection(s) ☐ TDM Measures ☐ Other (_____)	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

NOTES on ASSUMPTIONS:

1. The scenarios to be included in the study are Existing Conditions (2023), Future without Development (2027) and Future with Development (2027). The study will analyze AM and PM peak hours.
2. Existing traffic volumes will be based on 2023 traffic count data. In order to project 2027 future conditions, a regional growth of 1.0% per annum will be applied to all turning movements at all study intersections.
3. Existing peak hour factors will be based on the traffic counts and utilized on a by-intersection basis. Peak hours factors by intersection in the range of 0.85 to 1.00 will be used for existing scenario. Peak hour factors of 0.92 will be used for all future scenarios if the existing peak hour factor by intersection is less than 0.92.
4. Heavy vehicle percentages (HV%) will be based on existing counts per movement. For any new leg or intersection, the HV% will be based on a default *Synchro* value of 2.0% per movement.
5. For any approach, a level of service (LOS) D or better would be considered as acceptable/desirable traffic operation condition. For all approaches, the projected future conditions without development LOS and delay will be maintained in the future with development condition. Will show intersection, approach, and movement LOS.
6. 95th percentile queues will be provided from *Synchro*.
7. HCM 6 methodology will be utilized where applicable; HCM 2000 methodology will be utilized if HCM 6 methodology is not applicable.
8. Preliminary access management and turn lane warrant assessments will be conducted for the site entrances.
9. Crash Data obtained from VDOT's Crash Analysis Tool will be analyzed at existing intersections.

SIGNED:  DATE: 6/30/2023
Applicant or Consultant

PRINT NAME: Kevin Sitzman
Applicant or Consultant

SIGNED: _____ DATE: _____
VDOT Representative

PRINT NAME: _____
VDOT Representative

SIGNED: _____ DATE: _____
Local Government Representative

PRINT NAME: _____
Local Government Representative

Table 1: Historic Growth (Based on VDOT Traffic Data)

Road Segment:	From:	To:	Published VDOT AADT					Growth Rate			
			2015	2016	2017	2018	2019	2015 - 2019	2016 - 2019	2017 - 2019	2018 - 2019
Broadview Avenue	Bus US 29 Lee Hwy	NCL Warrenton	10,000	10,000	10,000	10,000	11,000	2%	3%	5%	10%
Oak Springs Drive	Broadview Ave	Branch Dr	3,200	3,200	3,200	3,200	3,100	-1%	-1%	-2%	-3%
Branch Drive	Lee Highway	Oak Springs Drive	3,800	4,200	4,200	4,300	4,300	3%	1%	1%	0%



Figure 1: Site Location and Study Intersections

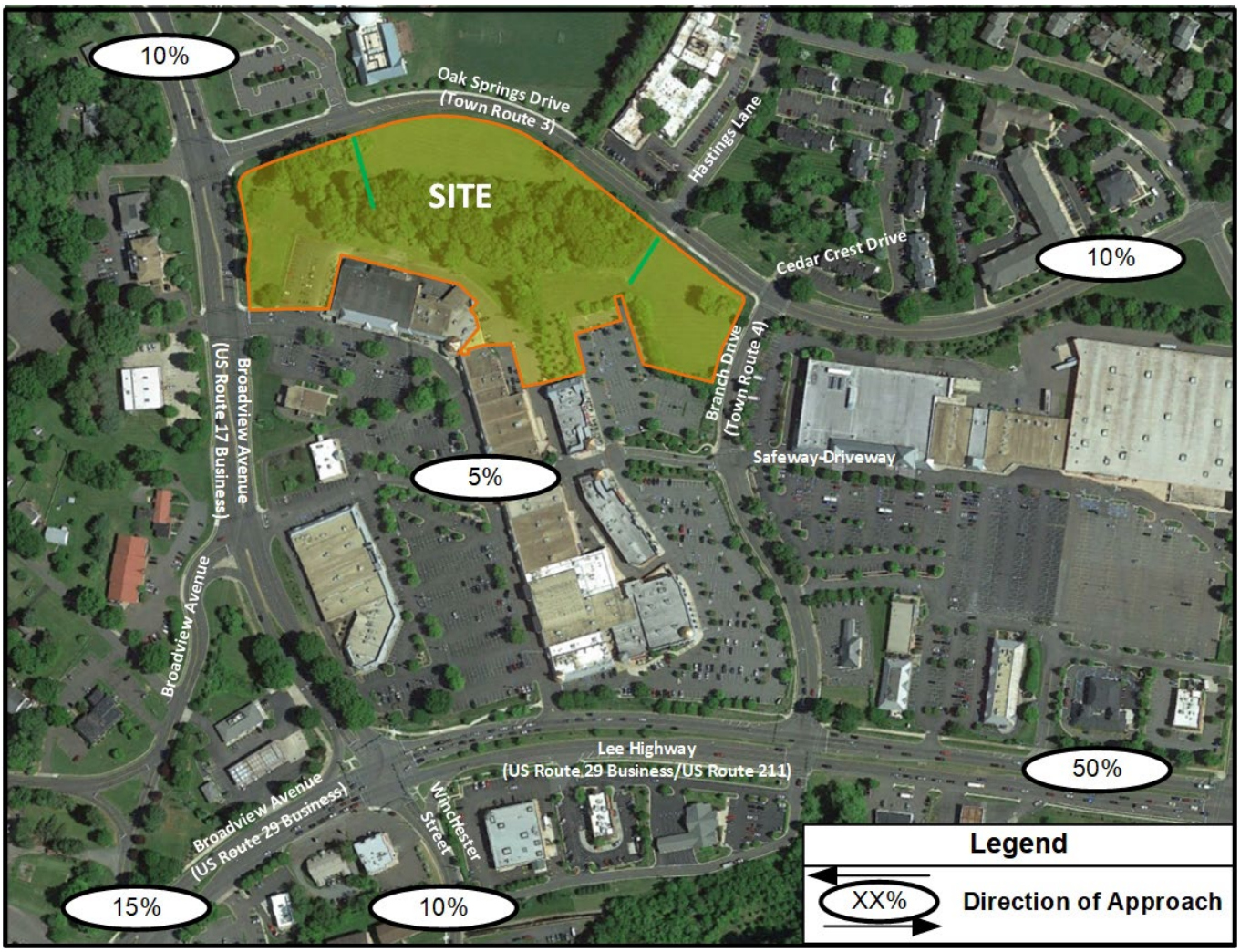


Figure 2: Direction of Approach

Table 2: Trip Generation – Peak Hour of the Adjacent Street (ITE 11th Edition) – To Be Used in Study

Land Use	ITE Code	Size	------ Weekday ------						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Multifamily Housing	220	376 DU	36	114	150	121	71	192	2,534

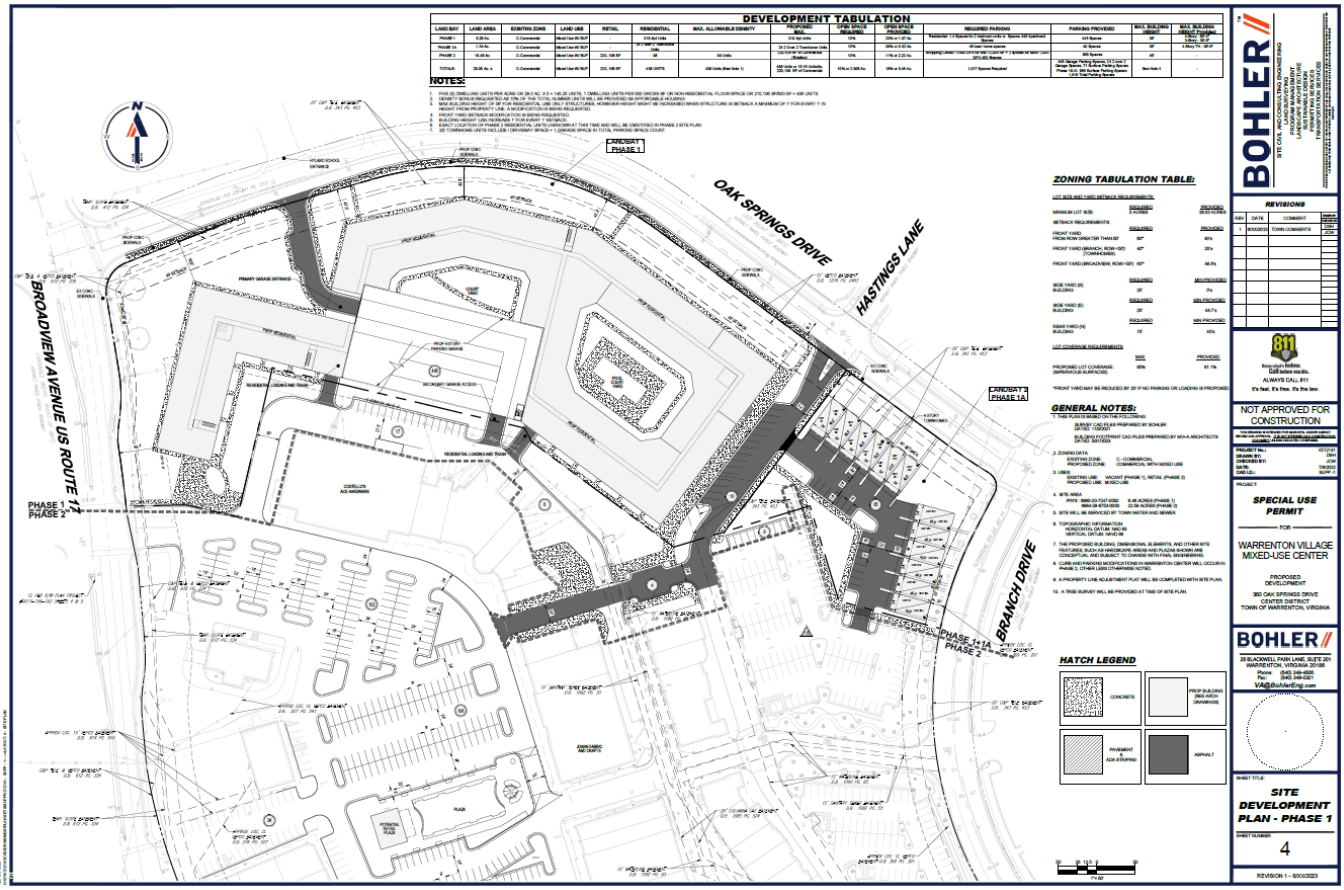


Figure 3: Illustrative Site Plan (Provided by Bohler)
Note: For conceptual purposes only.

B. Crash Data by Study Intersection

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Broadview Avenue (US 17 BUS) (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	2	6	1	1	2		12	30.00%
Type A	*1*						*1*	
Type B		*2*			*2*		*4*	
Type C	*1*	*4*	*1*	*1*			*7*	
Property Damage Only (Type PDO)	3	8	3	8	6		28	70.00%
TOTAL*	***5***	***14***	***4***	***9***	***8***		***40***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction		1			2		3	7.50%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision	3	8	4	5	4		24	60.00%
Angle Collision	1	5		4	1		11	27.50%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other	1				1		2	5.00%
TOTAL*	***5***	***14***	***4***	***9***	***8***		***40***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**	1						1	2.50%
Work-Zone								0.00%
Inclement Weather (Non-Dry)		1			2		3	7.50%
Speeding	2						2	5.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)	*1*	*5*		*2*			*8*	*20.00%*
Off Peak - Daytime (10 AM - 3 PM)	*1*	*5*	*3*	*4*	*4*		*17*	*42.50%*
PM Peak Period (3 - 7 PM)	*2*	*3*	*1*	*3*	*2*		*11*	*27.50%*
Off Peak - Nighttime (7 PM - 6 AM)	*1*	*1*			*2*		*4*	*10.00%*
CALCULATED CRASH RATE***							***0.75***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Broadview Avenue (US 17 BUS) (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
182555077	9/11/2018	A. Severe Injury	16. Other	0	1	0		no	no
181915232	7/5/2018	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
181845228	6/28/2018	PDO. Property Damage Only	2. Angle	0	0	0		no	no
182415104	8/20/2018	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
182885118	10/13/2018	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
192075126	7/20/2019	B. Visible Injury	2. Angle	0	1	0		no	no
193445038	8/21/2019	PDO. Property Damage Only	2. Angle	0	0	0		no	no
191415326	5/15/2019	PDO. Property Damage Only	2. Angle	0	0	0		no	no
191685219	5/22/2019	PDO. Property Damage Only	2. Angle	0	0	0		no	no
190705057	3/5/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
190935057	4/2/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
192325410	8/20/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
191895108	7/5/2019	C. Nonvisible Injury	1. Rear End	0	5	0		no	no
193445107	10/30/2019	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
193445122	11/14/2019	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
193445083	10/13/2019	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
193445100	10/22/2019	C. Nonvisible Injury	1. Rear End	0	3	0		yes	no
193445071	9/30/2019	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		no	no
191295165	5/8/2019	B. Visible Injury	2. Angle	0	1	0		no	no
203495122	12/11/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
202175264	7/29/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
203175313	11/2/2020	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
201635154	6/2/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
212215197	7/25/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
212285259	8/6/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
211945123	7/6/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
211535051	5/26/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Broadview Avenue (US 17 BUS) (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
212725106	9/20/2021	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
213275307	11/17/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
211805101	6/21/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
213145192	11/6/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
210905134	3/20/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
220205117	1/12/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222345164	8/21/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
220975211	3/18/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222795285	10/6/2022	B. Visible Injury	8. Non-Collision	0	1	0		no	no
222015106	7/14/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
221295161	5/7/2022	B. Visible Injury	4. Sideswipe - Same Direction	0	1	0		yes	no
220135226	1/6/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
222165194	7/8/2022	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		yes	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Warrenton Village / Chick-fil-a Driveway (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)		1			1		2	40.00%
Type A		*1*			*1*		*2*	
Type B								
Type C								
Property Damage Only (Type PDO)			1		2		3	60.00%
TOTAL*		***1***	***1***		***3***		***5***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash			1		1		2	40.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision					1		1	20.00%
Angle Collision		1			1		2	40.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*		***1***	***1***		***3***		***5***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**					1		1	20.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)			1				1	20.00%
Speeding					1		1	20.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)								*0.00%*
Off Peak - Daytime (10 AM - 3 PM)					*1*		*1*	*20.00%*
PM Peak Period (3 - 7 PM)		*1*			*1*		*2*	*40.00%*
Off Peak - Nighttime (7 PM - 6 AM)			*1*		*1*		*2*	*40.00%*
CALCULATED CRASH RATE***							***0.13***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Warrenton Village / Chick-fil-a Driveway (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
193445020	7/26/2019	A. Severe Injury	2. Angle	0	1	0		no	no
203025223	10/25/2020	PDO. Property Damage Only	9. Fixed Object - Off Road	0	0	0		yes	no
222785213	9/17/2022	A. Severe Injury	9. Fixed Object - Off Road	0	1	0		no	no
222135133	7/28/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
223325320	11/1/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Branch Drive (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	1		2	1	1		5	26.32%
Type A								
Type B								
Type C	*1*		*2*	*1*	*1*		*5*	
Property Damage Only (Type PDO)	2	1		3	8		14	73.68%
TOTAL*	***3***	***1***	***2***	***4***	***9***		***19***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash				1			1	5.26%
Head-On								0.00%
Sideswipe / Same Direction	1						1	5.26%
Sideswipe / Opposite Direction				1			1	5.26%
Rear-End Collision	2			1	3		6	31.58%
Angle Collision			2	1	5		8	42.11%
Backed Into		1					1	5.26%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other					1		1	5.26%
TOTAL*	***3***	***1***	***2***	***4***	***9***		***19***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**								0.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)				2	1		3	15.79%
Speeding			1		1		2	10.53%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)	*1*			*1*	*1*		*3*	*15.79%*
Off Peak - Daytime (10 AM - 3 PM)			*2*	*2*	*2*		*6*	*31.58%*
PM Peak Period (3 - 7 PM)	*2*	*1*		*1*	*6*		*10*	*52.63%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.45***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Lee Highway (US 211/US 29 BUS) and Branch Drive (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
190035248	12/24/2018	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		no	no
182955427	10/20/2018	C. Nonvisible Injury	1. Rear End	0	2	0		no	no
183655065	12/17/2018	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
193445084	10/13/2019	PDO. Property Damage Only	15. Backed Into	0	0	0		no	no
201995197	7/12/2020	C. Nonvisible Injury	2. Angle	0	1	0		no	no
201275157	4/1/2020	C. Nonvisible Injury	2. Angle	0	1	0		no	no
211335075	5/10/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
212925308	10/10/2021	PDO. Property Damage Only	9. Fixed Object - Off Road	0	0	0		yes	no
212705186	9/20/2021	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
211935132	6/22/2021	C. Nonvisible Injury	5. Sideswipe - Opposite Direction	0	2	0		yes	no
222805102	10/6/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
220825133	3/21/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
221965176	7/9/2022	PDO. Property Damage Only	2. Angle	0	0	0		yes	no
221965175	6/29/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
221735151	6/2/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222205137	8/6/2022	PDO. Property Damage Only	2. Angle	0	0	0		no	no
222695228	9/24/2022	C. Nonvisible Injury	1. Rear End	0	1	0		no	no
220385210	2/6/2022	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
222975113	10/23/2022	PDO. Property Damage Only	16. Other	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Branch Drive and Warrenton Village / Safeway (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)					1		1	50.00%
Type A								
Type B								
Type C					*1*		*1*	
Property Damage Only (Type PDO)				1			1	50.00%
TOTAL*				***1***	***1***		***2***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision				1	1		2	100.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*				***1***	***1***		***2***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**				1			1	50.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)					1		1	50.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)					*1*		*1*	*50.00%*
Off Peak - Daytime (10 AM - 3 PM)								*0.00%*
PM Peak Period (3 - 7 PM)				*1*			*1*	*50.00%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.24***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Branch Drive and Warrenton Village / Safeway (May 2018 - April 2023)									
Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
213055189	10/15/2021	PDO: Property Damage Only	2. Angle	0	0	0		no	no
223255325	11/11/2022	C. Nonvisible Injury	2. Angle	0	1	0		yes	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Branch Drive and Oak Springs Drive (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)								0.00%
Type A								
Type B								
Type C								
Property Damage Only (Type PDO)			1		1		2	100.00%
TOTAL*			***1***		***1***		***2***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision			1		1		2	100.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*			***1***		***1***		***2***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**								0.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)								0.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)								*0.00%*
Off Peak - Daytime (10 AM - 3 PM)					*1*		*1*	*50.00%*
PM Peak Period (3 - 7 PM)			*1*				*1*	*50.00%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.27***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Branch Drive and Oak Springs Drive (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
202745301	9/18/2020	PDO: Property Damage Only	2. Angle	0	0	0		no	no
220335106	1/31/2022	PDO: Property Damage Only	2. Angle	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Broadview Avenue and Oak Springs Drive (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	1						1	33.33%
Type A	*1*						*1*	
Type B								
Type C								
Property Damage Only (Type PDO)			2				2	66.67%
TOTAL*	***1***		***2***				***3***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision	1		2				3	100.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other								0.00%
TOTAL*	***1***		***2***				***3***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**								0.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)								0.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)								*0.00%*
Off Peak - Daytime (10 AM - 3 PM)			*1*				*1*	*33.33%*
PM Peak Period (3 - 7 PM)	*1*		*1*				*2*	*66.67%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE***							***0.14***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Broadview Avenue and Oak Springs Drive (May 2018 - April 2023)									
Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
182435282	8/23/2018	A. Severe Injury	2. Angle	0	1	0		no	no
202585163	2/22/2020	PDO. Property Damage Only	2. Angle	0	0	0		no	no
202115210	7/15/2020	PDO. Property Damage Only	2. Angle	0	0	0		no	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Broadview Avenue and Warrenton Village North (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)			1		1		2	50.00%
Type A								
Type B			*1*				*1*	
Type C					*1*		*1*	
Property Damage Only (Type PDO)		1		1			2	50.00%
TOTAL*		***1***	***1***	***1***	***1***		***4***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On								0.00%
Sideswipe / Same Direction								0.00%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision								0.00%
Angle Collision			1	1	1		3	75.00%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal		1					1	25.00%
Other								0.00%
TOTAL*		***1***	***1***	***1***	***1***		***4***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**					1		1	25.00%
Work-Zone								0.00%
Inclement Weather (Non-Dry)					1		1	25.00%
Speeding								0.00%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)		*1*					*1*	*25.00%*
Off Peak - Daytime (10 AM - 3 PM)								*0.00%*
PM Peak Period (3 - 7 PM)			*1*	*1*	*1*		*3*	*75.00%*
Off Peak - Nighttime (7 PM - 6 AM)								*0.00%*
CALCULATED CRASH RATE*							***0.21***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Broadview Avenue and Warrenton Village North (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
192545226	9/11/2019	PDO. Property Damage Only	10. Deer	0	0	0		no	no
202765309	9/20/2020	B. Visible Injury	2. Angle	0	1	0		no	no
211665121	5/27/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
223465170	12/6/2022	C. Nonvisible Injury	2. Angle	0	1	0		yes	no

VDOT Crash Data Summary Table

Intersection Crash Analysis	Crash Data for the Intersection of Broadview Avenue and Warrenton Village South (May 2018 - April 2023)							
	2018	2019	2020	2021	2022	2023	Total	Relative Frequency
Crash Severity								
Fatal Collision (Type K)								0.00%
Injury Collision (Type A, B, and C)	2			2	3		7	53.85%
Type A								
Type B								
Type C	*2*			*2*	*3*		*7*	
Property Damage Only (Type PDO)	1		2	2	1		6	46.15%
TOTAL*	***3***		***2***	***4***	***4***		***13***	***100.00%***
Crash Type								
Fixed Object/ Single-Vehicle Crash								0.00%
Head-On	1				2		3	23.08%
Sideswipe / Same Direction				1			1	7.69%
Sideswipe / Opposite Direction								0.00%
Rear-End Collision			1				1	7.69%
Angle Collision	1		1	3	2		7	53.85%
Backed Into								0.00%
Pedestrian Collision								0.00%
Deer/Animal								0.00%
Other	1						1	7.69%
TOTAL*	***3***		***2***	***4***	***4***		***13***	***100.00%***
Other Factors								
Distracted Driver								0.00%
Alcohol**	1						1	7.69%
Work-Zone								0.00%
Inclement Weather (Non-Dry)								0.00%
Speeding			1				1	7.69%
Pedestrian Injury***								N/A
Time of Day								
AM Peak Period (6 - 10 AM)					*1*		*1*	*7.69%*
Off Peak - Daytime (10 AM - 3 PM)	*1*		*2*	*2*	*2*		*7*	*53.85%*
PM Peak Period (3 - 7 PM)	*1*			*2*	*1*		*4*	*30.77%*
Off Peak - Nighttime (7 PM - 6 AM)	*1*						*1*	*7.69%*
CALCULATED CRASH RATE***							***0.54***	***Crashes per MEV***

* It should be noted that an intersection radius of 300 feet was used in this analysis. Crashes also thought to be caused by the intersection may have been added based on the description of the crash and engineering judgement.

** Instances where the event was classified as "Unknown", "Not Known Whether Impaired", "Ability Not Impaired" were classified as alcohol related to provide a more conservative analysis.

*** Pedestrian injuries are based on the number of pedestrians injured and may not be directly be related to the number of crash incidences (i.e., if one crash occurred injuring two pedestrians, the table would show a "2" instead of a "1").

VDOT Crash Data Summary Table

Crash Data for the Intersection of Broadview Avenue and Warrenton Village South (May 2018 - April 2023)

Document Number	Date	Crash Severity	Collsion Type	Pedestrain Injury	Persons Injured	Fatalities	Work Zone Related	Adverse Weather Conditions	Distracted Driver
182505243	9/5/2018	C. Nonvisible Injury	6. Fixed Object in Road	0	1	0		no	no
182835057	10/4/2018	C. Nonvisible Injury	2. Angle	0	1	0		no	no
182135102	7/31/2018	PDO. Property Damage Only	3. Head On	0	0	0		no	no
201265208	2/25/2020	PDO. Property Damage Only	1. Rear End	0	0	0		no	no
201265233	3/12/2020	PDO. Property Damage Only	2. Angle	0	0	0		no	no
213625118	12/15/2021	C. Nonvisible Injury	2. Angle	0	2	0		no	no
213145191	11/3/2021	PDO. Property Damage Only	2. Angle	0	0	0		no	no
210135154	1/6/2021	C. Nonvisible Injury	2. Angle	0	1	0		no	no
212425152	8/23/2021	PDO. Property Damage Only	4. Sideswipe - Same Direction	0	0	0		no	no
221235227	4/29/2022	C. Nonvisible Injury	3. Head On	0	1	0		no	no
221045273	3/28/2022	PDO. Property Damage Only	3. Head On	0	0	0		no	no
220945207	3/29/2022	C. Nonvisible Injury	2. Angle	0	1	0		no	no
223325319	11/23/2022	C. Nonvisible Injury	2. Angle	0	1	0		no	no

C. Turning Movement Counts Data

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	5	5	2	0	28	3	15	0	18	155	2	1	2	48	21	1	306
6:15 AM	7	0	6	0	15	2	19	0	21	167	1	1	0	78	32	1	350
6:30 AM	7	9	8	0	18	1	31	0	18	179	2	0	0	90	27	0	390
6:45 AM	12	11	8	0	27	5	45	0	23	163	0	3	6	122	32	0	457
7:00 AM	13	13	10	0	27	3	97	0	46	171	1	1	7	134	41	0	564
7:15 AM	20	8	11	0	31	8	89	0	58	208	5	2	6	119	31	1	597
7:30 AM	15	25	14	0	28	9	34	0	83	220	13	1	6	154	49	0	651
7:45 AM	27	42	32	0	34	40	61	0	73	169	5	2	5	162	64	1	717
8:00 AM	14	19	12	0	22	26	61	0	57	204	7	2	9	140	29	1	603
8:15 AM	17	17	12	0	26	18	59	0	44	165	6	0	11	159	29	1	564
8:30 AM	24	11	21	0	29	13	61	0	52	159	13	2	11	125	28	3	552
8:45 AM	16	17	8	0	45	26	54	0	53	170	16	4	4	141	24	3	581
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	177	177	144	0	330	154	626	0	546	2130	71	19	67	1472	407	12	6332
APPROACH %'s :	35.54%	35.54%	28.92%	0.00%	29.73%	13.87%	56.40%	0.00%	19.74%	77.01%	2.57%	0.69%	3.42%	75.18%	20.79%	0.61%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	76	94	69	0	115	83	245	0	271	801	30	7	26	575	173	3	2568
PEAK HR FACTOR :	0.704	0.560	0.539	0.000	0.846	0.519	0.688	0.000	0.816	0.910	0.577	0.875	0.722	0.887	0.676	0.750	0.895
	0.592				0.820				0.875				0.837				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	29	18	21	0	72	18	94	1	51	194	14	0	7	309	23	1	852
4:15 PM	32	27	15	0	46	23	86	1	69	167	9	1	19	240	40	1	776
4:30 PM	24	28	16	0	50	23	103	0	71	223	9	1	17	261	24	4	854
4:45 PM	29	22	15	0	44	19	94	0	67	210	8	0	13	264	19	4	808
5:00 PM	12	35	13	0	47	14	63	0	68	170	13	2	14	265	23	4	743
5:15 PM	18	34	18	0	46	18	75	0	60	180	11	1	13	284	28	1	787
5:30 PM	22	29	15	0	28	19	69	0	44	183	7	4	12	218	40	1	691
5:45 PM	16	27	16	0	37	23	74	0	47	176	8	1	8	252	25	6	716
6:00 PM	32	23	15	0	42	14	44	0	54	135	12	1	19	222	23	3	639
6:15 PM	14	12	17	0	42	19	45	0	47	144	6	1	17	236	34	4	638
6:30 PM	19	16	20	0	26	13	42	0	49	137	8	0	16	185	22	4	557
6:45 PM	14	17	20	0	25	10	35	0	43	107	9	1	13	194	24	4	516
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	261	288	201	0	505	213	824	2	670	2026	114	13	168	2930	325	37	8577
APPROACH %'s :	34.80%	38.40%	26.80%	0.00%	32.71%	13.80%	53.37%	0.13%	23.73%	71.77%	4.04%	0.46%	4.86%	84.68%	9.39%	1.07%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	114	95	67	0	212	83	377	2	258	794	40	2	56	1074	106	10	3290
PEAK HR FACTOR :	0.891	0.848	0.798	0.000	0.736	0.902	0.915	0.500	0.908	0.890	0.714	0.500	0.737	0.869	0.663	0.625	0.963
	0.932				0.911				0.900				0.916				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	5	5	2	0	27	3	14	0	16	149	2	1	2	48	21	1	296
6:15 AM	7	0	6	0	15	2	19	0	18	163	1	1	0	74	31	1	338
6:30 AM	7	9	8	0	17	1	29	0	15	171	1	0	0	87	27	0	372
6:45 AM	12	11	8	0	27	5	43	0	22	160	0	3	5	112	31	0	439
7:00 AM	12	13	10	0	26	3	92	0	39	165	1	1	7	127	40	0	536
7:15 AM	19	7	11	0	28	8	83	0	55	196	5	2	6	112	30	1	563
7:30 AM	14	25	13	0	25	9	30	0	81	213	13	1	6	146	48	0	624
7:45 AM	25	42	31	0	33	40	61	0	70	159	5	2	5	155	63	1	692
8:00 AM	12	18	12	0	22	25	61	0	54	199	6	2	9	131	27	1	579
8:15 AM	16	16	11	0	24	17	57	0	39	157	6	0	11	136	26	1	517
8:30 AM	23	9	21	0	27	13	49	0	51	155	12	2	11	108	25	3	509
8:45 AM	14	17	7	0	43	26	50	0	52	166	16	4	3	125	22	3	548
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	166	172	140	0	314	152	588	0	512	2053	68	19	65	1361	391	12	6013
APPROACH %'s :	34.73%	35.98%	29.29%	0.00%	29.79%	14.42%	55.79%	0.00%	19.31%	77.41%	2.56%	0.72%	3.55%	74.41%	21.38%	0.66%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	70	92	67	0	108	82	235	0	260	767	29	7	26	544	168	3	2458
PEAK HR FACTOR :	0.700	0.548	0.540	0.000	0.818	0.513	0.708	0.000	0.802	0.900	0.558	0.875	0.722	0.877	0.667	0.750	0.888
	0.584				0.793				0.863				0.827				

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	29	18	21	0	72	18	90	1	50	190	14	0	7	303	23	1	837
4:15 PM	32	27	15	0	45	23	79	1	67	164	9	1	19	235	40	1	758
4:30 PM	24	27	16	0	49	23	101	0	69	220	9	1	17	251	24	4	835
4:45 PM	29	22	15	0	44	19	91	0	64	205	8	0	13	260	17	4	791
5:00 PM	12	35	13	0	47	14	61	0	67	168	13	2	13	261	23	4	733
5:15 PM	18	34	17	0	46	18	74	0	59	177	11	1	13	278	28	1	775
5:30 PM	22	29	15	0	28	18	67	0	44	181	7	4	12	214	40	1	682
5:45 PM	16	27	16	0	37	23	72	0	45	172	8	1	7	250	24	6	704
6:00 PM	31	23	15	0	42	14	44	0	53	132	12	1	19	220	23	3	632
6:15 PM	14	12	17	0	42	19	44	0	46	141	6	1	17	235	33	4	631
6:30 PM	19	16	19	0	26	13	42	0	48	137	8	0	16	179	22	4	549
6:45 PM	14	17	20	0	25	10	35	0	42	104	9	1	13	191	23	4	508
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	260	287	199	0	503	212	800	2	654	1991	114	13	166	2877	320	37	8435
APPROACH %'s :	34.85%	38.47%	26.68%	0.00%	33.16%	13.97%	52.74%	0.13%	23.59%	71.83%	4.11%	0.47%	4.88%	84.62%	9.41%	1.09%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	114	94	67	0	210	83	361	2	250	779	40	2	56	1049	104	10	3221
PEAK HR FACTOR :	0.891	0.870	0.798	0.000	0.729	0.902	0.894	0.500	0.906	0.885	0.714	0.500	0.737	0.866	0.650	0.625	0.962
	0.929				0.906				0.895				0.912				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	1	0	1	0	2	6	0	0	0	0	0	0	10
6:15 AM	0	0	0	0	0	0	0	0	3	4	0	0	0	4	1	0	12
6:30 AM	0	0	0	0	1	0	2	0	3	8	1	0	0	3	0	0	18
6:45 AM	0	0	0	0	0	0	2	0	1	3	0	0	1	10	1	0	18
7:00 AM	1	0	0	0	1	0	5	0	7	6	0	0	0	7	1	0	28
7:15 AM	1	1	0	0	3	0	6	0	3	12	0	0	0	7	1	0	34
7:30 AM	1	0	1	0	3	0	4	0	2	7	0	0	0	8	1	0	27
7:45 AM	2	0	1	0	1	0	0	0	3	10	0	0	0	7	1	0	25
8:00 AM	2	1	0	0	0	1	0	0	3	5	1	0	0	9	2	0	24
8:15 AM	1	1	1	0	2	1	2	0	5	8	0	0	0	23	3	0	47
8:30 AM	1	2	0	0	2	0	12	0	1	4	1	0	0	17	3	0	43
8:45 AM	2	0	1	0	2	0	4	0	1	4	0	0	1	16	2	0	33
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	5	4	0	16	2	38	0	34	77	3	0	2	111	16	0	319
APPROACH %'s :	55.00%	25.00%	20.00%	0.00%	28.57%	3.57%	67.86%	0.00%	29.82%	67.54%	2.63%	0.00%	1.55%	86.05%	12.40%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	6	2	2	0	7	1	10	0	11	34	1	0	0	31	5	0	110
PEAK HR FACTOR :	0.750	0.500	0.500	0.000	0.583	0.250	0.417	0.000	0.917	0.708	0.250	0.000	0.000	0.861	0.625	0.000	0.809
	0.833				0.500				0.767				0.818				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	4	0	1	4	0	0	0	6	0	0	15
4:15 PM	0	0	0	0	1	0	7	0	2	3	0	0	0	5	0	0	18
4:30 PM	0	1	0	0	1	0	2	0	2	3	0	0	0	10	0	0	19
4:45 PM	0	0	0	0	0	0	3	0	3	5	0	0	0	4	2	0	17
5:00 PM	0	0	0	0	0	0	2	0	1	2	0	0	1	4	0	0	10
5:15 PM	0	0	1	0	0	0	1	0	1	3	0	0	0	6	0	0	12
5:30 PM	0	0	0	0	0	1	2	0	0	2	0	0	0	4	0	0	9
5:45 PM	0	0	0	0	0	0	2	0	2	4	0	0	1	2	1	0	12
6:00 PM	1	0	0	0	0	0	0	0	1	3	0	0	0	2	0	0	7
6:15 PM	0	0	0	0	0	0	1	0	1	3	0	0	0	1	1	0	7
6:30 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	6	0	0	8
6:45 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	3	1	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	2	0	2	1	24	0	16	35	0	0	2	53	5	0	142
APPROACH %'s :	25.00%	25.00%	50.00%	0.00%	7.41%	3.70%	88.89%	0.00%	31.37%	68.63%	0.00%	0.00%	3.33%	88.33%	8.33%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	2	0	16	0	8	15	0	0	0	25	2	0	69
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.500	0.000	0.571	0.000	0.667	0.750	0.000	0.000	0.000	0.625	0.250	0.000	0.908
	0.250				0.563				0.719				0.675				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-001
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/Winchester St				US 17/Winchester St				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1.5	0.5	1	0	2	1.5	0.5	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/Winchester St & US 17/US 211/Broadview Ave **Project ID:** 23-260020-001
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/Winchester St		US 17/Winchester St		US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	2	3
8:30 AM	1	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	0	1	2	5
APPROACH %'s :	50.00%	50.00%					33.33%	66.67%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	1	2	0	0	4
4:15 PM	1	1	0	0	1	2	0	0	5
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	2	0	0	2	0	0	2	0	6
5:00 PM	0	0	0	0	0	4	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	2	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	0	0	0	3	0	0	0	5
6:15 PM	1	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	1	1	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	7	1	1	4	7	8	2	0	30
APPROACH %'s :	87.50%	12.50%	20.00%	80.00%	46.67%	53.33%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	4	1	0	3	2	4	2	0	16
PEAK HR FACTOR :	0.500	0.250		0.375	0.500	0.500	0.250		0.667
	0.625		0.375		0.500		0.250		

Prepared by National Data & Surveying Services

US 17/Winchester St & US 17/US 211/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-001
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2568	0	3290
PHF	0.90		0.96

SOUTHBOUND (US 17/Winchester St)

	L	T	R	U	Total	
AM	245	83	115	0	538	AM
NOON	0	0	0	0	0	NOON
PM	377	83	212	2	461	PM
	1	0.5	1.5	0		

EASTBOUND (US 17/US 211/Broadview Ave)

	AM	NOON	PM	
	903	0	1567	
0	7	0	2	
2	271	0	258	
1.5	801	0	794	
0.5	30	0	40	
	AM	NOON	PM	

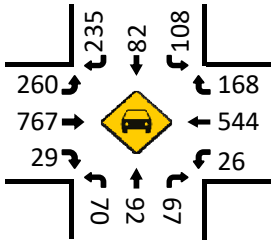
WESTBOUND (US 17/US 211/Broadview Ave)

	PM	NOON	AM	
1	106	0	173	
2	1074	0	575	
1	56	0	26	
0	10	0	3	
	1083	0	988	
	PM	NOON	AM	

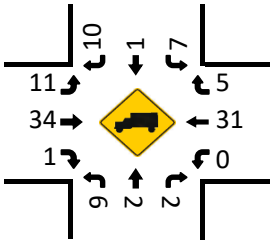
NORTHBOUND (US 17/Winchester St)

	L	T	R	U	Total	
PM	179	0	114	95	67	PM
NOON	0	0	0	0	0	NOON
AM	139	0	76	94	69	AM
	0	1	1	1		

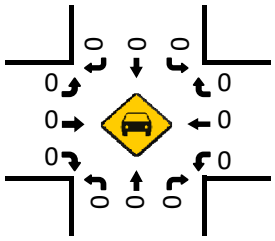
Cars (AM)



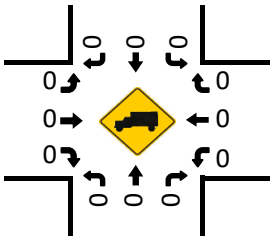
HT (AM)



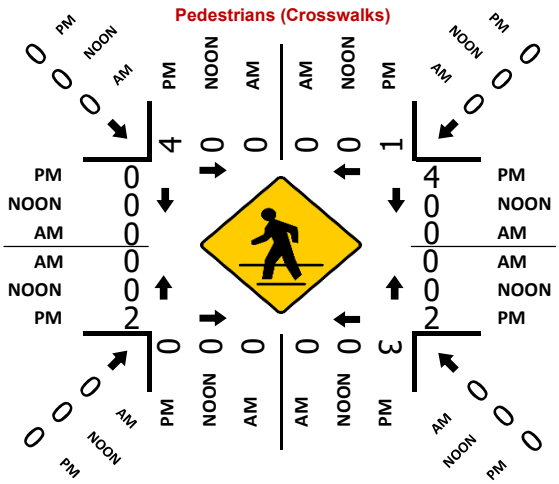
Cars (NOON)



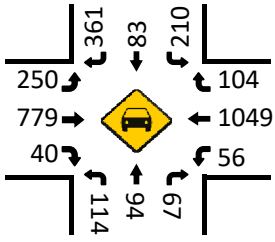
HT (NOON)



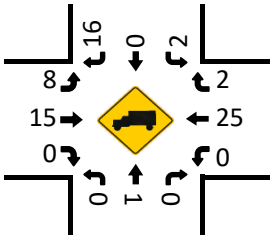
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - Total

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	183	0	0	0	67	2	0	252
6:15 AM	0	0	0	0	0	0	0	0	0	192	0	0	0	115	0	0	307
6:30 AM	0	0	0	0	0	0	0	0	0	203	0	0	0	113	2	0	318
6:45 AM	0	0	0	0	0	0	2	0	0	196	0	0	0	157	1	0	356
7:00 AM	0	0	0	0	0	0	1	0	0	212	0	0	0	185	4	0	402
7:15 AM	0	0	0	0	0	0	3	0	0	244	0	0	0	164	3	0	414
7:30 AM	0	0	0	0	0	0	3	0	0	269	0	0	0	196	9	0	477
7:45 AM	0	0	0	0	0	0	8	0	0	236	0	0	0	234	9	0	487
8:00 AM	0	0	0	0	0	0	3	0	0	236	0	0	0	168	6	0	413
8:15 AM	0	0	0	0	0	0	6	0	0	207	0	0	0	196	7	0	416
8:30 AM	0	0	0	0	0	0	6	0	0	208	0	0	0	159	10	0	383
8:45 AM	0	0	0	0	0	0	7	0	0	230	0	0	0	168	23	0	428
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	39	0	0	2616	0	0	0	1922	76	0	4653
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	96.20%	3.80%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	20	0	0	948	0	0	0	794	31	0	1793
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.881	0.000	0.000	0.000	0.848	0.861	0.000	0.920
							0.625			0.881				0.849			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	17	0	0	291	0	0	0	320	25	0	653
4:15 PM	0	0	0	0	0	0	19	0	0	227	0	0	0	284	25	0	555
4:30 PM	0	0	0	0	0	0	17	0	0	295	0	0	0	286	18	0	616
4:45 PM	0	0	0	0	0	0	26	0	0	271	0	0	0	274	34	0	605
5:00 PM	0	0	0	0	0	0	20	0	0	236	0	0	0	295	35	0	586
5:15 PM	0	0	0	0	0	0	26	0	0	245	0	0	0	302	24	0	597
5:30 PM	0	0	0	0	0	0	16	0	0	223	0	0	0	244	16	0	499
5:45 PM	0	0	0	0	0	0	20	0	0	239	0	0	0	277	38	0	574
6:00 PM	0	0	0	0	0	0	29	0	0	190	0	0	0	250	38	0	507
6:15 PM	0	0	0	0	0	0	25	0	0	212	0	0	0	248	42	0	527
6:30 PM	0	0	0	0	0	0	24	0	0	185	0	0	0	203	22	0	434
6:45 PM	0	0	0	0	0	0	21	0	0	158	0	0	0	219	22	0	420
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	260	0	0	2772	0	0	0	3202	339	0	6573
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	90.43%	9.57%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	79	0	0	1084	0	0	0	1164	102	0	2429
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.760	0.000	0.000	0.919	0.000	0.000	0.000	0.909	0.750	0.000	0.930
							0.760			0.919				0.917			

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	176	0	0	0	67	2	0	245
6:15 AM	0	0	0	0	0	0	0	0	0	188	0	0	0	110	0	0	298
6:30 AM	0	0	0	0	0	0	0	0	0	194	0	0	0	110	2	0	306
6:45 AM	0	0	0	0	0	0	2	0	0	193	0	0	0	144	1	0	340
7:00 AM	0	0	0	0	0	0	1	0	0	205	0	0	0	178	4	0	388
7:15 AM	0	0	0	0	0	0	2	0	0	229	0	0	0	156	3	0	390
7:30 AM	0	0	0	0	0	0	3	0	0	258	0	0	0	188	9	0	458
7:45 AM	0	0	0	0	0	0	8	0	0	224	0	0	0	225	9	0	466
8:00 AM	0	0	0	0	0	0	3	0	0	231	0	0	0	156	6	0	396
8:15 AM	0	0	0	0	0	0	6	0	0	196	0	0	0	172	7	0	381
8:30 AM	0	0	0	0	0	0	6	0	0	204	0	0	0	137	10	0	357
8:45 AM	0	0	0	0	0	0	7	0	0	221	0	0	0	151	23	0	402
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	38	0	0	2519	0	0	0	1794	76	0	4427
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	95.94%	4.06%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	20	0	0	909	0	0	0	741	31	0	1701
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.881	0.000	0.000	0.000	0.823	0.861	0.000	0.913
							0.625			0.881				0.825			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	17	0	0	286	0	0	0	314	25	0	642
4:15 PM	0	0	0	0	0	0	19	0	0	223	0	0	0	277	25	0	544
4:30 PM	0	0	0	0	0	0	17	0	0	291	0	0	0	278	18	0	604
4:45 PM	0	0	0	0	0	0	26	0	0	266	0	0	0	268	34	0	594
5:00 PM	0	0	0	0	0	0	19	0	0	234	0	0	0	291	35	0	579
5:15 PM	0	0	0	0	0	0	26	0	0	241	0	0	0	296	24	0	587
5:30 PM	0	0	0	0	0	0	15	0	0	221	0	0	0	241	16	0	493
5:45 PM	0	0	0	0	0	0	20	0	0	235	0	0	0	273	38	0	566
6:00 PM	0	0	0	0	0	0	29	0	0	187	0	0	0	248	38	0	502
6:15 PM	0	0	0	0	0	0	25	0	0	209	0	0	0	246	42	0	522
6:30 PM	0	0	0	0	0	0	24	0	0	184	0	0	0	197	22	0	427
6:45 PM	0	0	0	0	0	0	21	0	0	155	0	0	0	215	22	0	413
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	258	0	0	2732	0	0	0	3144	339	0	6473
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	90.27%	9.73%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	79	0	0	1066	0	0	0	1137	102	0	2384
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.760	0.000	0.000	0.916	0.000	0.000	0.000	0.905	0.750	0.000	0.928
							0.760			0.916				0.914			

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - HT

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
6:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9
6:30 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	3	0	0	12
6:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	13	0	0	16
7:00 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	14
7:15 AM	0	0	0	0	0	0	1	0	0	15	0	0	0	8	0	0	24
7:30 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	8	0	0	19
7:45 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	9	0	0	21
8:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	12	0	0	17
8:15 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	24	0	0	35
8:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	22	0	0	26
8:45 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	17	0	0	26
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	0	97	0	0	0	128	0	0	226
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	39	0	0	0	53	0	0	92
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.552	0.000	0.000	0.657
										0.813				0.552			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0	11
4:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
4:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	8	0	0	12
4:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0	11
5:00 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	4	0	0	7
5:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	0	10
5:30 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	3	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8
6:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
6:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	7
6:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	2	0	0	40	0	0	0	58	0	0	100
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	18	0	0	0	27	0	0	45
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.000	0.844	0.000	0.000	0.938
										0.900				0.844			

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-002
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy				US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	3	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/L **Project ID:** 23-260020-002
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Warrenton Village Center Dwy (Chipotle)/Walgreens		Warrenton Village Center Dwy (Chipotle)/Walgreens		US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	1
APPROACH %'s :	100.00%	0.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	1
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	2	0	0	0	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	1	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	3	0	0	0	0	0	0	7
APPROACH %'s :	57.14%	42.86%							
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	3	1	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.375	0.250							0.500
	0.500								

Prepared by National Data & Surveying Services

Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy & US 17/US 211/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-002
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND — Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy

AM	20	0	0	0	31	AM
NOON	0	0	0	0	0	NOON
PM	79	0	0	0	102	PM

0 1 0 0

EASTBOUND — US 17/US 211/Broadview Ave

AM	NOON	PM	
814	0	1243	
0	0	0	0
0	0	0	0
948	0	1084	3
0	0	0	0

WESTBOUND — US 17/US 211/Broadview Ave

PM	NOON	AM	
102	0	31	1
1164	0	794	2
0	0	0	0
0	0	0	0
1084	0	948	

CONTROL

1-Way Stop(SB)

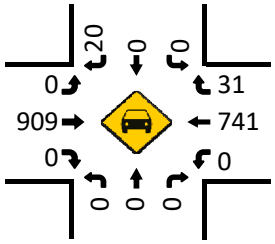
TEV	1793 AM	0 NOON	2429 PM
PHF	0.92		0.93

0 0 0 0

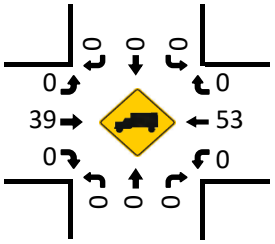
NORTHBOUND — Warrenton Village Center Dwy (Chipotle)/Walgreens Dwy

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

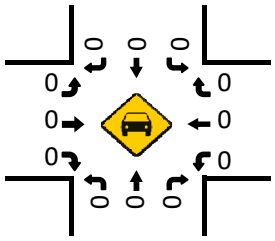
Cars (AM)



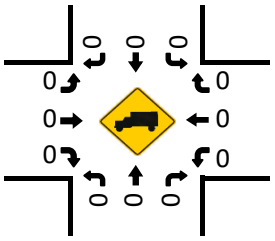
HT (AM)



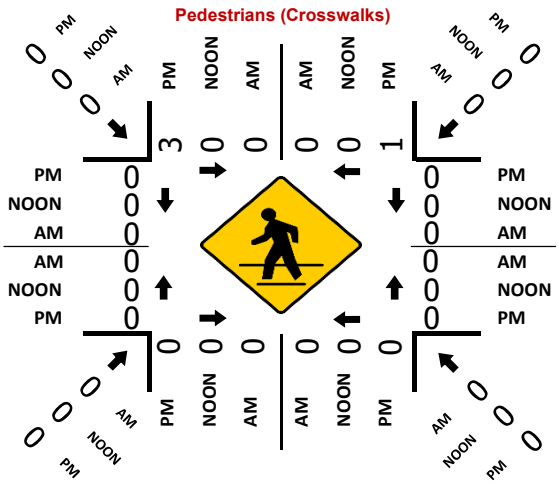
Cars (NOON)



HT (NOON)



Pedestrians (Crosswalks)


PM
NOON
AM
0
0
0
3
0
0
1
0
0
0
0
0
0
0
0
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0
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0

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - Total

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	0	4	0	3	1	1	0	0	180	0	0	3	69	3	0	265
6:15 AM	0	0	4	0	2	1	7	0	4	180	0	0	6	106	3	0	313
6:30 AM	0	0	8	0	1	1	4	0	4	190	0	0	11	114	3	0	336
6:45 AM	1	1	7	0	2	0	8	0	9	176	0	0	7	152	9	0	372
7:00 AM	3	0	6	0	1	1	12	0	5	213	1	1	11	167	4	0	425
7:15 AM	2	0	8	0	5	5	7	0	8	225	0	2	10	158	6	0	436
7:30 AM	4	4	14	0	3	1	9	0	6	245	0	2	10	192	15	0	505
7:45 AM	2	5	10	0	11	3	11	0	9	220	0	3	11	223	18	0	526
8:00 AM	1	2	8	0	10	2	4	0	7	215	0	1	11	172	12	0	445
8:15 AM	3	0	6	0	10	2	26	0	7	195	1	1	12	169	6	0	438
8:30 AM	4	3	9	0	12	5	9	0	10	187	0	2	17	156	5	2	421
8:45 AM	0	3	11	0	11	2	11	0	11	214	2	3	17	176	14	0	475
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	18	95	0	71	24	109	0	80	2440	4	15	126	1854	98	2	4957
APPROACH %'s :	15.67%	13.43%	70.90%	0.00%	34.80%	11.76%	53.43%	0.00%	3.15%	96.10%	0.16%	0.59%	6.06%	89.13%	4.71%	0.10%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	10	11	38	0	34	8	50	0	29	875	1	7	44	756	51	0	1914
PEAK HR FACTOR :	0.625	0.550	0.679	0.000	0.773	0.667	0.481	0.000	0.806	0.893	0.250	0.583	0.917	0.848	0.708	0.000	0.910
	0.670				0.605				0.901				0.844				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	4	15	0	40	4	39	0	23	252	1	1	17	275	26	1	705
4:15 PM	3	4	18	0	39	4	36	0	34	208	1	3	14	272	23	0	659
4:30 PM	5	7	20	0	34	6	24	0	35	218	0	1	15	269	10	0	644
4:45 PM	2	2	22	0	26	4	42	0	39	224	0	4	18	277	25	0	685
5:00 PM	2	3	16	0	30	7	31	0	28	205	1	4	19	298	22	2	668
5:15 PM	4	8	16	0	26	6	31	0	29	203	0	3	14	266	15	2	623
5:30 PM	3	4	13	0	30	1	20	0	18	187	0	3	13	241	19	0	552
5:45 PM	5	2	17	0	31	2	21	0	25	210	0	3	22	279	19	0	636
6:00 PM	6	2	12	0	44	5	28	0	29	160	1	1	16	262	15	0	581
6:15 PM	3	5	17	0	30	4	25	0	19	160	0	6	13	247	17	1	547
6:30 PM	4	4	16	0	32	4	21	0	13	162	0	0	22	202	19	5	504
6:45 PM	1	1	9	0	27	9	20	0	17	149	0	4	10	214	11	0	472
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	45	46	191	0	389	56	338	0	309	2338	4	33	193	3102	221	11	7276
APPROACH %'s :	15.96%	16.31%	67.73%	0.00%	49.68%	7.15%	43.17%	0.00%	11.51%	87.11%	0.15%	1.23%	5.47%	87.95%	6.27%	0.31%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	17	17	75	0	139	18	141	0	131	902	2	9	64	1093	84	1	2693
PEAK HR FACTOR :	0.607	0.607	0.852	0.000	0.869	0.750	0.839	0.000	0.840	0.895	0.500	0.563	0.889	0.986	0.808	0.250	0.955
	0.852				0.898				0.942				0.970				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	0	4	0	3	1	1	0	0	174	0	0	3	69	3	0	259
6:15 AM	0	0	4	0	2	1	6	0	3	176	0	0	6	102	3	0	303
6:30 AM	0	0	8	0	1	1	4	0	3	183	0	0	11	111	3	0	325
6:45 AM	1	1	6	0	1	0	5	0	9	173	0	0	6	142	9	0	353
7:00 AM	3	0	6	0	1	1	11	0	5	206	1	1	11	161	4	0	411
7:15 AM	2	0	8	0	4	5	7	0	8	210	0	2	10	150	6	0	412
7:30 AM	4	4	14	0	3	1	9	0	6	235	0	2	10	184	15	0	487
7:45 AM	2	5	10	0	11	3	11	0	9	208	0	3	11	214	18	0	505
8:00 AM	1	2	8	0	9	2	3	0	7	211	0	1	11	161	12	0	428
8:15 AM	3	0	6	0	10	2	18	0	7	184	1	0	11	154	6	0	402
8:30 AM	4	3	9	0	11	5	8	0	10	183	0	2	15	135	5	2	392
8:45 AM	0	2	11	0	10	2	10	0	11	206	2	3	17	159	14	0	447
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	17	94	0	66	24	93	0	78	2349	4	14	122	1742	98	2	4724
APPROACH %'s :	15.91%	12.88%	71.21%	0.00%	36.07%	13.11%	50.82%	0.00%	3.19%	96.07%	0.16%	0.57%	6.21%	88.70%	4.99%	0.10%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	10	11	38	0	33	8	41	0	29	838	1	6	43	713	51	0	1822
PEAK HR FACTOR :	0.625	0.550	0.679	0.000	0.750	0.667	0.569	0.000	0.806	0.891	0.250	0.500	0.977	0.833	0.708	0.000	0.902
	0.670				0.683				0.899				0.830				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	4	15	0	40	4	39	0	23	247	1	1	17	269	25	1	693
4:15 PM	3	4	18	0	39	4	35	0	34	206	1	3	14	265	23	0	649
4:30 PM	5	7	20	0	33	6	24	0	35	213	0	1	15	262	10	0	631
4:45 PM	2	2	22	0	26	4	42	0	39	218	0	4	18	271	25	0	673
5:00 PM	2	3	15	0	30	7	30	0	28	203	1	4	19	295	21	2	660
5:15 PM	4	8	16	0	26	6	29	0	29	199	0	3	14	262	14	2	612
5:30 PM	3	4	13	0	29	1	20	0	18	185	0	3	13	237	19	0	545
5:45 PM	5	2	17	0	31	2	21	0	25	206	0	3	22	276	19	0	629
6:00 PM	6	2	12	0	44	5	27	0	29	158	1	1	16	261	15	0	577
6:15 PM	3	5	17	0	30	4	25	0	19	156	0	6	13	245	17	1	541
6:30 PM	4	4	16	0	32	4	21	0	13	161	0	0	22	196	19	5	497
6:45 PM	1	1	9	0	27	9	19	0	17	146	0	4	10	211	11	0	465
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	45	46	190	0	387	56	332	0	309	2298	4	33	193	3050	218	11	7172
APPROACH %'s :	16.01%	16.37%	67.62%	0.00%	49.94%	7.23%	42.84%	0.00%	11.69%	86.91%	0.15%	1.25%	5.56%	87.85%	6.28%	0.32%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	17	17	75	0	138	18	140	0	131	884	2	9	64	1067	83	1	2646
PEAK HR FACTOR :	0.607	0.607	0.852	0.000	0.863	0.750	0.833	0.000	0.840	0.895	0.500	0.563	0.889	0.984	0.830	0.250	0.955
	0.852				0.892				0.943				0.967				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - HT

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
6:15 AM	0	0	0	0	0	0	1	0	1	4	0	0	0	4	0	0	10
6:30 AM	0	0	0	0	0	0	0	0	1	7	0	0	0	3	0	0	11
6:45 AM	0	0	1	0	1	0	3	0	0	3	0	0	1	10	0	0	19
7:00 AM	0	0	0	0	0	0	1	0	0	7	0	0	0	6	0	0	14
7:15 AM	0	0	0	0	1	0	0	0	0	15	0	0	0	8	0	0	24
7:30 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	8	0	0	18
7:45 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	9	0	0	21
8:00 AM	0	0	0	0	1	0	1	0	0	4	0	0	0	11	0	0	17
8:15 AM	0	0	0	0	0	0	8	0	0	11	0	1	1	15	0	0	36
8:30 AM	0	0	0	0	1	0	1	0	0	4	0	0	2	21	0	0	29
8:45 AM	0	1	0	0	1	0	1	0	0	8	0	0	0	17	0	0	28
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	5	0	16	0	2	91	0	1	4	112	0	0	233
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%	23.81%	0.00%	76.19%	0.00%	2.13%	96.81%	0.00%	1.06%	3.45%	96.55%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	9	0	0	37	0	1	1	43	0	0	92
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.281	0.000	0.000	0.771	0.000	0.250	0.250	0.717	0.000	0.000	0.639
							0.313				0.792				0.688		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	1	0	12
4:15 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	7	0	0	10
4:30 PM	0	0	0	0	1	0	0	0	0	5	0	0	0	7	0	0	13
4:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	12
5:00 PM	0	0	1	0	0	0	1	0	0	2	0	0	0	3	1	0	8
5:15 PM	0	0	0	0	0	0	2	0	0	4	0	0	0	4	1	0	11
5:30 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	4	0	0	7
5:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0	7
6:00 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	0	4
6:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	7
6:45 PM	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	2	0	6	0	0	40	0	0	0	52	3	0	104
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	25.00%	0.00%	75.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	94.55%	5.45%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	1	0	0	18	0	0	0	26	1	0	47
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.929	0.250	0.000	0.904
							0.500				0.750				0.964		

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave
City: Warrenton
Control: Signalized

Project ID: 23-260020-003
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Branch Dr				Branch Dr				US 211/Lee Hwy/Broadview Ave				US 211/Lee Hwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500
														0.500			

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & US 211/Lee Hwy/Broadview Ave **Project ID:** 23-260020-003
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Branch Dr		Branch Dr		US 211/Lee Hwy/Broadview Ave		US 211/Lee Hwy/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	2	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	1	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	1	0	0	0	0	0	0	4
APPROACH %'s :	75.00%	25.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	2	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	1	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	2	1	2	0	1	0	0	8
APPROACH %'s :	50.00%	50.00%	33.33%	66.67%	0.00%	100.00%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	2	0	0	2	0	0	0	0	4
PEAK HR FACTOR :	0.500			0.250					0.500
	0.500		0.250						

Prepared by National Data & Surveying Services

Branch Dr & US 211/Lee Hwy/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-003
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND (Branch Dr)

AM	50	8	34	0	91	AM
NOON	0	0	0	0	0	NOON
PM	141	18	139	0	232	PM

EASTBOUND (US 211/Lee Hwy/Broadview Ave)

AM	NOON	PM	
823	0	1260	
7	0	9	0
29	0	131	1
875	0	902	2
1	0	2	1
AM	NOON	PM	

WESTBOUND (US 211/Lee Hwy/Broadview Ave)

PM	NOON	AM	
84	0	51	1
1093	0	756	2
64	0	44	1
1	0	0	0
1117	0	947	
PM	NOON	AM	

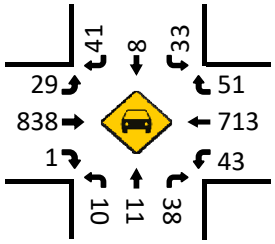
NORTHBOUND (Branch Dr)

PM	84	0	17	17	75	PM
NOON	0	0	0	0	0	NOON
AM	53	0	10	11	38	AM

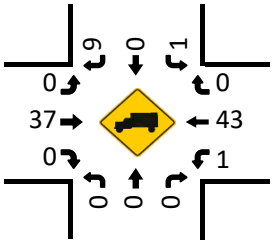
	AM	NOON	PM
Left	1	0.5	0.5
Through	0	0.5	0.5
Right	1	0	1

CONTROL			
Signalized			
TEV	1914	0	2693
	AM	NOON	PM
PHF	0.91		0.95

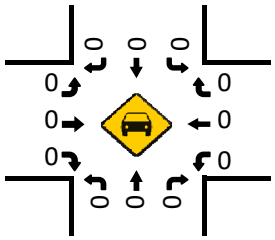
Cars (AM)



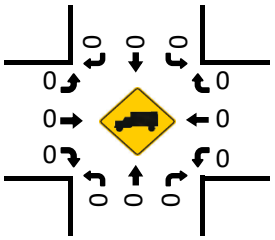
HT (AM)



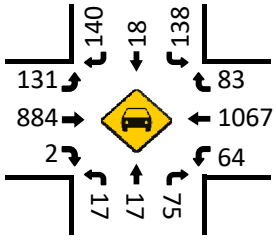
Cars (NOON)



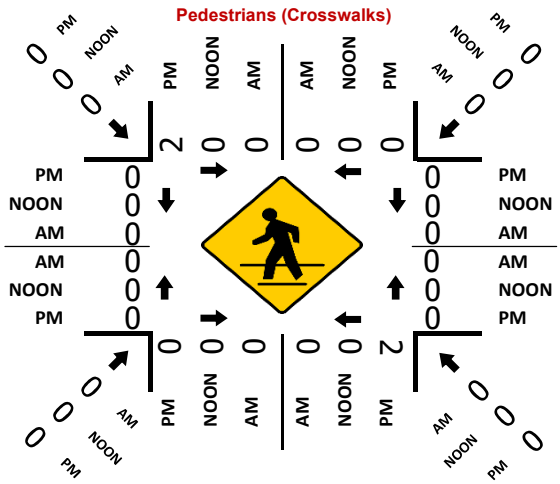
HT (NOON)



Cars (PM)



Pedestrians (Crosswalks)


PM
NOON
AM
0
2
0
0
0
0
0
0
0
0
0
0
0

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - Total

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	2	0	0	2	5	0	0	0	4	2	0	1	0	0	0	18
6:15 AM	0	1	1	0	1	2	0	0	0	1	0	0	4	2	0	0	12
6:30 AM	1	3	1	0	1	4	0	0	0	3	2	0	3	1	0	0	19
6:45 AM	7	2	0	0	3	8	0	0	0	1	0	0	2	2	0	0	25
7:00 AM	3	6	0	0	0	9	0	0	0	4	5	0	3	6	1	0	37
7:15 AM	3	6	1	0	5	8	2	0	1	5	5	0	3	3	5	0	47
7:30 AM	10	16	0	0	2	10	1	0	0	5	5	0	1	3	5	0	58
7:45 AM	5	26	3	0	5	21	1	0	4	3	9	0	3	2	3	0	85
8:00 AM	6	14	3	0	6	16	0	0	1	4	10	0	2	4	2	0	68
8:15 AM	2	9	1	0	5	20	3	0	1	3	14	0	8	2	4	0	72
8:30 AM	9	5	0	0	3	17	5	0	3	2	5	0	1	4	3	0	57
8:45 AM	8	9	1	0	2	14	4	0	1	6	7	0	3	2	0	0	57
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	56	99	11	0	35	134	16	0	11	41	64	0	34	31	23	0	555
APPROACH %'s :	33.73%	59.64%	6.63%	0.00%	18.92%	72.43%	8.65%	0.00%	9.48%	35.34%	55.17%	0.00%	38.64%	35.23%	26.14%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	23	65	7	0	18	67	5	0	6	15	38	0	14	11	14	0	283
PEAK HR FACTOR :	0.575	0.625	0.583	0.000	0.750	0.798	0.417	0.000	0.375	0.750	0.679	0.000	0.438	0.688	0.700	0.000	0.832
	0.699				0.804				0.819				0.696				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	32	10	0	0	11	13	8	0	3	22	29	0	14	12	6	0	160
4:15 PM	19	6	3	0	10	11	8	0	6	22	28	0	10	12	14	0	149
4:30 PM	15	16	5	0	13	9	10	0	2	20	33	0	7	10	12	0	152
4:45 PM	28	11	4	0	14	6	6	0	6	13	26	0	14	16	9	0	153
5:00 PM	28	9	1	0	12	13	10	0	3	12	35	0	7	12	12	0	154
5:15 PM	25	7	3	0	12	9	9	0	6	12	30	0	11	9	12	0	145
5:30 PM	27	15	4	0	6	0	10	0	11	26	32	0	6	14	10	0	161
5:45 PM	28	6	2	0	9	6	8	0	5	22	32	0	12	21	7	0	158
6:00 PM	29	9	1	0	5	6	9	0	8	22	48	0	10	17	13	0	177
6:15 PM	20	16	2	0	4	6	6	0	6	17	32	0	8	14	8	0	139
6:30 PM	18	8	2	0	3	9	4	0	4	10	25	0	10	17	4	0	114
6:45 PM	10	6	0	0	1	5	7	0	4	9	36	0	4	7	10	0	99
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	279	119	27	0	100	93	95	0	64	207	386	0	113	161	117	0	1761
APPROACH %'s :	65.65%	28.00%	6.35%	0.00%	34.72%	32.29%	32.99%	0.00%	9.74%	31.51%	58.75%	0.00%	28.90%	41.18%	29.92%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	109	37	10	0	32	21	36	0	30	82	142	0	39	61	42	0	641
PEAK HR FACTOR :	0.940	0.617	0.625	0.000	0.667	0.583	0.900	0.000	0.682	0.788	0.740	0.000	0.813	0.726	0.808	0.000	0.905
	0.848				0.742				0.814				0.888				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	2	0	0	2	5	0	0	0	4	2	0	1	0	0	0	18
6:15 AM	0	0	1	0	1	2	0	0	0	1	0	0	3	2	0	0	10
6:30 AM	1	3	0	0	1	4	0	0	0	3	1	0	3	1	0	0	17
6:45 AM	6	2	0	0	3	6	0	0	0	1	0	0	1	1	0	0	20
7:00 AM	3	6	0	0	0	8	0	0	0	4	5	0	3	5	1	0	35
7:15 AM	3	6	1	0	4	8	1	0	1	5	4	0	3	3	5	0	44
7:30 AM	10	16	0	0	2	10	1	0	0	5	5	0	1	3	5	0	58
7:45 AM	5	26	3	0	5	21	1	0	4	3	9	0	3	1	3	0	84
8:00 AM	6	14	3	0	6	13	0	0	1	4	10	0	2	4	2	0	65
8:15 AM	2	9	1	0	5	14	3	0	1	3	14	0	8	2	4	0	66
8:30 AM	9	5	0	0	3	16	5	0	3	2	4	0	1	3	3	0	54
8:45 AM	8	9	1	0	2	13	4	0	1	6	7	0	1	2	0	0	54
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	55	98	10	0	34	120	15	0	11	41	61	0	30	27	23	0	525
APPROACH %'s :	33.74%	60.12%	6.13%	0.00%	20.12%	71.01%	8.88%	0.00%	9.73%	36.28%	53.98%	0.00%	37.50%	33.75%	28.75%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	23	65	7	0	18	58	5	0	6	15	38	0	14	10	14	0	273
PEAK HR FACTOR :	0.575	0.625	0.583	0.000	0.750	0.690	0.417	0.000	0.375	0.750	0.679	0.000	0.438	0.625	0.700	0.000	0.813
	0.699				0.750				0.819				0.679				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	32	9	0	0	11	13	8	0	3	22	29	0	14	12	6	0	159
4:15 PM	19	6	3	0	10	10	8	0	6	22	27	0	10	11	13	0	145
4:30 PM	15	16	5	0	13	9	10	0	2	20	32	0	7	10	11	0	150
4:45 PM	28	11	4	0	14	6	6	0	6	13	26	0	14	16	9	0	153
5:00 PM	28	9	1	0	12	12	10	0	3	12	35	0	7	11	12	0	152
5:15 PM	25	7	3	0	12	7	9	0	6	12	30	0	11	9	12	0	143
5:30 PM	27	15	4	0	6	0	10	0	11	26	32	0	6	14	10	0	161
5:45 PM	28	6	2	0	9	6	8	0	5	22	32	0	12	20	7	0	157
6:00 PM	29	9	1	0	5	5	9	0	8	22	48	0	10	17	13	0	176
6:15 PM	20	16	2	0	4	6	6	0	6	17	32	0	8	14	8	0	139
6:30 PM	18	8	2	0	3	9	4	0	4	10	25	0	10	16	4	0	113
6:45 PM	10	6	0	0	1	4	7	0	4	9	36	0	3	7	10	0	97
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	279	118	27	0	100	87	95	0	64	207	384	0	112	157	115	0	1745
APPROACH %'s :	65.80%	27.83%	6.37%	0.00%	35.46%	30.85%	33.69%	0.00%	9.77%	31.60%	58.63%	0.00%	29.17%	40.89%	29.95%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	109	37	10	0	32	18	36	0	30	82	142	0	39	60	42	0	637
PEAK HR FACTOR :	0.940	0.617	0.625	0.000	0.667	0.643	0.900	0.000	0.682	0.788	0.740	0.000	0.813	0.750	0.808	0.000	0.905
	0.848				0.768				0.814				0.881				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - HT

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
6:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
6:45 AM	1	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0	5
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
7:15 AM	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	3
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	1	0	1	14	1	0	0	0	3	0	4	4	0	0	30
APPROACH %'s :	33.33%	33.33%	33.33%	0.00%	6.25%	87.50%	6.25%	0.00%	0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	9	0	0	0	0	0	0	0	1	0	0	10
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.417
						0.375								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	6	0	0	0	0	2	0	1	4	2	0	16
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	14.29%	57.14%	28.57%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	4
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.500
						0.375								0.250			

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-004
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Branch Dr				Branch Dr				Warrenton Village Center Dwy/Shopping Center Dwy				Warrenton Village Center Dwy/Shopping Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
							0.250				0.250						

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy **Project ID:** 23-260020-004
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Branch Dr		Branch Dr		Warrenton Village Center Dwy/Shopping Center		Warrenton Village Center Dwy/Shopping Center		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	2	0	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	3	0	0	0	0	0	0	6
APPROACH %'s :	50.00%	50.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.250	0.250							0.500
	0.500								

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	5	0	0	0	0	0	0	5
4:15 PM	1	2	0	0	1	0	0	0	4
4:30 PM	1	2	0	0	0	0	0	0	3
4:45 PM	3	0	0	0	0	1	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	2	1	0	0	0	0	0	0	3
5:30 PM	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	1	0	0	0	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	2	0	0	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	10	13	0	0	1	1	0	0	25
APPROACH %'s :	43.48%	56.52%			50.00%	50.00%			
PEAK HR :	05:15 PM - 06:15 PM								TOTAL
PEAK HR VOL :	5	2	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.625	0.500							0.583
	0.583								

Prepared by National Data & Surveying Services

Branch Dr & Warrenton Village Center Dwy/Shopping Center Dwy

Peak Hour Turning Movement Count

ID: 23-260020-004
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
05:15 PM - 06:15 PM	4:00 PM - 07:00 PM

CONTROL: 2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	283	0	641
PHF	0.83		0.91

SOUTHBOUND (Branch Dr)

	Left	Thru	Right	U-Turn	
AM	5	67	18	0	85
NOON	0	0	0	0	0
PM	36	21	32	0	109

EASTBOUND (Warrenton Village Center Dwy/Shopping Center Dwy)

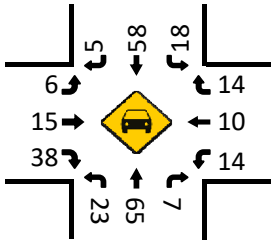
	Left	Thru	Right	U-Turn	
AM	39	0	206		
NOON	0	0	0	0	
PM	6	0	30	0	
	15	0	82	1	
	38	0	142	0	

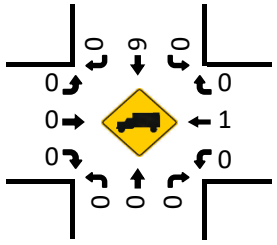
WESTBOUND (Warrenton Village Center Dwy/Shopping Center Dwy)

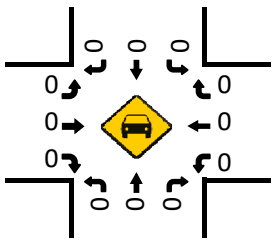
	Left	Thru	Right	U-Turn	
PM	42	0	14	0	
NOON	61	0	11	1	
AM	39	0	14	0	
	0	0	0	0	
	124	0	40		

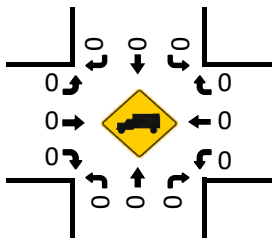
NORTHBOUND (Branch Dr)

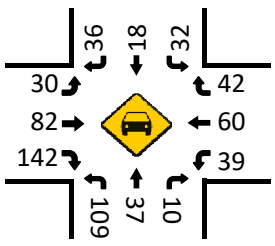
	Left	Thru	Right	U-Turn	
PM	202	0	109	37	10
NOON	0	0	0	0	0
AM	119	0	23	65	7

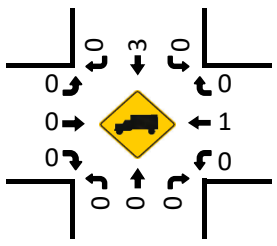


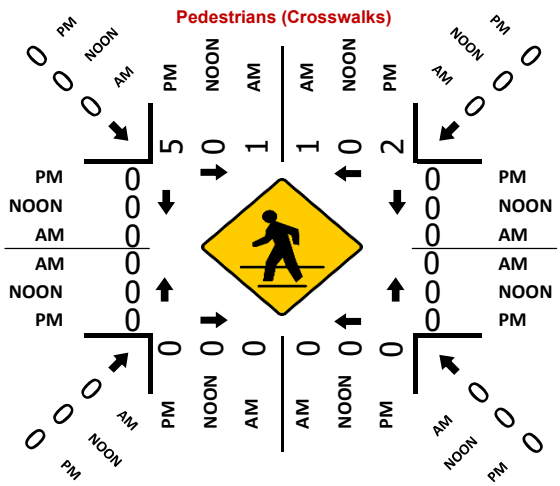












National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - Total

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	0	0	0	0	0	0	0	0	3	6	0	1	0	0	0	12
6:15 AM	0	0	1	0	0	0	0	0	0	2	3	0	0	4	0	0	10
6:30 AM	3	0	0	0	0	1	0	0	0	3	4	0	0	6	0	0	17
6:45 AM	2	0	0	0	0	0	0	0	1	3	9	0	2	6	1	0	24
7:00 AM	6	0	0	0	1	0	0	0	0	5	6	0	3	12	0	0	33
7:15 AM	12	0	1	0	0	2	0	0	0	15	9	0	4	10	0	0	53
7:30 AM	17	0	2	0	0	1	0	0	0	15	7	0	5	18	0	0	65
7:45 AM	31	0	4	0	0	0	1	0	0	20	23	0	4	49	0	0	132
8:00 AM	14	0	3	0	0	0	0	0	0	14	21	0	1	22	0	0	75
8:15 AM	11	0	3	0	0	0	0	0	0	27	24	0	4	17	0	0	86
8:30 AM	9	0	2	0	0	0	1	0	0	17	18	0	7	19	0	0	73
8:45 AM	7	0	3	0	0	2	1	0	1	26	15	0	3	19	0	0	77
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	114	0	19	0	1	6	3	0	2	150	145	0	34	182	1	0	657
APPROACH %'s :	85.71%	0.00%	14.29%	0.00%	10.00%	60.00%	30.00%	0.00%	0.67%	50.51%	48.82%	0.00%	15.67%	83.87%	0.46%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	65	0	12	0	0	0	2	0	0	78	86	0	16	107	0	0	366
PEAK HR FACTOR :	0.524	0.000	0.750	0.000	0.000	0.000	0.500	0.000	0.000	0.722	0.896	0.000	0.571	0.546	0.000	0.000	0.693
	0.550				0.500				0.804				0.580				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	0	4	0	1	1	0	0	1	34	21	0	9	25	1	0	112
4:15 PM	13	2	10	1	0	2	0	0	2	21	20	0	6	25	1	0	103
4:30 PM	19	0	11	0	0	1	0	0	0	30	26	0	5	33	0	0	125
4:45 PM	14	0	12	0	0	1	0	0	0	20	19	0	8	29	0	0	103
5:00 PM	18	1	4	0	0	1	0	0	1	22	20	0	12	27	0	0	106
5:15 PM	19	1	6	0	0	3	0	0	1	12	21	0	6	29	0	0	98
5:30 PM	26	1	8	0	1	0	0	0	0	23	12	0	4	26	1	0	102
5:45 PM	12	1	6	0	0	0	0	0	0	20	15	0	8	20	2	0	84
6:00 PM	22	2	6	0	0	0	0	0	0	15	13	0	8	14	1	0	81
6:15 PM	18	1	10	0	0	0	0	0	1	16	10	0	5	5	1	0	67
6:30 PM	10	3	4	0	1	2	1	0	0	15	7	0	7	9	0	0	59
6:45 PM	13	0	6	0	0	0	0	0	0	12	5	0	8	3	1	0	48
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	199	12	87	1	3	11	1	0	6	240	189	0	86	245	8	0	1088
APPROACH %'s :	66.56%	4.01%	29.10%	0.33%	20.00%	73.33%	6.67%	0.00%	1.38%	55.17%	43.45%	0.00%	25.37%	72.27%	2.36%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	61	2	37	1	1	5	0	0	3	105	86	0	28	112	2	0	443
PEAK HR FACTOR :	0.803	0.250	0.771	0.250	0.250	0.625	0.000	0.000	0.375	0.772	0.827	0.000	0.778	0.848	0.500	0.000	0.886
	0.842				0.750				0.866				0.934				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	0	0	0	0	0	0	0	0	3	6	0	1	0	0	0	12
6:15 AM	0	0	0	0	0	0	0	0	0	2	3	0	0	4	0	0	9
6:30 AM	3	0	0	0	0	1	0	0	0	2	4	0	0	6	0	0	16
6:45 AM	2	0	0	0	0	0	0	0	1	3	8	0	1	6	1	0	22
7:00 AM	6	0	0	0	1	0	0	0	0	3	5	0	3	12	0	0	30
7:15 AM	12	0	1	0	0	2	0	0	0	15	8	0	3	10	0	0	51
7:30 AM	17	0	2	0	0	1	0	0	0	15	7	0	5	18	0	0	65
7:45 AM	31	0	4	0	0	0	1	0	0	20	23	0	4	48	0	0	131
8:00 AM	14	0	3	0	0	0	0	0	0	13	19	0	0	22	0	0	71
8:15 AM	11	0	3	0	0	0	0	0	0	27	18	0	4	17	0	0	80
8:30 AM	9	0	2	0	0	0	1	0	0	16	18	0	6	19	0	0	71
8:45 AM	7	0	3	0	0	2	1	0	1	26	14	0	3	19	0	0	76
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	114	0	18	0	1	6	3	0	2	145	133	0	30	181	1	0	634
APPROACH %'s :	86.36%	0.00%	13.64%	0.00%	10.00%	60.00%	30.00%	0.00%	0.71%	51.79%	47.50%	0.00%	14.15%	85.38%	0.47%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	65	0	12	0	0	0	2	0	0	76	78	0	14	106	0	0	353
PEAK HR FACTOR :	0.524	0.000	0.750	0.000	0.000	0.000	0.500	0.000	0.000	0.704	0.848	0.000	0.583	0.552	0.000	0.000	0.674
	0.550				0.500				0.856				0.577				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	14	0	4	0	1	1	0	0	1	34	21	0	9	25	1	0	111
4:15 PM	13	2	9	1	0	2	0	0	2	20	20	0	5	25	1	0	100
4:30 PM	18	0	11	0	0	1	0	0	0	29	26	0	5	33	0	0	123
4:45 PM	14	0	12	0	0	1	0	0	0	19	19	0	8	28	0	0	101
5:00 PM	18	1	4	0	0	1	0	0	1	22	20	0	11	26	0	0	104
5:15 PM	19	1	6	0	0	3	0	0	1	12	20	0	5	29	0	0	96
5:30 PM	26	1	8	0	1	0	0	0	0	23	12	0	4	26	1	0	102
5:45 PM	12	1	6	0	0	0	0	0	0	20	15	0	8	20	2	0	84
6:00 PM	22	2	6	0	0	0	0	0	0	15	13	0	7	14	1	0	80
6:15 PM	18	1	10	0	0	0	0	0	1	16	10	0	5	5	1	0	67
6:30 PM	10	3	4	0	1	2	1	0	0	15	7	0	7	9	0	0	59
6:45 PM	13	0	6	0	0	0	0	0	0	12	5	0	7	3	1	0	47
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	197	12	86	1	3	11	1	0	6	237	188	0	81	243	8	0	1074
APPROACH %'s :	66.55%	4.05%	29.05%	0.34%	20.00%	73.33%	6.67%	0.00%	1.39%	54.99%	43.62%	0.00%	24.40%	73.19%	2.41%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	59	2	36	1	1	5	0	0	3	102	86	0	27	111	2	0	435
PEAK HR FACTOR :	0.819	0.250	0.750	0.250	0.250	0.625	0.000	0.000	0.375	0.750	0.827	0.000	0.750	0.841	0.500	0.000	0.884
	0.845				0.750				0.853				0.921				

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - HT

AM

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	0	0	0	0	5	12	0	4	1	0	0	23
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	29.41%	70.59%	0.00%	80.00%	20.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	8	0	2	1	0	0	13
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.333	0.000	0.500	0.250	0.000	0.000	0.542
										0.417				0.750			

PM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	3
4:30 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	1	0	0	0	0	0	0	3	1	0	5	2	0	0	14
APPROACH %'s :	66.67%	0.00%	33.33%	0.00%					0.00%	75.00%	25.00%	0.00%	71.43%	28.57%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	0	1	0	0	0	0	0	0	3	0	0	1	1	0	0	8
PEAK HR FACTOR :	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.250	0.250	0.000	0.000	0.667
			0.750							0.750				0.500			

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(NB/SB)

Project ID: 23-260020-005
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Branch Dr				Branch Dr				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Branch Dr & Oak Springs Dr
City: Warrenton
Project ID: 23-260020-005
Date: 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Branch Dr		Branch Dr		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	1	0	0	1	3
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	1	1	0	0	0	0	0	0	2
8:15 AM	1	0	1	0	1	1	0	0	4
8:30 AM	2	2	0	0	1	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	6	5	1	0	3	1	0	1	17
APPROACH %'s :	54.55%	45.45%	100.00%	0.00%	75.00%	25.00%	0.00%	100.00%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	4	3	1	0	2	1	0	0	11
PEAK HR FACTOR :	0.500	0.375	0.250		0.500	0.250			0.550
	0.438		0.250		0.375				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	2	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	1	0	0	0	1
4:30 PM	0	1	0	0	0	1	0	0	2
4:45 PM	0	1	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	1	0	0	2
6:00 PM	3	2	0	0	1	0	0	0	6
6:15 PM	1	0	0	0	0	1	0	0	2
6:30 PM	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	1	0	0	1	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	6	7	1	1	3	4	0	0	22
APPROACH %'s :	46.15%	53.85%	50.00%	50.00%	42.86%	57.14%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	2	2	0	0	1	1	0	0	6
PEAK HR FACTOR :	0.250	0.500			0.250	0.250			0.750
	0.500				0.500				

Prepared by National Data & Surveying Services

Branch Dr & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-005
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND (Branch Dr)

AM	2	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	5	1	0	7	PM
	0	1	0	0		

EASTBOUND (Oak Springs Dr)

AM	NOON	PM	
174	0	173	
0	0	0	0
0	0	3	0
78	0	105	1
86	0	86	0
AM	NOON	PM	

WESTBOUND (Oak Springs Dr)

PM	NOON	AM	
2	0	0	0
112	0	107	1
28	0	16	0
0	0	0	0
143	0	90	
PM	NOON	AM	

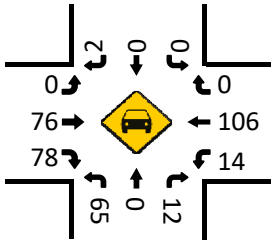
CONTROL: 2-Way Stop(NB/SB)

TEV	366	0	443
	AM	NOON	PM
PHF	0.69		0.89

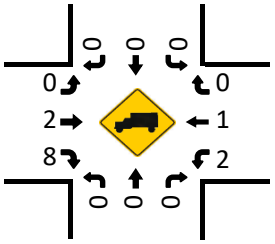
NORTHBOUND (Branch Dr)

	0	0	2	0		
PM	120	1	61	2	37	PM
NOON	0	0	0	0	0	NOON
AM	102	0	65	0	12	AM

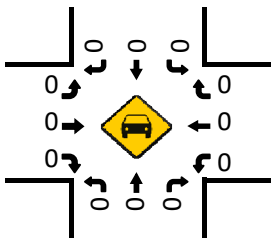
Cars (AM)



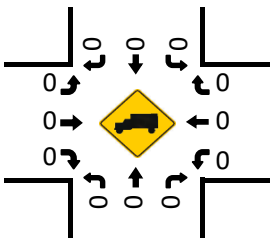
HT (AM)



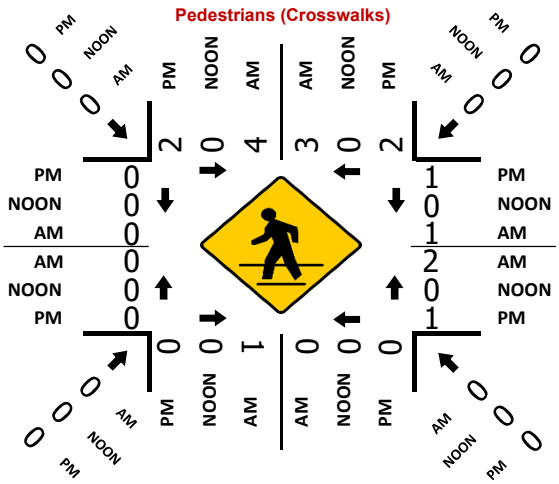
Cars (NOON)



HT (NOON)



Pedestrians (Crosswalks)


PM
NOON
AM
0
0
0
2
0
4
3
0
2
0
0
0
1
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0

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - Total

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	4	0	0	0	1	5	0	0	0	1	1	0	12
6:15 AM	0	0	0	0	3	0	3	0	1	2	0	0	0	4	0	0	13
6:30 AM	0	0	0	0	2	0	5	0	3	5	0	0	0	6	3	0	24
6:45 AM	0	0	0	0	4	0	8	0	6	9	0	0	0	7	1	0	35
7:00 AM	0	0	0	0	5	0	5	0	7	7	0	0	0	14	4	0	42
7:15 AM	0	0	0	0	5	0	16	0	11	18	0	0	0	16	6	0	72
7:30 AM	0	0	0	0	2	0	13	0	17	20	0	0	0	24	10	0	86
7:45 AM	0	0	0	0	5	0	6	0	18	39	0	0	0	68	12	0	148
8:00 AM	0	0	0	0	14	0	20	0	24	20	0	0	0	27	10	0	115
8:15 AM	0	0	0	0	26	0	28	0	24	25	0	0	0	17	12	0	132
8:30 AM	0	0	0	0	16	0	20	0	8	19	0	0	0	21	7	0	91
8:45 AM	0	0	0	0	2	0	7	0	9	41	0	0	0	21	7	0	87
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	88	0	131	0	129	210	0	0	0	226	73	0	857
APPROACH %'s :					40.18%	0.00%	59.82%	0.00%	38.05%	61.95%	0.00%	0.00%	0.00%	75.59%	24.41%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	61	0	74	0	74	103	0	0	0	133	41	0	486
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.587	0.000	0.661	0.000	0.771	0.660	0.000	0.000	0.000	0.489	0.854	0.000	0.821
					0.625				0.776				0.544				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	24	0	12	0	7	32	0	0	0	39	1	0	115
4:15 PM	0	0	0	0	15	0	9	0	12	29	0	0	0	35	3	0	103
4:30 PM	0	0	0	0	21	0	14	0	12	36	0	0	0	46	6	0	135
4:45 PM	0	0	0	0	7	0	17	0	11	31	0	0	0	40	2	0	108
5:00 PM	0	0	0	0	13	0	2	0	16	30	0	0	0	43	3	0	107
5:15 PM	0	0	0	0	11	0	10	0	12	23	0	0	0	40	8	0	104
5:30 PM	0	0	0	0	2	0	11	0	14	32	0	0	0	43	8	0	110
5:45 PM	0	0	0	0	7	0	10	0	6	28	0	0	0	28	5	0	84
6:00 PM	0	0	0	0	15	0	6	0	8	14	0	0	0	31	5	0	79
6:15 PM	0	0	0	0	8	0	6	0	6	18	0	0	0	15	7	0	60
6:30 PM	0	0	0	0	5	0	4	0	4	18	0	0	0	16	5	0	52
6:45 PM	0	0	0	0	4	0	5	0	4	12	0	0	0	8	8	0	41
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	132	0	106	0	112	303	0	0	0	384	61	0	1098
APPROACH %'s :					55.46%	0.00%	44.54%	0.00%	26.99%	73.01%	0.00%	0.00%	0.00%	86.29%	13.71%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	67	0	52	0	42	128	0	0	0	160	12	0	461
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.698	0.000	0.765	0.000	0.875	0.889	0.000	0.000	0.000	0.870	0.500	0.000	0.854
					0.826				0.885				0.827				

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	4	0	0	0	1	5	0	0	0	1	1	0	12
6:15 AM	0	0	0	0	3	0	3	0	1	2	0	0	0	4	0	0	13
6:30 AM	0	0	0	0	2	0	5	0	2	4	0	0	0	6	3	0	22
6:45 AM	0	0	0	0	3	0	8	0	5	9	0	0	0	7	1	0	33
7:00 AM	0	0	0	0	4	0	5	0	7	5	0	0	0	14	4	0	39
7:15 AM	0	0	0	0	5	0	16	0	11	17	0	0	0	16	6	0	71
7:30 AM	0	0	0	0	2	0	13	0	17	20	0	0	0	24	10	0	86
7:45 AM	0	0	0	0	5	0	6	0	15	39	0	0	0	67	12	0	144
8:00 AM	0	0	0	0	12	0	20	0	22	19	0	0	0	27	10	0	110
8:15 AM	0	0	0	0	20	0	28	0	24	25	0	0	0	17	12	0	126
8:30 AM	0	0	0	0	16	0	20	0	8	18	0	0	0	21	7	0	90
8:45 AM	0	0	0	0	2	0	7	0	9	40	0	0	0	21	7	0	86
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	78	0	131	0	122	203	0	0	0	225	73	0	832
APPROACH %'s :					37.32%	0.00%	62.68%	0.00%	37.54%	62.46%	0.00%	0.00%	0.00%	75.50%	24.50%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	53	0	74	0	69	101	0	0	0	132	41	0	470
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.663	0.000	0.661	0.000	0.719	0.647	0.000	0.000	0.000	0.493	0.854	0.000	0.816
							0.661				0.787				0.547		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	24	0	12	0	7	32	0	0	0	38	1	0	114
4:15 PM	0	0	0	0	15	0	8	0	11	28	0	0	0	35	3	0	100
4:30 PM	0	0	0	0	21	0	14	0	12	35	0	0	0	45	6	0	133
4:45 PM	0	0	0	0	7	0	17	0	11	30	0	0	0	39	2	0	106
5:00 PM	0	0	0	0	12	0	2	0	15	30	0	0	0	42	3	0	104
5:15 PM	0	0	0	0	11	0	10	0	12	23	0	0	0	40	8	0	104
5:30 PM	0	0	0	0	2	0	11	0	14	32	0	0	0	43	8	0	110
5:45 PM	0	0	0	0	7	0	10	0	5	28	0	0	0	28	5	0	83
6:00 PM	0	0	0	0	15	0	6	0	8	14	0	0	0	31	5	0	79
6:15 PM	0	0	0	0	8	0	6	0	6	18	0	0	0	15	7	0	60
6:30 PM	0	0	0	0	5	0	4	0	3	18	0	0	0	16	5	0	51
6:45 PM	0	0	0	0	4	0	5	0	4	12	0	0	0	8	8	0	41
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	131	0	105	0	108	300	0	0	0	380	61	0	1085
APPROACH %'s :					55.51%	0.00%	44.49%	0.00%	26.47%	73.53%	0.00%	0.00%	0.00%	86.17%	13.83%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	67	0	51	0	41	125	0	0	0	157	12	0	453
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.698	0.000	0.750	0.000	0.854	0.893	0.000	0.000	0.000	0.872	0.500	0.000	0.852
							0.819				0.883				0.828		

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - HT

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	4
8:00 AM	0	0	0	0	2	0	0	0	2	1	0	0	0	0	0	0	5
8:15 AM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	10	0	0	0	7	7	0	0	0	1	0	0	25
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	8	0	0	0	5	2	0	0	0	1	0	0	16
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.417	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.667
						0.333				0.583				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	0	4	3	0	0	0	4	0	0	13
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	57.14%	42.86%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	1	3	0	0	0	3	0	0	8
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.750	0.000	0.000	0.000	0.750	0.000	0.000	0.667
						0.250				0.500				0.750			

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-006
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Hastings Ln				Hastings Ln				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Hastings Ln & Oak Springs Dr
City: Warrenton
Project ID: 23-260020-006
Date: 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Hastings Ln		Hastings Ln		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	1
7:00 AM	1	2	0	0	0	1	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	1
8:15 AM	1	0	0	0	1	0	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	1
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	3	0	0	1	2	0	0	10
APPROACH %'s :	57.14%	42.86%			33.33%	66.67%			
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	1	1	0	0	1	1	0	0	4
PEAK HR FACTOR :	0.250	0.250			0.250	0.250			0.500
	0.500				0.500				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	2	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	0	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	2	0	0	2	1	0	0	7
APPROACH %'s :	50.00%	50.00%			66.67%	33.33%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	1	0	0	2	0	0	0	3
PEAK HR FACTOR :		0.250			0.250				0.375
	0.250				0.250				

Prepared by National Data & Surveying Services

Hastings Ln & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-006
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND (Hastings Ln)

AM	74	0	61	0	115	AM
NOON	0	0	0	0	0	NOON
PM	52	0	67	0	54	PM

EASTBOUND (Oak Springs Dr)

AM	NOON	PM	
207	0	212	
0	0	0	0
74	0	42	0
103	0	128	1
0	0	0	0

WESTBOUND (Oak Springs Dr)

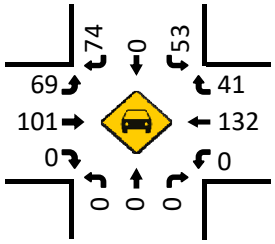
PM	NOON	AM	
12	0	41	0
160	0	133	1
0	0	0	0
0	0	0	0
195	0	164	

NORTHBOUND (Hastings Ln)

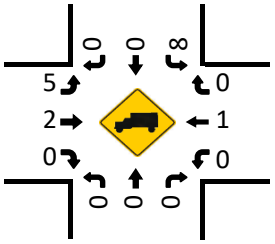
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL			
1-Way Stop(SB)			
TEV	486	0	461
	AM	NOON	PM
PHF	0.82		0.85

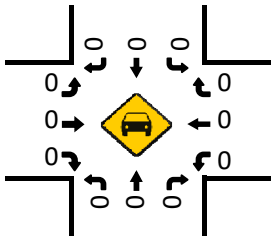
Cars (AM)



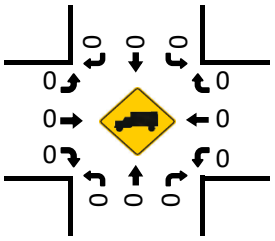
HT (AM)



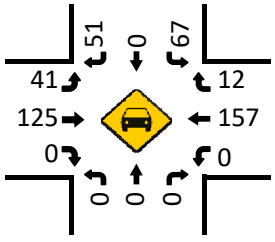
Cars (NOON)



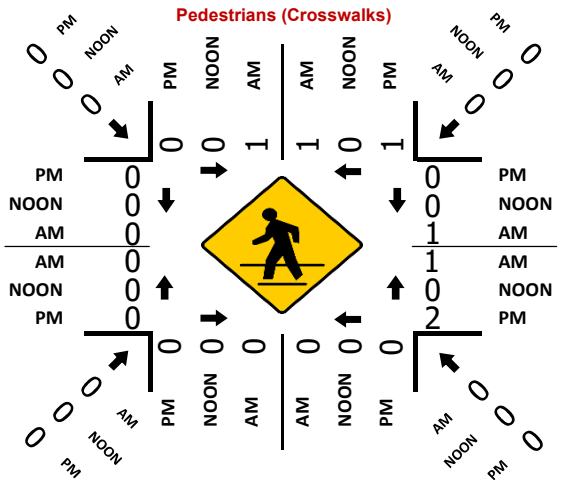
HT (NOON)



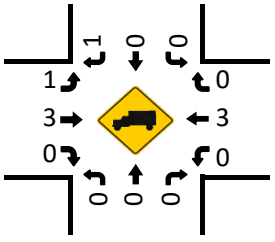
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - Total

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
6:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
6:30 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	11	0	0	18
6:45 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	14	0	0	29
7:00 AM	0	0	0	0	0	0	0	0	2	15	0	0	0	16	4	0	37
7:15 AM	0	0	0	0	0	0	2	0	1	28	0	0	0	30	2	0	63
7:30 AM	0	0	0	0	3	0	4	0	13	34	0	0	0	25	10	0	89
7:45 AM	0	0	0	0	25	0	8	0	19	32	0	0	0	43	33	0	160
8:00 AM	0	0	0	0	2	0	6	0	5	43	0	0	0	42	5	0	103
8:15 AM	0	0	0	0	1	0	1	0	1	47	0	0	0	42	3	0	95
8:30 AM	0	0	0	0	0	0	3	0	5	28	0	0	0	32	7	0	75
8:45 AM	0	0	0	0	19	0	14	0	20	30	0	0	0	17	13	0	113
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	50	0	38	0	66	289	0	0	0	280	77	0	800
APPROACH %'s :					56.82%	0.00%	43.18%	0.00%	18.59%	81.41%	0.00%	0.00%	0.00%	78.43%	21.57%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	31	0	19	0	38	156	0	0	0	152	51	0	447
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.310	0.000	0.594	0.000	0.500	0.830	0.000	0.000	0.000	0.884	0.386	0.000	0.698
					0.379				0.951				0.668				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	2	0	1	0	2	35	0	0	0	50	1	0	91
4:15 PM	0	0	0	0	2	0	6	0	2	39	0	0	0	44	0	0	93
4:30 PM	0	0	0	0	4	0	17	0	1	44	0	0	0	59	1	0	126
4:45 PM	0	0	0	0	1	0	3	0	0	41	0	0	0	57	0	0	102
5:00 PM	0	0	0	0	0	0	0	0	0	46	0	0	0	44	1	0	91
5:15 PM	0	0	0	0	1	0	0	0	0	34	0	0	0	49	1	0	85
5:30 PM	0	0	0	0	0	0	0	0	1	47	0	0	0	54	0	0	102
5:45 PM	0	0	0	0	0	0	2	0	0	33	0	0	0	37	0	0	72
6:00 PM	0	0	0	0	0	0	0	0	0	22	0	0	0	38	0	0	60
6:15 PM	0	0	0	0	1	0	0	0	0	23	0	0	0	21	0	0	45
6:30 PM	0	0	0	0	0	0	1	0	0	22	0	0	0	20	0	0	43
6:45 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	13	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	11	0	30	0	6	402	0	0	0	486	4	0	939
APPROACH %'s :					26.83%	0.00%	73.17%	0.00%	1.47%	98.53%	0.00%	0.00%	0.00%	99.18%	0.82%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	26	0	3	170	0	0	0	204	2	0	412
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.438	0.000	0.382	0.000	0.375	0.924	0.000	0.000	0.000	0.864	0.500	0.000	0.817
					0.393				0.940				0.858				

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - Cars

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
6:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
6:30 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	11	0	0	16
6:45 AM	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0	0	28
7:00 AM	0	0	0	0	0	0	0	0	2	13	0	0	0	16	4	0	35
7:15 AM	0	0	0	0	0	0	2	0	1	27	0	0	0	30	2	0	62
7:30 AM	0	0	0	0	3	0	4	0	13	34	0	0	0	25	10	0	89
7:45 AM	0	0	0	0	25	0	8	0	19	29	0	0	0	42	33	0	156
8:00 AM	0	0	0	0	2	0	6	0	5	40	0	0	0	42	5	0	100
8:15 AM	0	0	0	0	1	0	1	0	1	47	0	0	0	42	3	0	95
8:30 AM	0	0	0	0	0	0	3	0	5	27	0	0	0	32	7	0	74
8:45 AM	0	0	0	0	19	0	14	0	20	29	0	0	0	17	13	0	112
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	50	0	38	0	66	275	0	0	0	279	77	0	785
APPROACH %'s :					56.82%	0.00%	43.18%	0.00%	19.35%	80.65%	0.00%	0.00%	0.00%	78.37%	21.63%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	31	0	19	0	38	150	0	0	0	151	51	0	440
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.310	0.000	0.594	0.000	0.500	0.798	0.000	0.000	0.000	0.899	0.386	0.000	0.705
					0.379				0.979				0.673				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	2	0	1	0	2	35	0	0	0	49	1	0	90
4:15 PM	0	0	0	0	2	0	6	0	2	37	0	0	0	43	0	0	90
4:30 PM	0	0	0	0	4	0	17	0	1	43	0	0	0	58	1	0	124
4:45 PM	0	0	0	0	1	0	3	0	0	40	0	0	0	56	0	0	100
5:00 PM	0	0	0	0	0	0	0	0	0	45	0	0	0	43	1	0	89
5:15 PM	0	0	0	0	1	0	0	0	0	34	0	0	0	49	1	0	85
5:30 PM	0	0	0	0	0	0	0	0	1	47	0	0	0	54	0	0	102
5:45 PM	0	0	0	0	0	0	2	0	0	32	0	0	0	37	0	0	71
6:00 PM	0	0	0	0	0	0	0	0	0	22	0	0	0	38	0	0	60
6:15 PM	0	0	0	0	1	0	0	0	0	23	0	0	0	21	0	0	45
6:30 PM	0	0	0	0	0	0	1	0	0	21	0	0	0	20	0	0	42
6:45 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	13	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	11	0	30	0	6	395	0	0	0	481	4	0	927
APPROACH %'s :					26.83%	0.00%	73.17%	0.00%	1.50%	98.50%	0.00%	0.00%	0.00%	99.18%	0.82%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	26	0	3	165	0	0	0	200	2	0	403
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.438	0.000	0.382	0.000	0.375	0.917	0.000	0.000	0.000	0.862	0.500	0.000	0.813
					0.393				0.933				0.856				

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - HT

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	15
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.438
										0.500				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	7	0	0	0	5	0	0	12
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	9
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	1.000	0.000	0.000	0.750
										0.625				1.000			

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Control: 1-Way Stop(SB)

Project ID: 23-260020-007
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	Highland School Dwy				Highland School Dwy				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Highland School Dwy & Oak Springs Dr
City: Warrenton
Project ID: 23-260020-007
Date: 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Highland School Dwy		Highland School Dwy		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	1
APPROACH %'s :	100.00%	0.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%							
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	2	0	0	0	0	0	0	2
PEAK HR FACTOR :		0.500							0.500
	0.500								

Prepared by National Data & Surveying Services

Highland School Dwy & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-007
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:15 PM - 05:15 PM	4:00 PM - 07:00 PM

SOUTHBOUND (Highland School Dwy)

	Left	Thru	Right	U-Turn	
AM	19	0	31	0	89 AM
NOON	0	0	0	0	0 NOON
PM	26	0	7	0	5 PM

EASTBOUND (Oak Springs Dr)

AM	NOON	PM	
171	0	230	⇦
0	0	0	↶ 0
38	0	3	↱ 1
156	0	170	→ 1
0	0	0	↴ 0

WESTBOUND (Oak Springs Dr)

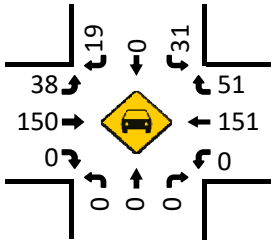
PM	NOON	AM	
2	0	51	0 ↰
204	0	152	1 ←
0	0	0	0 ↙
0	0	0	0 ↩
177	0	187	⇨

NORTHBOUND (Highland School Dwy)

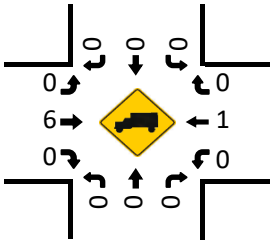
	Left	Thru	Right	U-Turn	
PM	0	0	0	0	0 PM
NOON	0	0	0	0	0 NOON
AM	0	0	0	0	0 AM

CONTROL			
1-Way stop(SB)			
TEV	447 AM	0 NOON	412 PM
PHF	0.70		0.82

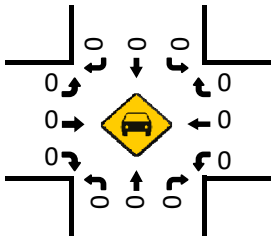
Cars (AM)



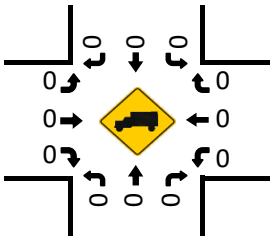
HT (AM)



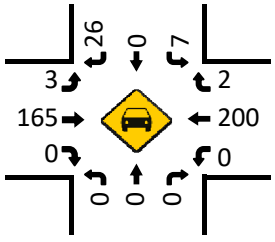
Cars (NOON)



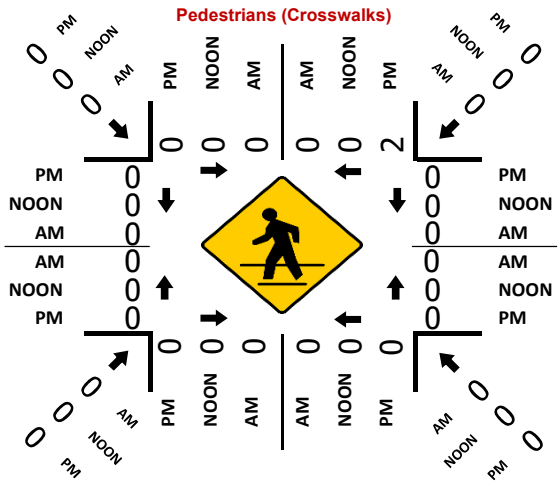
HT (NOON)



Cars (PM)



Pedestrians (Crosswalks)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National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	38	1	0	5	29	0	0	0	0	0	0	0	0	1	0	74
6:15 AM	0	38	2	0	2	28	0	0	0	0	0	0	3	0	3	0	76
6:30 AM	0	49	3	0	4	38	0	0	0	0	0	0	6	0	6	0	106
6:45 AM	0	48	5	0	10	59	0	0	0	0	0	0	6	0	7	0	135
7:00 AM	1	65	13	0	5	113	1	0	0	0	0	0	13	0	4	0	215
7:15 AM	0	71	15	0	13	88	0	0	0	0	1	0	18	0	14	0	220
7:30 AM	1	121	29	0	17	79	1	0	0	1	0	0	9	0	18	0	276
7:45 AM	0	152	27	0	24	108	0	0	0	0	0	0	12	0	41	0	364
8:00 AM	0	73	21	0	28	90	0	0	0	0	0	0	20	0	26	0	258
8:15 AM	0	59	21	0	26	78	0	0	0	0	0	0	22	1	20	0	227
8:30 AM	0	60	18	0	19	74	1	0	0	0	0	0	23	1	12	0	208
8:45 AM	1	61	31	1	15	93	2	0	0	0	0	0	22	0	10	0	236
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	835	186	1	168	877	5	0	0	1	1	0	154	2	162	0	2395
APPROACH %'s :	0.29%	81.46%	18.15%	0.10%	16.00%	83.52%	0.48%	0.00%	0.00%	50.00%	50.00%	0.00%	48.43%	0.63%	50.94%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	405	98	0	95	355	1	0	0	1	0	0	63	1	105	0	1125
PEAK HR FACTOR :	0.250	0.666	0.845	0.000	0.848	0.822	0.250	0.000	0.000	0.250	0.000	0.000	0.716	0.250	0.640	0.000	0.773
		0.704				0.854				0.250				0.797			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	81	19	0	19	128	0	0	1	0	1	0	20	0	32	0	302
4:15 PM	0	95	24	0	16	142	0	0	1	0	0	0	13	0	34	0	325
4:30 PM	0	119	16	0	30	108	0	0	0	0	2	0	40	0	39	0	354
4:45 PM	1	75	18	0	21	119	2	0	0	1	1	0	24	0	34	0	296
5:00 PM	1	94	19	0	27	107	0	0	0	1	1	0	13	0	33	0	296
5:15 PM	0	85	14	0	19	116	0	0	0	0	1	0	18	0	31	0	284
5:30 PM	1	68	21	0	26	93	0	0	0	1	0	0	25	0	28	0	263
5:45 PM	0	83	9	0	24	106	1	0	0	0	0	0	22	0	18	0	263
6:00 PM	0	66	11	0	13	64	0	0	0	0	1	0	13	0	23	0	191
6:15 PM	0	66	11	0	10	87	0	0	0	0	0	0	8	0	14	0	196
6:30 PM	0	56	12	0	10	54	0	0	1	0	1	0	9	0	13	0	156
6:45 PM	0	52	8	0	8	53	0	0	0	0	0	0	3	1	8	0	133
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	940	182	0	223	1177	3	0	3	3	8	0	208	1	307	0	3059
APPROACH %'s :	0.36%	83.48%	16.16%	0.00%	15.89%	83.89%	0.21%	0.00%	21.43%	21.43%	57.14%	0.00%	40.31%	0.19%	59.50%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	370	77	0	86	497	2	0	2	1	4	0	97	0	139	0	1277
PEAK HR FACTOR :	0.500	0.777	0.802	0.000	0.717	0.875	0.250	0.000	0.500	0.250	0.500	0.000	0.606	0.000	0.891	0.000	0.902
		0.831				0.926				0.875				0.747			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	35	1	0	5	28	0	0	0	0	0	0	0	0	1	0	70
6:15 AM	0	35	2	0	2	28	0	0	0	0	0	0	3	0	3	0	73
6:30 AM	0	47	2	0	3	36	0	0	0	0	0	0	6	0	6	0	100
6:45 AM	0	45	5	0	9	56	0	0	0	0	0	0	6	0	7	0	128
7:00 AM	1	57	11	0	5	106	0	0	0	0	0	0	13	0	4	0	197
7:15 AM	0	67	15	0	12	81	0	0	0	0	1	0	18	0	14	0	208
7:30 AM	1	117	29	0	17	71	1	0	0	1	0	0	9	0	18	0	264
7:45 AM	0	146	26	0	22	107	0	0	0	0	0	0	12	0	40	0	353
8:00 AM	0	67	21	0	25	89	0	0	0	0	0	0	20	0	26	0	248
8:15 AM	0	52	21	0	26	72	0	0	0	0	0	0	22	1	20	0	214
8:30 AM	0	56	17	0	19	59	1	0	0	0	0	0	23	1	12	0	188
8:45 AM	1	58	31	1	14	88	2	0	0	0	0	0	22	0	10	0	227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	782	181	1	159	821	4	0	0	1	1	0	154	2	161	0	2270
APPROACH %'s :	0.31%	80.87%	18.72%	0.10%	16.16%	83.43%	0.41%	0.00%	0.00%	50.00%	50.00%	0.00%	48.58%	0.63%	50.79%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	382	97	0	90	339	1	0	0	1	0	0	63	1	104	0	1079
PEAK HR FACTOR :	0.250	0.654	0.836	0.000	0.865	0.792	0.250	0.000	0.000	0.250	0.000	0.000	0.716	0.250	0.650	0.000	0.764
		0.698				0.833				0.250				0.808			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	80	19	0	19	124	0	0	1	0	1	0	20	0	31	0	296
4:15 PM	0	93	22	0	16	134	0	0	1	0	0	0	12	0	34	0	312
4:30 PM	0	115	15	0	30	105	0	0	0	0	2	0	40	0	38	0	345
4:45 PM	1	71	18	0	20	116	2	0	0	1	1	0	24	0	33	0	287
5:00 PM	1	93	18	0	27	105	0	0	0	1	1	0	13	0	32	0	291
5:15 PM	0	83	14	0	19	115	0	0	0	0	1	0	18	0	31	0	281
5:30 PM	1	68	21	0	26	92	0	0	0	1	0	0	25	0	28	0	262
5:45 PM	0	82	8	0	24	105	1	0	0	0	0	0	22	0	18	0	260
6:00 PM	0	65	11	0	13	64	0	0	0	0	1	0	13	0	23	0	190
6:15 PM	0	66	11	0	10	86	0	0	0	0	0	0	8	0	14	0	195
6:30 PM	0	56	11	0	10	53	0	0	1	0	1	0	9	0	13	0	154
6:45 PM	0	51	8	0	8	52	0	0	0	0	0	0	3	1	8	0	131
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	923	176	0	222	1151	3	0	3	3	8	0	207	1	303	0	3004
APPROACH %'s :	0.36%	83.68%	15.96%	0.00%	16.13%	83.65%	0.22%	0.00%	21.43%	21.43%	57.14%	0.00%	40.51%	0.20%	59.30%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	359	74	0	85	479	2	0	2	1	4	0	96	0	136	0	1240
PEAK HR FACTOR :	0.500	0.780	0.841	0.000	0.708	0.894	0.250	0.000	0.500	0.250	0.500	0.000	0.600	0.000	0.895	0.000	0.899
		0.837				0.943				0.875				0.744			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
6:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 AM	0	2	1	0	1	2	0	0	0	0	0	0	0	0	0	0	6
6:45 AM	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	7
7:00 AM	0	8	2	0	0	7	1	0	0	0	0	0	0	0	0	0	18
7:15 AM	0	4	0	0	1	7	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	6	1	0	2	1	0	0	0	0	0	0	0	0	1	0	11
8:00 AM	0	6	0	0	3	1	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
8:30 AM	0	4	1	0	0	15	0	0	0	0	0	0	0	0	0	0	20
8:45 AM	0	3	0	0	1	5	0	0	0	0	0	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	53	5	0	9	56	1	0	0	0	0	0	0	0	1	0	125
APPROACH %'s :	0.00%	91.38%	8.62%	0.00%	13.64%	84.85%	1.52%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	23	1	0	5	16	0	0	0	0	0	0	0	0	1	0	46
PEAK HR FACTOR :	0.000	0.821	0.250	0.000	0.417	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.885
		0.857				0.656								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	1	0	6
4:15 PM	0	2	2	0	0	8	0	0	0	0	0	0	1	0	0	0	13
4:30 PM	0	4	1	0	0	3	0	0	0	0	0	0	0	0	1	0	9
4:45 PM	0	4	0	0	1	3	0	0	0	0	0	0	0	0	1	0	9
5:00 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	1	0	5
5:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	17	6	0	1	26	0	0	0	0	0	0	1	0	4	0	55
APPROACH %'s :	0.00%	73.91%	26.09%	0.00%	3.70%	96.30%	0.00%	0.00%					20.00%	0.00%	80.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	11	3	0	1	18	0	0	0	0	0	0	1	0	3	0	37
PEAK HR FACTOR :	0.000	0.688	0.375	0.000	0.250	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.712
		0.700				0.594								1.000			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-008
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Oak Springs Dr				Oak Springs Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Oak Springs Dr **Project ID:** 23-260020-008
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		Oak Springs Dr		Oak Springs Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	1
7:00 AM	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	1	3
APPROACH %'s :					100.00%	0.00%	50.00%	50.00%	
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	1	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	2	0	3
5:00 PM	0	1	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	1	0	1
6:00 PM	0	0	0	0	3	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	3	1	5	2	12
APPROACH %'s :	0.00%	100.00%			75.00%	25.00%	71.43%	28.57%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	3	1	5
PEAK HR FACTOR :						0.250	0.375	0.250	0.417
					0.250		0.500		

Prepared by National Data & Surveying Services

US 17/US 211/Broadview Ave & Oak Springs Dr

Peak Hour Turning Movement Count

ID: 23-260020-008
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

CONTROL: 2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	1125	0	1277
PHF	0.77		0.90

SOUTHBOUND — US 17/US 211/Broadview Ave

	Left	Thru	Right	U-Turn	Total	
AM	1	355	95	0	510	AM
NOON	0	0	0	0	0	NOON
PM	2	497	86	0	511	PM

EASTBOUND — Oak Springs Dr

	Left	Thru	Right	U-Turn	
AM	3	0	0	0	AM
NOON	0	0	2	0	NOON
PM	4	1	0	1	PM

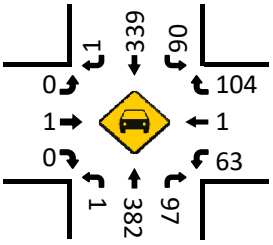
WESTBOUND — Oak Springs Dr

	Left	Thru	Right	U-Turn	
PM	139	0	105	1	PM
NOON	0	0	1	0	NOON
AM	97	0	63	1	AM
	0	0	0	0	
	164	0	194		

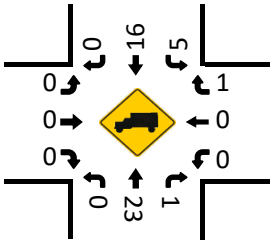
NORTHBOUND — US 17/US 211/Broadview Ave

	Left	Thru	Right	U-Turn	Total	
PM	598	0	2	370	77	PM
NOON	0	0	0	0	0	NOON
AM	418	0	1	405	98	AM

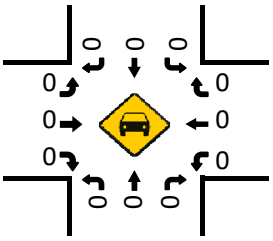
Cars (AM)



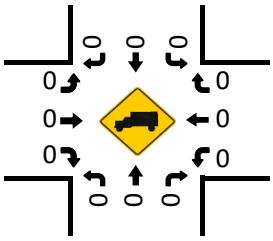
HT (AM)



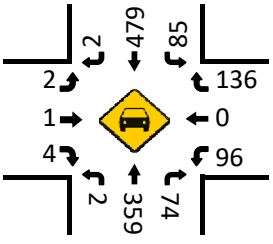
Cars (NOON)



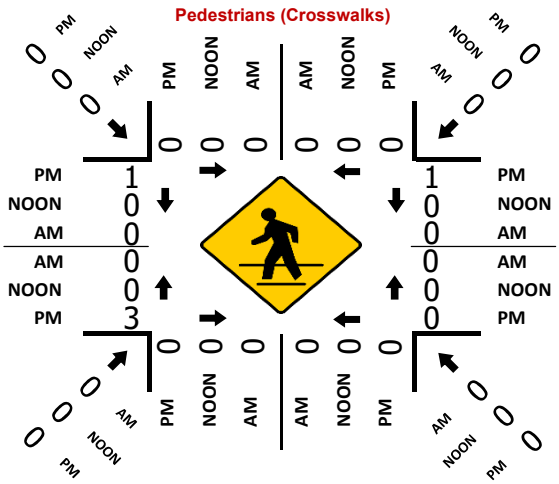
HT (NOON)



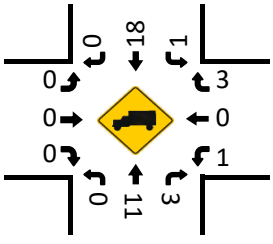
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	38	1	0	0	28	1	0	0	0	1	0	1	0	0	0	70
6:15 AM	0	41	0	0	0	31	0	0	0	0	0	0	0	0	0	0	72
6:30 AM	0	51	0	0	1	43	0	0	0	0	0	0	0	0	0	0	95
6:45 AM	0	52	0	0	1	64	0	0	0	0	0	0	0	0	1	0	118
7:00 AM	6	78	0	0	2	123	0	0	0	0	1	0	2	0	2	0	214
7:15 AM	1	84	1	0	0	107	0	0	0	0	1	0	0	0	1	0	195
7:30 AM	2	153	1	0	3	82	0	0	0	0	0	0	0	1	0	0	242
7:45 AM	7	169	2	0	4	118	1	0	0	0	0	0	1	0	8	0	310
8:00 AM	3	89	5	0	4	106	1	0	0	0	0	0	3	0	5	0	216
8:15 AM	1	77	2	0	4	95	1	0	0	0	3	0	1	0	5	0	189
8:30 AM	4	75	4	0	3	92	1	0	0	0	2	0	2	0	5	0	188
8:45 AM	8	83	1	0	1	116	0	0	2	0	4	0	4	0	5	0	224
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	32	990	17	0	23	1005	5	0	2	0	12	0	14	1	32	0	2133
APPROACH %'s :	3.08%	95.28%	1.64%	0.00%	2.23%	97.29%	0.48%	0.00%	14.29%	0.00%	85.71%	0.00%	29.79%	2.13%	68.09%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	13	495	9	0	11	413	2	0	0	0	1	0	4	1	14	0	963
PEAK HR FACTOR :	0.464	0.732	0.450	0.000	0.688	0.875	0.500	0.000	0.000	0.000	0.250	0.000	0.333	0.250	0.438	0.000	0.777
	0.726				0.866				0.250				0.528				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	87	6	0	17	131	2	0	2	0	4	0	11	1	11	0	275
4:15 PM	5	104	1	1	8	146	1	0	2	0	3	0	3	0	13	0	287
4:30 PM	2	124	8	1	8	140	1	0	4	1	5	0	10	0	8	0	312
4:45 PM	3	85	0	0	7	135	2	1	2	0	5	0	9	0	5	0	254
5:00 PM	5	102	2	0	9	108	4	0	3	1	6	0	6	0	9	0	255
5:15 PM	8	91	1	0	12	121	1	0	1	1	6	0	9	0	7	0	258
5:30 PM	5	83	3	0	5	114	0	0	0	1	3	0	8	0	8	0	230
5:45 PM	2	81	3	0	13	113	1	0	0	0	1	0	2	0	10	0	226
6:00 PM	5	70	3	0	10	68	1	0	2	1	5	0	2	0	5	0	172
6:15 PM	1	62	0	0	7	88	0	0	0	0	2	0	9	0	15	0	184
6:30 PM	0	60	3	0	4	59	1	0	1	0	2	0	9	0	7	0	146
6:45 PM	3	59	1	0	8	48	0	0	0	0	5	0	3	1	1	0	129
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	42	1008	31	2	108	1271	14	1	17	5	47	0	81	2	99	0	2728
APPROACH %'s :	3.88%	93.07%	2.86%	0.18%	7.75%	91.18%	1.00%	0.07%	24.64%	7.25%	68.12%	0.00%	44.51%	1.10%	54.40%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	13	400	15	2	40	552	6	1	10	1	17	0	33	1	37	0	1128
PEAK HR FACTOR :	0.650	0.806	0.469	0.500	0.588	0.945	0.750	0.250	0.625	0.250	0.850	0.000	0.750	0.250	0.712	0.000	0.904
	0.796				0.966				0.700				0.772				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	35	1	0	0	28	0	0	0	0	0	0	1	0	0	0	65
6:15 AM	0	38	0	0	0	31	0	0	0	0	0	0	0	0	0	0	69
6:30 AM	0	48	0	0	1	41	0	0	0	0	0	0	0	0	0	0	90
6:45 AM	0	50	0	0	0	62	0	0	0	0	0	0	0	0	0	0	112
7:00 AM	6	68	0	0	2	117	0	0	0	0	0	0	2	0	2	0	197
7:15 AM	1	80	1	0	0	99	0	0	0	0	1	0	0	0	1	0	183
7:30 AM	2	149	1	0	3	74	0	0	0	0	0	0	0	1	0	0	230
7:45 AM	7	163	2	0	4	117	1	0	0	0	0	0	1	0	7	0	302
8:00 AM	3	83	5	0	4	105	1	0	0	0	0	0	3	0	5	0	209
8:15 AM	1	70	2	0	4	89	1	0	0	0	3	0	1	0	5	0	176
8:30 AM	4	71	2	0	3	77	1	0	0	0	2	0	2	0	4	0	166
8:45 AM	8	81	1	0	1	111	0	0	2	0	4	0	4	0	4	0	216
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	32	936	15	0	22	951	4	0	2	0	10	0	14	1	28	0	2015
APPROACH %'s :	3.26%	95.22%	1.53%	0.00%	2.25%	97.34%	0.41%	0.00%	16.67%	0.00%	83.33%	0.00%	32.56%	2.33%	65.12%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	13	475	9	0	11	395	2	0	0	0	1	0	4	1	13	0	924
PEAK HR FACTOR :	0.464	0.729	0.450	0.000	0.688	0.844	0.500	0.000	0.000	0.000	0.250	0.000	0.333	0.250	0.464	0.000	0.765
	0.722				0.836				0.250				0.563				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	86	6	0	17	127	2	0	2	0	4	0	11	1	11	0	270
4:15 PM	5	102	1	1	8	137	1	0	2	0	3	0	3	0	11	0	274
4:30 PM	2	119	8	1	8	137	1	0	4	1	5	0	10	0	8	0	304
4:45 PM	3	81	0	0	7	132	2	1	2	0	5	0	9	0	5	0	247
5:00 PM	5	101	2	0	9	106	4	0	3	1	6	0	6	0	8	0	251
5:15 PM	8	89	1	0	12	120	1	0	1	1	6	0	9	0	7	0	255
5:30 PM	4	83	3	0	5	113	0	0	0	1	2	0	8	0	8	0	227
5:45 PM	2	80	3	0	13	112	1	0	0	0	1	0	2	0	9	0	223
6:00 PM	4	69	3	0	10	68	1	0	2	1	5	0	2	0	5	0	170
6:15 PM	1	62	0	0	7	87	0	0	0	0	2	0	9	0	15	0	183
6:30 PM	0	60	3	0	3	59	1	0	1	0	2	0	9	0	6	0	144
6:45 PM	3	58	1	0	8	47	0	0	0	0	5	0	3	1	1	0	127
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	40	990	31	2	107	1245	14	1	17	5	46	0	81	2	94	0	2675
APPROACH %'s :	3.76%	93.13%	2.92%	0.19%	7.83%	91.08%	1.02%	0.07%	25.00%	7.35%	67.65%	0.00%	45.76%	1.13%	53.11%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	13	388	15	2	40	533	6	1	10	1	17	0	33	1	35	0	1095
PEAK HR FACTOR :	0.650	0.815	0.469	0.500	0.588	0.973	0.750	0.250	0.625	0.250	0.850	0.000	0.750	0.250	0.795	0.000	0.900
	0.804				0.993				0.700				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	3	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
6:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
6:45 AM	0	2	0	0	1	2	0	0	0	0	0	0	0	0	1	0	6
7:00 AM	0	10	0	0	0	6	0	0	0	0	1	0	0	0	0	0	17
7:15 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	1	0	8
8:00 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
8:30 AM	0	4	2	0	0	15	0	0	0	0	0	0	0	0	1	0	22
8:45 AM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	1	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	54	2	0	1	54	1	0	0	0	2	0	0	0	4	0	118
APPROACH %'s :	0.00%	96.43%	3.57%	0.00%	1.79%	96.43%	1.79%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	20	0	0	0	18	0	0	0	0	0	0	0	0	1	0	39
PEAK HR FACTOR :	0.000	0.833	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.813
		0.833				0.563								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	2	0	0	0	9	0	0	0	0	0	0	0	0	2	0	13
4:30 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
4:45 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
5:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	4
5:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
6:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
6:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	18	0	0	1	26	0	0	0	0	1	0	0	0	5	0	53
APPROACH %'s :	10.00%	90.00%	0.00%	0.00%	3.70%	96.30%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	12	0	0	0	19	0	0	0	0	0	0	0	0	2	0	33
PEAK HR FACTOR :	0.000	0.600	0.000	0.000	0.000	0.528	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.635
		0.600				0.528								0.250			

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy
City: Warrenton
Control: 1-Way stop(WB)

Project ID: 23-260020-009
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/US 211/Broadview Ave				US 17/US 211/Broadview Ave				Warrenton Village North Dwy				Warrenton Village North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave & Warrenton Village North Dwy **Project ID:** 23-260020-009
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/US 211/Broadview Ave		US 17/US 211/Broadview Ave		Warrenton Village North Dwy		Warrenton Village North Dwy		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	1
7:00 AM	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	1	1	3
APPROACH %'s :	100.00%	0.00%					50.00%	50.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	1	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	3	0	3
5:00 PM	0	0	2	0	0	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	2	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	2	0	2	0	4	2	10
APPROACH %'s :			100.00%	0.00%	100.00%	0.00%	66.67%	33.33%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	4	1	5
PEAK HR FACTOR :							0.333	0.250	0.417
							0.417		

Prepared by National Data & Surveying Services

US 17/US 211/Broadview Ave & Warrenton Village North Dwy

Peak Hour Turning Movement Count

ID: 23-260020-009
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND — US 17/US 211/Broadview Ave

AM	2	413	11	0	509	AM
NOON	0	0	0	0	0	NOON
PM	6	552	40	1	448	PM
	0	2	1	0		

EASTBOUND — Warrenton Village North Dwy

AM	NOON	PM	
16	0	20	
0	0	0	0
0	0	10	0
0	0	1	1
1	0	17	0
AM	NOON	PM	

WESTBOUND — Warrenton Village North Dwy

PM	NOON	AM	
37	0	14	0.5
1	0	1	0.5
33	0	4	1
0	0	0	0
56	0	20	
PM	NOON	AM	

CONTROL

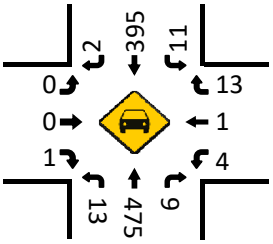
1-Way stop(WB)

TEV	963	0	1128
	AM	NOON	PM
PHF	0.78		0.90

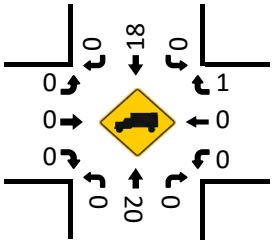
NORTHBOUND — US 17/US 211/Broadview Ave

	0	1	2	1		
PM	604	2	13	400	15	PM
NOON	0	0	0	0	0	NOON
AM	418	0	13	495	9	AM

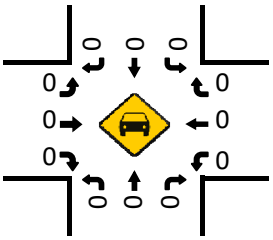
Cars (AM)



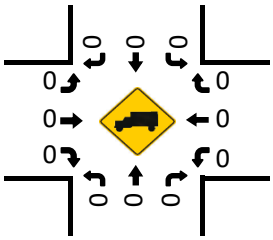
HT (AM)



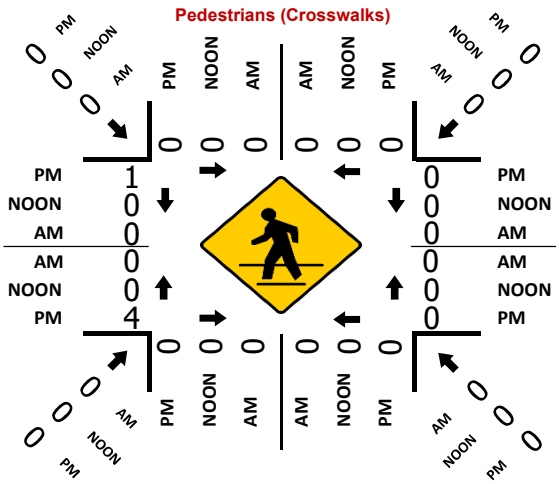
Cars (NOON)



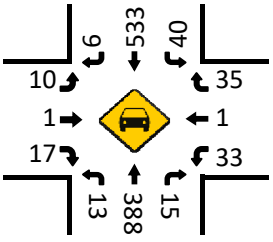
HT (NOON)



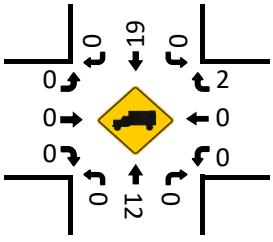
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - Total

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	25	17	2	0	0	20	8	0	22	4	24	0	0	1	0	0	123
6:15 AM	29	21	2	0	0	26	7	0	20	1	13	0	0	2	0	0	121
6:30 AM	27	26	1	1	0	35	8	0	26	2	12	0	0	3	0	0	141
6:45 AM	32	31	3	0	0	57	7	0	20	2	21	0	0	2	0	0	175
7:00 AM	32	58	7	1	1	117	7	0	24	5	16	0	3	1	2	0	274
7:15 AM	26	66	6	0	0	98	11	0	26	8	19	0	1	0	0	0	261
7:30 AM	30	120	8	0	4	59	19	0	30	5	13	0	0	3	3	0	294
7:45 AM	34	136	7	0	1	106	11	0	39	4	25	0	1	0	0	0	364
8:00 AM	20	78	9	0	1	98	11	0	22	4	20	0	0	0	0	0	263
8:15 AM	26	55	7	1	1	89	7	0	23	4	13	0	1	0	0	0	227
8:30 AM	20	65	7	0	0	91	7	0	17	1	16	0	0	5	0	0	229
8:45 AM	14	71	9	0	0	108	15	0	20	8	19	0	0	1	2	0	267
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	315	744	68	3	8	904	118	0	289	48	211	0	6	18	7	0	2739
APPROACH %'s :	27.88%	65.84%	6.02%	0.27%	0.78%	87.77%	11.46%	0.00%	52.74%	8.76%	38.50%	0.00%	19.35%	58.06%	22.58%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	122	380	28	1	6	380	48	0	119	22	73	0	5	4	5	0	1193
PEAK HR FACTOR :	0.897	0.699	0.875	0.250	0.375	0.812	0.632	0.000	0.763	0.688	0.730	0.000	0.417	0.333	0.417	0.000	0.819
	0.750				0.868				0.787				0.583				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	66	12	0	3	124	21	0	21	10	46	0	14	7	9	0	348
4:15 PM	28	93	18	0	2	124	27	0	20	12	39	0	6	3	2	0	374
4:30 PM	14	87	20	0	0	121	33	0	34	27	44	0	9	7	10	0	406
4:45 PM	19	64	27	0	2	124	25	0	21	12	35	0	14	10	4	0	357
5:00 PM	17	86	18	0	6	88	26	0	18	11	23	0	9	15	4	0	321
5:15 PM	17	77	32	1	4	100	31	0	13	10	30	0	13	10	10	0	348
5:30 PM	34	54	23	0	2	96	28	0	32	16	16	0	10	11	6	0	328
5:45 PM	16	64	21	0	5	97	14	0	10	9	27	0	7	9	12	0	291
6:00 PM	14	57	27	0	1	60	13	0	15	14	35	0	10	14	7	0	267
6:15 PM	20	49	25	1	7	72	21	0	8	16	22	0	8	7	5	0	261
6:30 PM	15	46	22	3	2	55	13	0	9	11	16	0	8	11	7	0	218
6:45 PM	21	37	27	0	2	48	6	0	17	11	10	0	14	4	9	0	206
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	230	780	272	5	36	1109	258	0	218	159	343	0	122	108	85	0	3725
APPROACH %'s :	17.87%	60.61%	21.13%	0.39%	2.57%	79.04%	18.39%	0.00%	30.28%	22.08%	47.64%	0.00%	38.73%	34.29%	26.98%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	76	310	77	0	7	493	106	0	96	61	164	0	43	27	25	0	1485
PEAK HR FACTOR :	0.679	0.833	0.713	0.000	0.583	0.994	0.803	0.000	0.706	0.565	0.891	0.000	0.768	0.675	0.625	0.000	0.914
	0.833				0.984				0.764				0.792				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - Cars

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	25	15	2	0	0	19	8	0	21	4	23	0	0	1	0	0	118
6:15 AM	29	18	1	0	0	26	7	0	20	1	13	0	0	2	0	0	117
6:30 AM	27	23	1	1	0	33	8	0	26	2	11	0	0	3	0	0	135
6:45 AM	32	29	3	0	0	55	7	0	20	2	21	0	0	2	0	0	171
7:00 AM	32	50	7	1	1	111	6	0	23	5	15	0	3	1	1	0	256
7:15 AM	25	62	6	0	0	91	10	0	26	8	19	0	0	0	0	0	247
7:30 AM	30	117	8	0	4	53	17	0	30	5	12	0	0	3	2	0	281
7:45 AM	34	132	7	0	1	106	10	0	37	4	24	0	1	0	0	0	356
8:00 AM	20	72	9	0	1	97	11	0	22	4	20	0	0	0	0	0	256
8:15 AM	25	48	7	1	1	84	6	0	23	4	13	0	1	0	0	0	213
8:30 AM	19	59	7	0	0	77	6	0	17	1	15	0	0	5	0	0	206
8:45 AM	13	69	9	0	0	104	14	0	20	8	18	0	0	1	2	0	258
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	311	694	67	3	8	856	110	0	285	48	204	0	5	18	5	0	2614
APPROACH %'s :	28.93%	64.56%	6.23%	0.28%	0.82%	87.89%	11.29%	0.00%	53.07%	8.94%	37.99%	0.00%	17.86%	64.29%	17.86%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	121	361	28	1	6	361	43	0	116	22	70	0	4	4	3	0	1140
PEAK HR FACTOR :	0.890	0.684	0.875	0.250	0.375	0.813	0.632	0.000	0.784	0.688	0.729	0.000	0.333	0.333	0.375	0.000	0.801
	0.738				0.869				0.800				0.550				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	65	12	0	3	120	21	0	21	10	46	0	14	7	9	0	343
4:15 PM	28	91	18	0	2	116	26	0	20	12	39	0	6	3	2	0	363
4:30 PM	14	84	20	0	0	118	33	0	32	27	43	0	9	7	10	0	397
4:45 PM	18	60	27	0	2	121	25	0	21	12	35	0	14	10	4	0	349
5:00 PM	17	85	18	0	6	86	26	0	18	11	23	0	9	14	4	0	317
5:15 PM	17	76	32	1	4	99	31	0	13	10	30	0	13	10	9	0	345
5:30 PM	34	54	23	0	2	94	28	0	31	16	16	0	9	11	6	0	324
5:45 PM	16	62	20	0	5	96	14	0	10	9	27	0	7	9	12	0	287
6:00 PM	14	56	27	0	1	60	13	0	15	14	35	0	10	14	7	0	266
6:15 PM	19	49	24	1	7	71	21	0	8	16	22	0	8	7	5	0	258
6:30 PM	15	46	21	3	2	55	13	0	9	11	16	0	8	11	7	0	217
6:45 PM	21	36	26	0	2	47	6	0	17	11	10	0	14	4	9	0	203
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	228	764	268	5	36	1083	257	0	215	159	342	0	121	107	84	0	3669
APPROACH %'s :	18.02%	60.40%	21.19%	0.40%	2.62%	78.71%	18.68%	0.00%	30.03%	22.21%	47.77%	0.00%	38.78%	34.29%	26.92%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	75	300	77	0	7	475	105	0	94	61	163	0	43	27	25	0	1452
PEAK HR FACTOR :	0.670	0.824	0.713	0.000	0.583	0.981	0.795	0.000	0.734	0.565	0.886	0.000	0.768	0.675	0.625	0.000	0.914
	0.825				0.972				0.779				0.792				

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - HT

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	2	0	0	0	1	0	0	1	0	1	0	0	0	0	0	5
6:15 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
6:30 AM	0	3	0	0	0	2	0	0	0	0	1	0	0	0	0	0	6
6:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
7:00 AM	0	8	0	0	0	6	1	0	1	0	1	0	0	0	1	0	18
7:15 AM	1	4	0	0	0	7	1	0	0	0	0	0	1	0	0	0	14
7:30 AM	0	3	0	0	0	6	2	0	0	0	1	0	0	0	1	0	13
7:45 AM	0	4	0	0	0	0	1	0	2	0	1	0	0	0	0	0	8
8:00 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	1	7	0	0	0	5	1	0	0	0	0	0	0	0	0	0	14
8:30 AM	1	6	0	0	0	14	1	0	0	0	1	0	0	0	0	0	23
8:45 AM	1	2	0	0	0	4	1	0	0	0	1	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	50	1	0	0	48	8	0	4	0	7	0	1	0	2	0	125
APPROACH %'s :	7.27%	90.91%	1.82%	0.00%	0.00%	85.71%	14.29%	0.00%	36.36%	0.00%	63.64%	0.00%	33.33%	0.00%	66.67%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	1	19	0	0	0	19	5	0	3	0	3	0	1	0	2	0	53
PEAK HR FACTOR :	0.250	0.594	0.000	0.000	0.000	0.679	0.625	0.000	0.375	0.000	0.750	0.000	0.250	0.000	0.500	0.000	0.736
		0.625				0.750				0.500				0.750			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	2	0	0	0	8	1	0	0	0	0	0	0	0	0	0	11
4:30 PM	0	3	0	0	0	3	0	0	2	0	1	0	0	0	0	0	9
4:45 PM	1	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
5:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	4
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
5:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	4
5:45 PM	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	16	4	0	0	26	1	0	3	0	1	0	1	1	1	0	56
APPROACH %'s :	9.09%	72.73%	18.18%	0.00%	0.00%	96.30%	3.70%	0.00%	75.00%	0.00%	25.00%	0.00%	33.33%	33.33%	33.33%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	1	10	0	0	0	18	1	0	2	0	1	0	0	0	0	0	33
PEAK HR FACTOR :	0.250	0.625	0.000	0.000	0.000	0.563	0.250	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750
		0.550				0.528				0.250							

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave
City: Warrenton
Control: 2-Way Stop(EB/WB)

Project ID: 23-260020-010
Date: 2/9/2023

Data - Bikes

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St				US 17/US 211/Broadview Ave/Winchester St				Warrenton Village South Dwy/Broadview Ave				Warrenton Village South Dwy/Broadview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	1	1	0	1	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: US 17/US 211/Broadview Ave/Winchester St & Warrenton Village Sc **Project ID:** 23-260020-010
City: Warrenton **Date:** 2/9/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	US 17/US 211/Broadview Ave/Winchester St		US 17/US 211/Broadview Ave/Winchester St		Warrenton Village South Dwy/Broadview Ave		Warrenton Village South Dwy/Broadview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	2	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	2	0	0	3
APPROACH %'s :	0.00%	100.00%			0.00%	100.00%			
PEAK HR :	**07:00 AM - 08:00 AM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	1
4:15 PM	0	4	0	0	3	0	0	0	7
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	6	0	0	3	0	0	0	9
APPROACH %'s :	0.00%	100.00%			100.00%	0.00%			
PEAK HR :	**04:00 PM - 05:00 PM**								TOTAL
PEAK HR VOL :	0	6	0	0	3	0	0	0	9
PEAK HR FACTOR :		0.375			0.250				0.321
	0.375				0.250				

Prepared by National Data & Surveying Services

US 17/US 211/Broadview Ave/Winchester St & Warrenton Village South Dwy/Broadview Ave

Peak Hour Turning Movement Count

ID: 23-260020-010
City: Warrenton

Day: Thursday
Date: 2/9/2023

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	6:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 07:00 PM

SOUTHBOUND — US 17/US 211/Broadview Ave/Winchester St

	U-Turn	Left	Thru	Right	
AM	48	380	6	0	504 AM
NOON	0	0	0	0	0 NOON
PM	106	493	7	0	431 PM
	1	2	1	0	

EASTBOUND — Warrenton Village South Dwy/Broadview Ave

AM	NOON	PM	
174	0	209	
0	0	0	0
119	0	96	1
22	0	61	1
73	0	164	1

WESTBOUND — Warrenton Village South Dwy/Broadview Ave

PM	NOON	AM	
25	0	5	0.5
27	0	4	0.5
43	0	5	1
0	0	0	0
145	0	56	

NORTHBOUND — US 17/US 211/Broadview Ave/Winchester St

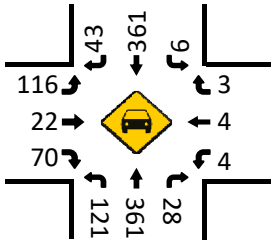
	U-Turn	Left	Thru	Right	
PM	700	0	76	310	77 PM
NOON	0	0	0	0	0 NOON
AM	459	1	122	380	28 AM
	0	1	2	1	

CONTROL

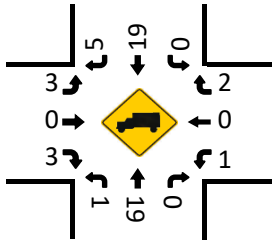
2-Way Stop(EB/WB)

TEV	1193 AM	0 NOON	1485 PM
PHF	0.82		0.91

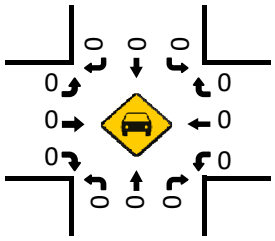
Cars (AM)



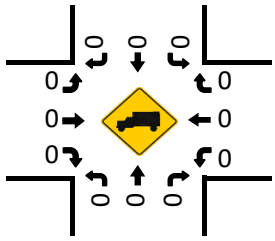
HT (AM)



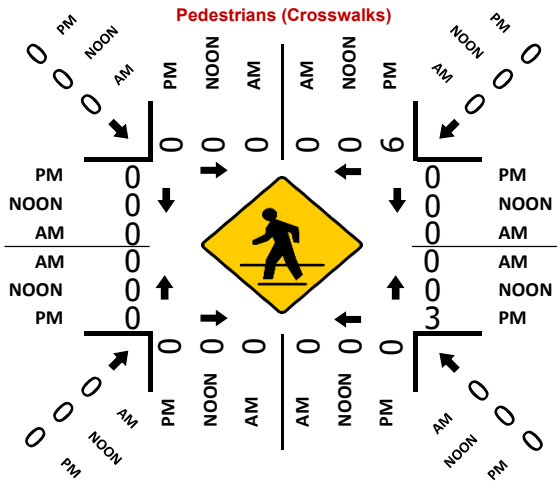
Cars (NOON)



HT (NOON)



Pedestrians (Crosswalks)


AM NOON PM
0 0 0
0 0 0
0 0 0

D. HCM Level of Service Definitions

GOROVE SLADE
Transportation Planners and Engineers

TECHNICAL MEMORANDUM

Subject: Level of Service Definitions

Introduction

The purpose of this memorandum is to define the level of service (LOS) metric that commonly used as a measure of effectiveness (MOE) for traffic operations.

All capacity analyses are based on the procedures specified by the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), which is currently on its sixth edition. Level of service ranges from A to F. A brief description of each level of service for signalized and unsignalized intersections is provided below.

Signalized Intersections

Level of service is based upon the traffic volume present in each lane on the roadway, the capacity of each lane at the intersection and the delay associated with each directional movement. The levels of service for signalized intersections are defined below:

- **Level of Service A** describes operations with very low average delay per vehicle, i.e., less than 10.0 seconds. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short signal cycle lengths may also contribute to low delay.
- **Level of Service B** describes operations with average delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
- **Level of Service C** describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping. This is generally considered the lower end of the range of the acceptable level of service in rural areas.
- **Level of Service D** describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicles that do not have to stop declines. Individual signal cycle failures, where all waiting vehicles do not clear the intersection during a single green time, are noticeable. This is generally considered the lower end of the range of the acceptable level of service in urban areas.
- **Level of Service E** describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. These higher delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures are frequent occurrences. LOS E has been set as the limit of acceptable conditions.
- **Level of Service F** describes operations with average delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection. It may also occur at high volumes with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delays.

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Unsignalized Intersections

At an unsignalized intersection, the major street through traffic and right-turns are assumed to operate unimpeded and therefore receive no level of service rating. The level of service for the minor street and the major street left-turn traffic is dependent on the volume and capacity of the available lanes, and, the number and frequency of acceptable gaps in the major street traffic to make a conflicting turn. The level of service grade is provided for each conflicting movement at an unsignalized intersection and is based on the total average delay experienced by each vehicle. The delay includes the time it takes a vehicle to move from the back of a queue through the intersection.

The unsignalized intersection level of service analysis does not account for variations in driver behavior or the effects of nearby traffic signals. Therefore, the results from this analysis usually indicate worse levels of service than may be experienced in the field. The unsignalized intersection level of service descriptions are provided below:

- **Level of Service A** describes operations where there is very little to no conflicting traffic for a minor side street movement, i.e., an average total delay of less than 10.0 seconds per vehicle.
- **Level of Service B** describes operations with average total delay in the range of 10.1 to 15.0 seconds per vehicle.
- **Level of Service C** describes operations with average total delay in the range of 15.1 to 25.0 second per vehicle.
- **Level of Service D** describes operations with average total delay in the range of 25.1 to 35.0 seconds per vehicle.
- **Level of Service E** describes operations with average total delay in the range of 35.1 to 50.0 seconds per vehicle.
- **Level of Service F** describes operations with average total delay of 50 seconds per vehicle. LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through or enter a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queuing on the minor approaches. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal driver behavior.

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E. VDOT Signal Timings

Plan 1

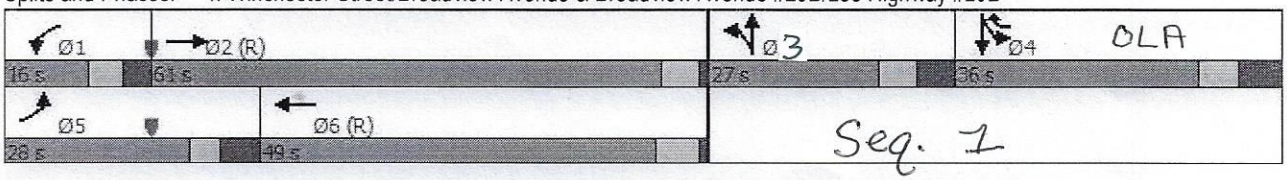
Timing Report, Sorted By Phase
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/02/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	16	61	36	28	49	27
Maximum Split (%)	11.4%	43.6%	25.7%	20.0%	35.0%	19.3%
Minimum Split (s)	12.9	27.2	15.4	13.8	32.8	14.2
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	112	128	76	112	0	49
End Time (s)	128	49	112	0	49	76
Yield/Force Off (s)	121.1	43.8	102.6	132.2	43.2	67.7
Yield/Force Off 170(s)	121.1	28.8	78.6	132.2	23.2	39.7
Local Start Time (s)	124	0	88	124	12	61
Local Yield (s)	133.1	55.8	114.6	4.2	55.2	79.7
Local Yield 170(s)	133.1	40.8	90.6	4.2	35.2	51.7
MAX 1	40	40	25	25	40	25

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 128 (91%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



OLA + 4

Plan 2

Timing Report, Sorted By Phase

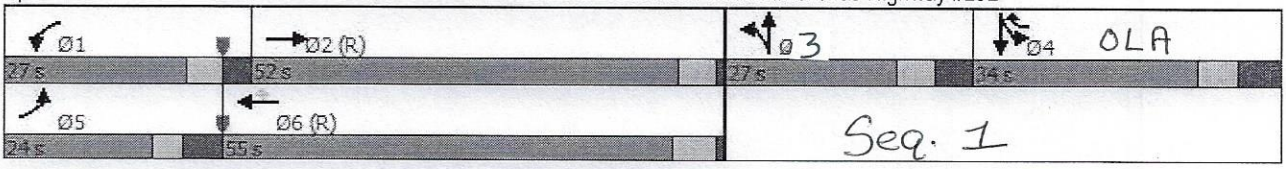
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/02/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	27	52	34	24	55	27
Maximum Split (%)	19.3%	37.1%	24.3%	17.1%	39.3%	19.3%
Minimum Split (s)	12.9	27.2	15.4	13.8	32.8	14.3
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	121	8	87	121	5	60
End Time (s)	8	60	121	5	60	87
Yield/Force Off (s)	1.1	54.8	111.6	137.2	54.2	78.7
Yield/Force Off 170(s)	1.1	39.8	87.6	137.2	34.2	50.7
Local Start Time (s)	116	3	82	116	0	55
Local Yield (s)	136.1	49.8	106.6	132.2	49.2	73.7
Local Yield 170(s)	136.1	34.8	82.6	132.2	29.2	45.7
MAX 1	40	40	25	25	40	25

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 5 (4%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



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Timing Report, Sorted By Phase

Plan 3

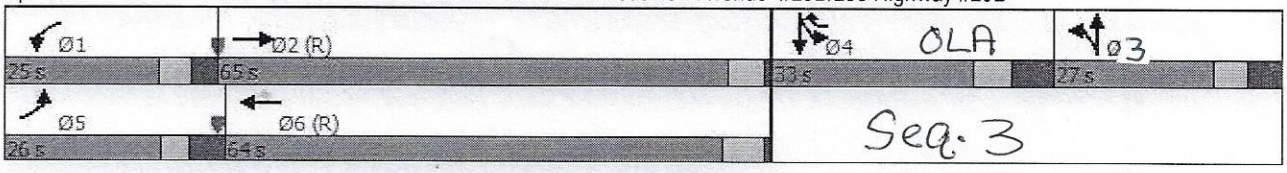
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/03/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	25	65	33	26	64	27
Maximum Split (%)	16.7%	43.3%	22.0%	17.3%	42.7%	18.0%
Minimum Split (s)	14.9	27.2	15.4	13.8	32.8	14.3
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	31	56	121	31	57	4
End Time (s)	56	121	4	57	121	31
Yield/Force Off (s)	49.1	115.8	144.6	49.2	115.2	22.7
Yield/Force Off 170(s)	49.1	100.8	120.6	49.2	95.2	144.7
Local Start Time (s)	125	0	65	125	1	98
Local Yield (s)	143.1	59.8	88.6	143.2	59.2	116.7
Local Yield 170(s)	143.1	44.8	64.6	143.2	39.2	88.7
MAX 1	40	46	25	25	48	25

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Coordinated
Natural Cycle	90

Offset: 56 (37%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



OLA + 4

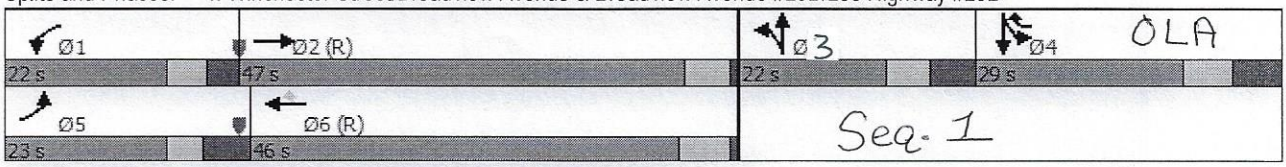
Plan 4

Timing Report, Sorted By Phase
4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B 01/03/2020

Phase Number	1	2	4	5	6	3
Movement	WBL	EBT	SBTL	EBL	WBT	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	22	47	29	23	46	22
Maximum Split (%)	18.3%	39.2%	24.2%	19.2%	38.3%	18.3%
Minimum Split (s)	12.9	27.2	15.4	13.8	32.8	14.3
Yellow Time (s)	3.8	4.2	4.5	3.4	4.8	4.1
All-Red Time (s)	3.1	1	4.9	4.4	1	4.2
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		15	24		20	29
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	115	17	86	115	18	64
End Time (s)	17	64	115	18	64	86
Yield/Force Off (s)	10.1	58.8	105.6	10.2	58.2	77.7
Yield/Force Off 170(s)	10.1	43.8	81.6	10.2	38.2	49.7
Local Start Time (s)	98	0	69	98	1	47
Local Yield (s)	113.1	41.8	88.6	113.2	41.2	60.7
Local Yield 170(s)	113.1	26.8	64.6	113.2	21.2	32.7
MAX 1	40	40	25	25	40	25

Intersection Summary			
Cycle Length		120	
Control Type	Actuated-Coordinated		
Natural Cycle		80	
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green			

Splits and Phases: 4: Winchester Street/Broadview Avenue & Broadview Avenue #29B/Lee Highway #29B



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Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 1

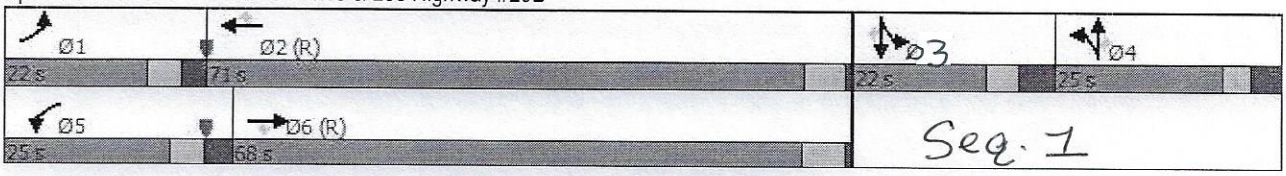
01/02/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	22	71	25	25	68	22
Maximum Split (%)	15.7%	50.7%	17.9%	17.9%	48.6%	15.7%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	yes	yes	yes	yes	yes	yes
Start Time (s)	119	1	94	119	4	72
End Time (s)	1	72	119	4	72	94
Yield/Force Off (s)	134.6	66.4	112.4	137.2	66.3	86.5
Yield/Force Off 170(s)	134.6	51.4	84.4	137.2	51.3	86.5
Local Start Time (s)	118	0	93	118	3	71
Local Yield (s)	133.6	65.4	111.4	136.2	65.3	85.5
Local Yield 170(s)	133.6	50.4	83.4	136.2	50.3	85.5
MAX 1	18	45	35	18	45	35

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	70

Offset: 1 (1%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 2

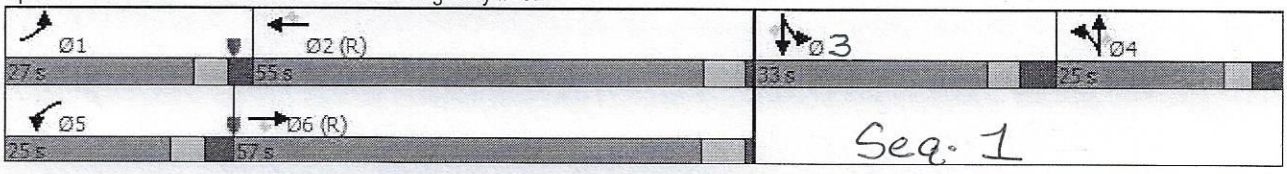
01/02/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	27	55	25	25	57	33
Maximum Split (%)	19.3%	39.3%	17.9%	17.9%	40.7%	23.6%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3.6	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	125	12	100	125	10	67
End Time (s)	12	67	125	10	67	100
Yield/Force Off (s)	5.6	61.4	118.4	3.2	61.3	92.5
Yield/Force Off 170(s)	5.6	46.4	90.4	3.2	46.3	92.5
Local Start Time (s)	115	2	90	115	0	57
Local Yield (s)	135.6	51.4	108.4	133.2	51.3	82.5
Local Yield 170(s)	135.6	36.4	80.4	133.2	36.3	82.5
MAX 1	18	45	35	18	45	35

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 10 (7%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



Timing Report, Sorted By Phase

3: Branch Drive & Lee Highway #29B

Plan 3

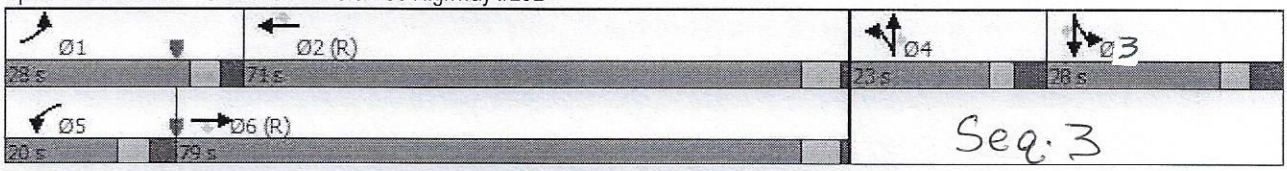
01/03/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	28	71	23	20	79	28
Maximum Split (%)	18.7%	47.3%	15.3%	13.3%	52.7%	18.7%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3.6	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	26	54	125	26	46	148
End Time (s)	54	125	148	46	125	26
Yield/Force Off (s)	47.6	119.4	141.4	39.2	119.3	18.5
Yield/Force Off 170(s)	47.6	104.4	113.4	39.2	104.3	18.5
Local Start Time (s)	130	8	79	130	0	102
Local Yield (s)	1.6	73.4	95.4	143.2	73.3	122.5
Local Yield 170(s)	1.6	58.4	67.4	143.2	58.3	122.5
MAX I	18	45	35	18	45	35

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 46 (31%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



Timing Report, Sorted By Phase
3: Branch Drive & Lee Highway #29B

Plan 4

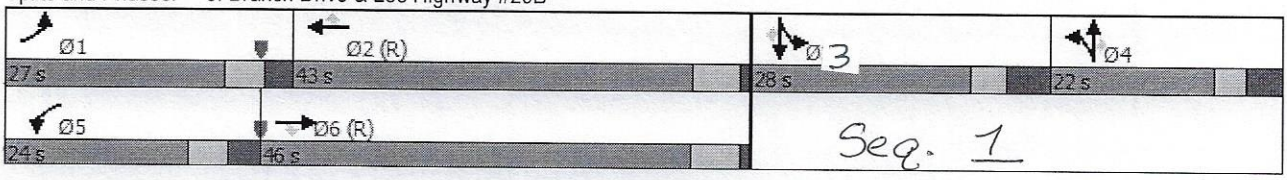
01/03/2020

Phase Number	1	2	4	5	6	3
Movement	EBL	WBT	NBTL	WBL	EBT	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	27	43	22	24	46	28
Maximum Split (%)	22.5%	35.8%	18.3%	20.0%	38.3%	23.3%
Minimum Split (s)	12.4	27.6	12.6	12.8	27.7	13.5
Yellow Time (s)	3.7	4.6	3	3.7	4.7	3.5
All-Red Time (s)	2.7	1	3.6	3.1	1	4
Minimum Initial (s)	6	15	6	6	15	6
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	
Flash Dont Walk (s)		17	27		12	
Dual Entry	No	Yes	No	No	Yes	No
Inhibit Max	yes	yes	yes	yes	yes	yes
Start Time (s)	100	7	78	100	4	50
End Time (s)	7	50	100	4	50	78
Yield/Force Off (s)	0.6	44.4	93.4	117.2	44.3	70.5
Yield/Force Off 170(s)	0.6	29.4	65.4	117.2	29.3	70.5
Local Start Time (s)	96	3	74	96	0	46
Local Yield (s)	116.6	40.4	89.4	113.2	40.3	66.5
Local Yield 170(s)	116.6	25.4	61.4	113.2	25.3	66.5
MAX 1	18	45	35	18	45	35

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	75

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Splits and Phases: 3: Branch Drive & Lee Highway #29B



F. 2023 Existing Conditions – Capacity Analysis Worksheets

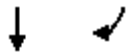


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	298	896	38	699	194	83	117	80	117	122	244
v/c Ratio	0.72	0.51	0.37	0.48	0.21	0.49	0.62	0.21	0.59	0.58	0.41
Control Delay	69.1	26.2	96.7	21.6	3.5	68.2	73.8	1.2	69.4	67.7	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	26.2	96.7	21.6	3.5	68.2	73.8	1.2	69.4	67.7	11.1
Queue Length 50th (ft)	141	287	38	249	32	76	108	0	112	116	41
Queue Length 95th (ft)	186	428	78	143	46	126	166	0	167	171	95
Internal Link Dist (ft)		1315		334			509			538	
Turn Bay Length (ft)	250		130		200	250		125	215		
Base Capacity (vph)	481	1758	118	1450	1006	224	249	447	313	335	621
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.51	0.32	0.48	0.19	0.37	0.47	0.18	0.37	0.36	0.39

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	5	257	758	31	3	31	615	171	73	103	70	117
Future Volume (vph)	5	257	758	31	3	31	615	171	73	103	70	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			0%				-1%			2%		
Total Lost time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3	6.9	9.4
Lane Util. Factor		0.97	0.95			1.00	0.95	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes		1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.99			1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3338	3452			1814	3359	1561	1655	1844	1537	1649
Flt Permitted		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3338	3452			1814	3359	1561	1655	1844	1537	1649
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	292	861	35	3	35	699	194	83	117	80	133
RTOR Reduction (vph)	0	0	1	0	0	0	0	87	0	0	67	0
Lane Group Flow (vph)	0	298	895	0	0	38	699	107	83	117	13	117
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	0%	5%	4%	3%	0%	0%	8%	4%	8%	2%	4%	5%
Turn Type	Prot	Prot	NA		Prot	Prot	NA	pm+ov	Split	NA	custom	Split
Protected Phases	5	5	2		1	1	6	4	3	3		4
Permitted Phases								6			1 3	
Actuated Green, G (s)		17.4	71.0			8.1	60.2	77.0	14.3	14.3	22.4	16.8
Effective Green, g (s)		17.4	71.0			8.1	60.2	77.0	14.3	14.3	22.4	16.8
Actuated g/C Ratio		0.12	0.51			0.06	0.43	0.55	0.10	0.10	0.16	0.12
Clearance Time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3		9.4
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)		414	1750			104	1444	858	169	188	245	197
v/s Ratio Prot		c0.09	c0.26			0.02	0.21	0.01	0.05	c0.06		c0.07
v/s Ratio Perm								0.05			0.01	
v/c Ratio		0.72	0.51			0.37	0.48	0.12	0.49	0.62	0.05	0.59
Uniform Delay, d1		59.0	23.0			63.5	28.7	15.2	59.4	60.3	49.8	58.4
Progression Factor		1.00	1.00			1.38	0.65	2.21	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.9	1.1			2.1	1.1	0.1	2.2	6.3	0.1	4.7
Delay (s)		64.9	24.0			89.7	19.8	33.6	61.7	66.5	49.9	63.1
Level of Service		E	C			F	B	C	E	E	D	E
Approach Delay (s)			34.2				25.5			60.3		
Approach LOS			C				C			E		

Intersection Summary			
HCM 2000 Control Delay	36.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	31.3
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	93	215
Future Volume (vph)	93	215
Ideal Flow (vphpl)	1900	1900
Grade (%)	-2%	
Total Lost time (s)	9.4	9.4
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.99	1.00
Satd. Flow (prot)	1769	1558
Flt Permitted	0.99	1.00
Satd. Flow (perm)	1769	1558
Peak-hour factor, PHF	0.88	0.88
Adj. Flow (vph)	106	244
RTOR Reduction (vph)	0	127
Lane Group Flow (vph)	122	117
Confl. Peds. (#/hr)		3
Heavy Vehicles (%)	2%	3%
Turn Type	NA	custom
Protected Phases	4	
Permitted Phases		4 5
Actuated Green, G (s)	16.8	43.6
Effective Green, g (s)	16.8	43.6
Actuated g/C Ratio	0.12	0.31
Clearance Time (s)	9.4	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	212	485
v/s Ratio Prot	0.07	
v/s Ratio Perm		0.07
v/c Ratio	0.58	0.24
Uniform Delay, d1	58.2	35.9
Progression Factor	1.00	1.00
Incremental Delay, d2	3.7	0.3
Delay (s)	62.0	36.1
Level of Service	E	D
Approach Delay (s)	49.2	
Approach LOS	D	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

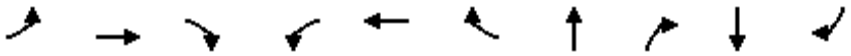
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	885	63	0	800	31	0	0	29	0	0	20
Future Vol, veh/h	0	885	63	0	800	31	0	0	29	0	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	7	0	0	0	3	0	0	0
Mvmt Flow	0	962	68	0	870	34	0	0	32	0	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	481	-	-	435
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.26	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	508	0	0	656
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	508	-	-	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.6	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	508	-	-	-	-	656
HCM Lane V/C Ratio	0.062	-	-	-	-	0.033
HCM Control Delay (s)	12.6	-	-	-	-	10.7
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	40	964	1	48	840	56	23	42	46	55
v/c Ratio	0.36	0.41	0.00	0.41	0.37	0.05	0.15	0.16	0.40	0.28
Control Delay	84.6	7.2	0.0	72.4	16.2	0.1	56.4	1.4	71.9	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	7.2	0.0	72.4	16.2	0.1	56.4	1.4	71.9	3.4
Queue Length 50th (ft)	40	127	0	44	188	0	21	0	43	0
Queue Length 95th (ft)	m80	133	m0	88	394	0	43	0	86	0
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	199	2364	1143	227	2284	1125	286	358	185	248
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.41	0.00	0.21	0.37	0.05	0.08	0.12	0.25	0.22

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	7	29	877	1	44	764	51	10	11	38	34	8
Future Volume (vph)	7	29	877	1	44	764	51	10	11	38	34	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1791	3541	1647	1752	3372	1599		1856	1615		1792
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1791	3541	1647	1752	3372	1599		1856	1615		1792
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	8	32	964	1	48	840	56	11	12	42	37	9
RTOR Reduction (vph)	0	0	0	0	0	0	21	0	0	39	0	0
Lane Group Flow (vph)	0	40	964	1	48	840	35	0	23	3	0	46
Heavy Vehicles (%)	14%	0%	4%	0%	2%	6%	0%	0%	0%	0%	3%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		7.5	87.3	87.3	8.1	88.4	88.4		10.7	10.7		7.9
Effective Green, g (s)		7.5	87.3	87.3	8.1	88.4	88.4		10.7	10.7		7.9
Actuated g/C Ratio		0.05	0.62	0.62	0.06	0.63	0.63		0.08	0.08		0.06
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		95	2208	1027	101	2129	1009		141	123		101
v/s Ratio Prot		0.02	c0.27		c0.03	0.25			c0.01			c0.03
v/s Ratio Perm				0.00			0.02			0.00		
v/c Ratio		0.42	0.44	0.00	0.48	0.39	0.04		0.16	0.03		0.46
Uniform Delay, d1		64.1	13.6	9.9	63.9	12.7	9.7		60.5	59.8		64.0
Progression Factor		1.23	0.40	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		2.7	0.6	0.0	3.5	0.5	0.1		0.5	0.1		3.2
Delay (s)		81.5	6.0	9.9	67.4	13.2	9.8		61.0	59.9		67.2
Level of Service		F	A	A	E	B	A		E	E		E
Approach Delay (s)			9.0			15.8			60.3			64.7
Approach LOS			A			B			E			E

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	50
Future Volume (vph)	50
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1375
Flt Permitted	1.00
Satd. Flow (perm)	1375
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	55
RTOR Reduction (vph)	52
Lane Group Flow (vph)	3
Heavy Vehicles (%)	18%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	7.9
Effective Green, g (s)	7.9
Actuated g/C Ratio	0.06
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	77
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	62.5
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	62.7
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	15	38	14	11	14	23	65	7	18	67	5
Future Vol, veh/h	6	15	38	14	11	14	23	65	7	18	67	5
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	9	0	0	0	0	0	13	0
Mvmt Flow	7	18	45	16	13	16	27	76	8	21	79	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	223	262	45	227	261	42	85	0	0	84	0	0
Stage 1	124	124	-	134	134	-	-	-	-	-	-	-
Stage 2	99	138	-	93	127	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.1	7.1	6.28	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.09	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	794	726	1032	733	645	1028	1524	-	-	1526	-	-
Stage 1	922	842	-	874	780	-	-	-	-	-	-	-
Stage 2	943	836	-	919	785	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	750	702	1030	669	624	1028	1524	-	-	1526	-	-
Mov Cap-2 Maneuver	750	702	-	669	624	-	-	-	-	-	-	-
Stage 1	904	830	-	857	765	-	-	-	-	-	-	-
Stage 2	895	820	-	847	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.1	1.8	1.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	890	748	1526	-	-
HCM Lane V/C Ratio	0.018	-	-	0.078	0.061	0.014	-	-
HCM Control Delay (s)	7.4	0	-	9.4	10.1	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	1	76	75	14	106	1	73	1	12	1	1	1
Future Vol, veh/h	1	76	75	14	106	1	73	1	12	1	1	1
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	1	11	7	1	0	0	0	0	0	0	0
Mvmt Flow	1	89	88	16	125	1	86	1	14	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	178	0	0	295	298	136	307	342	130
Stage 1	-	-	-	-	-	-	136	136	-	162	162	-
Stage 2	-	-	-	-	-	-	159	162	-	145	180	-
Critical Hdwy	4.1	-	-	4.17	-	-	7.5	6.9	6.4	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.263	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1468	-	-	1368	-	-	640	597	911	707	642	942
Stage 1	-	-	-	-	-	-	859	776	-	884	803	-
Stage 2	-	-	-	-	-	-	833	754	-	898	793	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1463	-	-	1367	-	-	631	586	909	684	630	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	631	586	-	684	630	-
Stage 1	-	-	-	-	-	-	857	774	-	880	790	-
Stage 2	-	-	-	-	-	-	820	742	-	880	791	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	11.2	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	630	909	1463	-	-	1367	-	-	729
HCM Lane V/C Ratio	0.138	0.016	0.001	-	-	0.012	-	-	0.005
HCM Control Delay (s)	11.6	9	7.5	0	-	7.7	0	-	10
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	104	136	44	47	67
Future Vol, veh/h	83	104	136	44	47	67
Conflicting Peds, #/hr	1	0	0	1	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	1	1	0	17	0
Mvmt Flow	98	122	160	52	55	79

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	213	0	-	0	505	189
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.16	-	-	-	5.57	5.7
Critical Hdwy Stg 1	-	-	-	-	4.57	-
Critical Hdwy Stg 2	-	-	-	-	4.57	-
Follow-up Hdwy	2.254	-	-	-	3.653	3.3
Pot Cap-1 Maneuver	1334	-	-	-	577	881
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1333	-	-	-	530	879
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	769	-

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1333	-	-	-	691
HCM Lane V/C Ratio	0.073	-	-	-	0.194
HCM Control Delay (s)	7.9	-	-	-	11.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	156	152	51	31	19
Future Vol, veh/h	38	156	152	51	31	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	45	184	179	60	36	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	239	0	-	0	483	209
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1340	-	-	-	546	836
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	527	836
Mov Cap-2 Maneuver	-	-	-	-	527	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	777	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1340	-	-	-	527	836
HCM Lane V/C Ratio	0.033	-	-	-	0.069	0.027
HCM Control Delay (s)	7.8	-	-	-	12.3	9.4
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	64	1	106	1	407	98	95	355	1
Future Vol, veh/h	1	1	1	64	1	106	1	407	98	95	355	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	1	0	6	1	5	5	0
Mvmt Flow	1	1	1	75	1	125	1	479	115	112	418	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	885	1239	210	915	1124	240	419	0	0	594	0	0
Stage 1	643	643	-	481	481	-	-	-	-	-	-	-
Stage 2	242	596	-	434	643	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.3	7.3	7.32	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.2	-	-	2.25	-	-
Pot Cap-1 Maneuver	268	203	811	188	161	744	1151	-	-	958	-	-
Stage 1	465	506	-	486	501	-	-	-	-	-	-	-
Stage 2	766	529	-	523	409	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	202	179	811	170	142	744	1151	-	-	958	-	-
Mov Cap-2 Maneuver	202	179	-	170	142	-	-	-	-	-	-	-
Stage 1	465	447	-	486	500	-	-	-	-	-	-	-
Stage 2	636	528	-	460	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.3	23	0	1.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1151	-	-	255	169	744	958	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.452	0.168	0.117	-	-
HCM Control Delay (s)	8.1	-	-	19.3	42.8	10.8	9.3	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.1	0.6	0.4	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	3	5	1	18	13	488	10	15	401	3
Future Vol, veh/h	1	1	3	5	1	18	13	488	10	15	401	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	6	0	5	0	0	4	0
Mvmt Flow	1	1	4	6	1	21	15	574	12	18	472	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	828	1126	238	877	1116	287	476	0	0	586	0	0
Stage 1	510	510	-	604	604	-	-	-	-	-	-	-
Stage 2	318	616	-	273	512	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.32	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	212	151	744	212	174	681	1097	-	-	999	-	-
Stage 1	451	469	-	413	444	-	-	-	-	-	-	-
Stage 2	616	409	-	684	496	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	146	744	205	168	681	1097	-	-	999	-	-
Mov Cap-2 Maneuver	199	146	-	205	168	-	-	-	-	-	-	-
Stage 1	445	461	-	407	438	-	-	-	-	-	-	-
Stage 2	587	403	-	667	487	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	13.8	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1097	-	-	314	205	587	999	-	-
HCM Lane V/C Ratio	0.014	-	-	0.019	0.029	0.038	0.018	-	-
HCM Control Delay (s)	8.3	-	-	16.7	23.1	11.4	8.7	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	119	17	71	2	3	3	111	389	31	7	352	50
Future Vol, veh/h	119	17	71	2	3	3	111	389	31	7	352	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	0	3	0	0	33	1	5	0	0	3	8
Mvmt Flow	140	20	84	2	4	4	131	458	36	8	414	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	923	1186	207	953	1209	229	473	0	0	494	0	0
Stage 1	430	430	-	720	720	-	-	-	-	-	-	-
Stage 2	493	756	-	233	489	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.96	7.5	6.5	7.56	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.33	3.5	4	3.63	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	225	190	796	217	184	687	1092	-	-	1080	-	-
Stage 1	574	587	-	390	435	-	-	-	-	-	-	-
Stage 2	526	419	-	755	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	166	796	159	161	687	1092	-	-	1080	-	-
Mov Cap-2 Maneuver	199	166	-	159	161	-	-	-	-	-	-	-
Stage 1	505	583	-	343	383	-	-	-	-	-	-	-
Stage 2	456	369	-	648	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.8	21.4	1.8	0.1
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1092	-	-	199	166	796	159	261	1080	-	-
HCM Lane V/C Ratio	0.12	-	-	0.704	0.12	0.105	0.015	0.027	0.008	-	-
HCM Control Delay (s)	8.7	-	-	57.3	29.6	10.1	28	19.2	8.4	-	-
HCM Lane LOS	A	-	-	F	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	4.4	0.4	0.3	0	0.1	0	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	275	869	68	1119	110	119	99	70	161	166	402
v/c Ratio	0.74	0.54	0.51	0.77	0.12	0.67	0.54	0.19	0.55	0.55	0.70
Control Delay	76.6	31.9	101.5	23.6	3.3	83.1	74.3	3.8	64.7	64.4	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.6	31.9	101.5	23.6	3.3	83.1	74.3	3.8	64.7	64.4	40.0
Queue Length 50th (ft)	140	356	58	582	38	119	97	0	152	156	257
Queue Length 95th (ft)	193	428	m119	192	m15	188	160	17	251	257	417
Internal Link Dist (ft)		1315		334			509			538	
Turn Bay Length (ft)	250		130		200	250		125	215		
Base Capacity (vph)	412	1607	218	1486	922	222	232	465	301	311	581
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.54	0.31	0.75	0.12	0.54	0.43	0.15	0.53	0.53	0.69

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	2	262	794	40	10	56	1074	106	114	95	67	231
Future Volume (vph)	2	262	794	40	10	56	1074	106	114	95	67	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			0%				-1%			2%		
Total Lost time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3	6.9	9.4
Lane Util. Factor		0.97	0.95			1.00	0.95	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes		1.00	1.00			1.00	1.00	0.99	1.00	1.00	0.98	1.00
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.99			1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3400	3512			1814	3557	1570	1787	1862	1563	1715
Flt Permitted		0.95	1.00			0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3400	3512			1814	3557	1570	1787	1862	1563	1715
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2	273	827	42	10	58	1119	110	119	99	70	241
RTOR Reduction (vph)	0	0	2	0	0	0	0	37	0	0	58	0
Lane Group Flow (vph)	0	275	867	0	0	68	1119	73	119	99	12	161
Confl. Peds. (#/hr)				3				5	2		6	6
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%	2%	2%	0%	1%	0%	1%
Turn Type	Prot	Prot	NA		Prot	Prot	NA	pm+ov	Split	NA	custom	Split
Protected Phases	5	5	2		1	1	6	4	3	3		4
Permitted Phases								6			1 3	
Actuated Green, G (s)		16.5	68.6			11.1	61.7	87.3	14.9	14.9	26.0	25.6
Effective Green, g (s)		16.5	68.6			11.1	61.7	87.3	14.9	14.9	26.0	25.6
Actuated g/C Ratio		0.11	0.46			0.07	0.41	0.58	0.10	0.10	0.17	0.17
Clearance Time (s)		7.8	5.2			6.9	5.8	9.4	8.3	8.3		9.4
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)		374	1606			134	1463	913	177	184	270	292
v/s Ratio Prot		0.08	c0.25			0.04	c0.31	0.01	c0.07	0.05		0.09
v/s Ratio Perm								0.03			0.01	
v/c Ratio		0.74	0.54			0.51	0.76	0.08	0.67	0.54	0.04	0.55
Uniform Delay, d1		64.6	29.3			66.8	37.9	13.7	65.2	64.3	51.7	56.9
Progression Factor		1.00	1.00			1.36	0.51	1.22	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.3	1.3			2.6	3.3	0.0	9.6	3.0	0.1	2.2
Delay (s)		72.0	30.6			93.8	22.7	16.8	74.8	67.3	51.7	59.2
Level of Service		E	C			F	C	B	E	E	D	E
Approach Delay (s)			40.6				25.9			66.6		
Approach LOS			D				C			E		

Intersection Summary			
HCM 2000 Control Delay	39.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.3
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	83	386
Future Volume (vph)	83	386
Ideal Flow (vphpl)	1900	1900
Grade (%)	-2%	
Total Lost time (s)	9.4	9.4
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.99
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.98	1.00
Satd. Flow (prot)	1772	1545
Flt Permitted	0.98	1.00
Satd. Flow (perm)	1772	1545
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	86	402
RTOR Reduction (vph)	0	60
Lane Group Flow (vph)	166	342
Confl. Peds. (#/hr)		2
Heavy Vehicles (%)	0%	4%
Turn Type	NA	custom
Protected Phases	4	
Permitted Phases		4 5
Actuated Green, G (s)	25.6	51.5
Effective Green, g (s)	25.6	51.5
Actuated g/C Ratio	0.17	0.34
Clearance Time (s)	9.4	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	302	530
v/s Ratio Prot	0.09	
v/s Ratio Perm		c0.22
v/c Ratio	0.55	0.64
Uniform Delay, d1	56.9	41.5
Progression Factor	1.00	1.00
Incremental Delay, d2	2.0	2.7
Delay (s)	59.0	44.2
Level of Service	E	D
Approach Delay (s)	50.9	
Approach LOS	D	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

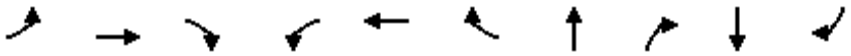
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1019	83	0	1167	102	0	0	25	0	0	79
Future Vol, veh/h	0	1019	83	0	1167	102	0	0	25	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	2	0	0	0	4	0	0	0
Mvmt Flow	0	1096	89	0	1255	110	0	0	27	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	548	-	-	632
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.28	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	454	0	0	519
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	454	-	-	517
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.4	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	454	-	-	-	-	517
HCM Lane V/C Ratio	0.059	-	-	-	-	0.164
HCM Control Delay (s)	13.4	-	-	-	-	13.3
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	147	949	2	68	1160	88	36	79	165	148
v/c Ratio	0.72	0.44	0.00	0.54	0.63	0.10	0.31	0.30	0.76	0.44
Control Delay	87.4	12.5	0.0	82.0	28.6	0.2	72.2	3.0	85.8	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.4	12.5	0.0	82.0	28.6	0.2	72.2	3.0	85.8	10.0
Queue Length 50th (ft)	157	212	0	68	427	0	36	0	164	0
Queue Length 95th (ft)	225	226	m0	123	610	0	73	0	249	53
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	260	2159	993	157	1853	907	202	327	250	363
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.44	0.00	0.43	0.63	0.10	0.18	0.24	0.66	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	9	131	902	2	65	1102	84	17	17	75	139	18
Future Volume (vph)	9	131	902	2	65	1102	84	17	17	75	139	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	1.00	0.97	1.00	1.00	0.98		1.00	1.00		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	138	949	2	68	1160	88	18	18	79	146	19
RTOR Reduction (vph)	0	0	0	1	0	0	41	0	0	74	0	0
Lane Group Flow (vph)	0	147	949	1	68	1160	47	0	36	5	0	165
Confl. Peds. (#/hr)				2			2					
Heavy Vehicles (%)	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		17.1	86.7	86.7	9.3	79.4	79.4		9.5	9.5		17.9
Effective Green, g (s)		17.1	86.7	86.7	9.3	79.4	79.4		9.5	9.5		17.9
Actuated g/C Ratio		0.11	0.58	0.58	0.06	0.53	0.53		0.06	0.06		0.12
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		205	2128	925	110	1854	824		117	102		216
v/s Ratio Prot		c0.08	0.26		0.04	c0.33			c0.02			c0.09
v/s Ratio Perm				0.00			0.03			0.00		
v/c Ratio		0.72	0.45	0.00	0.62	0.63	0.06		0.31	0.05		0.76
Uniform Delay, d1		64.1	18.0	13.4	68.6	24.8	17.1		67.1	66.0		64.0
Progression Factor		1.10	0.61	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		10.2	0.6	0.0	9.9	1.6	0.1		1.5	0.2		14.8
Delay (s)		80.8	11.6	13.4	78.5	26.4	17.3		68.6	66.2		78.8
Level of Service		F	B	B	E	C	B		E	E		E
Approach Delay (s)			20.9			28.5			67.0			69.4
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	141
Future Volume (vph)	141
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1607
Flt Permitted	1.00
Satd. Flow (perm)	1607
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	148
RTOR Reduction (vph)	130
Lane Group Flow (vph)	18
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	1%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.9
Effective Green, g (s)	17.9
Actuated g/C Ratio	0.12
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	191
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.09
Uniform Delay, d1	58.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	59.0
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	77	116	45	50	41	94	43	12	48	39	32
Future Vol, veh/h	17	77	116	45	50	41	94	43	12	48	39	32
Conflicting Peds, #/hr	0	0	14	14	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	2	5	0	2	0	0	3	0
Mvmt Flow	18	80	121	47	52	43	98	45	13	50	41	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	403	412	51	423	422	29	74	0	0	58	0	0
Stage 1	158	158	-	248	248	-	-	-	-	-	-	-
Stage 2	245	254	-	175	174	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.14	7.1	6.14	6.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.5	4.02	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	642	640	1018	545	547	1031	1538	-	-	1559	-	-
Stage 1	895	827	-	760	720	-	-	-	-	-	-	-
Stage 2	828	784	-	832	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	524	577	1006	392	493	1031	1538	-	-	1559	-	-
Mov Cap-2 Maneuver	524	577	-	392	493	-	-	-	-	-	-	-
Stage 1	836	799	-	710	672	-	-	-	-	-	-	-
Stage 2	684	732	-	629	743	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	14.2	4.7	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	747	531	1559	-	-
HCM Lane V/C Ratio	0.064	-	-	0.293	0.267	0.032	-	-
HCM Control Delay (s)	7.5	0	-	11.8	14.2	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	1.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	3	106	86	28	112	2	62	2	37	1	5	1
Future Vol, veh/h	3	106	86	28	112	2	62	2	37	1	5	1
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	3	0	4	1	0	3	0	3	0	0	0
Mvmt Flow	3	119	97	31	126	2	70	2	42	1	6	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	216	0	0	367	368	170	391	415	131
Stage 1	-	-	-	-	-	-	174	174	-	193	193	-
Stage 2	-	-	-	-	-	-	193	194	-	198	222	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.53	6.9	6.43	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.527	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1466	-	-	1342	-	-	564	542	863	637	596	941
Stage 1	-	-	-	-	-	-	810	744	-	858	786	-
Stage 2	-	-	-	-	-	-	789	728	-	854	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1461	-	-	1342	-	-	548	526	862	589	578	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	548	526	-	589	578	-
Stage 1	-	-	-	-	-	-	808	743	-	854	764	-
Stage 2	-	-	-	-	-	-	763	708	-	807	767	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	11.4	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	547	862	1461	-	-	1342	-	-	613
HCM Lane V/C Ratio	0.131	0.048	0.002	-	-	0.023	-	-	0.013
HCM Control Delay (s)	12.6	9.4	7.5	0	-	7.7	0	-	10.9
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.2	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	128	160	14	67	52
Future Vol, veh/h	42	128	160	14	67	52
Conflicting Peds, #/hr	1	0	0	1	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	0	0	2
Mvmt Flow	49	151	188	16	79	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	205	0	-	0	448	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.12	-	-	-	5.4	5.72
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	1366	-	-	-	648	868
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1365	-	-	-	621	867
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	852	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1365	-	-	-	709
HCM Lane V/C Ratio	0.036	-	-	-	0.197
HCM Control Delay (s)	7.7	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	159	210	2	11	27
Future Vol, veh/h	5	159	210	2	11	27
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	6	187	247	2	13	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	250	0	-	0	448	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1327	-	-	-	572	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1326	-	-	-	568	794
Mov Cap-2 Maneuver	-	-	-	-	568	-
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1326	-	-	-	568	794
HCM Lane V/C Ratio	0.004	-	-	-	0.023	0.04
HCM Control Delay (s)	7.7	-	-	-	11.5	9.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	4	98	1	139	2	370	77	86	501	2
Future Vol, veh/h	2	1	4	98	1	139	2	370	77	86	501	2
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	0	2	0	3	4	1	4	0
Mvmt Flow	2	1	4	109	1	154	2	411	86	96	557	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	964	1256	284	887	1171	207	563	0	0	498	0	0
Stage 1	754	754	-	416	416	-	-	-	-	-	-	-
Stage 2	210	502	-	471	755	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.32	7.3	7.34	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.32	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	237	199	730	197	150	781	1019	-	-	1069	-	-
Stage 1	404	457	-	535	543	-	-	-	-	-	-	-
Stage 2	797	577	-	491	355	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	175	180	728	181	136	780	1016	-	-	1068	-	-
Mov Cap-2 Maneuver	175	180	-	181	136	-	-	-	-	-	-	-
Stage 1	402	414	-	533	541	-	-	-	-	-	-	-
Stage 2	637	575	-	443	322	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	28	0	1.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1016	-	-	311	180	780	1068	-	-
HCM Lane V/C Ratio	0.002	-	-	0.025	0.611	0.198	0.089	-	-
HCM Control Delay (s)	8.6	-	-	16.9	52.2	10.8	8.7	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.4	0.7	0.3	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1	17	33	1	38	15	401	15	41	556	6
Future Vol, veh/h	10	1	17	33	1	38	15	401	15	41	556	6
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	5	0	3	0	0	3	0
Mvmt Flow	11	1	19	37	1	42	17	446	17	46	618	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	977	1216	318	882	1202	223	630	0	0	463	0	0
Stage 1	719	719	-	480	480	-	-	-	-	-	-	-
Stage 2	258	497	-	402	722	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	159	130	654	211	152	757	962	-	-	1109	-	-
Stage 1	320	357	-	499	515	-	-	-	-	-	-	-
Stage 2	679	477	-	562	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	142	122	651	194	143	757	958	-	-	1109	-	-
Mov Cap-2 Maneuver	142	122	-	194	143	-	-	-	-	-	-	-
Stage 1	313	341	-	490	506	-	-	-	-	-	-	-
Stage 2	628	468	-	521	368	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.3	18.5	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	958	-	-	267	194	682	1109	-	-
HCM Lane V/C Ratio	0.017	-	-	0.117	0.189	0.064	0.041	-	-
HCM Control Delay (s)	8.8	-	-	20.3	27.8	10.6	8.4	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.7	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	61	164	43	27	25	76	310	77	7	493	106
Future Vol, veh/h	96	61	164	43	27	25	76	310	77	7	493	106
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	0	1	0	0	0	1	3	0	0	4	1
Mvmt Flow	105	67	180	47	30	27	84	341	85	8	542	116

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	918	1155	271	833	1186	180	658	0	0	429	0	0
Stage 1	558	558	-	512	512	-	-	-	-	-	-	-
Stage 2	360	597	-	321	674	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.92	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.31	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	227	199	730	265	190	838	932	-	-	1141	-	-
Stage 1	482	515	-	518	540	-	-	-	-	-	-	-
Stage 2	631	495	-	671	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	176	179	730	131	171	832	932	-	-	1138	-	-
Mov Cap-2 Maneuver	176	179	-	131	171	-	-	-	-	-	-	-
Stage 1	439	511	-	470	490	-	-	-	-	-	-	-
Stage 2	519	449	-	436	454	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.4	33	1.5	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	932	-	-	176	179	730	131	277	1138	-	-
HCM Lane V/C Ratio	0.09	-	-	0.599	0.374	0.247	0.361	0.206	0.007	-	-
HCM Control Delay (s)	9.2	-	-	52.1	36.7	11.5	47.2	21.3	8.2	-	-
HCM Lane LOS	A	-	-	F	E	B	E	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.3	1.6	1	1.5	0.8	0	-	-

G. Background Development and Roadway Improvement Excerpts



TOWN OF WARRENTON
CAPITAL IMPROVEMENT PROGRAM

2023 - 2028

Adopted June 16, 2022

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Mission Statement

In Cooperation With, And For Our Citizens...

...The Mayor, Town Council and the Staff of Warrenton are dedicated to providing public safety, economic opportunity, and quality public services in an attractive, well-planned community with historic character for the benefit, enjoyment and accessibility of all.

Affirmed by Town Council
August 28, 2018

Vision and Value Statement

To Achieve Our Mission, We Strive To...

...

Provide high level services in a cost-effective manner; display honesty, respectfulness, and fairness in all relationships; support the health and economic well-being of our citizens and businesses; preserve our historic small-town character; encourage opportunities, services and infrastructure that allow people of all means to live, work and visit here; and address public concerns and opportunities promptly and effectively.

We recognize our Mission can be achieved only by the exchange of information and that through teamwork we can maintain an environment in which we can maximize our potential.

Affirmed by Town Council August 28, 2018

INTRODUCTION

The Capital Improvement Program (CIP) provides for an orderly implementation of short and long-range plans for construction of Capital Improvement Projects and Land Acquisition. It further provides for the scheduling of the associated expenditures over a period of many years. The first year of the program represents the proposed Capital Budget for the Fiscal Year. In addition, consideration is given to the project's relations to other improvements and plans, and the Town's current and anticipated financial capabilities. The CIP is updated annually, at which time the schedule and the projects reevaluated, new or deferred projects are added, and the time frame is extended by one additional fiscal year.

The Town of Warrenton continues to enhance the structure of the budget and provide a greater understanding of funding commitments. Projects are presented under topical categories to help the community understand the investments that are being proposed and the tie in to priorities of the Town. Next, a Capital Asset Replacement Program (CARP) includes projects that cover standard operating and maintenance items. Unlike items listed in the capital project and acquisition program, these are items necessary for the ongoing operations of the Town and its facilities. Finally, the Town created dedicated Utilities and Stormwater Funds. These modifications to the CIP help move it towards a clearer document that works in conjunction with the budget and stated needs of the community.

POLICY

The following policies guide the development of the CIP:

1. The CIP should be realistic relative to the projected source of revenue.
2. A reserve fund should be established, as required, to reduce the fiscal impact of major projects in a single year.
3. Projects undertaken in the Enterprise Fund and Stormwater Fund are to be considered separate from the general Fund.

BENEFITS

A carefully planned CIP will enable the Town to realize several benefits:

1. Major improvements can be anticipated in advance, rather than addressed at the time the need arises.
2. The implementation strategy of the Comprehensive Plan is used as a guide for future needs and investments.
3. The Town Council and Planning Commission are better able to evaluate the needs of the entire community, instead of special projects.
4. Projects can be scheduled when revenue is available and when the community's anticipated ability to finance is determined.
5. Capital programming improves the Town's ability to vitalize state and federal aid. Applications can be timed to fit the development schedule.

DEFINING CAPITAL IMPROVEMENT PROJECTS

A capital improvement is defined as a major expenditure, beyond maintenance and operating costs, for the acquisition or construction of a needed facility. Salaries, supplies and other overhead expenditures are considered maintenance and operating costs, not provided for the CIP. Capital improvements include such things as utility systems, public buildings, land acquisitions, streets and sidewalks. The improvements are items that will have a significant impact on the community and are too expensive to be financed in the annual operating budget. Cost and frequency are two criteria that will be used to distinguish between a capital expenditure and a capital asset.

1. COST - A capital improvement project shall be $10,000 or more.
2. FREQUENCY - Capital improvement projects should be non-recurring. An interval of three years between expenditures is recommended.

DEFINING CAPITAL ASSET REPLACEMENT PROGRAM (CARP)

Capital assets, which include property, plant, equipment, and infrastructure assets, are assets with an individual cost of more than $5,000 and a useful life of more than one year. Infrastructure assets capitalized have an original cost of $25,000 or more. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation. The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

* *Development of planning and regulatory documents are typically captured in a budget's operating expense; however, Warrenton recognizes these types of documents here as they do not occur annually and can have a substantial impact on the budget.*

CATEGORIES

Starting the FY22, CIP projects are being classified around stated priorities of the Town. Projects are numbered under specific topical areas. The CIP further states how projects meet the Comprehensive Plan goals and objectives within the individual project sheets. Below is a general description of the categories.

The CIP programs are coded using the following information:

Economic Development and Tourism (E) – Economic development and tourism projects position Warrenton to leverage and promote the location of jobs, revenue-generating businesses, and attracting tourism through complementary place-based economic development that encourages local economic growth.

General Government (G) – General government projects relate to ensuring the efficiency and needs to run a government that meets the needs of its citizens in a responsive, safe, and transparent fashion.

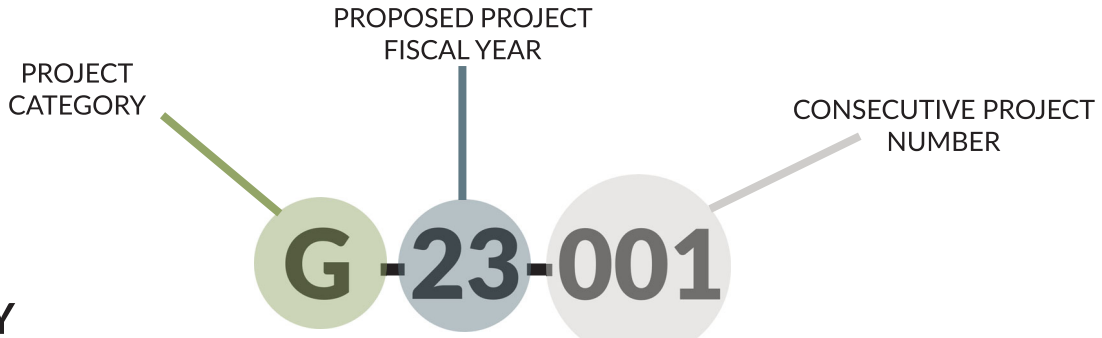
Public Safety (P) - Public safety projects relate to the Town of Warrenton's Police Department and Warrenton Volunteer Fire Company needs to ensure the ongoing safety and security of the community.

Recreation and Quality of Life (R) – Recreation and quality of life projects are recognized as opportunities for additional cultural, arts, and recreational activities in the Town. These type of investments are an important factor for long term economic sustainability.

Transportation and Walkability (T) – Transportation and walkability projects provide for improved multimodal safety by enacting access management strategies, incorporating pedestrian and bike friendly strategies, and deconflicting through-travel and local traffic movements.

Utilities and Stormwater (U) – Utilities and stormwater projects locate, maintain, and build community facilities to ensure the service needs of the Town and Federal and state mandates are met.

EXAMPLE PROJECT NUMBER



SUMMARY

The CIP is a planning and scheduling document. It does not represent authorization to expend Town funds. It does provide an orderly implementation of proposed short and long range plans for land acquisition and construction. Projects are authorized for implementation only after Town Council adopts and appropriates the Capital Budget. The impact of FY23 capital projects, for both improvement and asset projects, on the Town of Warrenton General Fund is $1,281,289. The impact of FY23 capital projects, for both improvement and asset projects, on the Town of Warrenton Water and Sewer Fund is $4,111,102. The impact of the FY23 capital projects on the Stormwater Utility Fund is $94,918. The Town is also using $976,500 in ARPA funds on projects in FY23. The CIP is an annual process and requires close review by both the Planning Commission and the Town Council.

CAPITAL IMPROVEMENT PROJECTS

PROJECT SHEETS

TRANSPORTATION & WALKABILITY

PROJECT NUMBER: T-28-003 **PROJECT TITLE:** Inters. Improv.: Broadview/W. Lee Hwy/Winchester

CATEGORY (check one):

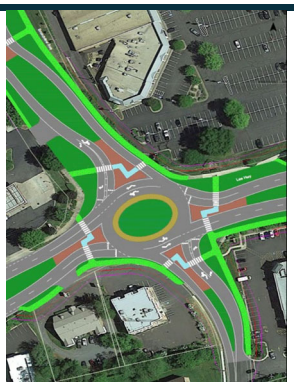
- ☐ Economic Development & Tourism (E)
- ☐ General Government (G)
- ☐ Public Safety (P)
- ☐ Recreation & Quality of Life (R)
- ☐ Stormwater & Utilities (U)
- ☑ Transportation & Walkability (T)

PROGRAM TYPE (check one):

- ☐ CARP
- ☑ CIP

PROGRAM DESCRIPTION

The Town of Warrenton is interested in creating an improvement plan for this important transportation connection between two key arterial corridors. It is also key to the economic development potential of the surrounding area. Therefore, the Town is working with VDOT on a "pipeline project" for the Lee Highway corridor. This project will be updated upon completion of the study in spring 2022.



GOAL ADDRESSED

Plan Warrenton 2040 Transportation and Circulation Near Turn Recommendations page 38.

ESTIMATED COSTS	FY23 2022-23	FY24 2023-24	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 & Beyond	Total
Land Acquisition						$2,325,000	**$2,325,000**
Architecture/Engineering						$1,299,486	**$1,299,486**
Construction/Purchase						$3,641,809	**$3,641,809**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,266,295**	**$7,266,295**

FUNDING SOURCES							
General Fund						$7,266,295	**$7,266,295**
Water and Sewer Fund							**$0**
Stormwater Fund							**$0**
ARPA							**$0**
Grant- Federal							**$0**
Proffer							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,266,295**	**$7,266,295**

OPERATING IMPACT							
Ongoing maintenance							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

PROJECT NUMBER: T-28-004 **PROJECT TITLE:** Route 17 (Broadview) Roebling Roundabout

CATEGORY (check one):

- ☐ Economic Development & Tourism (E)
- ☐ General Government (G)
- ☐ Public Safety (P)
- ☐ Recreation & Quality of Life (R)
- ☐ Stormwater & Utilities (U)
- ☑ Transportation & Walkability (T)

PROGRAM TYPE (check one):

- ☐ CARP
- ☑ CIP

PROGRAM DESCRIPTION

The intersection at Route 17 (Broadview Avenue) and Roebling Street is subjected to safety issues. As the area around it redevelops, the intersection will need improvements. In 2020 the Town applied for an unsuccessful VDOT Smartscale grant. This application included an assessment of costs associated with a roundabout included below. Therefore, the Town is working with VDOT on a "pipeline project" for the Lee Higway corridor. This project will be updated upon completion of the study in spring of 2022.

GOAL ADDRESSED

Plan Warrenton 2040 Transportation and Circulation Near Turn Recommendations page 38.



ESTIMATED COSTS	FY23 2022-23	FY24 2023-24	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 & Beyond	Total
Land Acquisition						$1,987,500	**$1,987,500**
Architecture/Engineering						$1,291,020	**$1,291,020**
Construction/Purchase						$3,921,045	**$3,921,045**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,199,565**	**$7,199,565**

FUNDING SOURCES							
General Fund						$7,199,565	**$7,199,565**
Water and Sewer Fund							**$0**
Stormwater Fund							**$0**
ARPA							**$0**
Grant- Commonwealth							**$0**
Proffer							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,199,565**	**$7,199,565**

OPERATING IMPACT							
Ongoing maintenance							**$0**
Other							**$0**
TOTAL	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

PROJECT NUMBER: T-28-005 **PROJECT TITLE:** Bear Wallow Road/ Roebling Intersection

CATEGORY (check one):

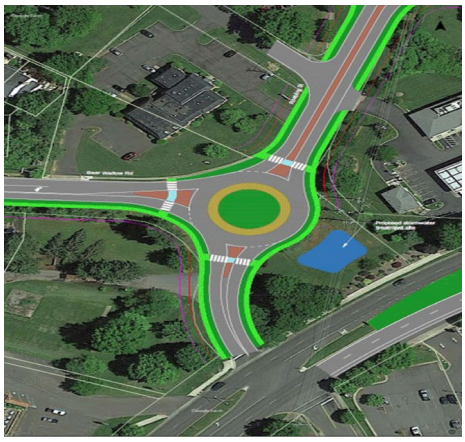
- ☐ Economic Development & Tourism (E)
- ☐ General Government (G)
- ☐ Public Safety (P)
- ☐ Recreation & Quality of Life (R)
- ☐ Stormwater & Utilities (U)
- ☑ Transportation & Walkability (T)

PROGRAM TYPE (check one):

- ☐ CARP
- ☑ CIP

PROGRAM DESCRIPTION

The intersection at Bear Wallow Road and Roebling Street is subjected to safety issues and an awkward configuration. As the area around it redevelops, the intersection will need improvements. In 2020 the Town applied for an unsuccessful VDOT Smartscale grant. This application included an assessment of costs associated with a roundabout included below.



GOAL ADDRESSED

Plan Warrenton 2040 Transportation and Circulation Near Turn Recommendations page 38.

ESTIMATED COSTS	FY23 2022-23	FY24 2023-24	FY25 2024-25	FY26 2025-26	FY27 2026-27	FY28 & Beyond	Total
Land Acquisition						$1,200,000	$1,200,000
Architecture/Engineering						$1,200,000	$1,200,000
Construction/Purchase						$3,600,000	$3,600,000
Other							$0
TOTAL	$0	$0	$0	$0	$0	$6,000,000	$6,000,000

FUNDING SOURCES							
General Fund						$6,000,000	$6,000,000
Water and Sewer Fund							$0
Stormwater Fund							$0
ARPA							$0
Grant- Commonwealth							$0
Proffer							$0
Other							$0
TOTAL	$0	$0	$0	$0	$0	$6,000,000	$6,000,000

OPERATING IMPACT							
Ongoing maintenance							$0
Other							$0
TOTAL	$0	$0	$0	$0	$0	$0	$0

https://www.fauquiernow.com/news/business/warrenton-town-council-greenlights-mixed-use-development-next-to-obriens-pub/article_5e6c8aca-611c-11ed-8421-2751bb1fb016.html

FEATURED

Warrenton Town Council greenlights mixed-use development next to O'Brien's Pub

James Jarvis, jjarvis@FauquierNow.com
Nov 10, 2022



Rendering of a proposed mixed-use development, dubbed Waterloo Junction, that would be built between Broadview Avenue and Bear Wallow Road.

Farrish Properties & Acquisitions LLC

The Warrenton Town Council voted unanimously Wednesday to approve the construction of a mixed-use development -- including 47 townhomes, six apartments, one retail building and a small park -- on the corner of Lee Highway and Broadview Avenue.

The 4.81-acre development, dubbed Waterloo Junction, will consist of 47 1,800-square-foot townhomes, 3,600 square feet of new retail space, six apartments, parking and a small park with a community play area and benches. One townhome and five apartments – 10% of the proposed units – will be designated as affordable housing for individuals or families whose gross annual income does not exceed 80% of the current Fauquier County area median family income.



Rendering of proposed 47 townhomes that could be built as part of the Waterloo Junction development. Each townhome would be 1,800 square-feet and 45 feet high.

Dan Ryan Builders

According to the application, the townhomes will not exceed the town's zoning ordinance of 45 feet. They'll be priced somewhere between $400,000 and $500,000.

For the project to move forward, the council had to approve a zoning map amendment, special-use permit and Comprehensive Plan amendment.

The Warrenton Planning Commission previously voted 5-1 recommending t council approve the project. Commissioner Ali Zarabi cast the only dissenting vote, noting concerns about traffic mitigation, among other issues.

During the council meeting, Ward 2 representative William Semple urged his colleagues to delay the project. Semple said that while he supported the creation of more affordable housing, he argued it may create a "precedent" in which other developers would be incentivized to propose similar projects along Broadview Avenue that do not align with the 2040 Comprehensive Plan guidelines which the council approved in April 2021.

"I think that we should consider those issues before we adopt this one, because this is going to be what I call the lead horse in a variety of potential development down the road," Semple said.

The Comprehensive Plan states the Experience Broadview District "will allow for mixed-use residential at lower density, but nodal development with mixed-use anchors and improved edges to adjacent single-family neighborhoods. Current commercial uses will be maintained."

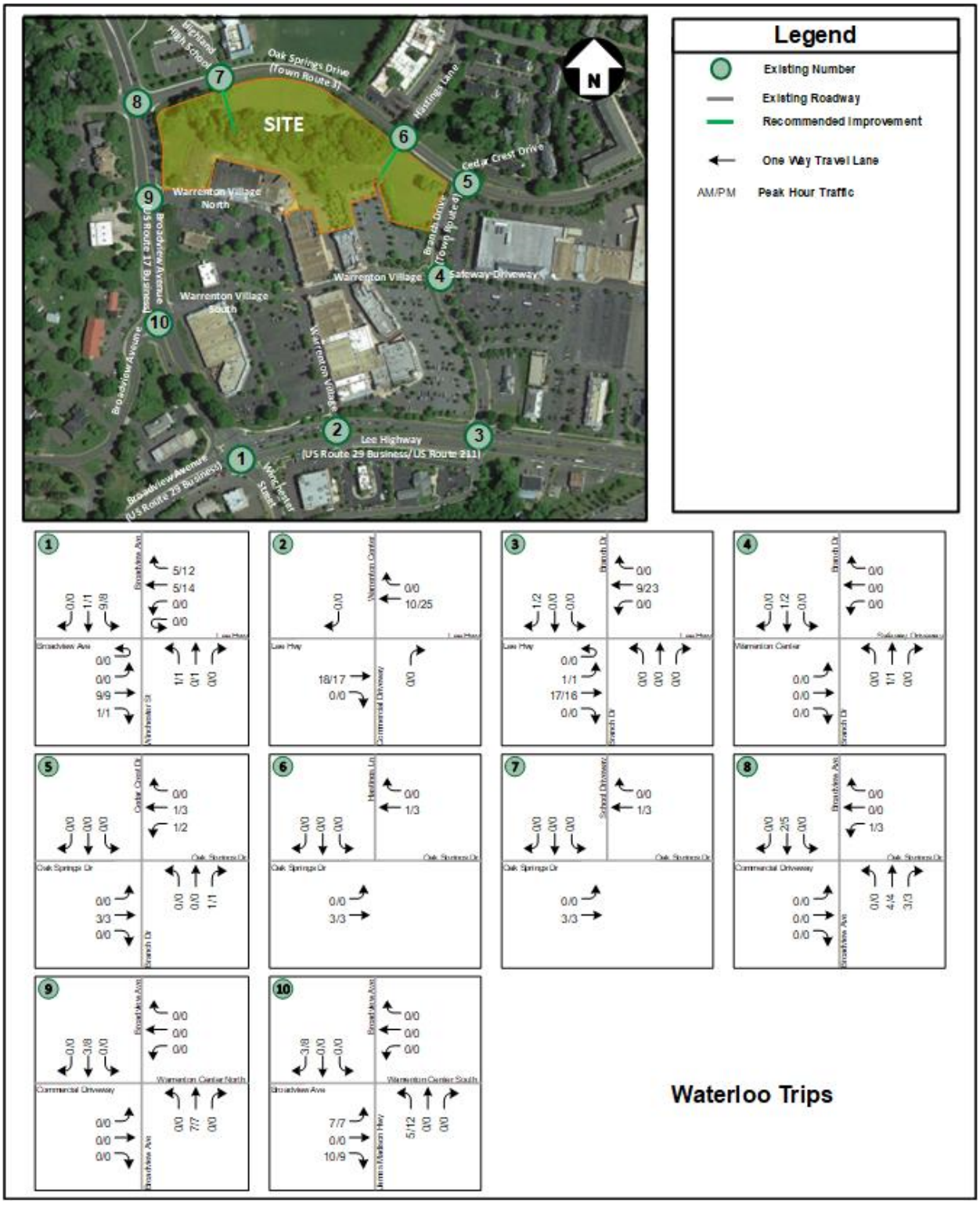
Semple moved to table the project, but it was rejected 6-1, with Semple casting the only supporting vote.

The rest of the council, including Mayor Carter Nevill, praised the project, saying it will be a positive addition to the town.

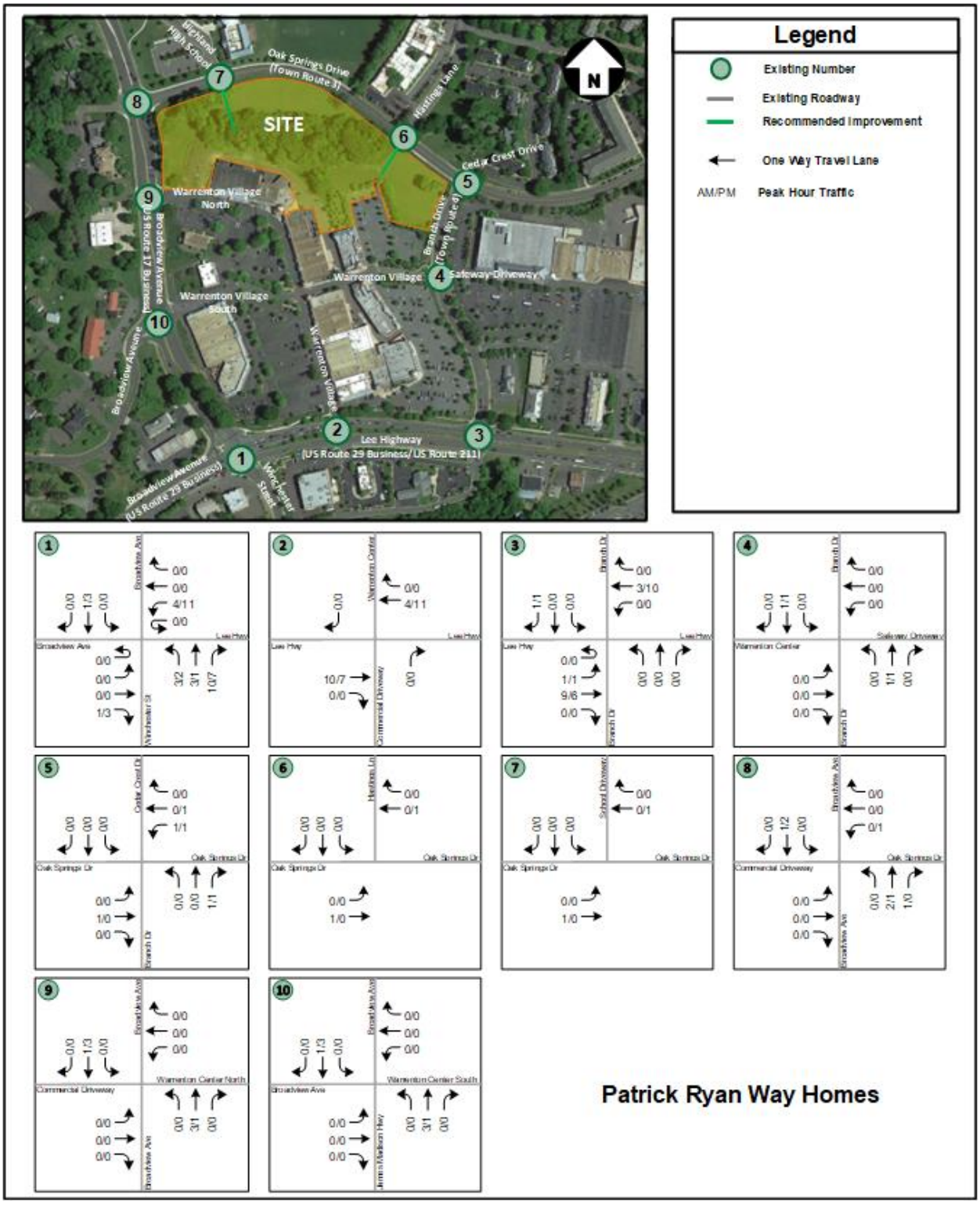
"I think this has been pointed out that the importance of ... bringing people into residential spaces that are close to commercial and entertainment spaces ... it recreates the same sense of community that you see in downtown, where you have people ... walking to restaurants, walking to shops, and I think the more we are able to bring that closer to our neighborhoods, the better we create our built environment to better serve the well-being of our residents," Nevill said.

The renovation of O'Brien's and the apartments above the restaurant – currently vacant – is estimated to take four months. The townhome construction could be completed within 18 months.

James Jarvis


Legend
Existing Number
Existing Roadway
Recommended Improvement
One Way Travel Lane
AM/PM Peak Hour Traffic
N
SITE
Oak Springs Drive (Town Route 3)
Hastings Lane
Cedar Crest Drive
Branch Drive (Town Route 6)
Warrenton Village North
Warrenton Village South
Warrenton Village
Safeway Driveway
Broadview Avenue
Broadview Avenue (US Route 29 Business)
Lee Highway (US Route 29 Business/ US Route 211)
Winchester Street
Warrenton Center
Waterloo Trips




Legend
Existing Number
Existing Roadway
Recommended Improvement
One Way Travel Lane
AM/PM Peak Hour Traffic
SITE
N
Oak Springs Drive (Town Route 3)
Hastings Lane
Cedar Crest Drive
Branch Drive (Town Route 4)
Safeway Driveway
Warrenton Village North
Warrenton Village South
Warrenton Village
Broadview Avenue
Broadview Avenue (US Route 29 Business)
Lee Highway (US Route 29 Business/ US Route 211)
Winchester Street
Broadview Avenue (US Route 17 Business)
Patrick Ryan Way Homes

H. 2027 Future Conditions without Development – Capacity Analysis Worksheet

LANE LEVEL OF SERVICE

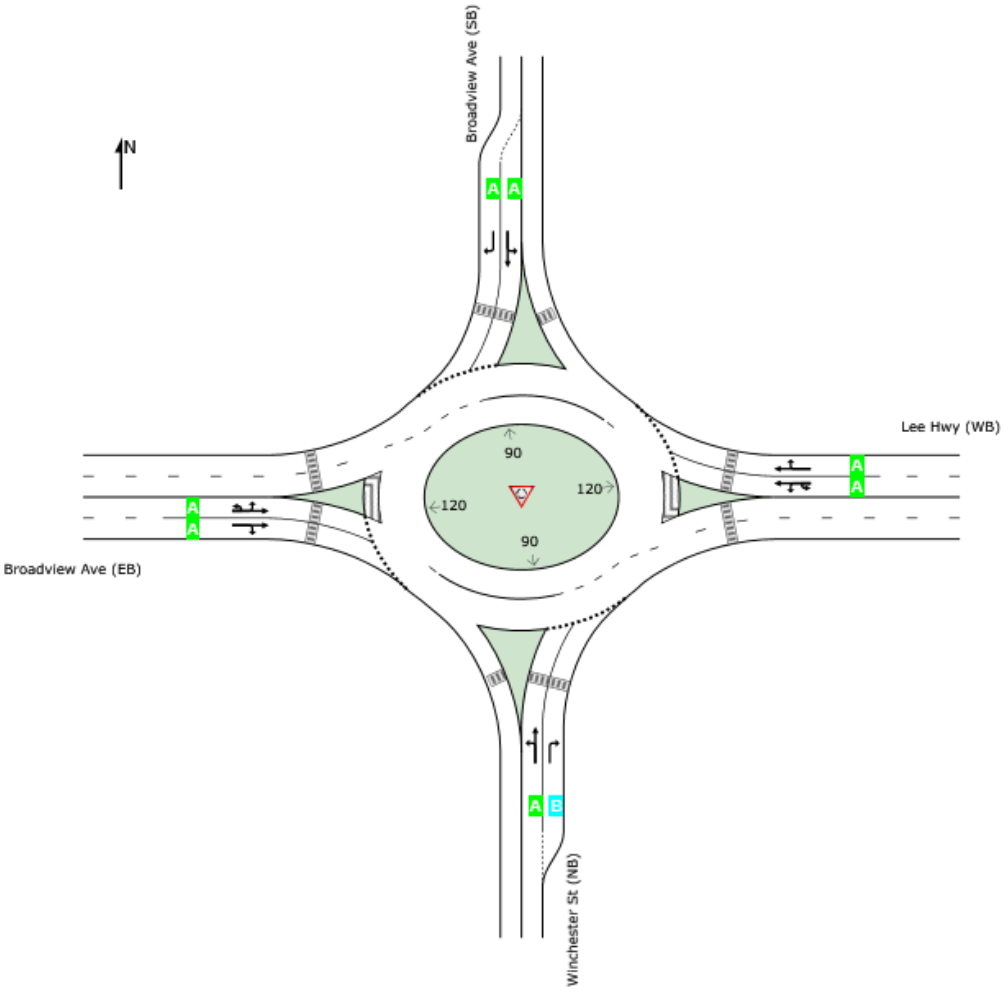
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 FB AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Condtions
AM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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Project: U:\3243\001. Warrenton Village Center\Analysis\Sidra\2nd Submission\2027 TF.sip9

LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 FB AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Condtions
AM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	199	4.5	199	4.5	664	0.300	100	9.2	LOS A	1.4	35.5	Full	1600	0.0	0.0
Lane 2	87	4.0	87	4.0	475	0.183	100	10.2	LOS B	0.7	18.8	Short	250	0.0	NA
Approach	286	4.4	286	4.4		0.300		9.5	LOS A	1.4	35.5				
East: Lee Hwy (WB)															
Lane 1	430	7.2	430	7.2	1024	0.420	100	8.0	LOS A	3.0	78.4	Full	1600	0.0	0.0
Lane 2[d]	504	6.5	504	6.5	1201	0.420	100	7.2	LOS A	3.1	80.8	Full	1600	0.0	0.0
Approach	934	6.8	934	6.8		0.420		7.6	LOS A	3.1	80.8				
North: Broadview Ave (SB)															
Lane 1[d]	240	3.7	240	3.7	750	0.320	100	8.6	LOS A	1.5	39.3	Short	215	0.0	NA
Lane 2	234	3.0	234	3.0	682	0.343	100	9.7	LOS A	1.7	42.6	Full	1600	0.0	0.0
Approach	474	3.4	474	3.4		0.343		9.1	LOS A	1.7	42.6				
West: Broadview Ave (EB)															
Lane 1	448	4.1	448	4.1	1048	0.427	100	8.0	LOS A	3.1	79.7	Full	1600	0.0	0.0
Lane 2[d]	523	3.9	523	3.9	1224	0.427	100	7.2	LOS A	3.2	82.8	Full	1600	0.0	0.0
Approach	971	4.0	971	4.0		0.427		7.6	LOS A	3.2	82.8				
All Vehicles	2664	4.9	2664	4.9		0.427		8.1	LOS A	3.2	82.8				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	84	115	-	199	4.5		664	0.300	100	NA	NA
Lane 2	-	-	87	87	4.0		475	0.183	100	0.0	1
Approach	84	115	87	286	4.4			0.300			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	3	38	389	-	430	7.2	1024	0.420	100	NA	NA
Lane 2	-	-	313	191	504	6.5	1201	0.420	100	NA	NA
Approach	3	38	701	191	934	6.8		0.420			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	137	103	-	240	3.7		750	0.320	100	0.0	2
Lane 2	-	-	234	234	3.0		682	0.343	100	NA	NA
Approach	137	103	234	474	3.4			0.343			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	62	380	-	448	4.1	1048	0.427	100	NA	NA
Lane 2	-	-	487	36	523	3.9	1224	0.427	100	NA	NA
Approach	5	62	867	36	971	4.0		0.427			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2664	4.9	0.427

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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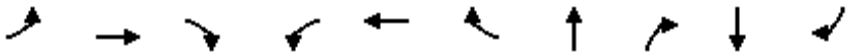
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	944	63	0	839	31	0	0	29	0	0	20
Future Vol, veh/h	0	944	63	0	839	31	0	0	29	0	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	7	0	0	0	3	0	0	0
Mvmt Flow	0	1026	68	0	912	34	0	0	32	0	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	513	-	-	456
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.26	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	483	0	0	640
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	483	-	-	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	483	-	-	-	-	640
HCM Lane V/C Ratio	0.065	-	-	-	-	0.034
HCM Control Delay (s)	13	-	-	-	-	10.8
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	42	1015	1	48	871	55	23	41	46	57
v/c Ratio	0.37	0.43	0.00	0.41	0.39	0.05	0.15	0.16	0.40	0.29
Control Delay	71.3	17.3	0.0	72.4	16.0	0.1	57.5	1.4	71.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.3	17.3	0.0	72.4	16.0	0.1	57.5	1.4	71.9	3.6
Queue Length 50th (ft)	39	246	0	44	198	0	21	0	43	0
Queue Length 95th (ft)	80	485	0	88	400	0	44	0	86	0
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	199	2364	1143	227	2281	1124	279	352	185	248
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.43	0.00	0.21	0.38	0.05	0.08	0.12	0.25	0.23

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	7	31	934	1	44	801	51	10	11	38	34	8
Future Volume (vph)	7	31	934	1	44	801	51	10	11	38	34	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1793	3541	1647	1752	3372	1599		1856	1615		1792
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1793	3541	1647	1752	3372	1599		1856	1615		1792
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	1015	1	48	871	55	11	12	41	37	9
RTOR Reduction (vph)	0	0	0	0	0	0	20	0	0	38	0	0
Lane Group Flow (vph)	0	42	1015	1	48	871	35	0	23	3	0	46
Heavy Vehicles (%)	14%	0%	4%	0%	2%	6%	0%	0%	0%	0%	3%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		7.7	87.8	87.8	8.1	88.7	88.7		10.2	10.2		7.9
Effective Green, g (s)		7.7	87.8	87.8	8.1	88.7	88.7		10.2	10.2		7.9
Actuated g/C Ratio		0.06	0.63	0.63	0.06	0.63	0.63		0.07	0.07		0.06
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		98	2220	1032	101	2136	1013		135	117		101
v/s Ratio Prot		0.02	c0.29		c0.03	0.26			c0.01			c0.03
v/s Ratio Perm				0.00			0.02			0.00		
v/c Ratio		0.43	0.46	0.00	0.48	0.41	0.03		0.17	0.03		0.46
Uniform Delay, d1		64.0	13.6	9.7	63.9	12.7	9.6		60.9	60.3		64.0
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		3.0	0.7	0.0	3.5	0.6	0.1		0.6	0.1		3.2
Delay (s)		67.0	14.3	9.7	67.4	13.3	9.7		61.5	60.4		67.2
Level of Service		E	B	A	E	B	A		E	E		E
Approach Delay (s)			16.4			15.7			60.8			64.7
Approach LOS			B			B			E			E

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1375
Flt Permitted	1.00
Satd. Flow (perm)	1375
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	57
RTOR Reduction (vph)	54
Lane Group Flow (vph)	3
Heavy Vehicles (%)	18%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	7.9
Effective Green, g (s)	7.9
Actuated g/C Ratio	0.06
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	77
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	62.5
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	62.7
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	6	15	38	14	11	14	23	67	7	18	69	5
Future Vol, veh/h	6	15	38	14	11	14	23	67	7	18	69	5
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	9	0	0	0	0	0	13	0
Mvmt Flow	7	16	41	15	12	15	25	73	8	20	75	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	211	249	42	215	247	41	80	0	0	81	0	0
Stage 1	118	118	-	127	127	-	-	-	-	-	-	-
Stage 2	93	131	-	88	120	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.1	7.1	6.28	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.09	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	805	734	1036	746	656	1030	1531	-	-	1529	-	-
Stage 1	927	845	-	882	785	-	-	-	-	-	-	-
Stage 2	948	839	-	925	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	763	711	1034	686	636	1030	1531	-	-	1529	-	-
Mov Cap-2 Maneuver	763	711	-	686	636	-	-	-	-	-	-	-
Stage 1	911	833	-	867	772	-	-	-	-	-	-	-
Stage 2	904	825	-	857	779	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10	1.8	1.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1531	-	-	898	760	1529	-	-
HCM Lane V/C Ratio	0.016	-	-	0.071	0.056	0.013	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	1	80	75	16	107	1	73	1	14	1	1	1
Future Vol, veh/h	1	80	75	16	107	1	73	1	14	1	1	1
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	11	7	1	0	0	0	0	0	0	0
Mvmt Flow	1	87	82	17	116	1	79	1	15	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	121	0	0	170	0	0	283	286	131	295	327	121
Stage 1	-	-	-	-	-	-	131	131	-	155	155	-
Stage 2	-	-	-	-	-	-	152	155	-	140	172	-
Critical Hdwy	4.1	-	-	4.17	-	-	7.5	6.9	6.4	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.263	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1479	-	-	1378	-	-	652	607	917	718	651	952
Stage 1	-	-	-	-	-	-	865	780	-	890	807	-
Stage 2	-	-	-	-	-	-	841	760	-	902	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1474	-	-	1377	-	-	643	596	915	694	639	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	643	596	-	694	639	-
Stage 1	-	-	-	-	-	-	863	778	-	886	794	-
Stage 2	-	-	-	-	-	-	828	748	-	883	795	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	11	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	642	915	1474	-	-	1377	-	-	739
HCM Lane V/C Ratio	0.125	0.017	0.001	-	-	0.013	-	-	0.004
HCM Control Delay (s)	11.4	9	7.4	0	-	7.6	0	-	9.9
HCM Lane LOS	B	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	108	137	44	47	67
Future Vol, veh/h	83	108	137	44	47	67
Conflicting Peds, #/hr	1	0	0	1	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	1	1	0	17	0
Mvmt Flow	90	117	149	48	51	73

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	471	176
Stage 1	-	-	-	-	174	-
Stage 2	-	-	-	-	297	-
Critical Hdwy	4.16	-	-	-	5.57	5.7
Critical Hdwy Stg 1	-	-	-	-	4.57	-
Critical Hdwy Stg 2	-	-	-	-	4.57	-
Follow-up Hdwy	2.254	-	-	-	3.653	3.3
Pot Cap-1 Maneuver	1351	-	-	-	598	894
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1350	-	-	-	554	892
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1350	-	-	-	713
HCM Lane V/C Ratio	0.067	-	-	-	0.174
HCM Control Delay (s)	7.9	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	160	153	51	31	19
Future Vol, veh/h	38	160	153	51	31	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	41	174	166	55	34	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	221	0	-	0	450	194
Stage 1	-	-	-	-	194	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1360	-	-	-	571	853
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1360	-	-	-	554	853
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1360	-	-	-	554	853
HCM Lane V/C Ratio	0.03	-	-	-	0.061	0.024
HCM Control Delay (s)	7.7	-	-	-	11.9	9.3
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	65	1	106	1	413	102	95	358	1
Future Vol, veh/h	1	1	1	65	1	106	1	413	102	95	358	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	1	0	6	1	5	5	0
Mvmt Flow	1	1	1	71	1	115	1	449	111	103	389	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	823	1158	195	852	1047	225	390	0	0	560	0	0
Stage 1	596	596	-	451	451	-	-	-	-	-	-	-
Stage 2	227	562	-	401	596	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.3	7.3	7.32	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.2	-	-	2.25	-	-
Pot Cap-1 Maneuver	295	225	829	212	182	762	1180	-	-	987	-	-
Stage 1	494	529	-	509	520	-	-	-	-	-	-	-
Stage 2	780	546	-	551	434	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	229	201	829	194	163	762	1180	-	-	987	-	-
Mov Cap-2 Maneuver	229	201	-	194	163	-	-	-	-	-	-	-
Stage 1	494	474	-	508	519	-	-	-	-	-	-	-
Stage 2	660	545	-	492	389	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	19.7	0	1.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1180	-	-	284	193	762	987	-	-
HCM Lane V/C Ratio	0.001	-	-	0.011	0.372	0.151	0.105	-	-
HCM Control Delay (s)	8.1	-	-	17.8	34.3	10.6	9.1	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1.6	0.5	0.3	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	3	5	1	18	13	498	10	15	405	3
Future Vol, veh/h	1	1	3	5	1	18	13	498	10	15	405	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	6	0	5	0	0	4	0
Mvmt Flow	1	1	3	5	1	20	14	541	11	16	440	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	773	1054	222	822	1044	271	443	0	0	552	0	0
Stage 1	474	474	-	569	569	-	-	-	-	-	-	-
Stage 2	299	580	-	253	475	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.32	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	236	170	764	235	194	699	1128	-	-	1028	-	-
Stage 1	478	492	-	436	463	-	-	-	-	-	-	-
Stage 2	636	428	-	704	518	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	165	764	228	189	699	1128	-	-	1028	-	-
Mov Cap-2 Maneuver	223	165	-	228	189	-	-	-	-	-	-	-
Stage 1	472	484	-	431	457	-	-	-	-	-	-	-
Stage 2	609	423	-	689	510	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	13.2	0.2	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1128	-	-	346	228	612	1028	-	-
HCM Lane V/C Ratio	0.013	-	-	0.016	0.024	0.034	0.016	-	-
HCM Control Delay (s)	8.2	-	-	15.6	21.2	11.1	8.6	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	126	17	81	2	3	3	116	392	31	7	353	53
Future Vol, veh/h	126	17	81	2	3	3	116	392	31	7	353	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	3	0	0	33	1	5	0	0	3	8
Mvmt Flow	137	18	88	2	3	3	126	426	34	8	384	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	867	1112	192	895	1136	213	442	0	0	460	0	0
Stage 1	400	400	-	678	678	-	-	-	-	-	-	-
Stage 2	467	712	-	217	458	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.96	7.5	6.5	7.56	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.33	3.5	4	3.63	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	247	211	814	239	204	705	1122	-	-	1112	-	-
Stage 1	597	605	-	413	455	-	-	-	-	-	-	-
Stage 2	545	439	-	771	570	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	221	186	814	179	180	705	1122	-	-	1112	-	-
Mov Cap-2 Maneuver	221	186	-	179	180	-	-	-	-	-	-	-
Stage 1	530	601	-	367	404	-	-	-	-	-	-	-
Stage 2	478	390	-	662	566	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.7	19.7	1.9	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1122	-	-	221	186	814	179	287	1112	-	-
HCM Lane V/C Ratio	0.112	-	-	0.62	0.099	0.108	0.012	0.023	0.007	-	-
HCM Control Delay (s)	8.6	-	-	44.6	26.5	10	25.4	17.8	8.3	-	-
HCM Lane LOS	A	-	-	E	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	3.6	0.3	0.4	0	0.1	0	-	-

LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 FB PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Conditions
PM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	223	0.5	223	0.5	570	0.391	100	12.2	LOS B	2.2	55.7	Full	1600	0.0	0.0
Lane 2	77	0.0	77	0.0	376	0.205	100	13.0	LOS B	0.9	22.4	Short	250	0.0	NA
Approach	300	0.3	300	0.3		0.391		12.4	LOS B	2.2	55.7				
East: Lee Hwy (WB)															
Lane 1	625	1.7	625	1.7	888	0.703	100	16.2	LOS B	10.0	252.3	Full	1600	0.0	0.0
Lane 2[d]	758	2.0	758	2.0	1078	0.703	100	14.0	LOS B	10.5	267.5	Full	1600	0.0	0.0
Approach	1382	1.9	1382	1.9		0.703		15.0	LOS B	10.5	267.5				
North: Broadview Ave (SB)															
Lane 1	340	0.7	340	0.7	435	0.780	100	35.1	LOS D	6.4	161.1	Short	215	0.0	NA
Lane 2[d]	402	4.0	402	4.0	498	0.808	100	34.4	LOS C	7.4	190.7	Full	1600	0.0	0.0
Approach	742	2.5	742	2.5		0.808		34.7	LOS C	7.4	190.7				
West: Broadview Ave (EB)															
Lane 1	538	2.5	538	2.5	923	0.583	100	11.9	LOS B	6.2	158.2	Full	1600	0.0	0.0
Lane 2[d]	652	1.9	652	1.9	1118	0.583	100	10.4	LOS B	6.2	158.3	Full	1600	0.0	0.0
Approach	1191	2.1	1191	2.1		0.583		11.1	LOS B	6.2	158.3				
All Vehicles	3615	2.0	3615	2.0		0.808		17.6	LOS B	10.5	267.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	122	101	-	223	0.5		570	0.391	100	NA	NA
Lane 2	-	-	77	77	0.0		376	0.205	100	0.0	1
Approach	122	101	77	300	0.3			0.391			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	70	544	-	625	1.7	888	0.703	100	NA	NA
Lane 2	-	-	635	123	758	2.0	1078	0.703	100	NA	NA
Approach	10	70	1179	123	1382	1.9		0.703			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	249	91	-	340	0.7		435	0.780	100	0.0	2
Lane 2	-	-	402	402	4.0		498	0.808	100	NA	NA
Approach	249	91	402	742	2.5			0.808			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	273	263	-	538	2.5	923	0.583	100	NA	NA
Lane 2	-	-	606	46	652	1.9	1118	0.583	100	NA	NA
Approach	2	273	870	46	1191	2.1		0.583			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	3615	2.0	0.808

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

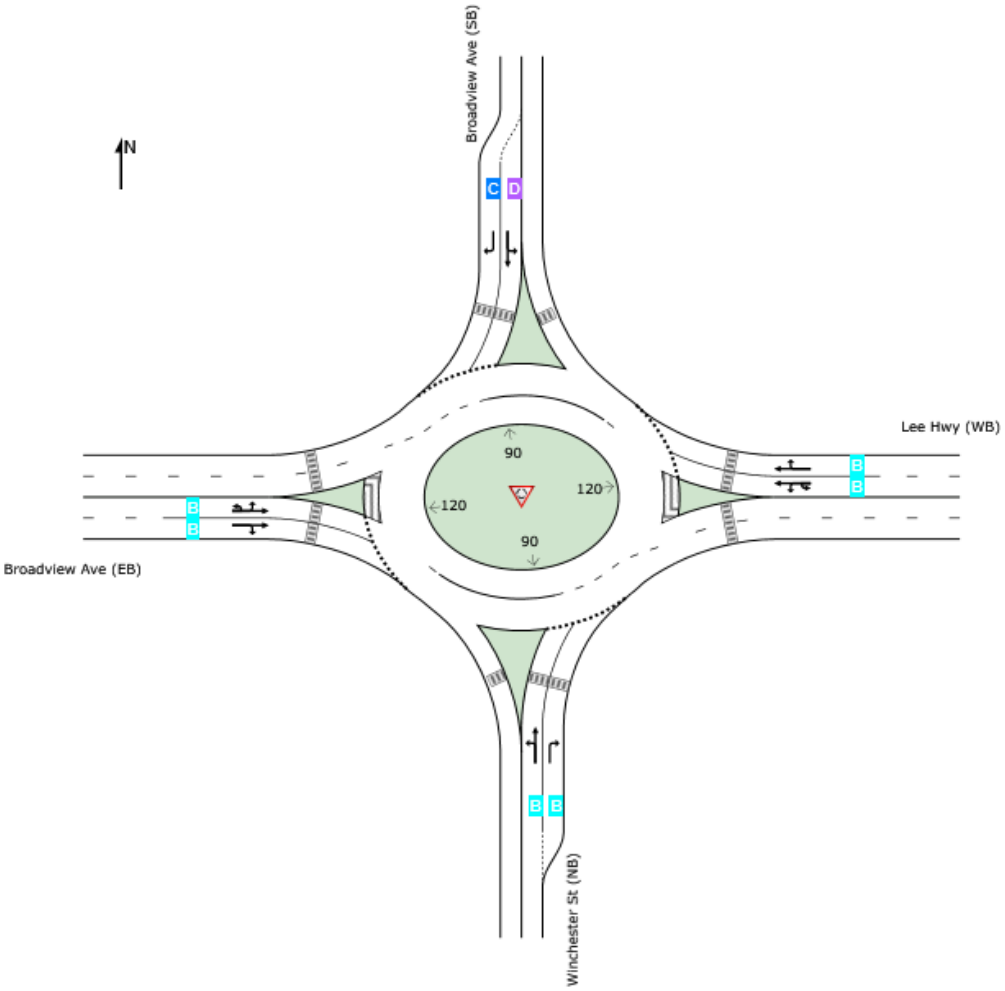
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 FB PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future Background Conditions
PM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	C	B	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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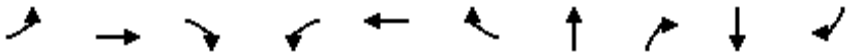
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1075	83	0	1247	102	0	0	25	0	0	79
Future Vol, veh/h	0	1075	83	0	1247	102	0	0	25	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	2	0	0	0	4	0	0	0
Mvmt Flow	0	1156	89	0	1341	110	0	0	27	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	578	-	-	675
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.28	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	433	0	0	493
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	433	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.9	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	433	-	-	-	-	491
HCM Lane V/C Ratio	0.062	-	-	-	-	0.173
HCM Control Delay (s)	13.9	-	-	-	-	13.9
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	149	1006	2	68	1241	88	36	79	165	152
v/c Ratio	0.72	0.47	0.00	0.54	0.67	0.10	0.31	0.30	0.76	0.45
Control Delay	82.8	20.6	0.0	82.0	30.0	0.2	72.2	3.0	85.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	20.6	0.0	82.0	30.0	0.2	72.2	3.0	85.8	10.8
Queue Length 50th (ft)	148	310	0	68	475	0	36	0	164	0
Queue Length 95th (ft)	224	441	0	123	675	0	73	0	249	58
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	260	2159	993	157	1850	906	202	327	250	363
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.47	0.00	0.43	0.67	0.10	0.18	0.24	0.66	0.42

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	9	133	956	2	65	1179	84	17	17	75	139	18
Future Volume (vph)	9	133	956	2	65	1179	84	17	17	75	139	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	1.00	0.97	1.00	1.00	0.98		1.00	1.00		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1807	3682	1602	1787	3504	1558		1854	1615		1813
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	140	1006	2	68	1241	88	18	18	79	146	19
RTOR Reduction (vph)	0	0	0	1	0	0	41	0	0	74	0	0
Lane Group Flow (vph)	0	149	1006	1	68	1241	47	0	36	5	0	165
Confl. Peds. (#/hr)				2			2					
Heavy Vehicles (%)	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		17.2	86.7	86.7	9.3	79.3	79.3		9.5	9.5		17.9
Effective Green, g (s)		17.2	86.7	86.7	9.3	79.3	79.3		9.5	9.5		17.9
Actuated g/C Ratio		0.11	0.58	0.58	0.06	0.53	0.53		0.06	0.06		0.12
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		207	2128	925	110	1852	823		117	102		216
v/s Ratio Prot		c0.08	0.27		0.04	c0.35			c0.02			c0.09
v/s Ratio Perm				0.00			0.03			0.00		
v/c Ratio		0.72	0.47	0.00	0.62	0.67	0.06		0.31	0.05		0.76
Uniform Delay, d1		64.1	18.4	13.4	68.6	25.8	17.2		67.1	66.0		64.0
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		11.4	0.8	0.0	9.9	1.9	0.1		1.5	0.2		14.8
Delay (s)		75.4	19.1	13.4	78.5	27.8	17.3		68.6	66.2		78.8
Level of Service		E	B	B	E	C	B		E	E		E
Approach Delay (s)			26.4			29.6			67.0			69.3
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	34.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	144
Future Volume (vph)	144
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1607
Flt Permitted	1.00
Satd. Flow (perm)	1607
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	152
RTOR Reduction (vph)	134
Lane Group Flow (vph)	18
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	1%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.9
Effective Green, g (s)	17.9
Actuated g/C Ratio	0.12
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	191
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.09
Uniform Delay, d1	58.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	59.1
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	77	116	45	50	41	94	45	12	48	42	32
Future Vol, veh/h	17	77	116	45	50	41	94	45	12	48	42	32
Conflicting Peds, #/hr	0	0	14	14	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	2	5	0	2	0	0	3	0
Mvmt Flow	18	80	121	47	52	43	98	47	13	50	44	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	407	417	53	426	427	30	77	0	0	60	0	0
Stage 1	161	161	-	250	250	-	-	-	-	-	-	-
Stage 2	246	256	-	176	177	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.14	7.1	6.14	6.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.5	4.02	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	639	637	1015	542	544	1030	1535	-	-	1556	-	-
Stage 1	893	826	-	759	718	-	-	-	-	-	-	-
Stage 2	827	784	-	831	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	521	575	1003	390	491	1030	1535	-	-	1556	-	-
Mov Cap-2 Maneuver	521	575	-	390	491	-	-	-	-	-	-	-
Stage 1	834	798	-	709	671	-	-	-	-	-	-	-
Stage 2	683	732	-	628	741	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	14.3	4.7	2.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	744	529	1556	-	-
HCM Lane V/C Ratio	0.064	-	-	0.294	0.268	0.032	-	-
HCM Control Delay (s)	7.5	0	-	11.8	14.3	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	1.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	3	109	86	31	116	2	62	2	39	1	5	1
Future Vol, veh/h	3	109	86	31	116	2	62	2	39	1	5	1
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	0	4	1	0	3	0	3	0	0	0
Mvmt Flow	3	118	93	34	126	2	67	2	42	1	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	211	0	0	369	371	167	394	416	131
Stage 1	-	-	-	-	-	-	171	171	-	199	199	-
Stage 2	-	-	-	-	-	-	198	200	-	195	217	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.53	6.9	6.43	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.527	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1466	-	-	1348	-	-	562	539	867	635	595	941
Stage 1	-	-	-	-	-	-	813	747	-	853	782	-
Stage 2	-	-	-	-	-	-	784	723	-	857	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1461	-	-	1348	-	-	545	522	866	585	576	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	545	522	-	585	576	-
Stage 1	-	-	-	-	-	-	811	746	-	849	759	-
Stage 2	-	-	-	-	-	-	756	701	-	810	770	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.6	11.4	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	544	866	1461	-	-	1348	-	-	611
HCM Lane V/C Ratio	0.128	0.049	0.002	-	-	0.025	-	-	0.012
HCM Control Delay (s)	12.6	9.4	7.5	0	-	7.7	0	-	11
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.2	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	131	164	14	67	52
Future Vol, veh/h	42	131	164	14	67	52
Conflicting Peds, #/hr	1	0	0	1	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-3	1	-	-5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	0	0	2
Mvmt Flow	46	142	178	15	73	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	194	0	-	0	423	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	4.12	-	-	-	5.4	5.72
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	1379	-	-	-	665	878
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	863	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1378	-	-	-	640	877
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	862	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1378	-	-	-	726
HCM Lane V/C Ratio	0.033	-	-	-	0.178
HCM Control Delay (s)	7.7	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	162	214	2	11	27
Future Vol, veh/h	5	162	214	2	11	27
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	5	176	233	2	12	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	236	0	-	0	421	235
Stage 1	-	-	-	-	235	-
Stage 2	-	-	-	-	186	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1343	-	-	-	593	809
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1342	-	-	-	589	808
Mov Cap-2 Maneuver	-	-	-	-	589	-
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	850	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1342	-	-	-	589	808
HCM Lane V/C Ratio	0.004	-	-	-	0.02	0.036
HCM Control Delay (s)	7.7	-	-	-	11.2	9.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	4	102	1	139	2	375	80	86	508	2
Future Vol, veh/h	2	1	4	102	1	139	2	375	80	86	508	2
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	0	2	0	3	4	1	4	0
Mvmt Flow	2	1	4	111	1	151	2	408	87	93	552	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	952	1243	281	876	1157	205	558	0	0	496	0	0
Stage 1	743	743	-	413	413	-	-	-	-	-	-	-
Stage 2	209	500	-	463	744	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.32	7.3	7.34	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.32	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	241	202	733	201	153	784	1023	-	-	1071	-	-
Stage 1	410	461	-	538	545	-	-	-	-	-	-	-
Stage 2	798	578	-	497	360	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	180	183	731	185	139	783	1020	-	-	1070	-	-
Mov Cap-2 Maneuver	180	183	-	185	139	-	-	-	-	-	-	-
Stage 1	408	420	-	536	543	-	-	-	-	-	-	-
Stage 2	641	576	-	450	328	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.6	27.9	0	1.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1020	-	-	317	184	783	1070	-	-
HCM Lane V/C Ratio	0.002	-	-	0.024	0.608	0.193	0.087	-	-
HCM Control Delay (s)	8.5	-	-	16.6	51	10.7	8.7	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.4	0.7	0.3	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1	17	33	1	38	15	409	15	41	567	6
Future Vol, veh/h	10	1	17	33	1	38	15	409	15	41	567	6
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	5	0	3	0	0	3	0
Mvmt Flow	11	1	18	36	1	41	16	445	16	45	616	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	970	1208	317	876	1195	223	628	0	0	461	0	0
Stage 1	715	715	-	477	477	-	-	-	-	-	-	-
Stage 2	255	493	-	399	718	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	161	132	655	213	154	757	964	-	-	1111	-	-
Stage 1	322	359	-	502	517	-	-	-	-	-	-	-
Stage 2	683	480	-	565	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	144	124	652	197	145	757	960	-	-	1111	-	-
Mov Cap-2 Maneuver	144	124	-	197	145	-	-	-	-	-	-	-
Stage 1	315	343	-	493	508	-	-	-	-	-	-	-
Stage 2	634	472	-	525	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20	18.3	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	960	-	-	270	197	683	1111	-	-
HCM Lane V/C Ratio	0.017	-	-	0.113	0.182	0.062	0.04	-	-
HCM Control Delay (s)	8.8	-	-	20	27.3	10.6	8.4	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.6	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	103	61	173	43	27	25	88	311	77	7	496	114
Future Vol, veh/h	103	61	173	43	27	25	88	311	77	7	496	114
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	1	0	0	0	1	3	0	0	4	1
Mvmt Flow	112	66	188	47	29	27	96	338	84	8	539	124

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	937	1172	270	852	1212	178	663	0	0	425	0	0
Stage 1	555	555	-	533	533	-	-	-	-	-	-	-
Stage 2	382	617	-	319	679	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.92	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.31	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	219	194	731	256	184	841	928	-	-	1145	-	-
Stage 1	484	516	-	503	528	-	-	-	-	-	-	-
Stage 2	612	484	-	673	454	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	172	731	122	164	835	928	-	-	1142	-	-
Mov Cap-2 Maneuver	167	172	-	122	164	-	-	-	-	-	-	-
Stage 1	434	512	-	450	473	-	-	-	-	-	-	-
Stage 2	495	433	-	432	451	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.9	35.5	1.7	0.1
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	928	-	-	167	172	731	122	267	1142	-	-
HCM Lane V/C Ratio	0.103	-	-	0.67	0.385	0.257	0.383	0.212	0.007	-	-
HCM Control Delay (s)	9.3	-	-	62	38.5	11.6	51.8	22.1	8.2	-	-
HCM Lane LOS	A	-	-	F	E	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.9	1.7	1	1.6	0.8	0	-	-

I. 2027 Future Conditions with Development – Capacity Analysis Worksheets

LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 TF AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
AM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	203	4.5	203	4.5	569	0.357	100	11.5	LOS B	1.8	46.7	Full	1600	0.0	0.0
Lane 2	87	4.0	87	4.0	397	0.219	100	12.7	LOS B	0.9	22.9	Short	250	0.0	NA
Approach	290	4.3	290	4.3		0.357		11.9	LOS B	1.8	46.7				
East: Lee Hwy (WB)															
Lane 1	418	7.2	418	7.2	813	0.514	100	11.4	LOS B	4.4	115.6	Full	1600	0.0	0.0
Lane 2[d]	517	6.5	517	6.5	1005	0.514	100	9.8	LOS A	4.5	117.1	Full	1600	0.0	0.0
Approach	935	6.8	935	6.8		0.514		10.5	LOS B	4.5	117.1				
North: Broadview Ave (SB)															
Lane 1[d]	253	3.6	253	3.6	717	0.353	100	9.5	LOS A	1.8	47.0	Short	215	0.0	NA
Lane 2	251	3.0	251	3.0	653	0.385	100	10.8	LOS B	2.1	52.8	Full	1600	0.0	0.0
Approach	504	3.3	504	3.3		0.385		10.1	LOS B	2.1	52.8				
West: Broadview Ave (EB)															
Lane 1	549	4.5	549	4.5	1025	0.535	100	10.0	LOS A	4.3	111.1	Full	1600	0.0	0.0
Lane 2[d]	646	3.9	646	3.9	1207	0.535	100	8.9	LOS A	4.5	115.6	Full	1600	0.0	0.0
Approach	1195	4.2	1195	4.2		0.535		9.4	LOS A	4.5	115.6				
All Vehicles	2924	4.9	2924	4.9		0.535		10.1	LOS B	4.5	117.1				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	84	120	-	203	4.5		569	0.357	100	NA	NA
Lane 2	-	-	87	87	4.0		397	0.219	100	0.0	1
Approach	84	120	87	290	4.3			0.357			

East: Lee Hwy (WB)

Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	3	38	377	-	418	7.2	813	0.514	100	NA	NA
Lane 2	-	-	326	191	517	6.5	1005	0.514	100	NA	NA
Approach	3	38	702	191	935	6.8		0.514			

North: Broadview Ave (SB)

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	137	116	-	253	3.6	717	0.353	100	0.0	2
Lane 2	-	-	251	251	3.0	653	0.385	100	NA	NA
Approach	137	116	251	504	3.3		0.385			

West: Broadview Ave (EB)

Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	286	257	-	549	4.5	1025	0.535	100	NA	NA
Lane 2	-	-	610	36	646	3.9	1207	0.535	100	NA	NA
Approach	5	286	867	36	1195	4.2		0.535			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2924	4.9	0.535

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

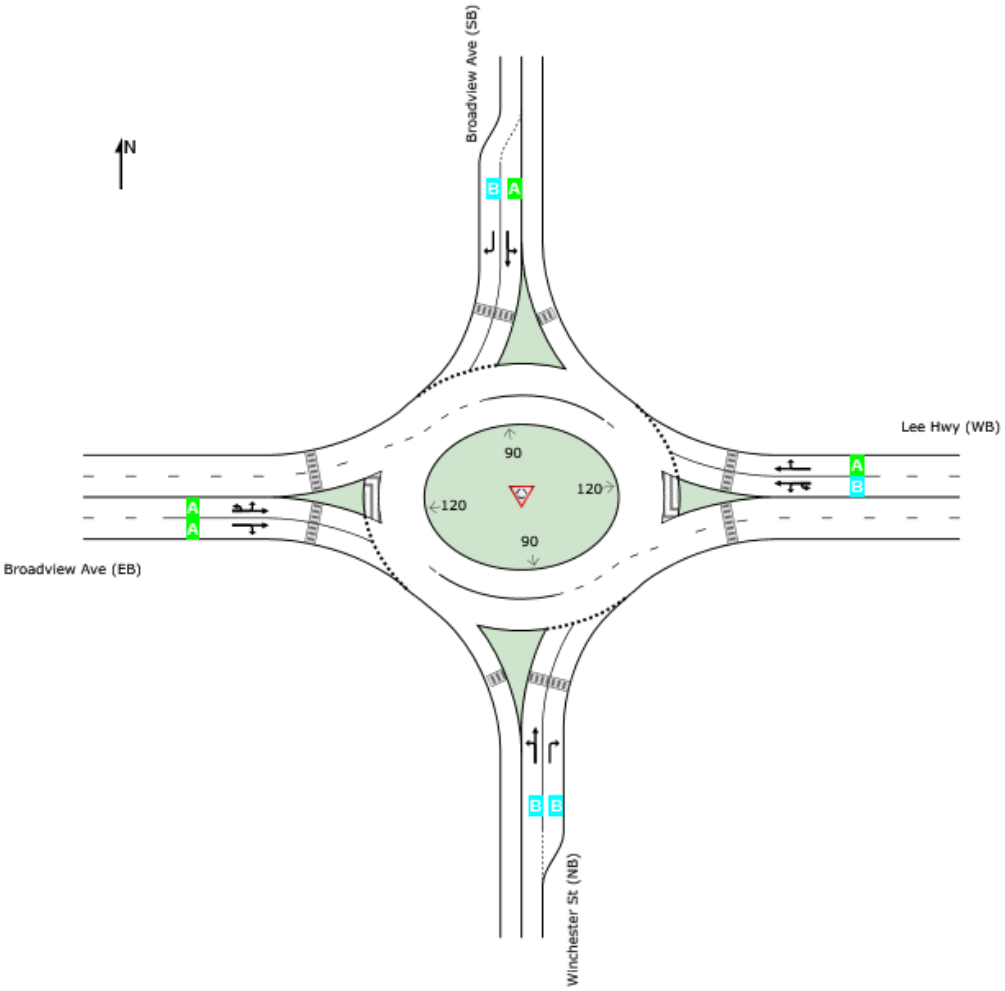
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 TF AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
AM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	B	A	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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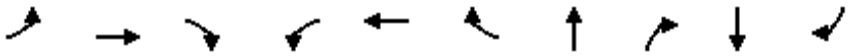
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	944	63	0	839	32	0	0	29	0	0	21
Future Vol, veh/h	0	944	63	0	839	32	0	0	29	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	7	0	0	0	3	0	0	0
Mvmt Flow	0	1026	68	0	912	35	0	0	32	0	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	513	-	-	456
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.26	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	483	0	0	640
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	483	-	-	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	483	-	-	-	-	640
HCM Lane V/C Ratio	0.065	-	-	-	-	0.036
HCM Control Delay (s)	13	-	-	-	-	10.8
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	42	1015	1	48	872	75	23	41	110	57
v/c Ratio	0.37	0.47	0.00	0.41	0.42	0.07	0.17	0.17	0.62	0.23
Control Delay	71.3	19.4	0.0	72.4	18.1	0.1	60.7	1.6	74.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.3	19.4	0.0	72.4	18.1	0.1	60.7	1.6	74.9	2.2
Queue Length 50th (ft)	39	273	0	44	221	0	21	0	102	0
Queue Length 95th (ft)	80	485	0	88	400	0	47	0	163	0
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	199	2178	1063	227	2104	1047	261	338	200	259
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.47	0.00	0.21	0.41	0.07	0.09	0.12	0.55	0.22

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	7	31	934	1	44	802	69	10	11	38	93	8
Future Volume (vph)	7	31	934	1	44	802	69	10	11	38	93	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1793	3541	1647	1752	3372	1599		1856	1615		1777
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1793	3541	1647	1752	3372	1599		1856	1615		1777
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	1015	1	48	872	75	11	12	41	101	9
RTOR Reduction (vph)	0	0	0	0	0	0	30	0	0	38	0	0
Lane Group Flow (vph)	0	42	1015	1	48	872	45	0	23	3	0	110
Heavy Vehicles (%)	14%	0%	4%	0%	2%	6%	0%	0%	0%	0%	3%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		7.7	83.0	83.0	8.1	83.9	83.9		8.9	8.9		14.0
Effective Green, g (s)		7.7	83.0	83.0	8.1	83.9	83.9		8.9	8.9		14.0
Actuated g/C Ratio		0.06	0.59	0.59	0.06	0.60	0.60		0.06	0.06		0.10
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.0	6.0		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		98	2099	976	101	2020	958		117	102		177
v/s Ratio Prot		0.02	c0.29		c0.03	0.26			c0.01			c0.06
v/s Ratio Perm				0.00			0.03			0.00		
v/c Ratio		0.43	0.48	0.00	0.48	0.43	0.05		0.20	0.03		0.62
Uniform Delay, d1		64.0	16.3	11.6	63.9	15.2	11.6		62.2	61.5		60.5
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		3.0	0.8	0.0	3.5	0.7	0.1		0.8	0.1		6.6
Delay (s)		67.0	17.1	11.6	67.4	15.8	11.7		63.0	61.6		67.1
Level of Service		E	B	B	E	B	B		E	E		E
Approach Delay (s)			19.0			18.0			62.1			63.7
Approach LOS			B			B			E			E

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1375
Flt Permitted	1.00
Satd. Flow (perm)	1375
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	57
RTOR Reduction (vph)	51
Lane Group Flow (vph)	6
Heavy Vehicles (%)	18%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	14.0
Effective Green, g (s)	14.0
Actuated g/C Ratio	0.10
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	137
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	56.9
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	57.1
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	6	15	44	14	11	14	24	84	7	18	122	5
Future Vol, veh/h	6	15	44	14	11	14	24	84	7	18	122	5
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	9	0	0	0	0	0	13	0
Mvmt Flow	7	16	48	15	12	15	26	91	8	20	133	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	280	327	71	264	325	50	138	0	0	99	0	0
Stage 1	176	176	-	147	147	-	-	-	-	-	-	-
Stage 2	104	151	-	117	178	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.1	7.1	6.28	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.28	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.09	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	743	688	999	693	597	1017	1458	-	-	1507	-	-
Stage 1	881	819	-	860	770	-	-	-	-	-	-	-
Stage 2	939	830	-	892	749	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	702	665	997	630	577	1017	1458	-	-	1507	-	-
Mov Cap-2 Maneuver	702	665	-	630	577	-	-	-	-	-	-	-
Stage 1	864	808	-	844	755	-	-	-	-	-	-	-
Stage 2	893	814	-	819	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.4	1.6	0.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	864	708	1507	-	-
HCM Lane V/C Ratio	0.018	-	-	0.082	0.06	0.013	-	-
HCM Control Delay (s)	7.5	0	-	9.5	10.4	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	1	91	128	16	111	1	90	1	14	1	1	1
Future Vol, veh/h	1	91	128	16	111	1	90	1	14	1	1	1
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	11	7	1	0	0	0	0	0	0	0
Mvmt Flow	1	99	139	17	121	1	98	1	15	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	126	0	0	239	0	0	329	332	172	341	401	126
Stage 1	-	-	-	-	-	-	172	172	-	160	160	-
Stage 2	-	-	-	-	-	-	157	160	-	181	241	-
Critical Hdwy	4.1	-	-	4.17	-	-	7.5	6.9	6.4	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.263	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1473	-	-	1299	-	-	606	570	869	678	604	946
Stage 1	-	-	-	-	-	-	819	746	-	885	804	-
Stage 2	-	-	-	-	-	-	835	756	-	868	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1298	-	-	597	559	867	654	593	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	559	-	654	593	-
Stage 1	-	-	-	-	-	-	817	745	-	881	790	-
Stage 2	-	-	-	-	-	-	821	743	-	849	757	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	11.8	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	597	867	1468	-	-	1298	-	-	702
HCM Lane V/C Ratio	0.166	0.018	0.001	-	-	0.013	-	-	0.005
HCM Control Delay (s)	12.2	9.2	7.5	0	-	7.8	0	-	10.2
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	83	170	1	2	156	44	5	1	2	47	1	67
Future Vol, veh/h	83	170	1	2	156	44	5	1	2	47	1	67
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	1	2	2	1	0	2	2	2	17	2	0
Mvmt Flow	90	185	1	2	170	48	5	1	2	51	1	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	186	0	0	603	589	186	566	565	197
Stage 1	-	-	-	-	-	-	366	366	-	199	199	-
Stage 2	-	-	-	-	-	-	237	223	-	367	366	-
Critical Hdwy	4.16	-	-	4.12	-	-	7.12	6.52	6.22	6.27	5.52	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.27	4.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.27	4.52	-
Follow-up Hdwy	2.254	-	-	2.218	-	-	3.518	4.018	3.318	3.653	4.018	3.3
Pot Cap-1 Maneuver	1327	-	-	1388	-	-	411	421	856	483	508	873
Stage 1	-	-	-	-	-	-	653	623	-	813	778	-
Stage 2	-	-	-	-	-	-	766	719	-	690	689	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1326	-	-	1388	-	-	353	388	856	452	468	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	388	-	452	468	-
Stage 1	-	-	-	-	-	-	603	576	-	750	776	-
Stage 2	-	-	-	-	-	-	698	717	-	635	637	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0.1	13.8	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	419	1326	-	-	1388	-	-	628
HCM Lane V/C Ratio	0.021	0.068	-	-	0.002	-	-	0.199
HCM Control Delay (s)	13.8	7.9	0	-	7.6	0	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	161	6	19	158	51	20	1	62	31	1	19
Future Vol, veh/h	38	161	6	19	158	51	20	1	62	31	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	3	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	2	2	1	0	2	2	2	0	2	0
Mvmt Flow	41	175	7	21	172	55	22	1	67	34	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	227	0	0	182	0	0	514	530	179	537	506	200
Stage 1	-	-	-	-	-	-	261	261	-	242	242	-
Stage 2	-	-	-	-	-	-	253	269	-	295	264	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1353	-	-	1393	-	-	471	455	864	458	469	846
Stage 1	-	-	-	-	-	-	744	692	-	766	705	-
Stage 2	-	-	-	-	-	-	751	687	-	718	690	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1353	-	-	1393	-	-	442	434	864	406	447	846
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	434	-	406	447	-
Stage 1	-	-	-	-	-	-	722	671	-	743	693	-
Stage 2	-	-	-	-	-	-	719	675	-	641	669	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.6	10.9	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	696	1353	-	-	1393	-	-	407	846
HCM Lane V/C Ratio	0.13	0.031	-	-	0.015	-	-	0.085	0.024
HCM Control Delay (s)	10.9	7.7	-	-	7.6	0	-	14.7	9.4
HCM Lane LOS	B	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	80	1	116	1	415	107	97	359	1
Future Vol, veh/h	1	1	1	80	1	116	1	415	107	97	359	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	1	0	6	1	5	5	0
Mvmt Flow	1	1	1	87	1	126	1	451	116	105	390	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	829	1170	196	859	1054	226	391	0	0	567	0	0
Stage 1	601	601	-	453	453	-	-	-	-	-	-	-
Stage 2	228	569	-	406	601	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.3	7.3	7.32	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.3	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.2	-	-	2.25	-	-
Pot Cap-1 Maneuver	292	222	828	209	180	761	1179	-	-	981	-	-
Stage 1	491	527	-	507	518	-	-	-	-	-	-	-
Stage 2	779	542	-	546	431	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	198	828	191	161	761	1179	-	-	981	-	-
Mov Cap-2 Maneuver	223	198	-	191	161	-	-	-	-	-	-	-
Stage 1	491	471	-	506	517	-	-	-	-	-	-	-
Stage 2	648	541	-	486	385	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1	22.3	0	1.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1179	-	-	279	191	761	981	-	-
HCM Lane V/C Ratio	0.001	-	-	0.012	0.461	0.166	0.107	-	-
HCM Control Delay (s)	8.1	-	-	18.1	39	10.7	9.1	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.2	0.6	0.4	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	3	17	1	20	13	503	14	16	420	3
Future Vol, veh/h	1	1	3	17	1	20	13	503	14	16	420	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	6	0	5	0	0	4	0
Mvmt Flow	1	1	3	18	1	22	14	547	15	17	457	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	795	1083	230	838	1069	274	460	0	0	562	0	0
Stage 1	493	493	-	575	575	-	-	-	-	-	-	-
Stage 2	302	590	-	263	494	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.32	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	226	162	754	228	187	696	1112	-	-	1019	-	-
Stage 1	464	480	-	432	460	-	-	-	-	-	-	-
Stage 2	633	423	-	694	506	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	157	754	221	181	696	1112	-	-	1019	-	-
Mov Cap-2 Maneuver	213	157	-	221	181	-	-	-	-	-	-	-
Stage 1	458	472	-	426	454	-	-	-	-	-	-	-
Stage 2	604	418	-	678	497	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	16.3	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1112	-	-	332	221	613	1019	-	-
HCM Lane V/C Ratio	0.013	-	-	0.016	0.084	0.037	0.017	-	-
HCM Control Delay (s)	8.3	-	-	16	22.8	11.1	8.6	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	126	17	81	3	3	3	116	401	32	7	380	53
Future Vol, veh/h	126	17	81	3	3	3	116	401	32	7	380	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	3	0	0	33	1	5	0	0	3	8
Mvmt Flow	137	18	88	3	3	3	126	436	35	8	413	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	901	1152	207	920	1175	218	471	0	0	471	0	0
Stage 1	429	429	-	688	688	-	-	-	-	-	-	-
Stage 2	472	723	-	232	487	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.96	7.5	6.5	7.56	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.33	3.5	4	3.63	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	233	199	796	229	193	699	1094	-	-	1101	-	-
Stage 1	574	587	-	407	450	-	-	-	-	-	-	-
Stage 2	542	434	-	756	554	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	207	175	796	170	170	699	1094	-	-	1101	-	-
Mov Cap-2 Maneuver	207	175	-	170	170	-	-	-	-	-	-	-
Stage 1	508	583	-	360	398	-	-	-	-	-	-	-
Stage 2	473	384	-	646	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.5	21.2	1.8	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1094	-	-	207	175	796	170	273	1101	-	-
HCM Lane V/C Ratio	0.115	-	-	0.662	0.106	0.111	0.019	0.024	0.007	-	-
HCM Control Delay (s)	8.7	-	-	51	28	10.1	26.6	18.5	8.3	-	-
HCM Lane LOS	A	-	-	F	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	4	0.3	0.4	0.1	0.1	0	-	-

LANE LEVEL OF SERVICE

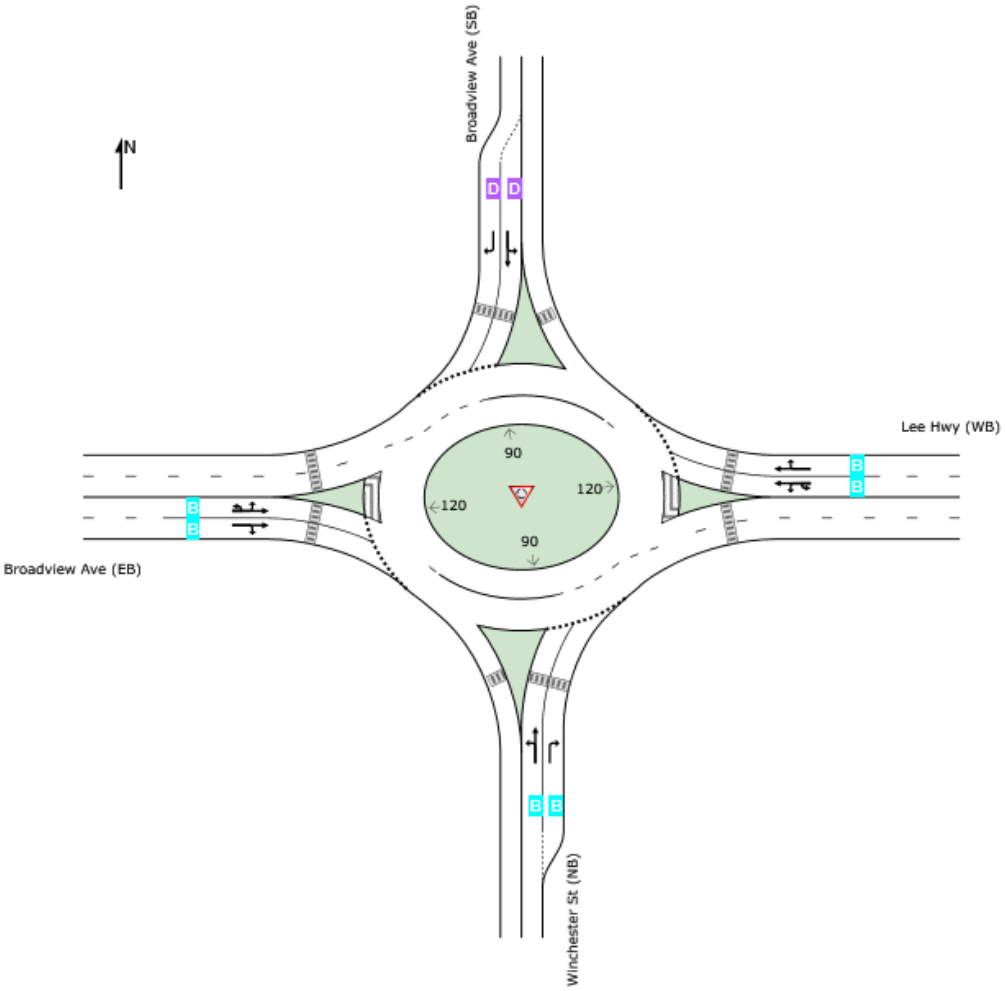
Lane Level of Service

Site: 101 [Broadview/Winchester/Lee - 2027 TF PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
PM Peak Hour
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	D	B	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [Broadview/Winchester/Lee - 2027 TF PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Warrenton Village Center
2027 Future with Development
PM Peak Hour
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Winchester St (NB)															
Lane 1[d]	235	0.5	235	0.5	556	0.423	100	13.2	LOS B	2.5	62.1	Full	1600	0.0	0.0
Lane 2	77	0.0	77	0.0	361	0.214	100	13.7	LOS B	0.9	23.2	Short	250	0.0	NA
Approach	313	0.4	313	0.4		0.423		13.3	LOS B	2.5	62.1				
East: Lee Hwy (WB)															
Lane 1	623	1.7	623	1.7	857	0.726	100	17.7	LOS B	10.7	271.5	Full	1600	0.0	0.0
Lane 2[d]	761	2.0	761	2.0	1047	0.726	100	15.3	LOS B	11.5	291.4	Full	1600	0.0	0.0
Approach	1383	1.9	1383	1.9		0.726		16.3	LOS B	11.5	291.4				
North: Broadview Ave (SB)															
Lane 1	347	0.7	347	0.7	426	0.815	100	39.5	LOS D	7.1	177.8	Short	215	0.0	NA
Lane 2[d]	413	4.0	413	4.0	487	0.848	100	39.7	LOS D	8.4	216.0	Full	1600	0.0	0.0
Approach	759	2.5	759	2.5		0.848		39.6	LOS D	8.4	216.0				
West: Broadview Ave (EB)															
Lane 1	547	2.5	547	2.5	913	0.599	100	12.4	LOS B	6.7	169.7	Full	1600	0.0	0.0
Lane 2[d]	664	1.9	664	1.9	1108	0.599	100	10.8	LOS B	6.8	171.5	Full	1600	0.0	0.0
Approach	1210	2.2	1210	2.2		0.599		11.5	LOS B	6.8	171.5				
All Vehicles	3666	2.0	3666	2.0		0.848		19.3	LOS B	11.5	291.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Winchester St (NB)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	122	114	-	235	0.5		556	0.423	100	NA	NA
Lane 2	-	-	77	77	0.0		361	0.214	100	0.0	1
Approach	122	114	77	313	0.4			0.423			
East: Lee Hwy (WB)											
Mov. From E To Exit:	U E	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	70	543	-	623	1.7	857	0.726	100	NA	NA
Lane 2	-	-	638	123	761	2.0	1047	0.726	100	NA	NA
Approach	10	70	1180	123	1383	1.9		0.726			
North: Broadview Ave (SB)											
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	249	98	-	347	0.7		426	0.815	100	0.0	2
Lane 2	-	-	413	413	4.0		487	0.848	100	NA	NA
Approach	249	98	413	759	2.5			0.848			
West: Broadview Ave (EB)											
Mov. From W To Exit:	U W	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	293	252	-	547	2.5	913	0.599	100	NA	NA
Lane 2	-	-	618	46	664	1.9	1108	0.599	100	NA	NA
Approach	2	293	870	46	1210	2.2		0.599			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	3666	2.0	0.848

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Winchester St (NB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Lee Hwy (WB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Broadview Ave (SB)				
Lane 1	0.0	0.0	0.0	0.0

Lane 2	0.0	0.0	0.0	0.0
West: Broadview Ave (EB)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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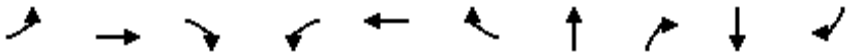
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1075	83	0	1247	104	0	0	25	0	0	80
Future Vol, veh/h	0	1075	83	0	1247	104	0	0	25	0	0	80
Conflicting Peds, #/hr	0	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	110	-	-	300	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	3	-	-	3	-	-	-11	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	2	0	0	0	4	0	0	0
Mvmt Flow	0	1156	89	0	1341	112	0	0	27	0	0	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	578	-	-	675
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.28	-	-	5.8
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	433	0	0	493
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	433	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.9	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	433	-	-	-	-	491
HCM Lane V/C Ratio	0.062	-	-	-	-	0.175
HCM Control Delay (s)	13.9	-	-	-	-	13.9
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	149	1006	2	68	1243	151	36	79	204	152
v/c Ratio	0.72	0.48	0.00	0.54	0.70	0.17	0.31	0.30	0.80	0.41
Control Delay	82.8	22.5	0.0	82.0	32.7	2.3	72.2	3.0	83.9	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	22.5	0.0	82.0	32.7	2.3	72.2	3.0	83.9	9.8
Queue Length 50th (ft)	148	333	0	68	508	0	36	0	201	0
Queue Length 95th (ft)	224	441	0	123	675	28	73	0	#344	58
Internal Link Dist (ft)		457			1504		131		565	
Turn Bay Length (ft)	240		330	150		150		60		
Base Capacity (vph)	260	2078	960	157	1773	876	202	327	268	377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.48	0.00	0.43	0.70	0.17	0.18	0.24	0.76	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	9	133	956	2	65	1181	143	17	17	75	176	18
Future Volume (vph)	9	133	956	2	65	1181	143	17	17	75	176	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			-4%			2%			0%			-1%
Total Lost time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	1.00	0.97	1.00	1.00	0.98		1.00	1.00		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (prot)		1807	3682	1602	1787	3504	1558		1854	1615		1810
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.96
Satd. Flow (perm)		1807	3682	1602	1787	3504	1558		1854	1615		1810
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	140	1006	2	68	1243	151	18	18	79	185	19
RTOR Reduction (vph)	0	0	0	1	0	0	74	0	0	74	0	0
Lane Group Flow (vph)	0	149	1006	1	68	1243	77	0	36	5	0	204
Confl. Peds. (#/hr)				2			2					
Heavy Vehicles (%)	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	1	1	6		5	2		4	4		3	3
Permitted Phases				6			2			4		
Actuated Green, G (s)		17.2	83.4	83.4	9.3	76.0	76.0		9.5	9.5		21.2
Effective Green, g (s)		17.2	83.4	83.4	9.3	76.0	76.0		9.5	9.5		21.2
Actuated g/C Ratio		0.11	0.56	0.56	0.06	0.51	0.51		0.06	0.06		0.14
Clearance Time (s)		6.4	5.7	5.7	6.8	5.6	5.6		6.6	6.6		7.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		207	2047	890	110	1775	789		117	102		255
v/s Ratio Prot		c0.08	0.27		0.04	c0.35			c0.02			c0.11
v/s Ratio Perm				0.00			0.05			0.00		
v/c Ratio		0.72	0.49	0.00	0.62	0.70	0.10		0.31	0.05		0.80
Uniform Delay, d1		64.1	20.3	14.8	68.6	28.3	19.2		67.1	66.0		62.3
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		11.4	0.8	0.0	9.9	2.3	0.2		1.5	0.2		16.3
Delay (s)		75.4	21.2	14.8	78.5	30.6	19.4		68.6	66.2		78.6
Level of Service		E	C	B	E	C	B		E	E		E
Approach Delay (s)			28.2			31.7			67.0			69.1
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	36.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	144
Future Volume (vph)	144
Ideal Flow (vphpl)	1900
Grade (%)	
Total Lost time (s)	7.5
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1607
Flt Permitted	1.00
Satd. Flow (perm)	1607
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	152
RTOR Reduction (vph)	131
Lane Group Flow (vph)	21
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	1%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	21.2
Effective Green, g (s)	21.2
Actuated g/C Ratio	0.14
Clearance Time (s)	7.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	227
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.09
Uniform Delay, d1	56.0
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	56.2
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	77	120	45	50	41	97	101	12	48	75	32
Future Vol, veh/h	17	77	120	45	50	41	97	101	12	48	75	32
Conflicting Peds, #/hr	0	0	14	14	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	-2	-	-	1	-	-	-1	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	2	5	0	2	0	0	3	0
Mvmt Flow	18	80	125	47	52	43	101	105	13	50	78	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	476	515	70	507	525	59	111	0	0	118	0	0
Stage 1	195	195	-	314	314	-	-	-	-	-	-	-
Stage 2	281	320	-	193	211	-	-	-	-	-	-	-
Critical Hdwy	5.9	4.9	6.14	7.1	6.14	6.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	3.9	-	6.1	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.5	4.02	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	589	586	994	479	483	988	1492	-	-	1483	-	-
Stage 1	866	810	-	701	678	-	-	-	-	-	-	-
Stage 2	802	756	-	813	744	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	471	524	982	336	432	988	1492	-	-	1483	-	-
Mov Cap-2 Maneuver	471	524	-	336	432	-	-	-	-	-	-	-
Stage 1	803	781	-	650	629	-	-	-	-	-	-	-
Stage 2	652	701	-	607	717	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	16	3.6	2.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1492	-	-	701	467	1483	-	-
HCM Lane V/C Ratio	0.068	-	-	0.318	0.303	0.034	-	-
HCM Control Delay (s)	7.6	0.1	-	12.5	16	7.5	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.4	1.3	0.1	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	3	116	119	31	128	2	118	2	39	1	5	1
Future Vol, veh/h	3	116	119	31	128	2	118	2	39	1	5	1
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	2	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	0	4	1	0	3	0	3	0	0	0
Mvmt Flow	3	126	129	34	139	2	128	2	42	1	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	255	0	0	408	410	193	433	473	144
Stage 1	-	-	-	-	-	-	197	197	-	212	212	-
Stage 2	-	-	-	-	-	-	211	213	-	221	261	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.53	6.9	6.43	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.9	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.527	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1450	-	-	1298	-	-	527	511	837	605	562	927
Stage 1	-	-	-	-	-	-	785	726	-	843	775	-
Stage 2	-	-	-	-	-	-	771	713	-	836	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1445	-	-	1298	-	-	511	494	836	557	543	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	511	494	-	557	543	-
Stage 1	-	-	-	-	-	-	783	725	-	839	751	-
Stage 2	-	-	-	-	-	-	743	691	-	788	747	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	13.2	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	511	836	1445	-	-	1298	-	-	579
HCM Lane V/C Ratio	0.255	0.051	0.002	-	-	0.026	-	-	0.013
HCM Control Delay (s)	14.4	9.5	7.5	0	-	7.8	0	-	11.3
HCM Lane LOS	B	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	170	5	6	226	14	3	1	1	67	1	52
Future Vol, veh/h	42	170	5	6	226	14	3	1	1	67	1	52
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	0	2	2	2	0	2	2
Mvmt Flow	46	185	5	7	246	15	3	1	1	73	1	57

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	262	0	0	190	0	0	577	556	190	552	551	255
Stage 1	-	-	-	-	-	-	280	280	-	269	269	-
Stage 2	-	-	-	-	-	-	297	276	-	283	282	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	6.1	5.52	5.72
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.1	4.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.1	4.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.318
Pot Cap-1 Maneuver	1302	-	-	1384	-	-	428	439	852	522	515	812
Stage 1	-	-	-	-	-	-	727	679	-	799	740	-
Stage 2	-	-	-	-	-	-	712	682	-	788	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1301	-	-	1384	-	-	383	418	851	501	491	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	383	418	-	501	491	-
Stage 1	-	-	-	-	-	-	698	652	-	766	735	-
Stage 2	-	-	-	-	-	-	657	677	-	753	704	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.2	13.3	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	439	1301	-	-	1384	-	-	600
HCM Lane V/C Ratio	0.012	0.035	-	-	0.005	-	-	0.217
HCM Control Delay (s)	13.3	7.9	0	-	7.6	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	167	22	62	217	2	12	1	39	11	1	27
Future Vol, veh/h	5	167	22	62	217	2	12	1	39	11	1	27
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	3	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	2	2	2	0	2	2	2	0	2	0
Mvmt Flow	5	182	24	67	236	2	13	1	42	12	1	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	239	0	0	206	0	0	590	577	194	598	588	238
Stage 1	-	-	-	-	-	-	204	204	-	372	372	-
Stage 2	-	-	-	-	-	-	386	373	-	226	216	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1340	-	-	1365	-	-	419	427	847	417	421	806
Stage 1	-	-	-	-	-	-	798	733	-	653	619	-
Stage 2	-	-	-	-	-	-	637	618	-	781	724	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1339	-	-	1365	-	-	384	401	847	377	395	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	401	-	377	395	-
Stage 1	-	-	-	-	-	-	795	730	-	650	583	-
Stage 2	-	-	-	-	-	-	578	582	-	738	721	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.7	11	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	652	1339	-	-	1365	-	-	378	805
HCM Lane V/C Ratio	0.087	0.004	-	-	0.049	-	-	0.035	0.036
HCM Control Delay (s)	11	7.7	-	-	7.8	0	-	14.9	9.6
HCM Lane LOS	B	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	4	111	1	145	2	376	96	97	510	2
Future Vol, veh/h	2	1	4	111	1	145	2	376	96	97	510	2
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	90	-	130	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	4	-	-	2	-	-	3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	0	2	0	3	4	1	4	0
Mvmt Flow	2	1	4	121	1	158	2	409	104	105	554	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	978	1287	282	902	1184	206	560	0	0	514	0	0
Stage 1	769	769	-	414	414	-	-	-	-	-	-	-
Stage 2	209	518	-	488	770	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.1	6.7	8.32	7.3	7.34	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.1	-	7.32	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.32	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	232	191	732	192	147	782	1021	-	-	1055	-	-
Stage 1	397	450	-	537	544	-	-	-	-	-	-	-
Stage 2	798	568	-	478	348	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	169	171	730	175	132	781	1018	-	-	1054	-	-
Mov Cap-2 Maneuver	169	171	-	175	132	-	-	-	-	-	-	-
Stage 1	395	404	-	535	542	-	-	-	-	-	-	-
Stage 2	634	566	-	427	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	33.7	0	1.4
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1018	-	-	302	174	781	1054	-	-
HCM Lane V/C Ratio	0.002	-	-	0.025	0.7	0.202	0.1	-	-
HCM Control Delay (s)	8.5	-	-	17.2	63.4	10.8	8.8	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	4.2	0.8	0.3	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1	17	40	1	39	15	425	28	43	576	6
Future Vol, veh/h	10	1	17	40	1	39	15	425	28	43	576	6
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	150	-	135	110	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	3	-	-	4	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	5	0	3	0	0	3	0
Mvmt Flow	11	1	18	43	1	42	16	462	30	47	626	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	993	1253	322	902	1226	231	638	0	0	492	0	0
Stage 1	729	729	-	494	494	-	-	-	-	-	-	-
Stage 2	264	524	-	408	732	-	-	-	-	-	-	-
Critical Hdwy	8.5	7.5	7.4	8.1	7.1	7.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.5	6.5	-	7.1	6.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	154	123	650	203	147	748	956	-	-	1082	-	-
Stage 1	314	352	-	489	506	-	-	-	-	-	-	-
Stage 2	673	461	-	557	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	115	647	187	138	748	952	-	-	1082	-	-
Mov Cap-2 Maneuver	137	115	-	187	138	-	-	-	-	-	-	-
Stage 1	307	335	-	481	497	-	-	-	-	-	-	-
Stage 2	623	453	-	516	362	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.7	20.3	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	952	-	-	259	187	674	1082	-	-
HCM Lane V/C Ratio	0.017	-	-	0.118	0.233	0.065	0.043	-	-
HCM Control Delay (s)	8.8	-	-	20.7	30	10.7	8.5	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.9	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	103	61	173	44	27	25	88	340	79	7	512	114
Future Vol, veh/h	103	61	173	44	27	25	88	340	79	7	512	114
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	100	-	230	0	-	-	160	-	175	160	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	3	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	1	0	0	0	1	3	0	0	4	1
Mvmt Flow	112	66	188	48	29	27	96	370	86	8	557	124

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	971	1224	279	893	1262	194	681	0	0	459	0	0
Stage 1	573	573	-	565	565	-	-	-	-	-	-	-
Stage 2	398	651	-	328	697	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.92	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.31	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	207	181	721	239	171	821	914	-	-	1113	-	-
Stage 1	472	507	-	482	511	-	-	-	-	-	-	-
Stage 2	599	468	-	664	446	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	155	161	721	110	152	815	914	-	-	1110	-	-
Mov Cap-2 Maneuver	155	161	-	110	152	-	-	-	-	-	-	-
Stage 1	422	503	-	430	456	-	-	-	-	-	-	-
Stage 2	482	418	-	423	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35.9	40.7	1.6	0.1
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	914	-	-	155	161	721	110	250	1110	-	-
HCM Lane V/C Ratio	0.105	-	-	0.722	0.412	0.261	0.435	0.226	0.007	-	-
HCM Control Delay (s)	9.4	-	-	72.8	42.2	11.7	60.8	23.6	8.3	-	-
HCM Lane LOS	A	-	-	F	E	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	4.3	1.8	1	1.9	0.8	0	-	-

J. Turn Lane Warrant Tables and Charts

Left Turn Lane Warrant Assessment

Two-Lane Highways

Based on AASHTO / VDOT RDM Appendix F

Background:

Warrants for left-turn storage lanes on two-lane highways at unsignalized intersections are based on Figure 3-4 to Figure 3-21 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). The figures provide a graphical representation for determining the necessity of a left turn lane by comparing the advancing volumes of a given approach and the respective opposing volumes and are differentiated by design speed and percent left turning volume.

Project Information:

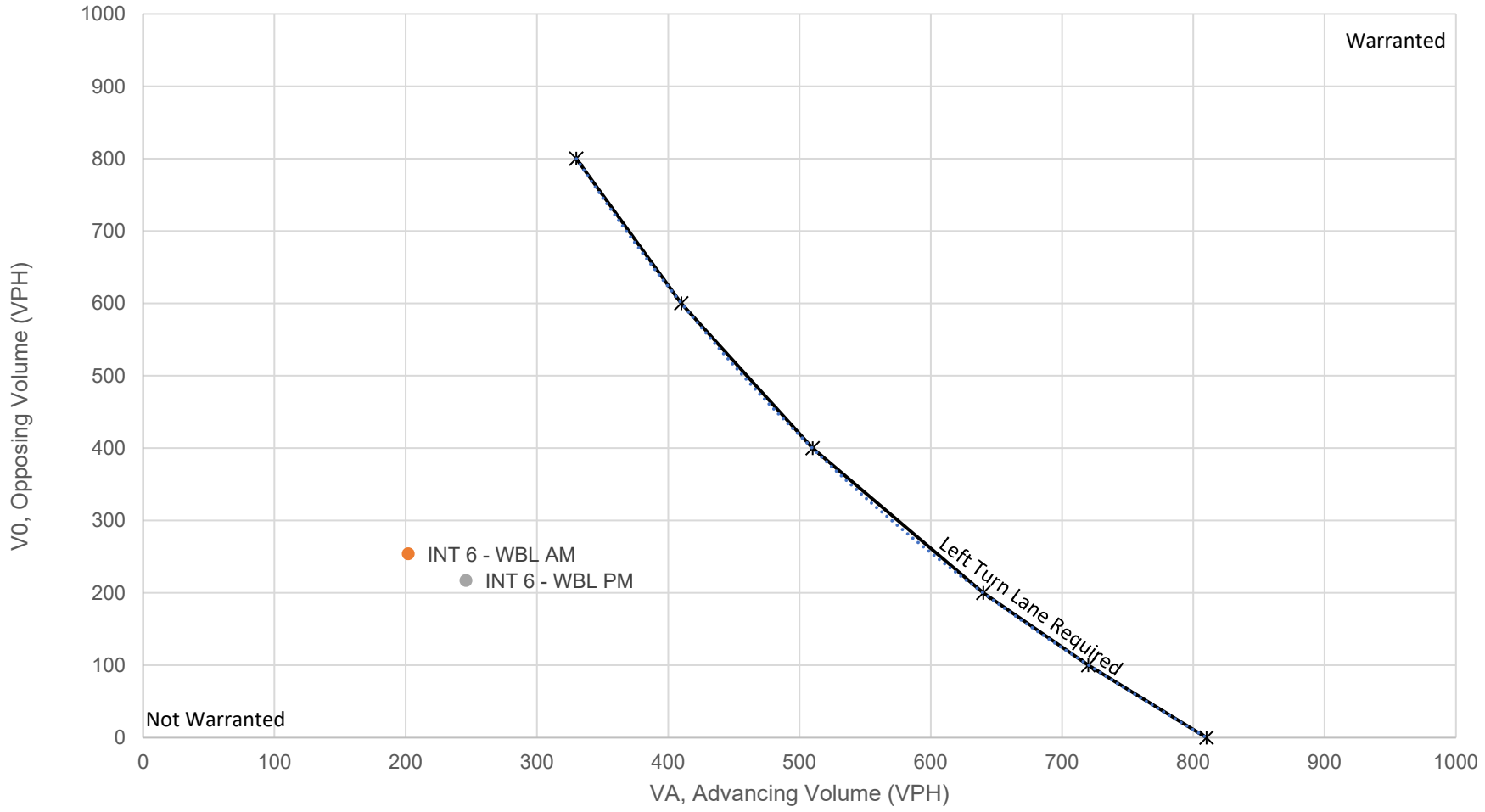
Project:	Warrenton Village
Project ID:	
Intersection(s) and Movement(s):	6 - Oak Springs Drive at Hastings Lane / Future Access (WB) 7 - Oak Springs Drive at High School Driveway / Future Garage Access (WB)
Scenario:	2027 Future Conditions with Development
Analysis:	Gorove Slade

Design Speed (mph):	**40**	**(40, 50, or 60?)**

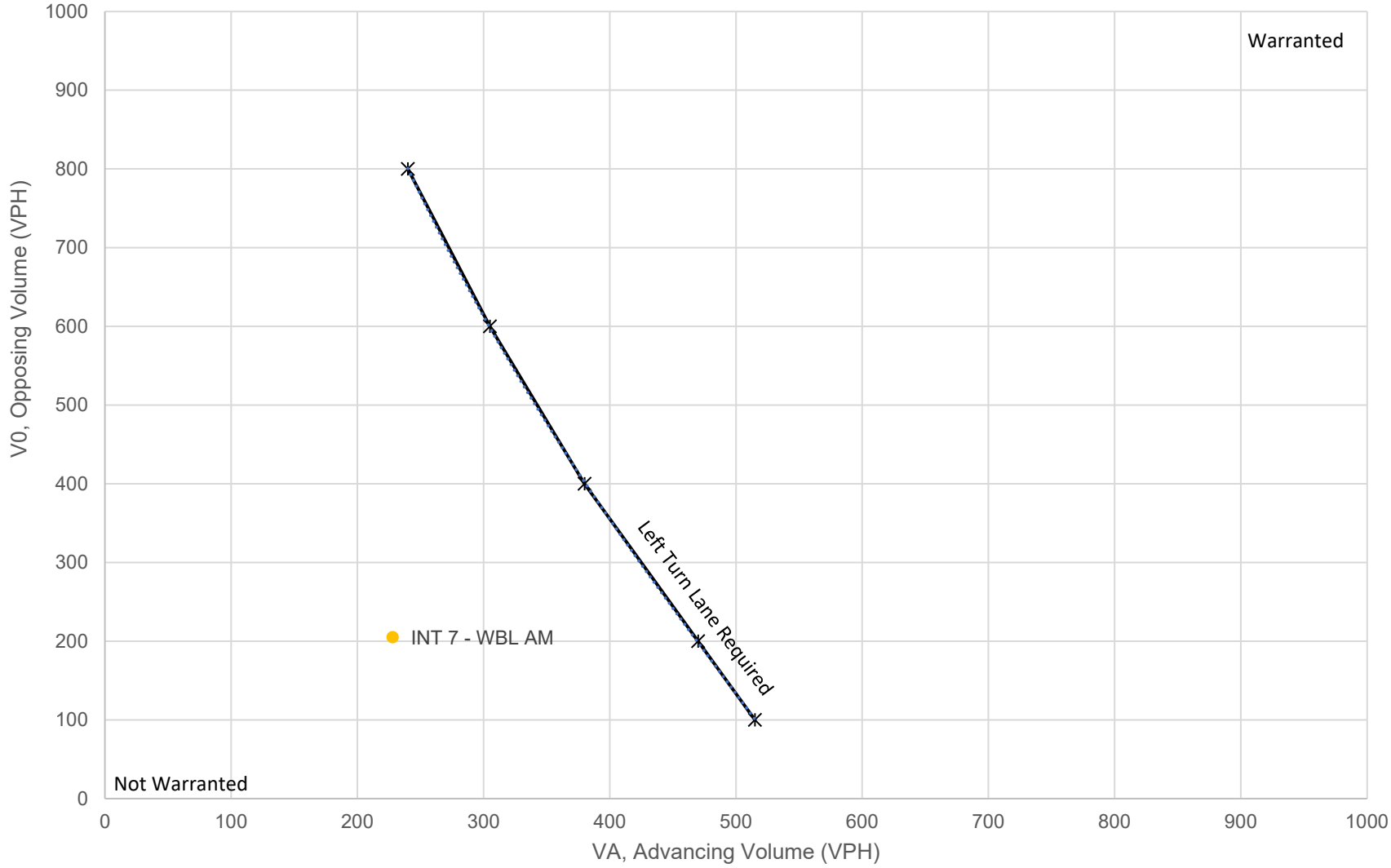
Assessment Summary:

Input				VDOT Calculated Thesholds			
Study Scenario	**Opposing Vol. (VPH)**	**Advancing Vol. (VPH)**	**Left Turn Vol. (VPH)**	**Left Turn %**	**Minimum Opposing Threshold (VPH)**	**VDOT RDM F Figure**	**Treatment**
INT 6 - WBL AM	254	202	2	0.99%	1,208	Fig. 3-4	Not Warranted
INT 6 - WBL PM	217	246	6	2.44%	1,054	Fig. 3-4	Not Warranted
INT 7 - WBL AM	205	228	19	8.33%	841	Fig. 3-5	Not Warranted
INT 7 - WBL PM	194	281	62	22.06%	274	Fig. 3-8	Not Warranted

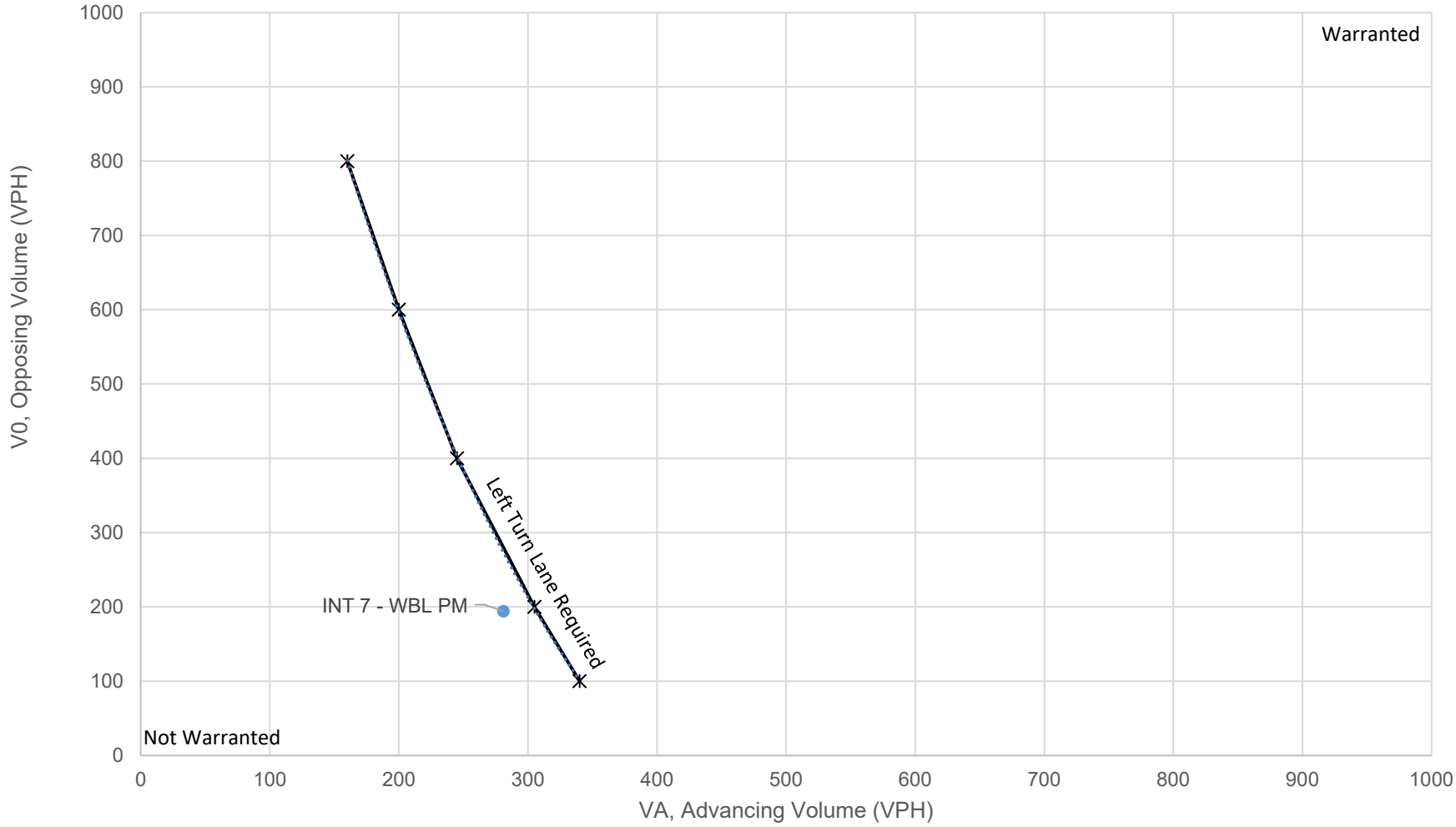
VDOT RDM-F Figure 3-4
Warrant for Left Turn Storage Lanes on 2-Lane Highways at 40-mph & 5% Left Turns



VDOT RDM-F Figure 3-5
Warrant for Left Turn Storage Lanes on 2-Lane Highways at 40-mph & 10% Left Turns



VDOT RDM-F Figure 3-8
Warrant for Left Turn Storage Lanes on 2-Lane Highways at 40-mph & 30% Left Turns



Left Turn Lane Warrant Assessment
Four-Lane Highways

Background:

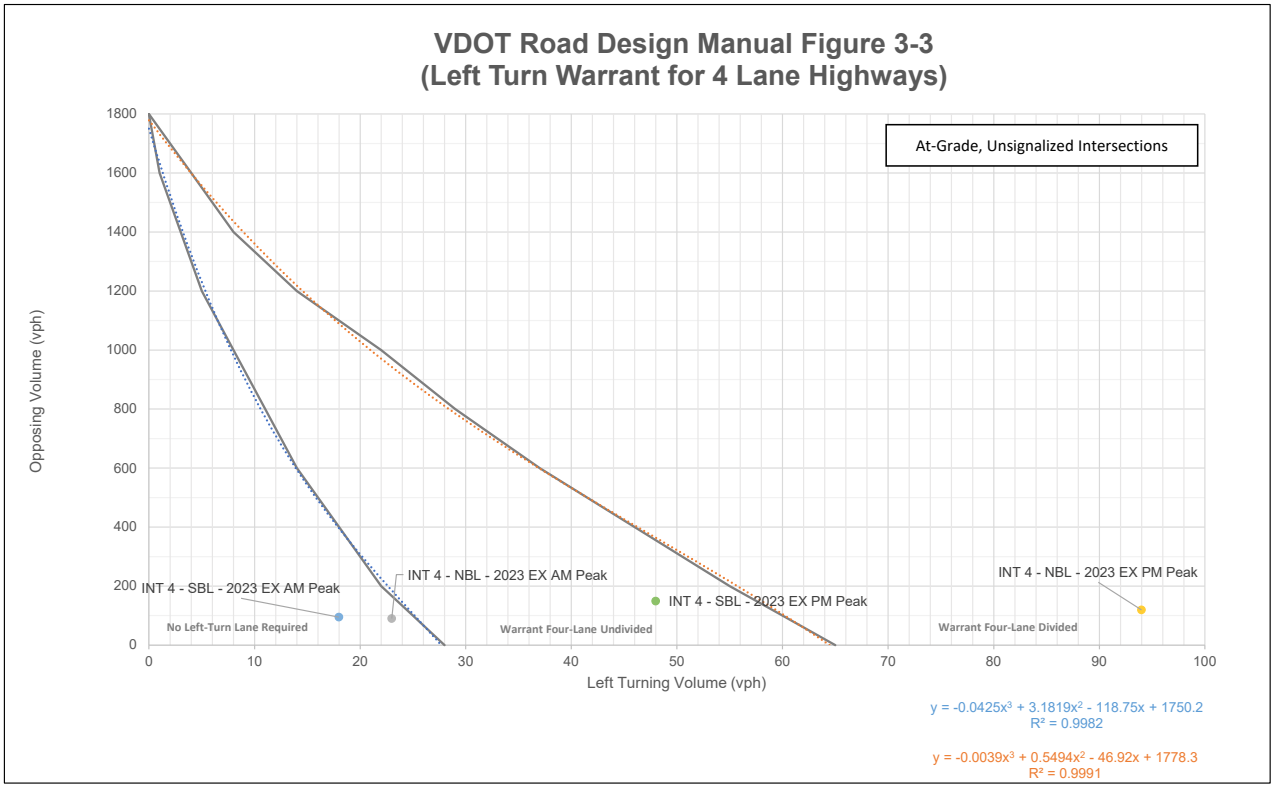
Warrants for left-turn storage lanes on four-lane highways at unsignalized intersections are based on Figure 3-3 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). The figure provides a graphical representation for determining the necessity of a left turn lane for divided and undivided roadway conditions by comparing the left turning volumes of a given approach and the respective opposing traffic volume.

Project Information:

Project:	
Project ID:	
Intersection(s) and Movement(s):	4 - Branch Drive at Warrenton Village Center Driveway / Safeway Driveway (NBL & SBL)
Scenario:	2023 Existing Conditions
Analysis:	Gorove Slade

Assessment Summary:

Input				Result	
Study Scenario	**Opposing Vol. (VPH)**	**Advancing Vol. (VPH)**	**Left Turning Vol. (VPH)**	**Left Turn %**	**Treatment**
INT 4 - NBL - 2023 EX AM Peak	90	95	23	24.2%	Not Warranted
INT 4 - NBL - 2023 EX PM Peak	119	149	94	63.1%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2023 EX AM Peak	95	90	18	20.0%	Not Warranted
INT 4 - SBL - 2023 EX PM Peak	149	119	48	40.3%	Full-width Turn Lane and Taper Warranted (for Undivided)



Left Turn Lane Warrant Assessment
Four-Lane Highways

Background:

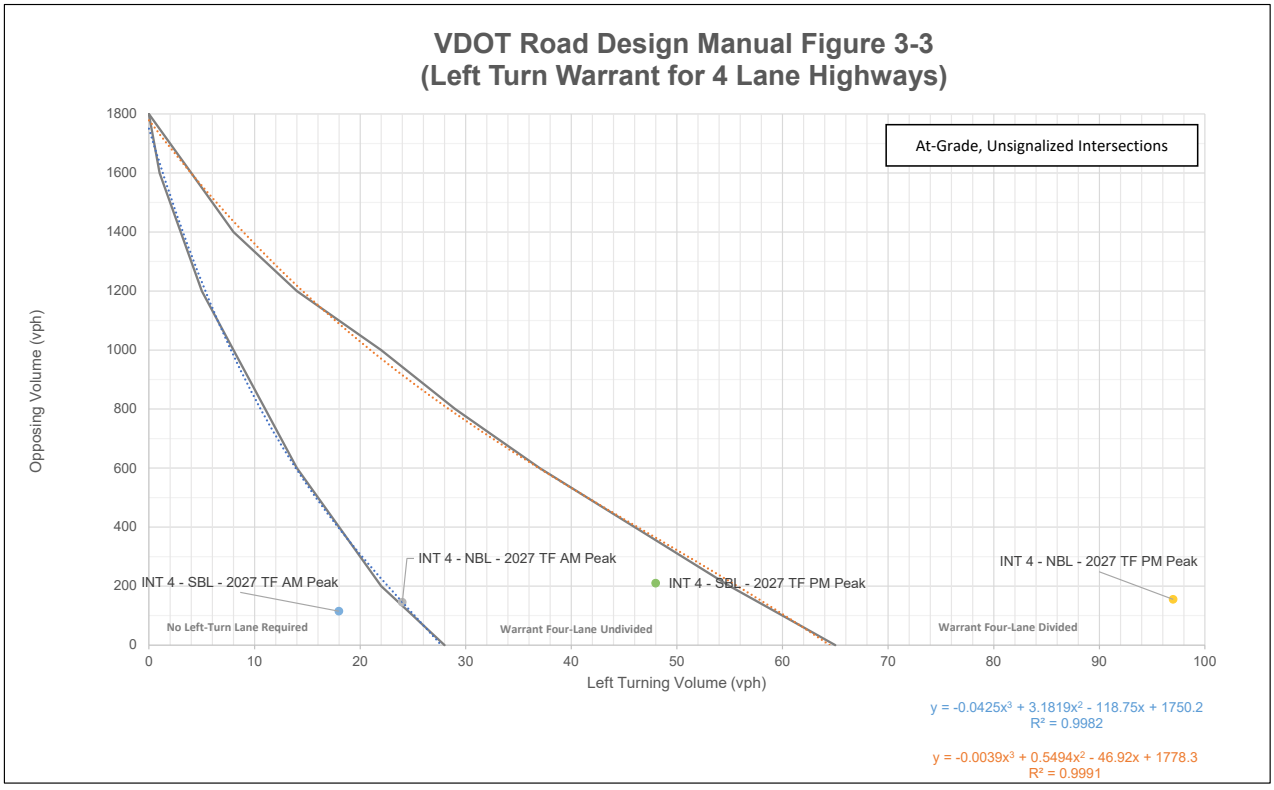
Warrants for left-turn storage lanes on four-lane highways at unsignalized intersections are based on Figure 3-3 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). The figure provides a graphical representation for determining the necessity of a left turn lane for divided and undivided roadway conditions by comparing the left turning volumes of a given approach and the respective opposing traffic volume.

Project Information:

Project:	Warrenton Village Center
Project ID:	
Intersection(s) and Movement(s):	4 - Branch Drive at Warrenton Village Center Driveway / Safeway Driveway (NBL & SBL)
Scenario:	2027 Future Conditions with Development
Analysis:	Gorove Slade

Assessment Summary:

Input				Result	
Study Scenario	**Opposing Vol. (VPH)**	**Advancing Vol. (VPH)**	**Left Turning Vol. (VPH)**	**Left Turn %**	**Treatment**
INT 4 - NBL - 2027 TF AM Peak	145	115	24	20.9%	Not Warranted
INT 4 - NBL - 2027 TF PM Peak	155	210	97	46.2%	Full-width Turn Lane and Taper Warranted (for Undivided and Divided)
INT 4 - SBL - 2027 TF AM Peak	115	145	18	12.4%	Not Warranted
INT 4 - SBL - 2027 TF PM Peak	210	155	48	31.0%	Full-width Turn Lane and Taper Warranted (for Undivided)



Right Turn Lane Warrant Assessment

Two-Lane Highways

Based on NCHRP Report 279 / VDOT RDM Appendix F
"Intersection Channelization Guide"

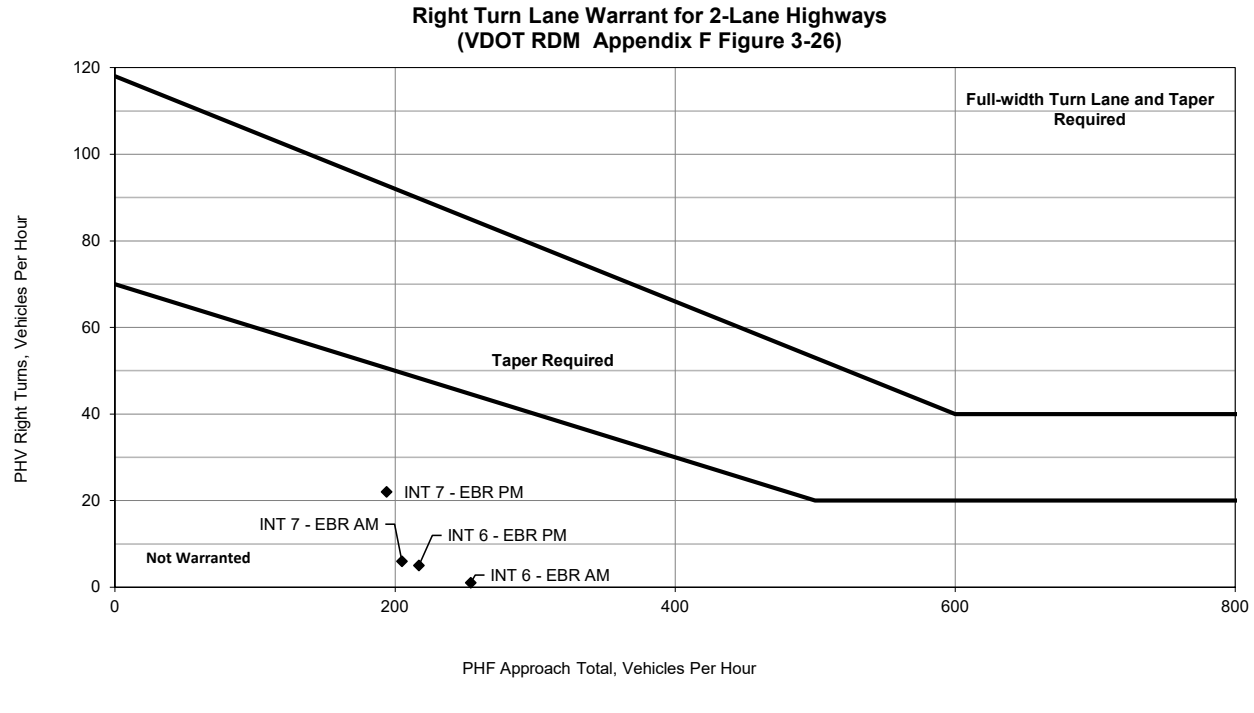
Background:

Warrants for right-turn storage lanes on two-lane highways at unsignalized intersections are based on Figure 3-26 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). This figure provides a graphical representation for determining the necessity of a right turn lane and / or taper by comparing the total volumes of a given approach with their respective right turn volumes.

Project Information:

Project:	Warrenton Village Center
Project ID:	
Intersection(s) and Movement(s):	6 - Oak Springs Drive at Hastings Lane / Future Access (EB)
	7 - Oak Springs Drive at High School Driveway / Future Garage Access (EB)
Scenario:	2027 Future Condtitions with Development
Analyst:	Gorove Slade

Study Scenario	Approach Volume	Right Turn Volume	Minimum Right Turn Taper Threshold	Minimum Right Turn Full Lane Threshold	Treatment
INT 6 - EBR AM	254	1	45	85	Not Warranted
INT 6 - EBR PM	217	5	48	90	Not Warranted
INT 7 - EBR AM	205	6	50	91	Not Warranted
INT 7 - EBR PM	194	22	51	93	Not Warranted



Right Turn Lane Warrant Assessment

Four-Lane Highways

Based on NCHRP Report 279 / VDOT RDM Appendix F
"Intersection Channelization Guide"

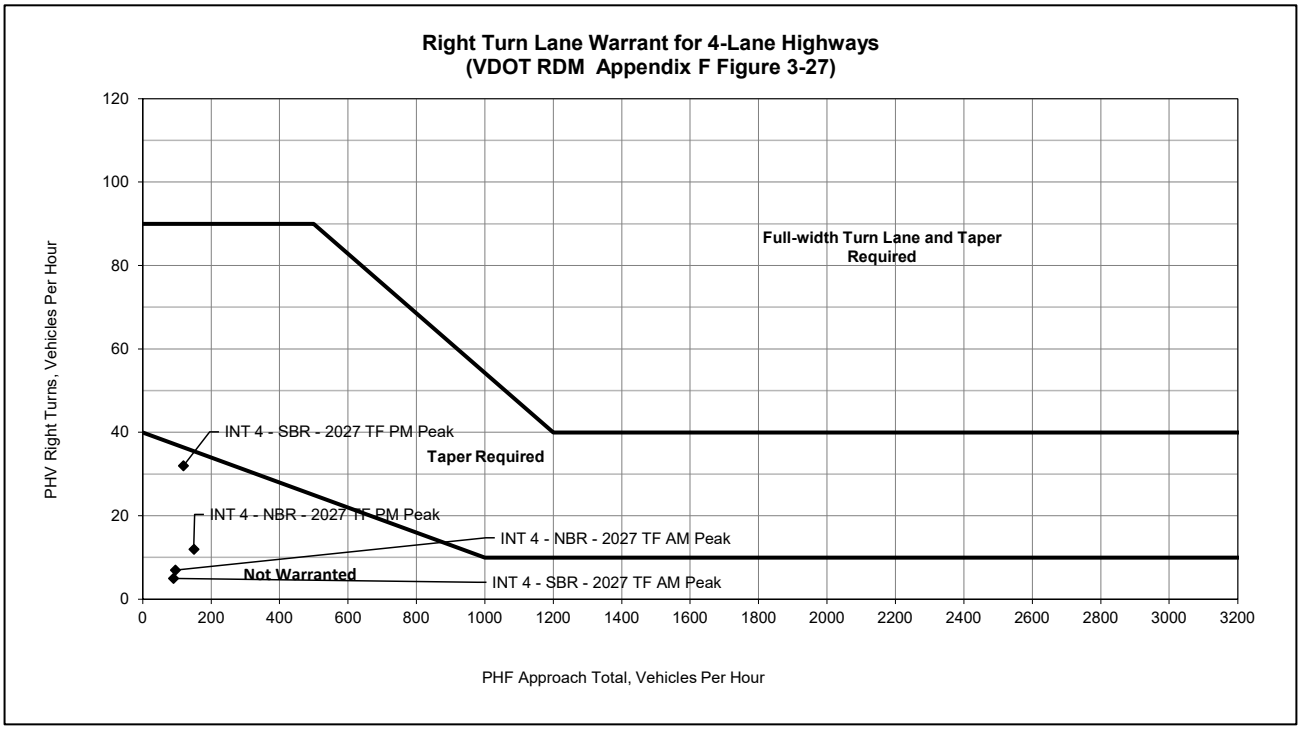
Background:

Warrants for right-turn storage lanes on four-lane highways at unsignalized intersections are based on Figure 3-27 in Appendix F of the Virginia Department of Transportation's (VDOT) ***Road Design Manual*** (RDM). This figure provides a graphical representation for determining the necessity of a right turn lane and / or taper by comparing the total volumes of a given approach with their respective right turn volumes.

Project Information:

Project:	
Project ID:	
Intersection(s) and Movement(s):	4 -Branch Drive at Warrenton Village Center Driveway / Safeway Driveway (NBR & SBR)
Scenario:	2027 Future Conditions with Development
Analyst:	Gorove Slade

Study Scenario	Approach Volume	Right Turn Volume	Minimum Right Turn Taper Threshold	Minimum Right Turn Full Lane Threshold	Treatment
INT 4 - NBR - 2027 TF AM Peak	95	7	37	90	Not Warranted
INT 4 - NBR - 2027 TF PM Peak	149	12	36	90	Not Warranted
INT 4 - SBR - 2027 TF AM Peak	90	5	37	90	Not Warranted
INT 4 - SBR - 2027 TF PM Peak	119	32	36	90	Not Warranted



K. MUTCD 4-Hour Warrant

CHAPTER 4C. TRAFFIC CONTROL SIGNAL NEEDS STUDIES

Section 4C.01 Studies and Factors for Justifying Traffic Control Signals

Standard:

01 **An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.**

02 **The investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:**

Warrant 1, Eight-Hour Vehicular Volume
Warrant 2, Four-Hour Vehicular Volume
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volume
Warrant 5, School Crossing
Warrant 6, Coordinated Signal System
Warrant 7, Crash Experience
Warrant 8, Roadway Network
Warrant 9, Intersection Near a Grade Crossing

03 **The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.**

Support:

04 Sections 8C.09 and 8C.10 contain information regarding the use of traffic control signals instead of gates and/or flashing-light signals at highway-rail grade crossings and highway-light rail transit grade crossings, respectively.

Guidance:

05 *A traffic control signal should not be installed unless one or more of the factors described in this Chapter are met.*

06 *A traffic control signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection.*

07 *A traffic control signal should not be installed if it will seriously disrupt progressive traffic flow.*

08 *The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count when evaluating the count against the signal warrants listed in Paragraph 2.*

09 *Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. The site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left-turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles.*

10 *Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.*

11 *At a location that is under development or construction and where it is not possible to obtain a traffic count that would represent future traffic conditions, hourly volumes should be estimated as part of an engineering study for comparison with traffic signal warrants. Except for locations where the engineering study uses the satisfaction of Warrant 8 to justify a signal, a traffic control signal installed under projected conditions should have an engineering study done within 1 year of putting the signal into stop-and-go operation to determine if the signal is justified. If not justified, the signal should be taken out of stop-and-go operation or removed.*

12 *For signal warrant analysis, a location with a wide median, even if the median width is greater than 30 feet, should be considered as one intersection.*

Option:

13 At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher of the major-street left-turn volumes as the "minor-street" volume and the corresponding single direction of opposing traffic on the major street as the "major-street" volume.

14 For signal warrants requiring conditions to be present for a certain number of hours in order to be satisfied, any four sequential 15-minute periods may be considered as 1 hour if the separate 1-hour periods used in the warrant analysis do not overlap each other and both the major-street volume and the minor-street volume are for the same specific one-hour periods.

15 For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians.

Support:

16 When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians.

Option:

17 Engineering study data may include the following:

A. The number of vehicles entering the intersection in each hour from each approach during 12 hours of an average day. It is desirable that the hours selected contain the greatest percentage of the 24-hour traffic volume.
B. Vehicular volumes for each traffic movement from each approach, classified by vehicle type (heavy trucks, passenger cars and light trucks, public-transit vehicles, and, in some locations, bicycles), during each 15-minute period of the 2 hours in the morning and 2 hours in the afternoon during which total traffic entering the intersection is greatest.
C. Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts in Item B and during hours of highest pedestrian volume. Where young, elderly, and/or persons with physical or visual disabilities need special consideration, the pedestrians and their crossing times may be classified by general observation.
D. Information about nearby facilities and activity centers that serve the young, elderly, and/or persons with disabilities, including requests from persons with disabilities for accessible crossing improvements at the location under study. These persons might not be adequately reflected in the pedestrian volume count if the absence of a signal restrains their mobility.
E. The posted or statutory speed limit or the 85th-percentile speed on the uncontrolled approaches to the location.
F. A condition diagram showing details of the physical layout, including such features as intersection geometrics, channelization, grades, sight-distance restrictions, transit stops and routes, parking conditions, pavement markings, roadway lighting, driveways, nearby railroad crossings, distance to nearest traffic control signals, utility poles and fixtures, and adjacent land use.
G. A collision diagram showing crash experience by type, location, direction of movement, severity, weather, time of day, date, and day of week for at least 1 year.

18 The following data, which are desirable for a more precise understanding of the operation of the intersection, may be obtained during the periods described in Item B of Paragraph 17:

A. Vehicle-hours of stopped time delay determined separately for each approach.
B. The number and distribution of acceptable gaps in vehicular traffic on the major street for entrance from the minor street.
C. The posted or statutory speed limit or the 85th-percentile speed on controlled approaches at a point near to the intersection but unaffected by the control.
D. Pedestrian delay time for at least two 30-minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or Sunday.
E. Queue length on stop-controlled approaches.

Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume

Support:

01 The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

02 The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

03 It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

Standard:

04 **The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

05 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Guidance:

06 *The combination of Conditions A and B is intended for application at locations where Condition A is not satisfied and Condition B is not satisfied and should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.*

Standard:

07 **The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 80 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 80 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures

[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Option:

08 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

Section 4C.03 Warrant 2, Four-Hour Vehicular Volume

Support:

01 The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Standard:

02 **The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.**

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-2 may be used in place of Figure 4C-1.

Section 4C.04 Warrant 3, Peak Hour

Support:

01 The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

Standard:

02 **This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.**

03 **The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:**

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

Option:

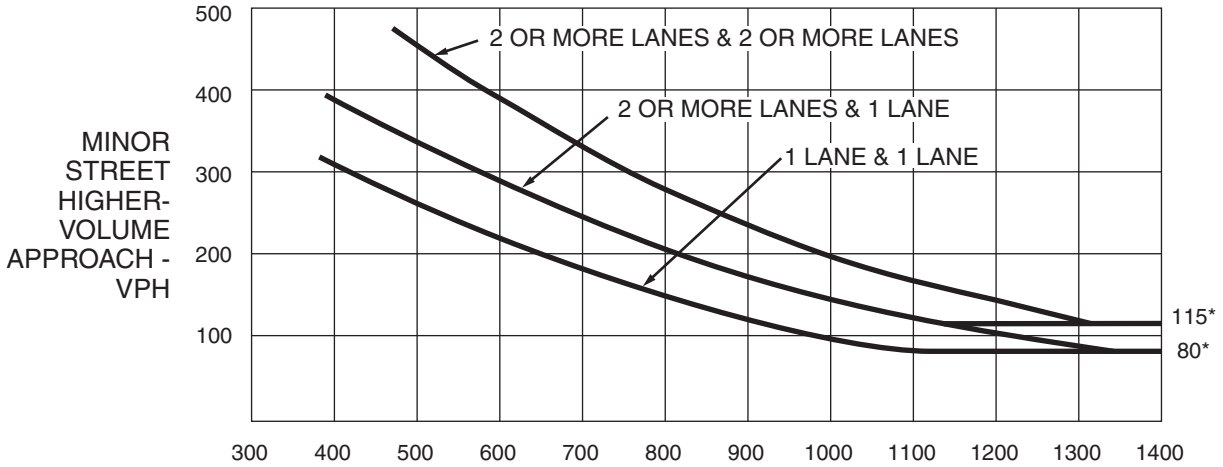
04 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3 to evaluate the criteria in the second category of the Standard.

05 If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

Guidance:

06 *If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal should be traffic-actuated.*

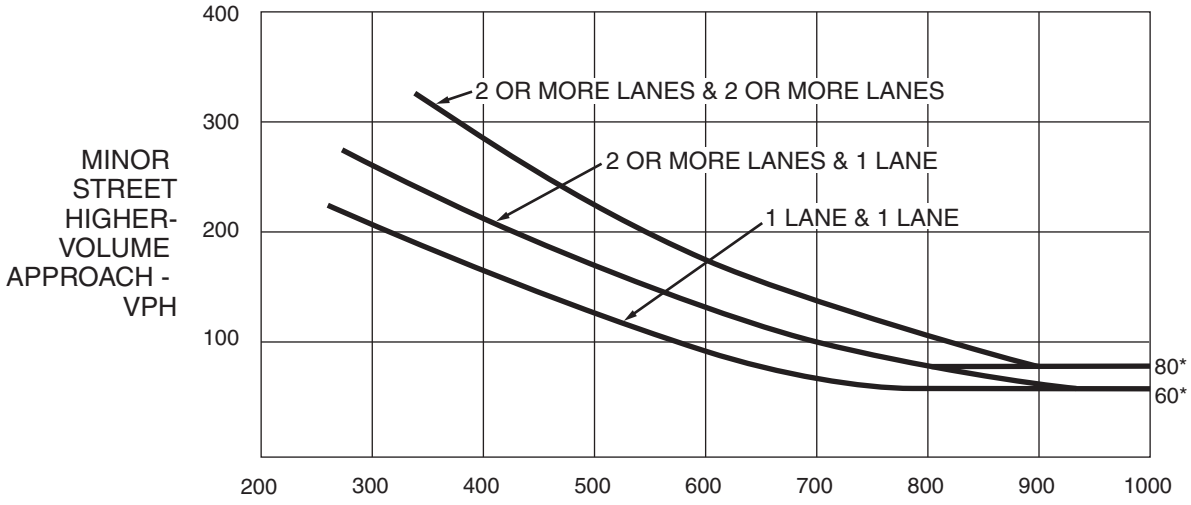
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Market and Fiscal Impacts Analyses
Warrenton Village
Town of Warrenton, Virginia

Prepared for:
Jess Achenbach
Castle Development Partners

June 2023

▪ S. PATZ & ASSOCIATES, INC ▪
▪ REAL ESTATE CONSULTANTS ▪

June 12, 2023

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Jess:

Attached is our full-narrative market study and resulting Fiscal Impacts Analysis (FIA) for the proposed Warrenton Village proposal, to include 376 rental units. The proposal is for three residential components: a 320-unit elevator-served apartment building alongside 36 two-over-two and 20 townhome units. All rental units proposed for Warrenton Village will have market rents and no age restrictions.

The report is presented in three sections. The first is a description of the study site and development proposal. Detailed data describe the Warrenton Village site. The second section is a brief market analysis for the new rental units planned. The market study is not prepared in the same depth as a study for a lender package, as all building and unit designs are not yet set, but sufficient data are provided to determine market support for the proposed 376 rental units. The third section, based on market data, shows the net tax benefits to the Town of Warrenton from the development proposal. The analysis to follow shows full market support for the apartment units at the proposed rents.

The FIA, based on the result of the market analysis, shows a net benefit for the proposal to the Town of Warrenton at $46,100± annually, after build-out. Most of the revenue to the Town will be generated from off-site impacts, as the Town of Warrenton levies low real estate and personal property tax rates. This is reflected in the General Fund revenues. The following table presents the FIA conclusions at build-out.

Summary of On-Site and Off-Site Fiscal Impacts of Apartments, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

Source of Fiscal Impacts on the Town	Impacts On-Site in Warrenton	Impacts Off-Site in Warrenton	Total Fiscal Impacts
Apartments (320 Units)			
Revenues to the Town	$117,560	$338,870	$456,430
Town Costs	-$280,280	-$145,920	-$426,200
Subtotal	*-$162,720*	*$192,950*	*$30,230*
Two-Over-Two (36 Units)			
Revenues to the Town	$14,550	$55,520	$70,070
Town Costs	-$42,740	-$23,490	-$66,230
Subtotal	*-$28,190*	*$32,030*	*$3,840*
Townhomes (20 Units)			
Revenues to the Town	$8,050	$41,150	$49,200
Town Costs	-$23,310	-$13,860	-$37,170
Subtotal	*-$15,260*	*$27,290*	*$12,030*
Total Residential (376 units)			
Revenues to the Town	$140,160	$435,540	$575,700
Town Costs	-$346,330	-$183,270	-$529,600
Net Fiscal Benefits	**-$206,170**	**$252,270**	**$46,100**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

All detailed market and economic data that support our findings and conclusions are presented in the attached report. Please call if additional data or clarification are needed.

Sincerely,

Ariel Goldring

Ariel Goldring
President

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Section I: Introduction

This will set forth our market and Fiscal Impacts Analysis (FIA) for the proposed Warrenton Village apartment community, planned for a well-located 6.46-acre site along the south side of Oak Springs Drive and just north of W. Lee Highway in the Town of Warrenton, Virginia. The vacant property benefits from its close proximity to several large shopping centers, including the Safeway-anchored Warrenton Village, Marshalls-anchored Warrenton Center, and Giant-anchored Oak Springs Plaza. The site is currently zoned C (Commercial). The sponsor is submitting for a Special Use Permit under the existing zoning.

The proposal is for an attractive 376-unit rental community consisting of 320 elevator-served apartment units, alongside 36 two-over-two and 20 townhome units. The complex will offer a wide range of amenities, including a clubhouse, fitness center and outdoor swimming pool. No such concept currently exists in the Town of Warrenton or elsewhere in Fauquier County, and once built, Warrenton Village will be a "step above" the existing apartment market in the Town and County. Construction is planned to begin in late-2024 with a late-2026 delivery.

The Special Use Permit requires a Fiscal Impacts Analysis (FIA), which calculates the net tax benefits that will accrue to the Town of Warrenton at project build-out. The FIA to follow includes net tax benefits from on-site development and off-site expenditures in the Town, as will be fully explained later in the report. The FIA is based on the ability of the site to be developed, as planned, which is described in the market analysis undertaken for this report.

The report to follow is presented in three sections. The first, the Introduction, is an analysis of the Warrenton Village site and a description of the development proposal. Also part of the description is an analysis of the local economy, which shows the level of job growth that supports the magnitude of new housing unit demand planned for the study site.

Section II is an overview analysis of the Warrenton area apartment market. This is not a full-narrative market analysis that would be acceptable by a lender or investor. Rather, it provides

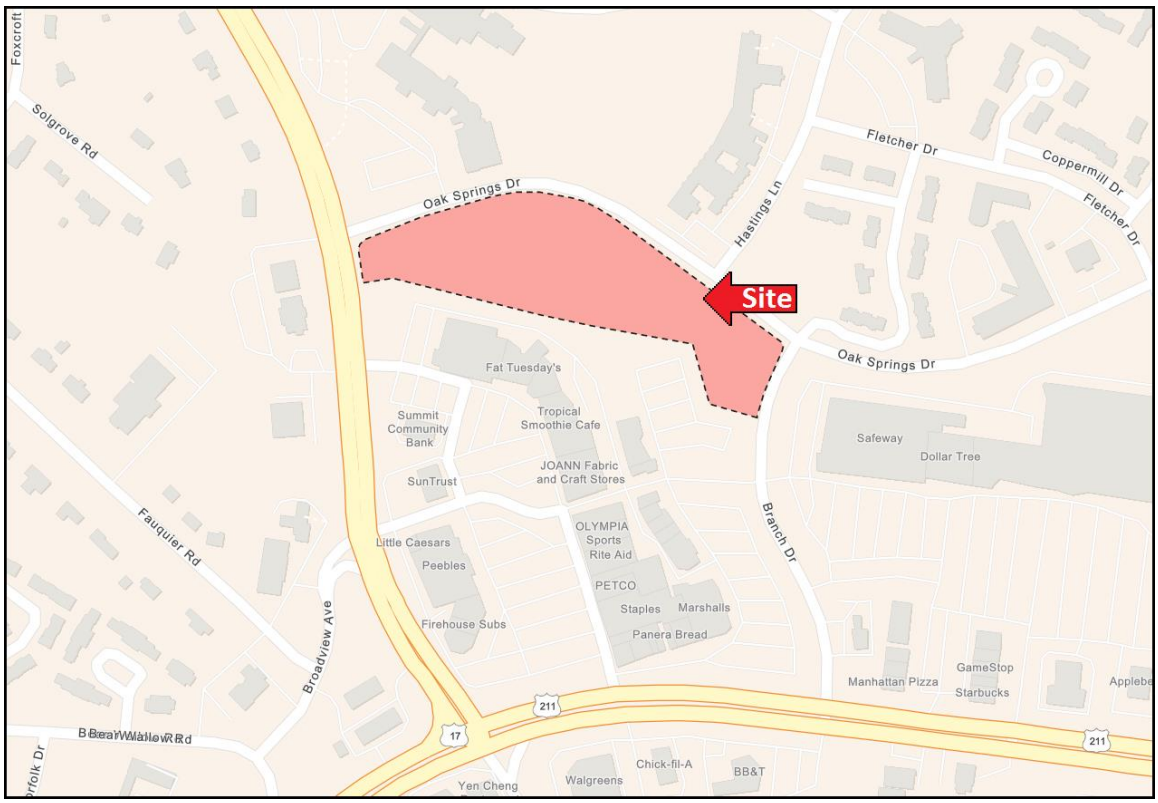
sufficient market data to support the development proposal, as planned. The Conclusions of the market analysis will be the base data for the preparation of the FIA.

Section III is the calculation of the full-narrative FIA that documents annual net tax revenue from the Warrenton Village proposal, based on on-site and off-site revenues from on-site expenditures. Town costs are subtracted from the revenue estimates to establish a net fiscal benefit. For this analysis, all tax revenue and cost data are presented in constant 2023 dollars.

Warrenton Village

Site Description

Map A shows the location of the study site along the southern side of Oak Springs Drive in the Town of Warrenton. The site is bounded to the west by Broadview Drive and to the east by Branch Drive. Its southern boundary is the Warrenton Village Shopping Center, with tenants including Petco, Staples and Marshalls. The study site is shown to be near W Lee Highway, which is a major arterial roadway in the Town that provides direct access to Fauquier Health in the south and U.S. Route 15 in the east.

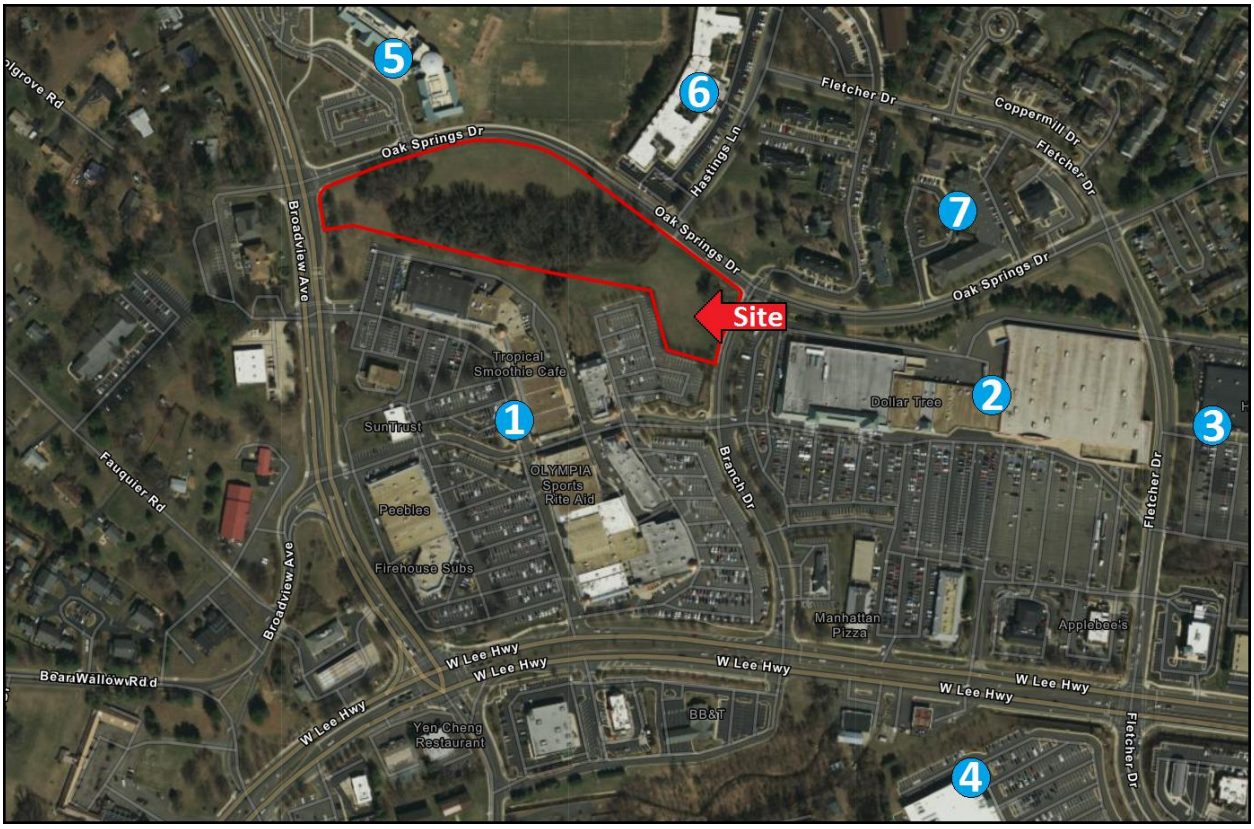


Map A – Site Location

Shown next is a northern aerial of the study site. The aerial shows the irregularly shaped site to be located within a mixed-use setting. Commercial uses generally flank W Lee Highway to the south. This includes the Marshalls-anchored Warrenton Center (Note 1), Safeway-anchored Warrenton Village (Note 2), Giant-anchored Oak Springs Plaza (Note 3) and Harris Teeter-anchored North Rock Shopping Center (Note 4). This is the largest commercial concentration in the Warrenton area. Many of the area restaurants and retailers are within walking distance of the Warrenton Village site.

To the north of the study site is a large private school with over 500 students called Highland School (Note 5) as well as the 130-bed Brookside Rehab & Nursing Center (Note 6). Residential areas are situated to the northeast of the study site and include The Oaks of Warrenton (Note 7), a 111-unit affordable, age-restricted apartment community that was built in two phases

in 1996 and 2001. Most of the other nearby homes are townhomes and condos that have generally sold in the $200,000s and $300,000s.



Northern Aerial

Overall, the study site is well-located and in close proximity to local arterial streets, an interchange with U.S. Route 15, nearby employment centers, and a host of big-box and small retailers that serve the existing residential market.

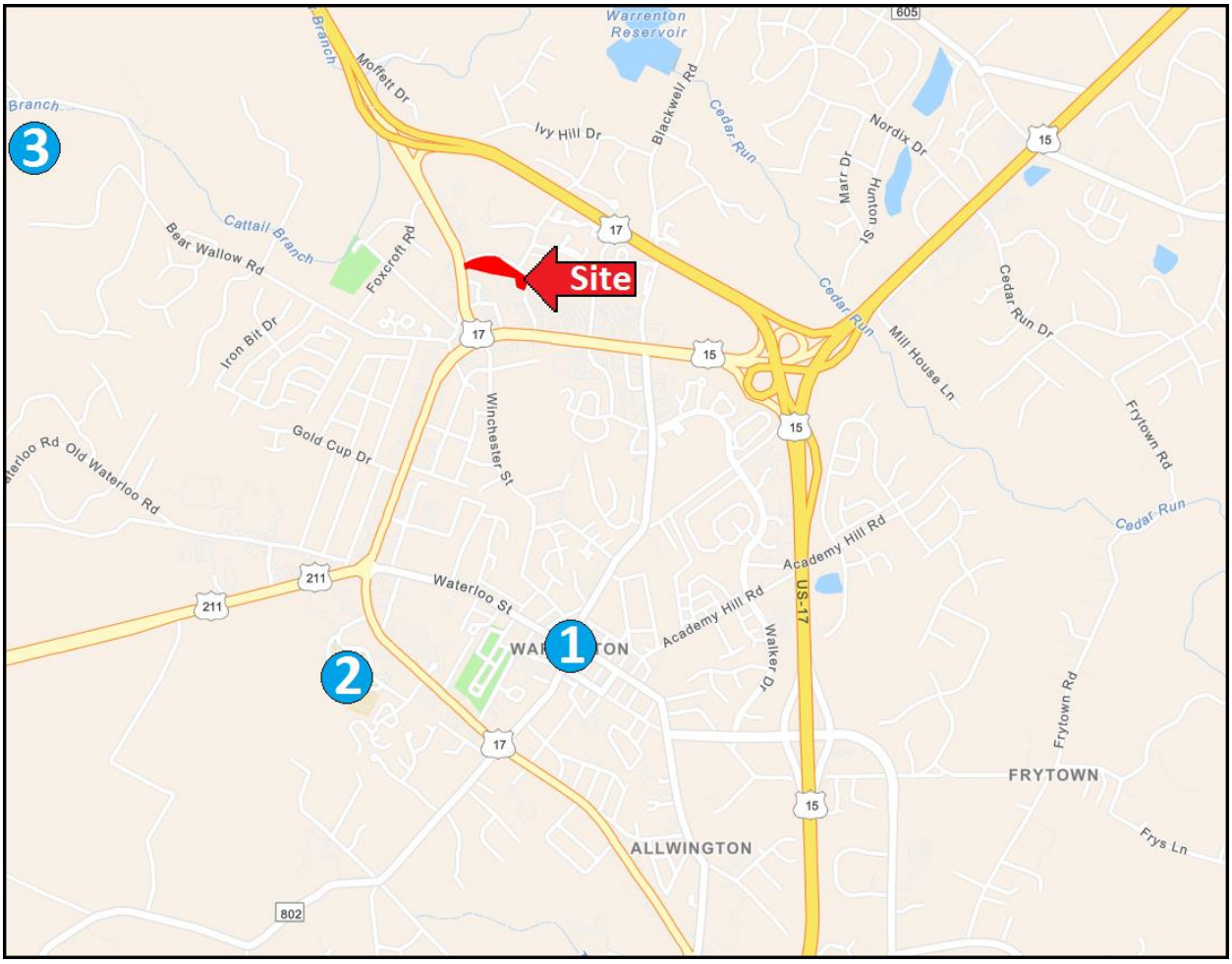
Map C, on page 10, depicts the site setting within the Town of Warrenton. As previously noted, the site is located near W Lee Highway, which accesses U.S. Route 15 less than a mile to the east. This roadway provides direct access to the greater Gainesville/ Haymarket area of western Prince William County, which is the nearest employment cluster outside of Fauquier County. Gainesville is an approximately 12-mile drive from the study site and is the location of

an interchange with I-66 that extends to other major employment centers elsewhere in Northern Virginia.

U.S. Route 17 is also shown to be located just north of the study site via Broadview Avenue. This roadway accesses the community of Marshall at the northern edge of Fauquier County, as well as Bealeton to the south. Both locations are primarily residential. In addition, Map C shows the site's close proximity to Downtown Warrenton, approximately 1.5 miles from the study site. This is the location of several restaurants, specialty retailers and professional office space.

Also shown to be located near the study site is Fauquier Hospital (Note 2), which is located at 500 Hospital Drive in Warrenton. This is a 97-bed, acute care hospital offering surgical services (including robotics), a 24-hour Emergency Department, extensive medical imaging capabilities and an Intensive Care Unit. Construction was recently completed in 2020 on the hospital's new 25,640± square foot Cancer Center. There is approximately 50,000 square feet of medical office space adjacent to Fauquier Hospital. North of the hospital is the large Fauquier Health Rehabilitation and Nursing Center and four office structures that are occupied by County officials.

Map C also shows the site to be located within close proximity of the Warrenton Training Center (Note 3), which is a 346-acre classified United States government communication complex. County staff estimate that the complex employs approximately 350 people.



Map C - Site Setting

Shown next are photos of the study site. The site is shown to be partially wooded and fully vacant.




Southern View of site from Oak Springs Drive

Development Program

The development program for Warrenton Village involves the development of a vacant 6.46-acre parcel with a mix of an elevator-served apartment building alongside two-over-two and townhomes for rent.

Table 1 provides a detailed description of the study proposal, with data on unit sizes, unit mix and proposed rents. The table shows a mix of 133 one-bedroom, 159 two-bedroom and 84 three-bedroom units. One-bedroom apartment units will be spacious and range in size between 642 and 950 square feet, or an average of 771 square feet. Two-bedroom units, each with two full bathrooms will also be large, ranging in size between 980 and 1,184 square feet, or an average of 1,103 square feet. The three-bedroom apartment units will range in size between 1,388 and 2,583 square feet. The three-bedroom two-over-two units will be 1,586 and 2,583 square feet. The three-bedroom townhome units will all measure 2,050 square feet. The three-bedroom units will have between 2.0 and 3.5 bathrooms.

Rents will exclude utilities but will include in-unit washers and dryers at no additional cost to the tenant. One-bedroom rents are proposed to range between $1,650 and $1,900, or an average of $1,750. The smaller two-bedroom apartment units will rent for $2,200 while the larger two-bedroom apartment units will rent for $2,350. The two-bedroom units will rent for an average of $2,250. The three-bedroom apartment units will rent for between $2,400 and $2,550. The three-

bedroom two-over-two units will rent for between $2,800 and $3,000. The three-bedroom townhome units will rent for between $3,100 and $3,200.

Table 1: Proposed Unit Characteristics, Warrenton Village, June 2022

	Unit Type	Bathrooms	Total Units	Unit Sizes (Sq. Ft.)	Proposed Rents 1/
One-Bedroom					
A1	Apartment	1.0	50	642	$1,650
A2	Apartment	1.0	28	725	$1,725
A3	Apartment	1.0	2	790	$1,750
A4	Apartment	1.0	22	768	$1,750
A5	Apartment	1.0	11	850	$1,800
A5A	Apartment	1.0	3	950	$1,900
A6	Apartment	1.0	6	750	$1,750
A7A	Apartment	1.0	4	724	$1,700
A7B	Apartment	1.0	4	738	$1,725
A8	Apartment	1.0	3	775	$1,750
Subtotal/ Average			*133*	*771*	*$1,750*
Two-Bedroom					
B1	Apartment	2.0	92	1,054	$2,200
B2	Apartment	2.0	45	1,167	$2,300
B3	Apartment	2.0	7	1,040	$2,200
B4	Apartment	2.0	4	1,130	$2,300
B5A	Apartment	2.0	3	1,184	$2,350
B5B	Apartment	2.0	4	1,164	$2,300
B6	Apartment	2.0	4	980	$2,100
Subtotal/ Average			*159*	*1,103*	*$2,250*
Three-Bedroom					
C1	Apartment	2.0	17	1,388	$2,400
C2	Apartment	2.0	4	1,425	$2,500
C3	Apartment	3.0	7	1,496	$2,550
D1	Two-Over Two	2.5	18	1,586	$2,800
D2	Two-Over Two	2.5	18	2,583	$3,000
E1	Townhome	2.5	10	2,050	$3,100
E2	Townhome	3.5	10	2,050	$3,200
Subtotal/ Average			*84*	*1,797*	*$2,793*
Total			**376**		

Notes: 1/ Excludes utilities. Includes washer/ dryers.

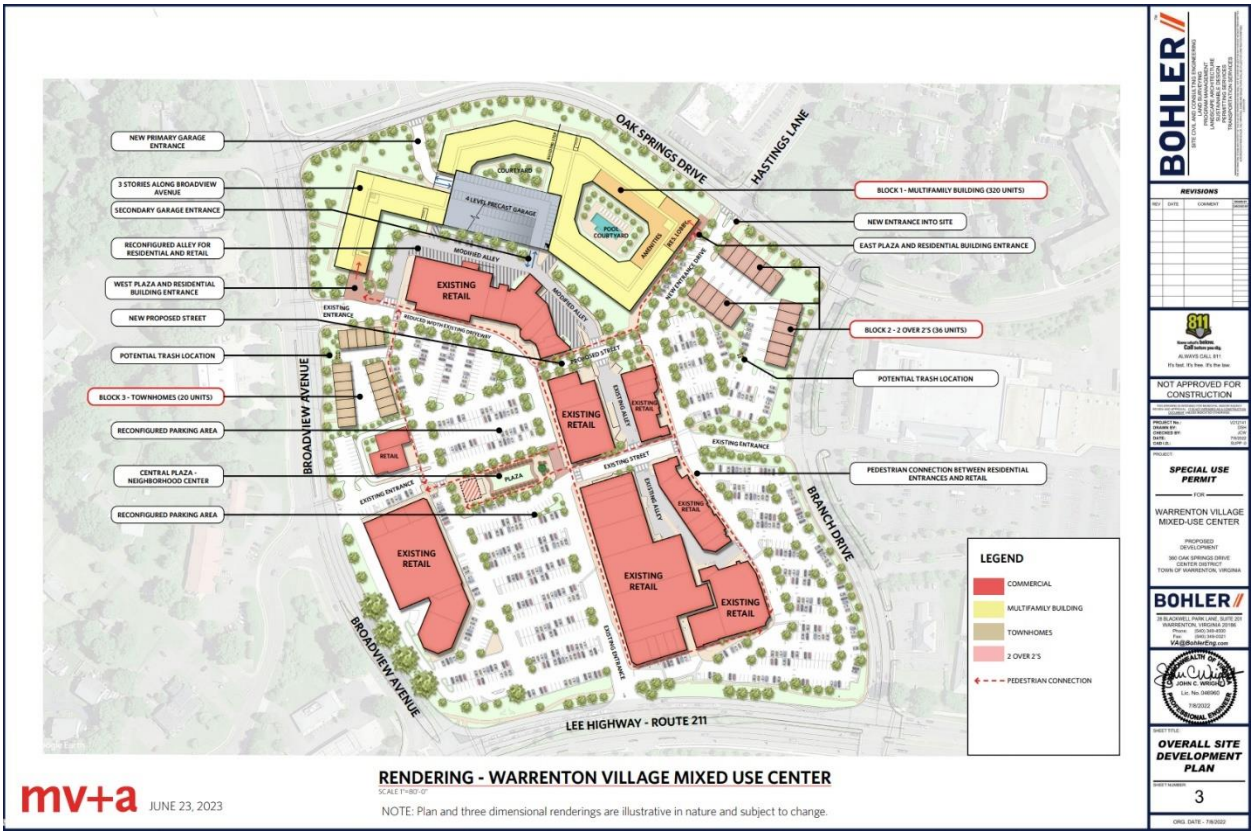
Source: Castle Development Partners

The Warrenton Village proposal will considerably exceed the quality, designs, finishes, and amenities at the market area's apartment properties. The rental units will be comparatively large and, unlike any other rental units in the market area, within walking distance of a host of area retailers and restaurants. Unit features will include granite countertops, stainless steel

appliances, LVT plank throughout (with exception of carpet in bedrooms), 9' ceilings, LED lights, and balconies in all apartment units.

Shown next is the proposed site plan for Warrenton Village. The site plan shows that the apartment community will be accessed from Oak Springs Drive in the north by a newly built roadway.

The community will consist of two development areas. To the west will be a large three- and four-story 320-unit, elevator apartment building. This building will contain 10,000± square feet of amenity space, including a leasing office, large clubroom, fitness center and business center. It will also contain two landscaped courtyards, one of which will include a large outdoor swimming pool. The building will also access a four-story, 445-space parking garage. The eastern side of the property will include the remaining rental units. There will be a total of 574 parking spaces. This equates to a parking ratio of 1.53 spaces per housing unit.



Warrenton Village Site Plan

A rendering of the proposed apartment community is presented next. The renderings show a contemporary and attractive flat roof design that is well above the competition in terms of curb appeal and design features. The building exteriors will contain a mix of masonry, wood siding and white cement panel. Overall, Warrenton Village will be an attractive, upscale community with no direct area competition.



Warrenton Village Rendering

Market Area Economic Overview

This part of Section I of the market analysis presents an economic overview of Fauquier County, with base data for all of Fauquier County, which includes the Town of Warrenton. Data from the U.S. Bureau of Labor Statistics do not provide employment data on the Town level. Three economic factors are presented and analyzed to show the economic stability of the County: (1) at-place job growth, (2) employment and labor force trends, and (3) an evaluation of active development plans that are expected to generate new job and employment growth. These are the primary factors that show the level of economic stability in the market area and the ability for new investments, particularly for new housing.

The three economic factors under study are analyzed in the paragraphs to follow. Key to this analysis is that job growth supports growth in population and households, and therefore,

housing unit demand, particularly of the type of housing under study. Thus, the establishment of the market area's economic stability is a key issue related to the demographic growth of the market area. The economic analysis is presented to support the demographic projections used to support future apartment unit demand.

At-Place Jobs

At-place employment refers to jobs physically based at employers in Fauquier County, whether the job is based in private sector or government offices, manufacturing facilities, schools, retail stores, restaurants, nursing home or other facilities. As of year-end 2019, and prior to the more recent pandemic-induced job losses, Fauquier County had 22,250± at-place jobs, which exceeds the 2008 total by over 850 jobs, or four percent.

The County faced heavy job losses between 2008 and 2010 due to the recession of that time and a period in which at-place employment declined by 1,250±. Net job growth began soon after in 2011, with at-place jobs exceeding the pre-recession peak in 2013. Most recently, employment expanded by 300± in 2018, but fell by 170± in 2019. The job losses in 2019 were not associated with any mass layoffs and were principally driven by the loss of 120± jobs in the Accommodations/ Food sector.

Public sector jobs account for the majority of employment in the County, with nearly 20 percent of jobs in Fauquier County associated with local, state of federal employment. Most of these public sector jobs are associated with local government and tied to the Fauquier County School Board. Much of the federal employment is related to the U.S. Department of Transportation, which operates a facility in Warrenton. Public sector employment has also been a source of modest job growth, with nearly 360 public sector jobs added since 2008.

The largest private employment sector in Fauquier County is the Retail Trade sector, which accounts for nearly 13 percent of County-wide employment. Much of this employment is clustered in and around Warrenton, and to a smaller extent the Bealeton area. Several of the

County's larger employers are in this sector, including Walmart, Food Lion and Home Depot. Employment in this sector has expanded by 160± since 2008.

The next largest private employment sector in the County is the Health Care sector, accounting for 2,550± jobs, or 11.5 percent of County employment. Much of this employment is associated with the Fauquier Health System, which is the largest private employment in the County with over 1,000 employees.

Several other employment sectors have recorded job growth during this period. These include Professional/ Technical Services (420± new jobs), Accommodations/ Food (230± new jobs), Administrative/ Waste Services (160± new jobs), Education (120± new jobs), Education (120± new jobs), Other Services (80± new jobs), Finance/ Insurance (70± new jobs), Manufacturing (60± new jobs) and Real Estate (40± new jobs).

Only four employment sectors have recorded a net loss of jobs since 2008. The heaviest job losses were concentrated in the Construction sector, which has 350 fewer jobs as of year-end 2019 compared to year-end 2018. Most of these losses, however, occurred in the years immediately following the Great Recession. Construction employment has grown every year since 2014, with over 500 jobs added since that time. Other sectors with job losses since 2008 include Wholesale Trade (240± jobs lost), Information (70± jobs lost) and Management of Companies (40± jobs lost).

Table 2: Trends in Average At-Place Employment, Fauquier County, Virginia, 2008-2019

Industry	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	550	393	401	ND	ND	ND	396	396	392	ND	ND	ND
Mining	57	53	51	ND	ND	ND	54	56	64	ND	ND	ND
Utilities	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	116
Construction	2,880	2,316	2,248	2,112	2,066	2,023	2,117	2,210	2,292	2,350	2,459	2,530
Manufacturing	863	797	756	794	798	825	873	918	950	958	935	923
Wholesale Trade	727	615	546	563	481	448	420	434	448	507	490	485
Retail Trade	2,713	2,573	2,637	2,673	2,790	2,864	2,859	2,994	3,044	2,950	2,899	2,873
Transport./ Wareh.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	239
Information	246	197	162	147	160	101	113	128	133	140	137	181
Finance/Insurance	479	445	486	509	501	504	515	467	497	496	526	553
Real Estate	218	315	318	308	365	377	363	288	262	271	253	258
Prof./Tech.	1,307	1,339	1,352	1,632	1,662	1,658	1,654	1,716	1,761	1,690	1,792	1,727
Mgmt of Co.s	212	213	192	ND	242	175	174	181	178	176	167	169
Admin./Waste	487	432	413	ND	534	485	472	484	522	548	622	645
Education	365	350	319	322	339	338	342	421	448	482	524	484
Health Care	2,415	2,499	2,386	2,386	2,703	2,781	2,747	2,686	2,575	2,532	2,544	2,549
Arts/Enter./Rec.	442	414	467	444	417	411	359	346	334	328	303	306
Accom./Food	2,067	1,932	1,962	1,969	2,025	2,095	2,050	2,201	2,370	2,407	2,414	2,293
Other Services	998	943	972	972	1,081	1,009	1,060	1,110	1,119	1,154	1,192	1,080
Local Gov.	3,199	3,268	3,264	3,434	3,314	3,302	3,226	3,194	3,263	3,280	3,314	3,350
State Gov.	392	398	401	389	404	413	409	393	391	390	394	394
Federal Gov.	421	435	454	564	623	610	597	581	601	610	618	625
Total	**21,395**	**20,273**	**20,145**	**20,781**	**21,387**	**21,213**	**21,076**	**21,549**	**22,054**	**22,116**	**22,417**	**22,249**

Notes: ND = Data do not meet BLS or State agency disclosure standards.

Source: United States Department of Labor, Bureau of Labor Statistics

Table 3 shows the net change in at-place job totals since 2008. Very few sectors experienced job losses during this period. Job growth has been spread among a diverse set of sectors. The key figure shown in Table 3 is the 4.0 percent net growth in new jobs since 2008, for a net increase of 850± jobs.

Table 3: Change in Average At-Place Employment, Fauquier County, Virginia, 2008-2019

Industry	Net Change	Percent Change
Construction	-350	-12.2%
Manufacturing	60	7.0%
Wholesale Trade	-242	-33.3%
Retail Trade	160	5.9%
Information	-65	-26.4%
Finance/Insurance	74	15.4%
Real Estate	40	18.3%
Prof./Tech.	420	32.1%
Mgmt of Co.s	-43	-20.3%
Admin./Waste	158	32.4%
Education	119	32.6%
Health Care	134	5.5%
Arts/Enter./Rec.	-136	-30.8%
Accom./Food	226	10.9%
Other Services	82	8.2%
Local Gov.	151	4.7%
State Gov.	2	0.5%
Federal Gov.	204	48.5%
Total	**854**	**4.0%**

Notes: ND = Data do not meet BLS or State agency disclosure standards.
Source: United States Department of Labor, Bureau of Labor Statistics

Next shown, in Table 4, are the employment changes that occurred in 2020, which is an outlier year given the unusual impact of the COVID-19 pandemic. The data show a significant loss of jobs, with a reduction in employment of over 880, or by 4.0 percent.

These losses occurred across most employment sectors, with the heaviest job losses impacting the Accommodations/ Food services sector (370± jobs lost), Local Government sector (190± jobs lost) and Health Care sector (170± jobs lost). Although these losses are sizeable, many of these layoffs are expected to be temporary and will likely be recovered once 2021 employment data are released. The local housing market has not been negatively affected by these job losses.

Of note is that several employment sectors did add jobs in 2020, including the Professional/ Technical Services sector (130± new jobs), Retail Trade sector (50± new jobs) and the Transportation/ Warehousing sector (50± new jobs).

Data for 2021 show an increase of 440± jobs in Fauquier County, which signals a continued recovery. Several employment categories recorded net job growth. There are just over 430 fewer at-place jobs at year-end 2021 compared to the pre-pandemic peak.

Table 4: Change in Total At-Place Employment, Fauquier County, Virginia, 2019-2021

	2019	2020	2021	Net Change
Utilities	116	122	117	1
Construction	2,530	2,527	2,624	94
Manufacturing	923	841	960	37
Wholesale Trade	485	473	454	-31
Retail Trade	2,873	2,921	2,944	71
Transportation/Warehousing	239	286	311	72
Information	181	163	179	-2
Finance/Insurance	553	550	549	-4
Real Estate	258	260	268	10
Professional/Technical Services	1,727	1,859	1,871	144
Management of Companies	169	158	126	-43
Admin./Waste Services	645	593	622	-23
Educational Services	484	460	504	20
Health Care	2,549	2,379	2,269	-280
Arts/Entertainment/Recreation	306	235	241	-65
Accommodations/Food	2,293	1,926	2,058	-235
Other Services	1,080	955	1,061	-19
Local Government	3,350	3,161	3,209	-141
State Government	394	396	362	-32
Federal Government	625	652	659	34
Total	**22,249**	**21,370**	**21,813**	**-436**

Source: United States Department of Labor

The U.S. Bureau of Labor Statistics has not yet released year-end data for 2022. However, as of September 2022, the date for which the most recent data are available, Fauquier County totals nearly 22,400 at-place jobs, which is in line with pre-pandemic employment levels.

Employment and Labor Force

Employment differs from at-place jobs as it refers to the number of market area residents who are employed, no matter where the job is located. At-place jobs refer to where the job is located, i.e., within Fauquier County. Data are current to year-end 2021 for Employment and Labor Force.

Fauquier County realized a net increase in employment of 770± over the twelve-year period between 2008 and 2019. Like at-place job trends, employment grew early in the decade, up until 2008, when employment reached a pre-recession peak of 36,400± jobs.

Employment totals are larger than at-place job totals, which means net out-commuting occurs into neighboring jurisdictions. These trends are an indication of the market for housing in Fauquier County, with a high percentage of County labor force working across the Washington Region. However, they are selecting homes in Fauquier County.

Employment fell sharply in 2009 when 940± jobs were lost, pushing the unemployment rate from 3.6 percent to 5.6 percent in a single year. A slow recovery began soon after in 2011. Growth in employment occurred every year since, with total employment exceeding pre-recession levels in 2019. The labor force has also grown every year between 2015 and 2019, suggesting sustained confidence in the labor market. This has pushed the overall unemployment rate higher than it otherwise would be.

Recent years have been characterized by a steady increase in the pace of job growth. Employment grew by 350± in 2017, 1,010± in 2018 and 1,070± in 2019. This exceeds the level of growth of at-place jobs and denotes that part of the growth in the resident population of Fauquier County was driven by new jobs in neighboring communities.

Data in Table 5 show that the unemployment rate was a low 2.4 percent in 2019, down from 3.9 percent in 2015. The low unemployment rate means that new job growth will require new residents for the County.

Total employment declined by 2,110± in 2020, pushing the unemployment rate up from a low 2.4 percent in 2019 to 4.7 percent, the highest unemployment rate since 2013. Data for 2021 show some improvements, with employment expanding by 80±. The labor for declined by 560± in 2021, which contributed to the low unemployment rate of 3.0 percent.

Table 5: Trends in Employment and Unemployment, Fauquier County, Virginia, 2008-2021

	Labor Force	Employment	Unemployment	Percent Unemployed
2008	37,765	36,403	1,362	3.6%
2009	37,560	35,459	2,101	5.6%
2010	35,805	33,536	2,269	6.3%
2011	36,073	34,092	1,981	5.5%
2012	35,975	34,162	1,813	5.0%
2013	35,928	34,198	1,730	4.8%
2014	36,049	34,427	1,622	4.5%
2015	35,873	34,477	1,396	3.9%
2016	35,977	34,745	1,232	3.4%
2017	36,269	35,091	1,178	3.2%
2018	37,054	36,096	958	2.6%
2019	38,085	37,168	917	2.4%
2020	36,777	35,058	1,719	4.7%
2021	36,217	35,138	1,079	3.0%
Net Change	**-1,548**	**-1,265**	**-283**	**-0.6%**

Source: United States Department of Labor, Bureau of Labor Statistics

COVID-19 and Employment

Table 6 shows monthly employment data as of April 2023 in Fauquier County to illustrate the local employment impact of the COVID-19 pandemic. This is the date for which the most recent data are available. Trend data show that total employment has increased by nearly 1,400 since January 2020, with the number of unemployed shrinking by over 120. These data show considerable economic improvements.

The unemployment rate, as of April 2023, is a very low 2.1 percent, down from 9.1 percent in April 2020. The low unemployment rate reflects the difficulty that local employers report in hiring new staff and necessitates new residents to the County to fill vacant and future jobs.

Table 6: Trends in Employment and Unemployment, Fauquier County, Virginia, 2020-2023 YTD

	Labor Force	Employment	Unemployment	Percent Unemployed
January 2020	37,631	36,674	957	2.5%
February 2020	37,692	36,824	868	2.3%
March 2020	37,237	36,207	1,030	2.8%
April 2020	35,897	32,638	3,259	9.1%
May 2020	35,376	32,643	2,733	7.7%
June 2020	36,700	33,899	2,801	7.6%
July 2020	36,521	34,131	2,390	6.5%
August 2020	36,545	34,630	1,915	5.2%
September 2020	35,851	34,310	1,541	4.3%
October 2020	36,555	35,198	1,357	3.7%
November 2020	36,289	34,973	1,316	3.6%
December 2020	36,117	34,929	1,188	3.3%
January 2021	36,048	34,716	1,332	3.7%
February 2021	35,894	34,635	1,259	3.5%
March 2021	36,013	34,747	1,266	3.5%
April 2021	36,141	35,085	1,056	2.9%
May 2021	36,334	35,173	1,161	3.2%
June 2021	37,478	36,109	1,369	3.7%
July 2021	37,536	36,293	1,243	3.3%
August 2021	37,231	36,054	1,177	3.2%
September 2021	36,740	35,719	1,021	2.8%
October 2021	37,217	36,329	888	2.4%
November 2021	36,843	36,218	625	1.7%
December 2021	37,157	36,284	873	2.3%
January 2022	37,155	36,215	940	2.5%
February 2022	37,078	36,203	875	2.4%
March 2022	37,349	36,459	890	2.4%
April 2022	37,520	36,729	791	2.1%
May 2022	37,611	36,624	987	2.6%
June 2022	38,342	37,327	1,015	2.6%
July 2022	38,549	37,524	1,025	2.7%
August 2022	38,216	37,051	1,165	3.0%
September 2022	37,678	36,664	1,014	2.7%
October 2022	38,207	37,193	1,014	2.7%
November 2022	37,968	36,945	1,023	2.7%
December 2022	37,974	37,115	859	2.3%
January 2023	38,232	37,132	1,100	2.9%
February 2023	38,299	37,320	979	2.6%
March 2023	38,759	37,783	976	2.5%
April 2023	38,846	38,012	834	2.1%
Net Change	**1,215**	**1,338**	**-123**	**-0.4%**

Notes: 1/ Preliminary. Subject to change.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Current Developments

Most businesses in Fauquier County are small, with over 90 percent having fewer than 20 employees. The largest employer in the County is the Fauquier County School Board, with over 1,900 employees. The second largest employer is the Fauquier Health System, which employs over 1,000 people. The next two largest employers are the U.S. Department of Transportation and Walmart. All of these employers are located within quick driving distance of the Warrenton Village site.

The agriculture and forestry industries directly employ over 500 people, with many more employed in related industries. Tourism represents a growing segment of the economic sector in Fauquier County with nearly 30 vineyards and wineries spread across the County. More recently, the County has also targeted defense and other government contractors as a vital sector, with over 100 firms operating in the County.

Recent job generating development activity in Fauquier County include:

- **E-Z Treat**, a manufacturer of residential and commercial wastewater treatment systems, announced in December 2022 that it would expand its Catlett operations with a new 33,000± square foot building that will generate 16 new engineering and manufacturing jobs.

- **Silver Branch Brewing**, a Maryland-based brewery, announced in June, 2023 that it would open a location in Fauquier County, adding 38 new jobs. The expansion will be the second location for the brewery. Silver Branch is taking over the Warrenton location of the former Wort Hog Brewing Co., which closed in early-2022. The brewery will have 18 to 24 rotating taps at each location. The Warrenton location will add between 750 to 1,000 barrels of capacity. The facility is expected to open in the fall of 2023.

- **Piedmont Urgent Care** announced in September 2021 that it would build a single-story, 7,540± square foot urgent care facility and pharmacy on the corner of Blackwell Road and Walker Drive in Warrenton. The facility has since opened.

- **Oak View National Bank** announced in May 2021 that it would build a 7,000± square foot building on a vacant lot on Waterloo Street, near its current headquarters on Broadview Avenue in Warrenton. The new Warrenton facility will feature a drive thru. Construction was completed in 2022.

- **Lord Fairfax Community College**. Construction was completed in June 2022 on a new science and technology building on the Fauquier campus of Lord Fairfax Community College to be called Eleanor C. and William A. Hazel Hall. The two-story, 40,000± square foot building houses a nursing skills lab, science labs, engineering and fabrication labs, classrooms, a board room, faculty offices, study spaces and a lounge and a conference center with banquet seating for 275 people. The college also has plans currently under review to construct a single-story, 8,130± square foot trades lab building. The new building will allow the college to offer trades classes for the first time on the Fauquier Campus, including a new carpentry program. Other programs planned for the new building include electrical, HVAC, plumbing and heavy equipment operator.

- **Catlett Data Center Park**. This is a proposal to construct two data centers of 1.4 million square feet at Route 28 and Gaskins Lane.

- **Royal Farms**. Construction was completed in 2022 on new Royal Farms at the southwest corner of Routes 17 and 29 at Opal. The development includes a 4,650± square foot convenience store and 14 fuel pumps. Future development of the remaining 2.1 acres calls for an unspecified 3,160± square foot fast-food restaurant, which would share the same entrance with Royal Farms.

- **Hilton Home2 Suites at Mintbrook**. This is proposed four-story, 90- to 100-room hotel planned for a site within the Mintbrook development in Bealeton. The proposal is currently under review.

- **Puller Veterans Care Center**. Construction was completed in March 2022 on this long-term care center at Vint Hill for military veterans at Vint Hill Road and MacIntosh Drive in eastern Fauquier. The 145,000± square foot, 128-bed facility has eight, 16-bed "houses" flanking the "community center." Each resident has a private room and bathroom. The center has a large dining area, but each house also has a kitchen for smaller meal gatherings, including those with family members. The facility employs approximately 220 people.

- **Lock-It-Up Self Storage**. Plans were submitted in mid-2022 to construct a self-service storage facility, to include storage units and an office, at 10526 Global Way in Bealeton. The facility will consist of six self-storage buildings, totaling 65,750± square feet. The individual storage buildings range from 4,400± square feet to 21,750± square feet. Approximately 1,050± square feet within one of the buildings will be dedicated for office space for the facility.

- **Wexford Village**. Plans were submitted in mid-2022 for commercial development on the west side of Marsh Road across from Village Center Drive in Bealeton. Plans call for a car wash as well as a total of 90,000± square feet of warehouse/self-storage facility use.

- **The Bank of Clarke County** opened a new branch at 530 Blackwell Road in Warrenton in July 2022.

- **17/66 Industrial Park Lot 8**. Plans were submitted in mid-2022 for the construction of a 104,700± square foot warehouse building along Whitting Road between the Norfolk Southern Railroad and Brampton Court. The proposal is still under review.

- **Vint Hill Independent /Assisted Living**. This is a proposal for a retirement community to be built near the intersection of Rogues Road and Farm Station Road in the Vint Hill area. The facility, which is currently under review, is proposed for 90 apartment units.

- **Amazon Web Services** announced in June 2022 that it would build a 220,200± square foot data center in Warrenton, at the intersection of Blackwell Road and Lee Highway. The Warrenton Town Council approved a special use permit for the project in February 2023. The facility is expected to employ approximately 52 people.

It is difficult to quantify the level of future job growth in Fauquier County, as many employers are small and therefore their expansion plans are not tracked by local or state economic development agencies. Economic development officials note that many local employers have vacant positions that they are struggling to fill, partially due to housing availability for prospective employees.

In addition is a significant level of future job growth in neighboring Prince William County. Data in Table 3 and Table 5 above show that Fauquier County is the location of a considerable number of commuters, and thus the local housing market is greatly impacted by job growth elsewhere in Northern Virginia.

Research from S. Patz & Associates has identified at least 3,500 new jobs that have been publicly announced over the next few years within neighboring Prince William County. This total likely undercounts the level of future job growth as many expansions are smaller in scale and not publicly reported. Many of these jobs are in the western portion of Prince William County and near Fauquier County. In addition are several million square feet within multiple data centers that are planned and under construction in this part of the county that will generate new, high-paid jobs.

Demographic Trends and Projections

Demographic trends for Fauquier County, which include the Town of Warrenton, as well as the adjacent areas of western Prince William County, are presented in Table 7. The Prince William County portion of the market area includes the community of Gainesville and the Town of Haymarket. This portion of Prince William County was included in the market area based on interviews with area apartment managers who note a very limited supply of upscale apartment units in Warrenton, with Warrenton likely to compete with the greater Gainesville/ Haymarket area for the upscale rental market.

The market area's population, as of 2022, is estimated to total 203,890±, based on calculations from the Weldon Cooper Center for Public Service and derived from the most recent 2020 U.S. Census count. For Fauquier County, the 2022 population total of 73,540± exceeds the 2010 census count by 8,340±, or an annual population growth rate of nearly 700. This means that population growth in the County for the 2010 decade is below the rate of the 2000 decade, when the population increased by an annual average of approximately 1,000 people. The Prince William County portion of the market area had a significant increase in population since 2010, with the population expanding by over 28,000. This was a slower pace of population growth compared to the 2000s.

The slower level population growth that has occurred in Fauquier County and western Prince William County since 2010 is due to a lack of new housing development and readily available land for the development of new homes. Modest employment growth in Fauquier County is a second factor. The analysis to follow shows only a limited number of new and proposed apartment communities in the market area at this time. Based on population trends, planned housing developments and some job growth, the market area population is projected to reach 219,280± by 2027.

The target market for the new apartment units at Warrenton Village is renter households earning incomes of $66,000 and above, when incomes are reported in constant 2023 dollars.

Households in this income category can afford net rents of $1,650 and above, based on 30 percent of income allocated toward net rents.

As of 2022, the market area has approximately 8,780 renter households in the target income category. This total is 2,640± more than in 2010, with much of this growth supported almost by renters in scattered rental units within for-sale subdivisions. As will be shown below, the market area has very few "upscale" apartment communities, and most are now mature. Trend data and future employment growth support a continued net increase in renters within this income category, with an expectation to reach 9,880± target renter households by 2027, the forecast date of this report. This represents an increase of 1,100± households.

Table 7: Trends and Projections of Population and Households, Warrenton Village Market Area, 1990-2027
(Constant 2023 dollars)

	1990	2000	2010	2022	2027
Market Area Population	69,950	93,140	166,960	203,890	219,280
Fauquier County	48,740	55,140	65,200	73,540	--
Prince William County Portion 3/	21,210	38,000	101,760	130,350	--
Group Quarters Population	1,470	770 1/	750	1,150	1,150
Household Population	68,480	92,370	166,210	202,740	218,130
Persons Per Household	2.84	2.74	2.91	2.90	2.89
Total Households	24,140	33,770	57,040	71,630	75,480
Renter Households	7,100	8,740	13,240	18,160	20,210
Percent Renter Households	29.4%	25.9%	23.2%	25.4%	26.7%
Target Market ($66,000+)					
Total Households	3,070	3,960	6,140	8,780	9,880
Percent of Renter Households	43.2%	45.3%	46.4%	48.3%	48.9%

Notes: 1/ Decline due to closure of Vint Hill Station in 1997, a U.S. Army and NSA signals intelligence and electronic warfare facility.
2/ Growth driven by opening of White Springs Senior Living, Poet's Walk Warrenton, The Villa at Suffield Meadows, and Puller Veterans Station.
3/ Includes the following U.S. Census tracts in Prince William County, VA: 9014.03, 9014.07, 9014.08, 9014.09, 9014.10, 9014.11, 9014.12, 9014.13, 9014.14, 9014.15, 9014.16, 9014.17, 9015.03, 9015.04, 9015.05, 9015.06, 9015.07, 9015.08, 9015.09, 9015.10 and 9015.11.

Source: U.S. Census Bureau; Weldon Cooper Center for Public Service; S. Patz & Associates, Inc.

It should be noted that the demographic trends and projections detailed in Table 7 include the Town of Warrenton. Demographic trends and projections are analyzed for the entire market area, which is comprised of Fauquier County (including Warrenton), as well as the adjacent areas of Gainesville and Haymarket in Prince William County. The market area is the geographic area from which the majority of future tenants at Warrenton Village are expected to originate from and where the competitive rental housing alternatives are located. An analysis of demographic trends and projections of only the Town of Warrenton would understate the market for future renters.

Data in Table 8 show the demographic trends and projections within the Town of Warrenton for comparison purposes. The projections shown are opportunity projections, as they rely on the ability of the Warrenton Village proposal to be built and occupied. Absent this proposal, the projected population in the Town would be reduced.

The data show modest growth among target income households prior to 2022, which is principally due to a lack of new apartment unit development targeting the upscale market. A comparison to the data in Table 7 shows that most target income households have resorted to renting outside of the Town of Warrenton.

Table 8: Trends and Projections of Population and Households, Town of Warrenton, Virginia, 1990-2027
(Constant 2023 dollars)

	1990	2000	2010	2022	2027
Town of Warrenton Population	4,830	6,670	9,610	10,200	10,850
Group Quarters Population	270	410	340	340	340
Household Population	4,560	6,260	9,270	9,860	10,510
Persons Per Household	2.34	2.34	2.48	2.48	2.47
Total Households	1,950	2,680	3,740	3,980	4,260
Renter Households	920	1,140	1,510	1,570	1,950
Percent Renter Households	47.1%	42.3%	40.3%	39.5%	45.8%
Target Market ($66,000+)					
Total Households	460	440	590	630	1,030
Percent of Renter Households	50.0%	38.6%	38.9%	40.1%	52.8%

Source: U.S. Census Bureau; S. Patz & Associates, Inc.

The key point in Table 8 is that the Town of Warrenton has historically had a small number of renter households, particularly in the targeted income range under study. This is a supply, rather than a demand issue, as the shortage of quality rental housing has pushed prospective renters outside of the Town and in many cases outside of Fauquier County. The construction of a new and attractive rental community, of the type proposed for Warrenton Village, provides an opportunity to reverse these past trends. Again, it should be noted that while Warrenton Village will clearly impact the Town of Warrenton the most, it is likely to attract renters from outside of the Town as well.

Section II: Apartment Market Analysis

This part of the report studies the depth of the greater Warrenton area "better" apartment market. The analysis is intended to determine market support for the apartment units proposed at Warrenton Village. As will be shown, there are no upscale, professionally managed market rate apartment properties in Fauquier County.

In addition to the analysis of the current apartment market, the last subsection of Section II studies the apartment unit pipeline in the market area. These apartment properties are studied for development status, project size and comparison with the Warrenton Village proposal.

Characteristics of the Current Apartment Market

Competitive Apartment Market

The existing professionally managed apartment market in the greater Warrenton area is small, with nearly all professionally managed apartment buildings having income- or age-restrictions in place. Thus, most apartment communities in the Warrenton area and elsewhere in Fauquier County serve a separate population compared to the Warrenton Village proposal. The small number of market rate apartment units in the area are mature, and not fully competitive with the upscale and fully-amenitized Warrenton Village proposal.

The existing market rate apartments in the greater Warrenton area include the 100-unit Aspen Apartments South, 24-unit Green Street Apartments and 24-unit Victoria Gardens Apartments. These are mature, modest rental properties that were built between the 1960s and 1980s and are routinely at full occupancy. They serve a more modest income market compared to the Warrenton Village proposal with lower, non-competitive rents. They therefore do not represent true competition for the Warrenton Village proposal.

The demographic analysis shown above in Table 7 identifies a considerable number of higher-income renter households in the market area, with over 40 percent of renters earning

annual incomes over $66,000. These renters almost entirely occupy scattered townhomes and single-family homes that were not initially built as rental properties, but are instead leased by private individuals, realtors and property management firms. Most are two- and three-bedroom units, with two-bedroom units renting between $1,600 and $2,100 and three-bedroom units primarily renting for over $2,000. Essentially all of these homes are occupied at this time. Data in Table 8 show that a small share of these households currently resides in the Town of Warrenton, with the small percentage due to the persistent limited supply of upscale rental housing.

The closest upscale apartment cluster to Warrenton is the greater Gainesville/ Haymarket area of western Prince William County, which is an approximately 20-minute drive from Warrenton. Management at apartment properties in this area note that they partially compete with the Warrenton market given the severely limited supply of "better" apartments there. There are only three "somewhat" upscale apartments in this part of western Prince William County, as detailed in Table 9 below.

All are now becoming somewhat mature, with two properties—Somerhill Farms and Marque Apartments—now 17 years old, and one property—Somerset Pointe—over 20 years old. Marque Apartments generates one-bedroom rents of between $2,205 and $2,215. Two-bedroom rents at Somerhill Farms and Marque Apartments exceed $2,200. Somerset Pointe has more modest rents as this is an older apartment property. These rents have been readily accepted by the market as all three properties are at or near full occupancy.

The one-bedroom rents at Warrenton Village are proposed to be below the one-bedroom rooms at Marque Apartments and Somerhill Farms. The two-bedroom rents proposed for Warrenton Village will be approximately $200 below the two-bedroom rents at Marque Apartments and Somerhill Farms, on average. The proposed three-bedroom rents of between $2,400 and $3,000 are similar to the rents being generated at area scattered three-bedroom units, most of which offer no on-site amenities and require tenants to cover the costs of landscaping and snow removal. Most are now at least a decade old and with lesser levels of unit finishes and

features compared to the Warrenton Village proposal. The proposed three-bedroom rents are above the rents at Somerset Pointe, which is now over two decades old.

Table 9: Characteristics of Better Apartment Communities, Gainesville/Haymarket, VA, June 2022

	Year Built	Total Units	Vacant Units	One-Bedroom	Two-Bedroom	Three-Bedroom
Residences at Somerhill Farms 1/	2006	140	1	$1,893-$1,967	$2,262-$2,924	$2,398
Marque Apartments	2006	200	7	$2,205-$2,215	$2,214-$2,466	$2,963-$2,998
Somerset Pointe	2001	173	3	$1,517	$1,815	$2,088
Proposed Rents				**$1,650-$1,900**	**$2,200-$2,350**	**$2,400-$3,000**

Notes: 1/ Rent data only provided for vacant and soon-to-be vacant units.
Source: Field and Telephone Survey by S. Patz and Associates, Inc.

Shown next are photos of the above apartment properties. All are multi-level buildings, but none have contemporary designs, and none are as attractive as the Warrenton Village proposal.



Somerhill Farms



Marque Apartments



Somerset Pointe

The key point is that the Town of Warrenton does not currently offer any upscale, professionally managed apartment units that would be fully competitive with Warrenton Village. The same is true for other locations in Fauquier County. Western Prince William County does have a small number of more upscale apartment units, but these are now becoming mature and do not offer the same level of amenities and features as other newly built apartment properties in Northern Virginia.

Despite the lack of inventory, the market area does have a considerable number of higher-income renter households, with nearly half of these renters earning annual incomes above $66,000. This denotes that most of these renters are leasing scattered, non-amenitized townhomes and single-family homes. Many of these households can afford "better" apartment units but have few available options. Most of the newer scattered rental units are renting at similar rents to those proposed for Warrenton Village. There is clearly a market for upscale rental housing that is not being adequately served at this time.

Apartment Pipeline

There is currently only one apartment community in active planning in Fauquier County, and none under construction. Vint Hill Lofts is proposed for 183 apartment units to be built at

the former Vint Hill Farm Station Barrack at 4221 Sigler Road and 4285 Bludau Drive. The community will contain a mix of 29 studio, 128 one-bedroom and 26 two-bedroom apartment units. Studio rents will start at $1,175, one-bedroom rents will start at $1,550 and two-bedroom rents will start at $2,050. Rents will include water, sewage, trash and basic high-speed internet. All units will be equipped with a washer and dryer. The developers, Echelon Resources, have not yet secured all County approvals.

Apartment Market Summary and Demand Analysis

At this time, the rental market under study is fully occupied and a sizable pent-up demand exists due to job growth in Warrenton, elsewhere in Fauquier County and neighboring jurisdictions in Northern Virginia. Coupled with this job growth is the longstanding lack of upscale apartment unit development in the area. Area employers, many of which are actively filling open positions, report challenges with attracting new employees, which is partially a function of a very limited supply of apartments in the greater Warrenton area.

The Town of Warrenton and Fauquier County have not been the location of new market rate apartment unit development in several decades. This is despite the fact that the number of higher income renters has steadily increased in the area since 2000, denoting that many of these households have resorted to renting scattered, non-amenitized rental units within for-sale subdivisions. Western Prince William County has also not been the location of new apartment unit development, with the newest apartments now 17 years old. This is partially due to a lack of property zoned land for apartment unit development. The better apartment properties in this portion of Prince William County are typically fully occupied or with very few vacant apartment units.

Many protentional renters who are employed locally have resorted to renting outside of the market area due to the limited apartment unit supply, a trend that could be reversed if a new attractive apartment community were to be built in Warrenton. Additionally, commuters who may want to select Warrenton as an attractive location to relocate have limited options. Some

renters have also resorted to leasing less desirable units due to the extremely limited rental housing supply.

The net demand analysis is shown below based on the projection of new apartment units less vacant and pipeline proposals. From the 1,100± total apartment unit demand projection is subtracted 183 pipeline apartment units proposed for Vint Hill Lofts and the 376-unit Warrenton Village proposal. There are essentially no vacancies in the market area for comparable upscale rental units. The net demand analysis shows an underserved market, resulting in a surplus demand of 540± apartment units.

The 1,100 figure is an extrapolation from the analysis of demographic trends and projections, which begins on Page 27. This number represents the total growth in demand for the competitive apartment market area, distinct from the County itself. The boundaries of the market area are detailed in Table 8, which includes small portions of Prince William County.

Our demand projection is likely to "be in the ballpark," but it is difficult to make projections within a marketplace that has not added new market rate apartment units in several years. Nevertheless, the demand analysis is defined as positive.

Net Demand Analysis
(2022-2027)

	Total Units
Demand	1,100
Less:	
Pipeline Units	183
Warrenton Village	376
(Subtotal)	*(559)*
Surplus Demand	**541**

We are aware that the Warrenton Village proposal is large, but the analysis above clearly indicates a pent-up demand for new, upscale apartment units. The proposal offers a diversity of unit types, including three-bedroom townhomes attractive to families, and elevator-served apartment units that will likely attract young professionals and active seniors. The contemporary

design, expansive amenity package and walkability to area retailers, grocery stores and restaurants will set Warrenton Village apart from all of the existing apartments in Fauquier County and the greater Gainesville area. If built as proposed, Warrenton Village should be successful in terms of lease up and at the rents proposed.

Section III: Fiscal Impacts Analysis

This section of the report outlines the methodology and findings of the Fiscal Impacts Analysis (FIA) for the proposed residential development comprising Warrenton Village in the Town of Warrenton at build-out. The FIA compares the tax revenues expected from the proposal, as previously described, with the tax-supported costs the Town of Warrenton will incur to serve the project once it is fully developed. The net fiscal benefits will be the difference between those revenues and the various costs to the Town associated with new development. As noted above, the development plan involves constructing 376 rental units.

On-site fiscal impacts from Warrenton Village pertain to development on the site itself. Fiscal impacts generated off-site, due to the spin-off effects of resident and employee expenditures within the Town of Warrenton, are examined separately. For off-site impacts, economic impact assessments are undertaken to demonstrate how consumer expenditures will stimulate new business within the Town, based on new business receipts, employment, and employee earnings resulting from those expenditures.

Summary of Fiscal Impacts

Table 10 presents a summary of the revenues, costs and net fiscal benefits (revenue surplus or deficit) for the proposed 320 apartment, 36 two-over-two and 20 rental townhome units that are proposed for the Warrenton Village site and for the economic activity that would be generated in the Town of Warrenton by residents off-site.

The data in Table 10 show negative on-site impacts, which is primarily due to two factors. For one, the Town of Warrenton levies a low real estate tax rate of only $0.0401 per $100 of value. Thus, while Warrenton Village will likely be assessed at over $100 million, the taxable amount to the Town of Warrenton for the property would be relatively modest. Second, the largest revenue sources for the General Fund Budget are other local taxes. These include nine different local taxes, most of which do not generate on-site revenues. The majority of local tax revenues, for instance,

are generated by the Meals Tax, BPOL and Local Sales Taxes. As a consequence of the above two factors, a large share of total fiscal impacts will be generated by off-site economic activity.

In total, and at build-out, the full development and occupancy of the new rental units at Warrenton Village will generate a positive annual fiscal benefit of approximately $46,100, reported in constant 2023 dollars.

Table 10: Summary of On-Site and Off-Site Fiscal Impacts of Apartments, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

Source of Fiscal Impacts on the Town	Impacts On-Site in Warrenton	Impacts Off-Site in Warrenton	Total Fiscal Impacts
Apartments (320 Units)			
Revenues to the Town	$117,560	$338,870	$456,430
Town Costs	-$280,280	-$145,920	-$426,200
Subtotal	*-$162,720*	*$192,950*	*$30,230*
Two-Over-Two (36 Units)			
Revenues to the Town	$14,550	$55,520	$70,070
Town Costs	-$42,740	-$23,490	-$66,230
Subtotal	*-$28,190*	*$32,030*	*$3,840*
Townhomes (20 Units)			
Revenues to the Town	$8,050	$41,150	$49,200
Town Costs	-$23,310	-$13,860	-$37,170
Subtotal	*-$15,260*	*$27,290*	*$12,030*
Total Residential (376 units)			
Revenues to the Town	$140,160	$435,540	$575,700
Town Costs	-$346,330	-$183,270	-$529,600
Net Fiscal Benefits	**-$206,170**	**$252,270**	**$46,100**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

In addition to the on-site fiscal impacts, the economic impacts off-site in the Town of Warrenton from new resident expenditures would generate additional tax revenue. Based on anticipated household incomes, resident expenditures could equal approximately $26.4 million annually at businesses in the Town, with another $52.3 million in business expenditures to be generated by the "ripple effect" of resident expenditures across the local economy. This would generate a total of over $78.6 million in business activity in the Town.

The off-site expenditures will generate new jobs. These would be added region-wide and not just in the Town of Warrenton. Annual earnings from these new jobs would provide additional fiscal impacts across the region. These calculations were reduced by 30 percent to account for consumer expenditures outside of the Town, particularly elsewhere in Fauquier County and in neighboring communities such as Prince William County. Thus, the off-site calculations capture expenditures only within Warrenton.

The following analysis presents the derivation of the fiscal impacts to be derived from the development at the Warrenton Village site. These impacts include the net fiscal benefits of the proposed rental units, being the difference between tax revenue generated for the Town of Warrenton and the costs of public services to serve residents of the new development. As stated above, economic impacts include new business revenue, employees, and employee earnings that would accrue in the Town as a result of resident expenditures in the Town annually.

On-Site Fiscal Impacts: From New Rental Units

The following analyses derive the revenues generated for the Town of Warrenton from Warrenton Village "on-site." "On-site" denotes revenues that are derived directly from real estate development and personal property taxes, while "off-site" impacts are generated from local business growth based on new resident expenditures. Off-site impacts will be treated separately as "economic impacts," although their fiscal benefits are also assessed. Data in the tables to follow are rounded off to the nearest ten dollars and represent annual amounts after build-out. All data are presented in constant 2023 dollars.

Table 11 summarizes the various revenues to accrue to the Town of Warrenton from the development and lease-up of the 376 rental units to be built at the study site. Real Estate taxes would account for nearly 38 percent of the revenue to be generated on-site. Personal Property and Consumer Utility taxes would account for the remainder of the $140,160 in on-site tax revenue.

Table 11: Summary of Annual On-Site Revenues, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Amount	Percent of Total
Apartments		
Real Estate Tax	$44,060	37.5%
Personal Property Tax	$13,980	11.9%
Consumer Utility Tax	$59,520	50.6%
Subtotal	*$117,560*	*100.0%*
Two-Over-Two		
Real Estate Tax	$5,530	38.0%
Personal Property Tax	$2,300	15.8%
Consumer Utility Tax	$6,720	46.2%
Subtotal	*$14,550*	*100.0%*
Townhomes		
Real Estate Tax	$3,150	39.1%
Personal Property Tax	$1,250	15.5%
Consumer Utility Tax	$3,650	45.3%
Subtotal	*$8,050*	*100.0%*
Total		
Real Estate Tax	$52,740	37.6%
Personal Property Tax	$17,530	12.5%
Consumer Utility Tax	$69,890	49.9%
Total Revenue	**$140,160**	**100.0%**

Source: Town of Warrenton; S. Patz & Associates, Inc.

Each revenue source will be explained in the paragraphs to follow. A separate section of the report will address the costs of services and facilities that the Town of Warrenton must provide to serve the future development.

Real Estate Tax

Development costs for Warrenton Village are detailed in Table 12. Total development costs are expected to be approximately $343,277 per apartment unit, $383,277 per two-over-two and $393,277 per townhome unit, including site preparation and land acquisition costs. These costs are based on data provided by the sponsor and are consistent with developments costs for other new, upscale rental communities in this part of Virginia. The total property development cost is approximately $131.5 million. At the Town's real estate tax rate of $0.0401 per $100 of

assessed value, real estate taxes would total $52,740 each year after buildout, in constant 2023 dollars.

Table 12: Real Estate Tax, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Cost/Price per Unit	$343,277	$383,277	$393,277	$349,852
Number of Units	320	36	20	376
Total Cost	$109,880,640	$13,797,972	$7,865,540	$131,544,152
Tax Rate	$0.0401/$100	$0.0401/$100	$0.0401/$100	$0.0401/$100
Real Estate Tax	**$44,060**	**$5,530**	**$3,150**	**$52,740**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

Personal Property Tax

Personal property taxes for residences in Virginia are based on the depreciated values of vehicles used solely for residential purposes. Residents at Warrenton Village are projected to own approximately 575 vehicles, based on an estimated 1.53 vehicles per apartment unit and 2.00 per two-over two and townhome units at the community. This is in line with the average car ownership rate in the Town of Warrenton.

Residents of Warrenton are required to pay a flat fee of $25 per vehicle, as well as a personal property tax on vehicles at a rate of $1.00 per $100 in assessed value. The Town exempts the personal property tax on vehicles valued at less than $20,000 and exempts the tax on the first $20,000 of value for those that are worth more. To be conservative, only 15 percent of vehicles are estimated to be valued above $20,000. At this value, the total on-site personal property value for residents would come to approximately $298,000. At the tax rate of $1.00 per $100 of assessed value, on-site personal property taxes would be $2,980 annually in constant 2023 dollars. Added to this total is a flat fee of $25 per vehicle, which adds an additional revenue of $14,550 for a total revenue of $17,530. This is shown in Table 13.

Table 13: Personal Property Taxes, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Number of Units	320	36	20	376
Percent Occupied	97.0%	97.0%	97.0%	97.0%
Occupied Units	310	35	19	364
Vehicles per Unit	1.53	2.00	2.00	1.60
Number of Vehicles	474	70	38	582
Number of Vehicles above $20,000 (15%)	71	11	6	88
Depreciated Value Per Vehicle (Above $20,000)	$3,000	$5,000	$5,000	$3,350
Total Depreciated Value	$213,000	$55,000	$30,000	$298,000
Tax at $1.00/$100	**$2,130**	**$550**	**$300**	**$2,980**
+$25/Vehicle	**$11,850**	**$1,750**	**$950**	**$14,550**
Total Tax	**$13,980**	**$2,300**	**$1,250**	**$17,530**

Source: Town of Warrenton; S. Patz & Associates, Inc.

Consumer Utility Tax

Consumer utility taxes are taxes on expenditures on consumer utilities including electricity, natural gas and telephone utilities. These taxes are collected by the utility companies and remitted to the Town. While the tax rates for the different utilities vary, experience has shown that the average tax is about $4.00 per utility, per month. This analysis assumes an occupancy rate of 97 percent to allow for lease-up and normal turnover. At this rate, there would be 364 occupied rental units. For four utilities per household, averaging $4.00 per utility per month for 12 months, the total utility tax for Warrenton Village would be $69,890 annually. This is shown in Table 14.

Table 14: Consumer Utility Taxes, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Number of Units	320	36	20	376
Percent Occupied	97.0%	97.0%	97.0%	97.0%
Occupied Units	310	35	19	364
Utilities Per Unit	4	4	4	4
Each Utility Average	$4.00	$4.00	$4.00	$4.00
Number of Months	12	12	12	12
Total Utility Tax	**$59,520**	**$6,720**	**$3,650**	**$69,890**

Source: Town of Warrenton; S. Patz & Associates, Inc.

On-Site Fiscal Impacts: Town Costs to Serve Warrenton Village

The focus of the on-site fiscal impacts of costs to the Town of Warrenton from Warrenton Village is the General Fund Budget expenditures expressed on a per capita basis. Per capita expenditures are allocated (by type) to residents and businesses (in terms of numbers of employees) on a proportional basis according to utilization by each type of persons. These costs cover both other operations for services and capital improvements in the form of annual debt service to support the capital improvements programs of the Town. There are no impacts on schools, as public schools are funded by county, state and federal sources.

Budget expenditures will be discussed below, and per capita costs will be calculated based on current types of users. Applying these costs per capita to the residents of Warrenton Village produces an estimate of the annual costs to the Town for services to the proposed new apartment units.

For the Town's adopted FY 2023 budget, approximately 67.8 percent of all General Fund expenditures are supported by local taxes, the remainder being revenues from the state and federal governments. An examination of budgeted revenues for the year will demonstrate this proportion. The fiscal impact costs are based on General Fund expenditures supported by local taxes.

Table 15: General Fund Revenue by Type from Local Taxes, Town of Warrenton, Virginia

	Amount	Percent of Total
General Property Taxes	$1,449,235	8.8%
Other Local Taxes	$9,675,138	58.9%
Subtotal Local Taxes	*$11,124,373*	*67.8%*
Non-Tax Revenue	$5,288,712	32.2%
Total General Fund Revenue	**$16,413,085**	**100.0%**

Source: Adopted FY 2023 Budget for the Town of Warrenton

When the expenditures for each type of user are determined, and the tax-supported proportions are calculated, these costs are divided by the number of persons by type. The population of the Town of Warrenton is estimated to total 10,330± as of 2023, based on recent census data. Regarding jobs in the Town, data from the U.S. Bureau of Labor Statistics (BLS) only track the number of at-place jobs at the county-wide level and not the town level. This is the standard source of employment data for analyses of this type. Data from the Fauquier County Department of Economic Development show that approximately 14,000 people are employed within the Town limits. This is nearly 70 percent of total employment in Fauquier County.

When the expenditures for each type of user are determined, and the tax-supported proportions are calculated, these costs are divided by the number of persons by type. For residents, this is calculated at $558 per person, while it stands at $388 per employee for businesses. The disparity is due to approximately $2.61 million allocated to the Town's Parks and Recreation department.

The budget total for the Town for FY 2023, is $16.41 million, with 42.5 percent of that cost for the Town's population and 57.5 percent for employment, or persons with jobs in the Town.

Table 16: Allocation of General Fund Expenditures by Type for Residents (Population) and Businesses (Employees), Town of Warrenton, Virginia
(Constant 2023 dollars)

	Adopted FY 2023 Population	Adopted FY 2023 Employment	Adopted FY 2023 Total
General Gov't Admin.	$915,956	$1,241,372	$2,157,328
Public Safety	$1,806,918	$2,448,872	$4,255,790
Public Works	$1,939,681	$2,628,802	$4,568,483
Parks, Rec. & Culture	$2,608,455	$0	$2,608,455
Community Development	$571,657	$774,754	$1,346,411
Contributions	$29,022	$39,332	$68,354
Non-departmental	$149,726	$202,919	$352,645
Dept Service	$358,785	$492,341	$855,618
Transfer to Capital	$84,916	$115,084	$200,000
Total General Fund Expenditures	**$8,465,114**	**$7,943,477**	**$16,413,084**
Percent Tax Support	67.78%	67.78%	67.78%
Tax-supported Expenditures	$5,737,440	$5,383,888	$11,124,372
Number of Persons	10,330	14,000	24,330
Per Capita Tax Support	$555	$385	$457

Sources: FY 2023 Adopted Budget for Town of Warrenton, VA; U.S. Census Bureau, Fauquier County Department of Economic Development;

Tax-Supported Costs of Warrenton Village

As explained above, costs to the Town to serve Warrenton Village are derived by multiplying the per capita costs of residents and employees by the numbers of those persons. These are tax-supported costs, to be compared to the taxes generated by Warrenton Village. The costs will cover costs of facilities in terms of debt service for capital improvements.

There is expected to be about 624 residents at Warrenton Village at build out, at a ratio of 1.3 people for one-bedroom units, 1.8 people for two-bedroom units and 2.2 persons for three-bedroom units. These data are based on current demographic trends at the existing newly built apartment complexes in the market area. Data were derived from interviews with on-site property managers in the region.

It was shown above in Table 16 that the average tax-supported cost for residents in the Town is $555 per resident. For the residents of Warrenton Village, total tax-supported costs to the

Town of Warrenton would be approximately $346,330. This calculation is presented in Table 17 below.

Table 17: Tax Supported Costs for Residents, Warrenton Village, at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Number of Units	320	36	20	376
Percent Occupied	97.0%	97.0%	97.0%	97.0%
Occupied Units	310	35	19	364
Persons per Unit	1.63	2.20	2.20	1.71
Residents	505	77	42	624
Expenditure Per Capita	$555	$555	$555	$555
Population Expenditures	**$280,280**	**$42,740**	**$23,310**	**$346,330**

Source: Town of Warrenton; S. Patz & Associates, Inc.

On-Site Fiscal Impacts

Data in Table 18 below compares the calculated on-site tax revenues expected from Warrenton Village at build-out with the tax-supported costs required to serve the residents of the new rental units to be built. The annual net fiscal benefit will be a deficit of $206,170, in constant 2023 dollars.

Table 18: Net On-Site Fiscal Tax Benefit, Warrenton Village, at Build-Out, Warrenton, Virginia
(Constant 2023 dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Total Tax Revenue	$117,560	$14,550	$8,050	$140,160
Population Expenditures	-$280,280	-$42,740	-$23,310	-$346,330
Net Fiscal Benefit	**-$162,720**	**-$28,190**	**-$15,260**	**-$206,170**

Source: Town of Warrenton; S. Patz & Associates, Inc.

Off-Site Impacts: Economic and Fiscal

In addition to the revenues and costs that accrue to the Town of Warrenton from the apartments "on-site" – that is, due to the apartments and residents themselves in their dwellings, there are also off-site impacts that occur, as residents spend part of their income in the Town for consumer goods, and as businesses re-spend the income from purchases by residents by the

purchase of goods and services from other vendors in the Town. Calculations to follow are reduced by 30 percent to account for expenditure that occurs to businesses outside of the Town. This ratio is based on the number of employees in the Town relative to the County. This is a conservative estimate.

The U.S. Bureau of Labor Statistics details average consumer expenditure by location and income levels. There is no direct budget information for Fauquier County or the Town of Warrenton. Instead, national data for a budget for household incomes, based on national averages, has been chosen for this calculation. Among the larger expenditures by consumers are over 20± percent for housing and over 25± percent for retail trade, including automobiles.

Consumer expenditures made off-site in Warrenton are translated into economic impacts in the Town using multiplier matrices provided for the local area by the U.S. Bureau of Economic Analysis, Department of Commerce. These multipliers capture the round-by-round flows of expenditures in the Town initiated by residents at the new homes. There are separate matrices for business receipts, employment and employee earnings. The items in the consumer budget are multiplied in turn by these expenditure-specific categories in each matrix and summed to give the "ripple effect" of circulation of money through the economy. The ripple effects, plus the original consumer expenditures, equal the total economic impacts of homes residents on the Town economy.

Business Receipts

Residents of Warrenton Village are anticipated to allocate approximately 78.9 percent of their total income towards non-housing expenditures. The residual income is predominantly apportioned towards taxes and personal savings. The income estimates of future tenants are deduced from the proposed rents outlined in Table 1, with an assumption that a typical household will have an income that is approximately 15.0 percent higher than the minimum required to qualify for residency in the community. This requirement stipulates that a minimum of 30 percent of income be allocated towards net rent. This income range is conservative and is

representative of the anticipated typical renter demographic within the community, as the majority are expected to earn above the established minimum threshold.

Overall, this equates to $26.4 million in annual consumer expenditures from the expected residents at full build-out. The ripple, or multiplier effect, will generate another $52.3 million in annual receipts among Town businesses, for a total business receipts impact of $78.6 million. These business receipts will form the basis for many tax receipts for the Town of Warrenton from the impacted businesses.

Source of Impact	Apartments	Two-Over-Two	Townhomes	Total
Direct Consumer Expenditures	$20,324,220	$3,268,300	$2,753,100	$26,345,620
Indirect Ripple Effect	$41,637,240	$6,695,610	$3,948,100	$52,280,950
Total Business Receipts	**$61,961,460**	**$9,963,910**	**$6,701,200**	**$78,626,570**

Employment and Earnings

Since there are only a few employees on-site for the apartment units, essentially all employment and employee earnings impacts come from the ripple or multiplier effects on businesses, i.e., employee earnings that support increased business receipts in the Town. There will be approximately 476 new full-time equivalent employment positions created from resident expenditures at Warrenton Village, over time, with total earnings for these employees of $21.5 million.

Spinoff Employment and Salaries			
	Employees	Average Salary	Total Earnings
Apartments	379	$45,185	$17,125,115
Two-Over-Two	61	$45,183	$2,756,163
Townhomes	36	$45,450	$1,636,200
Total/ Average	**476**	**$45,273**	**$21,517,478**

The new jobs to be created by the construction of Warrenton Village would not only enhance Warrenton's economic vitality but also diversify the employment base. The creation of these new jobs will span various sectors, reflecting the broad impact of the proposed

development. It is important to underscore that this job growth will have a multiplier effect, stimulating other sectors of the local economy indirectly. The new jobs, along with the associated attraction of new residents and increased patronage of local businesses, would significantly contribute to attracting further investment from potential employers.

Furthermore, the proposed development aligns with Warrenton's comprehensive plan which envisions the Town as a hub for culture, entertainment, and the arts. The design elements of the project are formulated to enrich the Town's cultural fabric, including providing a diversity of home types. As such, the merits of this development extend beyond immediate economic advantages and aim to cultivate a long-term vision for Warrenton.

Off-Site Fiscal Impact

Table 19 summarizes the revenues and costs to the Town of Warrenton from the off-site impacts of Warrenton Village. These impacts derive primarily from the $78.6 million in new business receipts in the Town, plus estimates of real property and business personal property for a typical commercial operation. It is proper to look at these impacts as long-term. That is, it is not likely that the projected 476 new employees will be immediate or lead to abrupt expansion of the property tax base, but this should happen over time as part of business expansion in the Town.

Other tax receipts should accrue as soon as consumers at Warrenton Village begin making expenditures, that is, as soon as the property is built out and stabilized occupancies are achieved. In the short run, revenues should start at approximately $65,330 rising to $435,540 as businesses expand physically. Costs are based on 476 new employees within the Town at a cost to the Town of $385 per employee, as derived above in Table 16. With costs of $183,270, the net fiscal benefits from off-site expenditures from Warrenton Village residents should be approximately $252,270.

Table 19: Off-Site Fiscal Impact of Consumer Expenditures by Type, Residents of Warrenton Village, at Build-Out, Warrenton, Virginia
(Constant 2023 dollars)

	Apartments	Two-Over-Two	Townhomes	Total
Annual Revenues for the Town:				
Real Estate Tax	$12,150	$1,950	$1,640	$15,740
Business Property Tax	$37,870	$6,090	$5,100	$49,060
Cigarette Tax	$2,190	$350	$210	$2,750
Machinery and Tools Tax	$34,820	$5,600	$4,720	$45,140
Retail Sales Tax	$38,890	$6,250	$5,270	$50,410
BPOL Tax	$37,910	$6,100	$5,130	$49,140
Transient Occupancy Tax	$24,880	$4,000	$3,370	$32,250
Utility Tax	$13,040	$2,130	$1,290	$16,460
Bank Franchise Tax	$10,950	$2,760	$1,640	$15,350
Meals Tax	$105,680	$16,990	$10,020	$132,690
Motor Vehicle Licenses	$10,650	$1,720	$1,430	$13,800
Personal Property Tax	$9,840	$1,580	$1,330	$12,750
Total Revenue	**$338,870**	**$55,520**	**$41,150**	**$435,540**
Less Costs to the Town	**-$145,920**	**-$23,490**	**-$13,860**	**-$183,270**
Net Fiscal Benefit to the Town	**$192,950**	**$32,030**	**$27,290**	**$252,270**

Source: RIMS II Modeling System; U.S. Bureau of Economic Analysis; S. Patz & Associates, Inc.

Warrenton Village Conclusions

Table 20 shows a summary of net tax benefits for the proposed rental units at Warrenton Village. On-site benefits will produce a deficit of $206,170 due to the Town's low real estate tax rates. The off-site benefits will total $252,270, and therefore fully offset any on-site losses. Combined, this will generate a fiscal surplus of $46,100 annually at build-out for the Town of Warrenton.

Table 20: Summary of On-Site and Off-Site Fiscal Impacts of Apartments, Warrenton Village at Build-Out, Warrenton, Virginia
(Constant 2023 Dollars)

Source of Fiscal Impacts on the Town	Impacts On-Site in Warrenton	Impacts Off-Site in Warrenton	Total Fiscal Impacts
Apartments (320 Units)			
Revenues to the Town	$117,560	$338,870	$456,430
Town Costs	-$280,280	-$145,920	-$426,200
Subtotal	*-$162,720*	*$192,950*	*$30,230*
Two-Over-Two (36 Units)			
Revenues to the Town	$14,550	$55,520	$70,070
Town Costs	-$42,740	-$23,490	-$66,230
Subtotal	*-$28,190*	*$32,030*	*$3,840*
Townhomes (20 Units)			
Revenues to the Town	$8,050	$41,150	$49,200
Town Costs	-$23,310	-$13,860	-$37,170
Subtotal	*-$15,260*	*$27,290*	*$12,030*
Total Residential (376 units)			
Revenues to the Town	$140,160	$435,540	$575,700
Town Costs	-$346,330	-$183,270	-$529,600
Net Fiscal Benefits	**-$206,170**	**$252,270**	**$46,100**

Source: Town of Warrenton, VA; S. Patz & Associates, Inc.

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Planning Commission Work Session
SUP 2022-04 Warrenton Village Center Mixed Use
March 19, 2024

PC Decision Deadline June 27,2024 Unless Applicant Defers

Special Use Permit Application

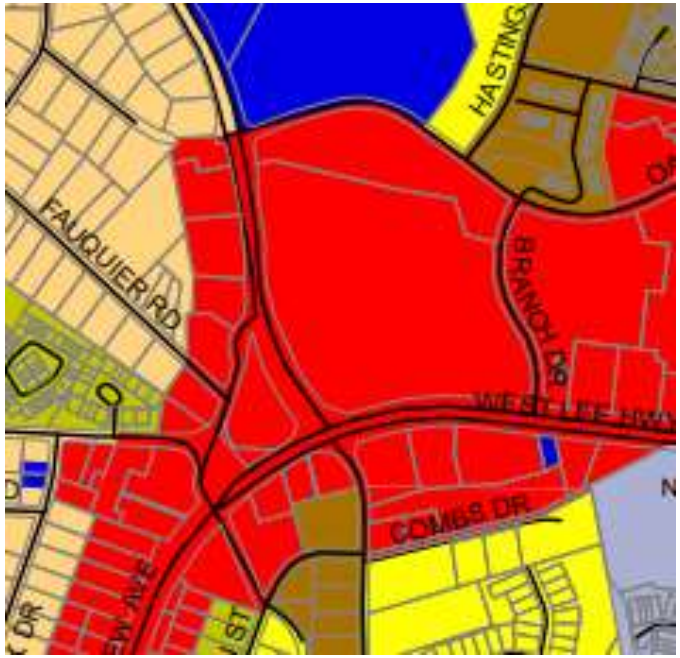
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, Castle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 36 2 over 2
  - Approximately 30 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map



Existing Commercial

Public/Semi Public School

Senior Care

Apartments



Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







Proposal



Proposal Includes

- 320 Apartments 1-3 BD, 4 story parking garage
- 36 2 over 2 4 story, 1 car garage
- 30 Townhomes 3 Story, 2 car garage
- 10% Affordable Dwellings
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Elevations





Elevations





Agency Reviews

- Full site
- Transportation and Internal Circulation
- Parking
- Walkability/Bicycle/Grid Connections
- Landscaping/Signage
- Lighting
- VDOT Pipeline Study/Smart Scale
- Plan Warrenton 2040

Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview

NEWCASTLE
DEVELOPMENT GROUP

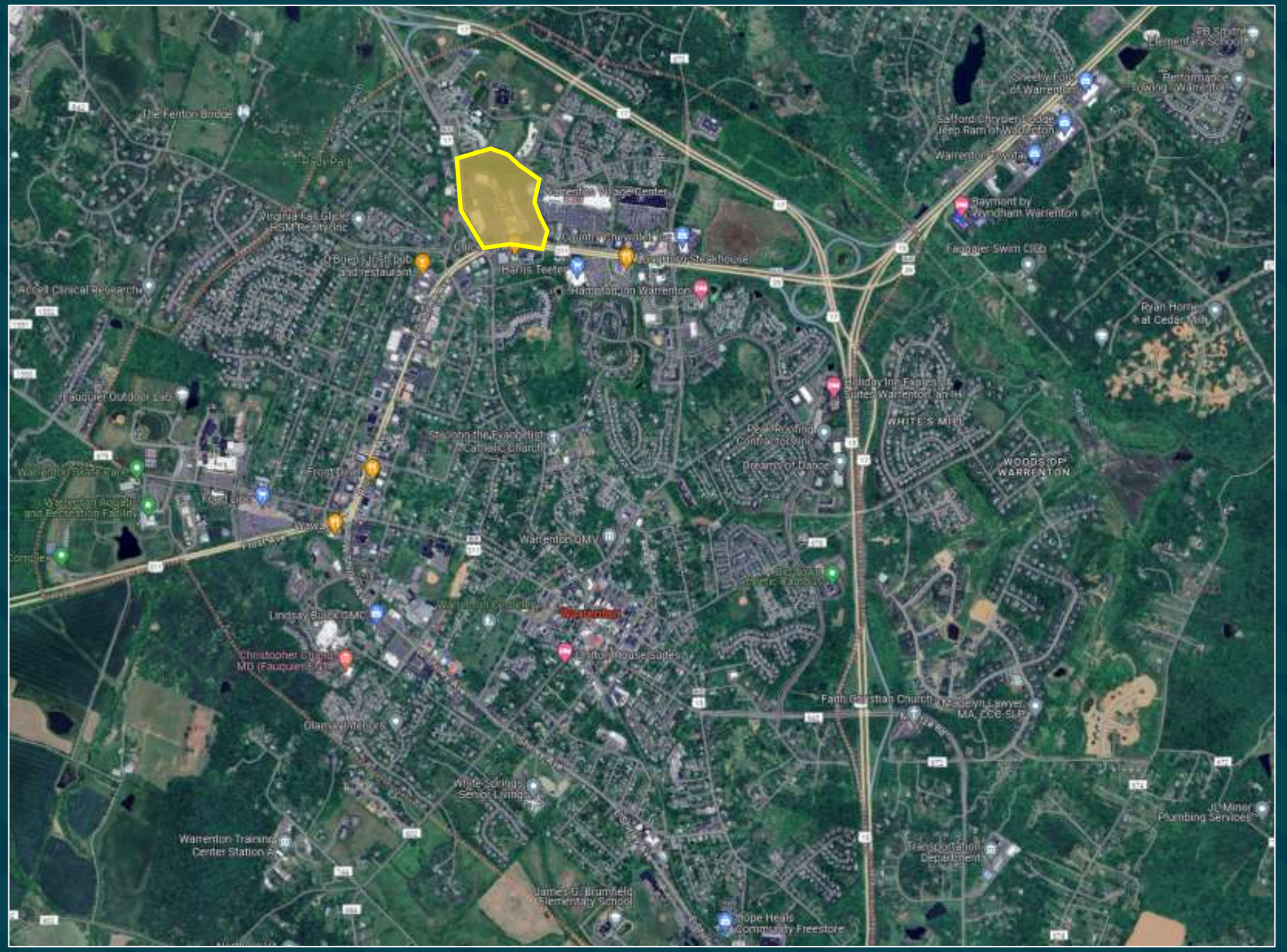
SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
MARCH 19, 2024



LOCATION



Warrenton Village Center
Built in 1959

West Lee Hwy.
Warrenton, VA 20186

218,000 SF
Existing Commercial Space

~6.5 acres
Currently Vacant Land

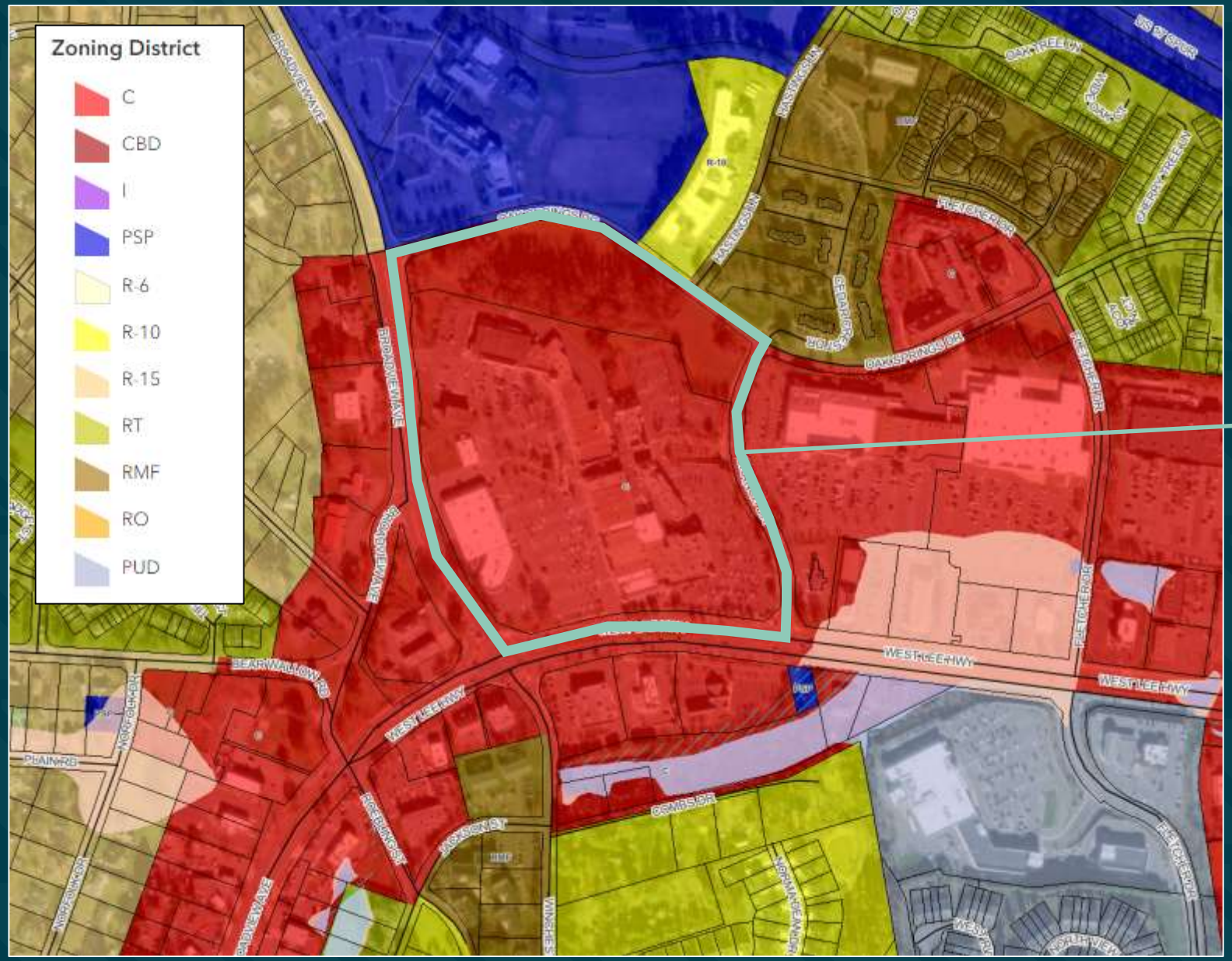
EXISTING CONDITIONS



Proposed Development Area

Existing Commercial Center

ZONING



Commercial (C)

COMPREHENSIVE PLAN

EXPERIENCE WARRENTON VIRGINIA

ADOPTED COPY APRIL 13, 2021

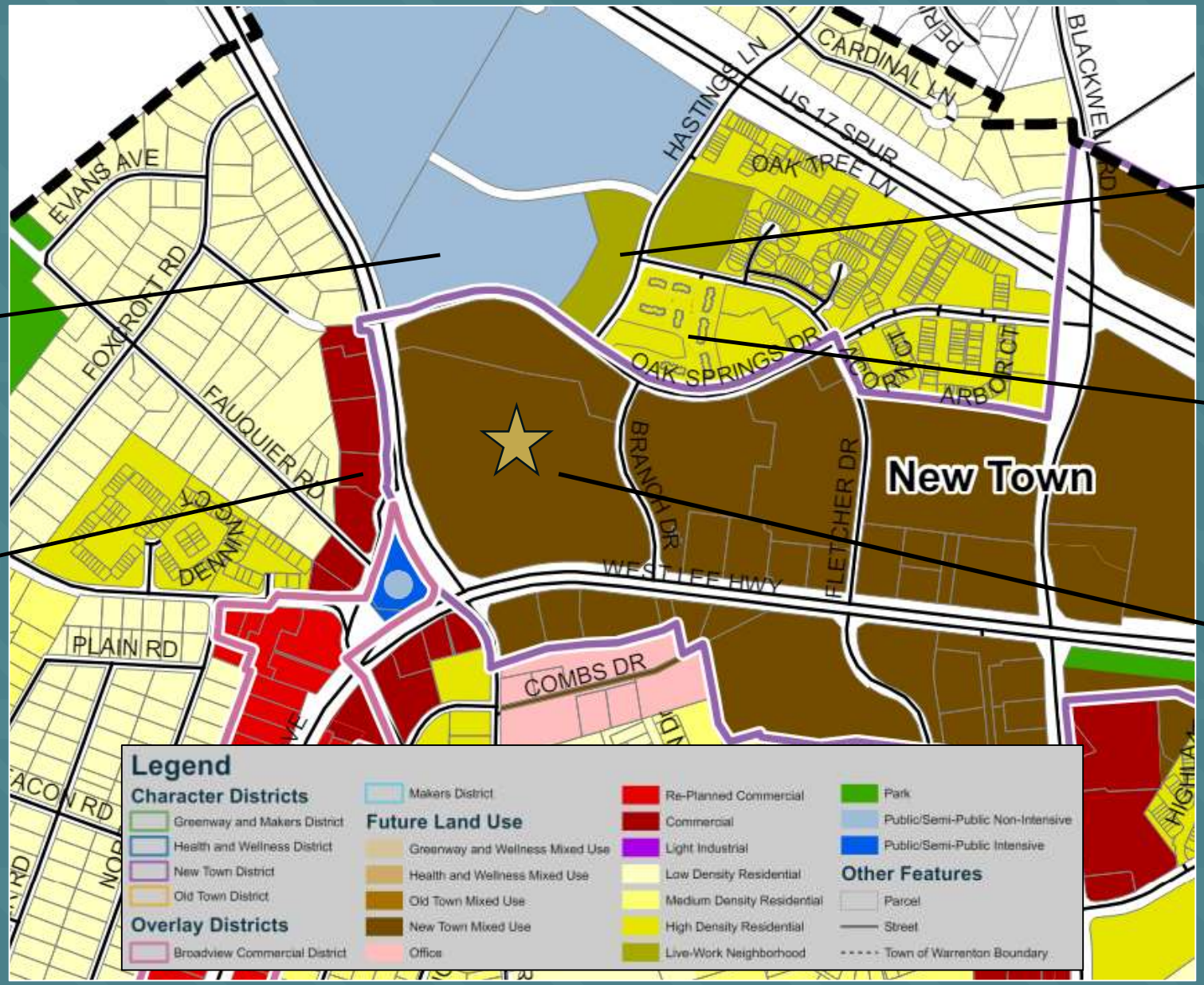
PLAN WARRENTON 2040



FUTURE LAND USE MAP

Public/Semi-Public Non-Intensive

Commercial



Live-Work Neighborhood

High Density Residential

New Town Mixed Use

CHARACTER DISTRICTS



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

THE TEN GUIDING PRINCIPLES FOR CHARACTER DISTRICTS

1. **A discernible center.** Every neighborhood should have a discernible center that is walkable within a quarter-mile radius. The center can accommodate programmed or spontaneous events, or simply be a place people relax or meet friends. The center is often a hardscaped plaza or a green or park space; sometimes it can even be a busy street corner or a main street.
2. **Connected sidewalks with a clear pedestrian path, street trees, and lighting.** Streets within the Character District form a connected network, which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination. There is an interconnected street grid network that disperses traffic and eases walking.
3. **Buildings that are placed close to the street to create a sense of place.** All buildings are directly accessible with front doors from the street.
4. **Parking placed behind buildings and away from street frontages.** Interior access roads to services and parking are designed into the site plan.
5. **Complete streets create a balance between cars, pedestrians, and bicyclists.** Complete Streets have no singular design prescription. Each one is unique and responds to its community context; however, complete streets are designed to balance drivers, pedestrians, and bicyclists.
6. **Compact street blocks encourage walking.** Compact street blocks that are 200 to 400 feet wide and up to 600-feet deep provide a comfortable neighborhood scale that facilitates a fine-grain development pattern and walking experience. For blocks that exceed the maximum recommended length of 600 feet, a mid-block pedestrian path is recommended to allow for passage.
7. **A park, trail, or activity center is within a half mile walking radius.** Linkages to pedestrian amenities can be made with continuous sidewalks, street trees, and through-block pedestrian pathways.
8. **A variety of dwelling types accommodates a wide range of family sizes and income levels and commercial activity.** The variety provides synergy among uses and creates an immediate critical mass to sustain retail and commercial uses.
9. **Neighborhood identity connects district wayfinding and identification with a larger marketing effort to bring private investment to the neighborhood.** Neighborhood identity provides the brand and image of the area, and a basis for a marketing strategy to promote businesses, events, and future development opportunities.
10. **The neighborhood edge provides the means of transition from the Character District to adjoining properties.** The edge would transition to adjacent established neighborhoods and future land-use categories and exhibit compatibility in scale, massing, and setback with existing and planned developed on adjacent land.

COMPREHENSIVE PLAN

WHAT CAN NEW TOWN WARRENTON DISTRICT BE IN THE YEAR 2040?



Internal walkable streets and hardscaped plazas that can accommodate events and pedestrian activity.



Multi-purpose public areas can accommodate annual and regional events.



A mix of employment, residential, and commercial uses can be designed around public amenities.



The development along the neighborhood edge is compatible with adjoining neighborhoods.

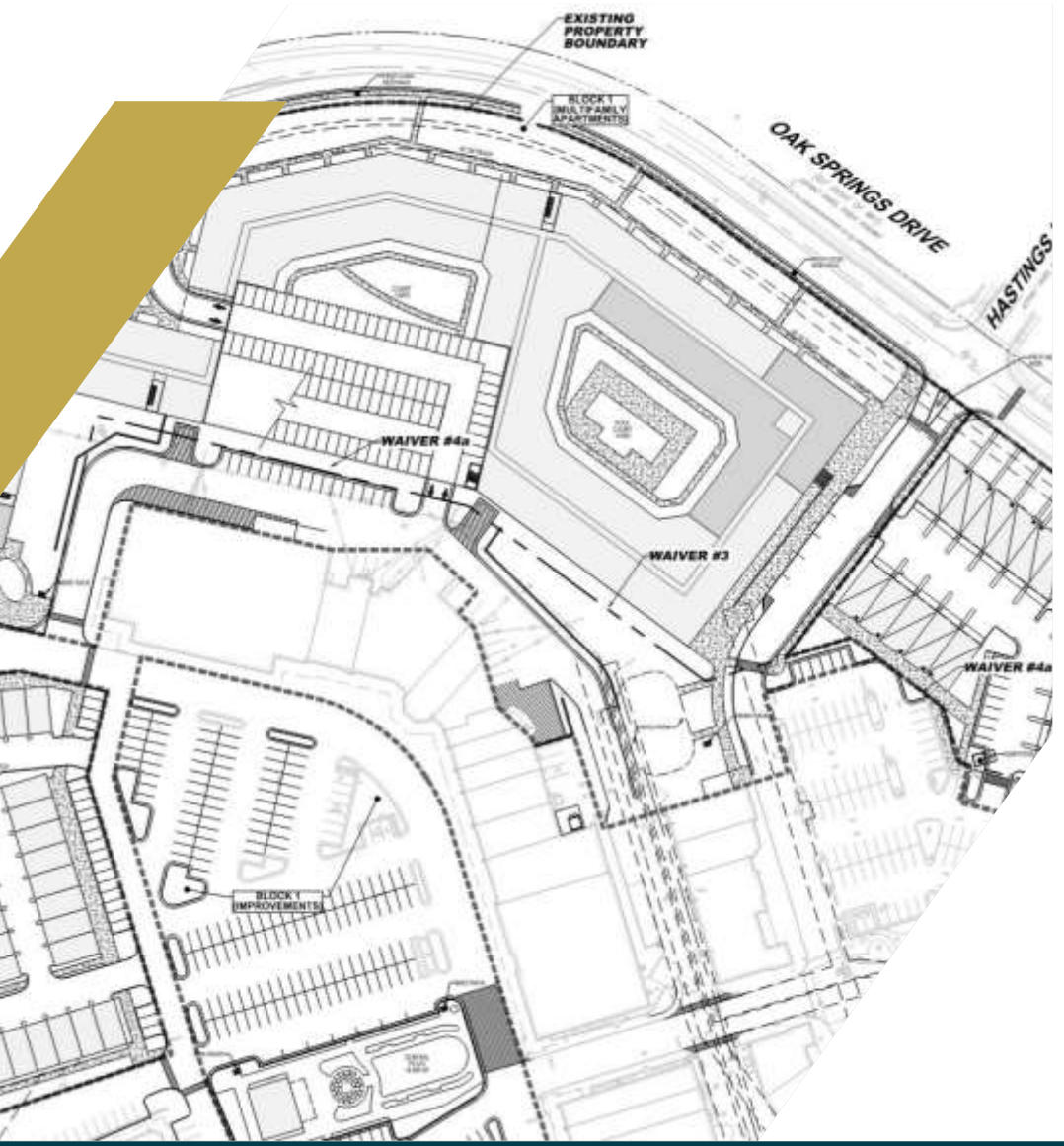


Daylighting flood plains (as a flood control project) provides an opportunity to create park with pedestrian amenities. Carroll Creek Park. Frederick, MD



Create residential communities with visual sight lines through the development, and where possible, with pedestrian pathways.

SUP MODIFICATION & WAIVERS



- **Waiver Request #1:** Increase density to 386 units or 13.28 per acre
- **Waiver Request #2:** Decrease minimum setback to 14′ along Broadview Avenue
- **Waiver Request #3:** Decrease side/rear yard setbacks to 0′
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0′
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14′
- **Waiver Request #5:** Increase height limit for dwellings as follows:
  - 54′ max height for Block 1, Oak Springs Drive Frontage
  - 36′ max height for Block 1, Broadview Drive Frontage
  - 45′ max height for Block 2
  - 36′ max height for Block 3

1485

BENEFITS OF PROPOSAL

PLAN 2040

Advances all goals of Plan 2040 Character Districts

HOUSING SUPPLY

Provides much needed additional housing supply near retail and other services/facilities via infill development and not urban sprawl

HOUSING TYPES

Provides much needed housing types unique to the Town, including "missing middle" townhomes, 2-over-2s and the first new multifamily community in decades

AFFORDABLE HOUSING

10% of units within each residential block will be dedicated as Affordable Dwelling Units, restricted to residents with household incomes below 80% AMI at restricted rental rates

PEDESTRIAN ACCESS

Provides new and improved, safe pedestrian access to and circulation within Warrenton Village Center for new residents and existing neighbors

PUBLIC SPACES

The Central Plaza will be the new centerpiece of the Center, featuring activity and eating areas and a splashpad; a new dog park and picnic area will also be open to for public use

INCREASED PATRONAGE

New resident supply will provide increased patronage to all of Warrenton's existing businesses

ECONOMIC IMPACT

$46,100 projected annual surplus for the Town of Warrenton

RESIDENTIAL BLOCK 1

Multi-Family Apartments

- Location: Vacant land on north side of the Center along Oak Springs Drive
- Units: Up to 320 total units
- Types: 1-, 2-, and 3-bedroom apartment units
- Parking: Internal 4-level parking garage
- Amenities:
  - 10,000 square foot leasing and amenity center
  - Central Plaza
  - East & West “Entrance” Plazas
  - Dog Park & Picnic Area
  - Pedestrian connectivity and circulation



RESIDENTIAL BLOCK 1



West facing elevation from Hastings Lane



East facing elevation from Broadview Ave

RESIDENTIAL BLOCK 1



South facing elevation from Oak Springs Drive (left side)



South facing elevation from Oak Springs Drive (right side)

RESIDENTIAL BLOCK 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



RESIDENTIAL BLOCK 1

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



RESIDENTIAL BLOCK 1

View from intersection of Oaks Springs Drive & Broadview Avenue



RESIDENTIAL BLOCK 1

View from Broadview Avenue entrance into Warrenton Village Center



RESIDENTIAL BLOCK 1

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (2-Over-2s) on right*



RESIDENTIAL BLOCK 1

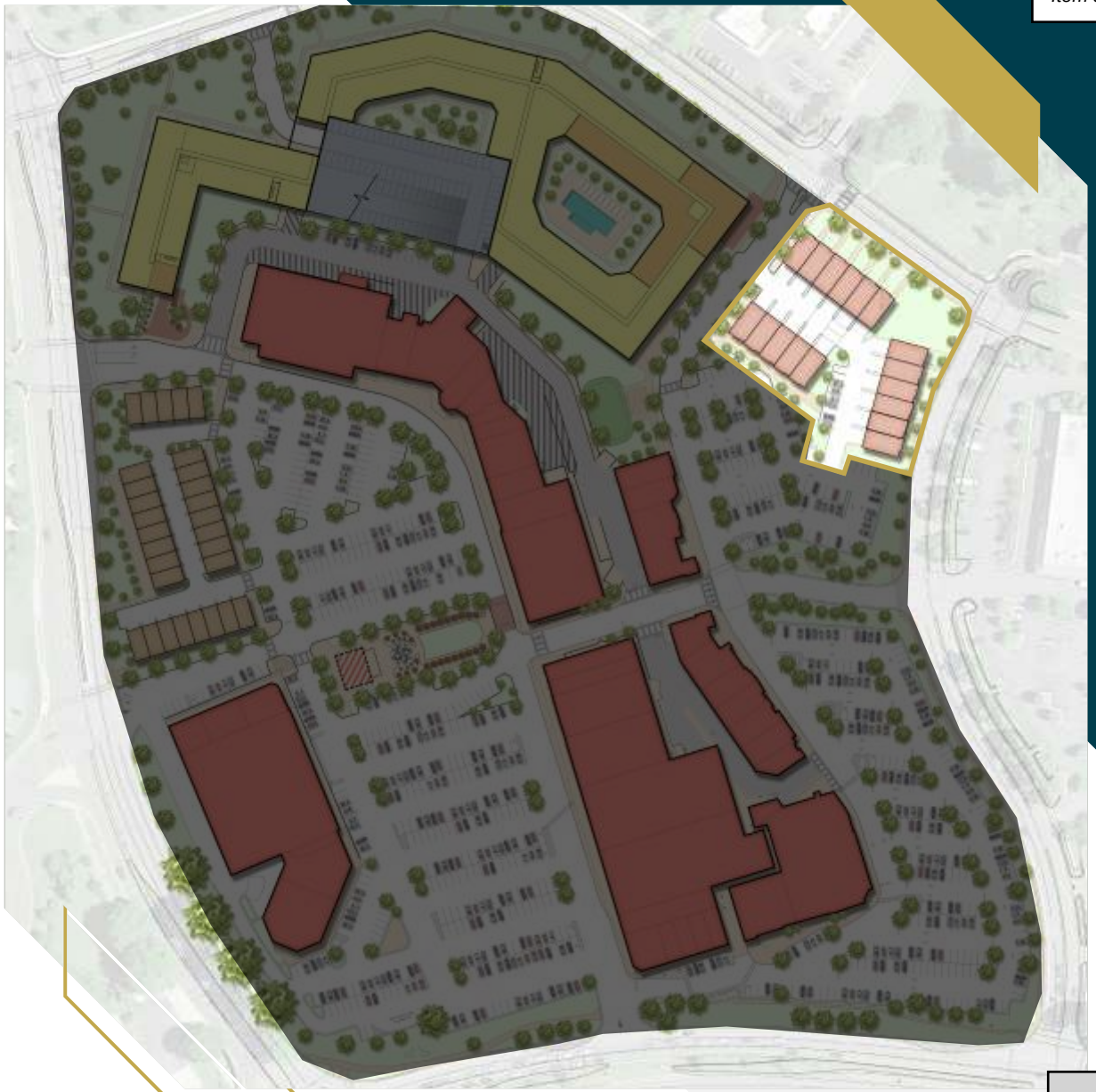
View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



RESIDENTIAL BLOCK 2

Multi-Family 2-Over-2

- Location: Vacant land at northeast corner of the Center at intersection of Oak Springs Drive and Branch Drive
- Units: Up to 36 total units
- Widths: Units currently proposed with 24' widths, yielding a plan count of 34 units. Proposal is up to 36 total units to account for width flexibility, which could impact total unit count.
- Types: 2-story, 3-bedroom "condo" units
- Parking: Each unit has one internal parking garage and one dedicated exterior surface space



RESIDENTIAL BLOCK 2



Front and side elevations

RESIDENTIAL BLOCK 2



View from Oak Springs Drive

RESIDENTIAL BLOCK 3

Multi-Family Townhomes

- Location: West side of the Center along Broadview Avenue, currently occupied by Summit Community bank and a vacant commercial bank building
- Units: Up to 30 total units
- Widths: Units currently proposed with 20' widths, yielding a plan count of 29 units. Proposal is up to 30 total units to account for width flexibility, which could impact total unit count.
- Types: 3-story, 3-bedroom townhome units
- Parking: Each unit has two internal parking garages and two dedicated exterior surface spaces



RESIDENTIAL BLOCK 3



Front and side elevations

RESIDENTIAL BLOCK 3



View from Broadview Avenue

RESIDENTIAL BLOCK 3



View of townhomes from within the Center

PROJECT IMPROVEMENTS

CENTRAL PLAZA

A new vehicular and pedestrian hub that will function as the heart of the Center and is sized, programmed, and planned to allow for community activities as well as everyday use

EAST & WEST PLAZAS

Smaller public plazas are proposed at the Broadview Avenue entrance and the Hasting Lane entrance to serve as “doorways” into the Center and enhance walkability between uses

DOG PARK / PICNIC AREA

New off-leash, fenced dog park and picnic areas will be accessible to the public.

OAK SPRINGS CROSSWALKS

Two crosswalks are proposed on Oak Springs Drive—one at Hastings Lane and one at the Highland School entrance, which will provide safe access for neighbors to the north

SIDEWALK RING COMPLETION

Proposal will complete a full ring of sidewalk around the entire Center, including the addition of a missing section of sidewalk behind Galaxy Strike Bowling

HASTINGS LANE EXTENSION

New vehicular and pedestrian entrance into the Center is proposed at the Oak Springs Drive and Hastings Lane intersection

MODIFIED ALLEY

Will serve as a secondary vehicular ingress/egress into the garage, as well as provide both residential and commercial loading and trash pickup areas

PEDESTRIAN CIRCULATION

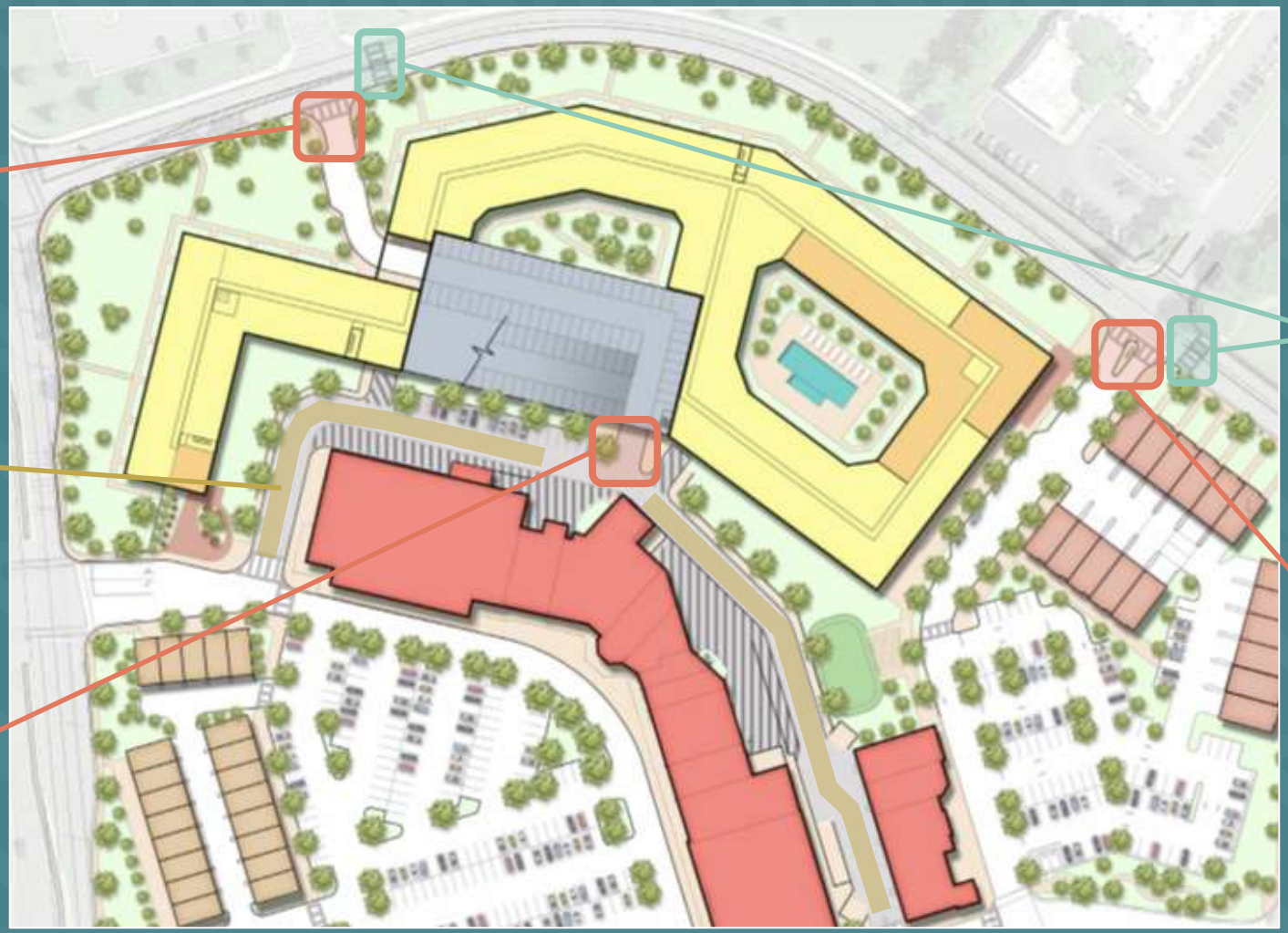
Proposal includes an enhanced system of sidewalks, crosswalks and wayfinding to improve the safety and ease of pedestrian access the Center’s businesses

PROJECT IMPROVEMENTS – TRAFFIC

Oak Springs Entrance

Modified Alley

Secondary Garage Entrance



Oak Springs Crosswalks

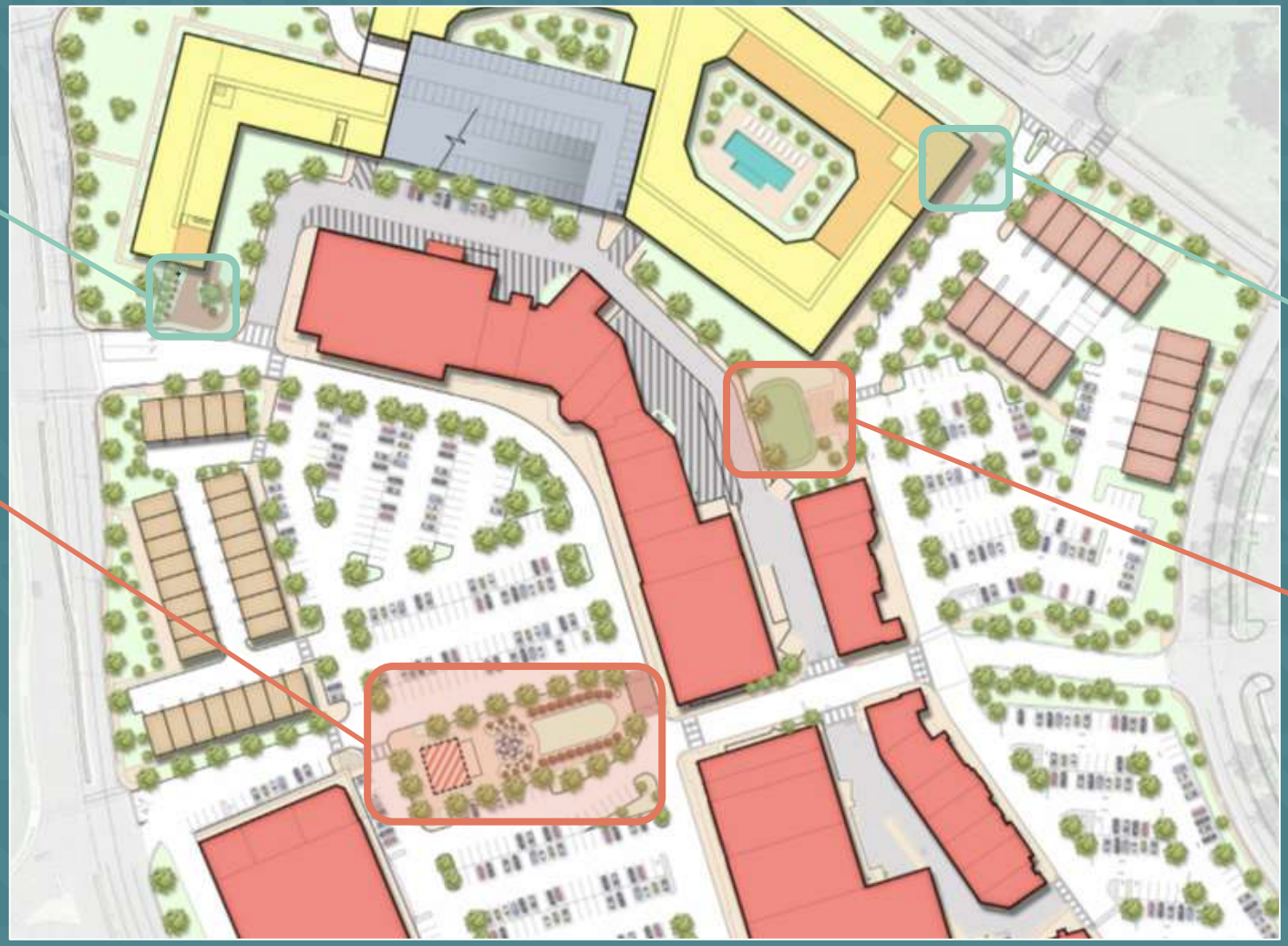
Hastings Lane Entrance

PROJECT IMPROVEMENTS – PUBLIC SPACE

West Plaza

Central Plaza

Pedestrian Circulation



East Plaza

Dog Park & Picnic Area

PROJECT IMPROVEMENTS



Bird's eye view of Central Plaza

PROJECT IMPROVEMENTS



Alternate bird's eye view of Central Plaza (Note Blocks 1 & 2 in background)

PROJECT IMPROVEMENTS



Ground level view of Central Plaza

PROJECT IMPROVEMENTS



Ground level view within Central Plaza (Note Blocks 1 & 3 in background)

PROJECT IMPROVEMENTS



Ground level view of pedestrian access to Central Plaza (Note Block 3 in background)

PROJECT IMPROVEMENTS



Ground level view of Central Plaza

PROJECT IMPROVEMENTS



Ground level view of West Plaza

PROJECT IMPROVEMENTS



Ground level view of East Plaza

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
APRIL 16, 2024



1514

AGENDAS

WORK SESSION #2 – APRIL 16TH, 2024

- A Product of Plan Warrenton 2040
- Warrenton Housing Market & Economic Impacts
- Architecture
- Public Improvements

WORK SESSION #3 – APRIL 23RD, 2024

- Modification/Waiver Requests
- Water/Sewer Impacts
- Transportation
- Schools

A PRODUCT OF PLAN WARRENTON 2040

WHY HERE, WHY NOW?

Warrenton Economic White Papers

- Plan Warrenton 2040 Economic Goals & Fiscal Sustainability
  - Emphasis on Mixed-Use Development, Infill Revitalization, Live/Work/Play
    - Creation of the New Town Character District
      - Warrenton Village Center SUP Proposal

WHITE PAPER FINDINGS – ECONOMIC BASE (RKG)

- Since the ‘08 Recession, the Regional economy has become more robust with more high-skilled, high paying occupations compared to Warrenton
- Three primary factors that have driven Regional economic growth, relative to Warrenton:
    1) Strong integration of services and entertainment venues with work locations
    2) Strong transportation connectivity between employment and residences
    3) Diversity in housing types and prices
- The strongest growth markets have created the strongest live-work-play environments
- These markets attract workers at all skill levels
- Warrenton does not offer the same amenities and housing options that draw a more diverse workforce and makes attracting companies more challenging given their respective options regionally

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

- An economic model was created to determine the impact of land use decisions and the resulting economic ramifications
- The model weighed the cost of the Town's desired capital projects against different growth scenarios:

Scenario	Intended Growth Strategy	New Housing Units (by 2039)	Annual Net Fiscal Impact
1	Minimal growth, i.e. 2010 – 2019 trends	Minimal	($508,808)
2	Become a stronger livable community	750+	($240,682)
3	Become a livable destination community	1,150+	$102,185
4	Become a regional live/work community	2,100+	$335,535

RKG Conclusion:

- To achieve the level of services and amenities desired by the citizens of Warrenton, the Town must increase its development activity
- Warrenton cannot "save its way" (i.e. cut back on spending) to fiscal sustainability
- Without residential development, "the Town does not have the demand to continue to increase retail services."

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

RKG summarizes,

"Balancing the uses between residential and nonresidential uses will be critical from both a market perspective and a fiscal one. Simply put, growth in commercial development (particularly retail and dining venues) will require greater consumer spending, which primarily comes from local households… Having a high quality, well-integrated live/work/recreate community is a fundamental need to attracting these workers (and as a result, their companies)."

PLAN WARRENTON 2040

- The White Paper recommendations, particularly with respect to the need for additional housing, heavily influenced the creation of the Warrenton 2040 Plan
- It is incorporated by reference into the Plan
- The ability to satisfy this housing need is addressed throughout the Plan: **Specifically, Character Districts are envisioned to contain a variety of attainable housing types**

> **H-2.2:** Increase opportunities for multi-family and mixed-use residential development by updating the commercial corridors in the Character Districts to allow for appropriate use and scale transitions into existing neighborhoods.

PLAN WARRENTON 2040



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

GOALS

H-1: Ensure equitable, attainable housing opportunities across residents of all ages, incomes, and abilities by catering to the needs of a diverse community, including young families, professionals early in their careers, essential workforce, and those entering retirement.

POLICIES & STRATEGIES

H-1.1: Encourage development of the "Missing Middle" housing types beyond traditional single-family homes, townhouses, and apartments by updating the Zoning Ordinance to create a beneficial mix.

H-2: Character Districts will accommodate a balance of available housing typologies that are compatible to existing neighborhoods in scale, character, and transition.

WHY HERE, WHY NOW?

The Warrenton Village Center SUP proposal is the desired result of a lengthy process of review, comparison analysis and decision making by the Town of Warrenton – from the White Papers through the Plan Warrenton 2040 drafting and adoption – and will serve as the building block upon which to create a highly desirable live/work/play community that is the goal of the Plan Warrenton 2040 New Town Character District

WARRENTON HOUSING MARKET & ECONOMIC IMPACTS

IMPACT OF THE WARRENTON HOUSING SUPPLY

- As forecast by the White Papers, the lack of housing supply and typology has had impacts that we can see on today's Warrenton housing market and overall economics:
  - Potential renters who are employed locally must often rent outside of Warrenton
  - Commuters to D.C. based jobs can't consider Warrenton when searching for relocation options
  - Area employers have challenges attracting new employees
- Due to the scarcity of rental units, potential renters do one of three things:
  - 1) pay above market rents for the few desirable units available
  - 2) resort to leasing less desirable units
  - 3) look elsewhere, outside of Warrenton
- These outcomes are all detrimental to the Warrenton economy and the existing community

CURRENT RENTAL ENVIRONMENT

1) APARTMENT COMMUNITIES

- There are six (6) apartment communities in the Warrenton area that are income and/or age restricted
- There is one (1) market rate apartment community in Warrenton
- Per a 4/4/24 search, there were zero (0) apartment units available for immediate occupancy in any of Warrenton's apartment communities

Apartment Communities	Year Built	Total Units	Available Units*	Age Restricted	Income Restricted
Moffett Manor	2007	98	0	Senior (55+)	50% & 60% AMI Programs
Steeplechase	2000	56	0	Senior (55+)	50% & 60% AMI Programs
The Oaks	1996	111	0	Senior (55+)	50% & 60% AMI Programs
Highland Commons	1994	96	0	No	50% & 60% AMI Programs
Warrenton Manor	1985	98	0	Senior (55+)	30%, 50%, 60% & 80% AMI Programs
Academy Hill	1983	31	0	No	USDA Section 515 Rental Program
Victoria Gardens	1979	24	0	None	None – Market Rate
Totals		514	0		

**Per Apartments.com results taken on 4/4/24*

CURRENT RENTAL ENVIRONMENT

2) SINGLE FAMILY OR CONDO RENTAL DWELLINGS

- Per a 4/4/24 search, there were eight (8) rental units available for immediate occupancy in single family rentals and condo buildings
- With the exception of a single unit built in 2006, all available units are 30+ years old

Unit Type	Condo Apartment	Townhomes	Houses	Total Units
1-Bedroom	2 Units $1,500 (1975) $1,665 (1949)			2
2-Bedroom		3 Units $1,600 (1993) $1,750 (1975) $1,750 (1980)		3
3-Bedroom			2 Units $1,695 (1978) $2,875 (1986)	2
4-Bedroom			1 Unit $3,500 (2006)	1
Totals				8 units

**Per Zillow.com results taken on 4/4/24*

RENTAL SUPPLY VERSUS DEMAND

RENTAL SUMMARY

- Assuming current growth trends (i.e. “status quo” with no increased growth plan), the Warrenton rental market area will have a rental housing demand of 1,100 units between 2022 and 2027*
- As of 4/4/24, there were eight (8) available rental dwelling units in all of Warrenton and only one pipeline apartment community in the market (Vint Hill Lofts, 183 units)
  - Demand: 1,100
  - New Units: 183
  - **Rental Shortage: 917**

This number will go up significantly if Warrenton continues to encourage live/work/play environments that will attract new companies and additional renters

*Market and Fiscal Impacts Analysis, S. Patz & Associates

WHEN PEOPLE CAN'T FIND HOUSING IN WARRENTON…

- The new commercial amenities and services that are so desired by the existing community are not fiscally achievable without the economic improvement generated by an increase in residents
- Not only will new and improved retail not come to Warrenton, existing retail will continue to decline and deteriorate
- Consumer spending is trending down, commercial vacancy is trending up – these trends will continue
- Existing retailers will continue to see diminished business activity, leading to potential viability concerns
- New potential retailers will choose alternative destinations outside of Warrenton

WARRENTON POPULATION & EMPLOYMENT GROWTH

- Warrenton's population has remained relatively stagnant over the last 15 years
- An increased growth rate is not anticipated going forward
- Lack of growth is largely due to lack of available housing
- Warrenton's employment increased by 574 jobs between 2006-2019—a growth rate of 0.4% per year
- Over that same period of time, the Northern Virginia Region increased its jobs by 1.9% annually—**nearly five times the Town's growth rate**

Year	At-Place Jobs	# Change	% Change
1990	4,830		
2000	6,670	1,840	38.1%
2010	9,622	2,952	44.3%
2011	9,721	99	1.0%
2012	9,784	63	0.7%
2013	9,829	(28)	(0.3%)
2014	9,831	47	0.5%
2015	9,857	(34)	(0.3%)
2016	9,891	60	0.6%
2017	9,898	69	0.7%
2018	9,949	51	0.5%
2019	10,038	89	0.9%
2020	10,043	5	0.1%
2021	10,174	131	1.3%
2022	10,197	23	0.2%
2023	10,274	77	0.8%
2024	10,351	77	0.8%
2025	10,428	77	0.7%

**Source: Worldpopulationreview.com*

ECONOMIC IMPACTS

- The Market and Fiscal Impacts Analysis performed by S. Patz & Associates, Inc. concluded the following:
  - The project will have a Net Fiscal Benefit to the Town of Warrenton—meaning that the taxes generated by the project (both direct and indirect) will outweigh the capital expenditures connected with the project
  - At full buildout, residents will generate $26.4M in direct annual consumer expenditures (i.e. business activity)
  - The project, along with the increased business activity that it generates, will yield 476 new full-time jobs in the community

AFFORDABLE DWELLING UNITS

- In accordance with the Plan Warrenton 2040 guidelines, the proposal conditions that 10% of all units will be leased to households earning less than 80% of AMI and rents will be capped at 80% AMI rental rate limits
- 80% AMI income and rent limits are defined as the current Fauquier County Area Median Income published by the U.S. Department of Housing and Urban Development (HUD)
- 10% of the units within each individual residential block will be allocated as affordable dwelling units

ARCHITECTURE

WARRENTON VILLAGE CENTER

DESIGN STORY

WARRENTON, VIRGINIA | FEBRUARY 14, 2024

NEWCASTLE DEVELOPMENT GROUP

DYNAMIK INTERIORS DYNAMIK DESIG









DESIGN OBJECTIVE

To transform the existing Warrenton Village retail center into a thriving, walkable, mixed-use, community destination with a sense of place that celebrates the character of Warrenton, while introducing a new, fresh, modern aesthetic.









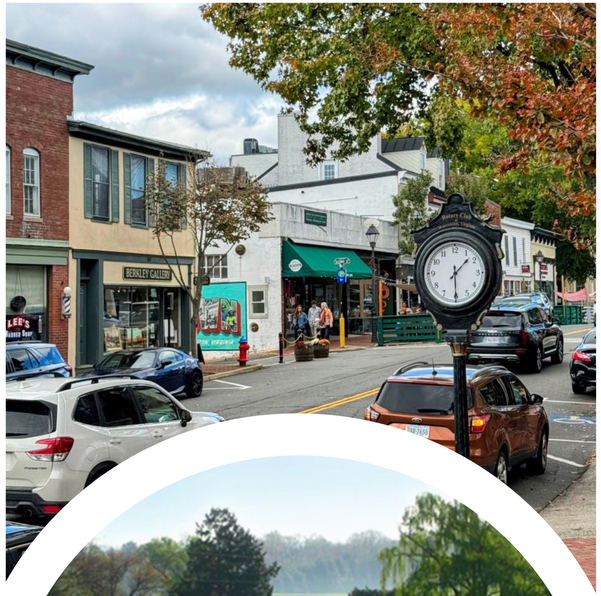
DESIGN IMPLEMENTATION

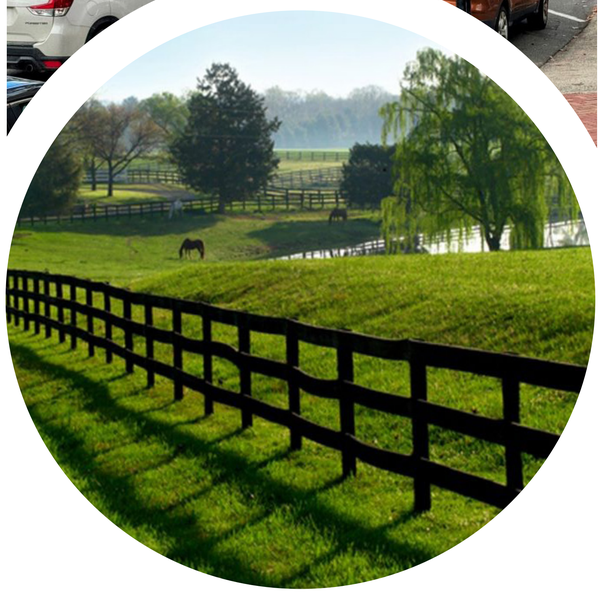
- Purposeful integration of new buildings to create a Live/Work/Play community in line with the goals of the 2040 Warrenton Plan.
- Revitalization of the existing retail with new public gathering spaces, pedestrian connectivity, reduced vehicles speeds, a new Central Plaza for village events, enhanced green spaces, and activated streetscapes.
- Fusion of a new contemporary aesthetic with the warmth of local and historical design influences.















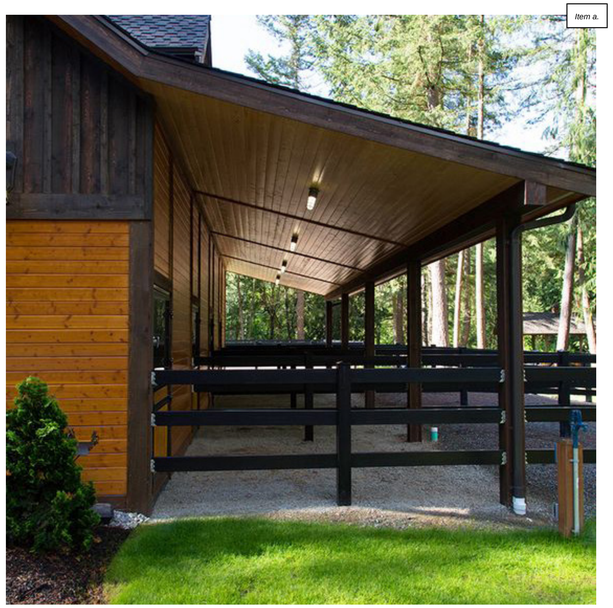
WARRENTON CONTEXT

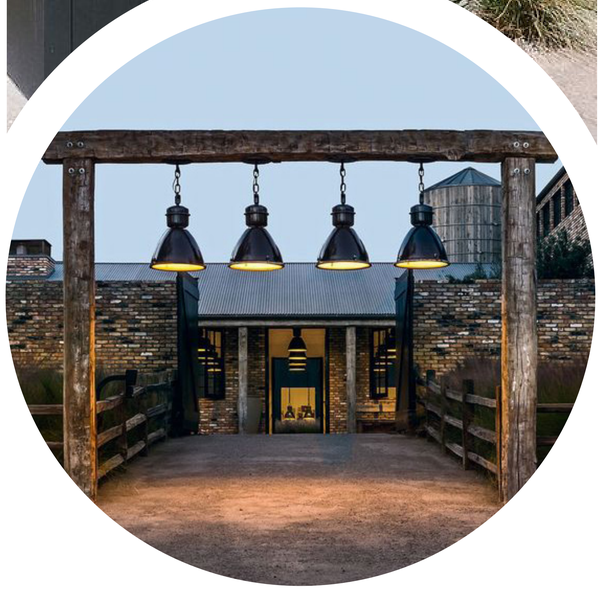
- Historical downtown Warrenton provides inspiration with its textures of brick and stone, dark metal accents and awnings, historical lighting fixtures, traditional lap siding, classic masonry banding and detailing, large windows with dark mullions, and pedestrian friendly streetscapes.
- The greater Warrenton area has deep equine and agricultural industry roots, featuring iconic horse farms and celebrated bucolic landscapes. Inspirations include classic equestrian design features, rich colors and textures, dark metal accents, warm woods, and farmhouse inspired lap siding and stone.





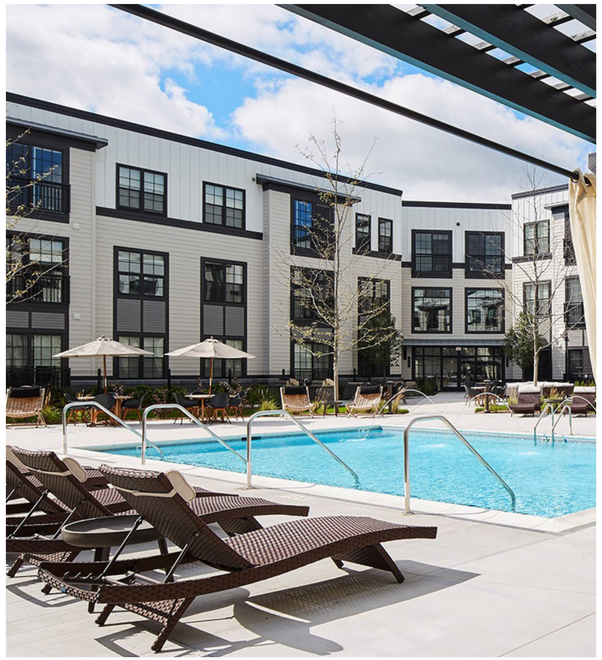












DESIGN APPLICATION

Warrenton's past becomes Warrenton's future. The rich palette of historic materials, textures, and architectural details are reclaimed with a fresh perspective and contemporary context.

RESIDENTIAL DESIGN

The three and four story massing of the residential development is designed to emulate the scale of a walkable town center. A clean, light modern aesthetic is grounded with rich masonry and architectural detailing. The street level is activated with resident access, generous sidewalks and rich landscaping. The articulated façade and generous fenestration break down the scale of the buildings and create visual interest for pedestrians.





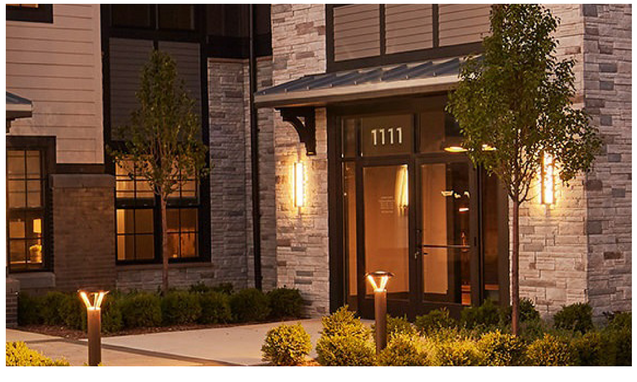




MATERIALS

- Stacked stone
- Masonry with banding and detailing
- Exterior reveal panel system
- Classic lap siding
- Brick masonry with contemporary color palette
- Wood tones to infuse warmth







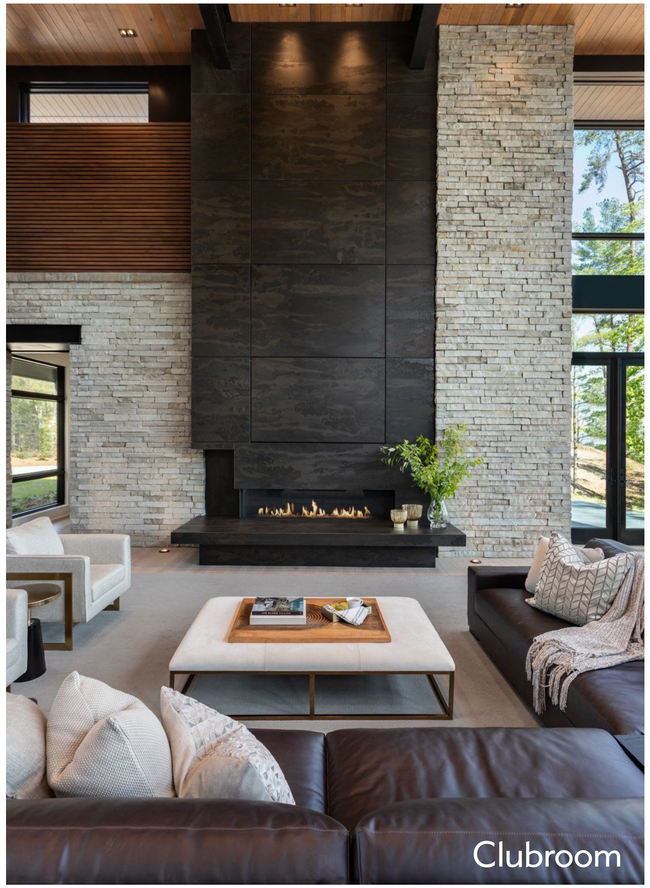


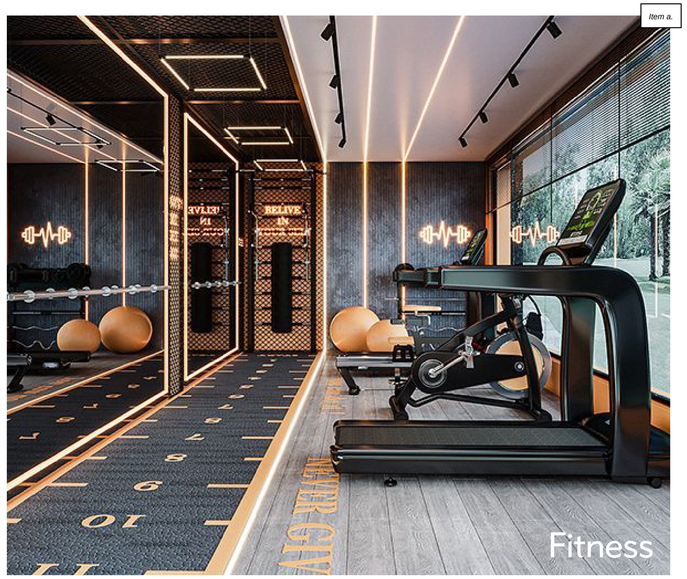
ACCENT FEATURES & STREETSCAPE

- Metal accents & awnings
- Equestrian inspired light fixtures
- Large windows with dark mullions and lintels
- Architectural detailing to provide visual interest at pedestrian level
- Residential street level entries activating the sidewalk
- Pedestrian Connectivity
- Walkable Environment

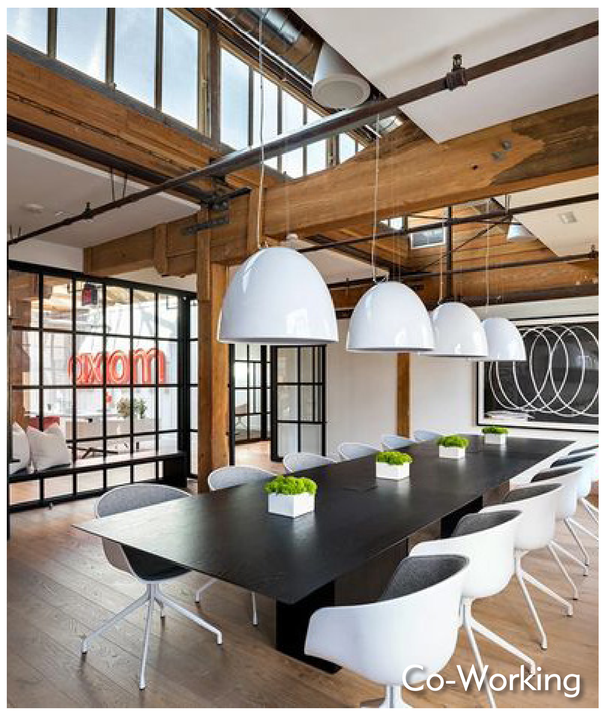


















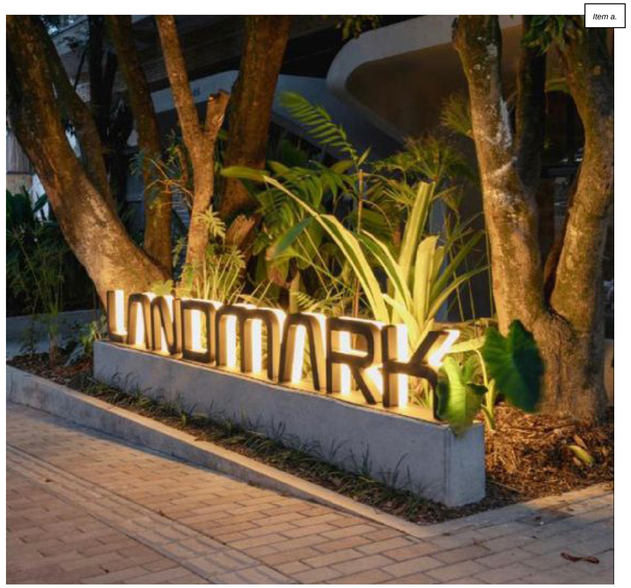
INTERIOR DESIGN CONCEPT

Urban Farmhouse aesthetic blends classic, timeless materials and natural textures with crisp, clean lines, neutral color palettes and light, open spaces. Old is blended with the new to provide spaces that are comfortable and approachable with a nod toward the trends of tomorrow.

















SIGNAGE

Signage and wayfinding are designed to combine key historical elements or notable community themes with clean, sophisticated materials, fonts and applications, bridging the old and the new.

RESIDENTIAL BLOCK 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



RESIDENTIAL BLOCKS 1 & 2

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



RESIDENTIAL BLOCK 1

View from intersection of Oaks Springs Drive & Broadview Avenue



RESIDENTIAL BLOCK 1

View from Broadview Avenue entrance into Warrenton Village Center



RESIDENTIAL BLOCKS 1 & 2

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (2-Over-2s) on right*



RESIDENTIAL BLOCK 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



RESIDENTIAL BLOCK 2



View from Oak Springs Drive

RESIDENTIAL BLOCK 3



View from Broadview Avenue

RESIDENTIAL BLOCK 3



View of townhomes from within the Center

PUBLIC IMPROVEMENTS

LIST OF IMPROVEMENTS FOR PUBLIC USE & BENEFIT

- Central Plaza
- East & West Plazas
- Dog Park and Picnic Area
- Oak Springs Drive Pedestrian Crosswalks
- Completion of outer sidewalk ring around Warrenton Village Center
- Internal pedestrian system – sidewalks, crosswalks, wayfinding, vehicle slowing measures
- Hastings Lane extension

CENTRAL PLAZA



Bird's eye view of Central Plaza

CENTRAL PLAZA



Alternate bird's eye view of Central Plaza (Note Blocks 1 & 2 in background)

CENTRAL PLAZA

View of splashpad at Central Plaza



CENTRAL PLAZA



Ground level view of Central Plaza

CENTRAL PLAZA



Ground level view within Central Plaza (Note Blocks 1 & 3 in background)

CENTRAL PLAZA



Ground level view of pedestrian access to Central Plaza (Note Block 3 in background)

CENTRAL PLAZA



Ground level view of Central Plaza

WEST PLAZA



Ground level view of West Plaza

EAST PLAZA



Ground level view of East Plaza

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
APRIL 23, 2024



1563

AGENDAS

WORK SESSION #2 – APRIL 16TH, 2024

- A Product of Plan Warrenton 2040
- Warrenton Housing Market & Economic Impacts
- Architecture
- Public Improvements

WORK SESSION #3 – APRIL 23RD, 2024

- Water/Sewer Impacts
- Transportation
- Schools
- Modification/Waiver Requests

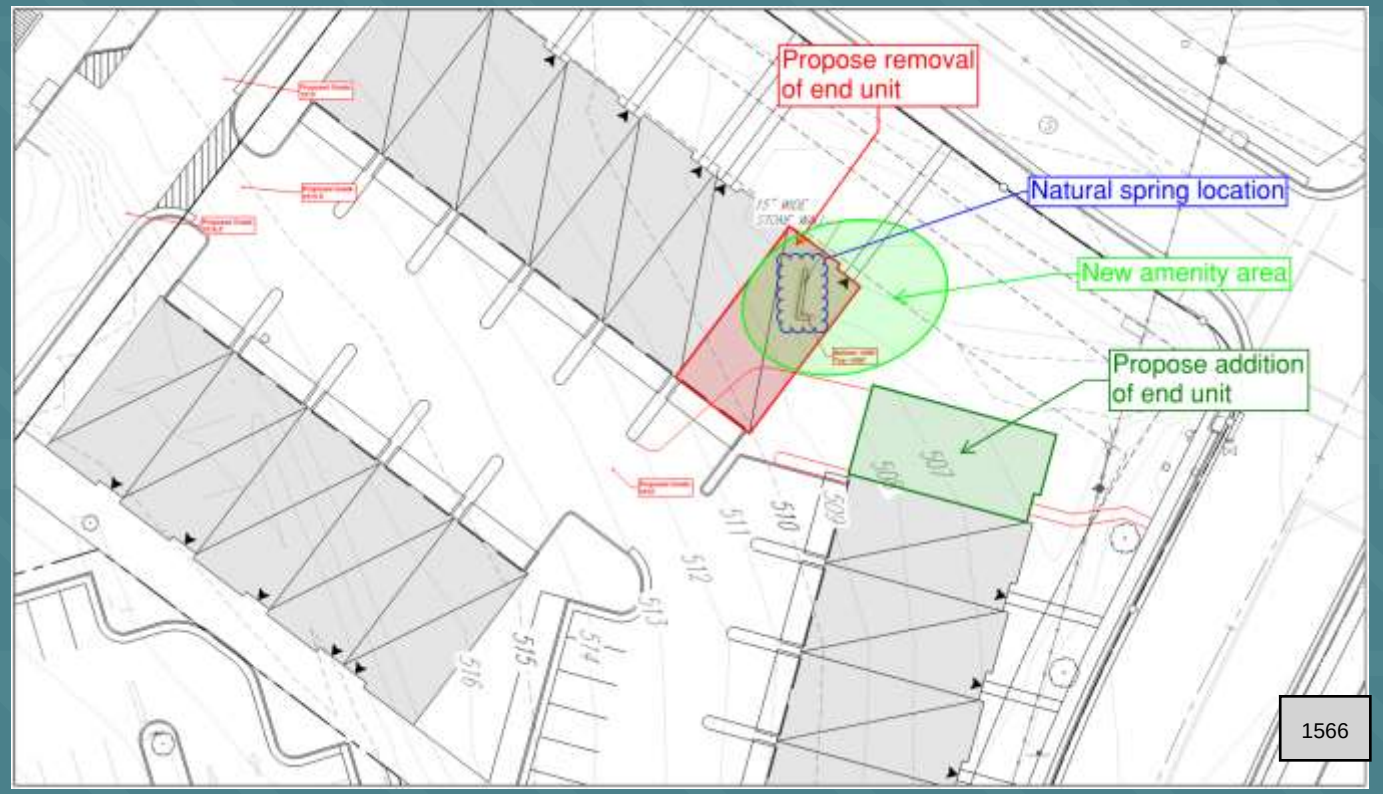
FOLLOW UP FROM WORK SESSION #2 (4/16/23)

OAK SPRING

- It has been requested that we explore the preservation and restoration of Oak Spring—located near the intersection of Oak Spring Drive and Branch Drive
- Restoration of this natural spring will preserve a unique piece of Warrenton history and character
- We are looking into a site plan revision that will allow the spring to be preserved and reconditioned into a public amenity







INCREASE SHADE AT SPLASHPAD

- Shade trees have been added to the Central Plaza to provided coverage for the surrounding seating areas



STORMWATER MANAGEMENT

Storm Water Management Plan is conceptual at this time and will be fully designed and approved during Site Development Plan.

Bohler Engineering is here tonight to answer general questions pertaining to the potential system; however, the scope and methodology of the system are yet to be determined.

ARCHITECTURE

- While the goal of our proposed aesthetic is to introduce a modern and fresh design to Warrenton, we recognize the request to incorporate more components that reflect the character of the community
- Renderings here show a revised color pallet, with incorporation of beige brick in lieu of white and softening of previously dark gray siding to a lighter brown
- Our team is currently studying additional design enhancements with the goal of implementing features that are more representative of the Town's character





WATER / SEWER IMPACTS

WATER / SEWER IMPACTS

- NewCastle's average daily water usage across its Virginia apartment community portfolio:

Community	Units	Total Usage (GAL)	Total Daily Usage (GAL)	Daily Usage Per Unit (GAL)
Community 1	250	3,295,006	9,027	36.1
Community 2	316	7,344,232	20,121	63.7
Community 3	212	5,543,803	15,188	71.6
Community 4	280	6,729,187	18,436	65.8
Community 5	242	5,181,400	14,196	58.7
Community 6	452	14,757,676	33,449	74.0
Avg. / Total **	1,752		20,278	67.0

*Data is from January ,1 2023 through December 31, 2023
**Community 1 was finishing lease up for the first half of 2023 so data does not represent a full calendar year of stabilized occupancy. Community 1 data has been excluded from average data presented and was excluded from usage analysis.

- Average daily community usage across Virginia portfolio is 20,278 gallons per day (GPD)
- Assuming the daily usage per unit of 67.0 GPD, we would project 25,862 GPD for Warrenton Village Center (386 units x 67.0 GPD)

WATER / SEWER IMPACTS

- Town of Warrenton uses their own daily usage amounts when making their capacity determination:
  - For 386 residential units, the Town assumes 116,000 gallons per day
- This is significantly higher than the data collected across NewCastle's Virginia communities – 25,862 GPD vs. 116,000 GPD

- **Even with the assumed usage of 116,000 GPD, the Public Works Department has determined that there is adequate capacity for this project**

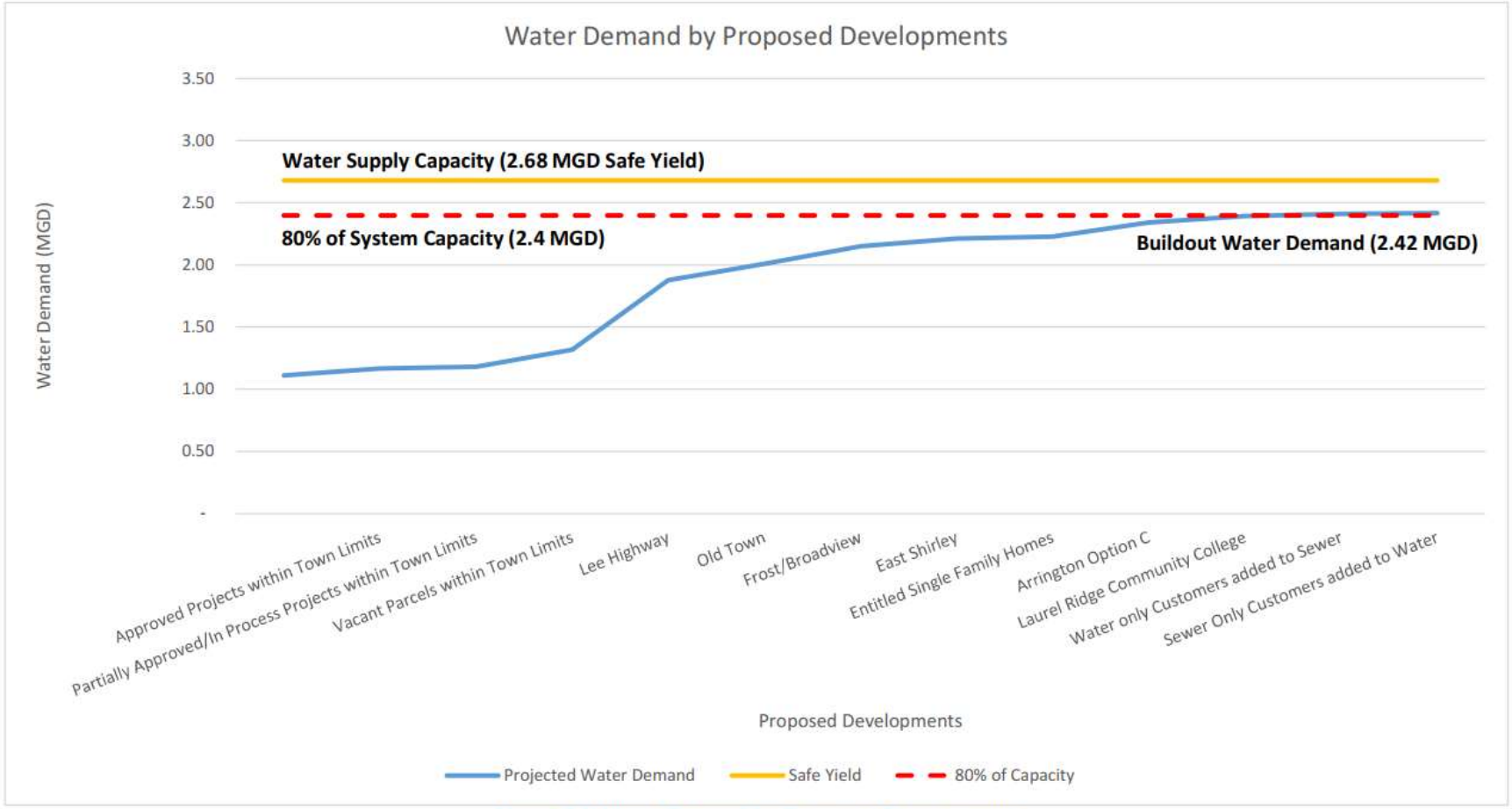


Figure 5.1: Water Demand by Proposed Developments

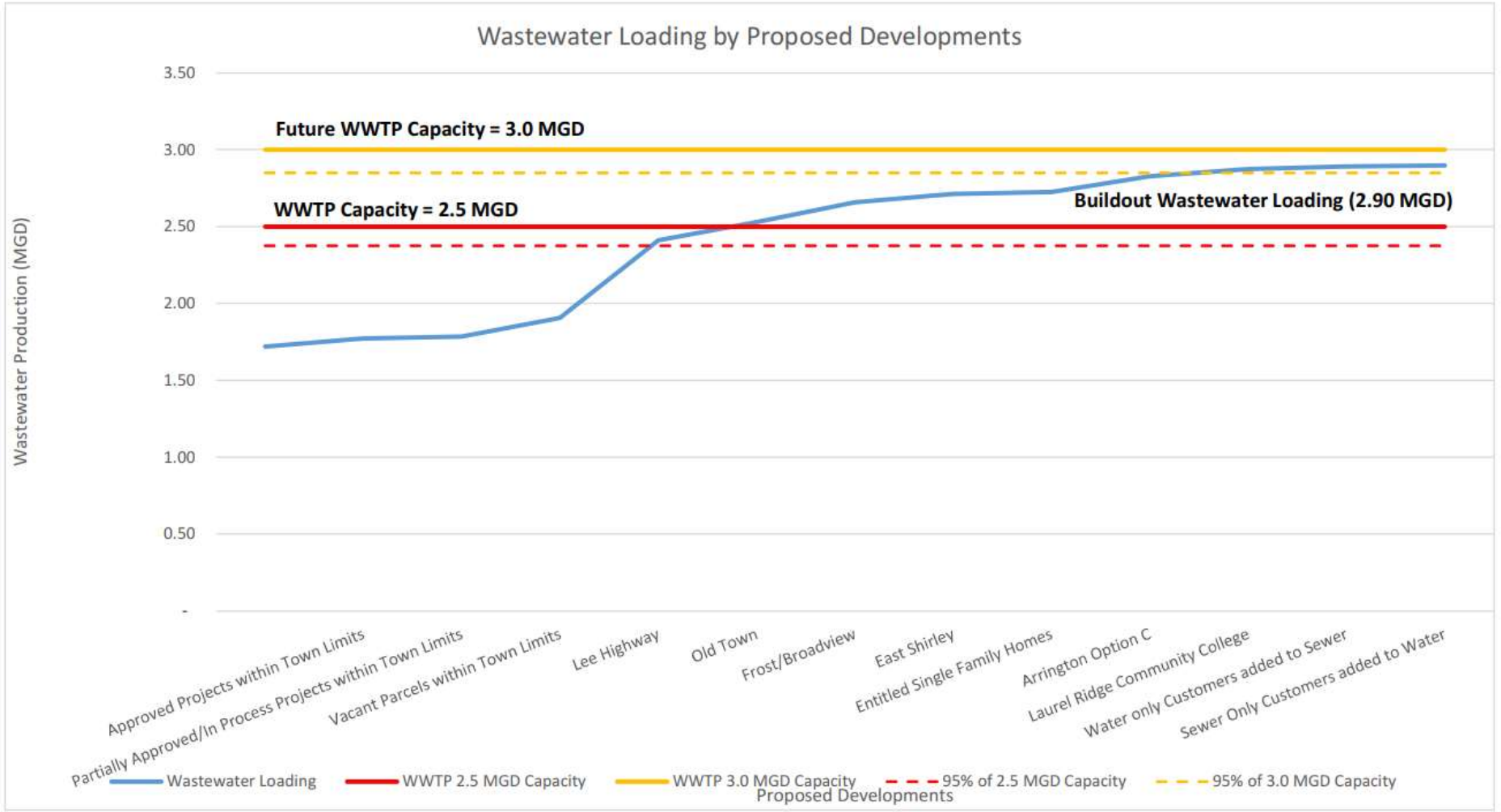


Figure 6.1: Wastewater Loading by Proposed Developments

TRANSPORTATION

SITE PLAN OVERVIEW

Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets



SITE PLAN OVERVIEW

Pedestrian Connectivity:

- Extensive sidewalk network proposed along all streets and within site to promote walkability
- Connects to and augments pedestrian network within existing center
- Crosswalks will be added on Oak Spring Dr at Hastings Ln and Highland School to promote safe pedestrian access from the north
- Retain crosswalks on Broadview Ave and Branch Dr



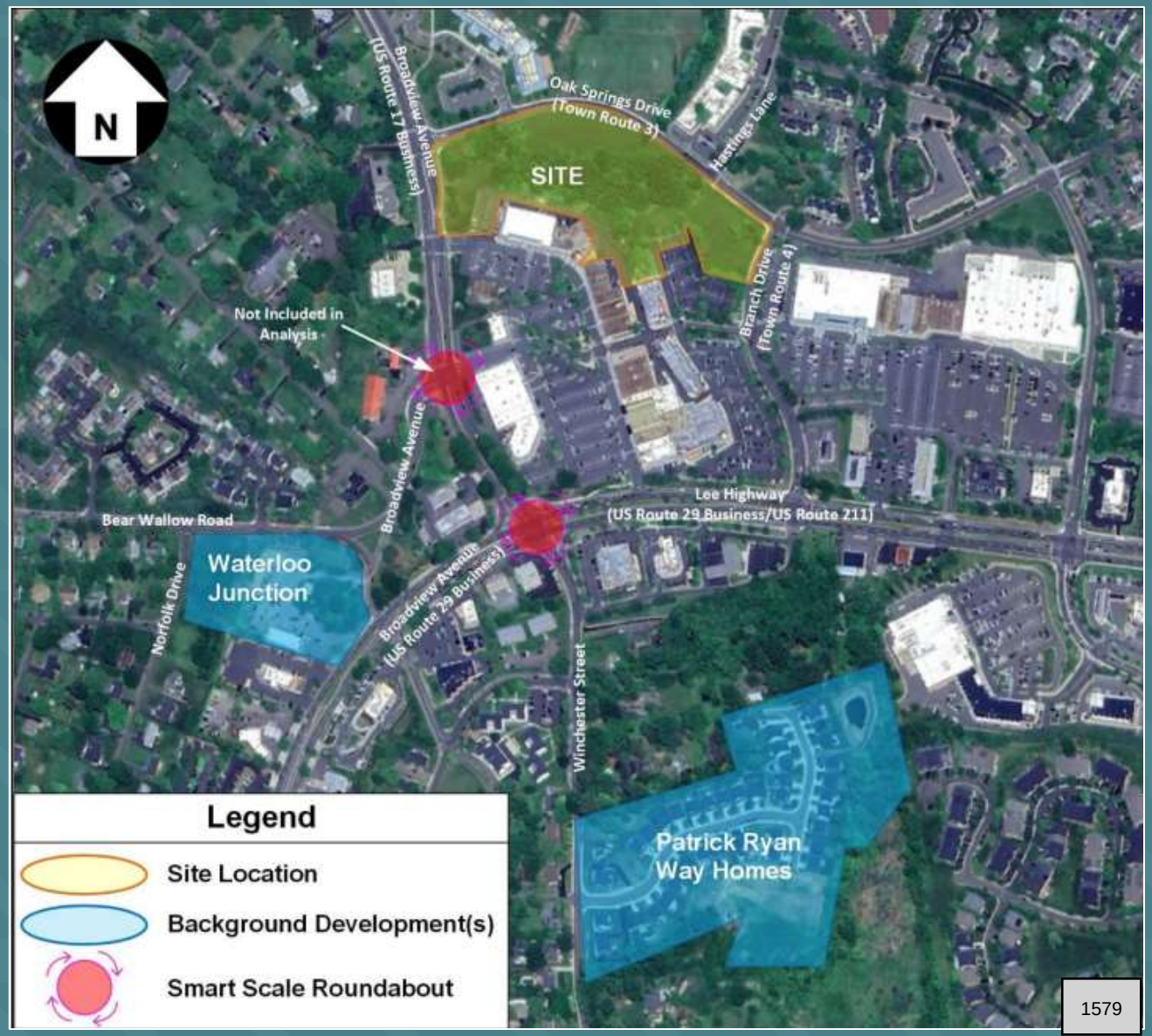
TRAFFIC STUDY AREA



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions:

- Accounted for 1% annual regional growth on Lee Hwy mainline
- Other approved developments in the area will add some traffic, including 47 new townhomes and 40 new single-family homes
- Roundabout at Broadview Avenue, Broadview Avenue, and shopping center entrance not funded through SMARTScale



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions (cont.):

- Planned Roundabout at Rt 29/211 and Broadview Ave Intersection:
  - Separate VDOT project, not triggered by this development
  - $29M in SMARTScale funding awarded for this and Blackwell Road roundabout
  - Expected to improve traffic operations and safety
  - Includes accommodations for pedestrians

DRPT | Office of Intermodal Planning and Investment | VDOT

PROJECT PIPELINE

Roundabout: reconfigures the intersection to a multi-lane hybrid roundabout. The roundabout can improve operations by 60%, reduce crashes up to 60%, and improve the safety of pedestrian crossings.

Figure 17. Broadview Avenue Roundabout Concept



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Traffic Operations:

- Overall, the road network assuming the "future without development" condition is expected to continue operating similar to the existing conditions
- Some minor increases in delays are projected for some movements at unsignalized intersections, but signalized intersections and the new roundabout would operate efficiently
- The maximum "future without development" increase in delay at any study intersection is 7 seconds, as compared to existing conditions
- The planned infrastructure improvements, like the roundabout, will improve traffic flow compared to existing conditions

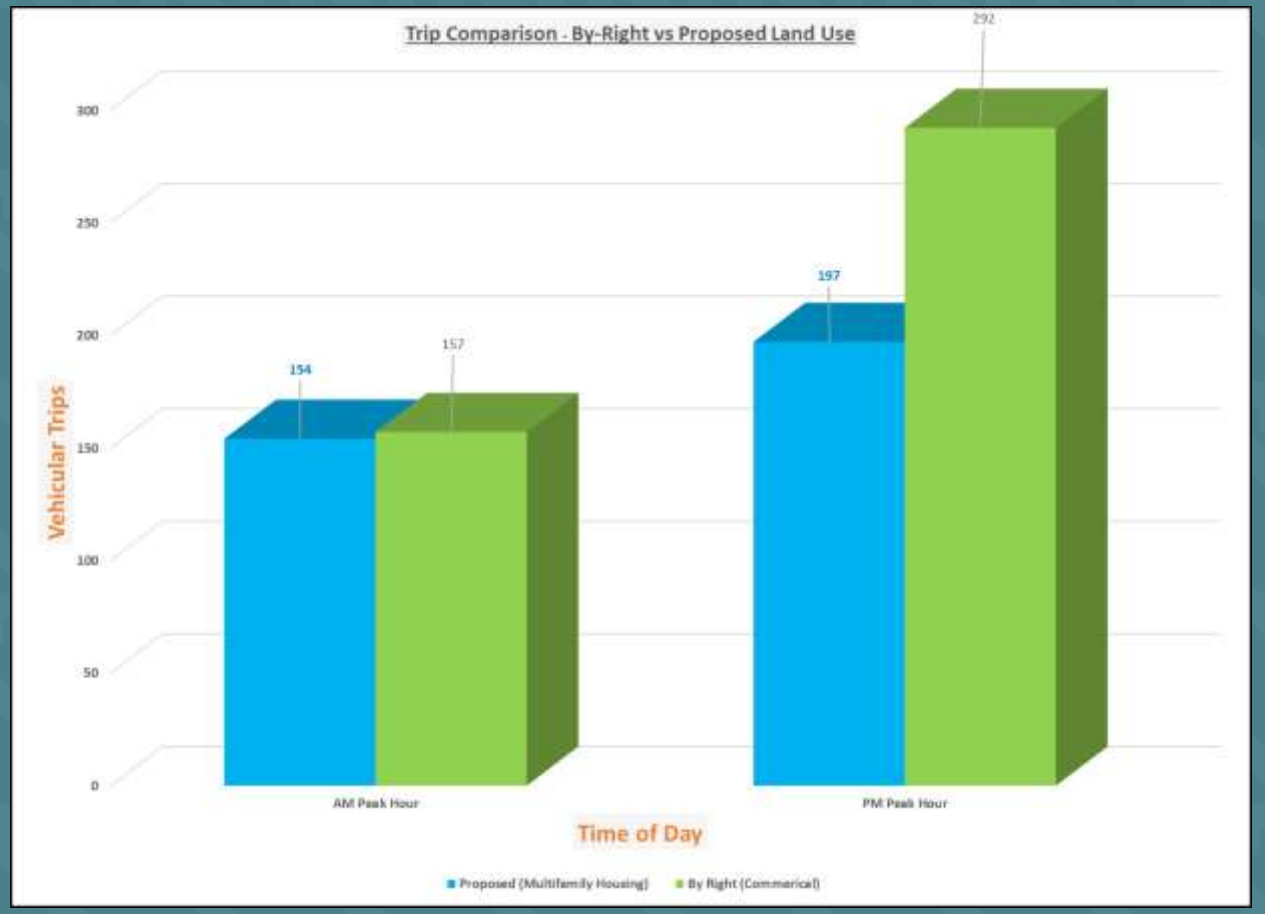
SITE TRIP GENERATION

New Trips Generated by the Development:

- The proposed 386 new residential units are expected to generate around 154 new vehicle trips during the morning commute hour and 197 new vehicle trips during the evening commute hour
- These are distributed across the internal connections and 6 access points, reducing impact at any single location

Less Than By-Right Commercial Development:

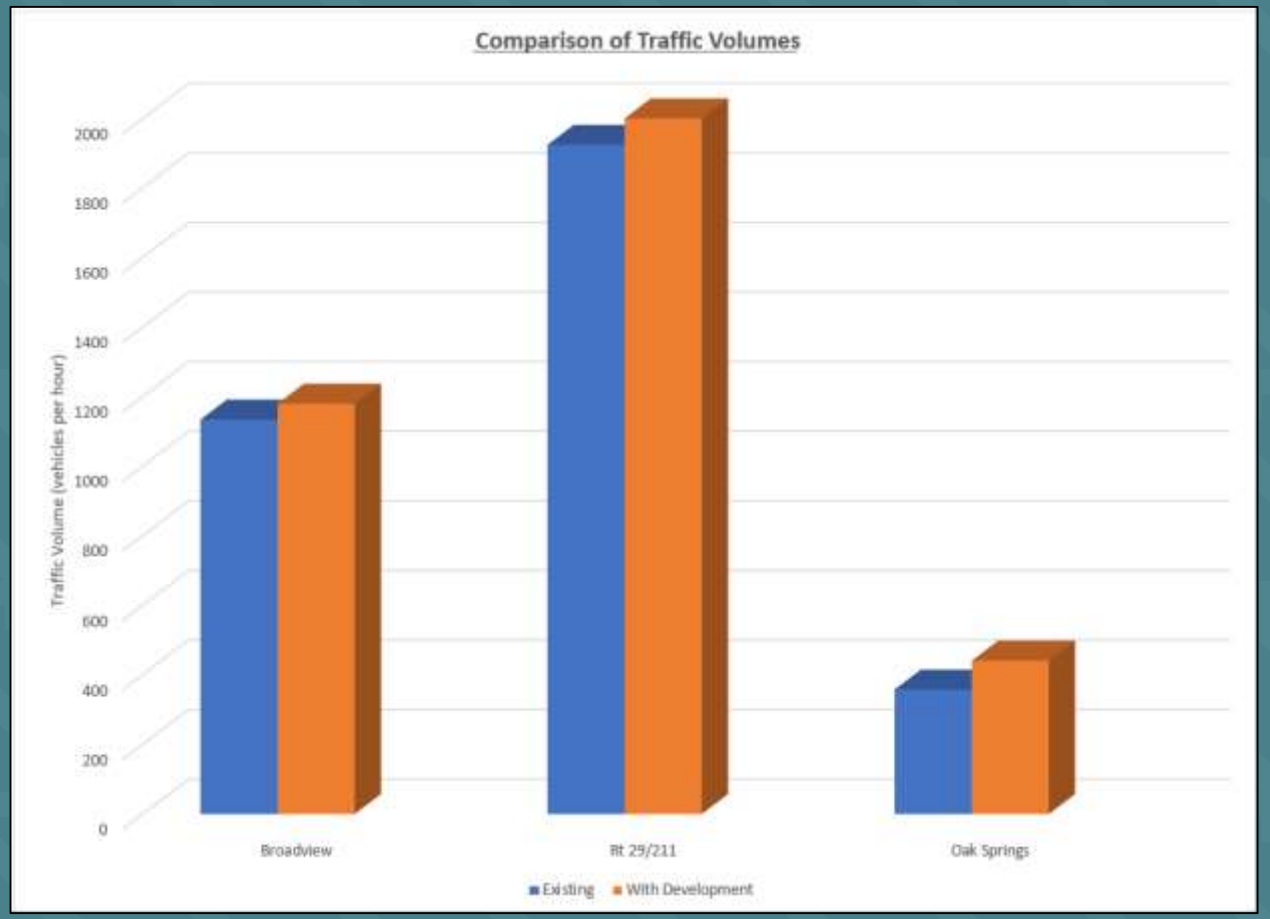
- The residential traffic volumes are lower than what would be seen if the site was developed by right with 40,000 sf of retail instead



SITE TRIP IMPACTS

Minimal Traffic Impact:

- Site-generated traffic represents a small percentage of the existing volumes:
  - 3 - 4% on Broadview Avenue
  - 0.1 - 4% on Rt 29/211
  - Greater proportion on Oak Spring Dr and Branch Dr, where current volumes are lower
- Capacity analysis confirms these modest additions can be accommodated by the surrounding road network without degrading operations



INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

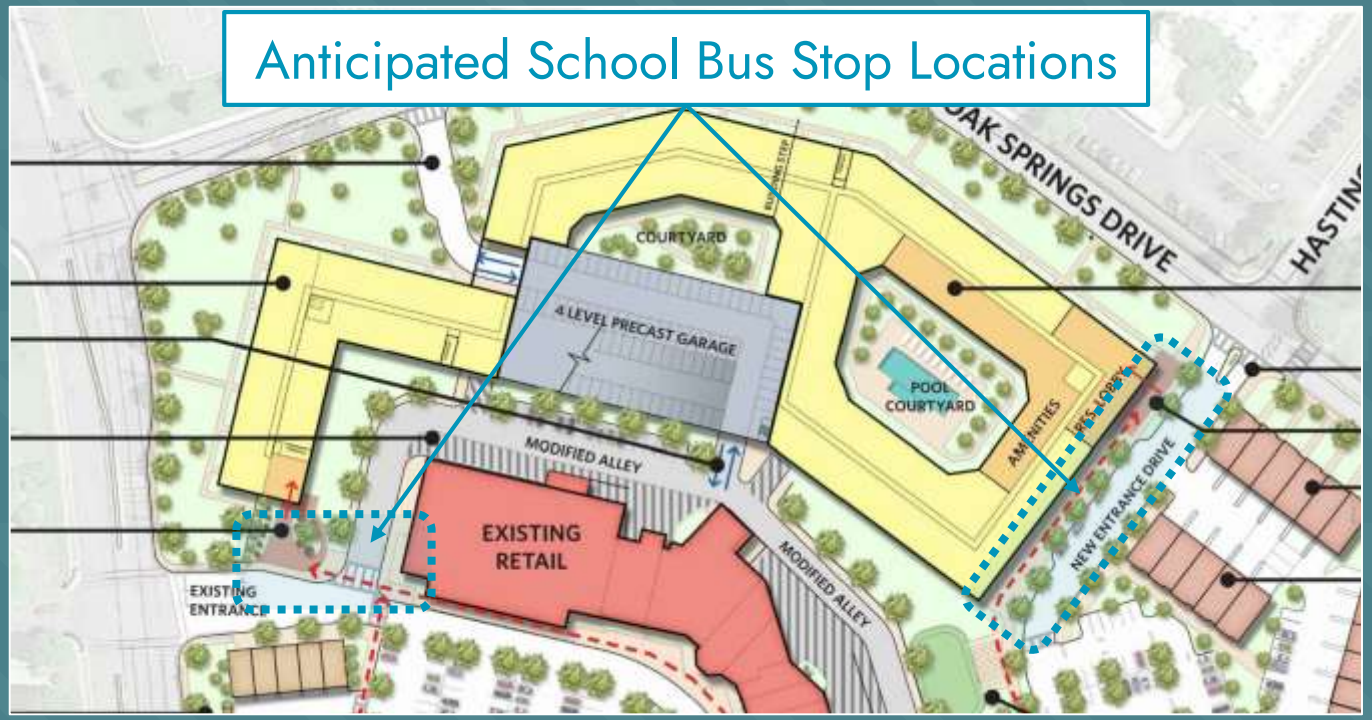
SCHOOL BUS ACCOMMODATIONS

School Bus Stops:

- The developer will work with County schools on exact locations of school bus stops
- Expected to be near the residential lobbies

Impact on Traffic:

- Anticipated that buses will stop on internal streets, rather than adjacent public roads
- Maintain the flow of through traffic on the surrounding streets during peak school travel times



HIGHLAND SCHOOL TRAFFIC

Balancing Access and Minimizing Disruption:

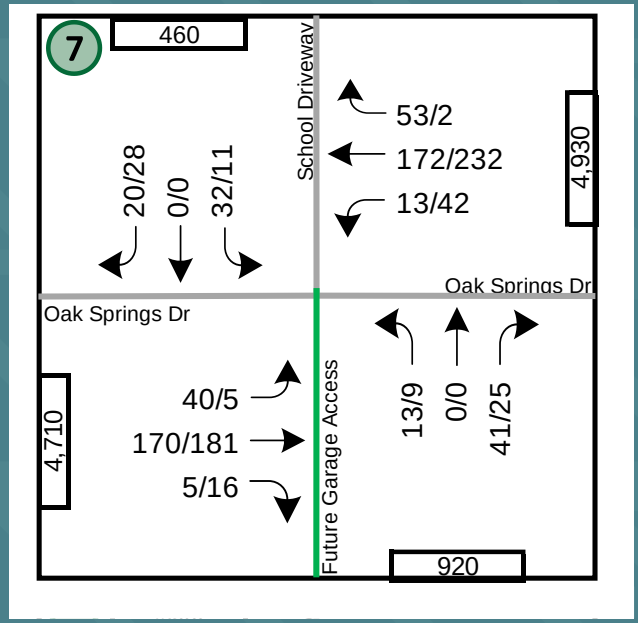
- The proposed parking deck entry is positioned across from the Highland School driveway to balance access needs while minimizing disruption to the existing intersection

Minimizing Conflicts with School Peak Hours:

- Analysis found Highland School and residential AM peak hours have a 15-minute overlap, during which conflicts are expected to be minimal
- Analysis found no overlap in PM peak hours
- It is anticipated that residents will use secondary garage entrance during AM peak hours, which will further reduce conflicts

Accommodating School Operations:

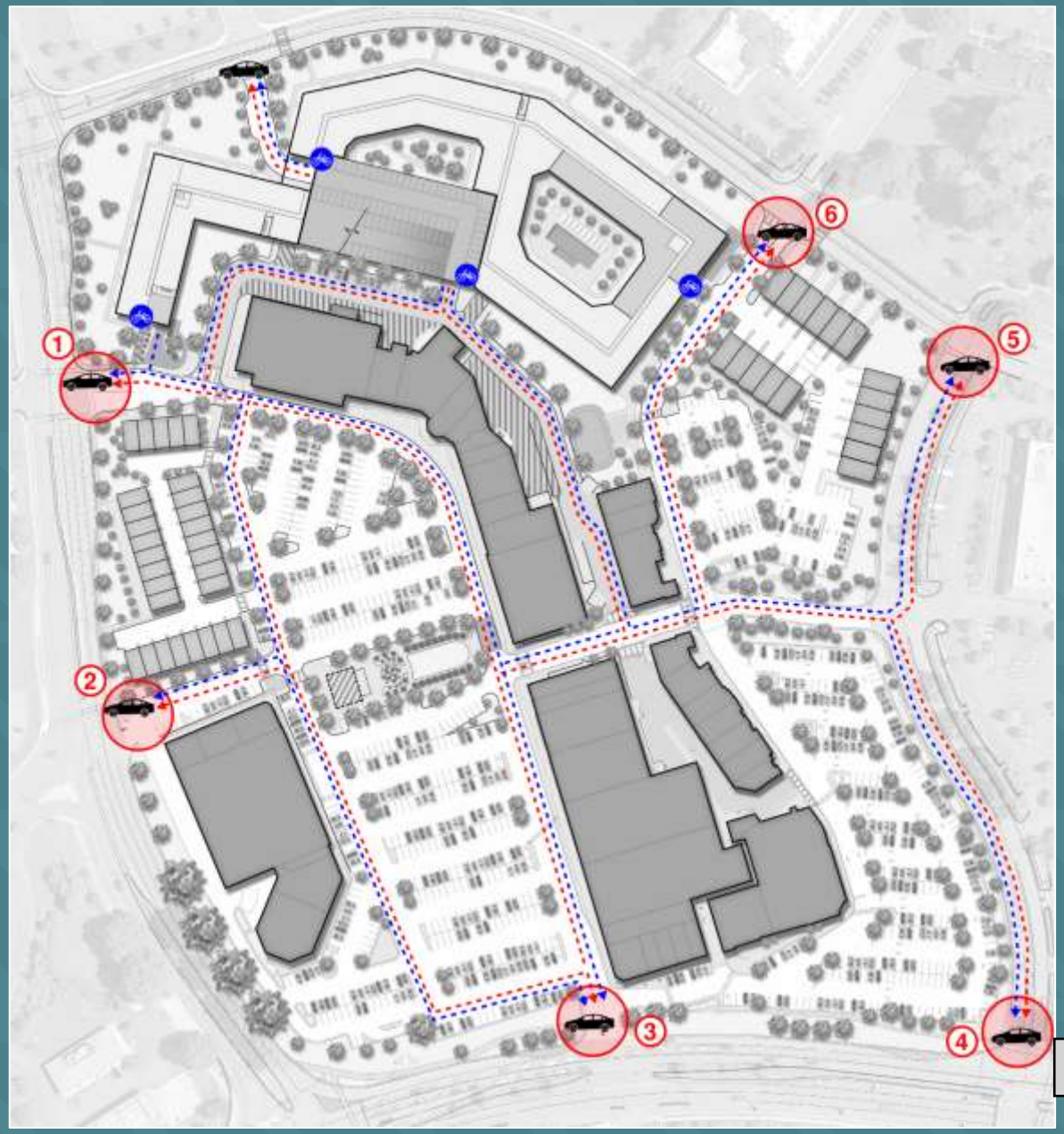
- Observations showed limited queuing of vehicles along Oak Springs Dr at the existing Highland School access point, even during peak times
- The school has multiple pickup/drop-off locations and two entrances, which helps distribute the traffic



Overall, the traffic impacts from the proposed development are not anticipated to significantly disrupt or impede the normal operations of Highland School

HIGHLAND SCHOOL TRAFFIC

- Residents of Warrenton Village Center will want to avoid traffic as much as those dropping off/picking up students at Highlands School
- The site provides 6 alternative points of ingress/egress for vehicles and bicycles that will be the preferable route of travel during peak traffic hours to avoid congestion on Oak Springs Drive
- These alternative points of ingress/egress will further reduce what the Traffic Impact Analysis has determined to be minimal conflicts to the Highland School traffic



ROAD IMPROVEMENTS

Turn Lane Warrant Analysis:

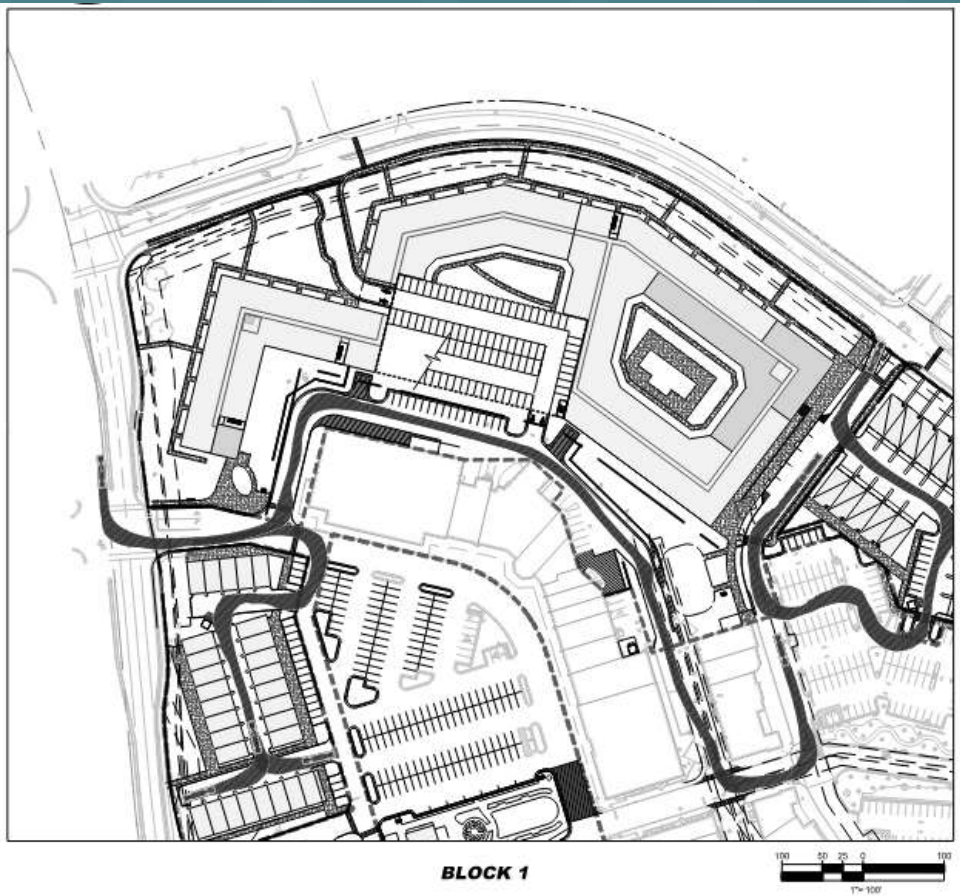
- No new turn lanes warranted at proposed site access points per VDOT standards
- No new turn lanes recommended to be constructed by the development

Signal Warrant Analysis:

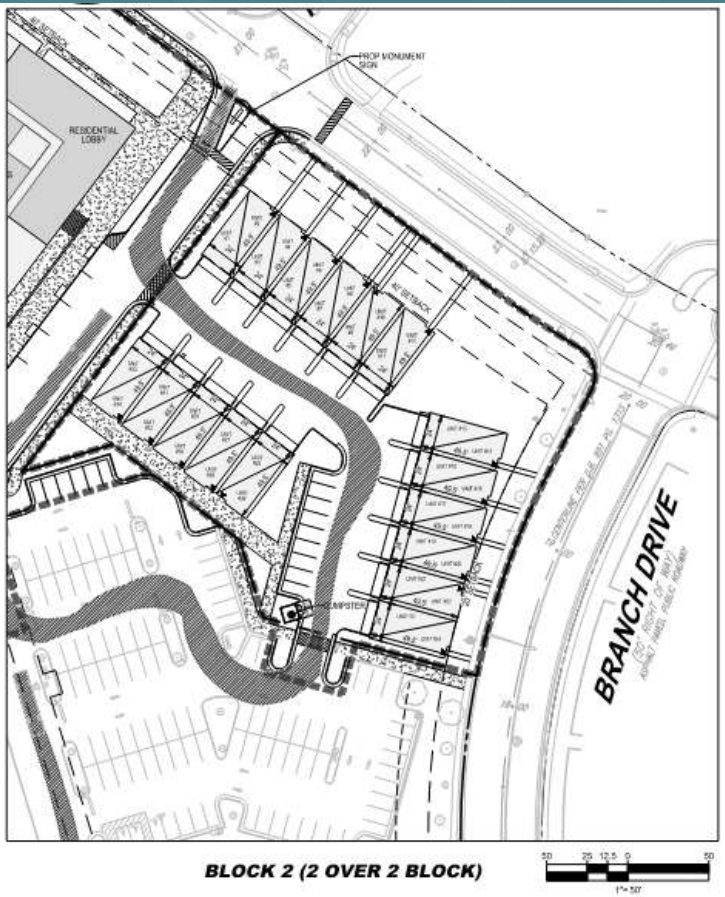
- Signal warrant analysis performed for Broadview Ave/Oak Springs Rd intersection
- Traffic volumes do not meet MUTCD signal warrants, so signalization is not recommended
- Unsignalized operations projected to function acceptably at LOS C or better

The Warrenton Village Center development does not necessitate any additional roadway improvements beyond what is already planned by VDOT and the Town

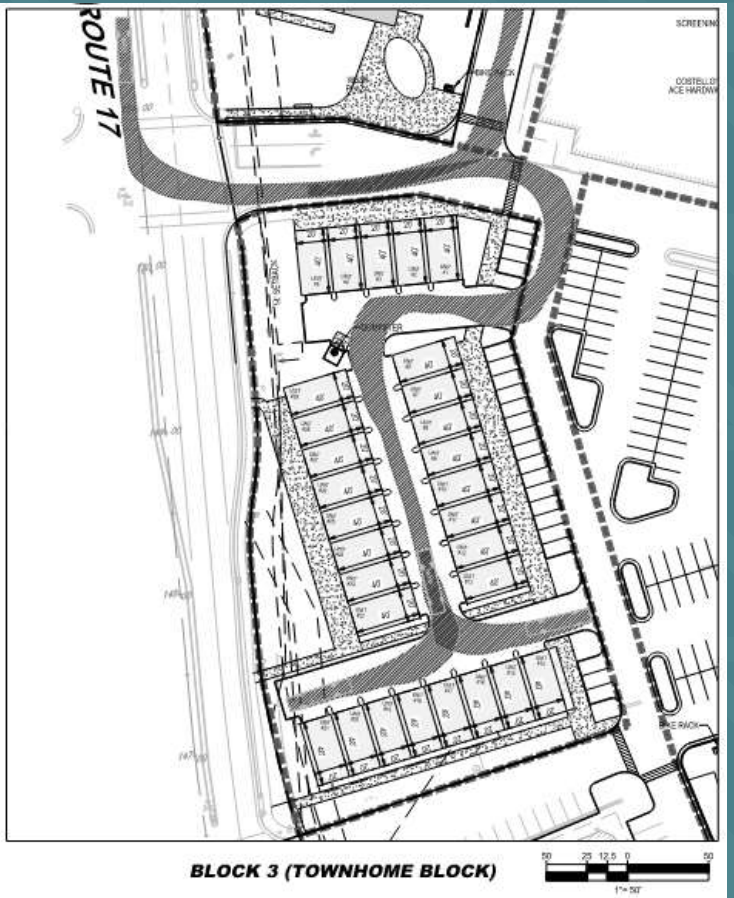
EMERGENCY & DELIVERY VEHICLE MOVEMENTS



BLOCK 1

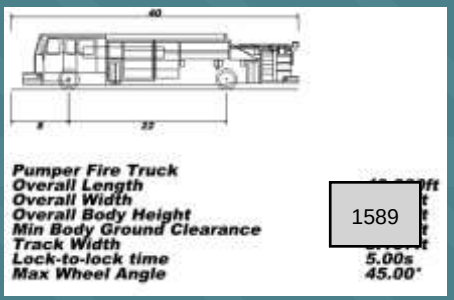


BLOCK 2 (2 OVER 2 BLOCK)



BLOCK 3 (TOWNHOME BLOCK)

- Vehicle turning analysis has confirmed maneuverability throughout all blocks
- Mountable curbs can be included at desired locations during site plan



SUMMARY OF IMPACTS

Additional Traffic:

- The proposed 386 residential units will generate 154 new trips in the AM peak and 197 in the PM peak hour
- This equates to about 4% of the current traffic on most surrounding roadways

Dispersed Access Points:

- Multiple entry/exit locations directly to Oak Springs Dr and through shopping center driveways
- Distributes new trips across the road network, avoiding concentration at a single point

SUMMARY OF IMPACTS

Leveraging Existing and Planned Infrastructure:

- The mixed-use nature of the development will help reduce external trips generated, as some trips can be captured internally
- Surrounding street grid offers multiple route choices, dispersing trips
- Planned roundabout will improve operation at Rt 29/211 and Broadview Ave
- Capacity analysis confirms surrounding intersections and roads can accommodate the new traffic with minimal impact

Outcome:

- The Warrenton Village Center development would improve walkability, vibrancy, and housing choices, with a marginal increase in traffic that does not warrant new road improvements

SCHOOLS

PROJECTED STUDENTS

Fauquier County Student Generation Calculation:

- 0.72 students per single family detached dwelling
- 0.45 students per single family attached dwelling
- 0.20 students per apartment dwelling

- Allocation per school type assumption is:
  - 52% elementary school
  - 22% middle school
  - 26% high school

PROJECTED STUDENTS

Warrenton Village Center Projection at Full Buildout and Occupancy:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

- Allocation per school:
  - Bradley (52%) = 49
  - Taylor (22%) = 21
  - FHS (26%) = 24

FAUQUIER COUNTY ENROLLMENT PROJECTIONS

Enrollment Projection

This is an 5-year analysis of program capacity based on projected enrollment. This analysis is a cohort progression model, looking at birth rates and considers a growth factor. Areas of concern are:

- Elementary (South and Central)
- Middle School Growth
- Liberty HS

	Program Capacity	95% Cap	Actual Enrollment 2019-20	2020-21	2021-22	2022-23	2023-24	% Cap	Projected Enrollment 2024-25	2025-26	2026-27	2027-28	2028-29
ES South													
Miller	580	551	493	476	484	489	506	87.2%	503	492	504	505	522
Pearson	532	505	385	347	365	367	381	71.6%	397	394	407	422	433
Pierce	560	532	550	487	514	531	533	95.2%	537	548	554	543	551
Walter	588	559	410	363	412	399	396	67.3%	409	430	451	452	474
Subtotal South	**2,260**	**2,147**	**1,838**	**1,673**	**1,775**	**1,786**	**1,816**	**80.4%**	**1,846**	**1,864**	**1,916**	**1,922**	**1,980**
ES Central													
Bradley	588	559	369	332	339	356	349	59.4%	341	354	355	363	360
Brumfield	716	680	495	458	482	492	508	70.9%	530	560	580	608	644
Greenville	604	574	531	437	479	495	494	81.8%	506	506	498	468	471
Ritchie	548	521	483	416	478	491	522	95.3%	532	529	543	547	563
Smith	572	543	414	356	414	418	393	68.7%	418	443	465	505	524
Subtotal Central	**3,028**	**2,877**	**2,292**	**1,999**	**2,192**	**2,252**	**2,266**	**74.8%**	**2,327**	**2,394**	**2,441**	**2,491**	**2,562**
ES North													
Coleman	520	494	347	276	311	332	315	60.6%	312	302	280	270	266
Thompson	368	350	254	224	257	256	262	71.2%	267	280	310	327	344
Subtotal North	**888**	**844**	**601**	**500**	**568**	**588**	**577**	**65.0%**	**579**	**582**	**590**	**597**	**610**
TOTAL ELEMENTARY	**6,176**	**5,867**	**4,731**	**4,172**	**4,535**	**4,626**	**4,659**	**75.4%**	**4,752**	**4,840**	**4,947**	**5,010**	**5,152**
Available Capacity			**1,445**	**2,004**	**1,641**	**1,550**	**1,517**	**24.6%**	**1,424**	**1,336**	**1,229**	**1,166**	**1,024**
Middle Schools													
Auburn	622	591	568	513	575	552	578	92.9%	588	590	613	647	668
Cedar Lee	900	855	650	622	613	596	837	93.0%	877	864	805	851	859
Marshall	654	621	466	445	419	408	405	61.9%	396	391	391	413	414
Taylor	618	587	470	422	435	424	607	98.2%	607	601	569	601	606
Warrenton	-	-	432	368	366	392	-		-	-	-	-	-
TOTAL MIDDLE	**2,794**	**2,654**	**2,586**	**2,370**	**2,408**	**2,372**	**2,427**	**86.9%**	**2,468**	**2,445**	**2,379**	**2,512**	**2,547**
Available Capacity			**208**	**424**	**386**	**422**	**367**	**13.1%**	**326**	**349**	**415**	**282**	**247**
High Schools													
Fauquier	1,612	1,531	1,254	1,217	1,170	1,134	1,122	69.6%	1,089	1,111	1,153	1,147	1,170
Kettle Run	1,360	1,292	1,184	1,147	1,112	1,172	1,164	85.6%	1,165	1,214	1,233	1,241	1,267
Liberty	1,370	1,302	1,250	1,252	1,259	1,324	1,300	94.9%	1,261	1,283	1,328	1,341	1,368
TOTAL HIGH	**4,342**	**4,125**	**3,688**	**3,616**	**3,541**	**3,630**	**3,586**	**82.6%**	**3,515**	**3,608**	**3,714**	**3,729**	**3,805**
Available Capacity			**654**	**726**	**801**	**712**	**756**	**17.4%**	**827**	**734**	**628**	**613**	**537**
District Total	**13,312**	**12,646**	**11,005**	**10,158**	**10,484**	**10,628**	**10,672**	**80.2%**	**10,735**	**10,893**	**11,040**	**11,251**	**11,504**

*Data provided by Fauquier County Public Schools

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

MODIFICATIONS & WAIVERS

ZONING ORDINANCE 9-25: MIXED-USE DEVELOPMENT OPTIC

The mixed-use development option is created within the Commercial District to allow a mixture of uses when consistent with the Comprehensive Plan. The mixed-use option is intended to encourage development in a creative and integrated manner that encourages pedestrian walkability, shared open spaces and an alternative form of housing within the Town.

Section J. – Modifications:

Modifications from the standards set forth in Section 9-25 may be approved by Town Council in conjunction with the Special Use Permit upon a determination that the intent of the Comprehensive Plan is being met.

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #1



- Section 3-4.10.3 of the Zoning Ordinance provides that density in a mixed-use development within a Commercial zone may be calculated pursuant to Sec. 9-25 of the Zoning Ordinance
- Sec. 9-25 allows for calculation of density in a mixed-use development to be up to 1 dwelling unit per 500 square feet of non-residential space. This section also provides that density above 5 units per acre must be approved by the Town Council.
- While this is a modification of Sec. 3-4.10.3, the requested density is fully consistent with the provisions of Sec. 9-25 for a mixed-use development, and less than what could be achieved
- This modification will allow for realization of the concentrated increased density that is a primary objective of the New Town Character District
- **Waiver Request #1:** Increase density above 5 units per acre to 13.28 units per acre, which will yield 386 units

DENSITY CALCULATIONS

By-Right Density Calculation:

- 5 dwelling units per acre
- 5 x 29.05 acres = 145 units

By-Right Density Calculation, with affordable housing bonus:

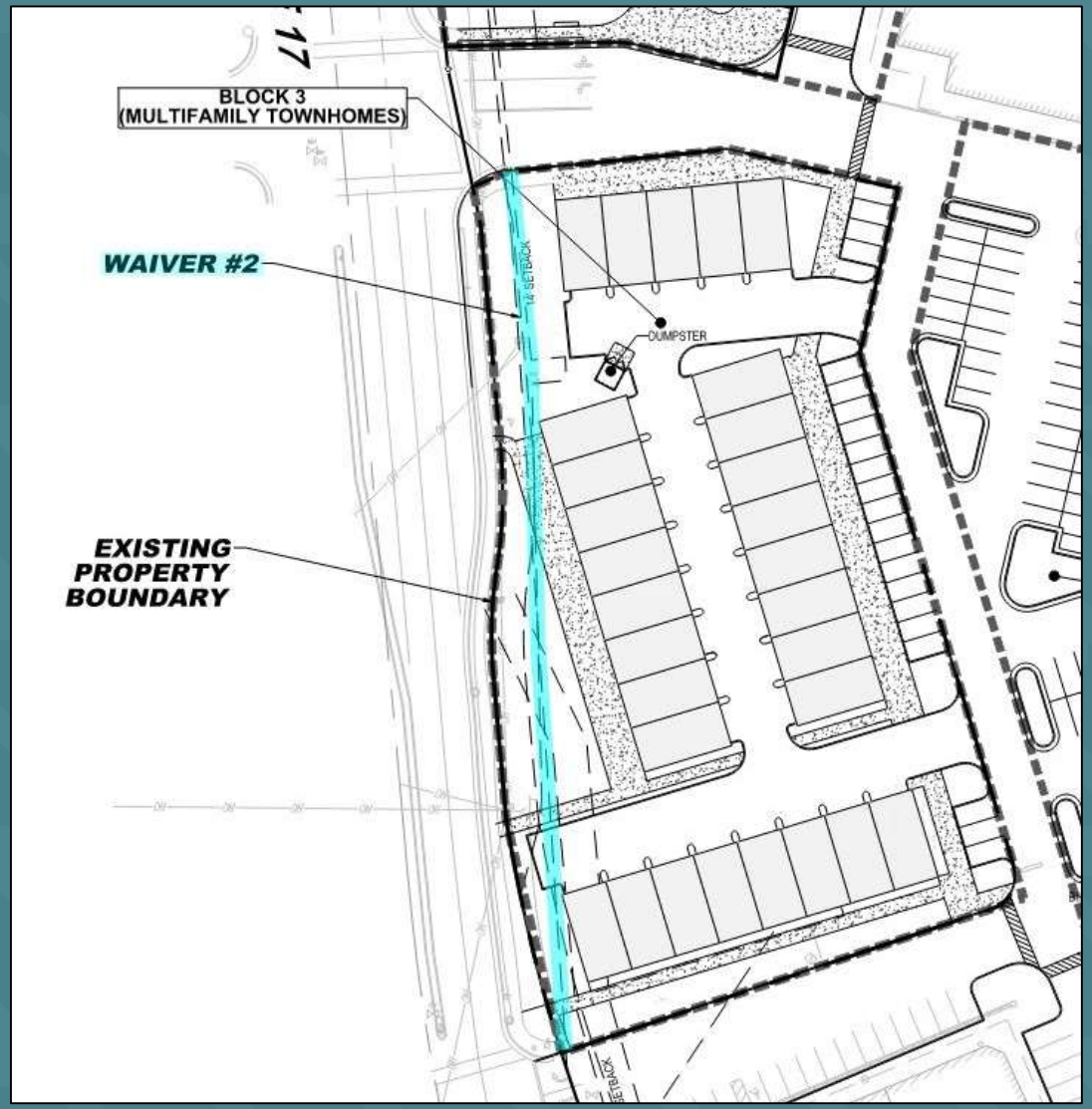
- 10 dwelling units per acre
- 10 x 29.05 acres = 290 units

Mixed-Use Density Calculation (with SUP approval):

- 1 dwelling unit per 500 GSF of non-residential floor space
- 218,142 GSF / 500 = 436 units (15 units per acre)

- Requested Density = 386 (13.28 units per acre)

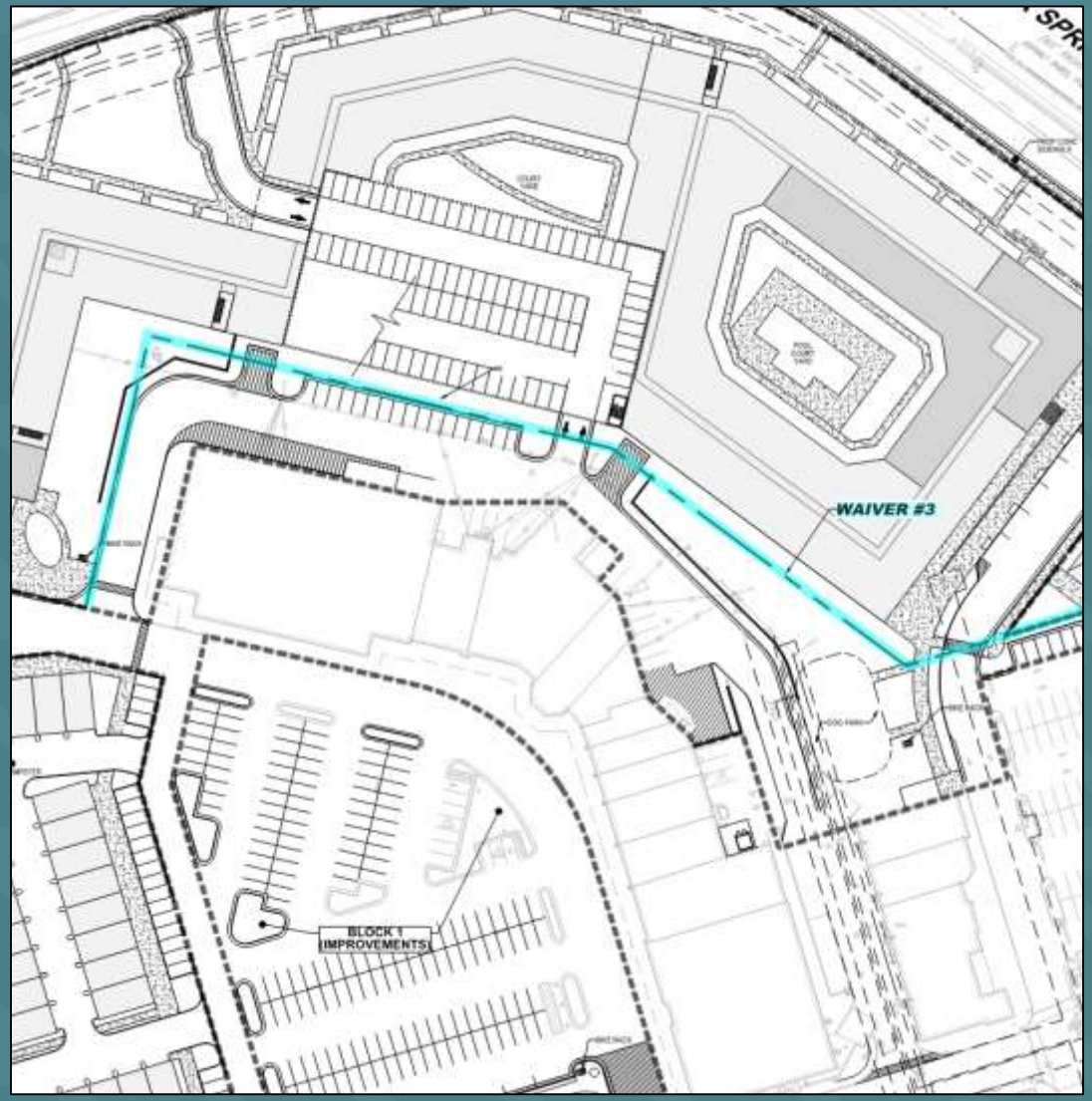
SUP MODIFICATION & WAIVERS – WAIVER REQUEST #2



- Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #2**: Decrease minimum setback to 14' along Broadview Avenue

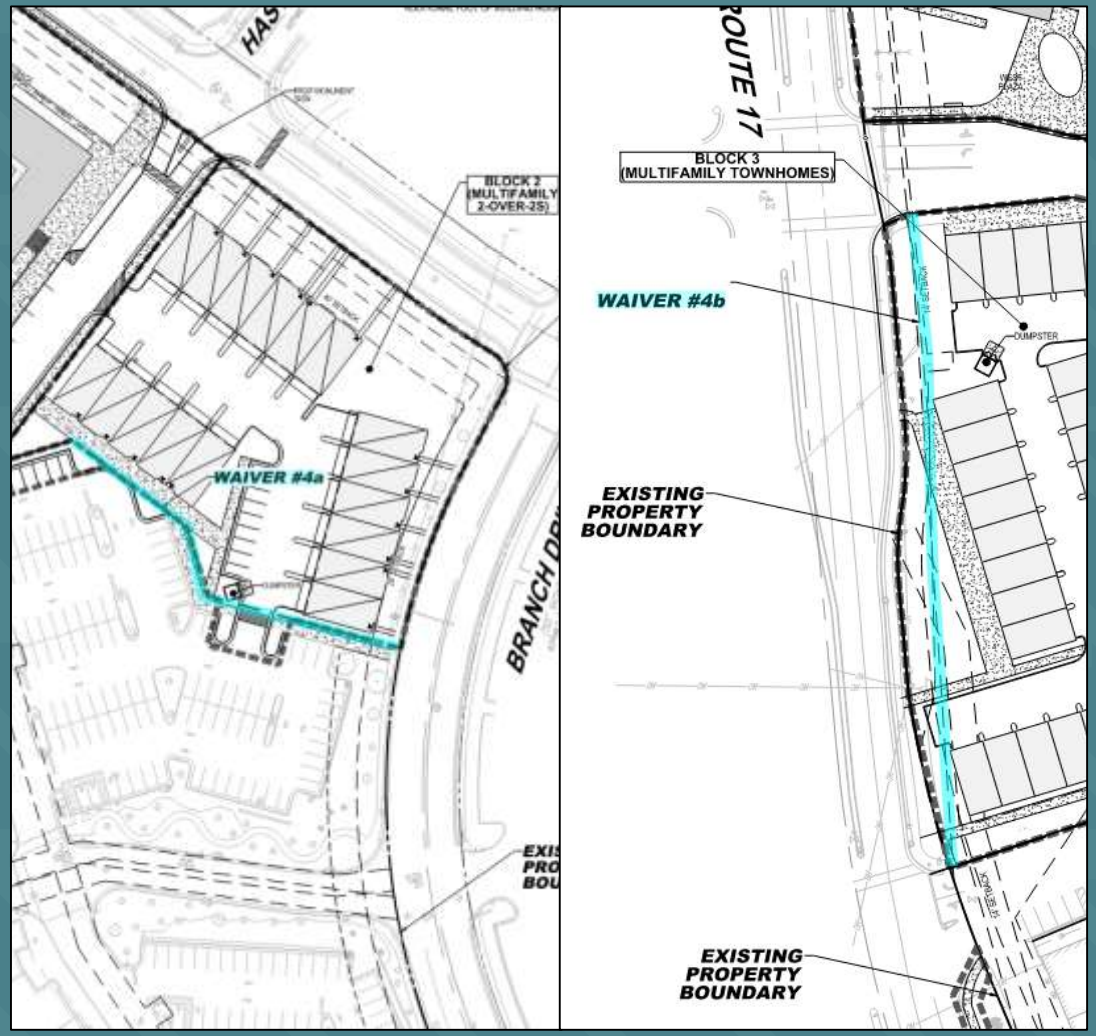


SUP MODIFICATION & WAIVERS – WAIVER REQUEST #3



- Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- **Waiver Request #3:** Decrease side/rear yard setbacks along internal proposed and existing property lines to 0'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #4



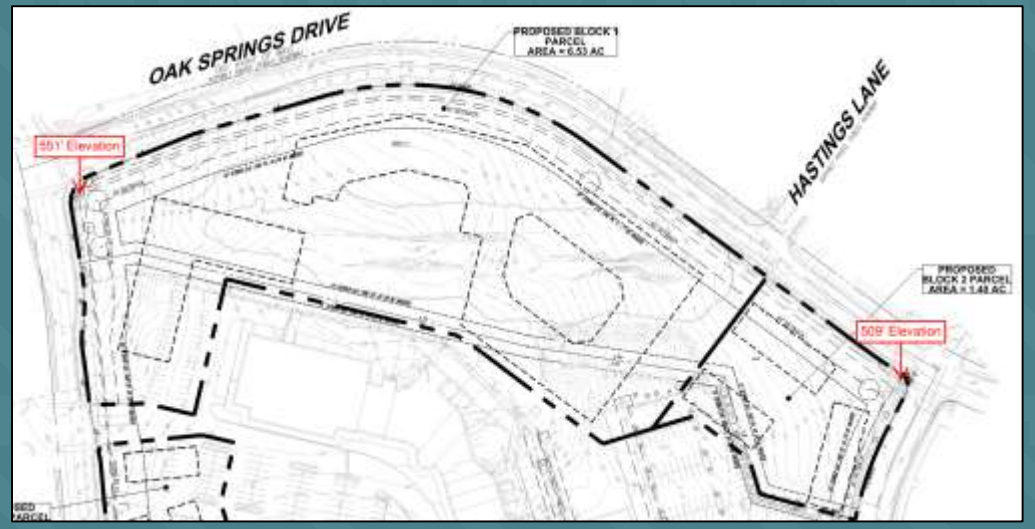
- Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0'
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #5

- Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and rear setbacks increase 1' for each additional foot of building height over 35'.
- **Waiver Request #5**: Increase height limit for dwellings as follows:
  - 54' max height for Block 1, Oak Springs Drive Frontage
  - 36' max height for Block 1, Broadview Drive Frontage
  - 45' max height for Block 2
  - 36' max height for Block 3

WHY ADDITIONAL HEIGHT IS NEEDED

- Site drops 42' from Broadview Avenue to Branch Drive
- The building starts as 3-stories on the west side at the higher elevation and increases to 4-stories on the east side as the elevation drops
- Increasing height as a building moves down a hill is a technique to keep consistency in scale across a building's elevation, as well as a way to conceal retaining walls within the building's foundation, as opposed to creating unsightly external walls

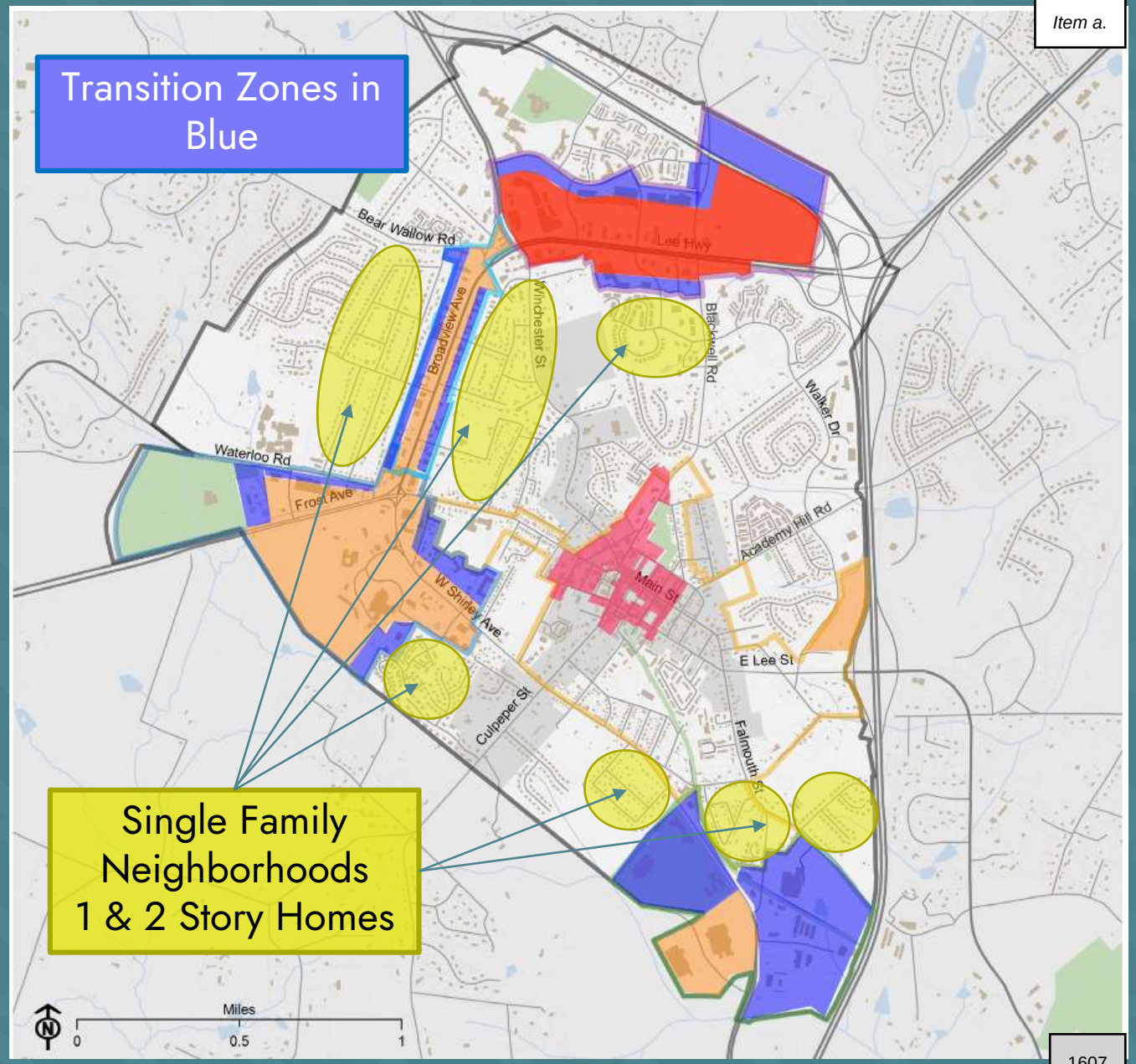


WHY ADDITIONAL HEIGHT IS NEEDED

- The New Town Character District has been established in Plan Warrenton 2040 as a designated area of high density—3-story residential does not allow for the concentrated density desired in the District
- The New Town Character District calls for "greater intensity of mixed-use and strong live, work, and play options" and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this Character District.
- 4-stories allows for the internal parking garage to be hidden from the exterior of the building

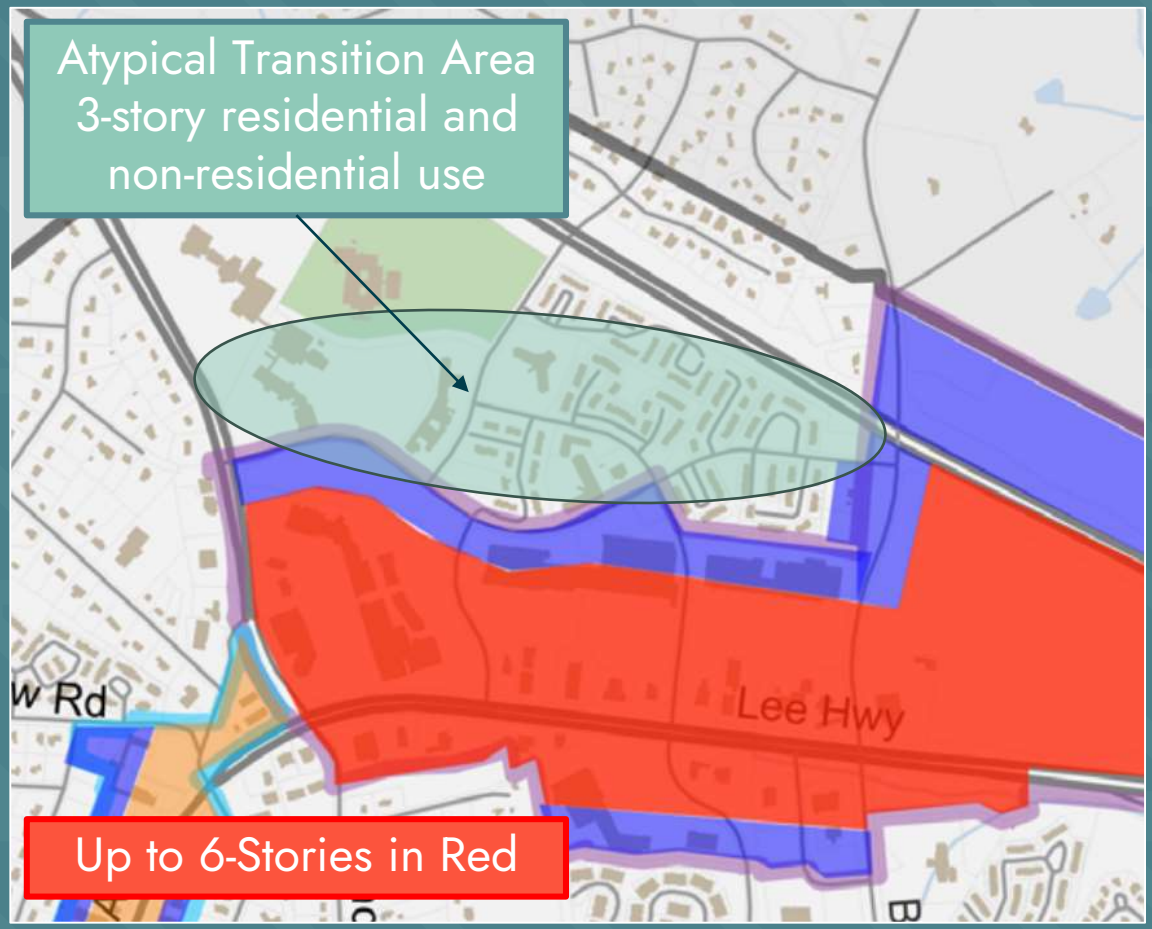
TRANSITION ZONES

- The area along the south side of Oak Springs Drive is located within in a “Transition Zone” as defined by Plan Warrenton 2040
- Transition Zones are “specifically defined as adjoining neighborhoods to articulate a step down in the number of stories for greater compatibility to adjoining single-family neighborhoods”
- These areas are intended to be a max of 3-stories to provide a step down to the adjacent 1- and 2-story single family neighborhoods
- Transition Zones have been placed in accordance with this definition across the Future Land Use map



TRANSITION ZONES

- With the exception of the Transition Zone placed along Oak Springs Drive
- The uses on the north side of Oak Springs Drive are not 1- & 2-story single family neighborhoods
- This area is occupied with 3- & 4-story apartments, 3-story townhomes, Brookside Rehab & Nursing Center and Highland School
- Because of this, increasing building heights to 4-stories at Warrenton Village Center still provides the intended step-down affect, given that the uses on the north side are atypical, 3-story and non-residential uses and the uses along Lee Hwy may go up to 6-stories



SURROUNDING BUILDING HEIGHTS



NOTABLE WARRENTON BUILDING HEIGHTS

- Warrenton Manor Apartments
  - Stories: 4
  - Location: Hastings Lane
  - Zoning: Residential Multi-Family
  - Future Use: Live-Work Neighborhood



- 98 Alexandria Pike Office Building
  - Stories: 5
  - Location: North of Old Town
  - Zoning: Central Business District
  - Future Use: Old Town Mixed Use



NOTABLE WARRENTON BUILDING HEIGHTS

- 28 Blackwell Park Lane Office Building
  - Stories: 3
  - Location: Blackwell Business Park
  - Zoning: Commercial
  - Future Use: Commercial



- Hampton Inn
  - Stories: 5
  - Location: Blackwell Road
  - Zoning: Commercial
  - Future Use: Commercial



NOTABLE WARRENTON BUILDING HEIGHTS

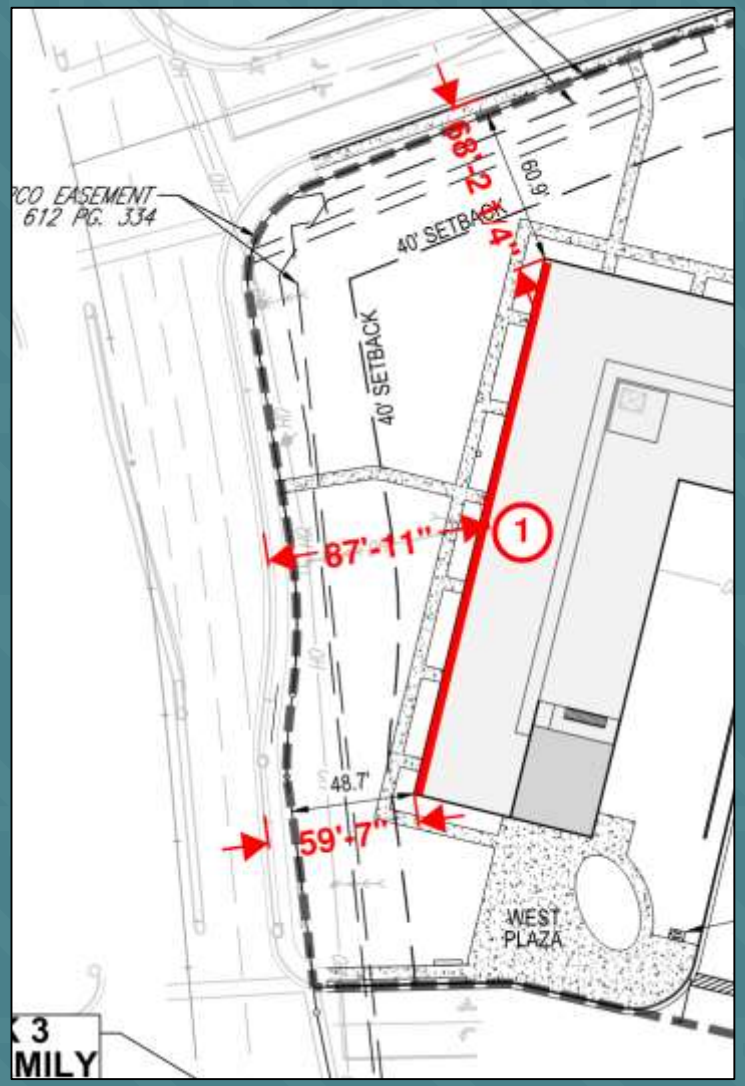
- Fauquier County High School
  - Stories: 4
  - Location: 705 Waterloo Road
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Non-Intensive



- Fauquier Health
  - Stories: 5
  - Location: 500 Hospital Drive
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Intensive



BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW



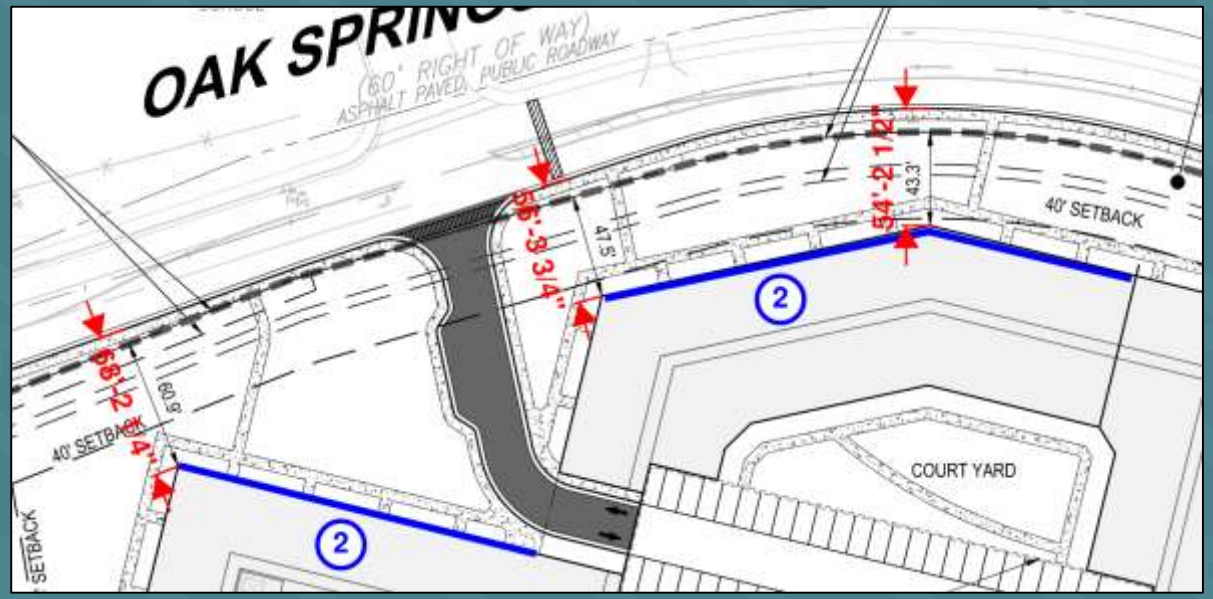


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	59′-7″

- Setback to Height Ratio = 1.7 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS



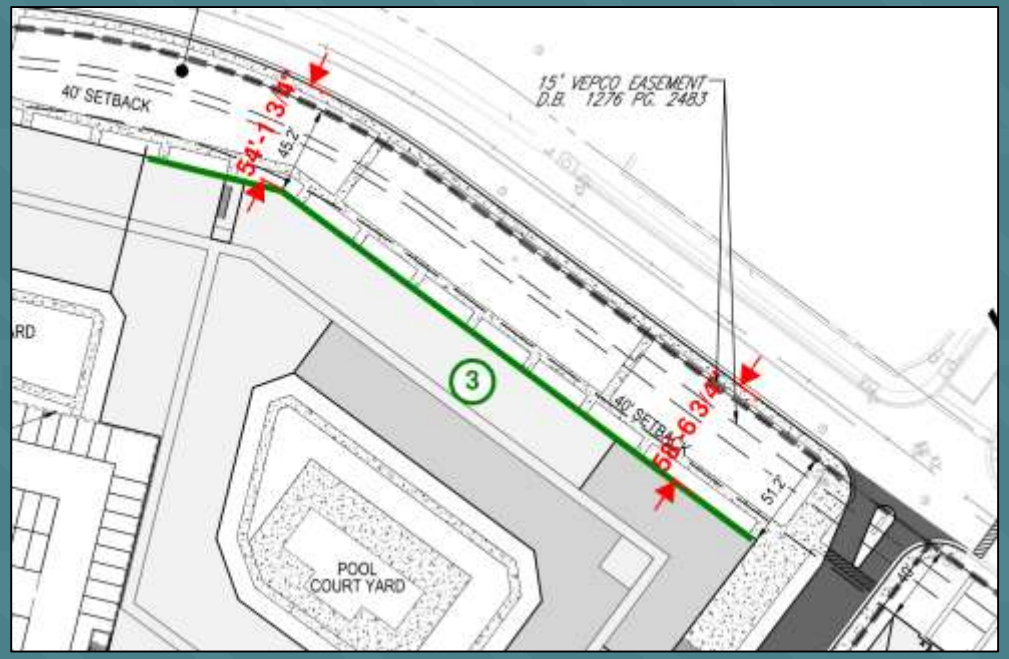


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	42′-11″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS





Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	45′-0″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS

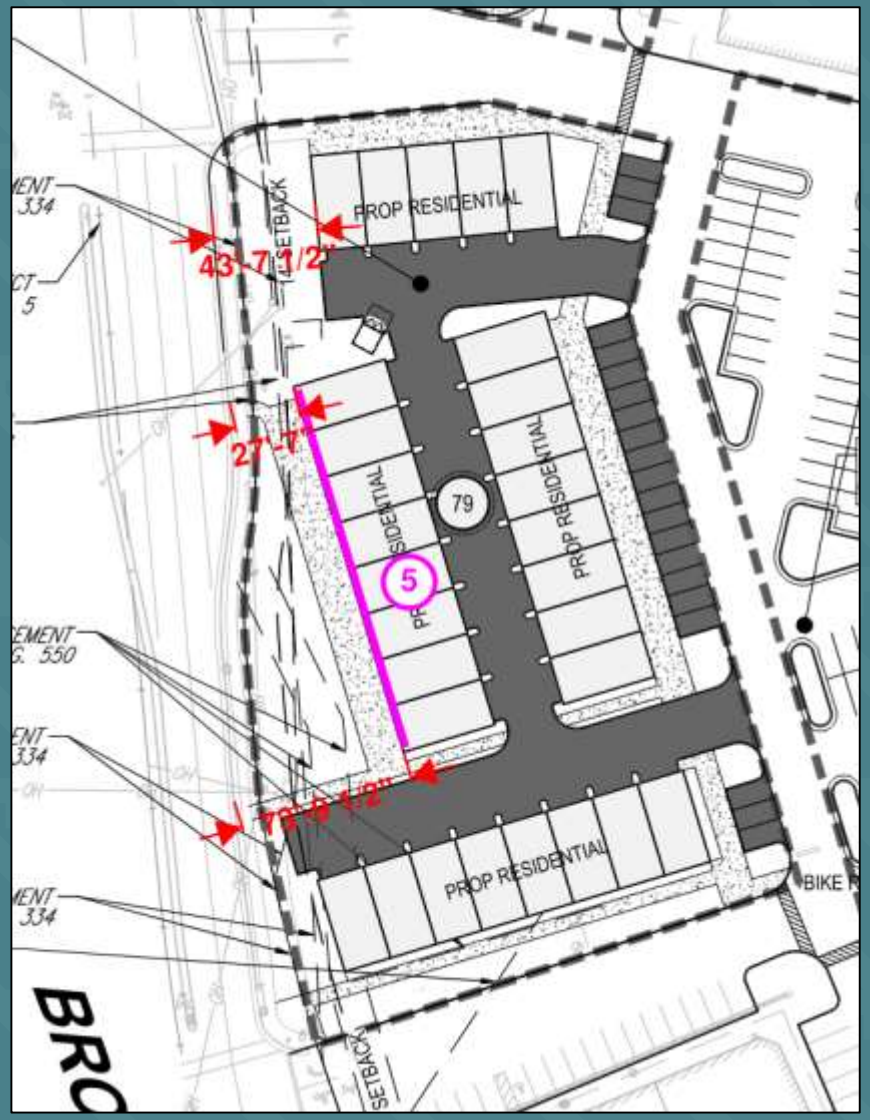




Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb (Oak Springs Dr.)	Minimum Setback from Curb (Branch Dr.)
4	43′-6″	45′-0″	46′-11″	21′-6″

- Setback to Height Ratio = ~1 : 1 on Oak Springs Dr
- Setback to Height Ratio = ~0.5 : 1 on Branch Dr

BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW

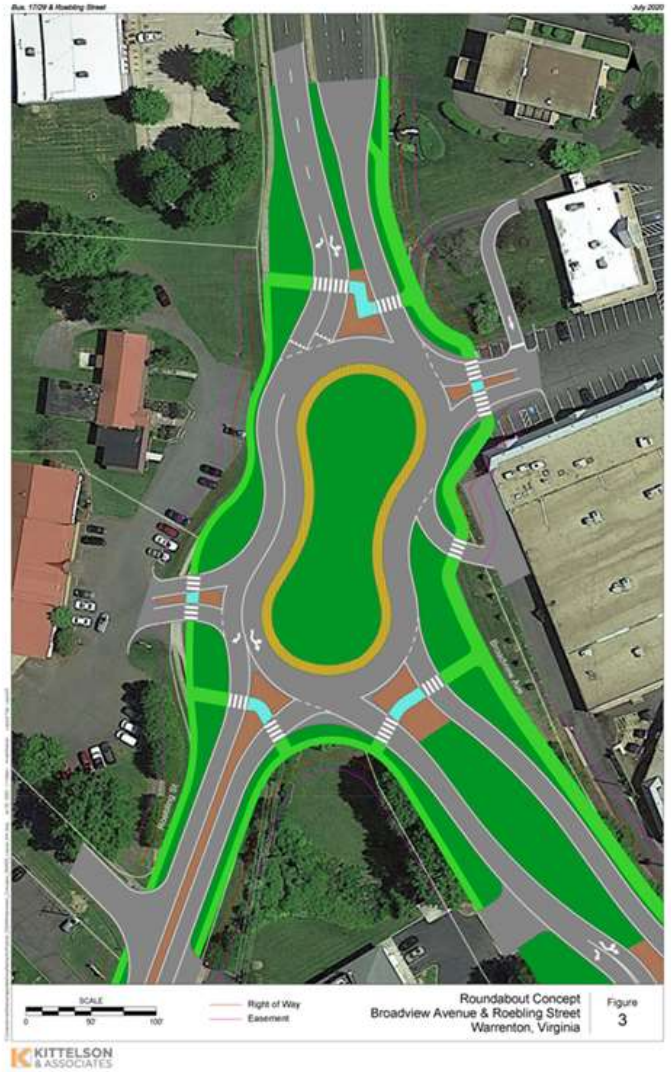


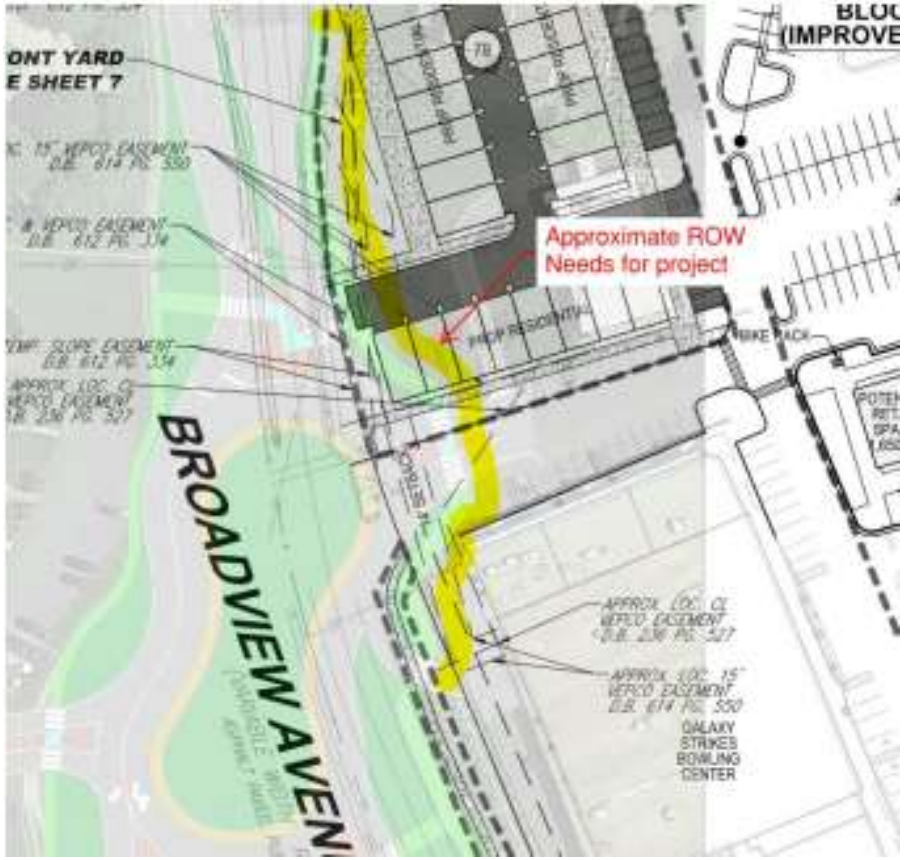


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	27′-7″

- Setback to Height Ratio = 0.8 : 1

TOWN OF WARRENTON SMART SCALE ROUND 6 – DRAFT CONCEPT





1618

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION WORK SESSION
APRIL 23, 2024



1619

AGENDAS

WORK SESSION #2 – APRIL 16TH, 2024

- A Product of Plan Warrenton 2040
- Warrenton Housing Market & Economic Impacts
- Architecture
- Public Improvements

WORK SESSION #3 – APRIL 23RD, 2024

- Water/Sewer Impacts
- Transportation
- Schools
- Modification/Waiver Requests

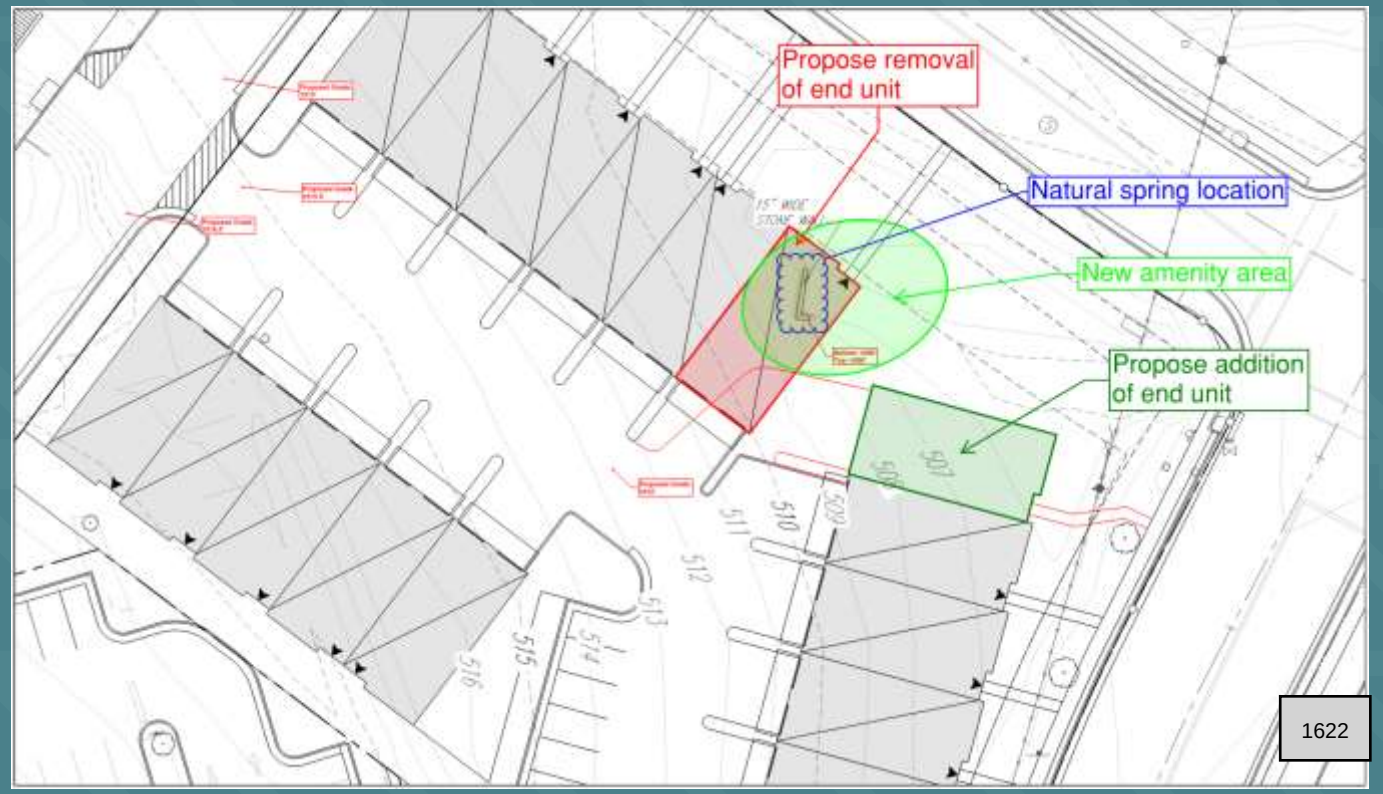
FOLLOW UP FROM WORK SESSION #2 (4/16/23)

OAK SPRING

- It has been requested that we explore the preservation and restoration of Oak Spring—located near the intersection of Oak Spring Drive and Branch Drive
- Restoration of this natural spring will preserve a unique piece of Warrenton history and character
- We are looking into a site plan revision that will allow the spring to be preserved and reconditioned into a public amenity







INCREASE SHADE AT SPLASHPAD

- Shade trees have been added to the Central Plaza to provided coverage for the surrounding seating areas



STORMWATER MANAGEMENT

Storm Water Management Plan is conceptual at this time and will be fully designed and approved during Site Development Plan.

Bohler Engineering is here tonight to answer general questions pertaining to the potential system; however, the scope and methodology of the system are yet to be determined.

ARCHITECTURE

- While the goal of our proposed aesthetic is to introduce a modern and fresh design to Warrenton, we recognize the request to incorporate more components that reflect the character of the community
- Renderings here show a revised color pallet, with incorporation of beige brick in lieu of white and softening of previously dark gray siding to a lighter brown
- Our team is currently studying additional design enhancements with the goal of implementing features that are more representative of the Town's character





WATER / SEWER IMPACTS

WATER / SEWER IMPACTS

- NewCastle's average daily water usage across its Virginia apartment community portfolio:

Community	Units	Total Usage (GAL)	Total Daily Usage (GAL)	Daily Usage Per Unit (GAL)
Community 1	250	3,295,006	9,027	36.1
Community 2	316	7,344,232	20,121	63.7
Community 3	212	5,543,803	15,188	71.6
Community 4	280	6,729,187	18,436	65.8
Community 5	242	5,181,400	14,196	58.7
Community 6	452	14,757,676	33,449	74.0
Avg. / Total **	1,752		20,278	67.0

*Data is from January ,1 2023 through December 31, 2023
**Community 1 was finishing lease up for the first half of 2023 so data does not represent a full calendar year of stabilized occupancy. Community 1 data has been excluded from average data presented and was excluded from usage analysis.

- Average daily community usage across Virginia portfolio is 20,278 gallons per day (GPD)
- Assuming the daily usage per unit of 67.0 GPD, we would project 25,862 GPD for Warrenton Village Center (386 units x 67.0 GPD)

WATER / SEWER IMPACTS

- Town of Warrenton uses their own daily usage amounts when making their capacity determination:
  - For 386 residential units, the Town assumes 116,000 gallons per day
- This is significantly higher than the data collected across NewCastle's Virginia communities – 25,862 GPD vs. 116,000 GPD

- **Even with the assumed usage of 116,000 GPD, the Public Works Department has determined that there is adequate capacity for this project**

TRANSPORTATION

SITE PLAN OVERVIEW

Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets



SITE PLAN OVERVIEW

Pedestrian Connectivity:

- Extensive sidewalk network proposed along all streets and within site to promote walkability
- Connects to and augments pedestrian network within existing center
- Crosswalks will be added on Oak Spring Dr at Hastings Ln and Highland School to promote safe pedestrian access from the north
- Retain crosswalks on Broadview Ave and Branch Dr



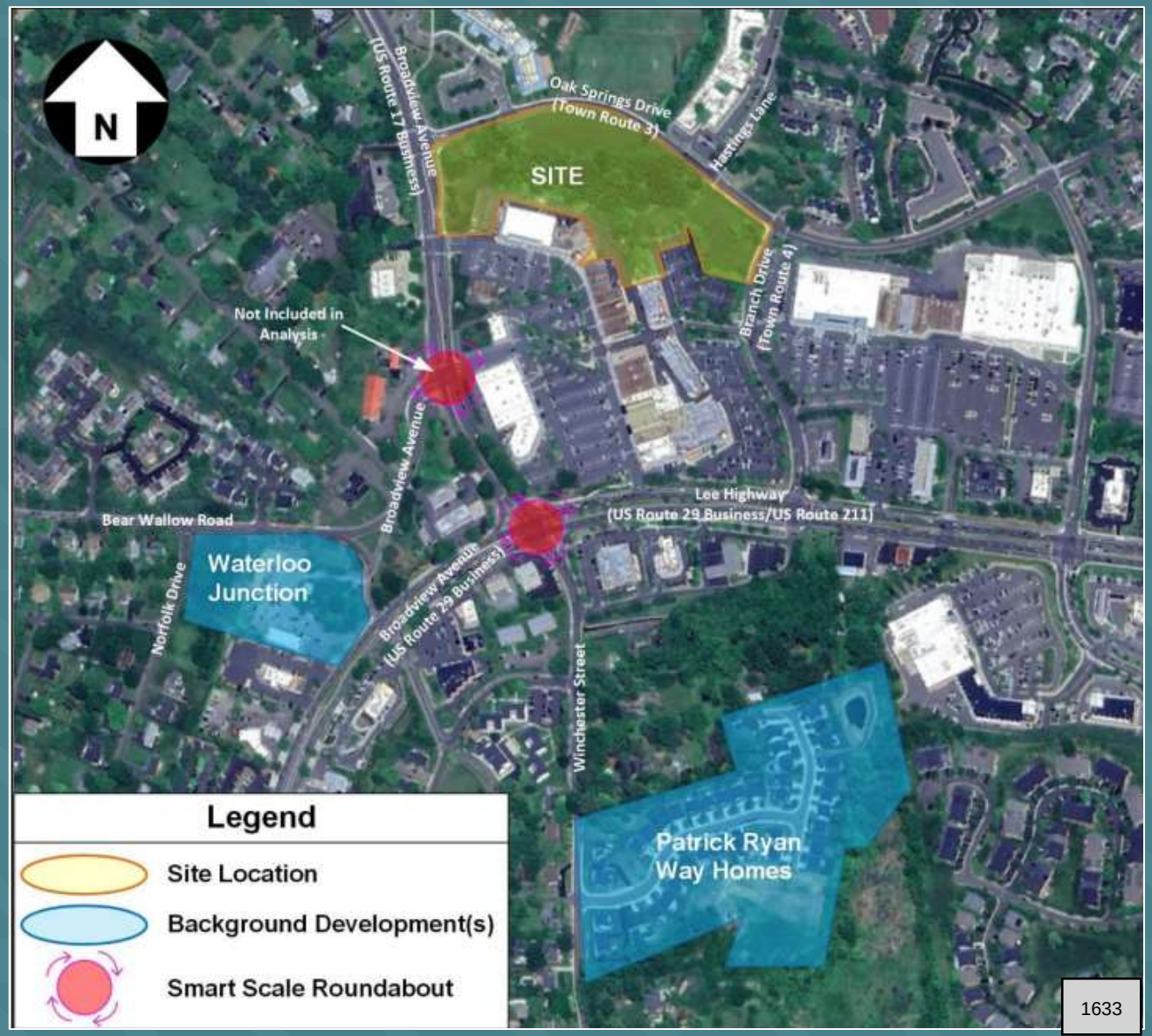
TRAFFIC STUDY AREA



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions:

- Accounted for 1% annual regional growth on Lee Hwy mainline
- Other approved developments in the area will add some traffic, including 47 new townhomes and 40 new single-family homes
- Roundabout at Broadview Avenue, Broadview Avenue, and shopping center entrance not funded through SMARTScale



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Assumptions (cont.):

- Planned Roundabout at Rt 29/211 and Broadview Ave Intersection:
  - Separate VDOT project, not triggered by this development
  - $29M in SMARTScale funding awarded for this and Blackwell Road roundabout
  - Expected to improve traffic operations and safety
  - Includes accommodations for pedestrians

DRPT | Office of Intermodal Planning and Investment | VDOT

PROJECT PIPELINE

Roundabout: reconfigures the intersection to a multi-lane hybrid roundabout. The roundabout can improve operations by 60%, reduce crashes up to 60%, and improve the safety of pedestrian crossings.

Figure 17. Broadview Avenue Roundabout Concept



FUTURE CONDITIONS WITHOUT PROPOSED DEVELOPMENT

Traffic Operations:

- Overall, the road network assuming the "future without development" condition is expected to continue operating similar to the existing conditions
- Some minor increases in delays are projected for some movements at unsignalized intersections, but signalized intersections and the new roundabout would operate efficiently
- The maximum "future without development" increase in delay at any study intersection is 7 seconds, as compared to existing conditions
- The planned infrastructure improvements, like the roundabout, will improve traffic flow compared to existing conditions

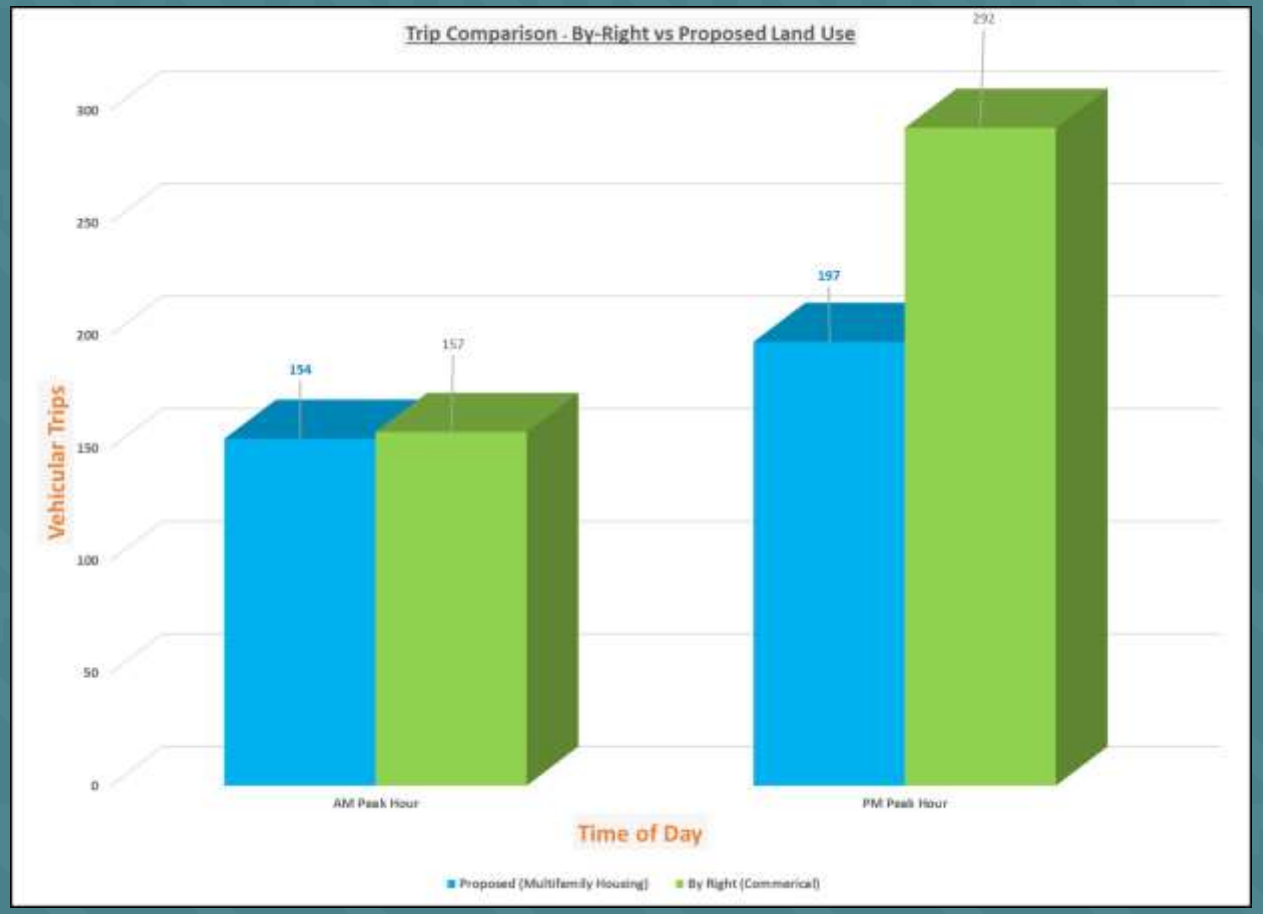
SITE TRIP GENERATION

New Trips Generated by the Development:

- The proposed 386 new residential units are expected to generate around 154 new vehicle trips during the morning commute hour and 197 new vehicle trips during the evening commute hour
- These are distributed across the internal connections and 6 access points, reducing impact at any single location

Less Than By-Right Commercial Development:

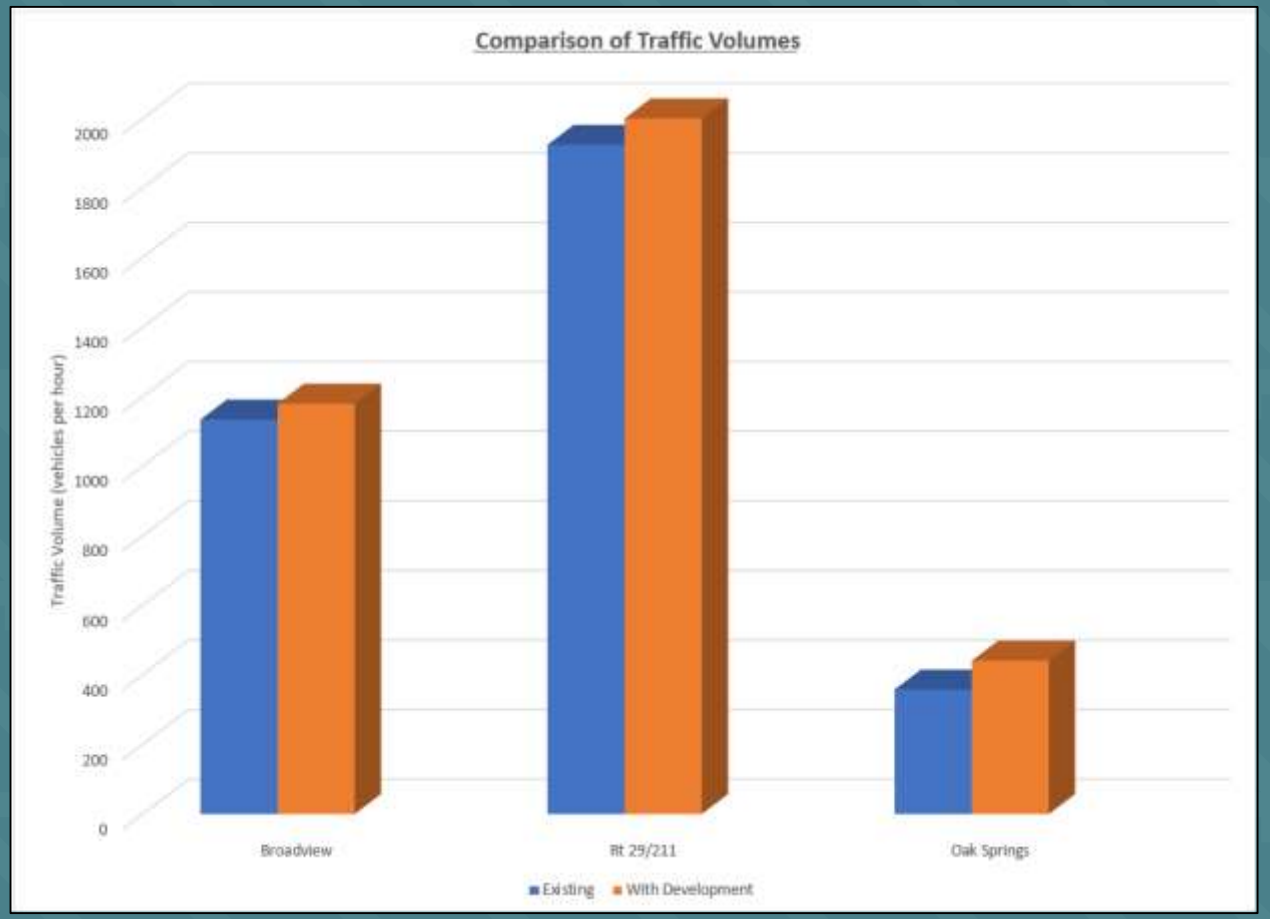
- The residential traffic volumes are lower than what would be seen if the site was developed by right with 40,000 sf of retail instead



SITE TRIP IMPACTS

Minimal Traffic Impact:

- Site-generated traffic represents a small percentage of the existing volumes:
  - 3 - 4% on Broadview Avenue
  - 0.1 - 4% on Rt 29/211
  - Greater proportion on Oak Spring Dr and Branch Dr, where current volumes are lower
- Capacity analysis confirms these modest additions can be accommodated by the surrounding road network without degrading operations



INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

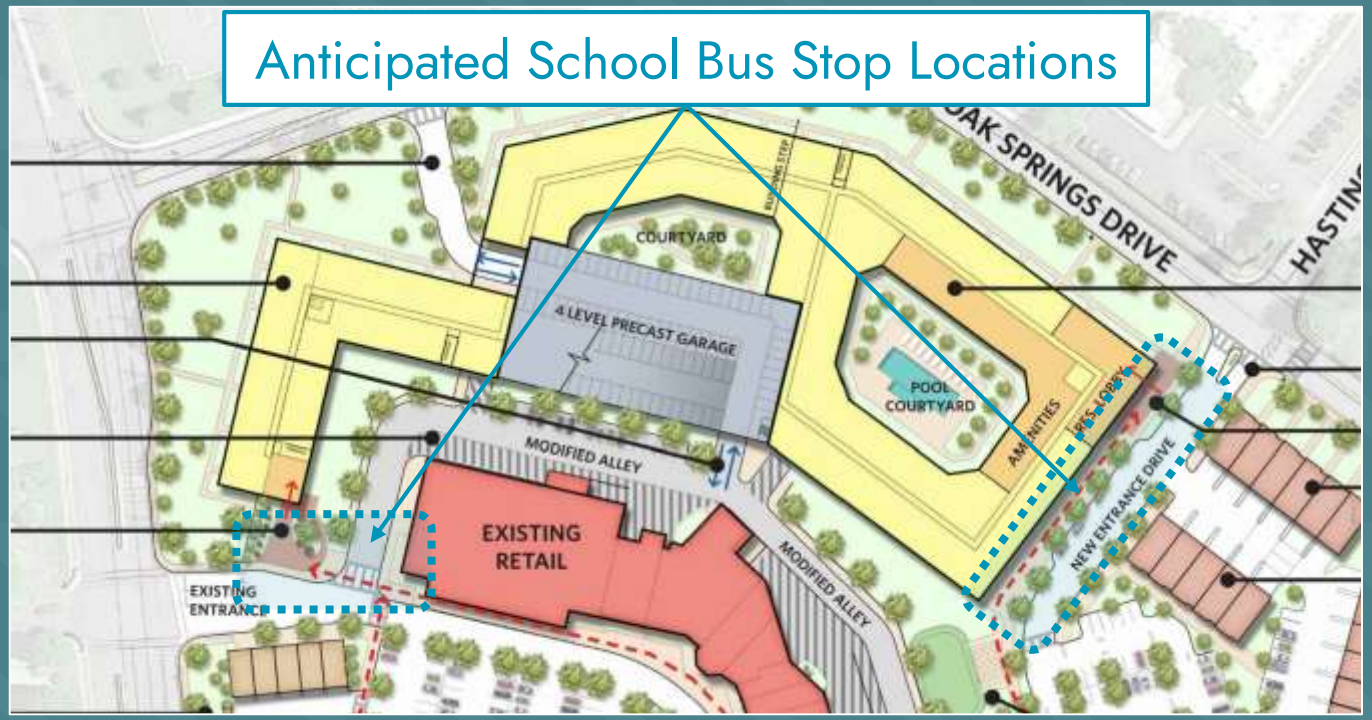
SCHOOL BUS ACCOMMODATIONS

School Bus Stops:

- The developer will work with County schools on exact locations of school bus stops
- Expected to be near the residential lobbies

Impact on Traffic:

- Anticipated that buses will stop on internal streets, rather than adjacent public roads
- Maintain the flow of through traffic on the surrounding streets during peak school travel times



HIGHLAND SCHOOL TRAFFIC

Balancing Access and Minimizing Disruption:

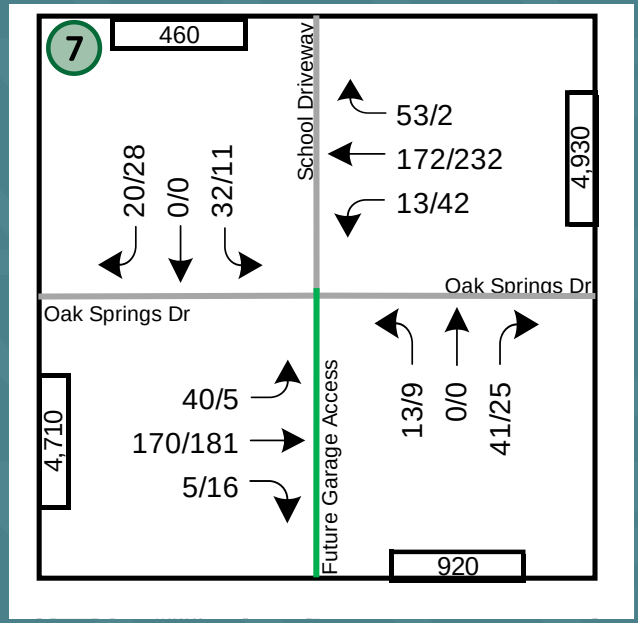
- The proposed parking deck entry is positioned across from the Highland School driveway to balance access needs while minimizing disruption to the existing intersection

Minimizing Conflicts with School Peak Hours:

- Analysis found Highland School and residential AM peak hours have a 15-minute overlap, during which conflicts are expected to be minimal
- Analysis found no overlap in PM peak hours
- It is anticipated that residents will use secondary garage entrance during AM peak hours, which will further reduce conflicts

Accommodating School Operations:

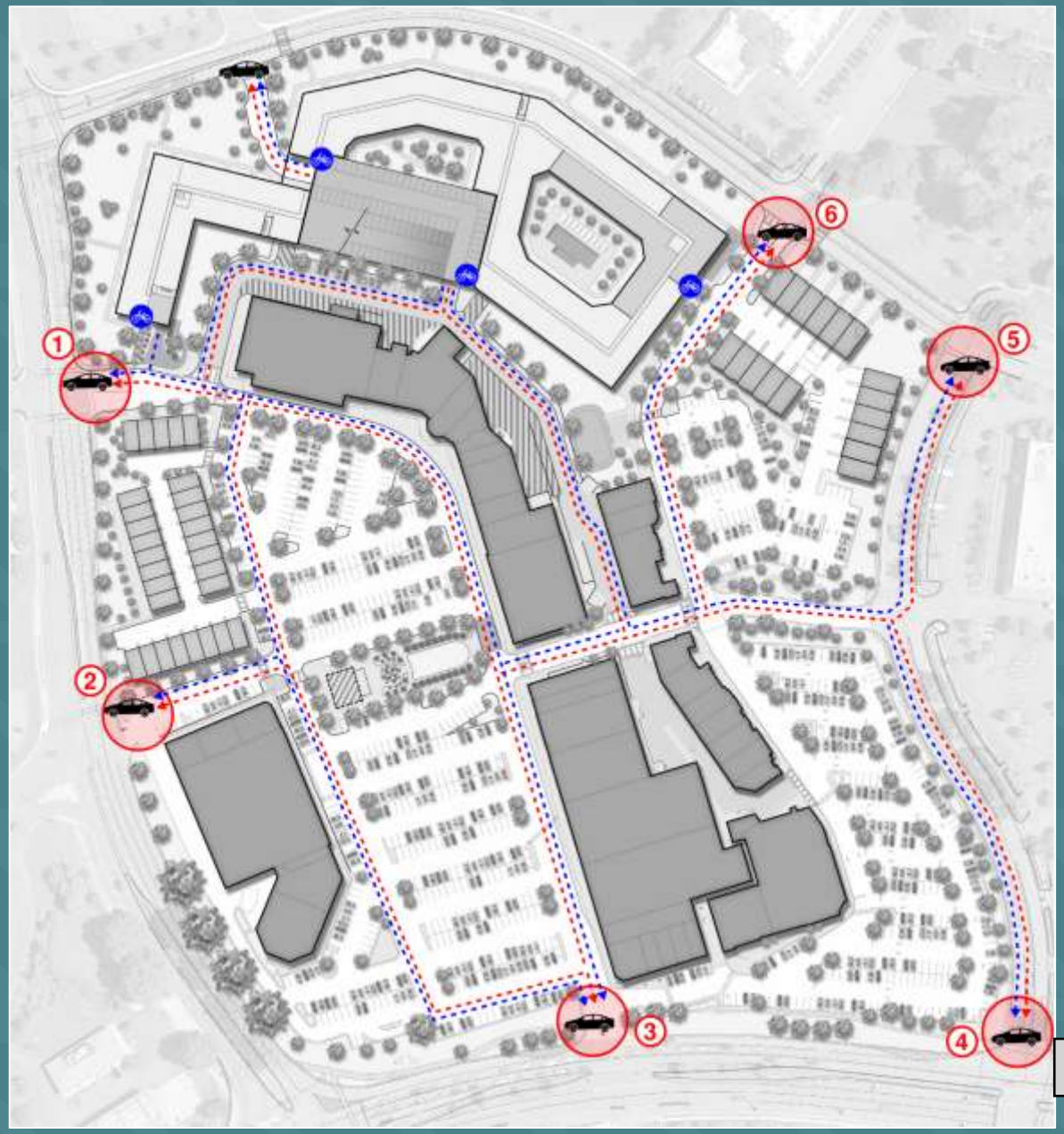
- Observations showed limited queuing of vehicles along Oak Springs Dr at the existing Highland School access point, even during peak times
- The school has multiple pickup/drop-off locations and two entrances, which helps distribute the traffic



Overall, the traffic impacts from the proposed development are not anticipated to significantly disrupt or impede the normal operations of Highland School

HIGHLAND SCHOOL TRAFFIC

- Residents of Warrenton Village Center will want to avoid traffic as much as those dropping off/picking up students at Highlands School
- The site provides 6 alternative points of ingress/egress for vehicles and bicycles that will be the preferable route of travel during peak traffic hours to avoid congestion on Oak Springs Drive
- These alternative points of ingress/egress will further reduce what the Traffic Impact Analysis has determined to be minimal conflicts to the Highland School traffic



ROAD IMPROVEMENTS

Turn Lane Warrant Analysis:

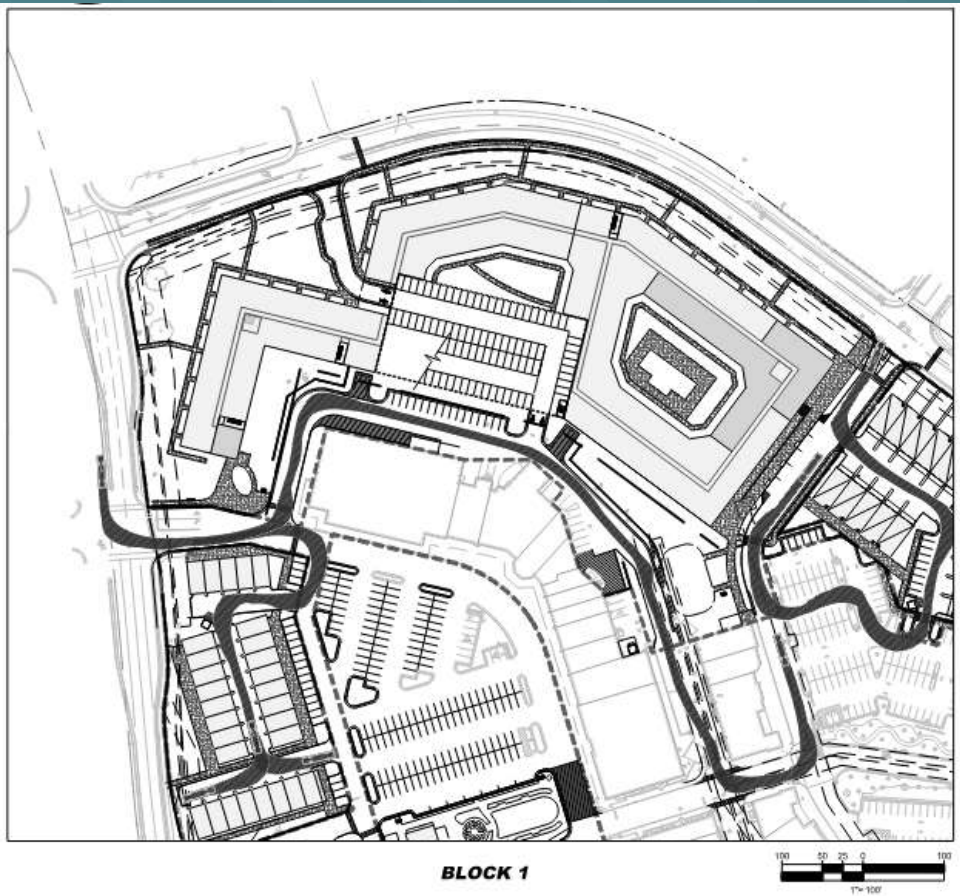
- No new turn lanes warranted at proposed site access points per VDOT standards
- No new turn lanes recommended to be constructed by the development

Signal Warrant Analysis:

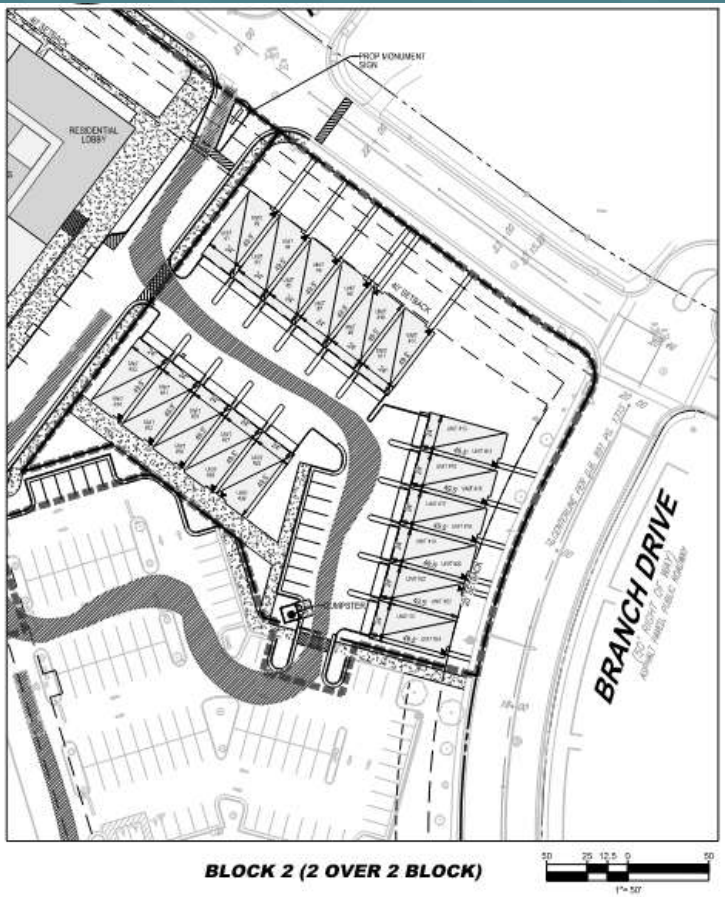
- Signal warrant analysis performed for Broadview Ave/Oak Springs Rd intersection
- Traffic volumes do not meet MUTCD signal warrants, so signalization is not recommended
- Unsignalized operations projected to function acceptably at LOS C or better

The Warrenton Village Center development does not necessitate any additional roadway improvements beyond what is already planned by VDOT and the Town

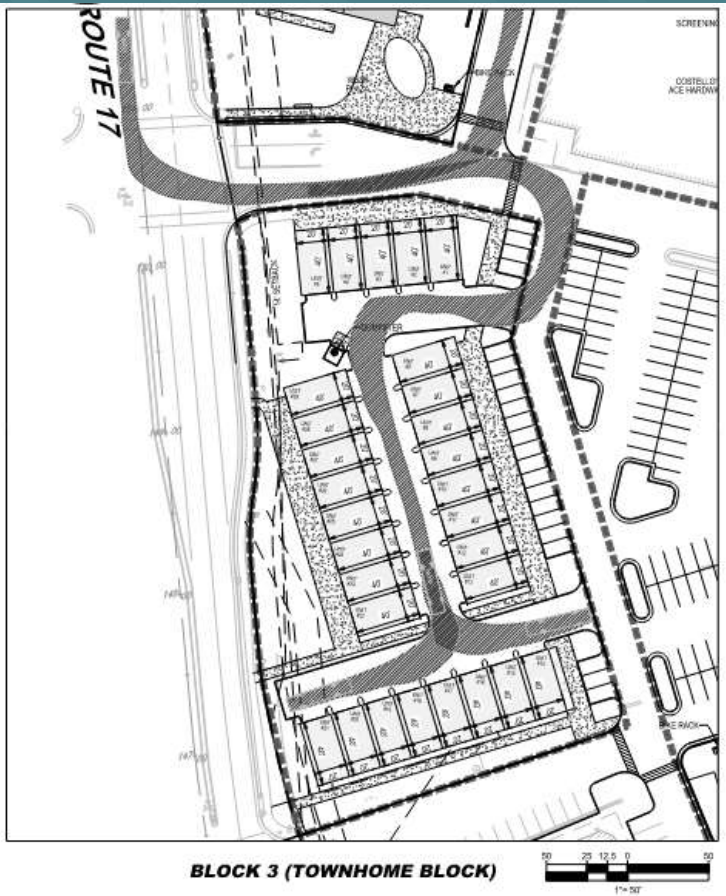
EMERGENCY & DELIVERY VEHICLE MOVEMENTS



BLOCK 1

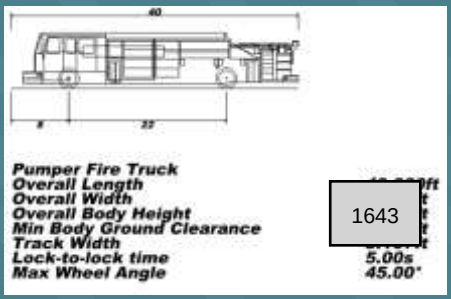


BLOCK 2 (2 OVER 2 BLOCK)



BLOCK 3 (TOWNHOME BLOCK)

- Vehicle turning analysis has confirmed maneuverability throughout all blocks
- Mountable curbs can be included at desired locations during site plan



SUMMARY OF IMPACTS

Additional Traffic:

- The proposed 386 residential units will generate 154 new trips in the AM peak and 197 in the PM peak hour
- This equates to about 4% of the current traffic on most surrounding roadways

Dispersed Access Points:

- Multiple entry/exit locations directly to Oak Springs Dr and through shopping center driveways
- Distributes new trips across the road network, avoiding concentration at a single point

SUMMARY OF IMPACTS

Leveraging Existing and Planned Infrastructure:

- The mixed-use nature of the development will help reduce external trips generated, as some trips can be captured internally
- Surrounding street grid offers multiple route choices, dispersing trips
- Planned roundabout will improve operation at Rt 29/211 and Broadview Ave
- Capacity analysis confirms surrounding intersections and roads can accommodate the new traffic with minimal impact

Outcome:

- The Warrenton Village Center development would improve walkability, vibrancy, and housing choices, with a marginal increase in traffic that does not warrant new road improvements

SCHOOLS

PROJECTED STUDENTS

Fauquier County Student Generation Calculation:

- 0.72 students per single family detached dwelling
- 0.45 students per single family attached dwelling
- 0.20 students per apartment dwelling

- Allocation per school type assumption is:
  - 52% elementary school
  - 22% middle school
  - 26% high school

PROJECTED STUDENTS

Warrenton Village Center Projection at Full Buildout and Occupancy:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

- Allocation per school:
  - Bradley (52%) = 49
  - Taylor (22%) = 21
  - FHS (26%) = 24

FAUQUIER COUNTY ENROLLMENT PROJECTIONS

Enrollment Projection

This is an 5-year analysis of program capacity based on projected enrollment. This analysis is a cohort progression model, looking at birth rates and considers a growth factor. Areas of concern are:

- Elementary (South and Central)
- Middle School Growth
- Liberty HS

	Program Capacity	95% Cap	Actual Enrollment 2019-20	2020-21	2021-22	2022-23	2023-24	% Cap	Projected Enrollment 2024-25	2025-26	2026-27	2027-28	2028-29
ES South													
Miller	580	551	493	476	484	489	506	87.2%	503	492	504	505	522
Pearson	532	505	385	347	365	367	381	71.6%	397	394	407	422	433
Pierce	560	532	550	487	514	531	533	95.2%	537	548	554	543	551
Walter	588	559	410	363	412	399	396	67.3%	409	430	451	452	474
Subtotal South	**2,260**	**2,147**	**1,838**	**1,673**	**1,775**	**1,786**	**1,816**	**80.4%**	**1,846**	**1,864**	**1,916**	**1,922**	**1,980**
ES Central													
Bradley	588	559	369	332	339	356	349	59.4%	341	354	355	363	360
Brumfield	716	680	495	458	482	492	508	70.9%	530	560	580	608	644
Greenville	604	574	531	437	479	495	494	81.8%	506	506	498	468	471
Ritchie	548	521	483	416	478	491	522	95.3%	532	529	543	547	563
Smith	572	543	414	356	414	418	393	68.7%	418	443	465	505	524
Subtotal Central	**3,028**	**2,877**	**2,292**	**1,999**	**2,192**	**2,252**	**2,266**	**74.8%**	**2,327**	**2,394**	**2,441**	**2,491**	**2,562**
ES North													
Coleman	520	494	347	276	311	332	315	60.6%	312	302	280	270	266
Thompson	368	350	254	224	257	256	262	71.2%	267	280	310	327	344
Subtotal North	**888**	**844**	**601**	**500**	**568**	**588**	**577**	**65.0%**	**579**	**582**	**590**	**597**	**610**
TOTAL ELEMENTARY	**6,176**	**5,867**	**4,731**	**4,172**	**4,535**	**4,626**	**4,659**	**75.4%**	**4,752**	**4,840**	**4,947**	**5,010**	**5,152**
Available Capacity			**1,445**	**2,004**	**1,641**	**1,550**	**1,517**	**24.6%**	**1,424**	**1,336**	**1,229**	**1,166**	**1,024**
Middle Schools													
Auburn	622	591	568	513	575	552	578	92.9%	588	590	613	647	668
Cedar Lee	900	855	650	622	613	596	837	93.0%	877	864	805	851	859
Marshall	654	621	466	445	419	408	405	61.9%	396	391	391	413	414
Taylor	618	587	470	422	435	424	607	98.2%	607	601	569	601	606
Warrenton	-	-	432	368	366	392	-		-	-	-	-	-
TOTAL MIDDLE	**2,794**	**2,654**	**2,586**	**2,370**	**2,408**	**2,372**	**2,427**	**86.9%**	**2,468**	**2,445**	**2,379**	**2,512**	**2,547**
Available Capacity			**208**	**424**	**386**	**422**	**367**	**13.1%**	**326**	**349**	**415**	**282**	**247**
High Schools													
Fauquier	1,612	1,531	1,254	1,217	1,170	1,134	1,122	69.6%	1,089	1,111	1,153	1,147	1,170
Kettle Run	1,360	1,292	1,184	1,147	1,112	1,172	1,164	85.6%	1,165	1,214	1,233	1,241	1,267
Liberty	1,370	1,302	1,250	1,252	1,259	1,324	1,300	94.9%	1,261	1,283	1,328	1,341	1,368
TOTAL HIGH	**4,342**	**4,125**	**3,688**	**3,616**	**3,541**	**3,630**	**3,586**	**82.6%**	**3,515**	**3,608**	**3,714**	**3,729**	**3,805**
Available Capacity			**654**	**726**	**801**	**712**	**756**	**17.4%**	**827**	**734**	**628**	**613**	**537**
District Total	**13,312**	**12,646**	**11,005**	**10,158**	**10,484**	**10,628**	**10,672**	**80.2%**	**10,735**	**10,893**	**11,040**	**11,251**	**11,504**

*Data provided by Fauquier County Public Schools

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

MODIFICATIONS & WAIVERS

ZONING ORDINANCE 9-25: MIXED-USE DEVELOPMENT OPTIC

The mixed-use development option is created within the Commercial District to allow a mixture of uses when consistent with the Comprehensive Plan. The mixed-use option is intended to encourage development in a creative and integrated manner that encourages pedestrian walkability, shared open spaces and an alternative form of housing within the Town.

Section J. – Modifications:

Modifications from the standards set forth in Section 9-25 may be approved by Town Council in conjunction with the Special Use Permit upon a determination that the intent of the Comprehensive Plan is being met.

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #1



- Section 3-4.10.3 of the Zoning Ordinance provides that density in a mixed-use development within a Commercial zone may be calculated pursuant to Sec. 9-25 of the Zoning Ordinance
- Sec. 9-25 allows for calculation of density in a mixed-use development to be up to 1 dwelling unit per 500 square feet of non-residential space. This section also provides that density above 5 units per acre must be approved by the Town Council.
- While this is a modification of Sec. 3-4.10.3, the requested density is fully consistent with the provisions of Sec. 9-25 for a mixed-use development, and less than what could be achieved
- This modification will allow for realization of the concentrated increased density that is a primary objective of the New Town Character District
- **Waiver Request #1:** Increase density above 5 units per acre to 13.28 units per acre, which will yield 386 units

DENSITY CALCULATIONS

By-Right Density Calculation:

- 5 dwelling units per acre
- 5 x 29.05 acres = 145 units

By-Right Density Calculation, with affordable housing bonus:

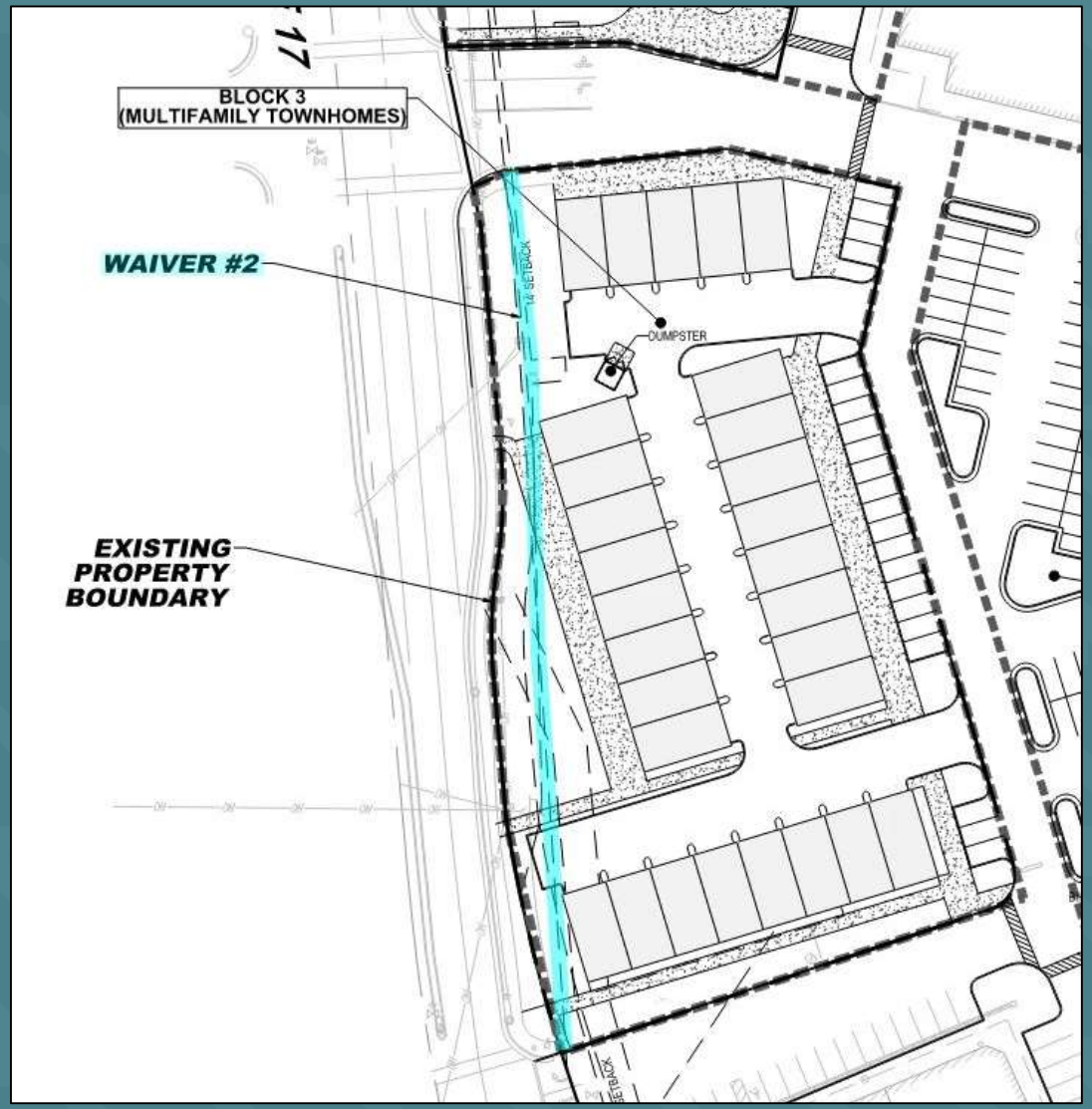
- 10 dwelling units per acre
- 10 x 29.05 acres = 290 units

Mixed-Use Density Calculation (with SUP approval):

- 1 dwelling unit per 500 GSF of non-residential floor space
- 218,142 GSF / 500 = 436 units (15 units per acre)

- Requested Density = 386 (13.28 units per acre)

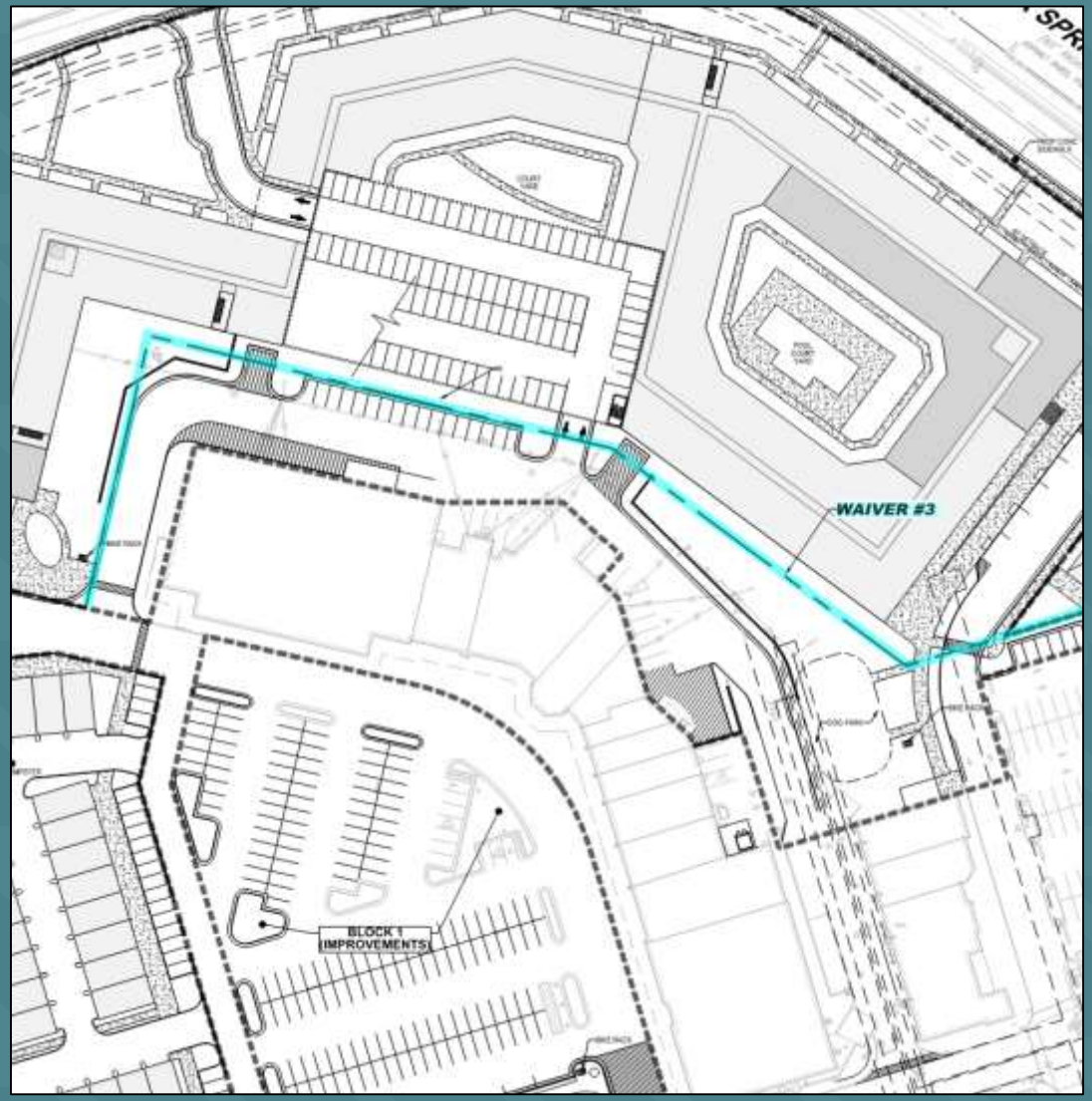
SUP MODIFICATION & WAIVERS – WAIVER REQUEST #2



- Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #2**: Decrease minimum setback to 14' along Broadview Avenue

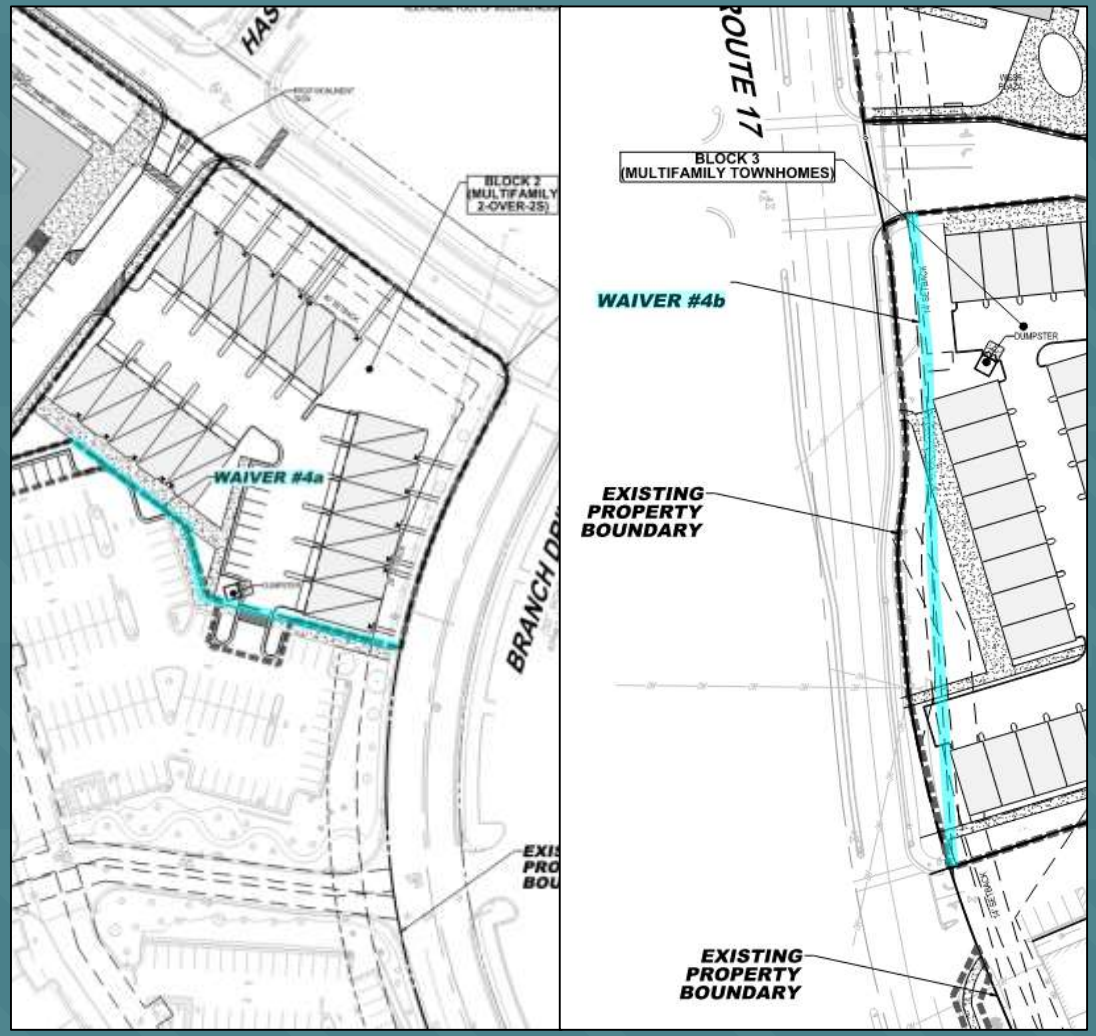


SUP MODIFICATION & WAIVERS – WAIVER REQUEST #3



- Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- **Waiver Request #3:** Decrease side/rear yard setbacks along internal proposed and existing property lines to 0'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #4



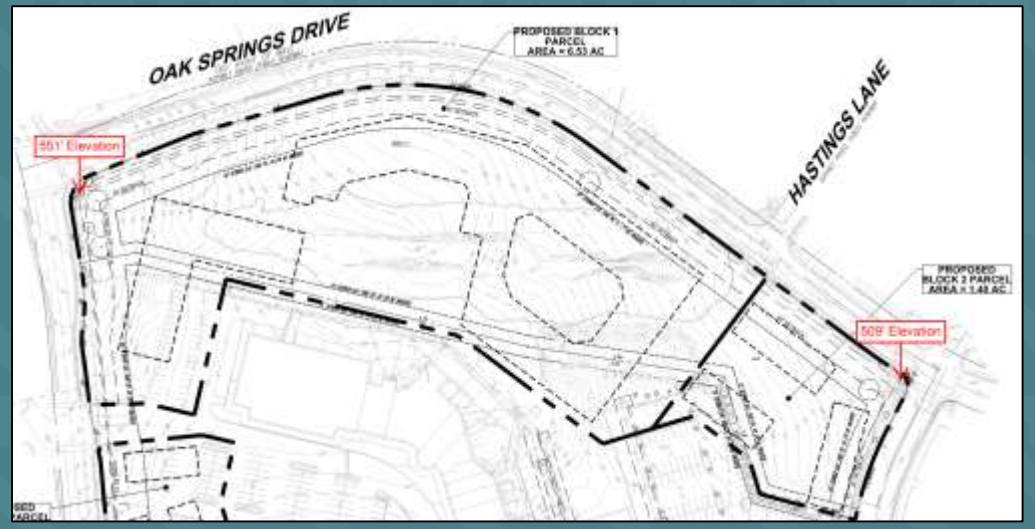
- Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0'
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #5

- Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and rear setbacks increase 1' for each additional foot of building height over 35'.
- **Waiver Request #5**: Increase height limit for dwellings as follows:
  - 54' max height for Block 1, Oak Springs Drive Frontage
  - 36' max height for Block 1, Broadview Drive Frontage
  - 45' max height for Block 2
  - 36' max height for Block 3

WHY ADDITIONAL HEIGHT IS NEEDED

- Site drops 42’ from Broadview Avenue to Branch Drive
- The building starts as 3-stories on the west side at the higher elevation and increases to 4-stories on the east side as the elevation drops
- Increasing height as a building moves down a hill is a technique to keep consistency in scale across a building’s elevation, as well as a way to conceal retaining walls within the building’s foundation, as opposed to creating unsightly external walls

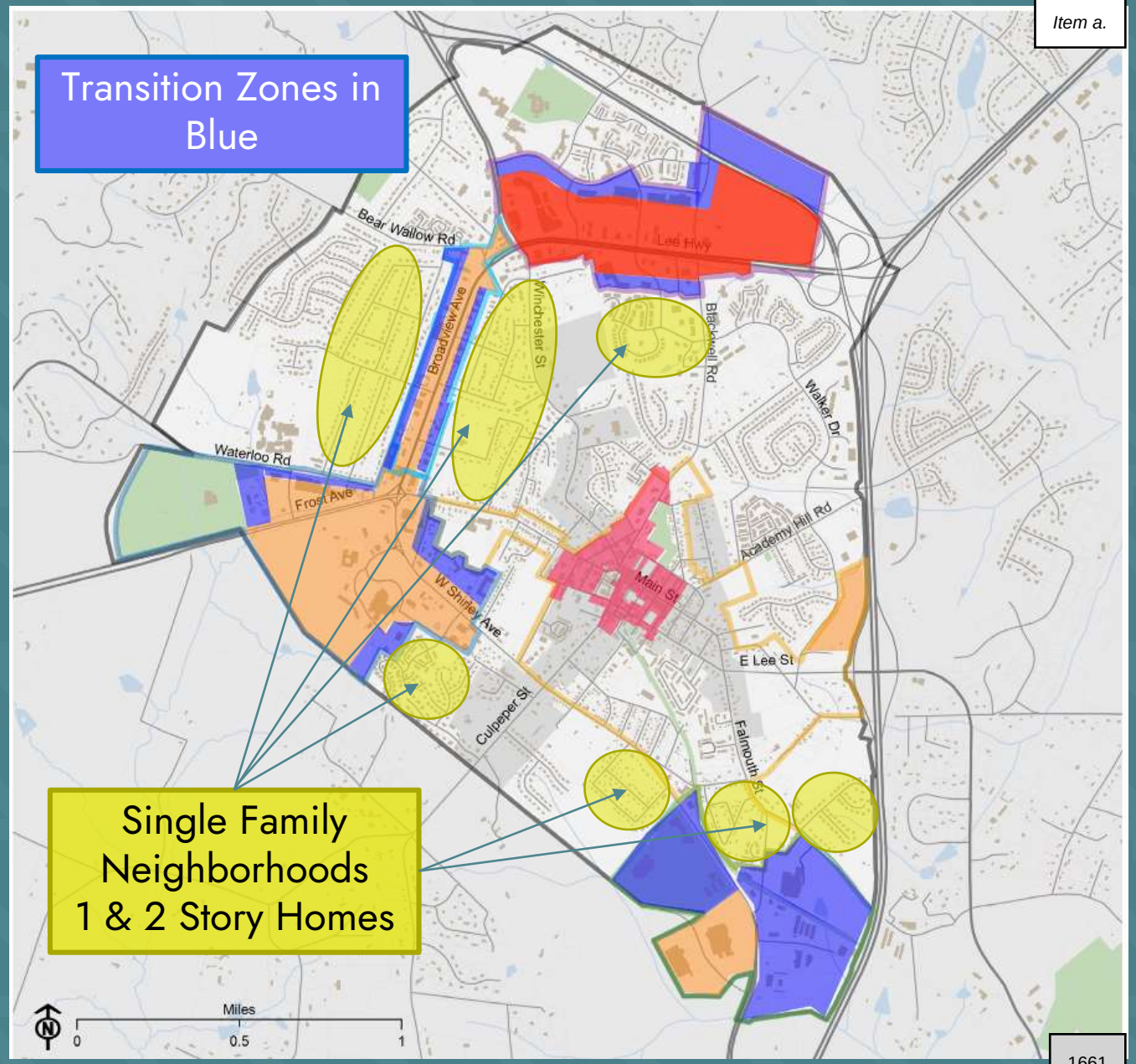


WHY ADDITIONAL HEIGHT IS NEEDED

- The New Town Character District has been established in Plan Warrenton 2040 as a designated area of high density—3-story residential does not allow for the concentrated density desired in the District
- The New Town Character District calls for "greater intensity of mixed-use and strong live, work, and play options" and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this Character District.
- 4-stories allows for the internal parking garage to be hidden from the exterior of the building

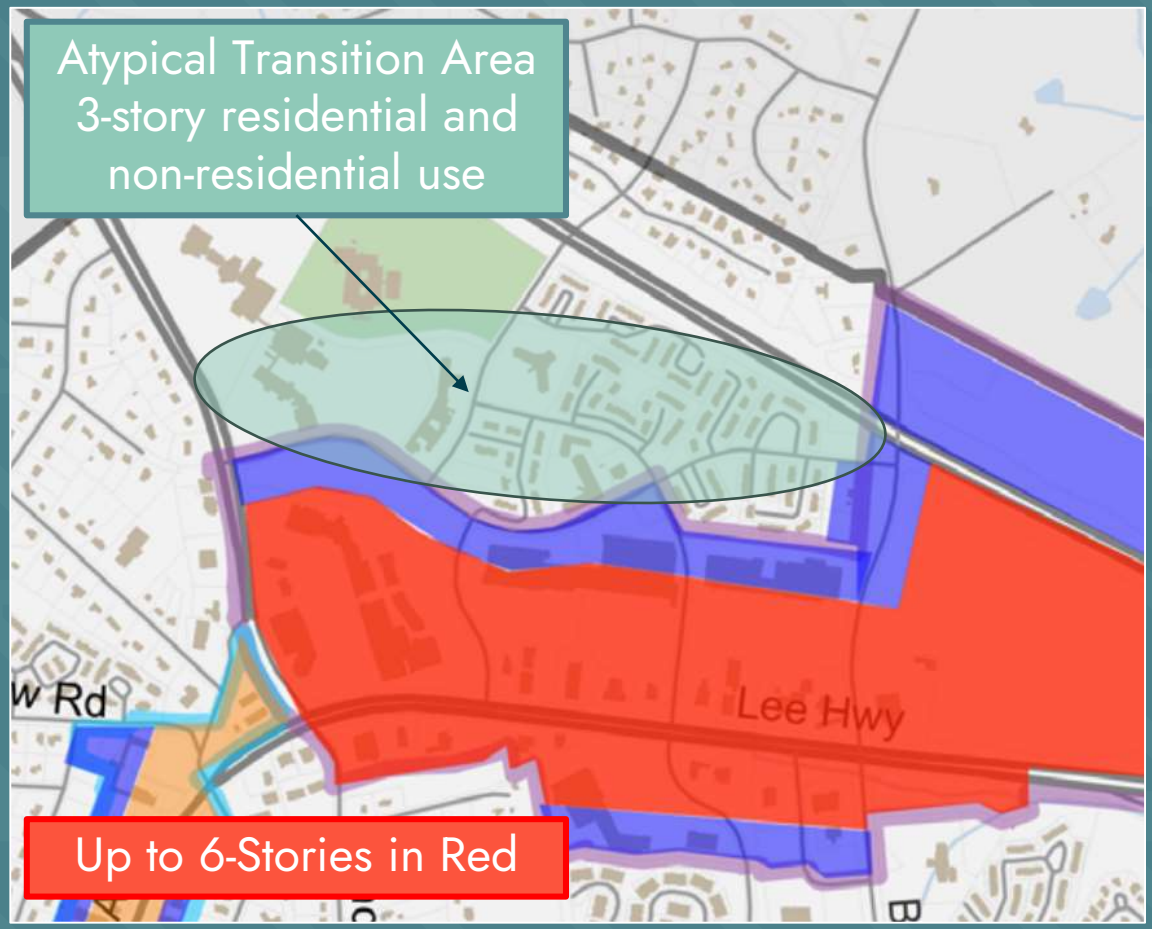
TRANSITION ZONES

- The area along the south side of Oak Springs Drive is located within in a “Transition Zone” as defined by Plan Warrenton 2040
- Transition Zones are “specifically defined as adjoining neighborhoods to articulate a step down in the number of stories for greater compatibility to adjoining single-family neighborhoods”
- These areas are intended to be a max of 3-stories to provide a step down to the adjacent 1- and 2-story single family neighborhoods
- Transition Zones have been placed in accordance with this definition across the Future Land Use map



TRANSITION ZONES

- With the exception of the Transition Zone placed along Oak Springs Drive
- The uses on the north side of Oak Springs Drive are not 1- & 2-story single family neighborhoods
- This area is occupied with 3- & 4-story apartments, 3-story townhomes, Brookside Rehab & Nursing Center and Highland School
- Because of this, increasing building heights to 4-stories at Warrenton Village Center still provides the intended step-down affect, given that the uses on the north side are atypical, 3-story and non-residential uses and the uses along Lee Hwy may go up to 6-stories



SURROUNDING BUILDING HEIGHTS



NOTABLE WARRENTON BUILDING HEIGHTS

- Warrenton Manor Apartments
  - Stories: 4
  - Location: Hastings Lane
  - Zoning: Residential Multi-Family
  - Future Use: Live-Work Neighborhood



- 98 Alexandria Pike Office Building
  - Stories: 5
  - Location: North of Old Town
  - Zoning: Central Business District
  - Future Use: Old Town Mixed Use



NOTABLE WARRENTON BUILDING HEIGHTS

- 28 Blackwell Park Lane Office Building
  - Stories: 3
  - Location: Blackwell Business Park
  - Zoning: Commercial
  - Future Use: Commercial



- Hampton Inn
  - Stories: 5
  - Location: Blackwell Road
  - Zoning: Commercial
  - Future Use: Commercial



NOTABLE WARRENTON BUILDING HEIGHTS

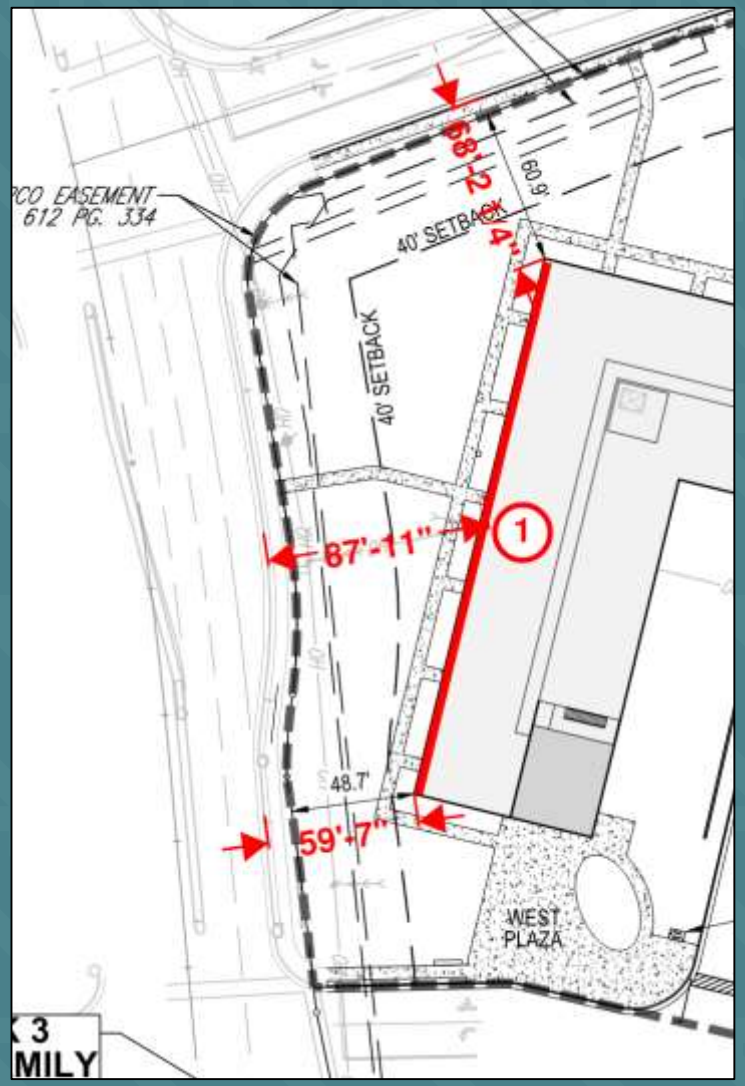
- Fauquier County High School
  - Stories: 4
  - Location: 705 Waterloo Road
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Non-Intensive



- Fauquier Health
  - Stories: 5
  - Location: 500 Hospital Drive
  - Zoning: Public-Semi-Institutional
  - Future Use: Public/Semi-Public Intensive



BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW



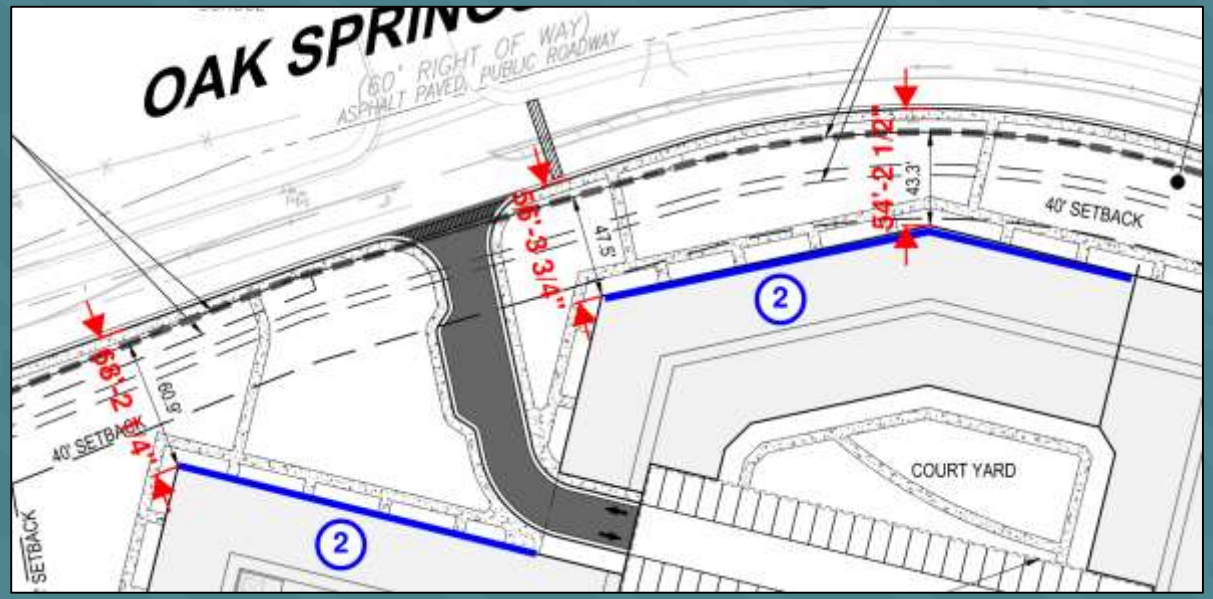


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	59′-7″

- Setback to Height Ratio = 1.7 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS



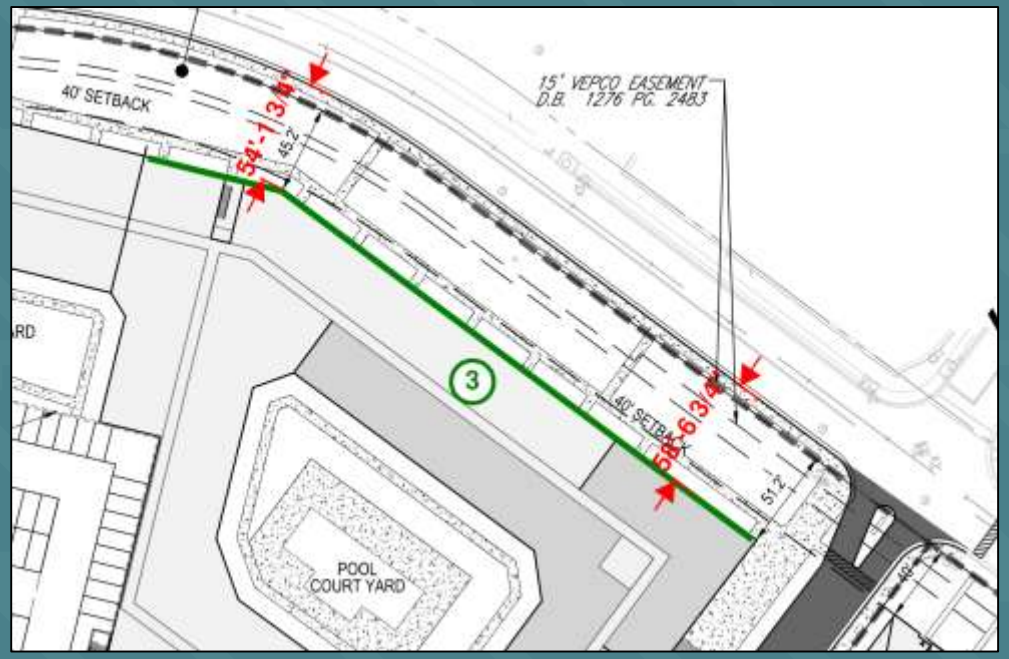


Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	42′-11″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS





Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
4	45′-0″	54′-0″	54′-2″

- Setback to Height Ratio = 1 : 1

BUILDING HEIGHTS & SETBACKS – FROM OAK SPRINGS

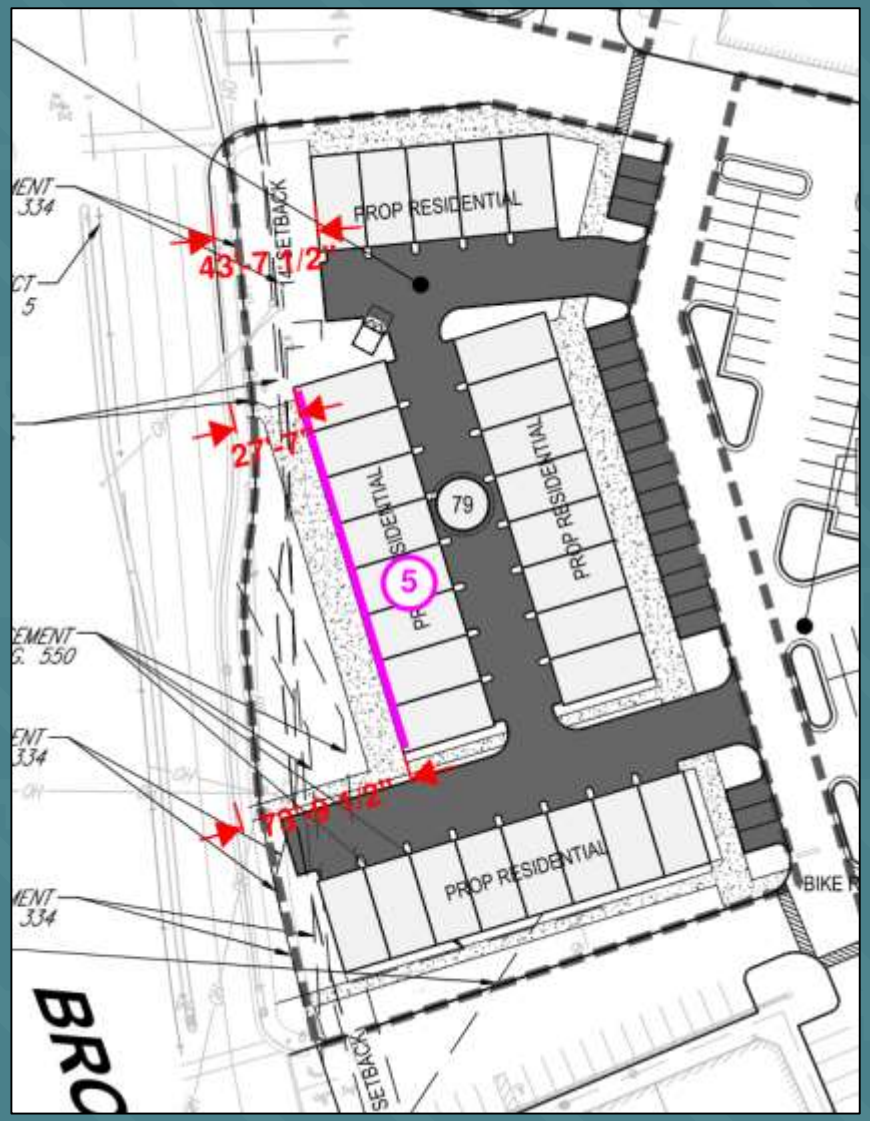




Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb (Oak Springs Dr.)	Minimum Setback from Curb (Branch Dr.)
4	43′-6″	45′-0″	46′-11″	21′-6″

- Setback to Height Ratio = ~1 : 1 on Oak Springs Dr
- Setback to Height Ratio = ~0.5 : 1 on Branch Dr

BUILDING HEIGHTS & SETBACKS – FROM BROADVIEW





Number of Stories	Average Building Height	Max Building Height Per Waiver	Minimum Setback from Curb
3	32′-11″	36′-0″	27′-7″

- Setback to Height Ratio = 0.8 : 1

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

PLANNING COMMISSION PUBLIC HEARING
JUNE 18, 2024



1672

REQUESTS/PROCESS

- Recommendation of approval of Special Use Permit in accordance with Sec. 11-3.10
- Permitted under Sec. 9-25 as Mixed-Use Development, which permits waivers of standards
- Project Timeline:



SUPPORTED BY POLICY DOCUMENTS

- Town commissioned study calls for growth as only way to avoid budget shortfalls.
- Comprehensive Plan calls for achieving this growth through Character Districts, and this location is designated as part of the New Town Character District.
- Zoning Ordinance amendments allow for development in accordance with the Plan.

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

- An economic model was created to determine the impact of land use decisions and the resulting economic ramifications
- The model weighed the cost of the Town's desired capital projects against different growth scenarios:

Scenario	Intended Growth Strategy	New Housing Units (by 2039)	Annual Net Fiscal Impact
1	Minimal growth, i.e. 2010 – 2019 trends	Minimal	($508,808)
2	Become a stronger livable community	750+	($240,682)
3	Become a livable destination community	1,150+	$102,185
4	Become a regional live/work community	2,100+	$335,535

RKG Conclusion:

- To achieve the level of services and amenities desired by the citizens of Warrenton, the Town must increase its development activity
- Warrenton cannot "save its way" (i.e. cut back on spending) to fiscal sustainability
- Without residential development, "the Town does not have the demand to continue to increase retail services."

PLAN WARRENTON 2040



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

GOALS

H-1: Ensure equitable, attainable housing opportunities across residents of all ages, incomes, and abilities by catering to the needs of a diverse community, including young families, professionals early in their careers, essential workforce, and those entering retirement.

POLICIES & STRATEGIES

H-1.1: Encourage development of the "Missing Middle" housing types beyond traditional single-family homes, townhouses, and apartments by updating the Zoning Ordinance to create a beneficial mix.

H-2: Character Districts will accommodate a balance of available housing typologies that are compatible to existing neighborhoods in scale, character, and transition.

WATER / SEWER IMPACTS

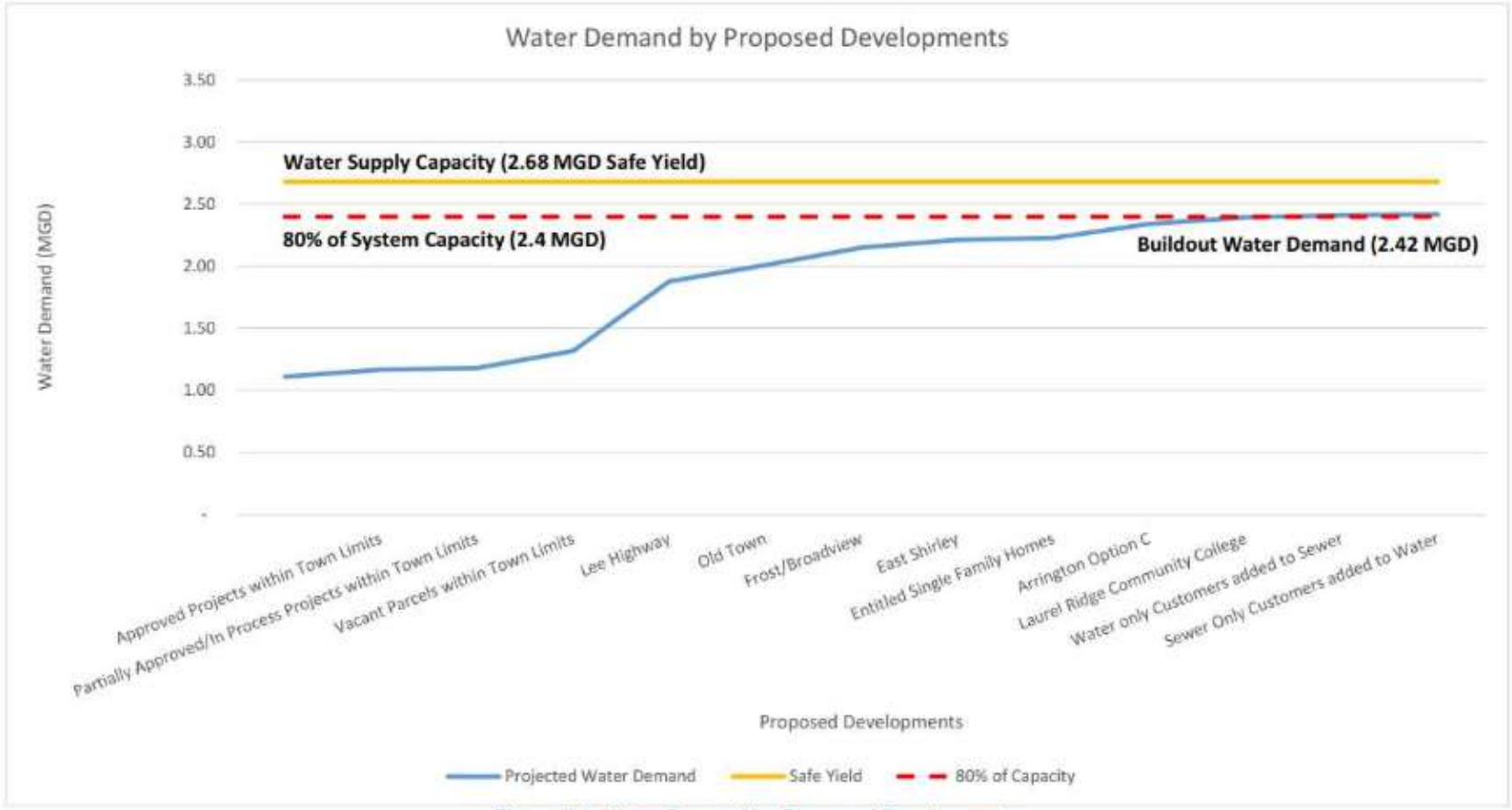


Figure 5.1: Water Demand by Proposed Developments

WATER / SEWER IMPACTS

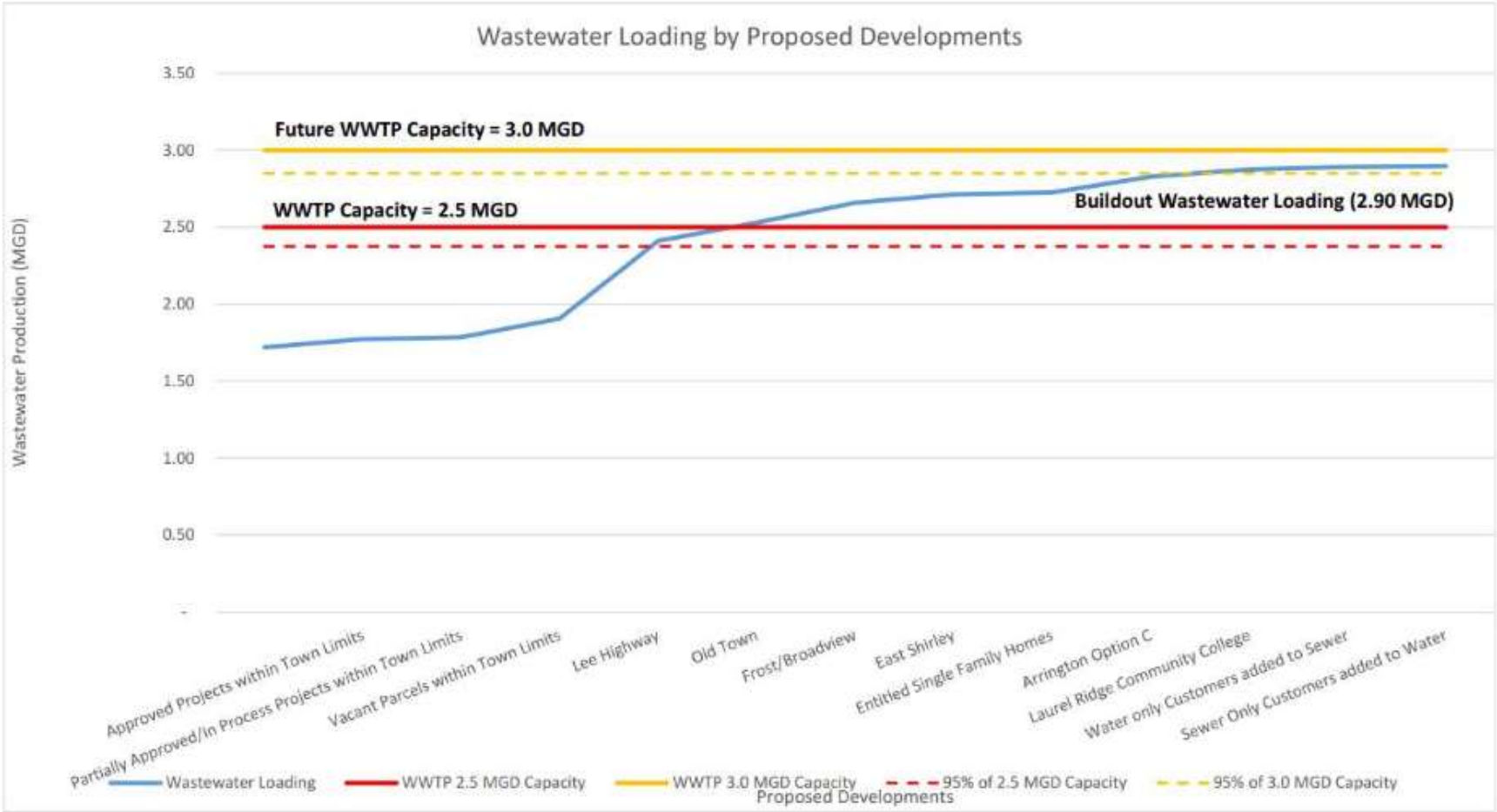


Figure 6.1: Wastewater Loading by Proposed Developments

INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
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		Actuals	*% of Capacity*	*Projections*				
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COMBINED								
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Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

WHY HERE, WHY NOW?

The Warrenton Village Center SUP proposal is the desired result of a lengthy process of review, comparison analysis and decision making by the Town of Warrenton – from the White Papers through the Plan Warrenton 2040 drafting and adoption – and will serve as the building block upon which to create a highly desirable live/work/play community that is the goal of the Plan Warrenton 2040 New Town Character District

WHAT WE HAVE HEARD

- As shown above, this proposal has gone through significant public review, both through public work sessions with the PC and individual meetings with stakeholders
- Topics of discussion included:
  - Affordable Housing
  - Architecture
  - Traffic
  - Oak Springs Impacts
- We have taken this feedback into account and made changes to the proposal to address these issues

AFFORDABLE DWELLING UNITS

- ADU Unit Counts:
  - 80% AMI ADUs: 39 units
  - 70% AMI ADUs: 10 units
  - 60% AMI ADUs: 5 units
  - TOTAL ADUs: 54 units (14% of total proposed units)
- Income and rent limits will be in accordance with the current Multifamily Tax Subsidy Program (MTSP) Income and Rent Limits for Fauquier County as published by the Virginia Housing (formerly VHDA).

EXISTING CONDITIONS



Proposed Development Area

Existing Commercial Center

RESIDENTIAL BLOCK 1

Multi-Family Apartments

- Location: Vacant land on north side of the Center along Oak Springs Drive
- Units: Up to 320 total units
- Types: 1-, 2-, and 3-bedroom apartment units
- Parking: Internal 4-level parking garage
- Amenities:
  - 10,000 square foot leasing and amenity center
  - Central Plaza
  - East & West “Entrance” Plazas
  - Dog Park & Picnic Area
  - Pedestrian connectivity and circulation



RESIDENTIAL BLOCK 2

Multi-Family Townhomes

- Location: Vacant land at northeast corner of the Center at intersection of Oak Springs Drive and Branch Drive
- Units: Up to 26 townhome units
- Widths: Units currently proposed with 20' widths, yielding a plan count of 26 units. Proposal is up to 26 total units to account for width flexibility, which could impact total unit count.
- Types: 3-story, 3-bedroom townhome units
- Parking: Each unit has two internal parking garages



RESIDENTIAL BLOCK 3

Multi-Family 2-Over-2s

- Location: West side of the Center along Broadview Avenue, currently occupied by Summit Community bank and a vacant commercial bank building
- Units: Up to 40 total units
- Widths: Units currently proposed with 24′ and 20′ widths, yielding a plan count of 40 units. Proposal is up to 40 total units to account for width flexibility, which could impact total unit count.
- Types: 2-story, 3-bedroom 2-over-2 “condo” units
  3-story, 3-bedroom townhome units
- Parking: Each unit has one internal parking garage and one dedicated exterior surface space



1687

PROJECT AMENITY IMPROVEMENTS

CENTRAL PLAZA

A new vehicular and pedestrian hub that will function as the heart of the Center and is sized, programmed, and planned to allow for community activities as well as everyday use

EAST & WEST PLAZAS

Smaller public plazas are proposed at the Broadview Avenue entrance and the Hasting Lane entrance to serve as “doorways” into the Center and enhance walkability between uses

DOG PARK / PICNIC AREA

New off-leash, fenced dog park and picnic areas will be accessible to the public.

OAK SPRINGS CROSSWALKS

Two crosswalks are proposed on Oak Springs Drive—one at Hastings Lane and one at the Highland School entrance, which will provide safe access for neighbors to the north

SIDEWALK RING COMPLETION

Proposal will complete a full ring of sidewalk around the entire Center, including the addition of a missing section of sidewalk behind Galaxy Strike Bowling

HASTINGS LANE EXTENSION

New vehicular and pedestrian entrance into the Center is proposed at the Oak Springs Drive and Hastings Lane intersection

MODIFIED ALLEY

Will serve as a secondary vehicular ingress/egress into the garage, as well as provide both residential and commercial loading and trash pickup areas

PEDESTRIAN CIRCULATION

Proposal includes an enhanced system of sidewalks, crosswalks and wayfinding to improve the safety and ease of pedestrian access the Center’s businesses

SITE PLAN OVERVIEW

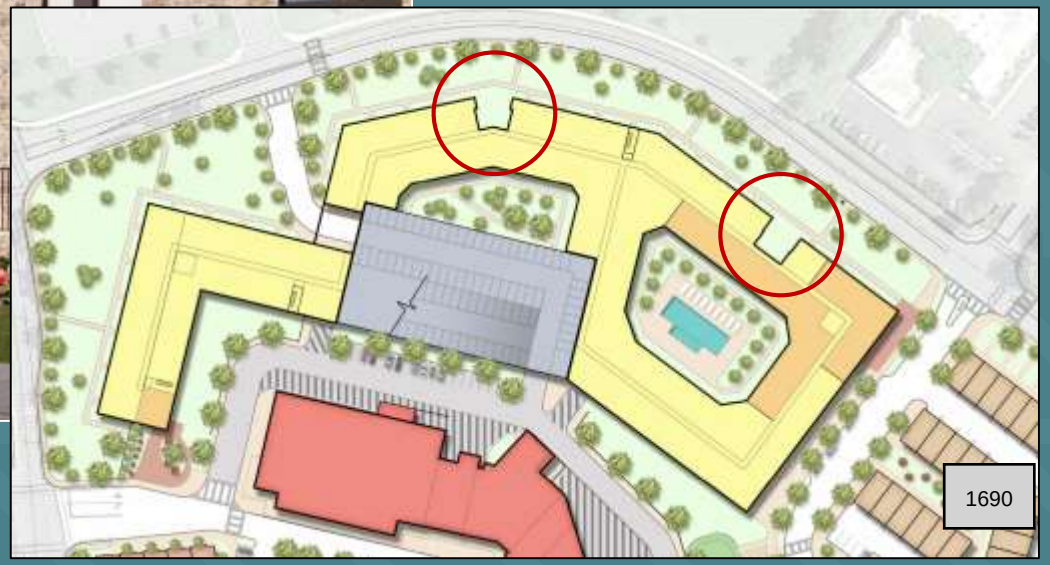
Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets
- Agree to install traffic mitigation measures at Oak Springs Drive garage exit during Highland School “peak” hours – access gate, signage, lighting, etc.



BLOCK 1 BUILDING “INSETS”





RESIDENTIAL BLOCK 1 – *WEST FACING ELEVATION FROM HASTINGS LANE*





RESIDENTIAL BLOCK 1 – *EAST FACING ELEVATION FROM BROADVIEW AVE*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS DRIV*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS D*





RESIDENTIAL BLOCK 2





RESIDENTIAL BLOCK 3





ARCHITECTURAL OPTION 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 2

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 1

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 2

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 1

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 2

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 2

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 1



View from Oak Springs Drive

ARCHITECTURAL OPTION 2



View from Oak Springs Drive

ARCHITECTURAL OPTION 1



View from Broadview Avenue

ARCHITECTURAL OPTION 2



View from Broadview Avenue

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Planning Commission Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
June 18, 2024

PC Decision Deadline June 27,2024 Unless Applicant Defers

Special Use Permit Application

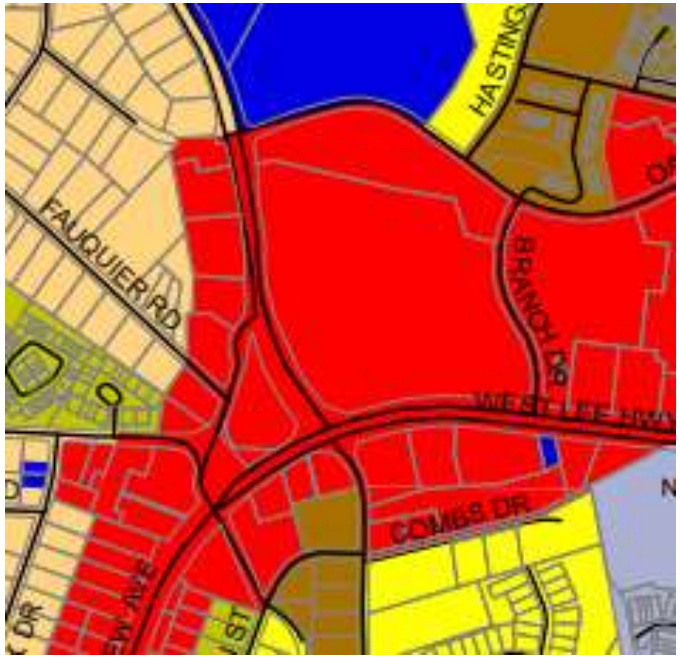
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, NewCastle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 34 2 over 2
  - Approximately 32 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map

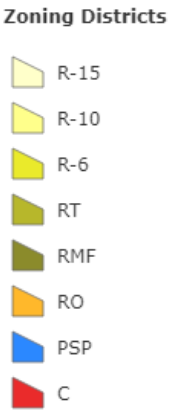


Existing Commercial

Public/Semi Public School

Senior Care

Apartments



Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







PC Work Sessions

- Full site Design
- Schools
- Traffic Impact Analysis/Transportation
- Walkability/Bicycle/Grid Connections
- Open Space/Historic Resources/Public Amenities
- Affordable Dwelling Units
- Water and Sewer
- Plan Warrenton 2040

Proposal



Proposal Includes

- BLOCK 1 - 320 Apartments 1-3 BD, 4 story parking garage
- BLOCK 2 – 26 Townhomes 3 story
- BLOCK 3 - 34 2 over 2 4 story, 6 Townhomes 3 Story garage
- 10% Affordable Dwellings at 80%; 10 at 70%; 5 at 60%
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Elevations

5/31/2024

vs

2/13/2024





Elevations

Multi Family





Elevations

4 Story





Elevations

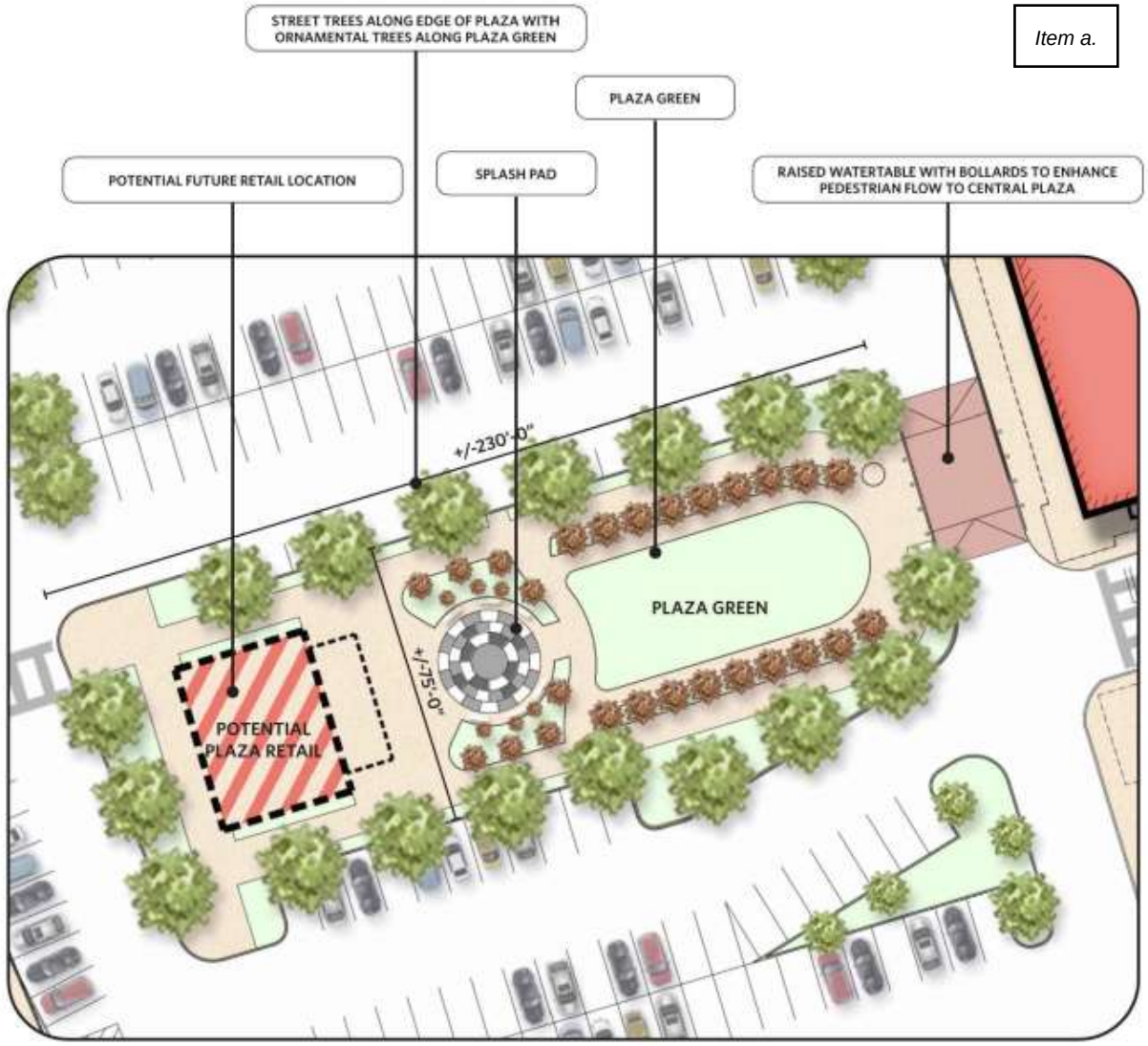
3 Story





Central Plaza





ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"

Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview
- Allow Retaining Walls over Six Feet

Draft Conditions of Approval

- Block 1, 2, or 3 in any order with triggers
- Elevations for 2/14/24 and 5/31/24
- Parking Garage South Facing Screening
- National Green Building Standard
- Prohibited Materials
- Signage and Lighting
- Refuse and Site Maintenance

Draft Conditions of Approval

- Affordable Dwelling Units 25 Years
  - 10% in each block at 80% AMI
  - Additional 10 in Block 1 70% AMI
  - Additional 5 in Block 1 60% AMI
  - Multifamily Tax Subsidy Program VA Housing
  - Similar architecture/fixtures
  - Warrenton/Fauquier Resident Preference
  - Condo Sale Provisions

Draft Conditions of Approval

- Transportation
  - Parking Garage
  - Sidewalks
  - Crosswalks on Oak Springs
  - EV Charging Stations
  - Modified Alley
  - Loading and Unloading

Draft Conditions of Approval

- Waivers and Modifications
  - Article 2-6.1 allow for increased density for 386 units/13.28 units per acre
  - Article 3-4.10.4 decrease Broadview Avenue front yard setback to 14', side/rear yard setback to 0'
  - Article 8-8.5 decrease buffer width commercial and residential to 0', decrease rear buffer for residential uses from public ROW to 14'
  - Article 2-20 Increase heights Block 1 54' Oak Springs Drive, Block 1 36' Broadview Ave, Block 2 36', Block 3 45'
  - Article 3-4.4.5.3 Allow TH grouping from 6 to 7
  - Article 2-19 Allow retaining walls and fences over 6'

Next Steps

- Hold Public Hearing
- Resolution for Recommendation to Town Council
- Decision Deadline June 27, 2024 – Unless Applicant Defers

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Planning Commission Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
June 18, 2024

PC Decision Deadline June 27,2024 Unless Applicant Defers

In Town

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: noreply@civicplus.com
Sent: Sunday, May 12, 2024 6:31 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Joyce Lisbeth
Address	[redacted]
City	Warrenton
State	VA
Zip Code	20186
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Town Council
Agenda Item	Warrenton Village Shopping Center High-Density
Comment	No no no! We live in Warrington to escape this nonsense. Are you going to build new schools first? Do we really need the traffic of northern Virginia every day in our little town? Whoever proposed to the traffic circles around here and the 4 way stops when people don't understand driving laws hence how to use them is bad enough. And another increase in the water and sugar bills? Almost a 50% hike in those costs in 1 year is absolutely ridiculous. People are having trouble providing food for their families with this inflation and you're going to make water and sewer another stress?

Email not displaying correctly? View it in your browser.

Matthew Cute

From: noreply@civicplus.com
Sent: Wednesday, May 8, 2024 7:13 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Benjamin Maas
Address	[redacted]
City	Warrenton
State	VA
Zip Code	20186
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Town Council
Agenda Item	High density housing
Comment	I enthusiastically support the planned housing development. Our community lacks the kind of housing that will draw our children back to Warrenton as adults. We also lack an adequate inventory of "affordable" housing for those who educate our children, care for our infirm, and protect our community. This is but a start and this is a far far cry from plunging off a cliff into becoming (pick your overgrown northern Virginia community). This is smart and necessary growth.

Email not displaying correctly? View it in your browser.

Matthew Cute

From: noreply@civicplus.com
Sent: Tuesday, April 30, 2024 12:18 PM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Carol C Colins
Address	[redacted]
City	Warrenton
State	va
Zip Code	20186
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	*Field not completed.*
Agenda Item	Warrenton Village Center
Comment	If this kind of high-density is within the town plan, I believe we need a revision to that plan. While the proposed project is attractive, the density is overwhelming to a modest-sized town such as ours. We are already concerned about capacity of water and sewer services; and already have increased traffic, thanks to development in our neighboring county of Culpeper. If you can keep this from going forward that would be in our best interest. A similar development--of a much smaller size--would be more appropriate.

Email not displaying correctly? View it in your browser.

Matthew Cute

From: William Goodrich [redacted]
Sent: Tuesday, April 16, 2024 4:15 PM
To: Planning Department
Subject: Warrenton Village Center Project

Some people who received this message don't often get email from williamgoodrich@hotmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I live in Warrenton on Broadview and I do not want a project that big going up just across the street from me. The reason I moved her is to avoid this kind of living. People move to Warrenton to escape Northern Virginia. Keep that crap out of here. Thank you

Matthew Cute

From: Michele Burwitz [redacted]
Sent: Monday, April 15, 2024 5:20 PM
To: Planning Department
Subject: Proposed Warrenton Village Center

Some people who received this message don't often get email from mlburwitz@yahoo.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hello. I live in the town of Warrenton in the Bear Wallow Knolls townhomes. I want to share my thoughts on the proposed Warrenton Village Center, and I hope you will consider my views in your decision making.

I am against this proposed project for a couple of reasons. I was born and raised in this area, and Warrenton has always been my home for the last 52 years. I love living here, because it still feels like a small town, despite its recent growth. While I believe there are already too many people in this town, it is still relatively quiet and has maintained its quaint appeal. I believe what you are proposing will completely change the atmosphere for the worse. The last thing I want to see when I walk my dog or look across my back yard is a four-story apartment building, including a hideous parking garage as well as three-story townhouses crowding and towering above the beautiful landscape that is Warrenton. Also, the traffic has gotten worse and is already congested. This proposed population increase would only further congest Warrenton and make the traffic unbearable. There is plenty of land on the outskirts of town and out of town limits for all these buildings to go.

I realize that it is always nice to add income to the town, but not at the expense of those of us already living here. I live in Warrenton, because it isn't Gainesville or Manassas. Look what all the growth has done to those cities. I do not want it here.

Please consider my views when you are planning for the future of this town. I am a lifetime Warrenton resident, and it is my future too.

Thank you,

Michele Burwitz
[redacted]

Matthew Cute

From: joanne nistico [redacted]
Sent: Monday, April 15, 2024 4:18 PM
To: Planning Department
Subject: High - density housing project

Some people who received this message don't often get email from joannenistico@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Planning Commission, **I am expressing my strong opposition to the proposed high-density housing project.**

This development does not align with our community's existing character and housing mix and poses significant safety concerns for the children who attend school near the complex.

Please represent our interests in opposing this project and working towards restoring Warrenton's planning and zoning to a more sensible approach that remains in line with our community's values.

Sincerely,

Joanne Nistico

[redacted]

--

Joanne Nistico CTA, CWE
[redacted]

Matthew Cute

From: Denise Harris
Sent: Monday, April 8, 2024 9:01 AM
To: Jess Achenbach
Subject: FW: Historic Preservation Opportunity with Warrenton Village Center Development
Attachments: IMG_2326.jpeg; IMG_2328.jpeg; IMG_2327.jpeg

FYI

From: Steven and Ann Rose Wojcik [redacted]
Sent: Monday, April 8, 2024 8:57 AM
To: Planning Department <Planning@warrentonva.gov>; Carter Nevill <cnevill@warrentonva.gov>; Paul Mooney <pmooney@warrentonva.gov>; David McGuire <dmcguire@warrentonva.gov>; Eric Gagnon <egagnon@warrentonva.gov>; Heather Sutphin <hsutphin@warrentonva.gov>; Brett Hamby <bhamby@warrentonva.gov>; James Hartman <jhartman@warrentonva.gov>; William Semple <wsemple@warrentonva.gov>
Cc: Rob Walton <rwalton@warrentonva.gov>; Denise Harris <dharris@warrentonva.gov>; Casey Squyres <csquyres@warrentonva.gov>
Subject: Historic Preservation Opportunity with Warrenton Village Center Development

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Mr. Mayor, members of the Planning Commission, and members of the Town Council:

While there are many issues you are considering as you weigh the SUP for the Warrenton Village Center development, there is also an opportunity for restoration and reviving of a historic natural resource on the property in consideration, which, if taken, would emphasize the unique history and character of Warrenton. I hope it will be part of this project if it is approved. I appreciate the opportunity for you and the developer to consider it. It would be an amenity for the whole community that would not require altering the current plans of the developer and I believe would not add much to the developer's costs.

At the northwest tip of the property along the corners of Oak Springs Drive and Branch Drive amidst overgrown vegetation and fallen tree limbs lies Oak Spring, the natural spring with its stone fortifications that gave its name to the colonial era estate that once existed on this and the surrounding land. The spring gave its name to Oak Spring Manor, which still exists across the street from the spring. The spring, the house, and part of the family cemetery a few blocks further, are all that remain of the estate of the Edmonds Blackwell family, early settlers of the area during the colonial period, one of whose members was an officer in the Revolutionary War.

It would be an asset to the community to restore the stonework, clear the deadwood and vegetative overgrowth around the spring, plant a few oaks, add a few benches and a walkway, and install a plaque with historic information about Oak Spring Manor on this corner. Upon examining the developer's plans presented to the town, approximately a half acre of green space is planned on this

spot in residence block #2 of the proposal. So it appears that adding the enhancements suggested above to the plans would not affect the rest of the project. It would also be an amenity to the new residences as well as something the broader community could enjoy. As a natural spring exists there, I do not believe that any structure could be built there anyway. I know of at least one other property in town with continuous problems since a parking lot sits on top of a spring.

Restoring and enhancing this historic, natural component would ground the development in its surroundings and history. It would also connect the development to the surrounding Oak Springs neighborhood and help preserve this part of Warrenton's sense of place. Thirdly, it would be an additional green space for residents of Warrenton to enjoy nature and perhaps learn about this part of the town's history. As the developer stated at the planning commission work session, the proposed development "aims to honor the town's unique history." Restoring the spring's stonework and creating a green space around it for townspeople to enjoy would be a fitting, meaningful, ideal way to do this. In my view, it's a win-win for both townspeople and the developer.

I am attaching photos of the current state of the spring as well as a video history of the spring and Oak Spring Manor. Tho local historian talks about the spring starting at 2 minutes 20 seconds into the video and ends around the 3 minute mark. Link to video: https://www.youtube.com/watch?v=22A-UD7uy2s

Thank you for consideration of this small, but important proposal as you consider the SUP. It is an opportunity to add to the historic and natural amenities of the town.

Best regards,

Steve Wojcik
621 Old Meetze Rd
Warrenton, VA 20186
540 878-2009

Out of Town

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: noreply@civicplus.com
Sent: Wednesday, June 12, 2024 11:30 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Kaitlyn Worley
Address	[redacted]
City	Warrenton
State	VA
Zip Code	20187
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Planning Commission
Agenda Item	SUP 2022-05 Warrenton Village Center
Comment	*Revised with proper Agenda Item name and details.*

Hello,

I would like to share my support for the Warrenton Village Center development project. I believe this form of mixed use development would be a wonderful addition to the Warrenton housing supply and business community. I believe that the proposed location seems very appropriate for this sort of development. I believe the addition of smaller housing units, placed on top of business units is a responsible use of space and has the opportunity to provide housing for a variety of individuals and families, including but not limited to those in need or in search of affordable housing and walkable

amenities. I hope that the developer allows for a variety of income levels to have the opportunity to reside in this community.

My family includes two young boys who attend or will attend Highland School. I would ask that all plans for development ensure the fullest, most robust possible pedestrian safety measures not only for residents, business owners, and visitors who drive to the Warrenton Village Center, but also for those of us who will walk from the surrounding residential communities, other businesses along Broadview Avenue, or schools (Highland School and CM Bradley Elementary School) to visit the development. Pedestrian safety should be a critical design measure along Oak Springs Drive, Business 17, and Business 29. Speed reductions along these routes should be considered to allow for the safest possible pedestrian experience within and surrounding this mixed-use community.

Safety should also be highly considered with parking and pedestrian interactions within the development itself - Ideally, people and car interactions should be limited as much as possible to allow for a fully walkable experience. This would also provide more opportunities for safe, relatively quiet outdoor dining and/or recreation spaces. Eating a meal and engaging in conversation while sitting close to moving traffic isn't such an enjoyable experience.

Thank you,
Kaitlyn

Email not displaying correctly? View it in your browser.

Matthew Cute

From: Barbara [redacted]
Sent: Tuesday, April 16, 2024 4:45 PM
To: Planning Department
Subject: High-Density Housing at Warrenton Village Shopping Center

Some people who received this message don't often get email from bcominsky@aol.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

We are county residents and have lived in Fauquier County since 1989 where we started our business, raised our family and enjoyed the life of residential Virginia with its small-town atmosphere. We have enjoyed the quiet, peaceful small-town/county life until recent pushes to make us into "Northern Virginia". Let this pass from us and go to another county who would welcome the hustle/bustle, increased traffic, crime, residential growth creating stress on roads, schools, water/sewer, and just life in general. I understand the tax revenues look enticing, but life in the country doesn't need all the whistles and bells to be a rewarding/well-lived community, as we have experienced since 1989!

We already have bumper to bumper traffic coming into Warrenton now with the new homes off 211. The water/sewer system is beyond what it can handle now and in desperate need of a rebuild - building it to accommodate what is being proposed will be beyond belief. The school system struggles now to accommodate Warrenton's young people - not to mention trying to recruit teachers/staff at the low salaries being offered in Fauquier County. The electric grid will struggle to keep up with the staggering usage of all these proposed townhouses, homes, condos, etc.... Not to mention the horrendous traffic that will be coming into the town/county especially within Warrenton proper.

My husband and I strongly urged this proposal be voted DOWN to allow Warrenton to remain the beautiful, country community it is known for.

Ken & Barbara Cominsky
[redacted]

Matthew Cute

From: noreply@civicplus.com
Sent: Friday, April 5, 2024 9:32 AM
To: citizencomment
Subject: Online Form Submittal: Public Comment

You don't often get email from noreply@civicplus.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	MICHAEL Allen MAYS
Address	[redacted]
City	Warrenton, VA 20187
State	VA
Zip Code	20187
Email Address	[redacted]
Phone Number	[redacted]
Committee, Board, or Commission Type	Town Council
Agenda Item	Proposed development on Oak Springs Drive
Comment	My wife and I strongly object to the proposed development on Oak Springs Road which is an extension of the Warrenton Village Center. We live in the Ivy Hill Subdivision, less than a mile from the proposed development. Hastings Lane, which intersects with Oak Springs Drive, comes directly into Ivy Hill. Now, many non-residents use Oak Springs Drive and Hastings Lane to come through Ivy Hill to avoid lights on Rt 29 and to make a short cut from Oak Springs Drive to Ivy Hill Drive. If this development is approved and built, we foresee a significant increase in the amount of vehicle traffic on Oak Springs Drive and Hastings Lane. This will significantly reduce the quality of life in our neighborhood and could reduce our home values as well. We object.

Organizations

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: Jody Warfield [redacted]
Sent: Monday, April 22, 2024 3:13 PM
To: Planning Department; Denise Harris
Subject: Highland School information for 4-23-24 work session on Warrenton Village Center SUP
Attachments: Highland School letter to Warrenton Planning Commission for 4-23-24 work session on WVC.pdf

Some people who received this message don't often get email from jwarfield@highlandschool.org. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

As a preliminary matter, Highland School understands that this proposal is still in the Staff/Applicant work session phase. We also respect that public comment is not generally accepted during the work session phase. However, we note that all the substantive waiver requests by the Applicant with regard to the impacts on traffic, transportation and schools – among other areas – will be discussed on April 23. We believe that this summary of serious concerns should be forwarded now in order to assure a next meaningful work session.

Please see the attached, which contains contact information for representatives for Highland School during this phase of your review and work.

Sincerely,
Jody Warfield, Chair
Highland School Board of Trustees

HIGHLAND SCHOOL

To: Warrenton Planning Commission
From: Highland School and Highland School Educational Foundation
Re: SUP 2022-03 Warrenton Village Center
Date: April 23, 2024

Introduction

As a preliminary matter, Highland School understands that this proposal is still in the Staff/Applicant work session phase. We also respect that public comment is not generally accepted during the work session phase. However, we note that all the substantive waiver requests by the Applicant with regard to the impacts on traffic, transportation and schools – among other areas – will be discussed on April 23. We believe that this summary of serious concerns should be forwarded now in order to assure a next meaningful work session.

To provide additional context, the entrance to Highland School's Lower School is located directly across Oak Springs Drive from the entrance to Block 1of 320 units and parking garage as currently sought. Of course, we value good neighbor relationships and being a good Town citizen. That said, we believe that noting those areas where it appears the Applicant and its experts were not aware of certain important factors that impact one of its closest and largest neighbors as well as ready access to the Applicant's parking garage serves all parties at this stage. Accordingly, we note certain assertions made by the Applicant and additional relevant facts not apparent in its Application below.

Of course, we are happy to host a site visit to the Highland School grounds to review and illustrate the facts discussed here, as well as other impact areas pertinent to your deliberations on the applicant's proposed waivers vs the goals and particular zoning requirements of Plan Warrenton 2040.

Highland School will be making further comments on the Applicant's proposal and waiver requests during the public comment phase, but to make the most efficient use of your time, this document focuses on only the issues the Chair indicated will be discussed in the April 23 work session.

Peak Traffic Hours

Applicant's Current Position: Applicant's Traffic Impact Analysis, and all waiver requests impacting traffic, assert that Highland School has only 1 peak time in the morning and 1 in the afternoon. Applicant's documents also refer to the School as "Highland High School".

Additional Facts:

1) Highland School is a pre-K2 through grade 12 school. The division of Highland School located along Oak Springs Drive is our preschool and lower school – accommodating grades PK-2 through 4, with children from ages 2 to 10. These are the students most vulnerable to negative impacts of high density traffic.

2) Highland's preschool and lower school have two morning drop off times – 7:30-8:00 and 8:30-9:00. The 8:30-9:00 peak traffic time is actually the larger of the two, but the Applicant's SUP and Traffic Impact Study do not appear to capture these 2 different peak times.

3) Highland's preschool and lower school have three afternoon pick up times – 11:45-12:15, 12:45-1:15 and 2:45-3:30. None of these times are included as peak traffic hours in the Applicant's materials.

4) At all of the peak times listed above, cars are waiting in both the westbound and eastbound lanes of Oak Springs Drive to turn into the School. Highland takes every measure possible to move cars through the pickup and dropoff process promptly, but even the minimal traffic on Oak Springs Drive with its current density causes 3 significant backups: i) on Oak Springs at the School entrance; ii) at the Oak Springs Drive intersection with Broadview Avenue (especially for those turning left); iii) and in the left turn lane for Oak Springs Drive from Broadview Avenue southbound.

Construction Impacts

Applicant's Current Position: The Statement of Justification with regard to Construction Impacts states that its Traffic Impact Analysis concludes "turn lanes are not warranted on Oak Springs Drive".

Additional Facts:

1) The existing left turn lane on Oak Springs Drive eastbound at the Highland School driveway accommodates only 4-5 vehicles. At all 5 peak times for Highland School ingress and egress, that turn lane is at capacity, thus often causing longer wait times and backups in the existing turn lanes from Broadview Avenue southbound and northbound at the intersection with Oak Springs Drive.

2) The lack of a right turn lane on Oak Springs Drive westbound at the Highland School driveway results in a line of waiting cars – from 2 to 10 – at all 5 peak times for the School.

3) The current traffic load consists almost exclusively of personal automobiles. The additional impact of construction vehicles and building supply delivery vehicles will significantly increase the per-vehicle impact on Oak Springs Drive and Broadview Avenue, and the residents of both.

4) The placement of the driveway to the WVC parking garage – the primary ingress and egress for both the garage and the delivery area alley for the retail shops, according to applicant's documents – directly across from Highland's driveway places the highest impact of traffic at the exact site of the highest level of current traffic and peak time usage.

Traffic Impacts

Applicant's Current Position: Applicant's Traffic Impact Study states that the WVC, with its requested density of 386 dwelling units, will generate only "154 new trips during AM peak hours and 197 new trips during the PM peak hours."

Additional Facts:

1) With 386 units designed primarily as workforce, or "missing middle", housing, even if there were only 1 resident per unit, these numbers are significantly understated. Plan Warrenton 2040 envisions the New Town Character District's mixed-use developments as serving the population of working singles and young families for whom affordable rental housing currently does not exist. Presumably, at least one resident in most of the 386 dwelling units will be leaving home to go to work each weekday, and the vast majority (320 of the 386 units) of those "new trips" outbound will occur from the parking garage exit directly across from the Highland driveway during the School's AM peak hours.

2) The bottleneck at the intersection of the Highland School's driveway and the WVC parking garage driveway will make left turns out of the WVC virtually impossible, thus forcing more of the traffic load eastbound on Oak Springs Drive, causing a significant increase in traffic past the residential areas – which include a nursing/rehab facility, the entrance road to Bradley Elementary School, the senior living complex of The Oaks, and the family-oriented townhouses at the east end of Oak Springs.

Applicant's Current Position: Applicant touts the crosswalks it will construct across Oak Springs Drive at the intersection of the parking garage and the Highland School driveway, and at the existing and proposed extension of Hastings Lane.

Additional Facts: The exponential increase in traffic from the proposed 386 dwelling units – 320 of them served by the parking garage that will exit directly onto Oak Springs Drive at the Highland School driveway – will make safe pedestrian crossings impossible. This is true

especially if they are parents walking their young children to either Highland School or Bradley Elementary School, or senior citizens walking to the retail establishments from the Brookside Rehab facility or The Oaks residential complex.

Schools Impact

Applicant's Current Position: Applicant states the 386 new dwelling units will produce only 26 school-age children for the Fauquier County Public Schools. Applicant also claims the FCPS are currently under capacity by 477 students.

Additional Facts: While Highland School cannot speak to the argument that Fauquier County Public Schools are under capacity by 477 students, it is highly unlikely that one of the two target demographics for the dwelling units – people in the 25-35 age group – would produce only 26 school-age children, based on the age range of parents of Highland's current student body. Highland School would not be a likely recipient of these children, as our independent school tuition can be a barrier for families who are seeking rental housing in the affordable, "missing middle" category.

Design Plans vs Plan Warrenton 2040 Goals

Applicant's Current Position: "The overall aesthetic of the new WVC brand and identity will be a contemporary design that thoughtfully incorporates Warrenton's rich history, focusing on equestrian inspired materials and character." (page 30 of the Statement of Justification dated 2-14-24 – hereinafter "SOJ 2-14-24)

Additional Facts: The modern, industrial flat-roofed design conflicts directly and substantively with the gabled roofs and standing-seam roof materials of the existing Warrenton Center buildings and the neighboring Highland School, and which are prominent throughout the homes and farms of the Warrenton area.

Applicant's Current Position: "The buildings are designed to scale appropriately with the adjacent current and future uses ...". (page 31 of SOJ 2-14-24)

Additional Facts: The waiver request for 4-story buildings along the entire expanse of Oak Spring Drive to Hastings Lane would tower over the Highland School buildings, which are two stories, with a peaked roof creating a 3-story height, but start from a level substantially below the grade of the proposed development. The combination of the modern/industrial design and the substantial height difference create a jarring, rather than appropriate, transition.

Applicant's Current Position: "Noise & Exhaust: The proposed development will not produce any noticeable increase in noise or odor." (page 26 of SOJ 2-14-24)

Additional Facts: 386 residential units, with even just one car per unit, and the trash generated by this density, cannot possibly produce no increase in noise and odor.

Applicant's Current Position: "Open Space, Parks & Environmental Goals: Goals P-3 and P-3.1 focus on providing residents with access to green and public spaces. The Proposal meets this goal by providing significant open space in close proximity to new residential housing, most notably, at the newly proposed Central, East and West plazas." (page 27 of SOJ 2-14-24)

Additional Facts: "Central Plaza" in the 2-14-24 Statement of Justification was later identified in the applicant's 4-16-24 presentation as the "dog park". It cannot be both, and its small size cannot possibly accommodate all the residents of the 386 new units PLUS "all residents of Warrenton" – either as a site for "community activities" or as a "dog park". Further, the East and West "plazas" are simply slightly expanded concrete sidewalk areas, with no green space included.

.....

In conclusion, we are happy to answer any questions the Planning Commission or Staff may have on these issues. Please contact either of the following representatives of Highland School:

Jody Warfield, Chair, Highland School Board of Trustees
(jwarfield@highlandschool.org).

Donna Tomlinson, Assistant Head for Institutional Advancement
(DTomlinson@Highland School.org).

Jeremy B. Root, Partner
Blankingship & Keith, PC
(jroot@bklawva.com)

Wells+Associates
6.14.2024

Peak Period Traffic Summary Data
Highland (Lower) School – Oaks Spring Drive Entrance

- AM Peak Hour: (8:37-9:12 AM)
  - 26 EBL + 29 WBR= 55 total inbound vehicles
  - 9 NBL + 6 NBR= 15 total outbound vehicles
  - 70 Total AM peak hour trips

- Mid-Day Peak Hour: (11:42-11:51 AM)
  - 8 EBL + 4 WBR= 12 total inbound vehicles
  - 3 NBL + 1 NBR= 4 total outbound vehicles
  - 16 Total Mid-Day peak hour trips

- PM Peak Hour: (2:56-3:30 PM)
  - 26 EBL + 43 WBR= 69 total inbound vehicles
  - 23 NBL + 14 NBR= 37 total outbound vehicles
  - 106 Total PM peak hour trips

- 70/16/106 (AM/MD/PM) Total Peak Hour Volumes

Matthew Cute

From: NAACP7059 Housing [redacted]
Sent: Monday, April 22, 2024 10:07 PM
To: Carter Nevill; Brett Hamby; David McGuire; Eric Gagnon; Heather Sutphin; James Hartman; Planning Department; Paul Mooney; William Semple
Cc: DEBRA COPELAND; connie630@fastmail.fm; Denise Harris; naacpfauquiercounty@gmail.com; townmanager
Subject: Concerns regarding recent flyers and fair process

Some people who received this message don't often get email from naacpfauquierco.housing@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

To Town council members, Planning commission members, Mayor and staff,

It has come to our attention that council-member Eric Gagnon of Ward 5, on copy, has distributed flyers to his constituents in opposition to the proposed mixed use development at Warrenton Village Center. (See attached)

In reviewing the flyers, they appear to violate the Town's Code of Ethics. The inflammatory language and grotesque cartoon play into xenophobic stereotypes and communicate that only a certain type of person is welcome in Warrenton. The NAACP has been fighting these types of inflammatory images, veiled language and dog whistles since 1909.

These flyers serve to sow division in our community and sully the process to fairly evaluate these proposals.

We want to emphasize the importance of making decisions on this proposal and future proposals based on their merits as described in the ethics code.

We understand that you have new council and commission members and suggest you revisit the code of ethics, comprehensive plan, and also reach out to the PD9 staff to get an update on the state of the housing needs in our county and the town of Warrenton.

Providing affordable housing to our community is a multifaceted effort. It's not just one project, one policy or one zoning update. It can include developments like Heroes Bridge, adding Accessory Dwelling Units, adding more market rate apartment buildings/townhouses with an affordable component, fully income restricted development, missing middle and more.

Now is the time for all of us to FAIRLY evaluate affordable housing options for our community. Our friends, our neighbors, and our loved ones can't afford to stay here and people who serve our communities, who work in our stores, teach our children, respond to our emergencies can't afford to live here.

We are hosting a fair housing webinar on June 18, 2024 at 7PM with Housing Opportunities Made Eq
(HOME) whose mission is to ensure equal access to housing for all people. We'll be sure to send along that invite.

Thank you all for your service to our community.

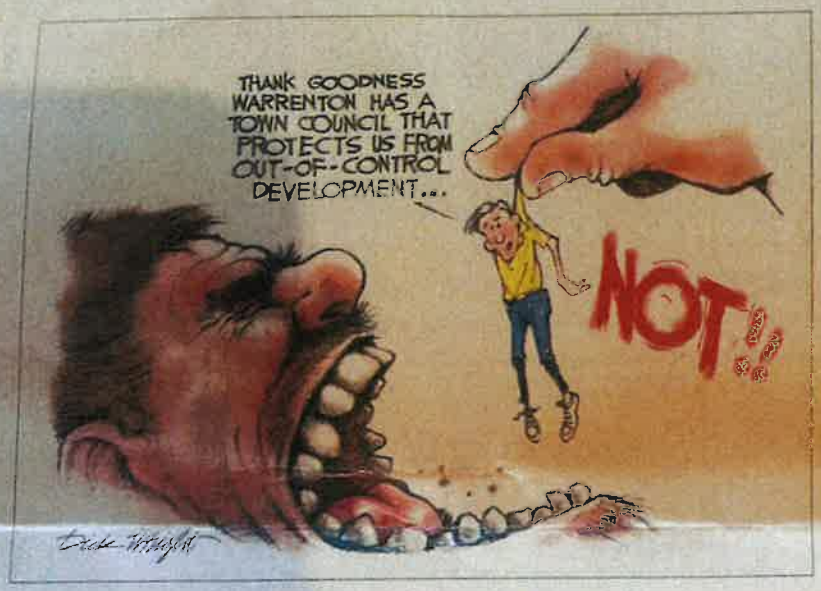
Thank you,

Conway Porter, Branch President
Miggy Strano, Housing Committee Chair
Fauquier NAACP Branch 7059

Take Action Now—Here's What You Can Do:

The Warrenton Village Center project is currently being reviewed by the Warrenton Planning Commission. If you are against this project, they need to hear from you:

Best Option: **Show up and speak out at the upcoming Planning Commission meeting, April 16th, 7:00 P.M. at Town Hall, 21 Main Street.** Speaking out in person makes a big difference—the more citizens they hear from, the better;



Send e-mail to the Planning Commission at:
planning@warrentonva.gov

Contact me directly, at
(540) 645-6156, or at
egagnon@warrentonva.gov

Your Voice Matters—Now Is the Time to Speak Out If You Are Against This Proposed Development

As your Town Council Representative, my job is to represent your interests in Warrenton, and to serve and protect your public health, safety, and welfare.

All too often, we don't hear about these development projects until it's too late to do anything about them, and I'm determined to change this.

So, if you are against this project, it's not to late to stop it. Make your voice heard and let me know what you think, and I will represent your interests when this project comes to a final vote on the Town Council.

As always, contact me if you have any questions about this or any other issue that's important to you and your life here in Warrenton.

Best Wishes,

ERIC

Eric Gagnon
Town Council • Ward 5
Cell: (540) 645-6156
egagnon@warrentonva.gov

Attention Neighbors On: Fauquier Road • Foxcroft Road • Broadview Avenue • Solgrove Road • Denning, Forest, and Tiffany Courts • Bear Wallow Road

Proposed High-Density Housing Development Near You At The Warrenton Village Shopping Center



An artist's rendering of the proposed mixed-use development at Warrenton Village Center.
Courtesy of MV+A Architects



Dear Neighbor:

As your Town Council representative, I want to alert you to a new development that is proposed to be built across from your neighborhood at the Warrenton Village Shopping Center, between the Ace Hardware Store and the Highland School on Broadview Avenue (see map above).

This proposed development, called the Warrenton Village Center, would be a high-density housing project with a proposed multi-story, 450-space parking garage, a four-story apartment building with 386 units, 30 stacked, three-story townhouses and 36 two-story townhouses, estimated by the developer to add over 700 new residents—a 7% population increase for our Town.

In my view, the high-density design of this project will bring unwanted Manassas- and Reston-style development to Warrenton that is grossly out of character with the conventional mix of housing in our community. Additionally, there are legitimate concerns about the significant increase in traffic on Broadview Avenue and surrounding roadways, as well as serious concern about the strain of this development on our Town's water and sewer systems.

As a nearby homeowner, you will be negatively impacted by this project if it is built: Higher traffic and potential congestion, four-story apartment and parking garage buildings nearby, in a high-density project that looks more like it belongs in Manassas, Reston, or Arlington.

This and other proposed housing projects threaten to destroy the small-town character of the Warrenton we all know and love.

Turn Over for Action Steps You Can Take To Make Your Voice Heard . . .

Take Action Now—Here's What You Can Do:

The Warrenton Village Center project is currently being reviewed by the Warrenton Planning Commission. If you are against this project, they need to hear from you:

Best Option: Show up and speak out at the upcoming Planning Commission meeting, April 16th, 7:00 P.M. at Town Hall, 21 Main Street. Speaking out in person makes a big difference—the more citizens they hear from, the better;

Send e-mail to the Planning Commission at: **planning@warrentonva.gov**

Contact me directly, at (540) 645-6156, or at **egagnon@warrentonva.gov**

Scan this code below with your phone to cast your "vote" in my online survey on this issue:

Your Voice Matters—Now Is the Time to Speak Out If You Are Against This Proposed Development

As your Town Council Representative, my job is to represent your interests in Warrenton, and to serve and protect your public health, safety, and welfare.

All too often, we don't hear about these development projects until it's too late to do anything about them, and I'm determined to change this.

So, if you are against this project, it's not to late to stop it. Make your voice heard and let me know what you think, and I will represent your interests when this project comes to a final vote on the Town Council.

As always, contact me if you have any questions about this or any other issue that's important to you and your life here in Warrenton.

Best Wishes,

ERIC

Eric Gagnon
Town Council • Ward 5
Cell: (540) 645-6156
egagnon@warrentonva.gov

Unknown Address

Planning Commission Public Hearing Citizen Comments

As of Noon

June 18, 2024

Matthew Cute

From: M RGR [redacted]
Sent: Sunday, May 12, 2024 8:25 AM
To: Planning Department
Subject: Housing Proposal near Warrenton Village

Some people who received this message don't often get email from mbr.19552019@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Members of the Planning Commission-
As residents of the Town of Warrenton, we are **highly concerned and also AGAINST** this big housing proposal. Aside from the strain on all the Town services, (water /sewer) we are already at the brink with the increased traffic in the Town Limits. We understand the need for revenue, but it should not be accomplished at the expense of the existing community. Another important issue, as a long-time teacher in FCPS, will be the increase in the school population, especially at Taylor Middle, where #s are already an issue and will remain so until the new school is built.
Solutions:

- Build a bi-pass that will take care of the traffic headed towards 211 and from 211 to areas past Warrenton,
- Design the "new housing plan" along that route- outside our Town Limits.
- Just as families do, year to year, look at the budget and examine where all our tax dollars are being spent. Is there over/ wasteful spending?

Bottom line, we do not want to become Manassass.

Most Sincerely-
Ken and Magaly Reder

Matthew Cute

From: Jim [redacted]
Sent: Sunday, May 5, 2024 11:50 AM
To: Planning Department
Subject: Warrenton Village Center project

Some people who received this message don't often get email from jim415680@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon,

I strongly object to the proposed project. This kind of development will bring too much traffic and congestion to that area. In addition, it is not the kind of residential development the town needs. The town already has too much traffic through Broadview Avenue. Leave these kinds of creations to other areas like Gainesville and Fairfax. We don't need parking garages. The water and sewer plant is already falling apart. This will not help the situation at all. Thank you for your consideration.

Matthew Cute

From: Mary Judkins [redacted]
Sent: Friday, April 26, 2024 4:03 PM
To: Planning Department
Subject: Proposed high density development at Warrington Village

Some people who received this message don't often get email from maryjdkns@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am vehemently opposed to this, in particular due to the size.

Mary Judkins
Warrenton

Matthew Cute

From: Tammy Lake [redacted]
Sent: Monday, April 15, 2024 8:16 AM
To: Planning Department
Subject: Opposition to Proposed Warrenton Village Center Project

[Some people who received this message don't often get email from tammy.lake@gmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Planning Commission Members:

I am OPPOSED to the proposed Warrenton Village Center project.

Matthew Cute

From: Bridget Hinchman [redacted]
Sent: Thursday, March 28, 2024 9:47 AM
To: citizencomment
Subject: Future Development

You don't often get email from blhinchman@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Sir or Madam,

I read an article online about Warrenton's desire to build apartments behind the shopping center off Lee Highway.

I was talking with my son the other day because he was walking along Lee Highway to get a drink from Starbucks. He walked right by the Rip Van Winkle Hotel and Red Roof Inn.

I told him not to walk by there in the future as that area is dangerous due to the transient clients that these businesses attract. Surely, the City of Warrenton has considered development on that part of Lee Highway?

I would think the goal of adding more apartments for our community would also include eliminating businesses that would present safety concerns. This is especially true as many apartment renters are families getting started in life. Also, this area is right next to the fast food businesses, which kids from high school go to when out with their friends.

I would greatly appreciate it if this particular section of town was considered for redevelopment.

Respectfully,
Bridget Hinchman

Matthew Cute

From: Alexander Hazelworth [redacted]
Sent: Monday, March 25, 2024 6:41 PM
To: citizencomment
Subject: Public Comment on SUP 2022-03 GPINs 6985-20-7247 and 6984-29-6753
Attachments: Alternative3.jpeg; Alternative1.jpg; Alternative2.jpg

You don't often get email from hazelworth.alexander@gmail.com. Learn why this is important

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hello,

This is a comment pertaining to SUP 2022-03, GPINs 6985-20-7247 and 6984-29-6753. I support the direction this plan takes Warrenton. I greatly do not support this shoebox style of architecture. I have attached some alternative renders with their proposal and what is more beautiful and cohesive. They could have greenish roofs like their current Safeway building to stay consistent. If this is approved with the proposed architecture style then it sets a low bar for future Warrenton projects.

Thank you,
-Alexander


WARRENTON







WARRENTON VILLAGE / NEW CASTLE DEVELOPMENT "NO" FOR SO MANY REASONS

DENSITY & HEIGHT

Warrenton Village's non-conforming height and over-concentrated density is *in the wrong place*...just as Amazon's hulking, walled-off data center will be allowed *in the wrong place*.

This project alone could swell Town population 10%. The Prince William Times called New Castle's Development's proposal "radical" - meaning *extreme* change. Warrenton Planning Commissioner James Lawrence adeptly cautioned: *"I think all of us are concerned; can the town handle this traffic, infrastructure, etc.? How badly does the town need this?"*

A special-use permit exception to increase the 3-story limit on Oak Springs drive would also be *in the wrong place*. Why should these 3 too-condensed in-town complexes *tower over* the rooftops of two 1-story shopping centers, buildings across Rte 17, two adjacent 1-story schools, a 1-story nursing home, two elderly apartment complexes, and every other of the neighboring residential units? Why did everyone else agree to conform to the 3-story limit except New Castle? A 4-story apartment complex and a 4-story garage is an aesthetic affront to all those unfortunate to live around Warrenton Village, and to all town residents.

"AFFORDABLE" HOUSING

New Castle Development Group *knows* the term "*affordable*" is chump bait. Our Council would be shamefully gullible to bite that hook. Of the 320 apartments and 66 townhomes only 10% may be "low-income." That's only 38 units, whereas 333 units, 90% will NOT be low-income, NOT be so affordable. And Developers have not been transparent on just how "affordable" their cheapest *initial* rental rate will be for their most undesirable units.

There's also snake oil in Warrenton Village hawking RENTALS, because that is an ever-escalating income stream. New Castle are not altruists; they seek hand-over-fist rental profits. Rentals return far more than sales. HUD reports: *last year alone*, rental rates soared 12.6% to home sales' 8.3%. The Town's support would subjugate these renters to recurrent landlord profiteering increases - most egregiously for the 10% of affordable's.

And 20% of all renters fall behind on payments. So, would Council approval of Warrenton Village create the region's 'eviction central' for those 76, or more rent-delinquent families?

PARKING GARAGE

Warrenton's 2040 comprehensive plan calls for "*creating a sense of place.*" A 4-story garage would be antithetical in every way and definition – destroying our small Town's not out-of-scale, not out-of-portion, bucolic, and Historic and Landmarks Register *character.*

Mixed retail-residential Gainesville does not have a parking garage. Culpeper does not have a garage. Neither Haymarket, or Marshall has a garage, nor New Baltimore, Vint Hill, Bealton, or Catlett. If an elevated concrete garage is incongruous for *every one* of our neighboring communities, who is our Town Council wanting us to be, *Fairfax*?

Our Eastern gateway will be degraded by Amazon's fenced, behemoth concrete data-bunker. On our Southern gateway, Arrington Developers' splay of 217 homes will rival

Please, Deny Warrenton Village

We beg you, *please* shoulder the responsibility *to your own community residents* and DO NOT sell-out to the Warrenton Village / New Castle Developers.

Their hulking apartments-townhouses-garage complex will NOT benefit our Town; rather it is *entirely contrary* to our Warrenton lifestyle. An indefensible approval would be a subjugation to, and gifted windfall income-stream for the private-equity group - *at our expense. Please,* don't play 'Santa' to New Castle to our detriment.

Warrenton Village is masquerading under a guise of "low-income" housing. A *mere* 38 "low-income" rentals are NOT a justifiable, equitable trade-off for *three* 4-story towers of **333** NOT low-income units, and a **4**-story **450** car parking garage. Such over-scaled monstrosities would irreparably destroy the character of our bucolic, historic small Town. Towers and a Parking Deck are antithetical to what our motto means "Experience Warrenton." *Please,* don't *cram-in* hi-rise towers here *like Fairfax.*

4-stories that would front, and desecrate our Town's northern gateway are unconscionable *in a 1-story setting* of a nursing home, two senior residences, two schools, and family homes. *None of them were exempted* from the 3-story height limit. It is the wrong setting for *towers*...the wrong setting for *unprecedented density.*

There is no comparable obesely-dense concentration of residences on such a small parcel here. And there is no capacity for, nor betterment when 450 garaged cars choke Oak Springs Drive to Broadview Avenue at its busiest bend-in-the-road every day of every year.

4 developers (New Castle, Arrington, Farish Properties, Heroes Bridge) purport *at-minimum* an avalanche of 1,500 added residents that would swell our Town's population well over 10%. If not untenable, that size of influx *will* inarguably, radically overwhelm us, our traffic lights and roads, all our services, and all the aesthetic, in-proportion good balance-and-scaling we have striven to achieve. *Please,* don't *adulterate* and vote-away our small town's soul.

Warrenton *does not* have the infrastructure, and certainly does *not* have the *homeowner* tax base to carry the increased costs for 4 new developments' added needs. Renters will not contribute to our tax base. And no New Castle token proffer will ameliorate those deficiencies. You will condemn Warrenton *homeowners* to the quicksand of ever-ballooning costs by your approval. Culpeper can substantiate that their town's expansion of residential housing has failed to offset all of the increased costs incurred for community services. *Please,* heed that 'red flag.'

Warrenton Village's colossus structures and Amazon's foreboding data center would be *only .4 of a mile apart!* WHY must just this one area pay the punishing full-price for *all* of our town's growth? Quaint, quiet Oak Springs Drive would become Warrenton's '*street from hell.*' By allowing these two affronts to Oak Springs neighborhood residents, the Planning Commission will diminish their homes' marketable values by concentrating there the *worst* two environments in all of Warrenton.

Please, do not do uncalculatable harm. Deny approval to New Castle Developers.

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Work Session
SUP 2022-05 Warrenton Village Center Mixed Use
July 9, 2024

Special Use Permit Application

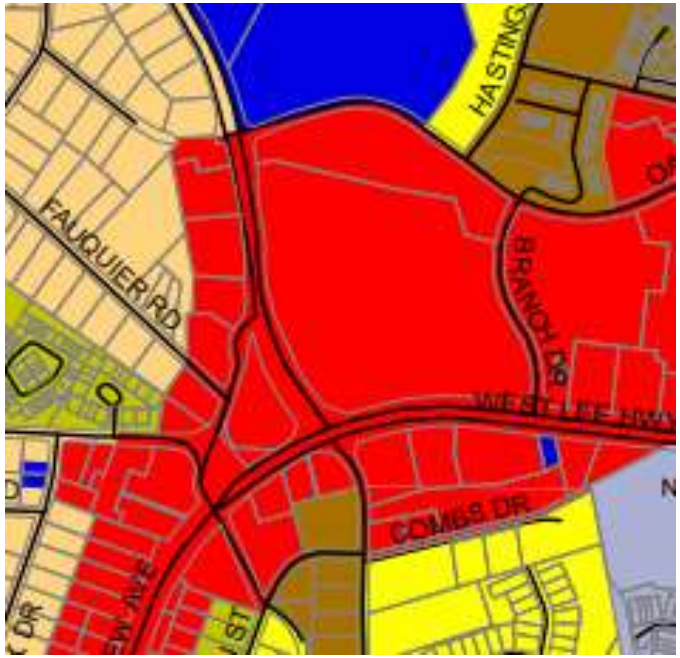
- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, NewCastle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 34 2 over 2
  - Approximately 32 Townhomes
  - 10% Affordable Dwelling Unit

Location



Adjacent Land Uses

Zoning Map

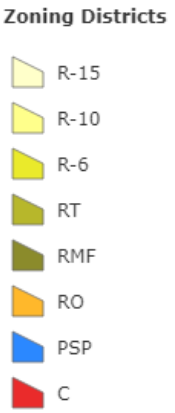


Existing Commercial

Public/Semi Public School

Senior Care

Apartments



Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







Three PC Work Sessions

- Full site Design
- Schools
- Traffic Impact Analysis/Transportation
- Walkability/Bicycle/Grid Connections
- Open Space/Historic Resources/Public Amenities
- Affordable Dwelling Units
- Water and Sewer
- Plan Warrenton 2040

Proposal

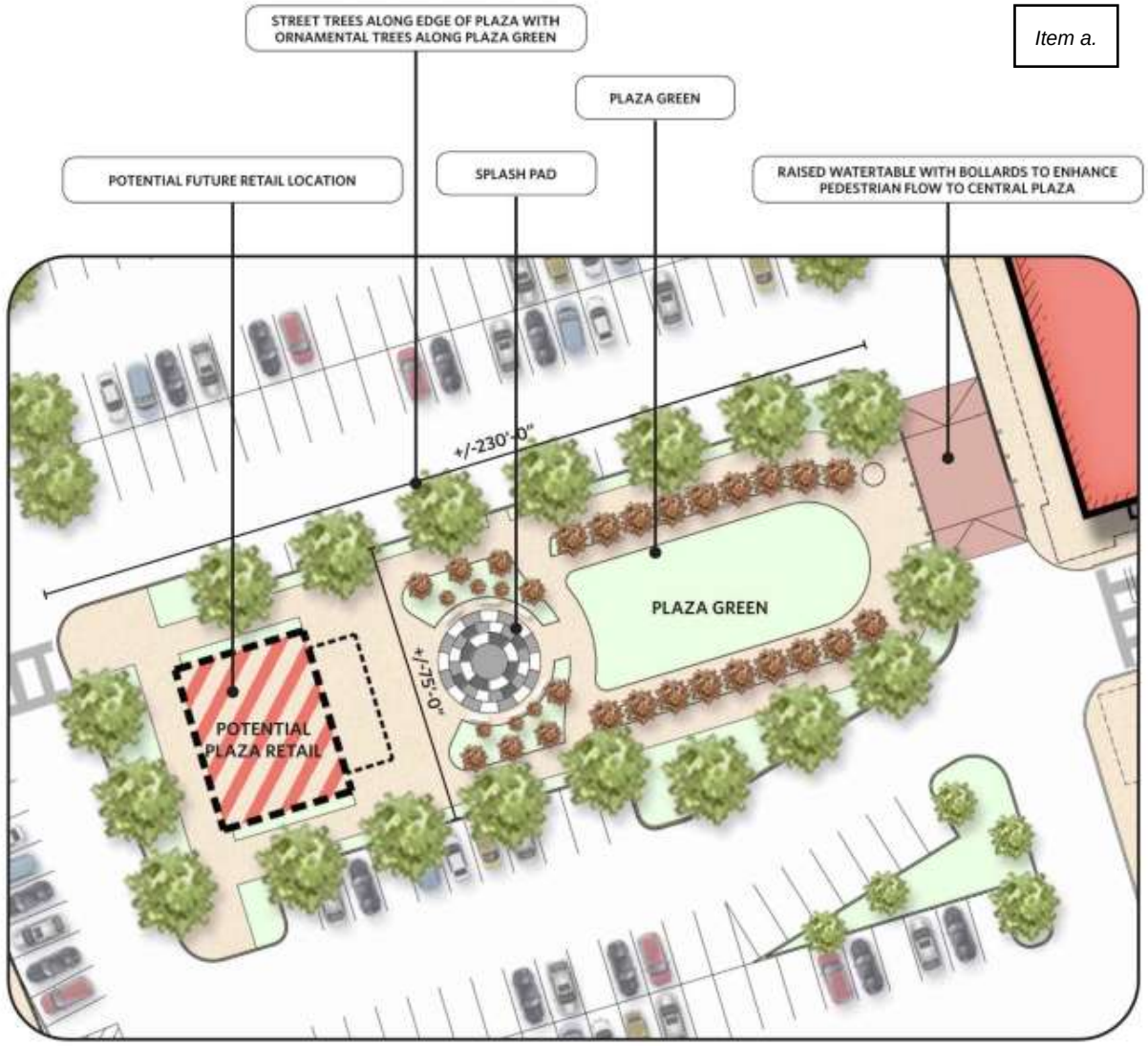


Proposal Includes

- BLOCK 1 - 320 Apartments 1-3 BD, 4 story parking garage
- BLOCK 2 – 26 Townhomes 3 story
- BLOCK 3 - 34 2 over 2 4 story, 6 Townhomes 3 Story garage
- 10% Affordable Dwellings at 80%; 10 at 70%; 5 at 60%
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Central Plaza





ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"

Elevations

5/31/2024

vs

2/13/2024





Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview
- Allow Retaining Walls over Six Feet

Planning Commission Recommendation

- June 18, 2024 Public Hearing
- 12 Citizens Spoke
- Voted 4-0-1 (Ainsworth Absent) Recommend Approval with Conditions of Approval

Draft Conditions of Approval

- Block 1, 2, or 3 in any order with triggers
- Elevations for 2/14/24 and 5/31/24
- Parking Garage South Facing Screening
- National Green Building Standard
- Prohibited Materials
- Signage and Lighting
- Refuse and Site Maintenance

Draft Conditions of Approval

- Affordable Dwelling Units 25 Years
  - 10% in each block at 80% AMI
  - Additional 10 in Block 1 70% AMI
  - Additional 5 in Block 1 60% AMI
  - Multifamily Tax Subsidy Program VA Housing
  - Similar architecture/fixtures
  - Warrenton/Fauquier Resident Preference
  - Condo Sale Provisions

Draft Conditions of Approval

- Transportation
  - Parking Garage
  - Sidewalks
  - Crosswalks on Oak Springs
  - EV Charging Stations
  - Modified Alley
  - Loading and Unloading

Draft Conditions of Approval

- Waivers and Modifications
  - Article 2-6.1 allow for increased density for 386 units/13.28 units per acre
  - Article 3-4.10.4 decrease Broadview Avenue front yard setback to 14', side/rear yard setback to 0'
  - Article 8-8.5 decrease buffer width commercial and residential to 0', decrease rear buffer for residential uses from public ROW to 14'
  - Article 2-20 Increase heights Block 1 54' Oak Springs Drive, Block 1 36' Broadview Ave, Block 2 36', Block 3 45'
  - Article 3-4.4.5.3 Allow TH grouping from 6 to 7
  - Article 2-19 Allow retaining walls and fences over 6'

Next Steps

- Hold Work Session
  - Applicant to Speak to Application Details
  - Subject Matter Experts on Transportation, Water and Sewer
- August Public Hearing

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Work Session
SUP 2022-05 Warrenton Village Center Mixed Use
July 9, 2024

NEWCASTLE
DEVELOPMENT GROUP

SPECIAL USE PERMIT #SUP 22-5

WARRENTON VILLAGE CENTER

TOWN COUNCIL WORK SESSION
JULY 9, 2024



1790

EXISTING CONDITIONS



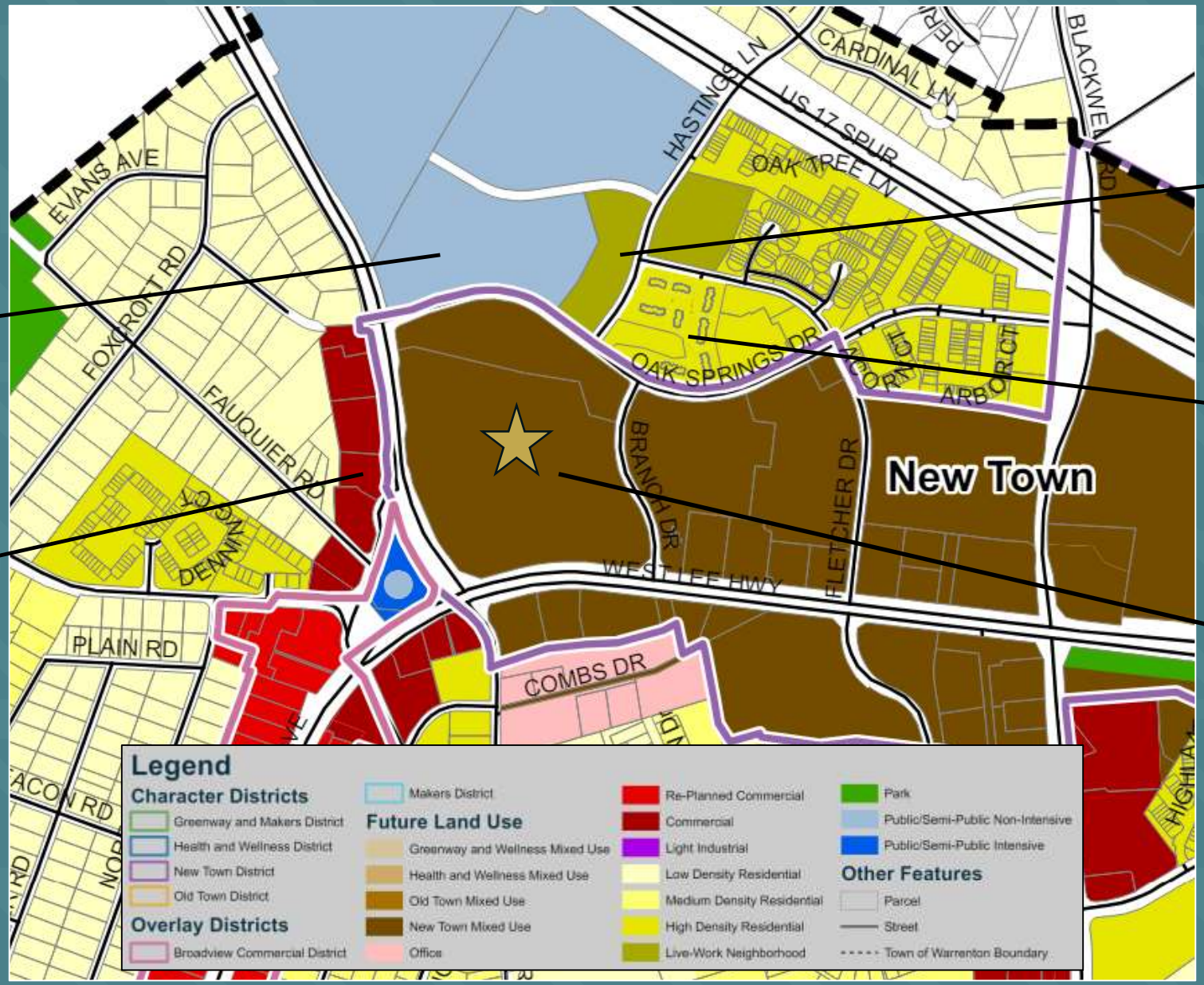
Proposed Development Area

Existing Commercial Center

FUTURE LAND USE MAP

Public/Semi-Public Non-Intensive

Commercial



Live-Work Neighborhood

High Density Residential

New Town Mixed Use

RESIDENTIAL BLOCK 1

Multi-Family Apartments

- Location: Vacant land on north side of the Center along Oak Springs Drive
- Units: Up to 320 total units
- Types: 1-, 2-, and 3-bedroom apartment units
- Parking: Internal 4-level parking garage
- Amenities:
  - 10,000 square foot leasing and amenity center
  - Central Plaza
  - East & West “Entrance” Plazas
  - Dog Park & Picnic Area
  - Pedestrian connectivity and circulation



1793

RESIDENTIAL BLOCK 2

Multi-Family Townhomes

- Location: Vacant land at northeast corner of the Center at intersection of Oak Springs Drive and Branch Drive
- Units: Up to 26 townhome units
- Widths: Units currently proposed with 20' widths, yielding a plan count of 26 units. Proposal is up to 26 total units to account for width flexibility, which could impact total unit count.
- Types: 3-story, 3-bedroom townhome units
- Parking: Each unit has two internal parking garages



RESIDENTIAL BLOCK 3

Multi-Family 2-Over-2s

- Location: West side of the Center along Broadview Avenue, currently occupied by Summit Community bank and a vacant commercial bank building
- Units: Up to 40 total units
- Widths: Units currently proposed with 24′ and 20′ widths, yielding a plan count of 40 units. Proposal is up to 40 total units to account for width flexibility, which could impact total unit count.
- Types: 2-story, 3-bedroom 2-over-2 “condo” units
  3-story, 3-bedroom townhome units
- Parking: Each unit has one internal parking garage and one dedicated exterior surface space



1795

BENEFITS OF PROPOSAL

PLAN 2040

Advances all goals of Plan 2040 Character Districts

HOUSING SUPPLY

Provides much needed additional housing supply near retail and other services/facilities via infill development and not urban sprawl

HOUSING TYPES

Provides much needed housing types unique to the Town, including "missing middle" townhomes, 2-over-2s and the first new multifamily community in decades

AFFORDABLE HOUSING

10% of units within each residential block will be dedicated as Affordable Dwelling Units, restricted to residents with household incomes below 80% AMI at restricted rental rates

PEDESTRIAN ACCESS

Provides new and improved, safe pedestrian access to and circulation within Warrenton Village Center for new residents and existing neighbors

PUBLIC SPACES

The Central Plaza will be the new centerpiece of the Center, featuring activity and eating areas and a splashpad; a new dog park and picnic area will also be open to for public use

INCREASED PATRONAGE

New resident supply will provide increased patronage to all of Warrenton's existing businesses

ECONOMIC IMPACT

$46,100 projected annual surplus for the Town of Warrenton

MODIFICATIONS & WAIVERS

ZONING ORDINANCE 9-25: MIXED-USE DEVELOPMENT OPTIC

The mixed-use development option is created within the Commercial District to allow a mixture of uses when consistent with the Comprehensive Plan. The mixed-use option is intended to encourage development in a creative and integrated manner that encourages pedestrian walkability, shared open spaces and an alternative form of housing within the Town.

Section J. – Modifications:

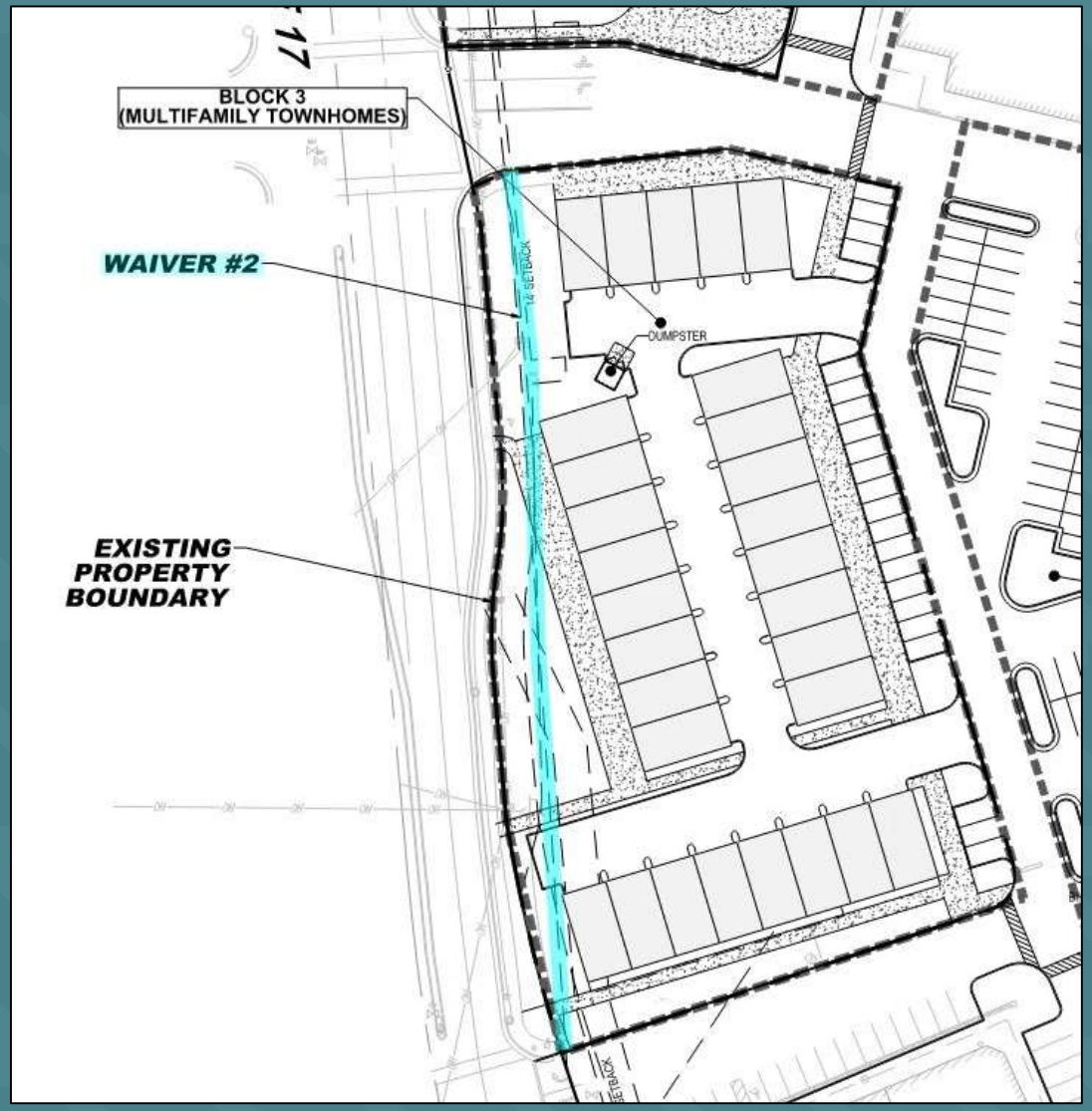
Modifications from the standards set forth in Section 9-25 may be approved by Town Council in conjunction with the Special Use Permit upon a determination that the intent of the Comprehensive Plan is being met.

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #1



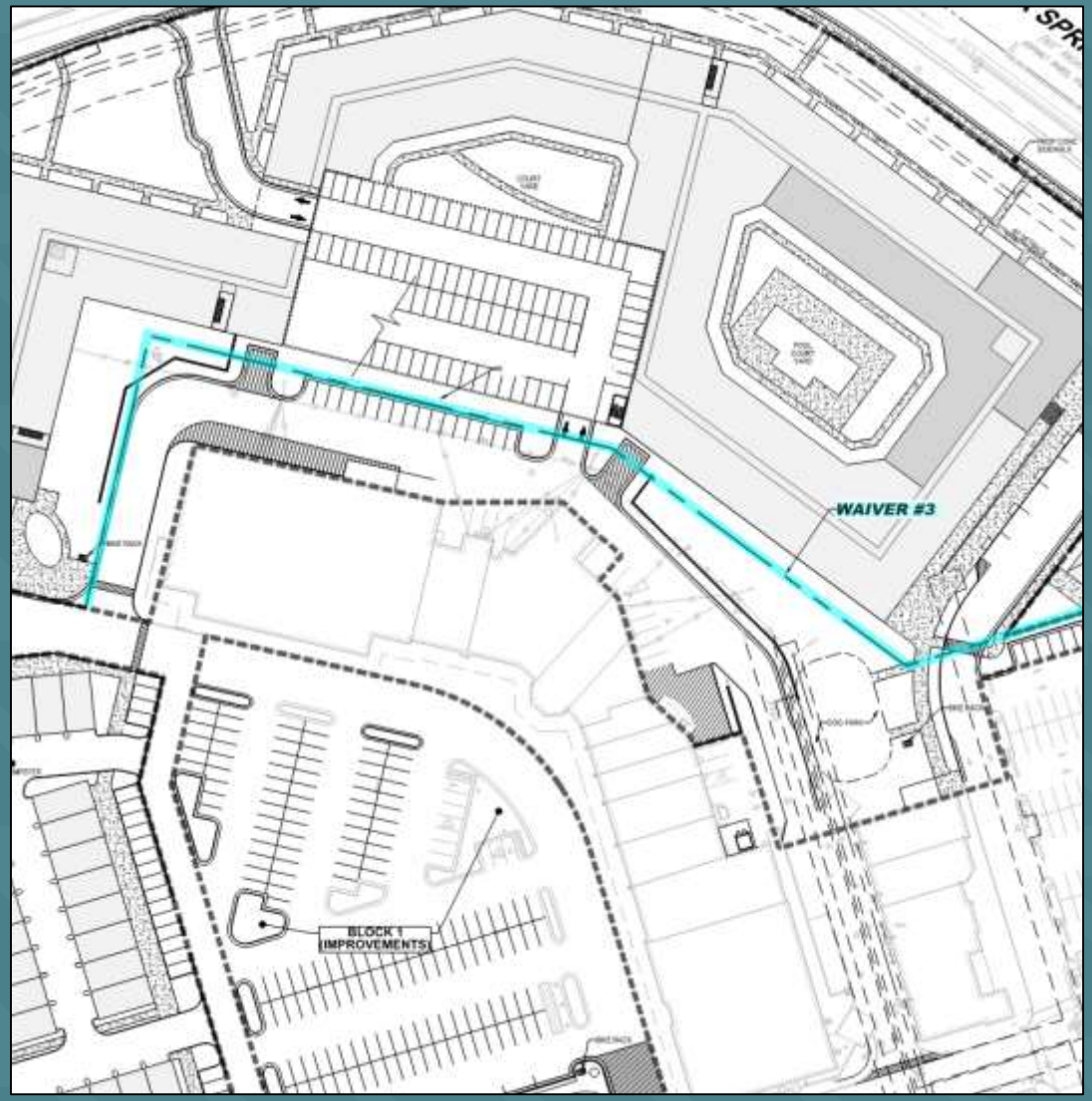
- Section 3-4.10.3 of the Zoning Ordinance provides that density in a mixed-use development within a Commercial zone may be calculated pursuant to Sec. 9-25 of the Zoning Ordinance
- Sec. 9-25 allows for calculation of density in a mixed-use development to be up to 1 dwelling unit per 500 square feet of non-residential space. This section also provides that density above 5 units per acre must be approved by the Town Council.
- While this is a modification of Sec. 3-4.10.3, the requested density is fully consistent with the provisions of Sec. 9-25 for a mixed-use development, and less than what could be achieved.
- This modification will allow for realization of the concentrated increased density that is a primary objective of the New Town Character District
- **Waiver Request #1:** Increase density above 5 units per acre to 13.28 units per acre, which will yield 386 units

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #2



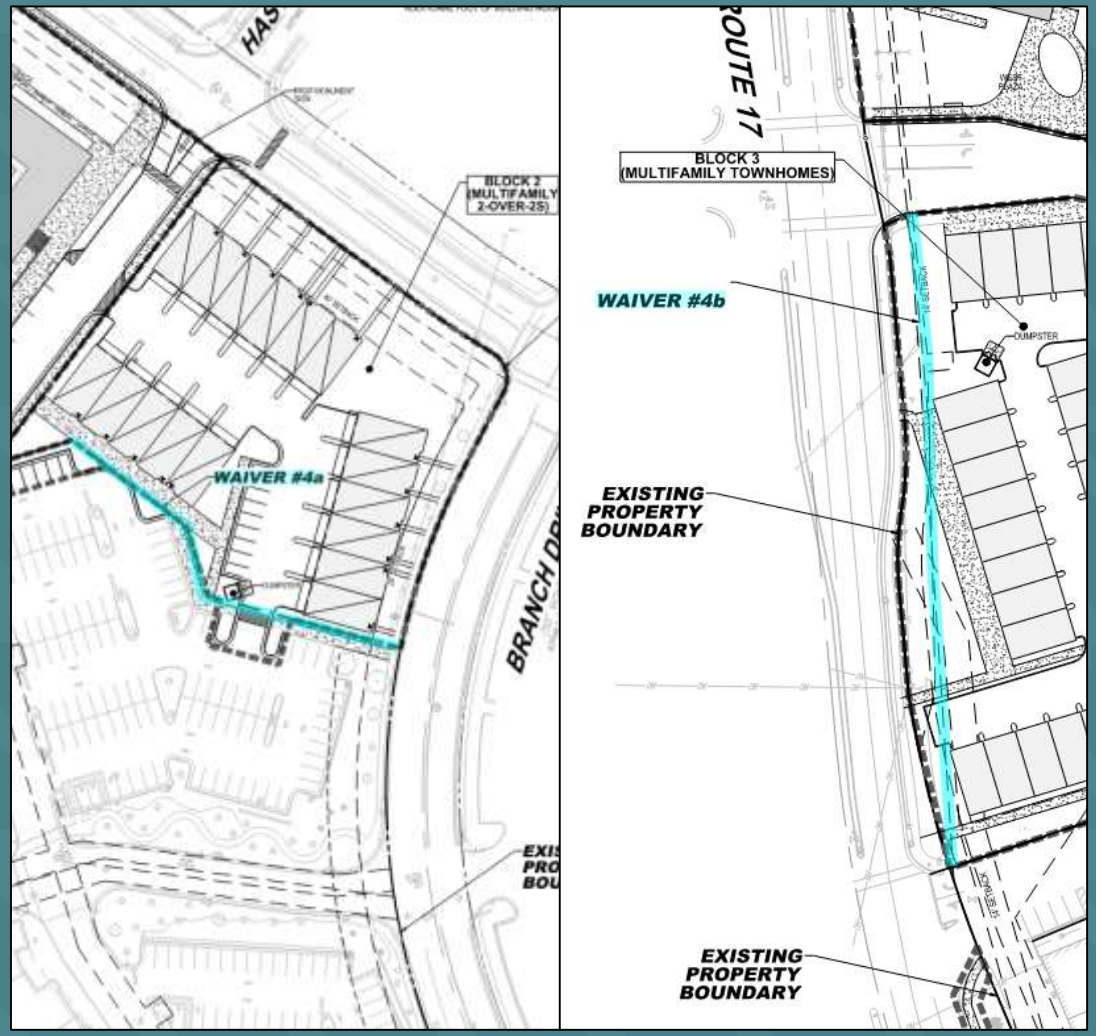
- Article 3-4.10.4: Required front yard setback from ROW greater than 50' is 40' minimum, if no parking or loading is proposed.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district.
- **Waiver Request #2**: Decrease minimum setback to 14' along Broadview Avenue

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #3



- Article 3-4.10.4: Required side/rear yard setbacks is 5' minimum.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- **Waiver Request #3:** Decrease side/rear yard setbacks along internal proposed and existing property lines to 0'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #4



- Article 8-8.5: Minimum buffer width for commercial uses adjacent to residential uses is 25', plus 1' for each foot of building height over 35'. Minimum buffer width for rear boundaries of residential uses from public ROW is 25'.
- This modification will allow the overall development to function as a true mixed-use development that will not be segmented by internal separations.
- This modification will allow the units to be closer to the street, creating a more consistent edge that is representative of the New Town Character district.
- **Waiver Request #4a:** Decrease buffer width between commercial and residential uses to 0'
- **Waiver Request #4b:** Decrease rear buffer width for residential uses from public ROW to 14'

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #5

- Article 2-20: Height limit for dwellings may be increased up to 45' and up to three stories provided that front, side and rear setbacks increase 1' for each additional foot of building height over 35'.
- **Waiver Request #5**: Increase height limit for dwellings as follows:
  - 54' max height for Block 1, Oak Springs Drive Frontage
  - 36' max height for Block 1, Broadview Drive Frontage
  - 45' max height for Block 2
  - 36' max height for Block 3

WHY ADDITIONAL HEIGHT IS NEEDED

- The New Town Character District has been established in Plan Warrenton 2040 as a designated area of high density—3-story residential does not allow for the concentrated density desired in the District
- The New Town Character District calls for "greater intensity of mixed-use and strong live, work, and play options" and notes that this district has "high visibility," due to its proximity to Route 29. The requested modifications to increase density and height support the need for greater intensities and higher visibility in this Character District.
- 4-stories allows for the internal parking garage to be hidden from the exterior of the building

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #6



- Article 3-4.4.5.3: No more than six townhouse units shall be grouped contiguously to each other.
- This modification is necessary to provide increased supply of "missing middle" housing type and aligns with several other existing residential communities in Warrenton include grouping of seven or eight units.
- **Waiver Request #6:** Increase maximum grouping of townhouse units from six to seven

SUP MODIFICATION & WAIVERS – WAIVER REQUEST #7



- Article 2-19.4: Retaining walls shall not exceed a height of 6′.
- This modification is necessary to mitigate the grade change along the Block 1 apartment building. These walls will appear as part of the building foundation and will provide sidewalk access to all first-floor units.
- **Waiver Request #6:** Allow retaining walls in excess of 6′

A PRODUCT OF PLAN WARRENTON 2040

WHITE PAPER FINDINGS – FISCAL SUSTAINABILITY (RKG)

- An economic model was created to determine the impact of land use decisions and the resulting economic ramifications
- The model weighed the cost of the Town's desired capital projects against different growth scenarios:

Scenario	Intended Growth Strategy	New Housing Units (by 2039)	Annual Net Fiscal Impact
1	Minimal growth, i.e. 2010 – 2019 trends	Minimal	($508,808)
2	Become a stronger livable community	750+	($240,682)
3	Become a livable destination community	1,150+	$102,185
4	Become a regional live/work community	2,100+	$335,535

RKG Conclusion:

- To achieve the level of services and amenities desired by the citizens of Warrenton, the Town must increase its development activity
- Warrenton cannot "save its way" (i.e. cut back on spending) to fiscal sustainability
- Without residential development, "the Town does not have the demand to continue to increase retail services."

PLAN WARRENTON 2040

- The White Paper recommendations, particularly with respect to the need for additional housing, heavily influenced the creation of the Warrenton 2040 Plan
- It is incorporated by reference into the Plan
- The ability to satisfy this housing need is addressed throughout the Plan: **Specifically, Character Districts are envisioned to contain a variety of attainable housing types**

> **H-2.2:** Increase opportunities for multi-family and mixed-use residential development by updating the commercial corridors in the Character Districts to allow for appropriate use and scale transitions into existing neighborhoods.

WARRENTON HOUSING MARKET & ECONOMIC IMPACTS

IMPACT OF THE WARRENTON HOUSING SUPPLY

- As forecast by the White Papers, the lack of housing supply and typology has had impacts that we can see on today's Warrenton housing market and overall economics:
  - Potential renters who are employed locally must often rent outside of Warrenton
  - Commuters to D.C. based jobs can't consider Warrenton when searching for relocation options
  - Area employers have challenges attracting new employees
- Due to the scarcity of rental units, potential renters do one of three things:
  - 1) pay above market rents for the few desirable units available
  - 2) resort to leasing less desirable units
  - 3) look elsewhere, outside of Warrenton
- These outcomes are all detrimental to the Warrenton economy and the existing community

CURRENT RENTAL ENVIRONMENT

1) APARTMENT COMMUNITIES

- There are six (6) apartment communities in the Warrenton area that are income and/or age restricted
- There is one (1) market rate apartment community in Warrenton
- Per a 4/4/24 search, there were zero (0) apartment units available for immediate occupancy in any of Warrenton's apartment communities

Apartment Communities	Year Built	Total Units	Available Units*	Age Restricted	Income Restricted
Moffett Manor	2007	98	0	Senior (55+)	50% & 60% AMI Programs
Steeplechase	2000	56	0	Senior (55+)	50% & 60% AMI Programs
The Oaks	1996	111	0	Senior (55+)	50% & 60% AMI Programs
Highland Commons	1994	96	0	No	50% & 60% AMI Programs
Warrenton Manor	1985	98	0	Senior (55+)	30%, 50%, 60% & 80% AMI Programs
Academy Hill	1983	31	0	No	USDA Section 515 Rental Program
Victoria Gardens	1979	24	0	None	None – Market Rate
Totals		514	0		

**Per Apartments.com results taken on 4/4/24*

CURRENT RENTAL ENVIRONMENT

2) SINGLE FAMILY OR CONDO RENTAL DWELLINGS

- Per a 4/4/24 search, there were eight (8) rental units available for immediate occupancy in single family rentals and condo buildings
- With the exception of a single unit built in 2006, all available units are 30+ years old

Unit Type	Condo Apartment	Townhomes	Houses	Total Units
1-Bedroom	2 Units $1,500 (1975) $1,665 (1949)			2
2-Bedroom		3 Units $1,600 (1993) $1,750 (1975) $1,750 (1980)		3
3-Bedroom			2 Units $1,695 (1978) $2,875 (1986)	2
4-Bedroom			1 Unit $3,500 (2006)	1
Totals				8 units

**Per Zillow.com results taken on 4/4/24*

WHEN PEOPLE CAN'T FIND HOUSING IN WARRENTON…

- The new commercial amenities and services that are so desired by the existing community are not fiscally achievable without the economic improvement generated by an increase in residents
- Not only will new and improved retail not come to Warrenton, existing retail will continue to decline and deteriorate
- Consumer spending is trending down, commercial vacancy is trending up – these trends will continue
- Existing retailers will continue to see diminished business activity, leading to potential viability concerns
- New potential retailers will choose alternative destinations outside of Warrenton

WARRENTON POPULATION & EMPLOYMENT GROWTH

- Warrenton's population has remained relatively stagnant over the last 15 years
- An increased growth rate is not anticipated going forward
- Lack of growth is largely due to lack of available housing
- Warrenton's employment increased by 574 jobs between 2006-2019—a growth rate of 0.4% per year
- Over that same period of time, the Northern Virginia Region increased its jobs by 1.9% annually—**nearly five times the Town's growth rate**

Year	At-Place Jobs	# Change	% Change
1990	4,830		
2000	6,670	1,840	38.1%
2010	9,622	2,952	44.3%
2011	9,721	99	1.0%
2012	9,784	63	0.7%
2013	9,829	(28)	(0.3%)
2014	9,831	47	0.5%
2015	9,857	(34)	(0.3%)
2016	9,891	60	0.6%
2017	9,898	69	0.7%
2018	9,949	51	0.5%
2019	10,038	89	0.9%
2020	10,043	5	0.1%
2021	10,174	131	1.3%
2022	10,197	23	0.2%
2023	10,274	77	0.8%
2024	10,351	77	0.8%
2025	10,428	77	0.7%

**Source: Worldpopulationreview.com*

ECONOMIC IMPACTS

- The Market and Fiscal Impacts Analysis performed by S. Patz & Associates, Inc. concluded the following:
  - The project will have a Net Fiscal Benefit to the Town of Warrenton—meaning that the taxes generated by the project (both direct and indirect) will outweigh the capital expenditures connected with the project
  - At full buildout, residents will generate $26.4M in direct annual consumer expenditures (i.e. business activity)
  - The project, along with the increased business activity that it generates, will yield 476 new full-time jobs in the community

PUBLIC IMPROVEMENTS

LIST OF IMPROVEMENTS FOR PUBLIC USE & BENEFIT

- Central Plaza
- East & West Plazas
- Oak Spring (natural spring) restoration
- Dog Park and Picnic Area
- Oak Springs Drive Pedestrian Crosswalks
- Completion of outer sidewalk ring around Warrenton Village Center
- Internal pedestrian system – sidewalks, crosswalks, wayfinding, vehicle slowing measures
- Hastings Lane extension

CENTRAL PLAZA



Bird's eye view of Central Plaza

CENTRAL PLAZA



Alternate bird's eye view of Central Plaza (Note Blocks 1 & 2 in background)

CENTRAL PLAZA

View of splashpad at Central Plaza



CENTRAL PLAZA



Ground level view of Central Plaza

CENTRAL PLAZA



Ground level view within Central Plaza (Note Blocks 1 & 3 in background)

CENTRAL PLAZA



Ground level view of pedestrian access to Central Plaza (Note Block 3 in background)

CENTRAL PLAZA



Ground level view of Central Plaza

WEST PLAZA



Ground level view of West Plaza

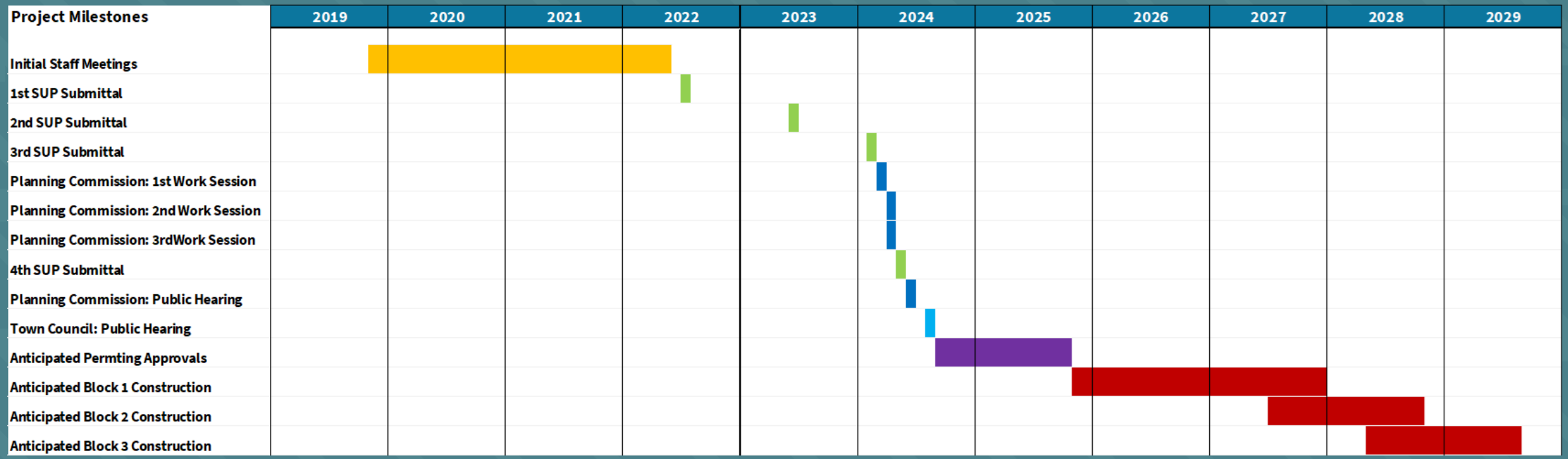
EAST PLAZA



Ground level view of East Plaza

CONCERNS ADDRESSED

PROJECT TIMELINE



WHAT WE HAVE HEARD

- As shown above, this proposal has gone through significant public review, both through public work sessions with the PC and individual meetings with stakeholders
- Primary topics of discussion included:
  - Water/Sewer Impacts
  - Transportation Impacts
  - School Impacts
  - Affordable Housing
  - Oak Springs Impacts
  - Architecture
- We have taken this feedback into account and made changes to the proposal to address these issues

WATER / SEWER IMPACTS

WATER / SEWER IMPACTS

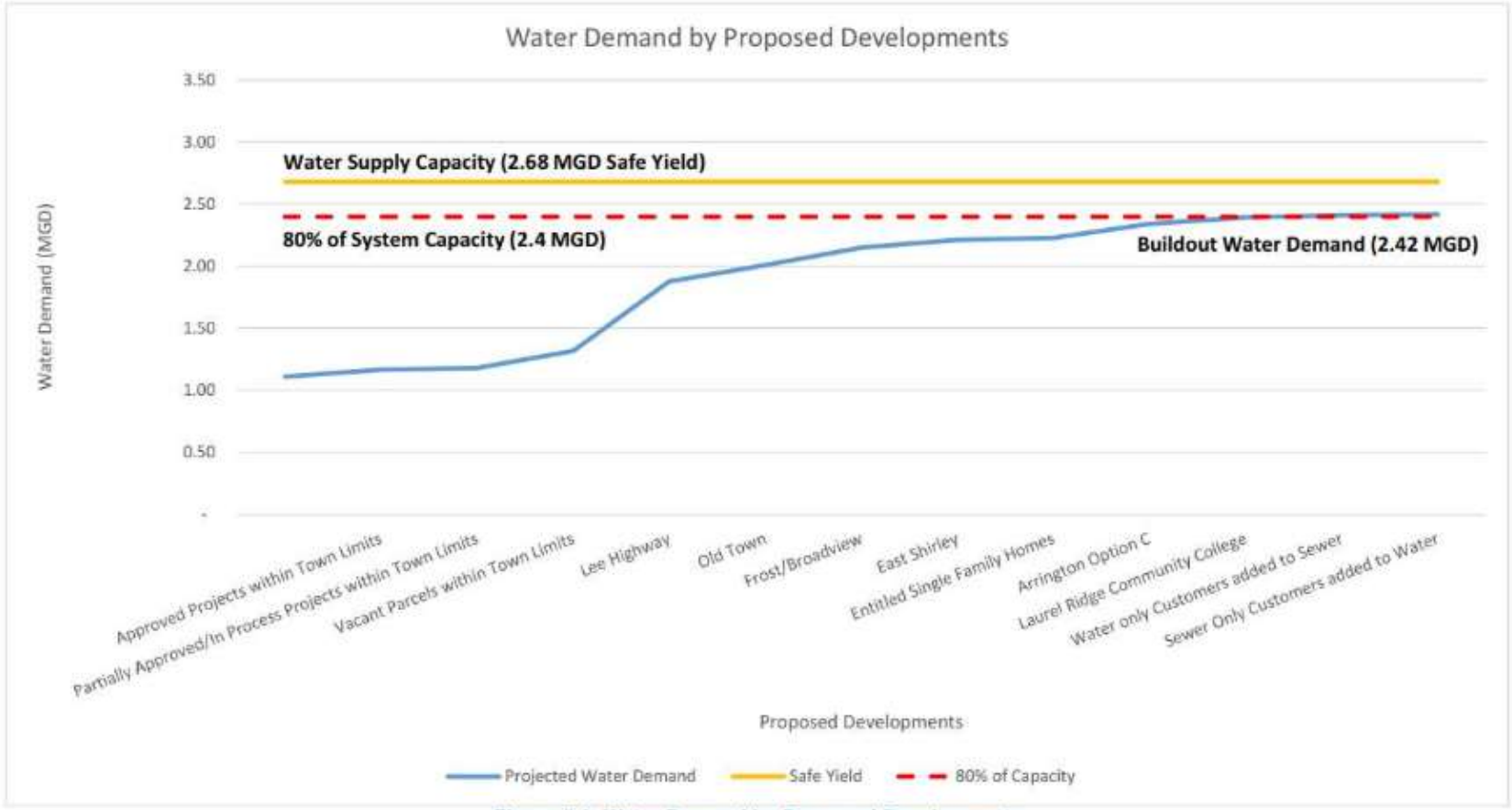


Figure 5.1: Water Demand by Proposed Developments

WATER / SEWER IMPACTS

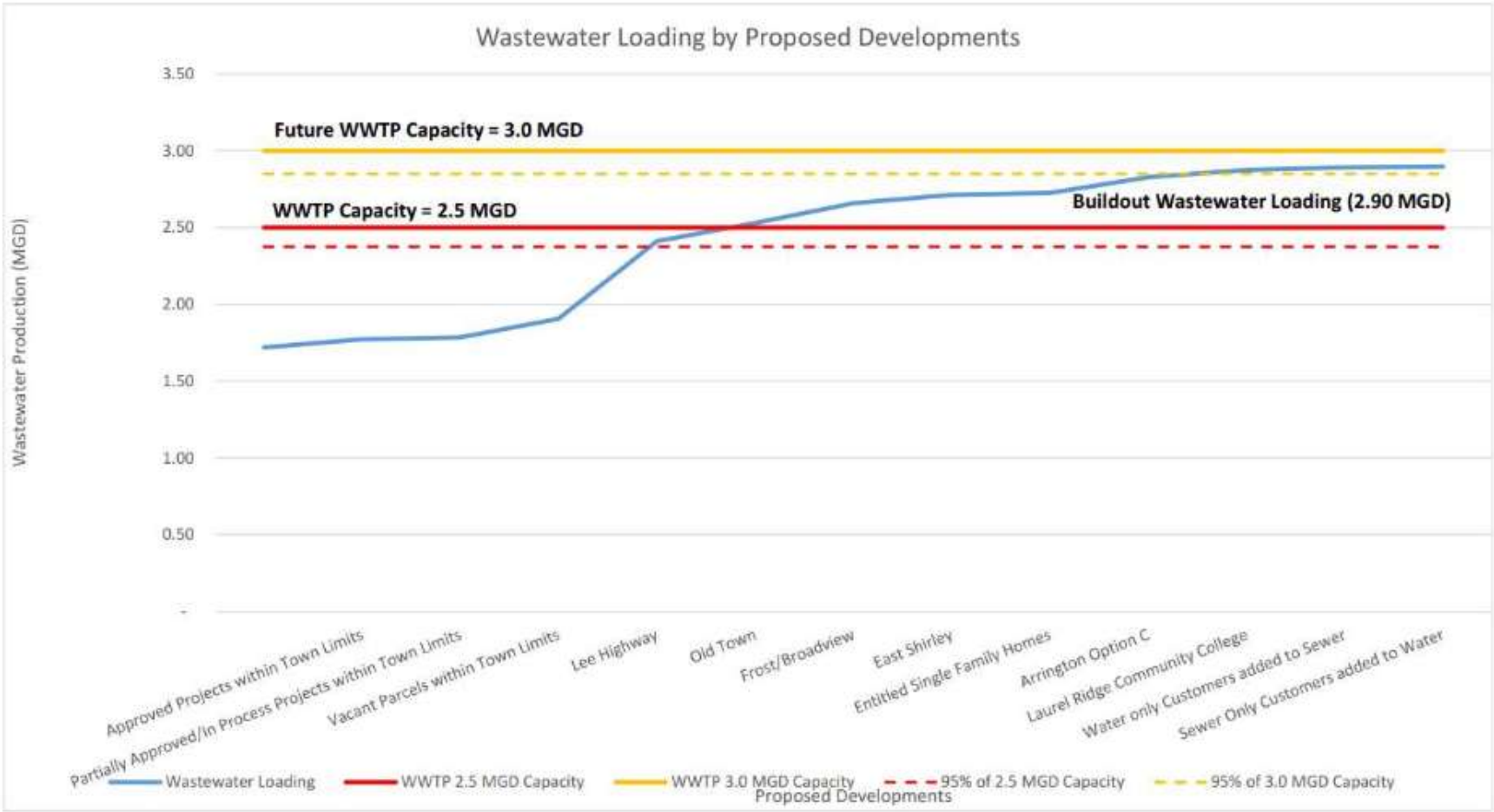


Figure 6.1: Wastewater Loading by Proposed Developments

TRANSPORTATION

SITE PLAN OVERVIEW

Primary vehicular access:

- Full-movement entry on Oak Springs Dr, forming 4th leg of Highland School Driveway intersection
- Full-movement driveway on Oak Springs Dr, forming 4th leg of Hastings Ln intersection
- Access also provided via existing shopping center connections to the south
- A total of 6 access points to the surrounding streets
- Agree to install traffic mitigation measures at Oak Springs Drive garage exit during Highland School “peak” hours – access gate, signage, lighting, etc.



SITE PLAN OVERVIEW

Pedestrian Connectivity:

- Extensive sidewalk network proposed along all streets and within site to promote walkability
- Connects to and augments pedestrian network within existing center
- Crosswalks will be added on Oak Spring Dr at Hastings Ln and Highland School to promote safe pedestrian access from the north
- Retain crosswalks on Broadview Ave and Branch Dr



TRAFFIC STUDY AREA



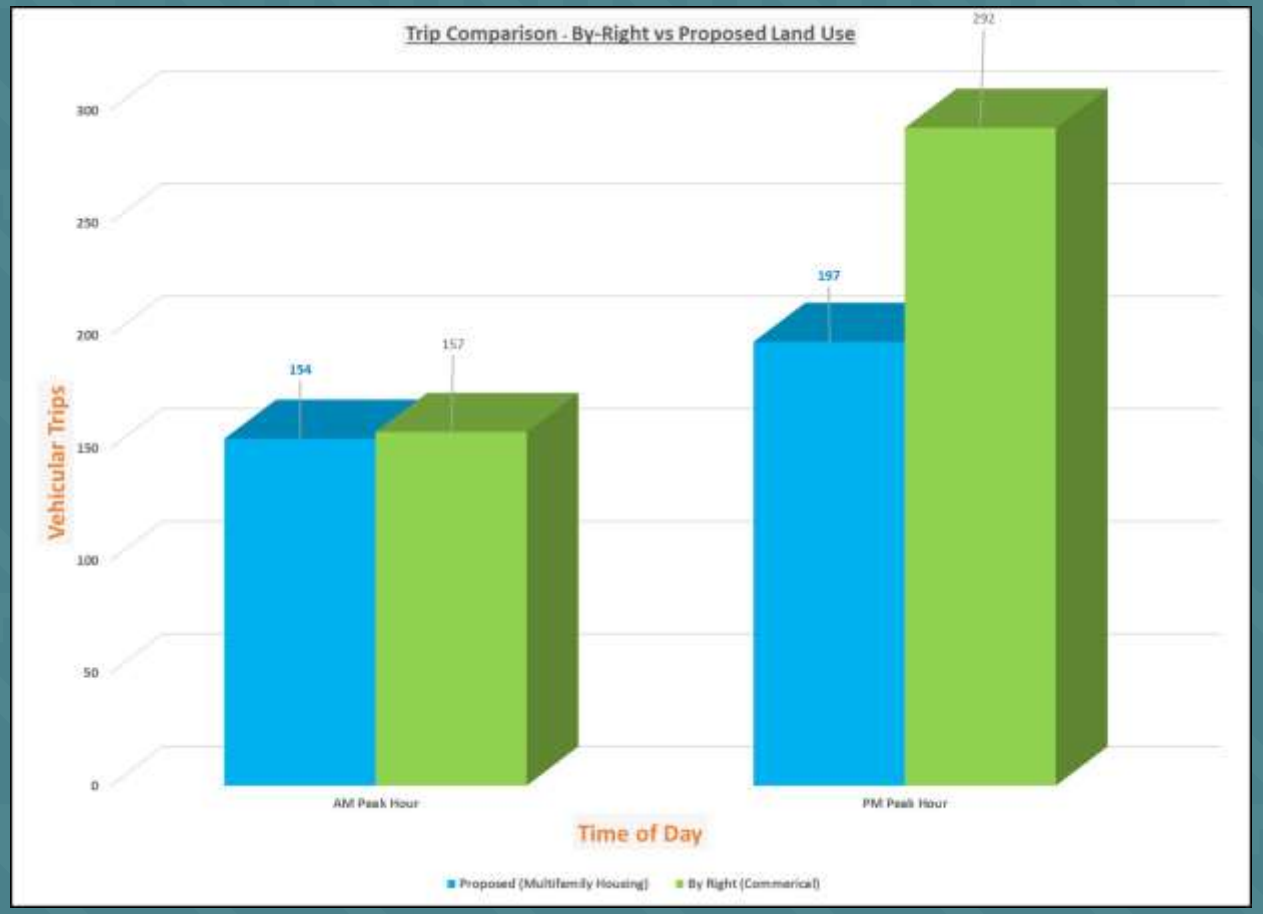
SITE TRIP GENERATION

New Trips Generated by the Development:

- The proposed 386 new residential units are expected to generate around 154 new vehicle trips during the morning commute hour and 197 new vehicle trips during the evening commute hour
- These are distributed across the internal connections and 6 access points, reducing impact at any single location

Less Than By-Right Commercial Development:

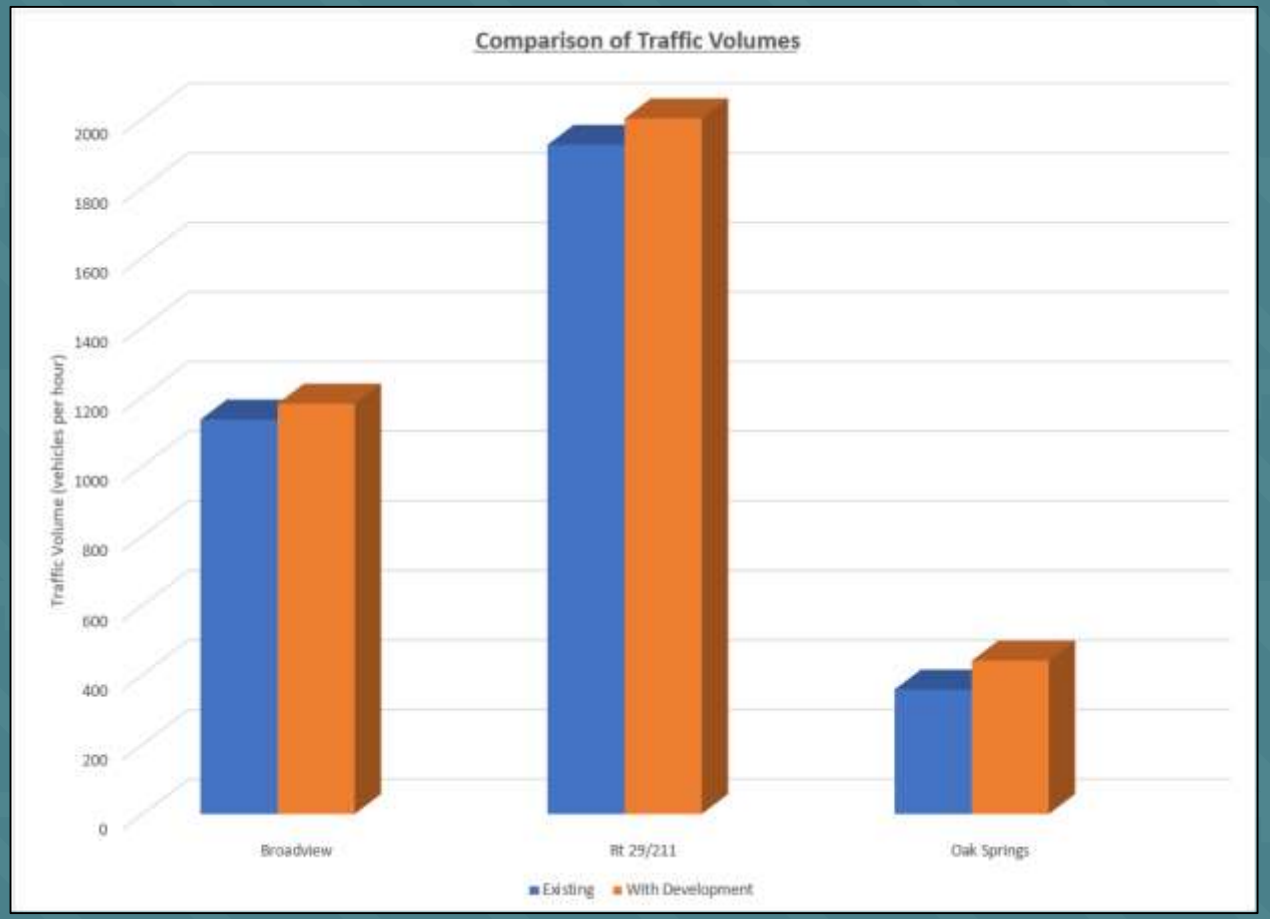
- The residential traffic volumes are lower than what would be seen if the site was developed by right with 40,000 sf of retail instead



SITE TRIP IMPACTS

Minimal Traffic Impact:

- Site-generated traffic represents a small percentage of the existing volumes:
  - 3 - 4% on Broadview Avenue
  - 0.1 - 4% on Rt 29/211
  - Greater proportion on Oak Spring Dr and Branch Dr, where current volumes are lower
- Capacity analysis confirms these modest additions can be accommodated by the surrounding road network without degrading operations



INTERSECTION CAPACITY ANALYSIS - 2027 WITH DEVELOPMENT

Minimal Impact on Intersection Operations:

- The addition of site-generated traffic does not significantly increase delays when compared to the future conditions without the development

Maintaining Efficient Traffic Flow:

- Signalized intersections and the new planned roundabout will continue operating efficiently, demonstrating the surrounding network can accommodate the new trips

Manageable Impacts at Unsignalized Intersections:

- The unsignalized intersection of Warrenton Village South Driveway and Broadview Avenue is anticipated to operate with higher delays, but the site-generated traffic only constitutes approximately 3.5% of the total volume at this location
- At all other unsignalized study intersections, the minor increases in delay represent conditions no worse than what is projected to occur without the development

Accommodating Site Traffic:

- Queues can still be fully accommodated within the available storage at all intersections, similar to the existing and future no-build conditions

HIGHLAND SCHOOL TRAFFIC

Balancing Access and Minimizing Disruption:

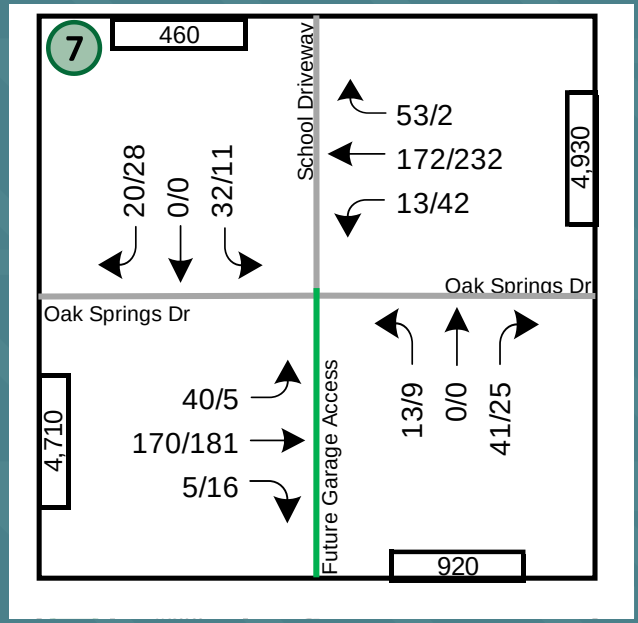
- The proposed parking deck entry is positioned across from the Highland School driveway to balance access needs while minimizing disruption to the existing intersection

Minimizing Conflicts with School Peak Hours:

- Analysis found Highland School and residential AM peak hours have a 15-minute overlap, during which conflicts are expected to be minimal
- Analysis found no overlap in PM peak hours
- It is anticipated that residents will use secondary garage entrance during AM peak hours, which will further reduce conflicts

Accommodating School Operations:

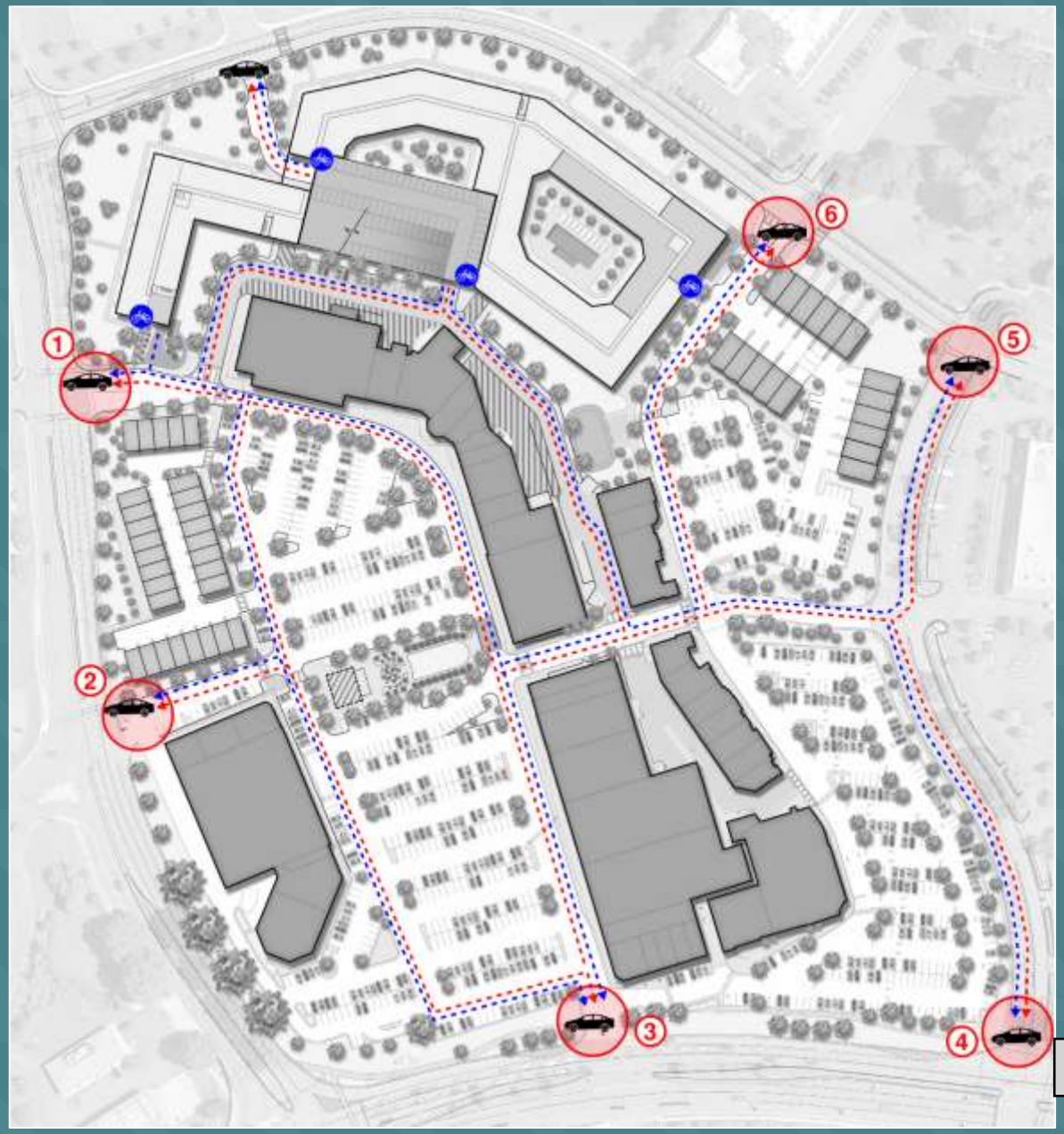
- Observations showed limited queuing of vehicles along Oak Springs Dr at the existing Highland School access point, even during peak times
- The school has multiple pickup/drop-off locations and two entrances, which helps distribute the traffic



Overall, the traffic impacts from the proposed development are not anticipated to significantly disrupt or impede the normal operations of Highland School

HIGHLAND SCHOOL TRAFFIC

- Residents of Warrenton Village Center will want to avoid traffic as much as those dropping off/picking up students at Highlands School
- The site provides 6 alternative points of ingress/egress for vehicles and bicycles that will be the preferable route of travel during peak traffic hours to avoid congestion on Oak Springs Drive
- These alternative points of ingress/egress will further reduce what the Traffic Impact Analysis has determined to be minimal conflicts to the Highland School traffic



ROAD IMPROVEMENTS

Turn Lane Warrant Analysis:

- No new turn lanes warranted at proposed site access points per VDOT standards
- No new turn lanes recommended to be constructed by the development

Signal Warrant Analysis:

- Signal warrant analysis performed for Broadview Ave/Oak Springs Rd intersection
- Traffic volumes do not meet MUTCD signal warrants, so signalization is not recommended
- Unsignalized operations projected to function acceptably at LOS C or better

The Warrenton Village Center development does not necessitate any additional roadway improvements beyond what is already planned by VDOT and the Town

SUMMARY OF IMPACTS

Additional Traffic:

- The proposed 386 residential units will generate 154 new trips in the AM peak and 197 in the PM peak hour
- This equates to about 4% of the current traffic on most surrounding roadways

Dispersed Access Points:

- Multiple entry/exit locations directly to Oak Springs Dr and through shopping center driveways
- Distributes new trips across the road network, avoiding concentration at a single point

SUMMARY OF IMPACTS

Leveraging Existing and Planned Infrastructure:

- The mixed-use nature of the development will help reduce external trips generated, as some trips can be captured internally
- Surrounding street grid offers multiple route choices, dispersing trips
- Planned roundabout will improve operation at Rt 29/211 and Broadview Ave
- Capacity analysis confirms surrounding intersections and roads can accommodate the new traffic with minimal impact

Outcome:

- The Warrenton Village Center development would improve walkability, vibrancy, and housing choices, with a marginal increase in traffic that does not warrant new road improvements

SCHOOLS

PROJECTED STUDENTS

Warrenton Village Center Projection at Full Buildout and Occupancy:

- Block 1: 320 apartments x 0.20 = 64 students
- Block 2: 36 attached dwellings x 0.45 = 16
- Block 3: 30 attached dwellings x 0.45 = 14
- Total proposed students = 94

- Allocation per school:
  - Bradley (52%) = 49
  - Taylor (22%) = 21
  - FHS (26%) = 24

NEW STUDENTS VS. AVAILABLE CAPACITY

- Bradley
  - New students = 49
  - Available Capacity (min.) = 225
- Taylor/Warrenton Middle
  - New students = 21
  - Available Capacity (min.) = 243
- FHS
  - New students = 24
  - Available Capacity (min.) = 464

		Actuals	*% of Capacity*	*Projections*				
Bradley Elementary School								
Max Capacity	588							
		2023-24		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		349	59.4%	341	354	355	363	360
Available Capacity		239		247	234	233	225	228
Taylor/Warrenton Middle School								
Max Capacity	850	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		607	71.4%	607	601	569	601	606
Available Capacity		243		243	249	281	249	244
Fauquier High School								
Max Capacity	1,634	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		1,122	68.7%	1,089	1,111	1,153	1,147	1,170
Available Capacity		512		545	523	481	487	464
COMBINED								
Max Capacity	3,072	*School Year 2023-24*		*2024-25*	*2025-26*	*2026-27*	*2027-28*	*2028-29*
Enrollment		2,078	67.6%	2,037	2,066	2,077	2,111	2,136
Available Capacity		994		1,035	1,006	995	961	936

AFFORDABLE HOUSING

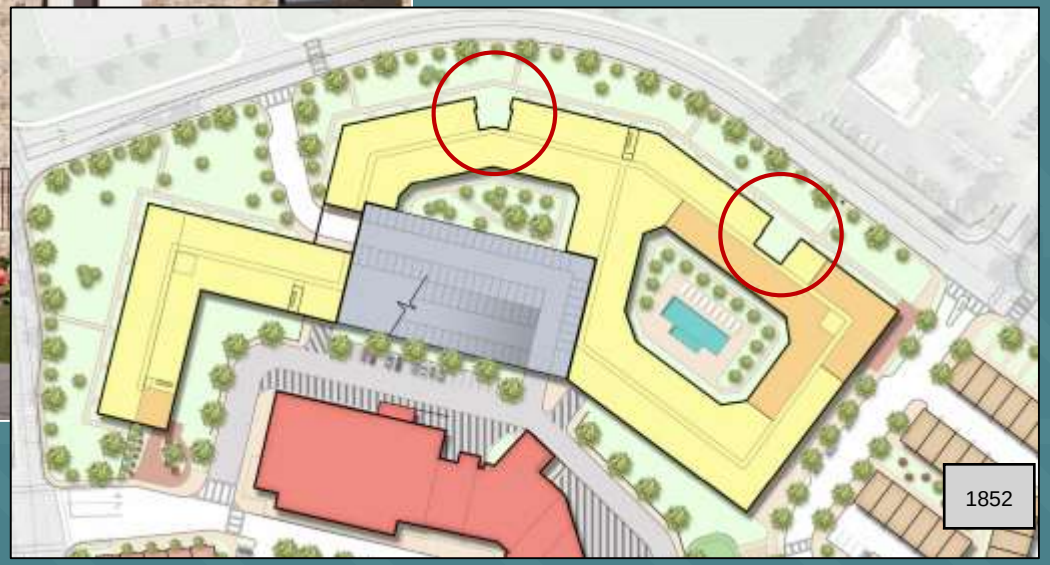
AFFORDABLE DWELLING UNITS

- ADU Unit Counts:
  - 80% AMI ADUs: 39 units
  - 70% AMI ADUs: 10 units
  - 60% AMI ADUs: 5 units
  - TOTAL ADUs: 54 units (14% of total proposed units)
- Income and rent limits will be in accordance with the current Multifamily Tax Subsidy Program (MTSP) Income and Rent Limits for Fauquier County as published by the Virginia Housing (formerly VHDA).

ARCHITECTURE

BLOCK 1 BUILDING “INSETS”





RESIDENTIAL BLOCK 1 – *WEST FACING ELEVATION FROM HASTINGS LANE*





RESIDENTIAL BLOCK 1 – *EAST FACING ELEVATION FROM BROADVIEW AVE*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS DRIV*





RESIDENTIAL BLOCK 1 – *SOUTH FACING ELEVATION FROM OAK SPRINGS D*





RESIDENTIAL BLOCK 2





RESIDENTIAL BLOCK 3





ARCHITECTURAL OPTION 1

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 2

Leasing entrance at intersection of Oaks Springs Drive & Hastings Lane



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Hasting Lane
**Block 1 (Apartment Bldg.) on right; Block 2 (2-Over-2s) on left*



ARCHITECTURAL OPTION 1

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 2

View from intersection of Oaks Springs Drive & Broadview Avenue



ARCHITECTURAL OPTION 1

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 2

View from Broadview Avenue entrance into Warrenton Village Center



ARCHITECTURAL OPTION 1

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 2

View from Hastings Lane out towards Oaks Springs Drive entrance
**Block 1 (Apartment Bldg.) on left; Block 2 (Townhomes) on right*



ARCHITECTURAL OPTION 1

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 2

View from within Center out towards Broadview Avenue entrance
**Block 1 (Apartment Bldg.) on right; Block 3 (Townhomes) on left*



ARCHITECTURAL OPTION 1



View from Oak Springs Drive

ARCHITECTURAL OPTION 2



View from Oak Springs Drive

ARCHITECTURAL OPTION 1



View from Broadview Avenue

ARCHITECTURAL OPTION 2



View from Broadview Avenue

VENABLE LLP

1850 TOWERS CRESCENT PLAZA SUITE 400 TYSONS, VA 22182
T 703.760.1600 F 703.821.8949 www.Venable.com

July 31, 2024

t 703.905.1514
f 703.821.8949
KNWhitmore@Venable.com

Town of Warrenton
Community Development
Attention: Denise Harris

Re: Warrenton Village Center SUP - Conditions of Approval

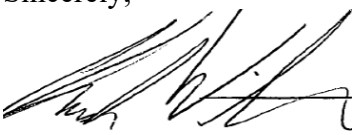
Dear Denise:

This firm represents the applicant in the above-referenced matter, NewCastle Development Group.

Please accept this letter as evidence of the applicant's agreement to add a commitment to provide low-flow toilets in the residential units that are the subject of the requested SUP.

Please let me know if I can provide anything further, thank you.

Sincerely,



Kedrick N. Whitmore

EXPERIENCE

WARRENTON

VIRGINIA

EST. 1810

Town Council Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
August 13, 2024

Special Use Permit Application

- **GPINs:** 6984-20-7247-000/6984-29-6753-000
- **Property Owner:** Warrenton Center LLC/Jefferson Associates LP
- **Representative:** Jess Achenbach, NewCastle Development Partners
- **Zoning: C** (Commercial)
- **Comprehensive Plan:** New Town Character District
- **SUP** to allow for mixed use development on approximately 29.05 Acres
- Maximum 386 Residential Dwellings
  - 320 Rental Apartments 1-3 BD
  - Approximately 34 2 over 2
  - Approximately 32 Townhomes
  - 10% Affordable Dwelling Unit

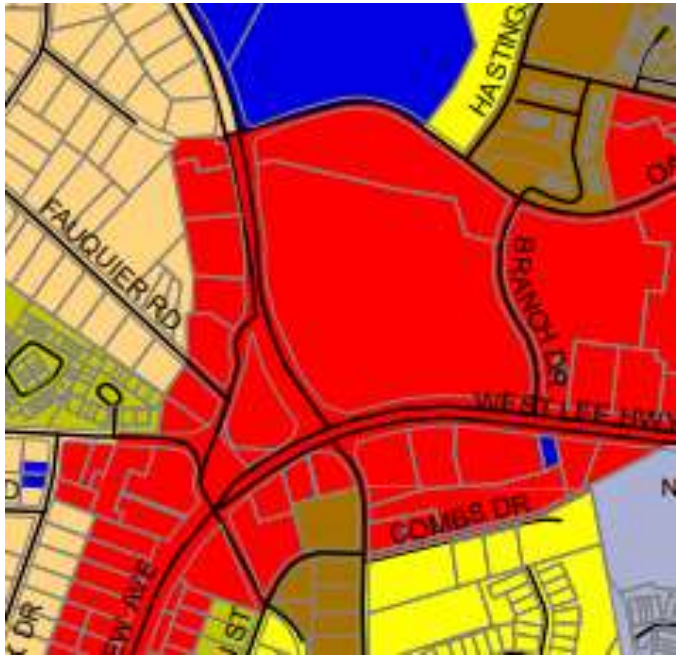
Location



1877

Adjacent Land Uses

Zoning Map



Existing Commercial

Public/Semi Public School

Senior Care

Apartments

Zoning Districts

- R-15
- R-10
- R-6
- RT
- RMF
- RO
- PSP
- C

Future Land Use Map



Plan Warrenton 2040

- Walkability Audit & Complete Streets
- 10 Guiding Principles
  - Discernible Center
  - Connected Sidewalks, Street Trees, Lighting
  - Buildings close to the street
  - Parking behind buildings
  - Variety of Dwelling Types
  - Park/Trail/Activity Center ½ mile radius
- Broadview = Gateway
- Lee Highway = Boulevard
- Oak Springs Drive/ Branch = Neighborhood



New Town Warrenton District

With large lots, direct access from Route 29, and high visibility, this district could be a location for a signature office/jobs center; with greater intensity of mixed use and strong live, work, and play options. A mix of uses could be organized around an internal street network and public amenities, such as civic spaces, parks, green space, and public gathering areas.

Smart Scale Projects







Three PC Work Sessions

- Full site Design
- Schools
- Traffic Impact Analysis/Transportation
- Walkability/Bicycle/Grid Connections
- Open Space/Historic Resources/Public Amenities
- Affordable Dwelling Units
- Water and Sewer
- Plan Warrenton 2040

Proposal

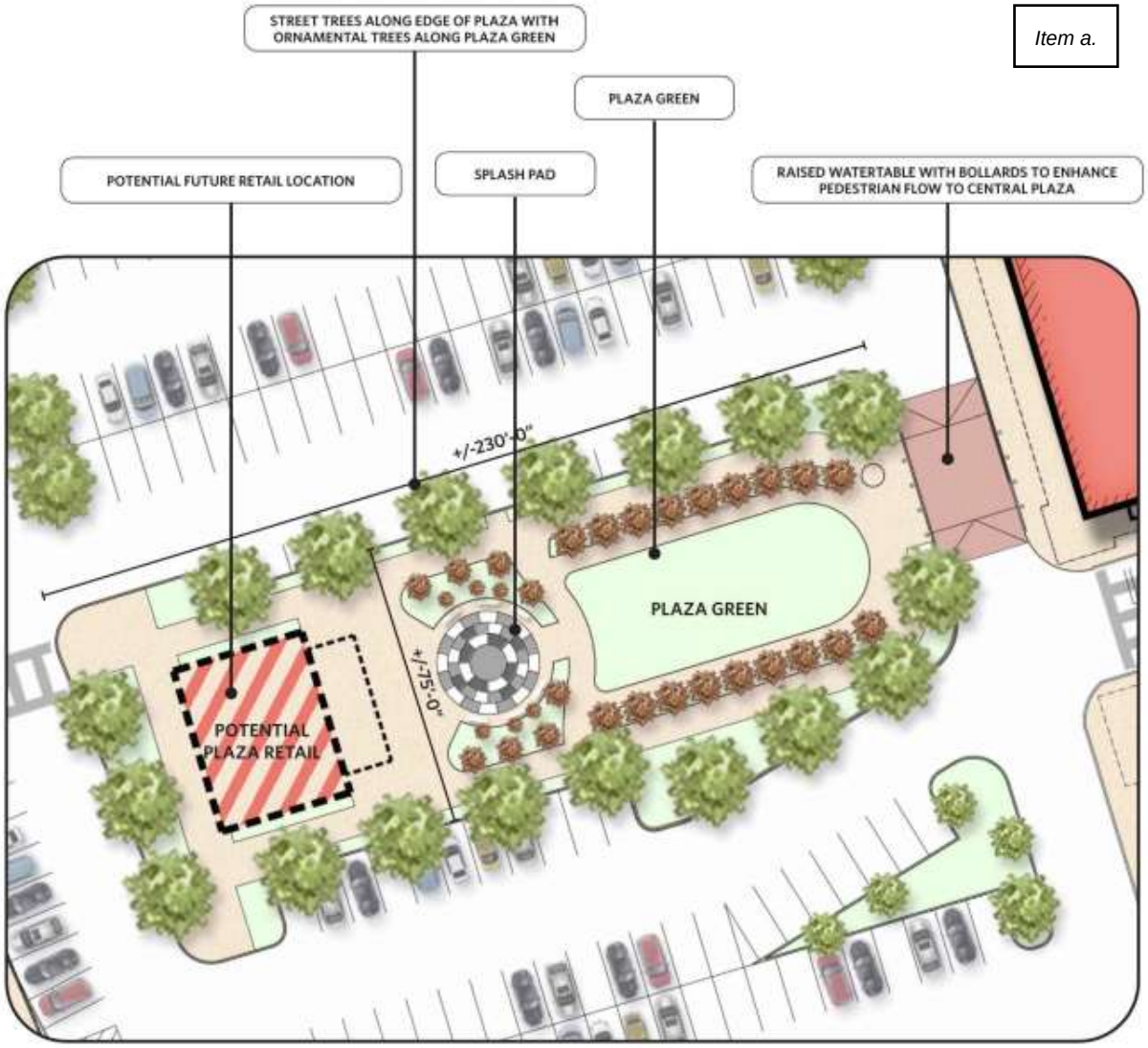


Proposal Includes

- BLOCK 1 - 320 Apartments 1-3 BD, 4 story parking garage
- BLOCK 2 – 26 Townhomes 3 story
- BLOCK 3 - 34 2 over 2 4 story, 6 Townhomes 3 Story garage
- 10% Affordable Dwellings at 80%; 10 at 70%; 5 at 60%
- Central Plaza
- Dog Park
- Pedestrian Connectivity/Crosswalks
- Hastings Lane Extension

Central Plaza





ENLARGED CONCEPTUAL CENTRAL PLAZA PLAN

SCALE 1"=20'-0"

Elevations

5/31/2024

vs

2/13/2024





Requested Modifications and Waivers

- Increase in maximum density
- Broadview Avenue Setbacks
- Side and Rear Yard Setbacks
- Decrease Buffers between Commercial and Residential Uses
- Building Heights; plus along Oak Springs and Broadview
- Allow Retaining Walls over Six Feet

Planning Commission Recommendation

- June 18, 2024 Public Hearing
- 12 Citizens Spoke
- Voted 4-0-1 (Ainsworth Absent) Recommend Approval with Conditions of Approval

Draft Conditions of Approval

- Block 1, 2, or 3 in any order with triggers
- Elevations for 2/14/24 and 5/31/24
- Parking Garage South Facing Screening
- National Green Building Standard
- Prohibited Materials
- Signage and Lighting
- Refuse and Site Maintenance

Draft Conditions of Approval

- Affordable Dwelling Units 25 Years
  - 10% in each block at 80% AMI
  - Additional 10 in Block 1 70% AMI
  - Additional 5 in Block 1 60% AMI
  - Multifamily Tax Subsidy Program VA Housing
  - Similar architecture/fixtures
  - Warrenton/Fauquier Resident Preference
  - Condo Sale Provisions

Draft Conditions of Approval

- Transportation
  - Parking Garage
  - Sidewalks
  - Crosswalks on Oak Springs
  - EV Charging Stations
  - Modified Alley
  - Loading and Unloading

Draft Conditions of Approval

- Waivers and Modifications
  - Article 2-6.1 allow for increased density for 386 units/13.28 units per acre
  - Article 3-4.10.4 decrease Broadview Avenue front yard setback to 14', side/rear yard setback to 0'
  - Article 8-8.5 decrease buffer width commercial and residential to 0', decrease rear buffer for residential uses from public ROW to 14'
  - Article 2-20 Increase heights Block 1 54' Oak Springs Drive, Block 1 36' Broadview Ave, Block 2 36', Block 3 45'
  - Article 3-4.4.5.3 Allow TH grouping from 6 to 7
  - Article 2-19 Allow retaining walls and fences over 6'

Town Council Steps

- Held Work Sessions
  - July 9, 2024
  - August 13, 2024
- August Public Hearing
  - August 13, 2024

EXPERIENCE WARRENTON VIRGINIA EST. 1810

Town Council Public Hearing
SUP 2022-05 Warrenton Village Center Mixed Use
August 13, 2024

August 13, 2024
Town Council
Regular Meeting

RESOLUTION OF APPROVAL FOR SPECIAL USE PERMIT 22-05, WARRENTON VILLAGE CENTER MIXED USE, PURSUANT TO SECTION 11-3.10 OF THE ZONING ORDINANCE OF THE TOWN OF WARRENTON, VIRGINIA (GPINS 6985-20-7247 and 6984-29-6753)

WHEREAS, NewCastle Development Group ("the Applicant"), along with the owners of Warrenton Village Center, Jefferson Associates LP and Warrenton Center, LLC, , have applied to the Town of Warrenton for a Special Use Permit approval on a parcel of land containing approximately 29.05 acres, identified as GPINs 6985-20-7247 and 6984-29-6753, located at the existing Warrenton Village shopping center bordered by Oak Springs Drive, Branch Drive, Lee Highway, and Broadview Avenue in the Town of Warrenton ; and

WHEREAS, the Applicant seeks a Special Use Permit pursuant to §3-4.10 and §9-25 of the Zoning Ordinance that would allow a mixed-use development in the existing shopping center with up to 320 apartments, up to 34 2-over-2s, and up to 32 townhomes with the addition of a central plaza, enhanced internal road network, and pedestrian infrastructure to promote walkability (the "Special Use Permit" or "SUP 22-05"); and

WHEREAS, the Applicant has requested waivers and modifications to the Zoning Ordinance for Article 2-6.1 to allow for density increase to 386 units at approximately 13.28 units/per acre; Article 3-4.10.4 to allow for 14' setbacks from Public Right of Way on the east side of Broadview Avenue and 0' setbacks along internal parcel lines within Warrenton Village Center; Article 8-8.5 to allow for 0' buffer width between commercial and residential uses within Warrenton Village Center and 14' buffer width between Public Right of Way and residential uses along the east side of Broadview Avenue; Article 2-20 to allow for maximum building heights of 54' along Oak Springs Drive (Block 1), 36' along Broadview Avenue (Block 1), 36' within Block 2, and 45' within Block 3; Article 3-4.4.5.3 to allow for seven multifamily townhome and/or 2-over-2 units to be grouped contiguously, and Article 2-19 to allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and

WHEREAS, the Planning Commission held three public work sessions on the Special Use Permit on March 19, 2024; April 16, 2024; April 23, 2024; and

WHEREAS, pursuant to §11-3 of the Zoning Ordinance upon application of the Applicant for approval of the Special Use Permit, the Planning Commission upon advertisement and notice properly given pursuant to §15.2-2204 of the Virginia Code held a Public Hearing on June 18, 2024; and

WHEREAS, the Planning Commission evaluated the Special Use Permit based on Conditions of Approval and Virginia Code Section 15.2-2286.A.3; and

WHEREAS, the Planning Commission found that the Application meets the criteria for approval found in Section 11-3.10.3 in the Town of Warrenton Zoning Ordinance; and

WHEREAS, on June 18, 2024 the Planning Commission, in consideration of all of the foregoing, voted four to one, with one member absent, to recommend the Special Use Permit for approval to the Town Council subject to certain conditions; and

WHEREAS, the Town Council held work sessions on the application on July 9, 2024 and August 13, 2024; and

WHEREAS, pursuant to §11-3 of the Zoning Ordinance, the Town Council upon advertisement and notice properly given pursuant to Virginia Code Section 15.2-2204, held a Public Hearing on August 13, 2024; and

WHEREAS, the Town Council evaluated the Special Use Permit based on Conditions of Approval and Virginia Code Section 15.2-2286.A.3; and

WHEREAS, the Town Council finds that the Application meets the criteria for approval found in Section 11-3.10.3 in the Town of Warrenton Zoning Ordinance, and will serve the public interest;

NOW, THEREFORE, BE IT RESOLVED that the Warrenton Town Council on this 13th day of August, 2024, approves SUP 22-05subject to the Conditions of Approval dated August 13, 2024 and Special Use Permit Plans dated June 30, 2023 and revised through May 31, 2024 by Bohler (Sheets 1-36), as presented.

Votes:
Ayes:
Nays:
Absent from Vote:
Absent from Meeting:

ATTEST: _____
Stephen Clough, Town Clerk

August 13, 2024
Town Council
Regular Meeting

RESOLUTION DENYING SPECIAL USE PERMIT 22-05, WARRENTON VILLAGE CENTER MIXED USE, PURSUANT TO SECTION 11-3.10 OF THE ZONING ORDINANCE OF THE TOWN OF WARRENTON, VIRGINIA (GPINS 6985-20-7247 and 6984-29-6753)

WHEREAS, NewCastle Development Group ("the Applicant"), together with the owners of Warrenton Village Center, Jefferson Associates LP and Warrenton Center, LLC, applied for a Special Use Permit on a parcel of land containing approximately 29.05 acres, identified as GPINs 6985-20-7247 and 6984-29-6753, located at the existing Warrenton Village shopping center bordered by Oak Springs Drive, Branch Drive, Lee Highway, and Broadview Avenue in the Town of Warrenton (the "Property"); and

WHEREAS, the Applicant seeks a Special Use Permit pursuant to §3-4.10 and §9-25 of the Zoning Ordinance that would allow a mixed-use development in the existing shopping center with up to 320 apartments, up to 34 2-over-2s, and up to 32 townhomes with the addition of a central plaza, enhanced internal road network, and pedestrian infrastructure to promote walkability (the "Special Use Permit" or "SUP 22-05"); and

WHEREAS, the Applicant has requested waivers and modifications to the Zoning Ordinance for Article 2-6.1 to allow for density increase to 386 units at approximately 13.28 units/per acre; Article 3-4.10.4 to allow for 14' setbacks from Public Right of Way on the east side of Broadview Avenue and 0' setbacks along internal parcel lines within Warrenton Village Center; Article 8-8.5 to allow for 0' buffer width between commercial and residential uses within Warrenton Village Center and 14' buffer width between Public Right of Way and residential uses along the east side of Broadview Avenue; Article 2-20 to allow for maximum building heights of 54' along Oak Springs Drive (Block 1), 36' along Broadview Avenue (Block 1), 36' within Block 2, and 45' within Block 3; Article 3-4.4.5.3 to allow for seven multifamily townhome and/or 2-over-2 units to be grouped contiguously, and Article 2-19 to allow retaining walls in excess of six feet on Oak Springs Drive and Hastings Lane; and

WHEREAS, the Planning Commission held three public work sessions on the Special Use Permit on March 19, 2024; April 16, 2024; April 23, 2024; and

WHEREAS, pursuant to §11-3 of the Zoning Ordinance upon application of the Applicant for approval of the Special Use Permit, the Planning Commission upon advertisement and notice properly given pursuant to §15.2-2204 of the Virginia Code held a Public Hearing on June 18, 2024; and

WHEREAS, the Planning Commission evaluated the Special Use Permit based on draft Conditions of Approval and Virginia Code Section 15.2-2286.A.3; and

WHEREAS, the Planning Commission found that the Application meets the criteria for approval found in Section 11-3.10.3 in the Town of Warrenton Zoning Ordinance; and

WHEREAS, on June 18, 2024 the Planning Commission, in consideration of all of the foregoing, voted four to one, with one member absent, to recommend approval of the Special Use Permit to the Town Council subject to certain conditions; and

WHEREAS, the Town Council held work sessions on the application on July 9, 2024 and August 13, 2024; and

WHEREAS, pursuant to §11-3 of the Zoning Ordinance the Town Council upon advertisement and notice properly given pursuant to Virginia Code Section 15.2-2204, held a Public Hearing on August 13, 2024; and

WHEREAS, the Town Council finds that the Application should be denied based on the following policy factors set out in the Town's Comprehensive Plan and Zoning Ordinance:

1. Town Code Section 11-3.10.3 factors # _____
2. _____
3. _____
4. _____

NOW, THEREFORE, BE IT RESOLVED that the Warrenton Town Council on this 13th day of August 2024, that SUP 22-05 be, and is hereby, denied by Town Council.

Votes:
Ayes:
Nays:
Absent from Vote:
Absent from Meeting:

ATTEST: _____
Stephen Clough, Town Clerk

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13, 2024
Agenda Title:	BOND-24-2- Bond Release Request for Washington Street Development (FP 2020-0125)
Requested Action:	Release of Bond
Department / Agency Lead:	Community Development
Staff Lead:	Amber Heflin

EXECUTIVE SUMMARY

Community Development staff received a request to release the Public Improvements Bond in the amount of $15,624.94 on July 24, 2024. Staff received the As Built application on June 15, 2022. The As Built was approved by Town staff after conducting a site visit and determining that all improvements specified on the plan have been installed. The As Built was approved on June 20, 2023.

BACKGROUND

The Washington Street Development Public Improvements Bond was placed on June 17, 2021, to develop the property into four lots with detached single-family homes in the amount of $104,166.24. The Bond was associated with FP 2020-0125 as surety for the construction of all improvements and facilities shown on the approved plans. The Town Council authorized a reduction of 85% of the original bond on August 8, 2023. The remaining bond amount ($15,624.94) has been held for one year to ensure that landscaping survived. All landscaping remains in place and good condition.

STAFF RECOMMENDATION

Staff recommends approval of the bond release as requested as all improvements have been installed per the approved plan and the as built has been approved.

Service Level/Policy Impact

There is no direct impact on the Town of Warrenton.

Fiscal Impact

There is no direct fiscal impact to the Town of Warrenton.

Legal Impact

There is no legal impact to the Town of Warrenton.

ATTACHMENTS

1. Letter officially requesting release of the bond
2. Bond Spreadsheet
3. Resolution

Washington Green LLC
P.O. Box 861601
Warrenton, VA 20187

July 15, 2024

Ms. Heather Jenkins
Zoning Administrator
Town of Warrenton
Planning and Community Development Department
21 Main Street
Warrenton, VA 20186

RE: Washington Green LLC
Public Improvements Bond
Bond Release Request

Ms. Jenkins,

On behalf of Washington Green LLC, we would like to formally request the release of the public improvements bond for the Washington Street Development project (***Town of Warrenton Plan Number FP 2020 – 0125***) as the mandatory one (1) year maintenance period is set to expire.

We trust we have provided everything needed to approve the Bond Release Request for Washington Street and Washington Green LLC. If you need additional information or further clarification regarding the information that has been provided, please do not hesitate to contact me directly by telephone at 540.429.0351 or by email at cfloyd@lakeside-homes.com.

Regards,

Charles A. Floyd
Washington Green LLC

Town of Warrenton - Bond Release Request
Washington Street Development: FP 2020 - 0125
July 24, 2024

	Quantity		Unit Price		Total	Reduction %	Reduction Amount	New Bond Total
SWM/BMP Facilities								
Excavation	30.00	EA	$7.00		$210.00	100%	$210.00	$0.00
Rain Garden BMP Facility	2.00	EA	$3,500.00		$7,000.00	100%	$7,000.00	$0.00
Seed, Fertilizer & Mulch	2.00	SY	$2.00		$4.00	100%	$4.00	$0.00
Sod Ditch	40.00	SY	$8.00		$320.00	100%	$320.00	$0.00
					$7,534.00	%		**$0.00**
Site Works								
Clear & Grub	0.06	AC	$7,500.00		$450.00	100%	$450.00	$0.00
					$450.00			**$0.00**
Subbase & Base Course								
Aggregate (21A)	40	SY/In	$2.50	8	$800.00	100%	$800.00	$0.00
Top Course/Intermediate Course Bituminous Concrete	40	SY/In	$5.50	6	$1,320.00	100%	$1,320.00	$0.00
Surface Treatment (Tar & Chip)	175	SY	$2.00		$350.00	100%	$350.00	$0.00
					$2,470.00	0%		**$0.00**
Entrances								
R-5 Private Entrance	4.00	EA	$1,500.00		$6,000.00	100%	$6,000.00	$0.00
					$6,000.00			**$0.00**
Miscellaneous Cosntruction Items								
Sidewalk	200.00	SY	$60.00		$12,000.00	100%	$12,000.00	$0.00
Header Curb	160.00	LF	$20.00		$3,200.00	100%	$3,200.00	$0.00
CG-12 Handicapped Ramp	1.00	EA	$3,000.00		$3,000.00	100%	$3,000.00	$0.00
Traffic Control Sign	1.00	EA	$390.00		$390.00	100%	$390.00	$0.00
Street Lighting	1.00	EA	$500.00		$500.00	100%	$500.00	$0.00
					$19,090.00			**$0.00**
Sanitary Sewer and Water Line Construction								
Fire Hydrant Assembly	1.00	EA	$5,000.00		$5,000.00	100%	$5,000.00	$0.00
5/8 x 3/4 Waer Meter Setup	4.00	EA	$1,200.00		$4,800.00	100%	$4,800.00	$0.00
8" Water Main	250.00	LF	$60.00		$15,000.00	100%	$15,000.00	$0.00
8" Water Tap	***1.00***	***EA***	***$1,275.00***		***$1,275.00***	***100%***	***$1,275.00***	***$0.00***
Connection to Ex. Sewer or Manhole	4.00	EA	$750.00		$3,000.00	100%	$3,000.00	$0.00
					$27,800.00			**$0.00**
Siltation and Erosion Control								
Silt Fence	880.00	LF	$5.00		$4,400.00	100%	$4,400.00	$0.00
Seeding Operation	2450.00	SY	$2.00		$4,900.00	100%	$4,900.00	$0.00
Temporary Construction Entrance	1.00	EA	$2,000.00		$2,000.00	100%	$2,000.00	$0.00
Safety Fence	390.00	LF	$3.00		$1,170.00	100%	$1,170.00	$0.00
					$12,470.00			**$0.00**
Landscaping								
24" Planting Shrubs	12.00	EA	$55.00		$660.00	100%	$660.00	$0.00
4' - 6' Trees	24.00	EA	$150.00		$3,600.00	100%	$3,600.00	$0.00
8' - 10' Trees	11.00	EA	$250.00		$2,750.00	100%	$2,750.00	$0.00
Larger Trees	4.00	EA	$450.00		$1,800.00	100%	$1,800.00	$0.00
Tree Protection	65.00	LF	$12.00		$780.00	100%	$780.00	$0.00
					$9,590.00			**$0.00**
As-Built Drawing								
Water Lines	250.00	LF	$1.00		$250.00	100%	$250.00	$0.00
Sidewalk CG	360.00	LF	$1.00		$360.00	100%	$360.00	$0.00
Sidewalk Alignment	360.00	LF	$1.50		$540.00	100%	$540.00	$0.00
					$1,150.00			
				Min.	**$2,500.00**	100%	**$2,500.00**	**$0.00**
			Total Construction Cost:		**$87,904.00**	100%	**$87,904.00**	**$0.00**
			Miscellaneous Costs:		**$13,185.60**	100%	**$13,185.60**	**$0.00**
			Inflation Cost:		**$3,076.64**	100%	**$3,076.64**	**$0.00**
			Original Total Performance Amount		**$104,166.24**			
							Reduced Total Performance Amount	**$0.00**

The ($1,275) cost of the 8" Water Tap was not included in the approved bond. As such, it has been eliminated from the reduction for consistency purposes.

August 13, 2024
Town Council
Regular Meeting

RESOLUTION TO APPROVE BOND RELEASE REQUEST BOND-24-2 FOR WASHINGTON STREET DEVELOPMENT (FP 2020-0125)

WHEREAS, Warrenton, VA (Hereinafter "the Town") is a municipal corporation located within the County of Fauquier; and

WHEREAS, a final plat for the Washington Street Development, case number FP 2020-0125, was approved subject to the provision of a Public Improvements Bond placed on June 17, 2021, in the amount of $104,166.24; and

WHEREAS, an As-Built Plan was submitted and subsequently approved on June 20, 2023, to demonstrate conformity with the approved final plat and the ordinances and regulations of the Town of Warrenton as required by Section 10-9 of the Ordinance; and

WHEREAS, the Developer submitted a request on June 8, 2022 to reduce the Public Improvements Bond by 85%; and

WHEREAS, the Warrenton Town Council granted the request to reduce the Public Improvements bond by 85% on August 8, 2023; and

WHEREAS, the Developer submitted a request on July 24, 2024 to release remaining the Public Improvements bond in the amount of $15,624.94; and

WHEREAS, the Warrenton Town Council may grant period partial releases of any bond, escrow, letter of credit or other performance guarantee required for the completion of improvements which are to be bonded as provided in Section 10-8.5 of the Town of Warrenton Zoning Ordinance; and

NOW THEREFORE BE IT RESOLVED, by the Warrenton Town Council that the Public Improvements Bond in the amount of $15,624.94 is hereby released.

Votes:
Ayes:
Nays:
Absent from Vote:
Absent from Meeting:

For Information:
Community Development Director,
Town Attorney

ATTEST: _____
Town Recorder

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13th, 2024.
Agenda Title:	Quarterly Reports
Requested Action:	Receive the Departmental Reports- Informational
Department / Agency Lead:	All
Staff Lead:	Mr. Frank Cassidy, Town Manager.

EXECUTIVE SUMMARY

Departmental quarterly reports are a tool that the Town Staff uses to promote transparency and show the projects and actions that various departments have undertaken. They are presented on the following schedule.

Quarter One

July, August, September

Reports to Council are presented in November.

Quarter Two

October, November December

Reports to Council are presented in February.

Quarter Three

January, February March,

Reports to Council are presented in May.

Quarter Four

April, May, June

Reports to Council are presented in August.

Current Staff reports

- **Finance & Procurement**
- **Parks and Recreation**
- **Warrenton Police Department**
- **Community Development**
- **Public Works and Utilities**
- **Capital Improvement Plan**
- **Street Maintenance**
- **Facilities and Fleet Management**
- **Human Capital**
  - **Emergency Management**

Quarterly Report

Police Department

Town Council Meeting Date: 8/13/2024

Fourth Quarter 2024: April, May, June

Please accept this as the quarterly report for the Police Department

Department introduction:

The Warrenton Police Department is a state accredited, full- service law enforcement agency. We provide patrol, investigative, parking and community engagement services, The department is authorized 28 sworn officers, 1 sworn, part-time parking enforcement officer, and three civilian employees. Each of our employees, both sworn and civilian, is well-trained. Our personnel use up-to-date equipment to better serve our citizens.

Commendable Achievements:

During the quarter, Officer Miguel Sosa-Salle finished field training and Recruit Heritage Whitesell graduated from the law enforcement academy and began field training. We hired Recruit Jory Farnsworth who is graduating from the law enforcement academy at the end of this month. We also hired Recruit Jacob Maile who will be starting the law enforcement academy in October. Currently there is one vacant position within the department: a patrol Sergeant position left vacant by Lieutenant Thomas Kamerer's promotion. The Police Department is working on filling this vacant position and has several quality applicants in the process.

Members of the Police Department participated in and/or supplied law enforcement services for special and community engagement events during the quarter such as First Friday, Old Town After Hours, Coffee with A Cop, Black Lives Matter Vigil for Action, Boys & Girls Easter Egg Hunt, Ye Olde Beer Fest, Warrenton Farmers' Market, Lewis & Clark Circus, Touch-a-Truck, Cast with a Cop, Blessing of the Badges, Ride to School with Police (charity), Police Chief for a Day (charity), Fentanyl Awareness Day, Family Bike Rodeo, Cones with a Cop, Memorial Day Parade & Ceremony, VFW Flags-In and Flags-Out Projects, Special Olympics Torch Run, Walmart Pride event, Juneteenth event, Warrenton Town Limits festival, and Cast Iron concert, to name a few. Most of these events were staffed by officers who were on their day off. Warrenton PD volunteers, donating their time to benefit the Police Department, also participated in many events.

On May 16, 2024, Corporal Kevin Turner represented our department at the Rappahannock Regional Academy's Command Cookout for a Cause event. During this event, commanders from the agencies that utilize the academy for recruit training come together to cook hotdogs, hamburgers, and prepare other food for the academy students. The students pay for the meals and all proceeds go to the Rappahannock Regional Criminal Justice Foundation in support of the training mission of the academy. This is a very popular event and the trainees love seeing senior staff members preparing lunch for them.

On May 17, 2024, several officers from our department participated in the Bracey Commitment to Service Scholarship Golf Tournament at Fauquier Springs Country Club. This was a fundraising event, and all proceeds benefit law enforcement interns and Explorers in the county of Fauquier.

On May 29, 2024, Lieutenant Justin Pierce graduated from the 2024 Leadership Fauquier Cohort during a ceremony held at Airlie. Leadership Fauquier is an organization whose mission is to create a thriving community through informed and connected leaders. Its signature 10-month experiential program gives participants the tools, resources, and connections needed to become involved and make things happen. Participants come from the Private, Public and Nonprofit sectors of Fauquier County. Lt. Pierce's participation in and graduation from Leadership Fauquier shows his dedication to becoming better connected to the community, learning about the challenges and opportunities that face Fauquier, and becoming an active participant in Fauquier's future.

On June 6, 2024, Deputy Chief Andrew Arnold graduated from the FBI National Academy (FBINA), an intensive 10-week law enforcement executive program where law enforcement officers take undergraduate and/or graduate courses at the FBI Academy campus in Quantico, Virginia. Admission is by invitation-only through a nomination process. Classes are offered in a diverse set of areas, and officers participate in a wide range of leadership and specialized training. Officers share ideas, techniques, and experiences with each other and create lifelong partnerships that transcend state and national borders. Officers also undergo rigorous physical training. The final test of the fitness challenge, the Yellow Brick Road, is a grueling 6.1-mile run through a hilly, wooded trail built by the U.S. Marines. Along the way, the participants must climb over walls, run through creeks, jump through simulated windows, scale rock faces with ropes, crawl under barbed wire in muddy water, maneuver across a cargo net, and more. When (and if) the students complete this difficult test, they receive an actual yellow brick to memorialize their achievement. Major Arnold successfully completed the Yellow Brick Road, despite having had pneumonia several weeks earlier, and he received his yellow brick.

On June 25, 2024, the Warrenton Police Department and Fauquier County Sheriff's Office held a graduation ceremony in the banquet hall of the Warrenton Volunteer Fire company for Joint Community Academy. The Joint Community Academy is a nine-week educational course available to Fauquier County residents that covers the various programs, duties and units of the Warrenton Police and the Fauquier County Sheriff's Office. Along with lessons from officials from the two departments, students received tours of local law enforcement facilities, including the county's 911 dispatch center and Fauquier County Detention Center. Participants also rode along on an officer's shift to observe their day-to-day duties. The group's weekly meetings began April 23. The course was free to participants, who are instead expected to volunteer 10 hours per year with the police department's volunteer program. One community academy student, retiree Troy Hayes, said he anticipated the fuller understanding of law enforcement gained from the course would encourage students like him to go above and beyond the minimum volunteer hours.

During the past quarter, the Warrenton Police Department and the Fleet Department finalized work on a police vehicle project funded by the American Rescue Plan Act (ARPA) Law Enforcement Equipment and Technology Grant Program (LEE), for which we were approved in the amount of $60,000. This non-matching grant was used to purchase a hybrid law enforcement vehicle and associated equipment, reducing the overall police department vehicle purchasing costs to the Town for FY24 and continuing the Police Department's commitment to fiscal efficiency and environmentally friendly operation. During the quarter, the Fleet Department purchased the remaining equipment needed to upfit the newly acquired police vehicle. Status and claim reports were submitted to DCJS as required.

Project Progress:

During the quarter, the Police Department and the Facilities Department continued a long-term project to determine how to make the Police Department property more secure. Currently, there are no protections for Officers arriving at and leaving work, preparing their vehicles for duty, or entering & leaving the department. Vehicles can drive and pedestrians can walk through the Police Department parking lot where police vehicles are parked/stored. Numerous incidents of a citizen walking up on an Officer while they are occupied performing vehicle related tasks have occurred. This issue requires addressing as assaults on law enforcement officers at their agencies have occurred in Virginia in the past with deadly outcomes. Agencies like the Culpeper Police Department, for example, have chosen to incorporate secure areas for their sworn employees in the building or remodeling of their agencies. The Police and Facilities Departments are evaluating possible cost-efficient yet effective ways to provide a more secure parking lot area while a long-term capital improvement project is developed.

Charts and information:

See the included statistical reports for the months of April through June 2024.

Data:

See appended reports.

MONTHLY REPORT - APRIL 2024

	MONTH	CALENDAR	CALENDAR
	APRIL	YTD '24	YTD '23
TOTAL CALLS FOR SERVICE TO INCLUDE:	1920	6593	7002
SELF INITIATED	904	2895	3285
DISPATCHED	1016	3698	3717
ACCIDENTS:	37	129	124
REPORTABLE	14	53	61
NON-REPORTABLE (No injury, under $1500 or private property)	23	76	63
ARRESTS (CRIMINAL):			
FELONY	2	12	16
MISDEMEANOR	15	55	65
TRAFFIC ENFORCEMENT (NON-CRIMINAL):			
SUMMONS	91	324	281
PARKING	29	190	521
WRITTEN WARNINGS	93	307	220
DRUG ARRESTS:			
FELONY	1	5	2
MISDEMEANOR	0	0	0
OVERDOSES:	0	0	5

REPORTED CRIMES APRIL 2024

CLASSIFICATION

		APRIL	YTD '24	YTD '23
1a	Murder and Non-Negligent Manslaughter			
1b	Manslaughter by Negligence			
2	Forcible Rape			
3	Robbery		1	1
4	Assault	6	24	11
5	Burglary			
6	Larceny	9	39	39
7	Motor Vehicle Theft		1	1
9	Arson			
10	Forgery and Counterfeiting		1	3
11	Fraud	3	21	21
12	Embezzlement		1	1
13	Stolen Property: Buy/Receive/Possess			
14	Vandalism/Graffiti	7	16	15
15	Weapons	1	2	1
16	Prostitution/Vice			
17	Sex Offenses		2	2
18	Drug Violations		2	1
19	Gambling			
20	Offenses Against Family	4	23	23
21	Driving Under Influence		5	8
22	Liquor Laws			
23	Drunk in Public		9	12
24	Disorderly	4	13	10
25	All Other Offenses			
26	Curfew/Loitering			
27	Runaway			
28	Reckless Driving			1
29	Drive suspended/revoked			
30	Contempt of Court			
31	Unauthorized use	1	1	
32	Hit & Run	2	14	7
33	Contributing to delinquency of minor			4
34	False report to police			2
35	Abduction/Kidnapping			
36	Shooting into Building			
37	Child Neglect		1	1

Record ID	Date	Agency ORI	Location	Jurisdiction Code	Reason for Stop	Person Type	Race	Ethnicity	Age	Gender	English Speaking	Action Taken	Specific Violation	Virginia Crime Code	Person Searched	Vehicle Searched	Physical Force by Officer	Physical Force by Subject	Residency
S2024000184	040224	VA0300200	604 BEAR WALLOW RD/HUNTER DR	030	T	D	W	N	42	F	Y	S	46.2-874		N	N	N	N	V
S2024000185	040224	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	23	M	Y	S	46.2-870		N	N	N	N	O
S2024000186	040224	VA0300200	1 WALKER DR/BLACKWELL RD	030	T	D	W	N	38	F	Y	S	46.2-646		N	N	N	N	V
S2024000187	040224	VA0300200	615 BRANCH DRIVE	030	T	D	W	N	51	M	Y	S	46.2-646		N	N	N	N	V
S2024000188	040324	VA0300200	500 FROST AVE/WEST SHIRLEY AVE	030	T	D	W	N	42	M	Y	S	46.2-833		N	N	N	N	V
S2024000189	040324	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	23	M	Y	S	46.2-862		N	N	N	N	V
S2024000190	040324	VA0300200	144 ALEXANDRIA PK/NORTH ST	030	T	D	W	N	25	F	Y	S	46.2-874		N	N	N	N	V
S2024000191	040324	VA0300200	144 ALEXANDRIA PK/NORTH ST	030	T	D	B	N	35	M	Y	S	46.2-874		N	N	N	N	R
S2024000192	040324	VA0300200	144 ALEXANDRIA PK/NORTH ST	030	T	D	W	N	70	M	Y	S	46.2-830		N	N	N	N	R
S2024000193	040324	VA0300200	286 WALKER DR/ROSEDALE CT	030	T	D	W	N	41	F	Y	S	46.2-821		N	N	N	N	V
S2024000194	040424	VA0300200	86 RAPPAHANNOCK ST	030	T	D	W	N	35	M	Y	S	46.2-830		N	N	N	N	V
S2024000195	040424	VA0300200	402 CULPEPER ST	030	T	D	W	N	74	M	Y	S	46.2-874		N	N	N	N	V
S2024000196	040424	VA0300200	402 CULPEPER ST	030	T	D	B	N	31	M	Y	S	46.2-874		N	N	N	N	V
S2024000198	040424	VA0300200	12 WALKER DR	030	T	D	W	N	23	M	Y	S	46.2-1158		N	N	N	N	V
S2024000199	040424	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	40	F	Y	S	46.2-870		N	N	N	N	O
S2024000200	040424	VA0300200	10 EAST LEE HWY	030	T	D	B	N	45	M	Y	S	46.2-1158		N	N	N	N	V
S2024000202	040424	VA0300200	629 BLACKWELL RD	030	T	D	W	N	32	F	Y	S	46.2-1158		N	N	N	N	V
S2024000203	040524	VA0300200	402 CULPEPER ST	030	T	D	W	N	56	M	Y	S	46.2-830		N	N	N	N	V
S2024000204	040524	VA0300200	510 FROST ST	030	T	D	W	N	69	M	Y	S	46.2-1158		N	N	N	N	V
S2024000206	040524	VA0300200	85 ALEXANDRIA PIKE	030	T	D	W	N	26	M	Y	S	46.2-830		N	N	N	N	O
S2024000207	040824	VA0300200	ALEXANDRIA PK/ROCK POINTE LN	030	T	D	W	N	28	F	Y	S	46.2-1158		N	N	N	N	R
S2024000208	040824	VA0300200	423 BLACKWELL RD/WALKER DR	030	T	D	W	N	70	M	Y	S	46.2-646		N	N	N	N	V
S2024000210	040924	VA0300200	240 BLACKWELL RD/MOORHEAD DR	030	T	D	W	N	45	F	Y	S	46.2-830		N	N	N	N	V
S2024000211	040924	VA0300200	423 BLACKWELL RD/WALKER DR	030	T	D	W	N	62	F	Y	S	46.2-1158		N	N	N	N	R
S2024000212	040924	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	37	M	Y	S	46.2-875		N	N	N	N	O
S2024000213	041024	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	76	F	Y	S	46.2-870		N	N	N	N	V
S2024000214	041024	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	26	M	Y	S	46.2-1158		N	N	N	N	V
S2024000215	041124	VA0300200	241 BROADVIEW AVENUE	030	T	D	W	N	41	F	Y	S	46.2-878		N	N	N	N	V
S2024000216	041124	VA0300200	48 PIEDMONT STREET	030	T	D	W	N	41	M	Y	S	46.2-878.2		N	N	N	N	V
S2024000217	041124	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	24	F	Y	S	46.2-873		N	N	N	N	V
S2024000218	041124	VA0300200	669 FROST AVE/VAN ROIJEN ST	030	T	D	W	N	62	M	Y	S	46.2-646		N	N	N	N	V
S2024000220	041124	VA0300200	200 CARRIAGE HOUSE LN/WEST SHIRLEY AVE	030	T	D	W	N	22	M	Y	S	46.2-1052		N	N	N	N	V
S2024000221	041124	VA0300200	129 EAST LEE ST/SOUTH 6TH ST	030	T	D	W	N	34	F	Y	S	46.2-1158		N	N	N	N	V
S2024000222	041224	VA0300200	500 FROST AVE/BROADVIEW AVE	030	T	D	W	N	48	F	Y	S	46.2-833		N	N	N	N	V
S2024000223	041324	VA0300200	99 WINCHESTER ST/JENNIFER DR	030	T	D	W	N	27	M	Y	S	46.2-1158		N	N	N	N	R
S2024000224	041424	VA0300200	200 BLK WEST SHIRLEY AVE	030	T	D	W	N	69	M	Y	S	46.2-1158		N	N	N	N	V
S2024000225	041624	VA0300200	286 BROADVIEW AVE	030	T	D	W	N	35	M	Y	S	46.2-844		N	N	N	N	V
S2024000226	041624	VA0300200	144 ALEXANDRIA PK/NORTH ST	030	T	D	B	N	49	M	Y	S	46.2-874		N	N	N	N	V
S2024000227	041624	VA0300200	402 CULPEPER ST	030	T	D	W	N	69	M	Y	S	46.2-830		N	N	N	N	V
S2024000228	041624	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	75	M	Y	S	46.2-870		N	N	N	N	O
S2024000229	041624	VA0300200	34 WINCHESTER ST/DIAGONAL ST	030	T	D	W	N	79	F	Y	S	46.2-1158		N	N	N	N	V
S2024000230	041724	VA0300200	286 BROADVIEW AVE	030	T	D	W	N	59	M	Y	S	46.2-844		N	N	N	N	O
S2024000231	041724	VA0300200	156 MAIN ST/NORTH CALHOUN ST	030	T	D	W	N	40	M	Y	S	46.2-1158		N	N	N	N	V
S2024000232	041724	VA0300200	1 WALKER DR/BLACKWELL RD	030	T	D	W	N	61	F	Y	S	46.2-300		N	Y	N	N	R
S2024000235	041724	VA0300200	286 BROADVIEW AVE	030	T	D	W	N	17	M	Y	S	46.2-868.1		N	N	N	N	V
S2024000236	041824	VA0300200	200 BLK BROADVIEW AVE	030	T	D	W	N	38	F	Y	S	46.2-1158		N	N	N	N	R
S2024000237	041824	VA0300200	48 PIEDMONT STREET	030	T	D	B	N	54	M	Y	S	46.2-830		N	N	N	N	V
S2024000238	041824	VA0300200	81 BLUE RIDGE ST	030	T	D	B	N	36	F	Y	S	46.2-878.2		N	N	N	N	V
S2024000239	041824	VA0300200	E. LEE STREET/SO. FIFTH ST	030	T	D	W	N	39	M	Y	S	46.2-646		N	N	N	N	V
S2024000240	041824	VA0300200	US 17 SPUR/BLACKWELL RD	030	T	D	W	N	19	M	Y	S	46.2-870		N	N	N	N	O
S2024000241	041824	VA0300200	481 FOXCROFT ROAD	030	T	D	B	N	40	F	Y	S	46.2-830		N	N	N	N	V
S2024000242	041924	VA0300200	286 BROADVIEW AVE	030	T	D	W	N	59	F	Y	S	46.2-844		N	N	N	N	V
S2024000243	041924	VA0300200	286 WALKER DR/ROSEDALE CT	030	T	D	W	N	19	M	Y	S	46.2-821		N	N	N	N	V
S2024000244	041924	VA0300200	400 WALKER DR/HIDDEN CREEK LANE	030	T	D	W	N	29	M	Y	S	46.2-875		N	N	N	N	O
S2024000245	042324	VA0300200	51 BLUE RIDGE STREET	030	T	D	W	N	43	M	Y	S	46.2-878.2		N	N	N	N	V
S2024000248	042324	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	65	M	Y	S	46.2-830		N	N	N	N	V
S2024000249	042324	VA0300200	405 WATERLOO ST/BROADVIEW AVENUE	030	T	D	B	N	53	M	Y	S	46.2-804		N	N	N	N	R
S2024000250	042324	VA0300200	362 JACKSON ST/ROEBLING ST	030	T	D	W	N	18	M	Y	S	46.2-300		N	N	N	N	R
S64070	040124	VA0300200	400 BLK BROADVIEW AVE	030	T	D	W	N	50	F	Y	S	46.2-820		N	N	N	N	O
S64692	042024	VA0300200	10 - BLK EAST LEE HWY	030	T	D	B	N	46	M	Y	S	46.2-852		N	N	N	N	O
S65191	040124	VA0300200	ROSEDALE CT/WALKER DR	030	T	D	W	N	40	M	Y	S	46.2-830		N	N	N	N	V
S65192	041024	VA0300200	10 BLK EAST LEE HWY	030	T	D	W	N	31	M	Y	S	46.2-878		N	N	N	N	V
S65193	041024	VA0300200	700 JAMES MADISON HWY	030	T	D	W	N	43	F	Y	S	18.2-103		N	N	N	N	V
S65194	041024	VA0300200	700 JAMES MADISON HWY	030	T	D	B	N	60	M	Y	S	18.2-103		N	N	N	N	V
S65195	041124	VA0300200	34 BROADVIEW AVENUE	030	T	D	B	N	45	F	Y	S	46.2-646		N	N	N	N	V
S65252	041924	VA0300200	500 HOSPITAL DRIVE	030	O	D	W	N	52	M	Y	S	18.2-388		N	N	N	N	V
W06045	040224	VA0300200	276 BROADVIEW AVENUE	030	T	D	W	N	50	F	Y	W	46.2-830		N	N	N	N	V
W06046	040624	VA0300200	405 WALKER DRIVE	030	T	D	W	N	18	M	Y	W	46.2-821		N	N	N	N	V

06047	040724	VA0300200	276 BROADVIEW AVENUE	030	T	D	W	N	66	M	Y	W	46.2-830		N	N	N	N	V
W06048	040724	VA0300200	360 BROADVIEW AVE	030	T	D	W	N	28	M	Y	W	46.2-830		N	N	N	N	V
W06049	041024	VA0300200	216 BROADVIEW AVENUE	030	T	D	W	N	72	F	Y	W	46.2-830		N	N	N	N	V
W07891	041924	VA0300200	11 EAST LEE HWY	030	T	D	W	N	19	F	Y	W	46.2-878		N	N	N	N	V
W07892	042024	VA0300200	600 BLACKWELL ROAD	030	T	D	W	N	23	M	Y	W	46.2-878		N	N	N	N	V
W07893	042024	VA0300200	600 BLACKWELL ROAD	030	T	D	W	N	20	M	Y	W	46.2-878		N	N	N	N	V
W07894	042124	VA0300200	207 WEST SHIRLEY AVE	030	T	D	W	N	25	M	Y	W	46.2-863		N	N	N	N	R
W08171	041424	VA0300200	453 BLK OF WALKER DR	030	T	D	B	N	61	M	Y	W	46.2-1013		N	N	N	N	V
W08348	040224	VA0300200	276 BROADVIEW AVENUE	030	T	D	W	N	67	M	Y	W	46.2-830		N	N	N	N	V
W08349	040524	VA0300200	273 BROADVIEW AVENUE	030	T	D	B	N	64	M	Y	W	46.2-830		N	N	N	N	V
W08462	041524	VA0300200	6 BROADVIEW AVE	030	T	D	W	N	56	F	Y	W	46.2-830		N	N	N	N	V
W08463	042424	VA0300200	WALKER DRIVE/BELLE AIR LANE	030	T	D	W	N	36	M	Y	W	46.2-830		N	N	N	N	R
W08943	040524	VA0300200	305 OAK SPRINGS DRIVE	030	T	D	W	N	27	M	Y	W	46.2-821		N	N	N	N	R
W08944	040924	VA0300200	307 BROADVIEW AVE	030	T	D	W	N	34	M	Y	W	46.2-859		N	N	N	N	R
W08945	040924	VA0300200	331 BROADVIEW	030	T	D	W	N	49	F	Y	W	46.2-859		N	N	N	N	R
W08946	041124	VA0300200	WINCHESTER ST/JACKSON ST	030	T	D	W	N	17	M	Y	W	46.2-859		N	N	N	N	V
W08947	041724	VA0300200	251 WEST LEE HWY	030	T	D	B	N	20	F	Y	W	46.2-715		N	N	N	N	R
W08948	041724	VA0300200	GOLD CUP/BROADVIEW AVE	030	T	D	W	N	28	M	Y	W	46.2-646		N	N	N	N	R
W08949	041724	VA0300200	516 FAUQUIER ROAD	030	T	D	W	N	38	M	Y	W	46.2-874		N	N	N	N	V
W08979	040124	VA0300200	11 EAST LEE HWY	030	T	D	A	N	56	F	Y	W	46.2-878		N	N	N	N	R
W08982	041924	VA0300200	510 FROST AVENUE	030	T	D	B	N	40	M	Y	W	46.2-1030		N	N	N	N	V
W08984	040824	VA0300200	19 BROADVIEW AVENUE	030	T	D	B	N	22	F	Y	W	46.2-1030		N	N	N	N	V
W08985	042024	VA0300200	GOLD CUP/BROADVIEW AVE	030	T	D	B	N	29	F	Y	W	46.2-1030		N	N	N	N	R
W09041	040424	VA0300200	COLONY CT/WALKER DR	030	T	D	B	N	32	F	Y	W	46.2-830		N	N	N	N	V
W09042	040824	VA0300200	ACADEMY HILL RD/WALKER DRIVE	030	T	D	W	N	55	F	Y	W	46.2-830		N	N	N	N	R
W09043	040924	VA0300200	JACKSON ST/WINCHESTER ST	030	T	D	W	N	41	F	Y	W	46.2-830		N	N	N	N	V
W09055	040224	VA0300200	WALKER DR/CANON WAY	030	T	D	W	N	48	F	Y	W	46.2-833		N	N	N	N	V
W09056	040624	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	19	M	Y	W	46.2-830		N	N	N	N	V
W09057	040624	VA0300200	BELLE AIR LANE/WALKER DR	030	T	D	W	N	40	F	Y	W	46.2-830		N	N	N	N	V
W09058	040624	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	32	F	Y	W	46.2-830		N	N	N	N	R
W09059	040724	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	53	F	Y	W	46.2-830		N	N	N	N	V
W09060	040724	VA0300200	BREEZEWOOD DR/WALKER DR	030	T	D	W	N	17	F	Y	W	46.2-830		N	N	N	N	V
W09061	040724	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	74	F	Y	W	46.2-830		N	N	N	N	V
W09062	040724	VA0300200	5 DIAGONAL ST	030	T	D	W	N	21	M	Y	W	46.2-646		N	N	N	N	V
W09063	041624	VA0300200	251 WEST LEE HWY	030	T	D	W	N	65	M	Y	W	46.2-833		N	N	N	N	V
W09212	040424	VA0300200	OAK SPRINGS/ARBOR CT	030	T	D	W	N	25	M	Y	W	46.2-1158		N	N	N	N	R
W09213	040424	VA0300200	E. LEE ST/OLIVER CITY	030	T	D	W	N	35	F	Y	W	46.2-1158		N	N	N	N	V
W09214	040824	VA0300200	ALEXANDRIA/ROCK POINTE	030	T	D	W	N	50	F	Y	W	46.2-646		N	N	N	N	V
W09215	040924	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	53	F	Y	W	46.2-844		N	N	N	N	R
W09216	040924	VA0300200	330 FALMOUTH ST	030	T	D	W	N	35	F	Y	W	46.2-1158		N	N	N	N	V
W09217	041224	VA0300200	470 BROADVIEW AVENUE	030	T	D	W	N	60	M	Y	W	46.2-1158		N	N	N	N	V
W09218	041224	VA0300200	E. SHIRLEY AVE/LEGION DR	030	T	D	W	N	29	F	Y	W	46.2-833		N	N	N	N	R
W09219	040924	VA0300200	276 W. LEE HWY	030	T	D	B	N	45	M	Y	W	46.2-1158		N	N	N	N	V
W09220	041324	VA0300200	316 W. LEE HWY	030	T	D	W	N	37	F	Y	W	46.2-846		N	N	N	N	R
W09221	041324	VA0300200	224-234 W. SHIRLEY AVENUE	030	T	D	W	N	61	M	Y	W	46.2-1158		N	N	N	N	V
W09222	041324	VA0300200	251 WEST LEE HWY STE 243	030	T	D	B	N	20	M	Y	W	46.2-646		N	N	N	N	V
W09223	041424	VA0300200	W. LEE HWY/BLACKWELL RD	030	T	D	W	N	42	F	Y	W	46.2-646		N	N	N	N	O
W09224	041424	VA0300200	281 WEST SHIRLEY AVENUE	030	T	D	W	N	17	M	Y	W	46.2-1158		N	N	N	N	V
W09225	041824	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	38	F	Y	W	46.2-844		N	N	N	N	R
W09300	040424	VA0300200	HIDDEN CREEK LN/WALKER DR	030	T	D	W	N	34	F	Y	W	46.2-821		N	N	N	N	V
W09301	040424	VA0300200	271 WINCHESTER ST	030	T	D	W	N	62	M	Y	W	46.2-821		N	N	N	N	V
W09302	040824	VA0300200	WALKER DR/BELLE AIR LANE	030	T	D	W	N	65	F	Y	W	46.2-821		N	N	N	N	V
W09303	040924	VA0300200	307 BROADVIEW AVE	030	T	D	W	N	65	M	Y	W	46.2-859		N	N	N	N	V
W09304	041224	VA0300200	164 OLD ORCHARD LANE	030	T	D	W	N	64	M	Y	W	46.2-821		N	N	N	N	R
W09305	041424	VA0300200	457 EAST SHIRLEY AVENUE	030	T	D	W	N	24	M	Y	W	46.2-830		N	N	N	N	V
W09306	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	69	F	Y	W	46.2-844		N	N	N	N	V
W09307	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	B	N	53	M	Y	W	46.2-844		N	N	N	N	V
W09308	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	63	M	Y	W	46.2-844		N	N	N	N	V
W09309	042324	VA0300200	20 BROADVIEW AVENUE	030	T	D	W	N	42	M	Y	W	46.2-300		N	N	N	N	V
W09350	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	53	M	Y	W	46.2-844		N	N	N	N	V
W09351	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	B	N	30	F	Y	W	46.2-844		N	N	N	N	V
W09352	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	44	M	Y	W	46.2-844		N	N	N	N	V
W09354	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	53	F	Y	W	46.2-844		N	N	N	N	V
W09355	041724	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	67	F	Y	W	46.2-844		N	N	N	N	V
W09356	041824	VA0300200	507 FOXCROFT ROAD	030	T	D	W	N	44	M	Y	W	46.2-878.2		N	N	N	N	O
W09357	041924	VA0300200	E. LEE STREET/OLIVER CITY	030	T	D	W	N	32	M	Y	W	46.2-1158		N	N	N	N	R
W09358	041924	VA0300200	555 WINCHESTER STREET	030	T	D	W	N	30	M	Y	W	46.2-859		N	N	N	N	R
W07895	042524	VA0300200	OAK SPRINGS DR/BROADVIEW AVE	030	T	D	B	N	43	F	Y	W	46.2-875		N	N	N	N	V
W07896	042524	VA0300200	11 EAST LEE HWY	030	T	D	W	N	38	M	Y	W	46.2-878		N	N	N	N	V
W08466	042524	VA0300200	WALKER DR/ACADEMY HILL EXT	030	T	D	W	N	46	F	Y	W	46.2-821		N	N	N	N	V
W09359	042524	VA0300200	615 BRANCH DRIVE	030	T	D	B	N	81	F	Y	W	46.2-859		N	N	N	N	V

4693	042524	VA0300200	10 BLK EAST LEE HWY	030	T	D	W	N	39	M	Y	S	46.2-300		N	N	N	N	V
S64695	042524	VA0300200	10 BLK EAST LEE HWY	030	T	D	W	N	17	M	Y	S	46.2-852		N	N	N	N	R
S2024000251	042524	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	56	M	Y	S	46.2-1158		N	N	N	N	V
W08465	042424	VA0300200	BELLE AIR LANE/WALKER DR	030	T	D	W	N	45	F	Y	W	46.2-821		N	N	N	N	V
W09044	042824	VA0300200	603 FALMOUTH STREET	030	T	D	W	N	47	M	Y	W	46.2-830		N	N	N	N	V
S65162	042724	VA0300200	BROADVIEW AVE/WATERLOO ST	030	T	D	B	N	60	M	Y	S	46.2-833		N	N	N	N	V
S2024000254	042624	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	76	F	Y	S	46.2-870		N	N	N	N	R
S2024000256	042624	VA0300200	1 ALEXANDRIA PK/MAIN ST	030	T	D	W	N	28	F	Y	S	46.2-853		N	N	N	N	R
S2024000258	042624	VA0300200	1 ALEXANDRIA PK/MAIN ST	030	T	D	W	N	58	M	Y	S	46.2-349		N	N	N	N	O
W07813	043024	VA0300200	BROADVIEW AVE/OAK SPRINGS DR	030	T	D	W	N	74	M	Y	W	46.2-715		N	N	N	N	V
W07897	042924	VA0300200	WINCHESTER ST/WEST LEE HWY	030	T	D	W	N	43	F	Y	W	46.2-830		N	N	N	N	V
W07898	043024	VA0300200	189 WEST LEE HWY	030	T	D	B	N	38	M	Y	W	46.2-1030		N	N	N	N	V
W07899	043024	VA0300200	276 WEST LEE HWY	030	T	D	W	N	25	M	Y	W	46.2-830		N	N	N	N	R
W08467	042924	VA0300200	360 BROADVIEW AVE	030	T	D	W	N	55	M	Y	W	46.2-830		N	N	N	N	V
W08469	043024	VA0300200	200 BLK BROADVIEW AVE	030	T	D	W	N	45	M	Y	W	46.2-830		N	N	N	N	O
W08470	043024	VA0300200	GOLD CUP/BROADVIEW AVE	030	T	D	B	N	24	M	Y	W	46.2-830		N	N	N	N	V
W08844	043024	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	54	M	Y	W	46.2-1030		N	N	N	N	R
W08845	043024	VA0300200	329 BLK EAST LEE HWY	030	T	D	B	N	20	M	Y	W	46.2-646		N	N	N	N	V
W08986	042924	VA0300200	11 BLK EAST LEE HWY	030	T	D	W	N	30	M	Y	W	46.2-878		N	N	N	N	O
W09064	043024	VA0300200	WALKER DR/BELLE AIR LANE	030	T	D	W	N	50	F	Y	W	46.2-830		N	N	N	N	V
W09065	043024	VA0300200	HOLIDAY COURT/WALKER DR	030	T	D	W	N	73	F	Y	W	46.2-830		N	N	N	N	V
W09066	043024	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	39	M	Y	W	46.2-830		N	N	N	N	V
W09067	043024	VA0300200	300 BLK WEST LEE HWY	030	T	D	W	N	50	F	Y	W	46.2-869		N	N	N	N	V
W09360	042924	VA0300200	MEETZE RD/RT 29	030	T	D	W	N	34	F	Y	W	46.2-875		N	N	N	N	V
W09361	043024	VA0300200	WALKER DR/BLACKWELL RD	030	T	D	W	N	22	F	Y	W	46.2-830		N	N	N	N	V
S64298	043024	VA0300200	EAST LEE HWY/BLACKWELL RD	030	T	D	W	N	19	F	Y	S	46.2-852		N	N	N	N	V
S64696	043024	VA0300200	PATRICK RUN WAY/WINCHESTER ST	030	T	D	W	N	25	M	Y	S	46.2-1157		N	N	N	N	R
S2024000259	042924	VA0300200	286 BROADVIEW AVE	030	T	D	W	N	35	F	Y	S	46.2-844		N	N	N	N	V
S2024000260	042924	VA0300200	369 NORFOLK DR/PLAIN RD	030	T	D	W	N	66	F	Y	S	46.2-830		N	N	N	N	R
S2024000263	042924	VA0300200	239 WEST SHIRLEY AVE	030	T	D	W	N	35	M	Y	S	46.2-613		N	N	N	N	V
S2024000264	042924	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	31	F	Y	S	46.2-875		N	N	N	N	V
S2024000265	043024	VA0300200	250 WEST SHIRLEY AVENUE	030	T	D	W	N	43	M	Y	S	46.2-1158		N	N	N	N	V
S2024000266	043024	VA0300200	94 ALEXANDRIA PIKE	030	T	D	W	N	44	M	Y	S	46.2-924		N	N	N	N	V

MONTHLY REPORT - MAY 2024

	MONTH	CALENDAR	CALENDAR
	MAY	YTD '24	YTD '23
TOTAL CALLS FOR SERVICE TO INCLUDE:	2765	9358	8701
SELF INITIATED	1537	4432	3963
DISPATCHED	1228	4926	4783
ACCIDENTS:	52	181	177
REPORTABLE	30	83	91
NON-REPORTABLE (No injury, under $1500 or private property)	22	98	86
ARRESTS (CRIMINAL):			
FELONY	1	13	19
MISDEMEANOR	12	67	83
TRAFFIC ENFORCEMENT (NON-CRIMINAL):			
SUMMONS	75	399	360
PARKING	137	327	667
WRITTEN WARNINGS	99	406	269
DRUG ARRESTS:			
FELONY	0	5	2
MISDEMEANOR	0	0	0
OVERDOSES:	1	1	5

REPORTED CRIMES MAY 2024

CLASSIFICATION		MAY	YTD '24	YTD '23
1a	Murder and Non-Negligent Manslaughter			
1b	Manslaughter by Negligence			
2	Forcible Rape			
3	Robbery		1	1
4	Assault	2	26	14
5	Burglary			
6	Larceny	9	48	45
7	Motor Vehicle Theft	1	2	2
9	Arson			
10	Forgery and Counterfeiting	1	2	3
11	Fraud	4	25	26
12	Embezzlement	1	2	1
13	Stolen Property: Buy/Receive/Possess			
14	Vandalism/Graffiti	2	18	17
15	Weapons		2	2
16	Prostitution/Vice			
17	Sex Offenses		2	2
18	Drug Violations		2	2
19	Gambling			
20	Offenses Against Family	7	30	32
21	Driving Under Influence	2	7	10
22	Liquor Laws			
23	Drunk in Public	1	10	17
24	Disorderly	2	15	11
25	All Other Offenses			
26	Curfew/Loitering			
27	Runaway			
28	Reckless Driving			1
29	Drive suspended/revoked			
30	Contempt of Court			
31	Unauthorized use		1	
32	Hit & Run	5	19	14
33	Contributing to delinquency of minor			4
34	False report to police			2
35	Abduction/Kidnapping			
36	Shooting into Building			
37	Child Neglect		1	1

Record ID	Date	Agency ORI	Location	Jurisdiction Code	Reason for Stop	Person Type	Race	Ethnicity	Age	Gender	English Speaking	Action Taken	Specific Violation	Virginia Crime Code (Optional)	Person Searched	Vehicle Searched	Physical Force by Officer	Physical Force by Subject	Residency
W06173	050424	VA0300200	244 WATERLOO ROAD	030	T	D	W	N	66	F	Y	W	46.2-820		N	N	N	N	V
W08471	050324	VA0300200	276 BROADVIEW AVENUE	030	T	D	W	N	30	M	Y	W	46.2-830		N	N	N	N	V
W08987	050324	VA0300200	200 BROADVIEW AVENUE	030	T	D	B	N	49	F	Y	W	46.2-878		N	N	N	N	R
W08990	050324	VA0300200	RIDGE COURT	030	T	D	W	N	57	F	Y	W	46.2-646		N	N	N	N	R
W08991	050324	VA0300200	309 WEST LEE HWY	030	T	D	W	N	52	M	Y	W	46.2-878		N	N	N	N	V
W08992	050324	VA0300200	100 WEST SHIRLEY AVE	030	T	D	W	N	50	M	Y	W	46.2-646		N	N	N	N	V
W08993	050324	VA0300200	PATRICK RYAN WAY/WINCHESTER	030	T	D	W	N	62	M	Y	W	46.2-830		N	N	N	N	R
W08994	050324	VA0300200	WINCHESTER ST/FORBES ST	030	T	D	W	N	38	F	Y	W	46.2-830		N	N	N	N	V
W08995	050324	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	46	M	Y	W	46.2-878		N	N	N	N	R
W08996	050324	VA0300200	203 BROADVIEW AVE	030	T	D	B	N	34	F	Y	W	46.2-646		N	N	N	N	V
W08997	050424	VA0300200	87 WEST LEE HWY	030	T	D	W	N	39	F	Y	W	46.2-646		N	N	N	N	V
W08998	050424	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	22	M	Y	W	46.2-830		N	N	N	N	V
W08999	050424	VA0300200	200 BROADVIEW AVENUE	030	T	D	W	N	49	M	Y	W	46.2-646		N	N	N	N	V
W09068	050424	VA0300200	BELLE AIR LANE/WALKER DR	030	T	D	B	N	35	F	Y	W	46.2-830		N	N	N	N	V
W09069	050424	VA0300200	WALKER DR/HOLIDAY CT	030	T	D	W	N	47	M	Y	W	46.2-830		N	N	N	N	V
W09150	050424	VA0300200	CEDAR CREST DR/FLETCHER DR	030	T	D	W	N	36	F	Y	W	46.2-830		N	N	N	N	R
W09450	050324	VA0300200	OAKSPRINGS/BLACKWELL	030	T	D	W	N	39	M	Y	W	46.2-646		N	N	N	N	V
W09451	050424	VA0300200	WINCHESTER/COMBS	030	T	D	W	N	76	F	Y	W	46.2-830		N	N	N	N	R
W09452	050424	VA0300200	251 WEST LEE HWY	030	T	D	A	N	63	F	Y	W	46.2-1030		N	N	N	N	V
W09453	050424	VA0300200	73 WEST LEE HWY	030	T	D	W	N	20	M	Y	W	46.2-646		N	N	N	N	V
W09454	050524	VA0300200	RAPPAHANOCK/GOLD CUP	030	T	D	W	N	64	F	Y	W	46.2-878		N	N	N	N	R
W09455	050524	VA0300200	BROADVIEW/OAK SPRINGS	030	T	D	W	N	59	M	Y	W	46.2-878		N	N	N	N	V
W09456	050524	VA0300200	87 WEST LEE HWY	030	T	D	W	N	90	M	Y	W	46.2-878		N	N	N	N	V
S65197	050324	VA0300200	276 WEST LEE HWY	030	T	D	B	N	54	F	Y	S	46.2-646		N	N	N	N	V
S65253	050324	VA0300200	EAST SHIRLEY AVE/LEGION DR	030	T	D	B	N	61	F	Y	S	46.2-301		N	N	N	N	R
S2024000267	050324	VA0300200	470 BROADVIEW AVE	030	T	D	B	N	23	M	Y	S	46.2-870		N	N	N	N	V
S2024000268	050324	VA0300200	500 BLACKWELL RD	030	T	D	W	N	43	M	Y	S	46.2-646		N	N	N	N	V
S2024000269	050324	VA0300200	530 FLETCHER DR	030	T	D	W	N	41	F	Y	S	46.2-646		N	N	N	N	V
S2024000270	050424	VA0300200	110 WEST SHIRLEY AVE	030	T	D	W	N	39	M	Y	S	46.2-646		N	N	N	N	V
S2024000271	050424	VA0300200	251 WEST LEE HWY	030	T	D	W	N	40	M	Y	S	46.2-646		N	N	N	N	V
W09547	050924	VA0300200	276 WEST LEE HWY	030	T	D	W	N	84	F	Y	W	46.2-830		N	N	N	N	V
W09458	050924	VA0300200	FORBES/WINCHESTER	030	T	D	W	N	19	M	Y	W	46.2-830		N	N	N	N	V
W09459	050924	VA0300200	111 JOHN E MANN	030	T	D	A	N	80	F	Y	W	46.2-830		N	N	N	N	V
S65198	050824	VA0300200	360 HOSPITAL DRIVE	030	T	D	B	N	66	F	Y	S	18.2-212		N	N	N	N	V
W09126	051024	VA0300200	568 WATERLOO ROAD	030	T	D	W	N	77	F	Y	W	46.2-874		N	N	N	N	V
W09127	051224	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	66	M	Y	W	46.2-830		N	N	N	N	V
W09151	051424	VA0300200	WEST LEE HWY/BRANCH DRIVE	030	T	D	W	N	59	M	Y	W	46.2-802		N	N	N	N	O
W09226	051024	VA0300200	EASTERN BYPASS/MEETZE	030	T	D	W	N	31	M	Y	W	46.2-646		N	N	N	N	V
W09227	051124	VA0300200	MAIN ST/COURT ST	030	T	D	W	N	29	M	Y	W	46.2-1158		N	N	N	N	R
W09229	051224	VA0300200	321 WALKER DRIVE	030	T	D	W	N	31	F	Y	W	46.2-1158		N	N	N	N	V
W09230	051224	VA0300200	251 WEST LEE HWY	030	T	D	W	N	61	F	Y	W	46.2-646		N	N	N	N	V
W09231	051224	VA0300200	BLACKWELL RD/LEE HWY	030	T	D	W	N	18	M	Y	W	46.2-1158		N	N	N	N	V
W09362	051424	VA0300200	MANOR CT/WEST SHIRLEY	030	T	D	B	N	20	M	Y	W	46.2-646		N	N	N	N	V
W09400	051124	VA0300200	500 HOSPITAL DRIVE	030	T	D	B	N	55	F	Y	W	46.2-860		N	N	N	N	V
W09460	051424	VA0300200	530 BROADVIEW AVENUE	030	T	D	W	N	45	M	Y	W	46.2-870		N	N	N	N	V
S64947	051224	VA0300200	ALEXANDRIA PIKE/NORTH STREET	030	T	D	W	N	37	M	Y	S	46.2-874		N	N	N	N	V
S64988	051024	VA0300200	ALEXANDRIA PIKE/JOHN E MANN	030	T	D	W	N	39	F	Y	S	46.2-1158		N	N	N	N	V
S65201	051124	VA0300200	800 BLK WATERLOO ROAD	030	T	D	W	N	62	M	Y	S	46.2-874		N	N	N	N	V
S2024000272	051024	VA0300200	BLACKWELL RD/ROCK POINTE LANE	030	T	D	W	N	25	M	Y	S	46.2-1158		N	N	N	N	V
S2024000273	051124	VA0300200	1 MAIN ST/ALEXANDRIA PIKE	030	T	D	W	N	71	M	Y	S	46.2-1158		N	N	N	N	V
S2024000274	051124	VA0300200	212 OAK SPRINGS DR/FLETCHER DR	030	T	D	W	N	21	M	Y	S	46.2-1158		N	N	N	N	V
S2024000276	051424	VA0300200	485 INDUSTRIAL RD/JAMES MADISON HWY	030	T	D	W	N	60	M	Y	S	46.2-646		N	N	N	N	V
S2024000277	051424	VA0300200	800 WATERLOO ROAD	030	T	D	W	N	22	F	Y	S	46.2-874		N	N	N	N	V
W09130	051524	VA0300200	WEST LEE HWY/BLACKWELL	030	T	D	W	N	38	M	Y	W	46.2-833		N	N	N	N	V
W09131	051524	VA0300200	300 BLK WALKER DRIVE	030	T	D	W	N	19	M	Y	W	46.2-821		N	N	N	N	V
W09128	051524	VA0300200	ALEXANDRIA PIKE/WALKER DRIVE	030	T	D	W	N	77	F	Y	W	46.2-821		N	N	N	N	V
W09129	051524	VA0300200	SULLIVAN ST/WATERLOO ST	030	T	D	W	N	67	M	Y	W	46.2-821		N	N	N	N	V
W09228	051124	VA0300200	251 WEST LEE HWY STE 167	030	T	D	W	N	20	M	Y	W	46.2-646		N	N	N	N	V
W09232	051524	VA0300200	FALMOUTH ST/AVIARY	030	T	D	W	N	54	M	Y	W	46.2-1158		N	N	N	N	V
S65203	051524	VA0300200	OAK SPRING DRIVE	030	T	D	W	N	52	F	Y	S	46.2-804		N	N	N	N	V
S2024000278	051524	VA0300200	613 FROST AVENUE	030	T	D	W	N	18	M	Y	S	46.2-1158		N	N	N	N	R
S2024000279	051524	VA0300200	402 CULPEPER STREET	030	T	D	W	N	37	F	Y	S	46.2-830		N	N	N	N	V
S2024000281	051524	VA0300200	800 WATERLOO ROAD	030	T	D	W	N	53	F	Y	S	46.2-874		N	N	N	N	V
S2024000282	051524	VA0300200	1 SOUTH CHESTNUT STREET	030	T	D	W	N	51	F	Y	S	46.2-646		N	N	N	N	V
S2024000283	051524	VA0300200	530 BROADVIEW AVENUE	030	T	D	W	N	41	M	Y	S	46.2-1158		N	N	N	N	V
S2024000284	051524	VA0300200	WATERLOO ST/ASHBY ST	030	T	D	W	N	45	M	Y	S	46.2-1158		N	N	N	N	R

09233	051624	VA0300200	W LEE HWY/BLACKWELL RD	030	T	D	B	N	48	F	Y	W	46.2-646		N	N	N	N	R
W09234	051624	VA0300200	141 W. LEE HWY STE 131	030	T	D	W	N	51	F	Y	W	46.2-1158		N	N	N	N	V
W05703	051624	VA0300200	NORFOLK DRIVE/GOLD CUP DR	030	T	D	W	N	69	F	Y	W	46.2-806		N	N	N	N	R
W09132	051624	VA0300200	14 MAIN STREET	030	T	D	W	N	48	F	Y	W	46.2-821		N	N	N	N	R
W09133	051624	VA0300200	193 NORFOLK DRIVE	030	T	D	W	N	61	F	Y	W	46.2-878		N	N	N	N	V
W09235	051624	VA0300200	90-102 BROADVIEW AVENUE	030	T	D	W	N	47	F	Y	W	46.2-888		N	N	N	N	V
W09363	051624	VA0300200	251 WEST LEE HWY	030	T	D	W	N	29	F	Y	W	46.2-873		N	N	N	N	V
W09364	051624	VA0300200	184 NORFOLK DRIVE	030	T	D	W	N	50	M	Y	W	46.2-806		N	N	N	N	R
S2024000285	051624	VA0300200	402 CULPEPER STREET	030	T	D	W	N	32	M	Y	S	46.2-830		N	N	N	N	V
S2024000286	051624	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	28	F	Y	S	46.2-1158		N	N	N	N	V
S2024000287	051624	VA0300200	504 FLETCHER DRIVE	030	T	D	W	N	46	M	Y	S	46.2-1158		N	N	N	N	V
S2024000288	051624	VA0300200	99 WEST LEE HWY/BRANCH AVE	030	T	D	W	N	19	M	Y	S	46.2-829		N	N	N	N	V
S2024000289	051624	VA0300200	395 ROSEDALE/WALKER DR	030	T	D	W	N	59	M	Y	S	46.2-821		N	N	N	N	V
S2024000290	051624	VA0300200	96 RAPPAHANNOCK ST	030	T	D	W	N	40	F	Y	S	46.2-830		N	N	N	N	V
S2024000291	051624	VA0300200	56 RAPPAHANNOCK ST	030	T	D	A	N	45	M	Y	S	46.2-830		N	N	N	N	V
W08750	051824	VA0300200	530 BROADVIEW AVENUE	030	T	D	W	N	17	M	Y	W	46.2-1013		N	N	N	N	V
W08751	051824	VA0300200	WINCHESTER/DIAGONAL	030	T	D	W	N	57	M	Y	W	46.2-821		N	N	N	N	R
W08752	052024	VA0300200	273 BROADVIEW AVENUE	030	T	D	W	N	21	M	Y	W	46.2-830		N	N	N	N	V
W08847	051424	VA0300200	150 WEST LEE HWY	030	T	D	W	N	32	M	Y	W	46.2-1030		N	N	N	N	V
W08848	051724	VA0300200	E. SHIRLEY/GREEN STREET	030	T	D	W	N	65	F	Y	W	46.2-1013		N	N	N	N	V
W08849	051724	VA0300200	90 BROADVIEW AVENUE	030	T	D	W	N	22	F	Y	W	46.2-1013		N	N	N	N	V
W09134	052024	VA0300200	7580 LEE HWY	030	T	D	W	N	71	M	Y	W	46.2-833		N	N	N	N	V
W09461	051724	VA0300200	411 HOLIDAY COURT	030	T	D	W	N	53	F	Y	W	46.2-830		N	N	N	N	V
S64299	051724	VA0300200	615 BRANCH AVENUE	030	T	D	W	N	40	F	Y	S	46.2-300		N	N	N	N	R
S2024000292	051724	VA0300200	96 RAPPAHANNOCK ST	030	T	D	W	N	35	F	Y	S	46.2-878.2		N	N	N	N	V
S2024000294	051724	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	55	M	Y	S	46.2-873		N	N	N	N	O
S2024000295	051724	VA0300200	99 WEST LEE HWY/FLETCHER DR	030	T	D	B	N	21	M	Y	S	46.2-1158		N	N	N	N	V
S2024000297	051724	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	27	F	Y	S	46.2-875		N	N	N	N	R
S2024000299	051724	VA0300200	96 RAPPAHANNOCK ST	030	T	D	W	N	34	F	Y	S	46.2-878		N	N	N	N	V
S2024000300	052024	VA0300200	500 FROST AVE/BROADVIEW AVE	030	T	D	W	N	42	M	Y	S	46.2-833		N	N	N	N	V
S2024000302	052024	VA0300200	500 FROST AVE/BROADVIEW AVE	030	T	D	W	N	38	F	Y	S	46.2-833		N	N	N	N	V
W09045	052024	VA0300200	557 BLK FALMOUTH ST	030	T	D	W	N	42	M	Y	W	46.2-830		N	N	N	N	V
S2024000303	052024	VA0300200	331 BROADVIEW AVENUE	030	T	D	W	N	39	F	Y	W	46.2-1158		N	N	N	N	R
S2024000304	052024	VA0300200	BROADVIEW AVE/ROBELING ST	030	T	D	W	N	34	M	Y	S	46.2-844		N	N	N	N	V
W09047	052124	VA0300200	100 BLK AVIARY STREET	030	T	D	W	N	20	M	Y	W	46.2-830		N	N	N	N	V
W09135	052124	VA0300200	PLAIN RD/NORFOLK DR	030	T	D	W	N	59	F	Y	W	46.2-878		N	N	N	N	V
W09237	052124	VA0300200	CULPEPER ST/FISHER LANE	030	T	D	W	N	23	F	Y	W	46.2-1158		N	N	N	N	V
W09238	052124	VA0300200	102 WINCHESTER STREET	030	T	D	A	N	50	M	Y	W	46.2-821		N	N	N	N	R
S2024000305	052124	VA0300200	BEAR WALLOW RD/FOXCROFT RD	030	T	D	W	N	22	F	Y	S	46.2-830		N	N	N	N	V
S2024000306	052124	VA0300200	405 FALMOUTH STREET	030	T	D	W	N	59	F	Y	S	46.2-1158		N	N	N	N	V
S2024000307	052124	VA0300200	WINCHESTER ST/PATRICK RYAN WAY	030	T	D	W	N	28	F	Y	S	46.2-1158		N	Y	N	N	R
S2024000308	052124	VA0300200	36 RAPPAHANNOCK ST	030	T	D	W	N	26	M	Y	S	46.2-830		N	N	N	N	V
S2024000309	052124	VA0300200	360 FALMOUTH STREET	030	T	D	W	N	42	M	Y	S	46.2-1158		N	N	N	N	V
W08473	052224	VA0300200	500 BLK FLETCHER DRIVE	030	T	D	B	N	20	M	Y	W	46.2-646		N	N	N	N	V
W09462	052224	VA0300200	164 BROADVIEW AVENUE	030	T	D	W	N	37	M	Y	W	46.2-870		N	N	N	N	O
W08754	052324	VA0300200	155 BROADVIEW AVENUE	030	T	D	W	N	42	M	Y	W	46.2-833		N	N	N	N	V
W09152	051824	VA0300200	600 BLACKWELL ROAD	030	T	D	W	N	20	M	Y	W	46.2-878		N	N	N	N	O
W09153	052224	VA0300200	WINCHESTER ST/JOHN E MANN	030	T	D	W	N	56	M	Y	W	46.2-830		N	N	N	N	R
W09463	052224	VA0300200	334 WEST LEE HWY	030	T	D	W	N	38	F	Y	W	46.2-646		N	N	N	N	V
S2024000311	052224	VA0300200	1 WEST SHIRLEY AVE/CULPEPER ST	030	T	D	W	N	38	M	Y	S	46.2-613		N	N	N	N	V
W09464	052324	VA0300200	530 FLETCHER DR	030	T	D	W	N	16	F	Y	W	46.2-870		N	N	N	N	V
W08755	052324	VA0300200	271 WINCHESTER STREET	030	T	D	W	N	47	F	Y	W	46.2-821		N	N	N	N	V
W09154	052324	VA0300200	WATERLOO ST/GARRET STREET	030	T	D	U	N	26	F	Y	W	46.2-830		N	N	N	N	R
S2024000313	052324	VA0300200	286 BROADVIEW AVE	030	T	D	W	N	45	M	Y	S	46.2-300		N	N	N	N	V
S2024000314	052324	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	72	M	Y	S	46.2-873		N	N	N	N	V
S2024000315	052324	VA0300200	402 CULPEPER STREET	030	T	D	W	N	43	F	Y	S	46.2-830		N	N	N	N	V
W09136	052424	VA0300200	164 BROADVIEW AVENUE	030	T	D	W	N	64	F	Y	W	46.2-878		N	N	N	N	V
W09239	052424	VA0300200	351 BROADVIEW AVENUE	030	T	D	W	N	29	M	Y	W	46.2-844		N	N	N	N	R
W09240	052424	VA0300200	500 BLK FLETCHER DRIVE	030	T	D	W	N	17	F	Y	W	46.2-888		N	N	N	N	V
W09241	052524	VA0300200	39 ALEXANDRIA PIKE	030	T	D	W	N	29	F	Y	W	46.2-830		N	N	N	N	V
W09242	052524	VA0300200	45 ALEXANDRIA PIKE	030	T	D	W	N	35	M	Y	W	46.2-830		N	N	N	N	V
W09243	052524	VA0300200	56 EAST LEE STREET	030	T	D	W	N	27	M	Y	W	46.2-1158		N	N	N	N	V
W09245	052624	VA0300200	CULPEPER ST/FISHER LANE	030	T	D	W	N	29	F	Y	W	46.2-1158		N	N	N	N	O
W09246	052624	VA0300200	30 QUARTERPOLE CT	030	T	D	W	N	45	M	Y	W	46.2-646		N	N	N	N	R
W09247	052624	VA0300200	127 WEST LEE HWY	030	T	D	W	N	42	M	Y	W	46.2-1158		N	N	N	N	V
W09465	052724	VA0300200	BROADVIEW/OAK SPRINGS	030	T	D	W	N	70	M	Y	W	46.2-870		N	N	N	N	V
W09466	052724	VA0300200	BROADVIEW/OAK SPRINGS	030	T	D	W	N	55	M	Y	W	46.2-870		N	N	N	N	V
W09467	052724	VA0300200	129 ACADEMY HILL EXTENDED	030	T	D	W	N	44	M	Y	W	46.2-830		N	N	N	N	V
W09468	052724	VA0300200	WALKER/BELAIR	030	T	D	W	N	27	M	Y	W	46.2-830		N	N	N	N	V
W09469	052724	VA0300200	11 EAST LEE HWY	030	T	D	W	N	62	F	Y	W	46.2-646		N	N	N	N	R
S65163	052624	VA0300200	700 JAMES MADISON HWY	030	T	D	W	N	23	M	Y	S	18.2-111		N	N	N	N	V

024000317	052424	VA0300200	200 BLK BROADVIEW AVE	030	T	D	W	N	29	M	Y	S	46.2-300		N	N	N	N	R
S2024000318	052424	VA0300200	200 BLK BROADVIEW AVE	030	T	D	W	N	40	F	Y	S	46.2-844		N	N	N	N	V
S2024000319	052424	VA0300200	200 MAIN ST/CLAY ST	030	T	D	A	N	47	M	Y	S	46.2-1158		N	N	N	N	R
S2024000320	052424	VA0300200	329 EAST LEE ST/OLIVER CITY RD	030	T	D	W	N	62	M	Y	S	46.2-830		N	N	N	N	V
S2024000321	052424	VA0300200	800 WATERLOO ROAD	030	T	D	W	N	26	M	Y	S	46.2-1158		N	N	N	N	V
S2024000322	052424	VA0300200	96 RAPPAHANNOCK ST	030	T	D	W	N	53	F	Y	S	46.2-830		N	N	N	N	V
S2024000324	052424	VA0300200	WEST LEE HWY/FLETCHER DR	030	T	D	W	N	67	M	Y	S	46.2-1158		N	N	N	N	V
S2024000325	052524	VA0300200	ASHBY ST/W. LEE ST	030	T	D	W	N	27	M	Y	S	46.2-104		N	N	N	N	V
S2024000326	052524	VA0300200	ALEXANDRIA PIKE/WINCHESTER ST	030	T	D	W	N	53	M	Y	S	46.2-1158		N	N	N	N	V
S2024000327	052624	VA0300200	W. SHIRLEY AVE/CARRIAGE HOUSE LANE	030	T	D	W	N	53	F	Y	S	46.2-1158		N	N	N	N	V
S2024000328	052624	VA0300200	WATERLOO ST/ASHBY ST	030	T	D	W	N	36	M	Y	S	46.2-1158		N	N	N	N	V
S2024000329	052824	VA0300200	229 WINCHESTER ST	030	T	D	W	N	36	M	Y	S	46.2-830		N	N	N	N	R
W09249	052924	VA0300200	60 ALEXANDRIA PIKE	030	T	D	W	N	37	M	Y	W	46.2-646		N	N	N	N	R
W09365	052824	VA0300200	N. CHESTNUT/WATERLOO ST	030	T	D	W	N	24	F	Y	W	46.2-716		N	N	N	N	R
S2024000331	052824	VA0300200	1 GARRETT ST/WATERLOO ST	030	T	D	W	N	27	M	Y	S	46.2-1158		N	N	N	N	V
S2024000332	052924	VA0300200	WEST LEE HWY/FLETCHER DR	030	T	D	B	N	55	M	Y	S	46.2-646		N	N	N	N	V
W05705	052924	VA0300200	ACADEMY HILL RD/MILLFIELD LANE	030	T	D	W	N	28	F	Y	W	46.2-830		N	N	N	N	V
W09248	052924	VA0300200	351 BROADVIEW AVENUE	030	T	D	B	N	63	M	Y	W	46.2-844		N	N	N	N	V
W05704	052724	VA0300200	121 BROADVIEW AVENUE	030	T	D	W	N	63	F	Y	W	46.2-863		N	N	N	N	V
W05706	053024	VA0300200	RT.211/FROST HILL	030	T	D	W	N	51	M	Y	W	46.2-830		N	N	N	N	V
W08108	053124	VA0300200	WINCHESTER/PATRICK RYAN WAY	030	T	D	W	N	79	F	Y	W	46.2-830		N	N	N	N	R
W08110	053124	VA0300200	WINCHESTER ST/NORTH ST	030	T	D	W	N	53	F	Y	W	46.2-821		N	N	N	N	V
W09155	053124	VA0300200	11 LEE HWY	030	T	D	W	N	20	M	Y	W	46.2-878		N	N	N	N	V
W09271	053024	VA0300200	510 BLACKWELL ROAD	030	T	D	W	N	32	M	Y	W	46.2-646		N	N	N	N	R
W09272	053024	VA0300200	E. LEE ST/FIFTH ST	030	T	D	A	N	19	F	Y	W	46.2-804		N	N	N	N	V
S64697	053124	VA0300200	ALWINGTON BLVD/ JAMES MADISON HWY	030	T	D	W	N	26	F	Y	S	46.2-816		N	N	N	N	R

MONTHLY REPORT - JUNE 2024

	MONTH	CALENDAR	CALENDAR
	JUNE	YTD '24	YTD '23
TOTAL CALLS FOR SERVICE TO INCLUDE:	2497	11855	10249
SELF INITIATED	1225	5657	4481
DISPATCHED	1272	6198	5768
ACCIDENTS:	40	221	225
REPORTABLE	19	102	116
NON-REPORTABLE (No injury, under $1500 or private property)	21	119	109
ARRESTS (CRIMINAL):			
FELONY	4	17	20
MISDEMEANOR	10	77	104
TRAFFIC ENFORCEMENT (NON-CRIMINAL):			
SUMMONS	73	472	406
PARKING	145	472	803
WRITTEN WARNINGS	85	491	313
DRUG ARRESTS:			
FELONY	0	5	2
MISDEMEANOR	0	0	0
OVERDOSES:	0	1	5

REPORTED CRIMES JUNE 2024

CLASSIFICATION

		JUNE	YTD '24	YTD '23
1a	Murder and Non-Negligent Manslaughter			
1b	Manslaughter by Negligence			
2	Forcible Rape			
3	Robbery		1	1
4	Assault	6	32	18
5	Burglary			2
6	Larceny	10	58	55
7	Motor Vehicle Theft		2	3
9	Arson	1	1	
10	Forgery and Counterfeiting		2	3
11	Fraud	7	32	29
12	Embezzlement		2	1
13	Stolen Property: Buy/Receive/Possess			
14	Vandalism/Graffiti	5	23	26
15	Weapons		2	2
16	Prostitution/Vice			
17	Sex Offenses	1	3	2
18	Drug Violations		2	2
19	Gambling			
20	Offenses Against Family	9	39	42
21	Driving Under Influence		7	13
22	Liquor Laws			
23	Drunk in Public	1	11	20
24	Disorderly	2	17	12
25	All Other Offenses			
26	Curfew/Loitering			
27	Runaway			
28	Reckless Driving			1
29	Drive suspended/revoked			
30	Contempt of Court			
31	Unauthorized use		1	
32	Hit & Run	2	21	17
33	Contributing to delinquency of minor			4
34	False report to police			2
35	Abduction/Kidnapping	1	1	
36	Shooting into Building			
37	Child Neglect		1	1

Record ID	Date	Agency ORI	Location	Jurisdiction Code	Reason for Stop	Person Type	Race	Ethnicity	Age	Gender	English Speaking	Action Taken	Specific Violation	Virginia Crime Code (Optional)	Person Searched	Vehicle Searched	Physical Force by Officer	Physical Force by Subject	Residency
W06174	060124	VA0300200	169 WEST SHIRLEY AVENUE	030	T	D	W	N	42	M	Y	W	46.2-818.2		N	N	N	N	V
W08111	060124	VA0300200	COURT ST/WINCHESTER ST	030	T	D	W	N	38	M	Y	W	46.2-821		N	N	N	N	R
W08112	060124	VA0300200	COURT ST/WINCHESTER ST	030	T	D	W	N	31	F	Y	W	46.2-821		N	N	N	N	R
W08113	060224	VA0300200	COURT ST/WINCHESTER ST	030	T	D	W	N	70	F	Y	W	46.2-821		N	N	N	N	V
W08114	060224	VA0300200	34 BROADVIEW AVENUE	030	T	D	W	N	58	M	Y	W	46.2-1030		N	N	N	N	V
W08116	060324	VA0300200	47 BLK WALKER DRIVE	030	T	D	W	N	30	M	Y	W	46.2-804		N	N	N	N	O
W08117	060524	VA0300200	WINCHESTER ST/N. COURT ST	030	T	D	W	N	38	F	Y	W	46.2-818.2		N	N	N	N	R
W08118	060524	VA0300200	N. COURT ST/WINCHESTER ST	030	T	D	W	N	21	F	Y	W	46.2-821		N	N	N	N	V
W08474	060524	VA0300200	276 BROADVIEW AVENUE	030	T	D	W	N	33	M	Y	W	46.2-830		N	N	N	N	V
W08756	060124	VA0300200	380 BROADVIEW AVENUE	030	T	D	U	N	35	M	Y	W	46.2-833		N	N	N	N	R
W08757	060224	VA0300200	W. SHIRLEY/GARRETT	030	T	D	W	N	36	F	Y	W	46.2-646		N	N	N	N	R
W08759	060624	VA0300200	121 BROADVIEW AVENUE	030	T	D	W	N	33	F	Y	W	46.2-1030		N	N	N	N	R
W09273	060424	VA0300200	OAK SPRINGS DR/BRANCH DR	030	T	D	W	N	34	F	Y	W	46.2-646		N	N	N	N	V
W09274	060424	VA0300200	W. LEE HWY/BLACKWELL RD	030	T	D	W	N	48	M	Y	W	46.2-1158		N	N	N	N	V
W09275	060424	VA0300200	FALMOUTH/KINGS BRIDGE	030	T	D	W	N	29	F	Y	W	46.2-1158		N	N	N	N	V
W09366	060424	VA0300200	309 WEST LEE HWY	030	T	D	W	N	29	F	Y	W	46.2-646		N	N	N	N	R
W09367	060524	VA0300200	21 MAIN STREET	030	T	D	W	N	54	F	Y	W	46.2-874		N	N	N	N	R
W09470	060524	VA0300200	PATRICK RYAN WAY/WINCHESTER	030	T	D	W	N	48	F	Y	W	46.2-830		N	N	N	N	V
W09471	060524	VA0300200	HIGHLAND SCHOOL	030	T	D	W	N	20	M	Y	W	46.2-878		N	N	N	N	V
W09472	060524	VA0300200	CIRCLE K	030	T	D	B	N	54	F	Y	W	46.2-646		N	N	N	N	V
S65227	060224	VA0300200	W. LEE HWY/BROADVIEW AVE	030	T	D	W	N	50	F	Y	S	46.2-818.2		N	N	N	N	V
S65228	060224	VA0300200	N. COURT ST/WINCHESTER ST	030	T	D	W	N	19	F	Y	S	46.2-821		N	N	N	N	V
S65230	060224	VA0300200	N. BROADVIEW AVE/FROST AVE	030	T	D	W	N	32	F	Y	S	46.2-818.2		N	N	N	N	R
S65232	060224	VA0300200	74 BROADVIEW AVENUE	030	T	D	W	N	46	F	Y	S	46.2-818.2		N	N	N	N	R
S2024000335	060324	VA0300200	319 OAK SPRINGS DR/BRANCH DR	030	T	D	W	N	80	M	Y	S	46.2-646		N	N	N	N	V
S2024000336	060324	VA0300200	175 WEST LEE HWY	030	F	D	W	N	28	M	Y	S	18.2-96		N	N	N	N	U
S2024000337	060424	VA0300200	350 EAST SHIRLEY AVE	030	T	D	B	N	64	M	Y	S	46.2-1158		N	N	N	N	V
S2024000339	060424	VA0300200	481 FOXCROFT ROAD	030	T	D	W	N	23	M	Y	S	46.2-830		N	N	N	N	R
S2024000340	060424	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	34	M	Y	S	46.2-870		N	N	N	N	V
S2024000341	060424	VA0300200	289 WEST SHIRLEY AVE/GARRETT ST	030	T	D	W	N	28	M	Y	S	46.2-1158		N	N	N	N	V
S2024000342	060424	VA0300200	329 EAST LEE ST/OLIVER CITY ROAD	030	T	D	B	N	35	F	Y	S	46.2-875		N	N	N	N	R
S2024000343	060424	VA0300200	360 FALMOUTH ST	030	T	D	W	N	29	F	Y	S	46.2-646		N	N	N	N	V
W09473	060524	VA0300200	BELLE AIRE/WALKER	030	T	D	W	N	22	M	Y	W	46.2-830		N	N	N	N	V
S64631	060324	VA0300200	104 SOUTH 5TH STREET	030	T	D	B	N	54	M	Y	S	46.2-613		N	N	N	N	V
S65233	060624	VA0300200	NORTH COURT/WINCHESTER ST	030	T	D	W	N	77	F	Y	S	46.2-821		N	N	N	N	V
S65234	060624	VA0300200	NORTH CT/WINCHESTER ST	030	T	D	W	N	27	M	Y	S	46.2-821		N	N	N	N	V
S2024000344	060624	VA0300200	800 WATERLOO ROAD	030	T	D	W	N	62	M	Y	S	46.2-874		N	N	N	N	V
S2024000345	060624	VA0300200	239 ALEXANDRIA PKE/BLACKWELL RD	030	T	D	W	N	39	F	Y	S	46.2-1158		N	N	N	N	V
S65204	060924	VA0300200	251 WEST LEE HWY	030	F	D	W	N	39	F	Y	S	18.2-388		N	N	N	N	V
S2024000347	060724	VA0300200	240 BLACKWELL RD/MOORHEAD DR	030	T	D	W	N	34	M	N	S	46.2-300		N	N	N	N	O
S2024000348	060724	VA0300200	MAIN STREET/ALEXANDRIA PK	030	T	D	W	N	37	F	Y	S	46.2-1158		N	N	N	N	V
S2024000349	060724	VA0300200	240 BLACKWELL RD/MOORHEAD DR	030	T	D	W	N	17	M	Y	S	46.2-830		N	N	N	N	V
S2024000351	060724	VA0300200	800 WATERLOO RD	030	T	D	W	N	47	F	Y	S	46.2-830		N	N	N	N	V
W09137	060724	VA0300200	245 WEST SHIRLEY AVENUE	030	T	D	W	N	74	F	Y	W	46.2-833		N	N	N	N	V
W09138	060724	VA0300200	409 BLK BROADVIEW AVENUE	030	T	D	W	N	58	M	Y	W	46.2-833		N	N	N	N	V
W09276	060724	VA0300200	309 W LEE HWY	030	T	D	B	N	64	M	Y	W	46.2-817		N	N	N	N	V
W09277	060924	VA0300200	276 WEST LEE HWY	030	T	D	B	N	40	F	Y	W	46.2-825		N	N	N	N	V
W09369	060724	VA0300200	FOXCROFT/BEAR WALLOW	030	T	D	W	N	49	M	Y	W	46.2-716		N	N	N	N	V
W09474	061024	VA0300200	530 BROADVIEW AVENUE	030	T	D	W	N	42	F	Y	W	46.2-878		N	N	N	N	V
W09475	061024	VA0300200	530 BROADVIEW AVENUE	030	T	D	W	N	48	M	Y	W	46.2-878		N	N	N	N	V
W09476	061024	VA0300200	COURT ST/MAIN ST	030	T	D	W	N	47	M	Y	W	46.2-830		N	N	N	N	O
W09477	061024	VA0300200	WALGREENS	030	T	D	W	N	59	M	Y	W	46.2-830		N	N	N	N	O
W09550	061024	VA0300200	WINCHESTER/BROADVIEW AVE	030	T	D	W	N	45	M	Y	W	46.2-821		N	N	N	N	V
S2024000353	061024	VA0300200	54 EAST SHIRLEY AVE/GREEN STREET	030	T	D	B	N	22	F	Y	S	46.2-300		N	N	N	N	R
S2024000354	061124	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	52	M	Y	S	46.2-870		N	N	N	N	O
S2024000355	061124	VA0300200	402 CULPEPER ST	030	T	D	W	N	62	M	Y	S	46.2-830		N	N	N	N	V
S2024000356	061224	VA0300200	US 17 SPUR/EAST LEE HWY	030	T	D	B	N	40	F	Y	S	46.2-870		N	N	N	N	O
S2024000357	061224	VA0300200	100 ALEXANDRIA PIKE	030	T	D	B	N	57	F	Y	S	46.2-874		N	N	N	N	R
S2024000358	061224	VA0300200	59 ALEXANDRIA PIKE/HORNER STREET	030	T	D	W	N	68	M	Y	S	46.2-874		N	N	N	N	O
W09139	061324	VA0300200	WALKER DRIVE/CANNON WAY	030	T	D	W	N	31	F	Y	W	46.2-821		N	N	N	N	V
W09370	061324	VA0300200	164 WEST SHIRLEY AVENUE	030	T	D	W	N	44	M	Y	W	46.2-1158		N	N	N	N	V
W09371	061324	VA0300200	ALEXANDRIA PK/DIAGONAL ST	030	T	D	W	N	25	M	Y	W	46.2-846		N	N	N	N	R
S2024000359	061324	VA0300200	96 RAPPAHANNOCK ST	030	T	D	W	N	46	F	Y	S	46.2-830		N	N	N	N	V
S2024000360	061324	VA0300200	600 BLACKWELL ROAD	030	T	D	W	N	48	F	Y	S	46.2-1158		N	N	N	N	R
S2024000361	061324	VA0300200	ALEXANDRIA PIKE/JOHN E MANN ST	030	T	D	W	N	35	M	Y	S	46.2-1158		N	N	N	N	V
S2024000362	061324	VA0300200	613 FROST AVENUE	030	T	D	B	N	47	M	Y	S	46.2-1158		N	N	N	N	V

024000363	061324	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	25	F	Y	S	46.2-875		N	N	N	N	V
W06175	061524	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	31	F	Y	W	46.2-870		N	N	N	N	V
W08119	061524	VA0300200	334 WEST LEE HWY	030	T	D	W	N	59	M	Y	W	46.2-613		N	N	N	N	V
W08120	061524	VA0300200	WINCHESTER ST/WEST LEE HWY	030	T	D	W	N	73	F	Y	W	46.2-282		N	N	N	N	V
W08760	061624	VA0300200	161 WINCHESTER STREET	030	T	D	B	N	40	M	Y	W	46.2-1013		N	N	N	N	R
W09372	061424	VA0300200	US 17/MOFFETT DR	030	T	D	W	N	42	M	Y	W	46.2-715		N	N	N	N	V
W09478	061424	VA0300200	WALKER DRIVE/HOLIDAY	030	T	D	B	N	35	F	Y	W	46.2-830		N	N	N	N	V
W09479	061424	VA0300200	WINCHESTER/JACKSON	030	T	D	W	N	29	F	Y	W	46.2-830		N	N	N	N	V
S65236	061524	VA0300200	125 WESST SHIRLEY AVENUE	030	T	D	W	N	18	M	Y	S	46.2-613		N	N	N	N	V
S65237	061524	VA0300200	WINCHESTER ST/PATRICK RYAN WAY	030	T	D	W	N	22	F	Y	S	46.2-821		N	N	N	N	R
S65239	061624	VA0300200	WALKER DR/CANNON WAY	030	T	D	B	N	20	M	Y	S	46.2-613		N	N	N	N	V
S64300	061524	VA0300200	BRANCH AVE/WEST LEE HWY	030	T	D	B	N	35	M	Y	S	46.2-646		N	N	N	N	V
S2024000364	061424	VA0300200	569 BEAR WALLOW RD/NORFOLK DR	030	T	D	W	N	20	F	Y	S	46.2-1158		N	N	N	N	V
S2024000365	061524	VA0300200	597 BROADVIEW AVENUE	030	T	D	W	N	41	F	Y	S	46.2-870		N	N	N	N	V
S2024000366	061524	VA0300200	86 EAST LEE ST	030	T	D	W	N	21	F	Y	S	46.2-830		N	N	N	N	V
W06290	062024	VA0300200	HIGHLAND SCHOOL	030	T	D	W	N	18	F	Y	W	46.2-830		N	N	N	N	V
W06291	062024	VA0300200	LEE HWY/CEDAR RUN	030	T	D	W	N	60	F	Y	W	46.2-1030		N	N	N	N	R
W08121	061924	VA0300200	WINCHESTER/PATRICK RYAN WAY	030	T	D	W	N	33	F	Y	W	46.2-821		N	N	N	N	O
W08122	062024	VA0300200	200 BLOCK BLACKWELL ROAD	030	T	D	W	N	82	F	Y	W	46.2-1003		N	N	N	N	V
W08123	062024	VA0300200	OLD MEETZE RD/FALMOUTH ST	030	T	D	W	N	65	M	Y	W	46.2-821		N	N	N	N	V
W08124	062024	VA0300200	WINCHESTER ST/PATRICK RYAN WAY	030	T	D	B	N	54	M	Y	W	46.2-821		N	N	N	N	V
W09156	062024	VA0300200	276 W LEE HWY	030	T	D	W	N	17	M	Y	W	46.2-821		N	N	N	N	O
W09278	061824	VA0300200	492 BLACKWELL ROAD	030	T	D	W	N	25	F	Y	W	46.2-1158		N	N	N	N	V
W09279	061824	VA0300200	300 BLK E. LEE HWY	030	T	D	W	N	26	M	Y	W	46.2-646		N	N	N	N	V
W09280	061824	VA0300200	W. LEE HWY/FLETCHER DR	030	T	D	W	N	28	M	Y	W	46.2-1158		N	N	N	N	V
W09373	061824	VA0300200	CARRIAGE HOUSE/W. SHIRLEY AVE	030	T	D	W	N	60	M	Y	W	46.2-1158		N	N	N	N	R
W09374	062024	VA0300200	351 BROADVIEW AVENUE	030	T	D	W	N	56	M	Y	W	46.2-830		N	N	N	N	V
W09375	062024	VA0300200	BLACKWELL/MOOREHEAD	030	T	D	B	N	58	F	Y	W	46.2-874		N	N	N	N	V
W09480	061724	VA0300200	WINCHESTER/COMBS	030	T	D	B	N	33	F	Y	W	46.2-830		N	N	N	N	R
W09481	061724	VA0300200	OAKSPRINGS/BROADVIEW	030	T	D	W	N	53	F	Y	W	46.2-878		N	N	N	N	V
W09482	061724	VA0300200	OAKSPRINGS/BROADVIEW	030	T	D	W	N	33	F	Y	W	46.2-878		N	N	N	N	V
W09483	061724	VA0300200	FORBES/WINCHESTER	030	T	D	W	N	25	M	Y	W	46.2-830		N	N	N	N	R
W09485	061724	VA0300200	251 WEST LEE HWY	030	T	D	W	N	40	M	Y	W	46.2-716		N	N	N	N	V
W09486	061724	VA0300200	COMBS/WINCHESTER	030	T	D	W	N	33	F	Y	W	46.2-830		N	N	N	N	R
W09487	061924	VA0300200	530 BROADVIEW AVENUE	030	T	D	B	N	65	M	Y	W	46.2-878		N	N	N	N	V
W09488	061924	VA0300200	BROADVIEW/OAKSPRINGS	030	T	D	W	N	53	M	Y	W	46.2-878		N	N	N	N	V
W09555	061924	VA0300200	PATRICK RYAN WAY/WINCHESTER ST	030	T	D	W	N	20	M	Y	W	46.2-821		N	N	N	N	R
W09556	062024	VA0300200	PATRICK RYAN WAY/WINCHESTER ST	030	T	D	U	N	62	M	Y	W	46.2-821		N	N	N	N	V
W09557	062024	VA0300200	OLD ORCHARD LANE/WINCHESTER ST	030	T	D	W	N	69	F	Y	W	46.2-821		N	N	N	N	V
S2024000367	061824	VA0300200	10 BLK EAST LEE HWY	030	T	D	W	N	69	F	Y	S	46.2-878		N	Y	N	N	V
S2024000368	061824	VA0300200	96 RAPPAHANNOCK ST	030	T	D	B	N	45	F	Y	S	46.2-830		N	N	N	N	R
S2024000369	061824	VA0300200	W. LEE HWY/BLACKWELL RD	030	T	D	W	N	26	M	Y	S	46.2-1158		N	N	N	N	V
S2024000370	061824	VA0300200	19 MAIN ST/CULPEPER ST	030	T	D	W	N	27	M	Y	S	46.2-1158		N	N	N	N	R
S2024000372	061824	VA0300200	212 WEST LEE HWY/BRANCH DR	030	T	D	W	N	60	M	Y	S	46.2-1158		N	N	N	N	V
S2024000374	062024	VA0300200	240 BLACKWELL RD/MOORHEAD DR	030	T	D	W	N	65	F	Y	S	46.2-830		N	N	N	N	V
S2024000375	062024	VA0300200	240 BLACKWELL RD/MOORHEAD DR	030	T	D	W	N	24	M	Y	S	46.2-830		N	N	N	N	V
S2024000376	062024	VA0300200	240 BLACKWELL RD/MOORHEAD DR	030	T	D	W	N	40	F	Y	S	46.2-874		N	N	N	N	V
S2024000377	062024	VA0300200	485 FAUQUIER RD/BROADVIEW AVE	030	T	D	W	N	44	F	Y	S	46.2-1158		N	N	N	N	R
S2024000378	062024	VA0300200	96 RAPPAHANNOCK ST	030	T	D	W	N	19	M	Y	S	46.2-878.2		N	N	N	N	R
S2024000380	062024	VA0300200	71 MAIN STREET	030	T	D	W	N	22	M	Y	S	46.2-816		N	N	N	N	V
W09282	062124	VA0300200	45 ALEXANDRIA PIKE	030	T	D	B	N	63	F	Y	W	46.2-830		N	N	N	N	V
W09283	062124	VA0300200	45 ALEXANDRIA PIKE	030	T	D	W	N	47	F	Y	W	46.2-830		N	N	N	N	R
W09281	062124	VA0300200	BROADVIEW/FROST	030	T	D	W	N	66	M	Y	W	46.2-1158		N	N	N	N	V
W09048	062124	VA0300200	351 BROADVIEW AVENUE	030	T	D	W	N	61	F	Y	W	46.2-1030		N	N	N	N	R
W09049	062124	VA0300200	280 W SHIRLEY AVE	030	T	D	W	N	26	M	Y	W	46.2-1030		N	N	N	N	V
W08172	062324	VA0300200	223 WINCHESTER STREET	030	T	D	W	N	73	M	Y	W	46.2-830		N	N	N	N	R
W08476	062524	VA0300200	256 W LEE HWY	030	T	D	W	N	75	M	Y	W	46.2-646		N	N	N	N	V
W09376	062524	VA0300200	236 WEST LEE HWY	030	T	D	W	N	21	M	Y	W	46.2-1158		N	N	N	N	V
W09377	062524	VA0300200	OAK SPRINGS DR/FLETCHERS	030	T	D	B	N	55	F	Y	W	46.2-821		N	N	N	N	V
W09378	062524	VA0300200	FAUQUIER RD/OLD BROADVIEW	030	T	D	W	N	37	M	Y	W	46.2-1158		N	N	N	N	R
W09489	062524	VA0300200	BELLE AIR/WALKER	030	T	D	W	N	58	F	Y	W	46.2-830		N	N	N	N	V
S65097	062124	VA0300200	WALKER DR/ROSEDALE CT	030	T	D	W	N	54	M	Y	S	46.2-821		N	N	N	N	V
S65326	062424	VA0300200	600 BLACKWELL ROAD	030	T	D	W	N	28	M	Y	S	18.2-119		N	N	N	N	R
S64949	062624	VA0300200	WEST LEE HWY/WINCHESTER ST	030	T	D	U	N	22	F	Y	S	46.2-707		N	N	N	N	R
S2024000381	062124	VA0300200	451 FOXCROFT ROAD	030	T	D	W	N	59	M	Y	S	46.2-830		N	N	N	N	V
S2024000382	062124	VA0300200	451 FOXCROFT ROAD	030	T	D	B	N	36	M	Y	S	46.2-830		N	N	N	N	O
S2024000383	062124	VA0300200	256 WEST LEE HWY	030	T	D	W	N	26	F	Y	S	46.2-1158		N	N	N	N	V
S2024000385	062124	VA0300200	150 WEST LEE HWY	030	T	D	W	N	33	M	Y	S	46.2-646		N	N	N	N	R
S2024000386	062124	VA0300200	10 BLK EAST LEE HWY	030	T	D	W	N	41	M	Y	S	46.2-878		N	N	N	N	O
S2024000387	062524	VA0300200	200 MAIN ST/CLAY ST	030	T	D	W	N	64	M	Y	S	46.2-1158		N	N	N	N	V
S2024000388	062624	VA0300200	451 FOXCROFT ROAD	030	T	D	W	N	49	M	Y	S	46.2-878.2		N	N	N	N	V

024000389	062624	VA0300200	210 WEST SHIRLEY AVE	030	T	D	W	N	60	F	Y	S	46.2-1158		N	N	N	N	V
S2024000390	062624	VA0300200	US 17 SPUR/HASTINGS LANE	030	T	D	W	N	18	F	Y	S	46.2-870		N	N	N	N	V
S2024000391	062624	VA0300200	467 FOXCROFT ROAD	030	T	D	W	N	61	F	Y	S	46.2-830		N	N	N	N	R
W09140	062724	VA0300200	HOLIDAY CT/WALKER DR	030	T	D	W	N	81	M	Y	W	46.2-821		N	N	N	N	V
W06292	062824	VA0300200	551 FROST AVENUE	030	T	D	W	N	67	M	Y	W	46.2-830		N	N	N	N	V
W07814	062824	VA0300200	EAST LEE ST/2ND STREET	030	T	D	W	N	75	F	Y	W	46.2-806		N	N	N	N	R
W09558	062924	VA0300200	RYAN PATRICK WAY/RYAN ST	030	T	D	W	N	65	M	Y	W	46.2-821		N	N	N	N	V
W09559	062924	VA0300200	276 WEST LEE HWY	030	T	D	W	N	39	M	Y	W	46.2-821		N	N	N	N	V
W09560	062924	VA0300200	WALKER DRIVE/ESTATE AVENUE	030	T	D	W	N	59	F	Y	W	46.2-821		N	N	N	N	R
W09561	063024	VA0300200	PATRICK RYAN WAY/WINCHESTER ST	030	T	D	W	N	59	F	Y	W	46.2-821		N	N	N	N	R
W09562	063024	VA0300200	400 BLK HOLIDAY COURT/WALKER DRIVE	030	T	D	W	N	42	F	Y	W	46.2-821		N	N	N	N	V

Quarterly Report

Department of Finance & Procurement

Town Council Meeting Date: August 13, 2024

Fourth Quarter 2024: April, May, June

Department introduction:

The mission of the Department of Finance and Procurement is to promote excellence and transparency in the delivery of effective and efficient financial management services to our internal and external customers and stakeholders. This is accomplished by adhering to sound financial management practices, demonstrating integrity in all that we do, and working as a team to support the Town's mission, vision, and values.

The Department is responsible for accounting and financial reporting, budget preparation and monitoring, debt management, accounts receivable, accounts payable, payroll processing, procurement, tax billing, utility billing, collections, and investment management.

Project Progress:

Accounting and Financial Reporting:

- Preliminary fieldwork for the annual external audit was conducted by the Town's auditing services firm, Brown, Edwards & Company in June. They will return in early October to perform their final fieldwork.
- The figures reported in this report are ***preliminary***. The Finance Department will finalize year-end accounting adjustments over the next two months to produce our Annual Comprehensive Financial Report (ACFR). The ACFR results and the results of the annual external audit will be presented by our external auditor to the Town Council in December, as required by the Virginia Code.

Budget:

- The Town Manager's Proposed Fiscal Year 2025 and Proposed 2024-2030 Capital Improvement Plan was delivered to the Town Council on April 1, 2024.
    - The Budget Manager presented an overview of the Proposed Budget at the April 9, 2024, Council Meeting.
    - The Town's Financial Advisors, Davenport & Company, LLC, provided a review of General Fund Historical Review and a review of the Water and Sewer Rate Study Update.
    - Town Council adopted the budget at the June Council meeting.

Tax Administration:

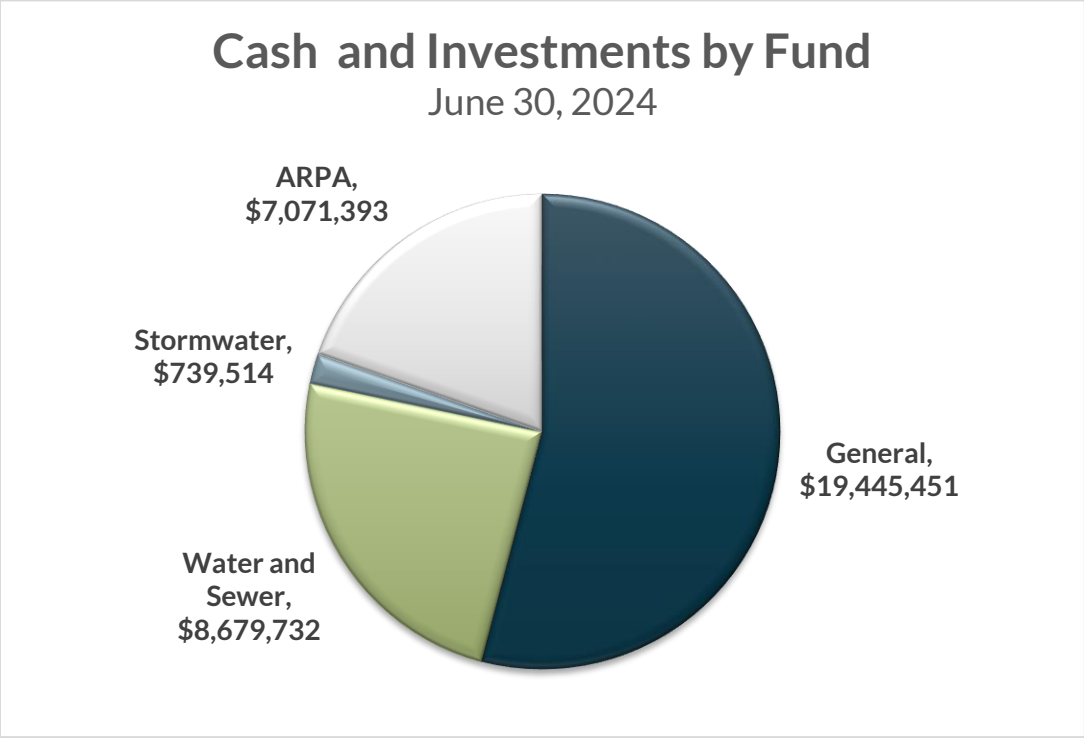
- Business license taxes were due on June 30th for the 2025 license year that starts on July 1st.
    - Revenues received as of this report date total $2,207,652, which represents 97.15% of the amount budgeted. Payments received during July and August will be accrued back to the June reporting period. We anticipate meeting or exceeding the total budget.
- Real estate tax and stormwater management fees for the first half of 2024 were due June 15th.
    - Revenues received as of this report date total $343,336.95 for real estate tax and $398,663.78 for stormwater management fees.

Charts and information:

The following charts are provided based on the information contained in the **attached financial statements for the period ended June 30, 2024.**

Cash and Investments

The following chart shows the cash and investment balances for each of the Town's major funds. Cash has decreased by approximately $1.8 million compared to the same period last year due to the spending of ARPA funds and Water and Sewer capital spending.

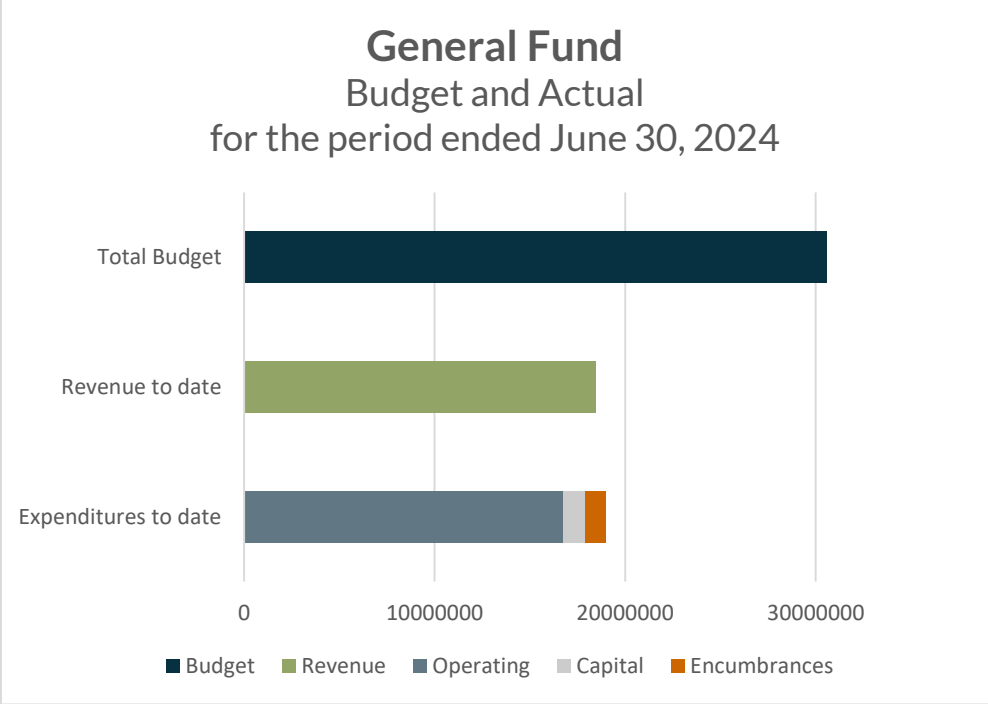


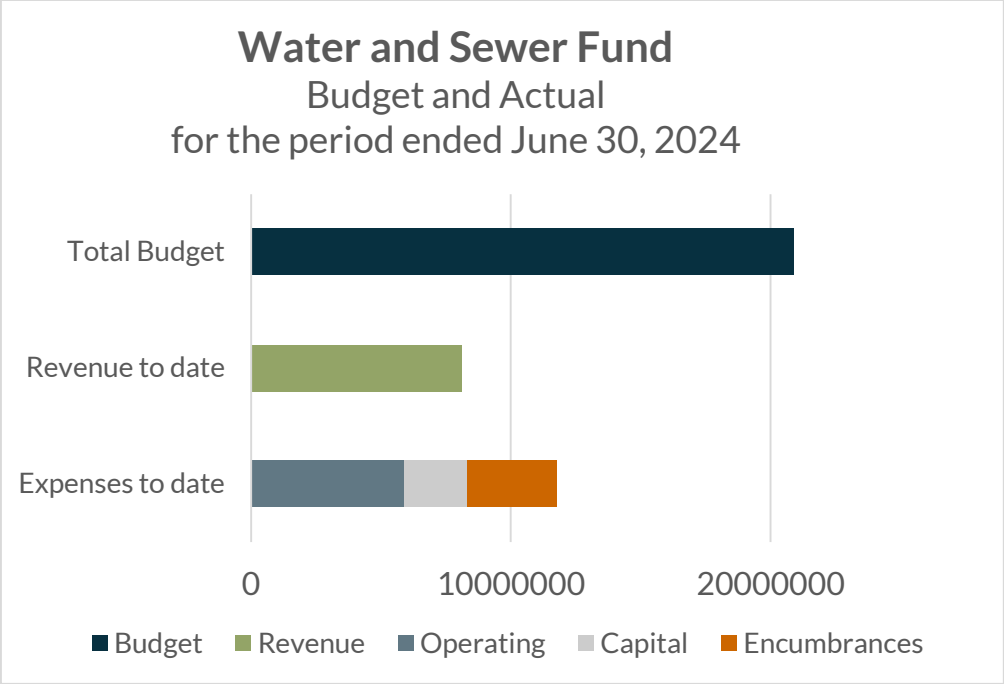
Budget and Actual by Fund

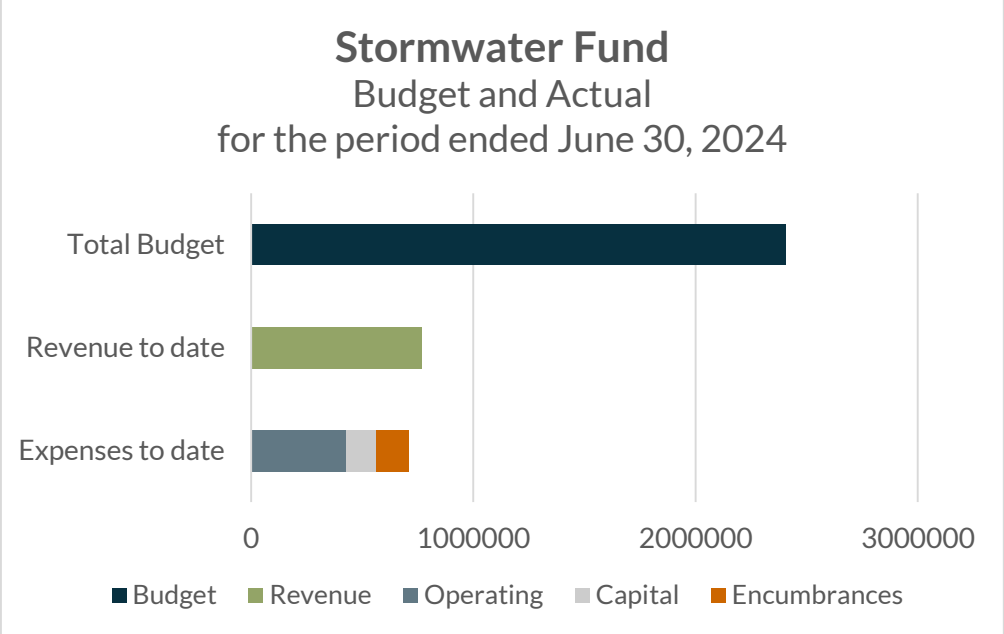
The following pages contain graphs for each fund that compare the budget to the actual revenue or expenditures recorded year-to-date. Capital projects are included for each fund. This can distort the budget-to-actual comparison, since most capital spending crosses over fiscal years.

Each graph shows:

- the total budget for the fund, represented by the dark blue bar at the top of each graph.
- revenue received year-to-date, represented by the green bar.
- expenditures recorded year-to-date.
    - This is further broken down into
        - Operating (blue)
        - Capital (light gray)
        - Encumbrances (orange) – this represents the total value of purchase orders issued to vendors for services, equipment, materials, and supplies. While not part of the actual expenditure as of the end of the period, these amounts will be expended in the coming months.



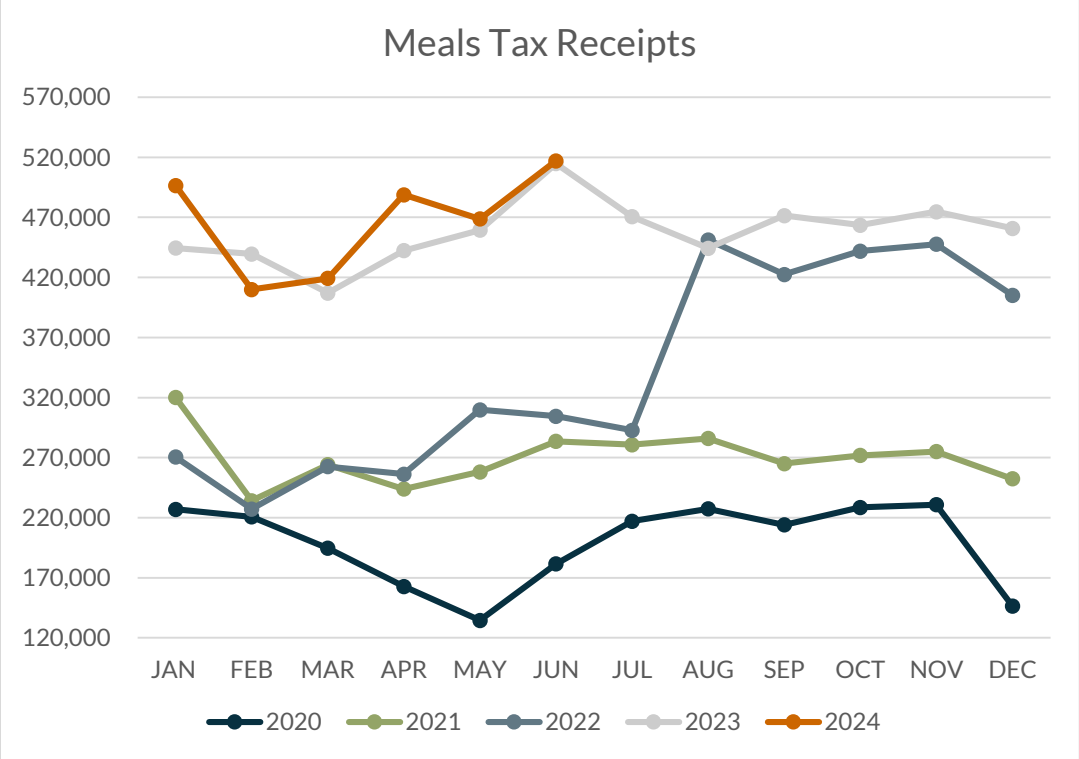

Water and Sewer Fund
Budget and Actual
for the period ended June 30, 2024
Total Budget
Revenue to date
Expenses to date
0
10000000
20000000
Budget
Revenue
Operating
Capital
Encumbrances


Stormwater Fund
Budget and Actual
for the period ended June 30, 2024
Total Budget
Revenue to date
Expenses to date
0
1000000
2000000
3000000
Budget
Revenue
Operating
Capital
Encumbrances

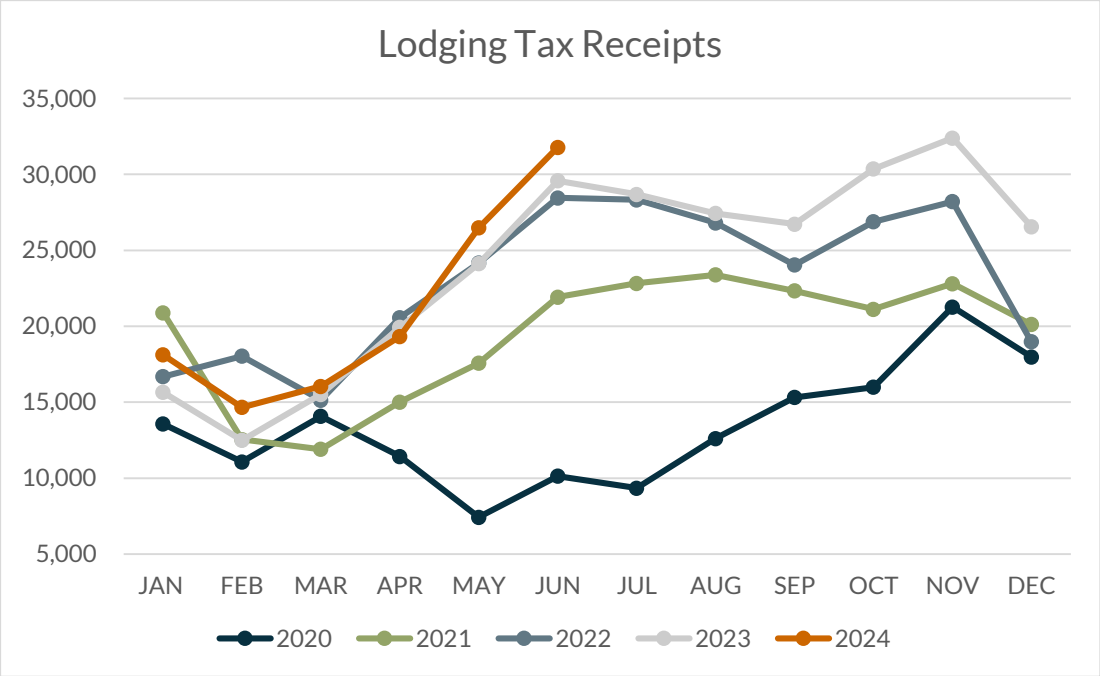
REVENUE TRENDS

A review of monthly revenue categories is provided to assist in understanding how our current receipts compare to prior periods. The data is presented on a cash basis for the current calendar year (2024) and four prior years (2023, 2022, 2021, and 2020). The monthly revenue categories are Meals Tax, Lodging Tax, Local Sales Tax, and Utility Billing Receipts.

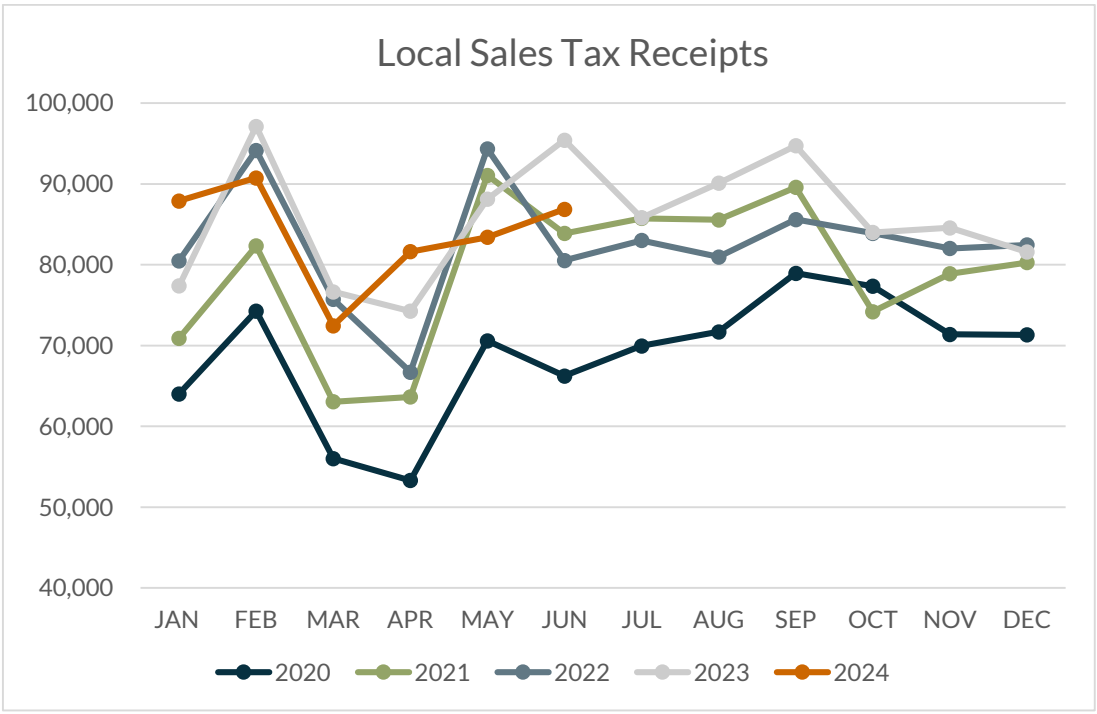
Meals Tax - This is the largest revenue source for the General Fund. The August 2022 collections reflect the beginning of the increase in the rate that was adopted in the FY23 budget. The average increase in meals tax receipts for FY24 compared to FY23 has been 3.7%.



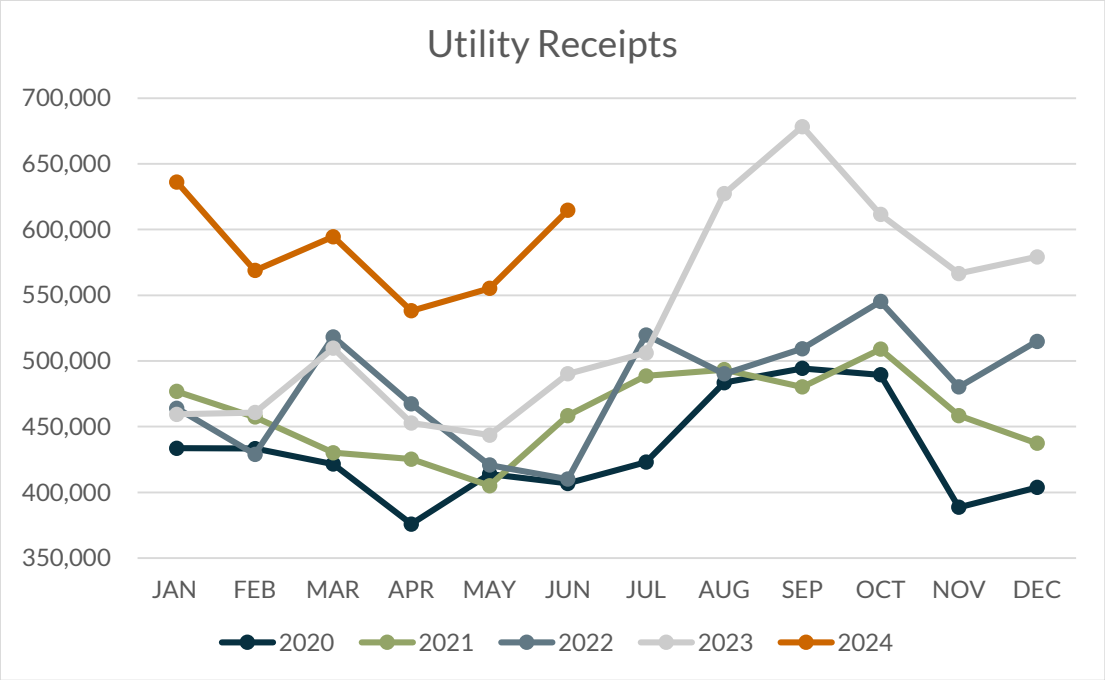
Lodging Tax – Lodging tax revenue for the fourth quarter exceeded prior periods.



Local Sales Tax – Sales Tax receipts for the fourth quarter of FY24 have declined in comparison to prior periods. The remittance lags the month of collection by two months (e.g. – sales tax collected in December is received in February). This helps to explain some of the seasonal fluctuations in the chart below.



Utility Receipts - The chart below shows the monthly receipts for Water and Sewer bills. Receipts in 2023 and 2024 have generally tracked with those received in 2022. The increase in August 2023 reflects the rates adopted effective July 1, 2023.



Data:

DELINQUENT ACCOUNT BALANCES

Real Estate Tax and Stormwater Management Utility Fee

Real Estate tax and the Stormwater Management Utility fee are due twice a year, on June 15th and December 15th. The percent collected and unpaid balances for the fiscal year are shown below:

Real Estate Tax	Percent Collected	Unpaid Balance
Real Estate Tax – 2nd half, CY2023	99.0%	$3,459.38
SWM Utility Fee – 2nd half, CY2023	98.8%	$5,205.61
Real Estate Tax – 1st half, CY2024	95.5%	$16,171.01
SWM Utility Fee – 1st half, CY2024	95.3%	$19,844.04

Personal Property Tax and Vehicle License Fee

Personal Property taxes and vehicle license fees are due once a year on December 15th. The percent collected and unpaid balance for the December 15, 2023, billing is shown below:

Type	Percent Collected	Unpaid Balance
Personal Property Tax	97.5%	$30,549.46
Business Personal Property Tax	93.6%	$28,208.04
Vehicle License Fee	82.8%	$42,128.22

Business License Tax

Business license renewal applications are due annually on March 1st for the following year beginning July 1. The payment for the license is due on June 30th. The percentage collected and unpaid balances are shown below for the last two license years.

Type	Percent Collected	Unpaid Balance
Business License 2023	99.8%	$3,914.13
Business License 2024	99.8%	$5,216.40
Business License 2025 *	95.5%	$98,742.07

** will accrue late payments made during July and August to June*

Meals Tax

Meals Tax collectors must file for us to know the amount of tax owed. If they fail to file, we may issue a statutory assessment based on the best available information and pursue collection of that amount.

Past Due Amounts and Delinquent Filings: The Town has a total of 85 registered Meals Tax collectors. The following businesses have past due Meals Tax balances or are not current on their filings.

Business	Past Due Amount	No. of Months Past Due Filing
Black Bear Bistro *	$39,621.83	3
Ellie's Place	$3,545.10	0
Fat Tuesdays	$4,533.41	1
Little Caesars	$0.00	1
Wild Hare Hard Cider	$0.00	1

** business closed; statutorily assessed for months that were not filed and turned balance over to third-party collection agency; total amount includes penalty and interest*

Lodging Tax

Like Meals Tax, businesses must file for us to create an assessment. All registered collectors are current in their filings and payments.

Sales Tax

Sales tax is remitted to the State each month based on the County, not the Town, that the business is located in. The local 1% is then sent back to the County. The amount to be distributed to the Towns is determined based on the residency of school-aged children. The County retains 50% of that amount and distributes the remaining 50% to the incorporated Towns based on the percentage of school-aged children residing in each town. There is no information provided by the State regarding delinquent accounts.

Utility Billing

The total delinquent balance has increased by $21,095 compared to June 2023.

WATER AND SEWER OPERATING A/R AGING

	June 30, 2023	June 30, 2024	Incr./(Decr.)
Over 30	46,798	66,596	19,798
Over 60	11,488	16,144	4,656
Over 90	6,386	3,027	(3,359)
Total	$ 64,672	$ 85,767	$ 21,095

Financial Statements

For the Period Ended June 30, 2024

Preliminary, Unaudited

Table of Contents

1 – Cash, Investments and Receivables
2 – Budget to Actual – Revenues
3 – Budget to Actual – Expenditures

Town of Warrenton, Virginia

Cash, Investment and Receivable Balances

	June 30, 2023	June 30, 2024
CASH		
On Hand	$ 2,580	$ 2,580
Checking Accounts	11,425,993	9,464,581
Money Market Accounts	454,646	415,079
TOTAL CASH IN BANK	$ 11,883,219	$ 9,882,240
INVESTMENTS		
Virginia Local Government Investment Pool	16,785,185	18,431,989
Virginia Investment Pool	3,737,738	3,841,532
Virginia SNAP	5,324,409	3,780,330
TOTAL INVESTMENTS	$ 25,847,332	$ 26,053,851
TOTAL CASH AND INVESTMENTS	$ 37,730,551	$ 35,936,091
Comparison of Yields		
Virginia Local Government Investment Pool	5.24%	5.41%
Virginia Investment Pool	4.98%	4.35%
Virginia SNAP	5.32%	5.47%
CASH AND INVESTMENT BALANCES BY FUND		
General Fund	$ 17,465,405	$ 19,445,451
Water and Sewer Operating	$ 4,721,501	$ 5,548,355
Water and Sewer Capital	$ 5,251,251	$ 3,131,378
Stormwater Fund	$ 568,808	$ 739,514
CSLFRF Fund (ARPA)	$ 9,707,724	$ 7,071,393
CASH PROFFER BALANCES		
Highland	$ 107,298	$ 112,824
Recreation	59,905	59,905
Academy Hill Park	29,260	29,260
	$ 196,463	$ 201,989

WATER AND SEWER OPERATING A/R AGING

	June 30, 2023	June 30, 2024	Incr./(Decr.)
Over 30	46,798	66,596	19,798
Over 60	11,488	16,144	4,656
Over 90	6,386	3,027	(3,359)
Total	$ 64,672	$ 85,767	$ 21,095

RESERVE AMOUNTS

	Policy	Calculated Threshold	Reserve Balance
General Fund	50% operating budget	$ 9,267,559	$ 9,267,559
-Budget Stabilization	50% of annual surplus, up to 10% operating budget	$ 1,853,512	$ 1,284,411
-Capital Reserve	50% of annual surplus	n/a	$ 1,284,411
Water and Sewer Operating	200 days	$ 4,495,757	$ 4,495,757

Town of Warrenton, Virginia
Budget to Actual -- Revenues as of June 30, 2024

Fund / Source of Revenue	Budget Full Year	Actual Year-to-Date	% of Budget	Budget Remaining
GENERAL FUND				
OPERATING				
General Property Taxes	$ 1,303,616	$ 1,705,171	130.80%	$ (401,555)
Local Sales Tax	999,500	847,865	84.83%	151,635
Consumer Utility Tax	490,020	481,270	98.21%	8,750
BPOL	2,272,525	2,207,652	97.15%	64,873
Consumption Tax	63,076	52,504	83.24%	10,572
Motor Vehicle License Fee	236,100	225,927	95.69%	10,173
Bank Franchise Tax	1,200,000	1,284,121	107.01%	(84,121)
Meals Tax	5,500,000	5,115,111	93.00%	384,889
Cigarette Tax	338,000	302,404	89.47%	35,596
Lodging Tax	250,000	271,904	108.76%	(21,904)
Permits, Privilege Fees & Licenses	288,064	255,673	88.76%	32,391
Fines & Forfeitures	77,500	72,315	93.31%	5,185
Use of Money & Property	500,000	804,867	160.97%	(304,867)
Charges for Services	1,090,439	1,019,909	93.53%	70,530
Miscellaneous Revenue	419,089	401,865	95.89%	17,224
Non-Categorical Aid	514,522	419,088	81.45%	95,434
Categorical Aid	2,470,825	2,910,752	117.80%	(439,927)
Federal Revenue	947,390	9,201	0.00%	938,189
Use of Fund Balance	5,764,518		0.00%	5,764,518
TOTAL GENERAL FUND	$ 24,725,184	$ 18,387,597	74.37%	$ 6,337,587
CAPITAL PROJECTS FUND				
Transfers	$ 4,173,659	$ 6,699	0.16%	$ 4,166,960
TOTAL CAPITAL PROJECTS FUND	$ 4,173,659	$ 6,699	0.16%	$ 4,166,960
ASSET REPLACEMENT FUND				
Miscellaneous Revenue	$ 28,599	$ 28,599	0.00%	$ (994)
Federal Revenue	60,000	-	0.00%	60,000
Transfers	1,575,611	-	0.00%	1,575,611
TOTAL GENERAL CARP FUND	$ 1,664,210	$ 28,599	1.72%	$ 1,634,617
TOTAL GENERAL FUND	$ 30,563,053	$ 18,422,895	60.28%	$ 12,139,164
WATER AND SEWER FUND				
OPERATING FUND				
Transfer Fees	$ 13,005	$ 8,475	65.17%	$ 4,530
Use of Money & Property	135,000	346,094	256.37%	(211,094)
Charges for Services	7,748,766	7,165,325	92.47%	583,441
Recovered Costs	25,000	15,289	61.16%	9,711
Miscellaneous Revenue	-	22,220	0.00%	(22,220)
Federal Revenue	-	-	0.00%	-
Non-Revenue Receipts	723,043	-	0.00%	723,043
TOTAL W&S OPERATING FUND	$ 8,644,814	$ 7,557,403	87.42%	$ 1,087,411
CAPITAL FUND				
Use of Money & Property	$ 40,000	$ 279,337	0.00%	$ (239,337)
Non-Revenue Receipts	12,184,878	283,500	2.33%	11,901,378
TOTAL W&S CAPITAL FUND	$ 12,224,878	$ 562,837	4.60%	$ 11,662,041
TOTAL WATER AND SEWER FUND	$ 20,869,692	$ 8,120,239	92.03%	$ 12,749,453
STORMWATER MANAGEMENT FUND				
Local Revenue	$ 700,000	$ 764,795	109.26%	$ (64,795)
Federal Revenue	369,000	2,531	0.69%	366,469
Non-Revenue Receipts	1,335,487	-	0.00%	1,335,487
TOTAL SWM FUND	$ 2,404,487	$ 767,325	31.91%	$ 1,637,162
CSLFRF FUND (ARPA)				
Federal Revenue	$ 8,889,707		0.00%	$ 8,889,707
TOTAL CSLFRF FUND	$ 8,889,707	$ -	0.00%	$ 8,889,707
TOTAL ALL FUNDS	$ 62,726,939	$ 27,310,459	43.54%	$ 35,415,486

Town of Warrenton, Virginia

Budget to Actual -- Expenditures as of June 30, 2024

Fund/Category	Budget Full Year	Actual Year-to-Date	Actual Encumbered	% of Budget	Budget Remaining
GENERAL FUND					
OPERATING					
Council	$ 259,625	$ 223,691	$ 10,551	90.22%	$ 25,384
Town Manager	278,474	225,998	3,845	82.54%	48,631
Legal Services	267,500	323,827	-	121.06%	(56,327)
Human Capital	309,629	230,450	4,000	75.72%	75,179
Information Technology	2,405,071	1,300,616	101,253	58.29%	1,003,202
Finance	953,114	781,776	56,469	87.95%	114,869
Other Organizations	9,098	7,973	-	87.63%	1,125
Electoral Board	5,475	2,316	-	42.30%	3,159
Police	3,718,092	3,236,480	44,291	88.24%	437,321
Emergency Services	197,010	178,057	16,661	98.84%	2,292
Public Works Administration	533,100	414,416	2,382	78.18%	116,302
Street Maintenance	3,072,562	2,380,021	238,578	85.23%	453,963
Sanitation	571,782	573,450	15,298	102.97%	(16,966)
Fleet	807,440	752,099	66,450	101.38%	(11,109)
Facilities	1,214,709	1,060,706	113,690	96.68%	40,313
Parks and Recreation	2,562,821	2,492,137	63,944	99.74%	6,740
Community Development	2,398,323	1,164,851	44,793	50.44%	1,188,679
Communications	174,453	89,978	-	0.00%	84,475
Contributions	58,954	75,204	-	127.56%	(16,250)
Non-departmental	389,666	418,697	-	107.45%	(29,031)
Transfers	3,714,047	-	-	0.00%	3,714,047
Debt Service	824,238	824,238	-	100.00%	0
TOTAL GENERAL FUND	$ 24,725,184	$ 16,756,980	$ 782,204	70.94%	$ 7,185,999
CAPITAL PROJECTS FUND					
Capital Projects	$ 4,173,659	$ 273,648	$ 236,583	12.23%	$ 3,663,428
TOTAL CAP. PROJECTS FUND	$ 4,173,659	$ 273,648	$ 236,583	12.23%	$ 3,663,428
ASSET REPLACEMENT FUND					
Asset Replacements	$ 1,664,210	$ 881,450	$ 52,385	56.11%	$ 730,376
TOTAL GEN. CARP FUND	$ 1,664,210	$ 881,450	$ 52,385	56.11%	$ 730,376
TOTAL GENERAL FUND	$ 30,563,053	$ 17,912,078	$ 1,071,172	62.11%	$ 11,579,803
WATER AND SEWER FUND					
WATER & SEWER OPERATING FUND					
Water Department	$ 2,758,311	$ 2,226,373	$ 302,193	91.67%	$ 229,746
Wastewater Department	2,702,417	2,254,500	271,498	93.47%	176,419
Water / Sewer Administration	1,499,629	1,127,319	80,558	80.55%	291,752
Debt Service	1,193,627	302,312	-	25.33%	891,315
Transfers	490,830	-	-	0.00%	490,830
TOTAL W&S OPERATING FUND	$ 8,644,814	$ 5,910,504	$ 654,248	75.94%	$ 2,080,062
WATER & SEWER CAPITAL FUND					
Asset Replacements	$ 1,538,714	$ 864,619	$ 514,182	89.61%	$ 159,913
Capital Projects	10,686,164	1,568,112	2,275,339	35.97%	6,842,713
TOTAL W&S CAPITAL FUND	$ 12,224,878	$ 2,432,731	$ 2,789,521	42.72%	$ 7,002,625
TOTAL WATER AND SEWER FUND	$ 20,869,692	$ 8,343,235	$ 3,443,769	56.48%	$ 9,082,688
STORMWATER MANAGEMENT FUND					
Operating	$ 602,180	$ 428,976	$ 55,552	71.24%	$ 173,203
Capital Projects	1,753,224	132,964	92,746	12.87%	1,527,514
Transfers	49,083	-	-	0.00%	49,083
TOTAL SWM FUND	$ 2,404,487	$ 561,941	$ 148,298	29.54%	$ 1,842,546
CSLFRF FUND					
Expenditures	$ 8,889,707	$ 2,244,708	$ 191,040	27.40%	$ 6,453,959
TOTAL CSLFRF FUND	$ 8,889,707	$ 2,244,708	$ 191,040	27.40%	$ 6,453,959
TOTAL ALL FUNDS	$ 62,726,939	$ 29,061,962	$ 4,854,279	54.07%	$ 28,810,698

Quarterly Report

Community Development

Town Council Meeting Date: August 13, 2024

Fourth Quarter 2024: April, May, June

Please accept this as the quarterly report for the department

The Department of Community Development is involved in a number of day-to-day activities including:

- Site plan and plat reviews
- Zoning Determinations/Zoning Verifications
- Processing of legislative applications (Special Use Permits, Rezonings, Certificates of Appropriateness, and Variances)
- Staffing of various boards and commissions (Planning Commission, BZA, ARB, Tree Board, Warrenton Arts Group, etc.)
- Enforcement (zoning, property maintenance, and building codes)
- Fire prevention inspection program
- Permitting (signs, building, zoning, business license review)
- Building inspections associated with building permits
- Fire Safety Inspections

Over the second three (3) months of 2024, the department processed 16 business license applications, 5 sign permits, 17 zoning permits, 13 land development project reviews, 6 pre-application meeting requests, 131 building permit reviews and 454 associated inspections, processing of legislative applications (Special Use Permits, Certificates of Appropriateness, Zoning Ordinance Text Amendments). The department continues to perform zoning and property maintenance enforcement, grants, and administer transportation projects. The building inspector, code enforcement inspector and Director handle off-hour emergencies, special event inspections when food vendors and/or amusement devices are anticipated, property maintenance issues and zoning enforcement.

1) **Project Progress:**
   - Historic District Survey: Continue working with DEQ.
   - Fauquier Transportation Coordination Meetings
   - Zoning Ordinance Rewrite Kick-Off
   - Budget
   - Septic Remediation Committee: Continue working on grant with DEQ to move forward with public sewer connections

- Arts in Public Places: Monthly meetings, committee strategic next steps

2) **Data:**

Legislative Applications/Special Projects

Architectural Review Board

- Certificates of Appropriateness: 21 Administratively Approved Applications and 6 Legislatively Approved Applications

Local Board of Building Code Appeals

- No meetings over the second three months of 2024

Planning Commission

- SUP 2022-05 Warrenton Village Center – 3 work sessions and one public hearing
- ZOTA 2023-01 Zoning Ordinance Text Amendment to Telecommunication Towers – public hearing
- ZOTA 2024-02 Zoning Ordinance Text Amendment for Removal of Articles 4 and 5 – work session

Town Council

- SUP 2023-04 Taylor Middle School Expansion – public hearing
- Zoning Ordinance Update – two work sessions for Consultant Team (Clarion) Kick-Off, Initiation, and Steering Committee
- Smartscale Applications – Public Hearings

Zoning Ordinance Update

- 11 Stakeholder Meetings
- 1 Public Forum
- Scoping and kick-off with Clarion
- Steering Committee Development

- Special Projects/Trainings
- Budget Training
- Virginia Housing Commission Meeting/Housing Commission ADU Work Group
- Eva Walker Master Plan Review
- Smartscale Applications
- PD9 Presentation
- PD9 CEDS Strategy Committee Meeting
- Warrenton Arts Commission Monthly Meetings
- Tyler Demonstrations
- Town Talks
- Septic Remediation Project Scoping

- VDOT/Fauquier/Town Transportation Coordination Meetings

Pre-Application Meetings:

- 8010 Blackwell Road Benners Meadow
- 407 Holiday Court Greenridge Dispensary
- Winchester Street Chesterton Academy
- 310 Broadview Avenue EZ Lease
- Home Depot Outdoor Storage
- North Rock Good Will Donation

Zoning Applications/Permits:

- 47 Business Licenses
- 17 Sign Permits
- 14 New Zoning Enforcement cases
- 23 Zoning Permits
- 14 Zoning Inspections
- 1 Zoning Confirmation Letter
    - 407 Holiday Court
- 14 Land Development Projects
    - Strickland Brothers Oil Change As-built Reviewed/Approved
    - Waterloo Junction Site Plan Approved
    - Piedmont Urgent Care Site Plan/Easement Plat Reviewed
    - Academy Hill Site Plan Reviewed
    - Taylor Middle School Site Plan Reviewed
    - Sheetz Site Plan Reviewed
    - Wawa Minor Site Plan Amendment Reviewed/Approved
    - Warrenton Crossing Site Plan Approved
    - Old Alexandria Knolls Site Plan Approved
    - Walmart Grocery Pick-up Site Plan Reviewed
    - Waterloo and Garrett Street Subdivision and Legislative Waiver Reviewed
    - Fields of Dakota Bond Release Approved
    - 165 Green Street Bond Release Approved
    - 56 N. Sixth Street BLA Reviewed
    - Oak View Bank plan revisions reviewed

- 5 Pre-Application/Speculative Project Meetings
    - Benner's Meadow
    - Greenridge Project – 407 Holiday Court
    - Paul Henry's Windows – Development of existing commercial building
    - 310 Broadview – EZ Lease Auto Depot
    - Home Depot – Outdoor Storage

- 3 Post- Comment Review Meetings
    - Academy Hill

- Strickland Brothers Oil Change
- Waterloo and Garrett Street Subdivision

- 11 Special Projects
  - Site visits with homeowners and business owners to discuss concerns and/or permitting for their projects
  - Site visits with homeowners and business owners to discuss active zoning violations and remedies
  - Zoning staff attended several meetings with developers to discuss various projects and their status or next steps
  - Zoning staff attended both the Earth Day and Arbor Day Tree Plantings at Town parks
  - Zoning staff attended the Zoning Ordinance Update kick-off meeting with the consultant
  - Zoning staff attended a Zoning Variance Law webinar put on by the Town Attorney
  - Zoning Administrator attended new software demonstration presented by Tyler Munis
  - Review of Special Use Permits
  - FOIA Requests
  - Zoning Official attended a Structural Plan Review class offered by VA DPOR
  - Zoning Administrator continues to assist in facilitating the Town's Tree Board meetings

Building Applications/Permits:

- Fire Inspections completed for Business License Applications:
  - 43 Records Created
  - 43 Inspections Completed
  - 47 Permits Issued

- Annual Fire Prevention Inspections
  - 13 Records Created
  - 18 Inspections Completed

- Code Enforcement
  - 69 Records Created
  - 70-75 Inspections Performed

- Building Permits
  - 151 Records Created
  - 408 Inspections Completed
  - 140 Permits Issued

- Amusement Devices
  - 3 Records Created
  - 2 Permits Issued

Administrative:

- Warrenton Arts Commission Meetings
- Special Event Meetings
- FOIA's
- ERP Presentations
- Zoning Ordinance Update
- Budget Meetings
- ERP Meetings

Quarterly Report

Department

Town Council Meeting Date: August 13, 2024

Fourth Quarter FY 24: April, May, June

Please accept this as the quarterly report for the department

1) **Department Introduction:**
The Town of Warrenton Parks and Recreation Department provides programs, facilities and services that enhance the quality of life in our community and further perpetuate the Town of Warrenton as an exceptional place to live, work and play. We strive to provide citizens with attractive, clean, functional, safe, and pleasant places to recreate.

2) **Commendable Achievements:**

The spring session of swim lessons ran from April 9-May 28 with 37 classes offered and 150 participants.

Beginner Pickleball classes started the second Saturdays of each month, needed to add a second timeslot due to the popularity!

Hosted the FHS After Prom Party with over 200 students in attendance.

Held two Earth Day programs with tree plantings at Rady Park and Eva Walker Park with the Master Gardeners and Friends of the Rappahannock.

Farmer's Market Peak season kicked off on April 27 with 40 vendors each week.

Held the first Dog-a-palooza with 25 vendors. Attendance was low due to the weather, but we will try again next year!

Kids to Parks Day included a Storywalk at Eva Walker Park in partnership with the library and featured a book written by Eva Walker's granddaughter, Ashleigh Corrin Webb. Additional activities were planned but had to be cancelled due to the weather. We hosted Games against Guards on the same day and to celebrate Water Safety Month.

For Family Health and Fitness Day we hosted a Fun Run at the WARF, as well as Zumba and Yoga classes at Rady Park.

In partnership with Fauquier County Parks and Recreation, we provided activities from sunrise to sunset for the Virginia Recreation and Park Society's Play All Day Initiative on June 20.

On June 28, we brought back the full-scale Warrenton Town Limits Festival with an estimated attendance of over 7000, 14 food trucks, 50 vendors, 6 moon bounces, axe throwing, 9 music/entertainment activities, and so much more!

3) **Project Progress:**

Front walkway-As an update to the last quarterly report, this project is now included in the CARP submission and will cover any costs the insurance does not cover. We have received information back from the insurance company, along with quotes for the repairs needed for the damage inside the WARF due to the water main break. The front walkway will go out to bid in the next couple of months and will be included in the ADA improvement project as well.

Pool Lighting -As an update to the last quarterly report, the natatorium lighting replacement project has been approved as part of the FY 25 CIP submission and we anticipate the work being completed in the Fall.

Eva Walker Park-Phase 1 of Master Plan-As an update to the last quarterly report, we have had monthly meetings and provided feedback on the site and amenity plans. Next steps include receiving the design development plans and then the cost estimations.

WARF Elevator-As an update to the last quarterly report, we are currently awaiting the results of the evaluation and recommendations from the manufacturer.

ADA Playgrounds-We began conversations with a vendor to help us determine and recommend designs to make our playgrounds more accessible. We will be focusing on the Fun for All Playground surfacing replacement, expanding the Rady Park playground to include a swing set and additional inclusive and accessible pieces of equipment. Additionally, we are looking at and seeking feedback to an expansion of the Sam Tarr Park playground that would include a larger swing set and playground with accessible features. Additional grading will also most likely need to be done at all three playgrounds to ensure we are compliant with ADA standards. The Eva Walker Park playground will be addressed within the phased concept of the Eva Walker Park Master Plan.

Parks and Recreation Master Plan-Began work on drafting the scope of work to be included in the RFP for the master plan and will continue to evaluate and refine the RFP.

4) **Charts and information:**

TOWN OF WARRENTON
Parks & Recreation

WARF

Town of Warrenton
Department of Parks and Recreation
FY24 Fourth Quarter Report

Revenue Summary	FY 2023 3rd Qtr.	FY 2023 4th Qtr.	FY 2023 Total	FY 2024 1st Qtr.	FY 2024 2nd Qtr.	FY 2024 3rd Qtr.	FY2024 4th Qtr.	FY 2024 YTD
Memberships	$88,610.12	$89,896.43	$324,933.72	$90,169.41	$78,405.81	$82,469.01	$74,192.76	$325,236.99
MVPasses	$13,055.00	$7,140.50	$40,102.00	$11,728.00	$8,918.75	$11,588.50	$11,515.00	$43,750.25
Daily Admissions	$42,732.44	$73,903.86	$200,501.72	$62,803.24	$30,831.15	$51,794.00	$80,779.00	$226,207.39
Programs (Aquatics, Fitness, Recreation)	$31,997.87	$50,916.65	$127,433.39	$28,028.47	$24,802.00	$30,069.87	$56,734.74	$139,635.08
Rentals	$115,697.75	$24,106.50	$253,304.75	$48,419.00	$48,704.00	$115,367.50	$26,237.50	$238,728.00
Individual Instruction	$14,568.00	$13,750.87	$59,512.74	$12,600.00	$8,124.50	$5,355.00	$2,490.00	$28,569.50
Merchandise	$818.72	$1,092.91	$3,638.28	$1,062.69	$549.01	$1,146.16	$1,145.45	$3,903.31
Sponsorship/Grant/ Ad Sales	$0.00	$0.00	$0.00	$2,900.00	$0.00	$6,500.00	$6,050.00	$15,450.00
Park Rentals and Events	$1,082.50	$3,747.50	$7,595.00	$2,752.50	$635.00	$2,585.00	$3,330.86	$9,303.36
Special Events	$0.00	$0.00	$0.00	$0.00	$0.00	$595.00	$2,290.00	$2,885.00
Childcare	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Vending Commission	$354.23	$10,702.61	$11,627.69	$1,618.32	$918.17	$2,144.10	$1,969.71	$6,650.30
End of period	***$308,916.63***	***$275,257.83***	**$1,028,649.29**	***$262,081.63***	***$201,888.39***	***$309,614.14***	***$266,735.02***	***$1,040,319.18***

Monthly Memberships/25 Visit Passes/Admissions Sales Summary	FY 2023 3rd Qtr.	FY 2023 4th Qtr.	FY 2023 YTD	FY 2024 1st Qtr.	FY 2024 2nd Qtr.	FY 2024 3rd Qtr.	FY 2024 4th Qtr.	FY 2024 YTD
New Annual Memberships	182	247	721	245	228	209	202	884
Renewal Rate	3%	3%	5%	2%	2%	4%	7%	3.5%
Monthly Memberships	188	235	759	216	179	207	193	795
25 Visit Passes	93	52	360	81	67	83	74	305
Daily Admissions	6,412	10,857	29,491	8,946	4,553	7,890	11,538	32,927
Total Number of Check-ins	25,756	27,934	97,017	25,468	23,706	27,721	30,174	107,069

Monthly Programming Summary	FY 2023 3rd Qtr.	FY 2023 4th Qtr.	FY 2023 Total	FY 2024 1st Qtr.	FY 2024 2nd Qtr.	FY 2024 3rd Qtr.	FY 2024 4th Qtr.	FY 2024 YTD
Aquatic Classes Offered	46	96	220	81	6	39	97	223
Number of Participants in Aquatic Classes	206	427	952	342	34	191	465	1032
Fitness Classes Offered	738	640	2867	744	736	682	716	2878
Number of Participants in Fitness Classes	5754	5031	19588	5651	5419	6943	6352	24365
Specialty Classes Offered	5	3	23	3	3	3	7	16
Number of Participants in Specialty Classes	14	15	51	21	17	22	55	115
Recreation Programs/Events Offered	0	6	10	0	3	3	5	11
Number of Participants in Recreation Programs/Events	0	108	289	0	183	145	96	424

Rentals	FY 2023 3rd Qtr.	FY 2023 4th Qtr.	FY 2023 Total	FY 2024 1st Qtr.	FY 2024 2nd Qtr.	FY 2024 3rdQtr.	FY 2024 4th Qtr.	FY 2024 YTD
Swim Lanes	3279	1253.5	7821.5	853.75	3280	3100.25	1424.5	8658.5
Birthday Parties	53	59	229	51	56	69	74	250
Facility Rentals	125	36	259	25	35	22	25	107
Pavilion Rentals	2	44	89	33	16	3	44	96
Field Rentals	0	0	1	0	6	2	0	8

5) **Data:**

Compared to this time last fiscal year, we are only seeing about a 1% decrease in overall revenue, this is due to decreases in memberships, individual instruction, and park rentals, but increases in 25 Visit passes, daily admissions, program revenue, sponsorships and facility rentals. *Please note the Vending Commission difference was due to receiving a large check in FY 23 4th quarter from the company that accounted for sales from May 2019-March 2023. The amount for FY 24 4th quarter is typically what we receive on a quarterly basis from the vending commission. *

25 visit pass sales are up 42% and daily admissions are up 6% compared to this time last year. Annual membership sales are down 22%, but the renewal rate has increased by 4%.

Aquatic class participation has increased by 9% and fitness class participation has increased by 26%.

We saw a 13% increase in swim lane rentals and 25% increase in birthday parties.

TOWN OF WARRENTON
Parks & Recreation

WARRENTON

WARF

Town of Warrenton
Department of Parks and Recreation
FY24 Fourth Quarter Report

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Quarterly Report

Public Works & Utilities

Departments

Town Council Meeting Date:

Fourth Quarter FY-2024:

Please accept this as the quarterly report for the ***Public Works & Utilities*** departments.

Commendable Achievements:

- An employee from the Utilities Department attended AWWA (American Water Works Association) training in Richmond.
- We sponsored the Annual Touch A Truck Event again this year on May 3rd. With approximately 861 attendees, and some schools making this their field trip, it was a great success again. Thanks to all the Departments that contributed to making this the largest one yet.



- Congratulations to the recipients of the Richard R. Wines awards this year, James Pyne from the Utilities Department and Roger Heflin from Public Works. James I. Pyne retired from our employment at the end of June. This was after almost 20 years of dedicated service to the Town.




Public Works:

- The crew assisted the Master Gardeners in planting a tree for Earth Day.




- John Paul Design Build donated 3 Dogwood trees to the Warrenton Cemetery. They were installed by Town Crew.





- Town crew widened the road through the cemetery.




- Crew Installed concrete curb and bioswale to improve the stormwater drainage on Gaines Street.




- Crew removed the undergrowth from the swings in the Rady Park Playground and then installed mulch.




- Town crew repurposed some of the old road millings and installed it in the landscaping shed at the rear of the Public Works Facility.




- The crew removed the overgrowth of bamboo at Ivy Hill.




- _12_ Burial permits issued: Apr. _6_ May _4_ June _2

Walkability Study Repairs included:

- Our contractor, Espina Contracting has continued to repair/replace 17 ADA ramps on Oak Springs Dr.
- On West Lee Highway by Blalock Cycles, we contracted a contractor to install a pedestrian guardrail along the newly installed concrete sidewalk. This completes walking accessibility from Winchester Street to Blackwell Rd.





Public Utilities:

- Staff completed the scheduled Spring fire hydrant flushing routine for the year.
- Staff measured and are raising the manhole lids in various locations in the Town. This is for the upcoming paving projects.
- The crew hydro-excavated around the foundation at Town Hall at 21 Main Street.
- Hydro-Excavated the water-line on Gold Cup Drive to determin the size of it. This was for the betterment project.
- The crew has started upgrading from the old style meter setters to the newer style on Cherry Tree Land. Approximately 15 have been completed to date.
- _13_ Responding to customer complaints/issues.
- _1__ Sanitary sewer laterals was repaired.

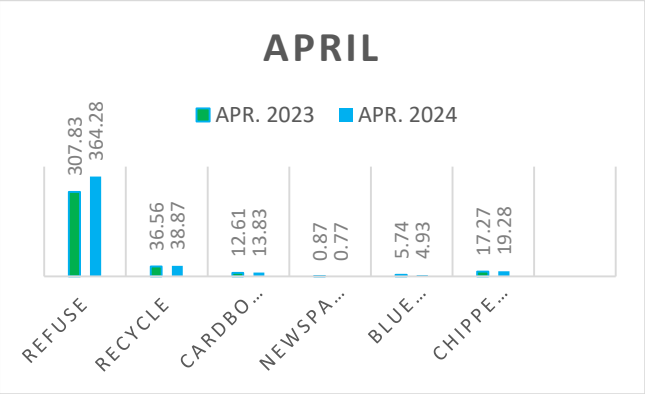
Meter Dept:

- _0_ Meter installed. 0_ Meters replaced. _112_ Read & Transfer.
- _2_ Water connections issued. _1_ Sewer connections issued
- _17_ Water cut-ons/offs.
- _0_ Meter registers replaced.

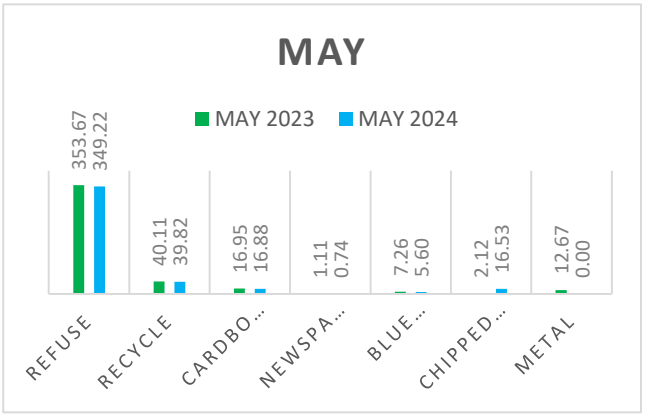
Charts and information:

2ND. QTR. OF 2024 TONNAGES FOR REFUSE & RECYCLING

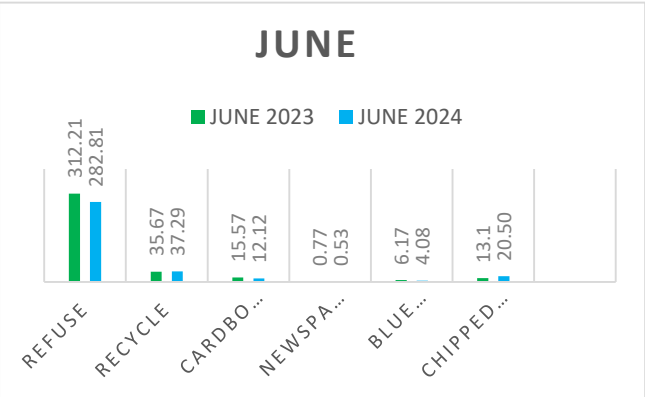
	APR. 2023	APR. 2024
Refuse	307.83	364.28
Recycle	36.56	38.87
Cardboard	12.61	13.83
Newspaper	0.87	0.77
Blue Bags	5.74	4.93
Chipped Brush	17.27	19.28



	MAY 2023	MAY 2024
Refuse	353.67	349.22
Recycle	40.11	39.82
Cardboard	16.95	16.88
Newspaper	1.11	0.74
Blue Bags	7.26	5.60
Chipped Brush	2.12	16.53
Metal	12.67	0.00



	JUNE 2023	JUNE 2024
Refuse	312.21	282.81
Recycle	35.67	37.29
Cardboard	15.57	12.12
Newspaper	0.77	0.53
Blue Bags	6.17	4.08
Chipped Brush	13.1	20.50



Water Treatment Plant:

	Apr.	May	June
Total gallons pumped (All Sources):	32,546,596	35,925,530	35,826,144
Average gallons per day:	1,049,890	1,158,888	1,155,682
Total gals. pumped same month last year:	32,907,196	38,205,642	34,337,644
Average gallons per day:	1,061,522	1,232,440	1,107,666

Wastewater Treatment Plant:

	Apr.	May	June
Total gals. flow through the sewage plant:	50,580,000	51,570,000	41,920,000
Average gallons per day:	1,631,613	1,663,548	1,352,258
Total gals. flow during the same month last year:	51,030,000	48,420,000	42,110,000
Average gallons per day:	1,646,129	1,561,935	1,358,387
Total inches rainfall:	.8 In.	3.05 In.	3.05 In.

DEQ Report of Operation Report:

Apr.	2023	2024
Reported Water Connections:	5,021	5,031
People served:	11,799	11,822
May	**2023**	**2024**
Reported Water Connections:	5,030	5,043
People served:	11,820	11,851
June	**2023**	**2024**
Reported Water Connections:	5,046	5,030
People served:	11,858	11,820

The Town of Warrenton
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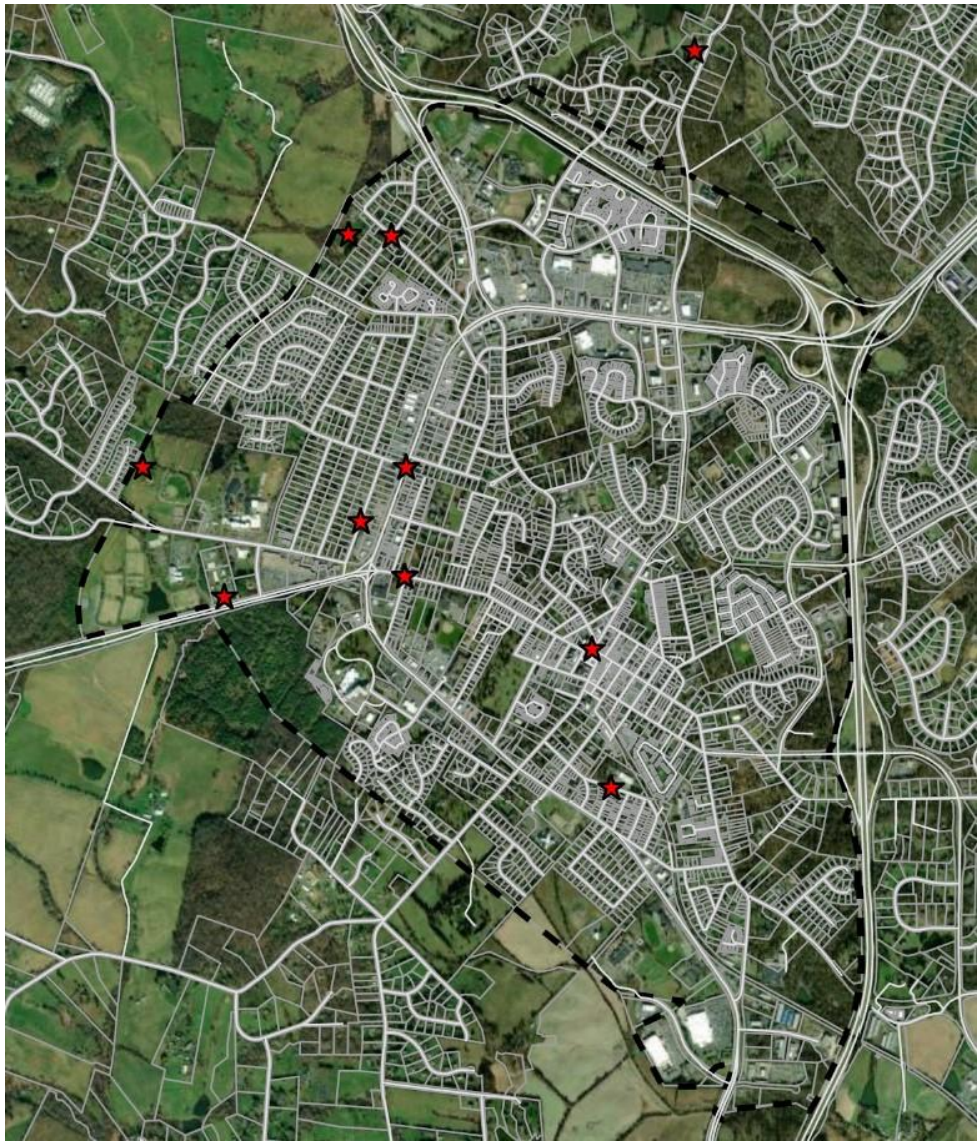
July 2024 CIP Report

Capital Improvement Projects



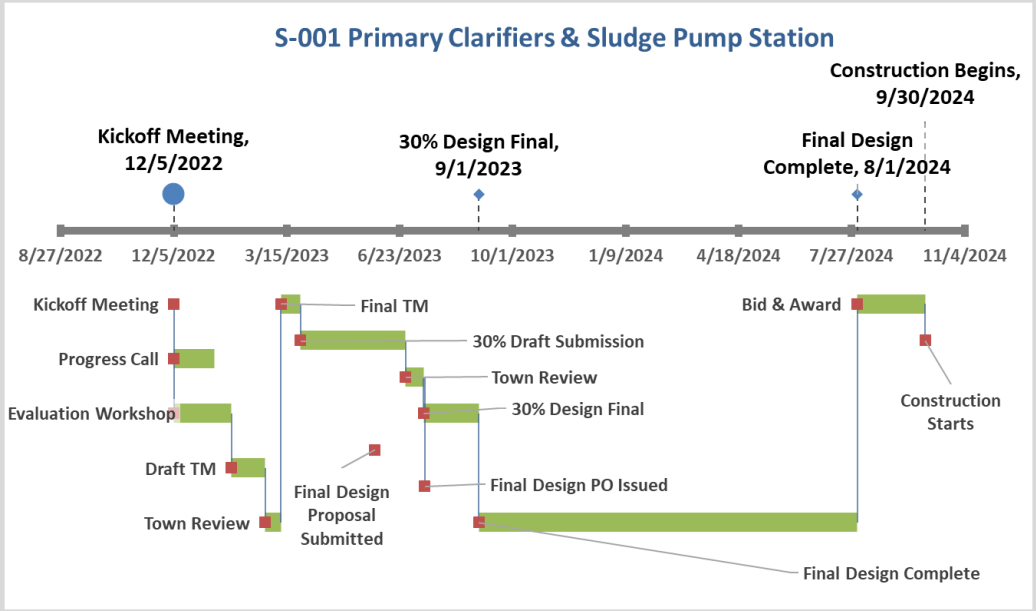
Project Name: S-001 Primary Clarifiers & Sludge Pump Station

Project Objective: Replace the existing primary clarifiers and sludge pumps.

Project Status Update: The designer has completed the final design. The project will start the bid process by August 1, 2024

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
PE Design	December 5, 2022	September 1, 2023	100%
Final Design	September 5, 2023	August 1, 2024	100%
Project Bid	August 1, 2024	September 30, 2024	50%
Construction	October 1, 2024	January 1, 2027	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE		
Design	$	474,682.00	Debt	$	8,574,682.00
Construction	$	14,150,000.00	Federal	$	5,400,000.00
			W&S Fund	$	650,000.00



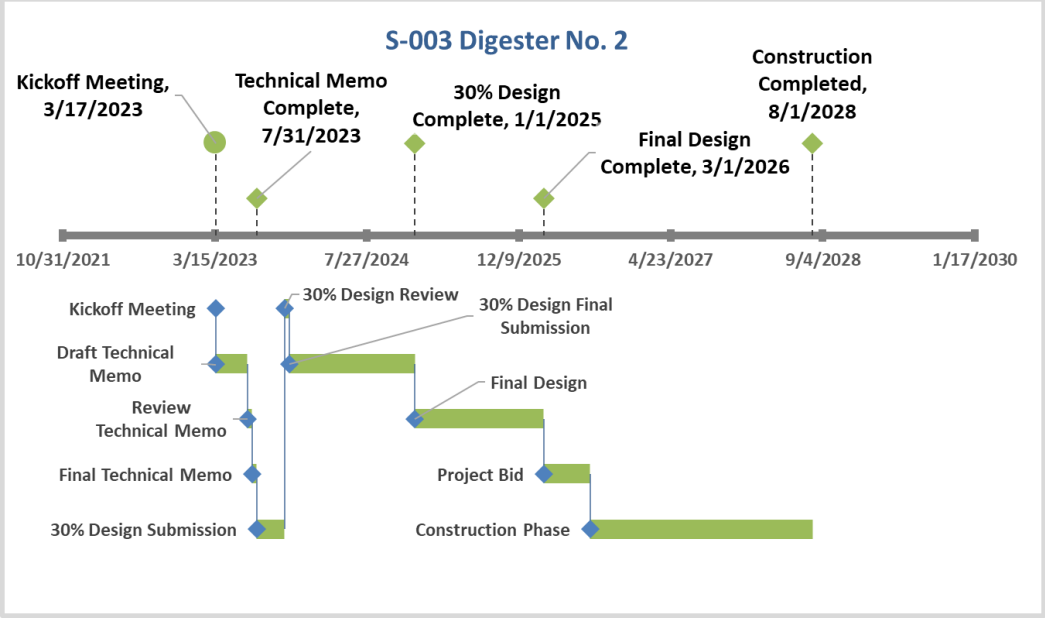
Project Name: S-003 Digester No. 2

Project Objective: A new digester to breakdown wastewater biosolids

Project Status Update: The designer is working on a technical memorandum.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
PE Design	March 17, 2023	January 1, 2025	90%
Final Design	January 1, 2025	March 1, 2026	0%
Project Bid	March 1, 2026	August 1, 2026	0%
Construction	August 1, 2026	August 1, 2028	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE	
Design	$ 710,000.00		Debt	$ 6,063,750.00
Construction	$ 6,063,750.00		W&S Fund	$ 710,000.00



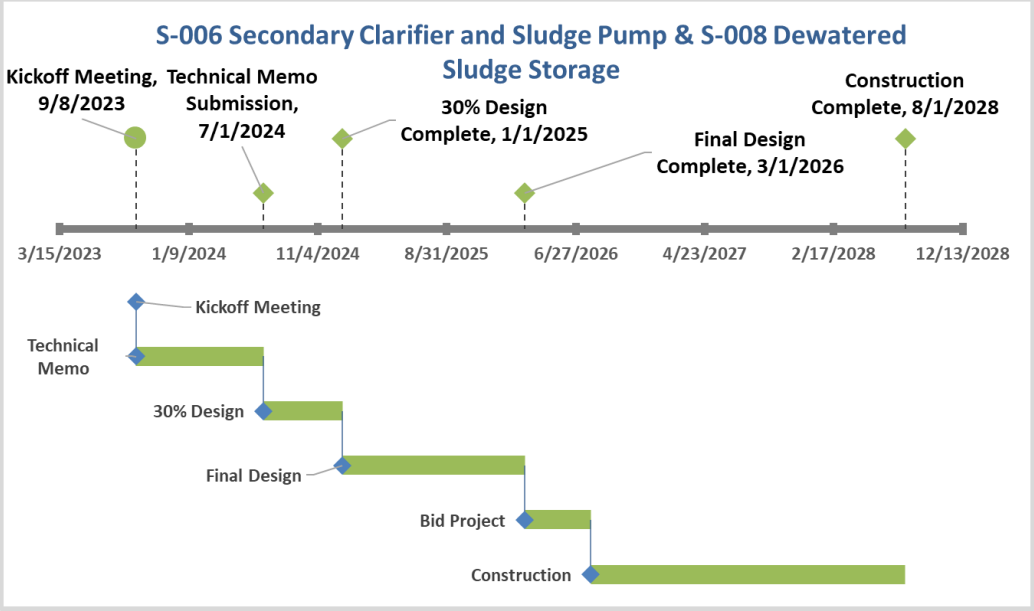
Project Name: S-006 Secondary Clarifier and Sludge Pump & S-008- Dewatered Sludge Storage

Project Objective: Replace the existing secondary clarifiers, sludge pumps and rehab the existing sludge storage structure.

Project Status Update: The designer is still working on the evaluation phase.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
PE Design	March 17, 2023	January 1, 2025	50%
Final Design	January 1, 2025	March 1, 2026	0%
Project Bid	March 1, 2026	August 1, 2026	0%
Construction	August 1, 2026	August 1, 2028	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE	
Design	$ 630,000.00		Debt	$ 10,500,000.00
Construction	$ 11,250,000.00		W&S Fund	$ 1,380,000.00



Project Name: W-001 WTP Clearwell Project

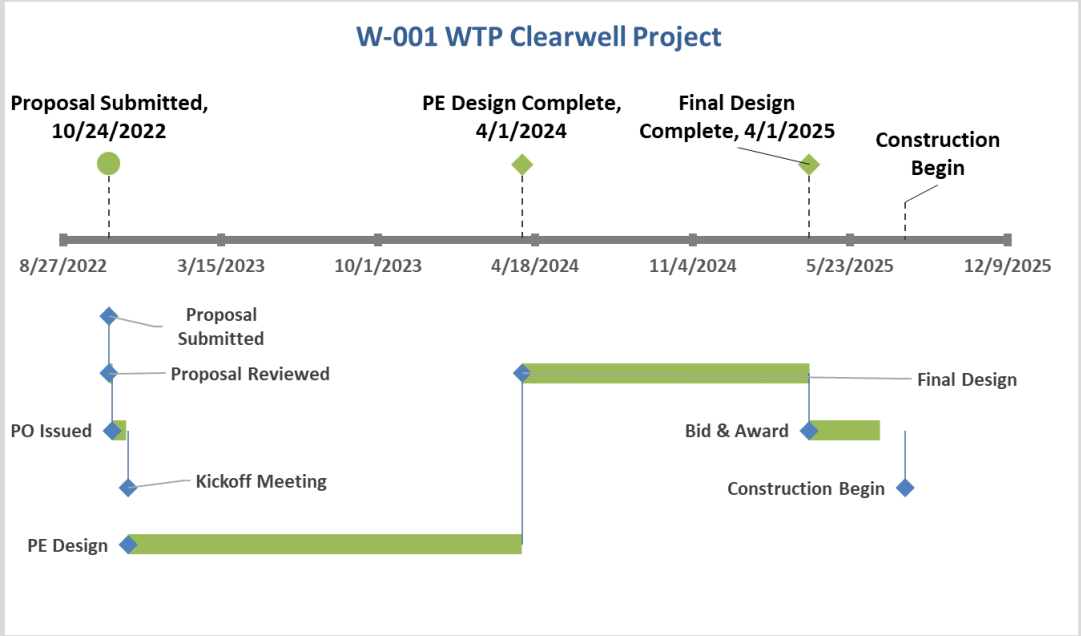
Project Objective: Study, design and construct a clearwell at the Water Treatment Plant. This will allow for additional resiliency.

Project Status Update: The designer submitted the technical memorandum and 30% design. Town staff is reviewing the options submitted by the designer.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
PE Design	October 24, 2022	April 1, 2024	100%
Final Design	April 1, 2024	April 1, 2025	20%
Project Bid	April 1, 2025	June 30, 2025	0%
Construction	August 1, 2025	August 1, 2027	0%

PROJECT BUDGET		
Design	$	595,000.00
Construction	$	8,609,000.00

PROJECT FUNDING SOURCE		
Debt	$	7,775,000.00
W&S Fund	$	1,429,000.00



Project Name: W-002 Filter Control Valves

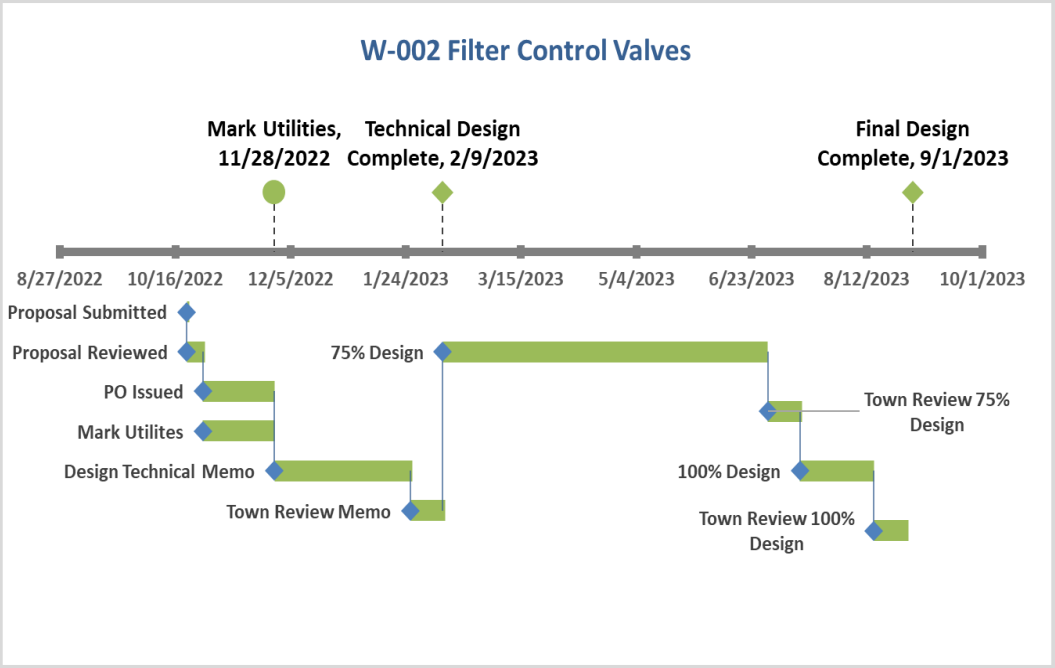
Project Objective: Replace the failing valves at the Water Treatment Plant. The current valves must be reprogrammed daily.

Project Status Update: All submittal have been approved and contractor awaiting for valves to be delivered.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
Design	November 17, 2022	September 1, 2023	100%
Project Bid	September 1, 2023	November 1, 2023	100%
Construction	December 2024	February 2025	15%

PROJECT BUDGET		
Design	$	97,763.00
Construction	$	1,371,851.00

PROJECT FUNDING SOURCE		
Debt	$	750,000.00
W&S Fund	$	719,614.00



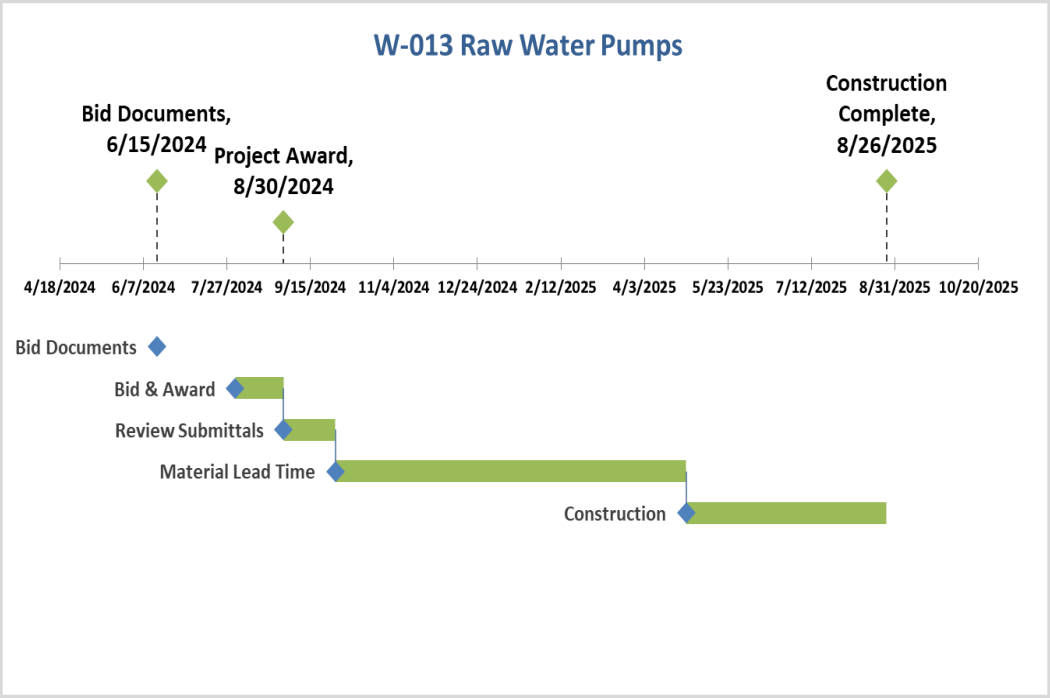
Project Name: W-013 Raw Water Pumps

Project Objective: Replace the aging and obsolete raw water pumps.

Project Status Update: The project will be out for bid by August 1, 2024.

Phase (Task)	Start	Finish	% Complete
Bid Documents	June 15, 2024	August 1, 2024	100%
Project Bid	August 1, 2024	August 30, 2024	0%
Construction	August 30, 2024	August 26, 2025	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE	
Design	$	70,000.00	Debt	$ -
Construction	$	700,000.00	W&S Fund	$ 770,000.00



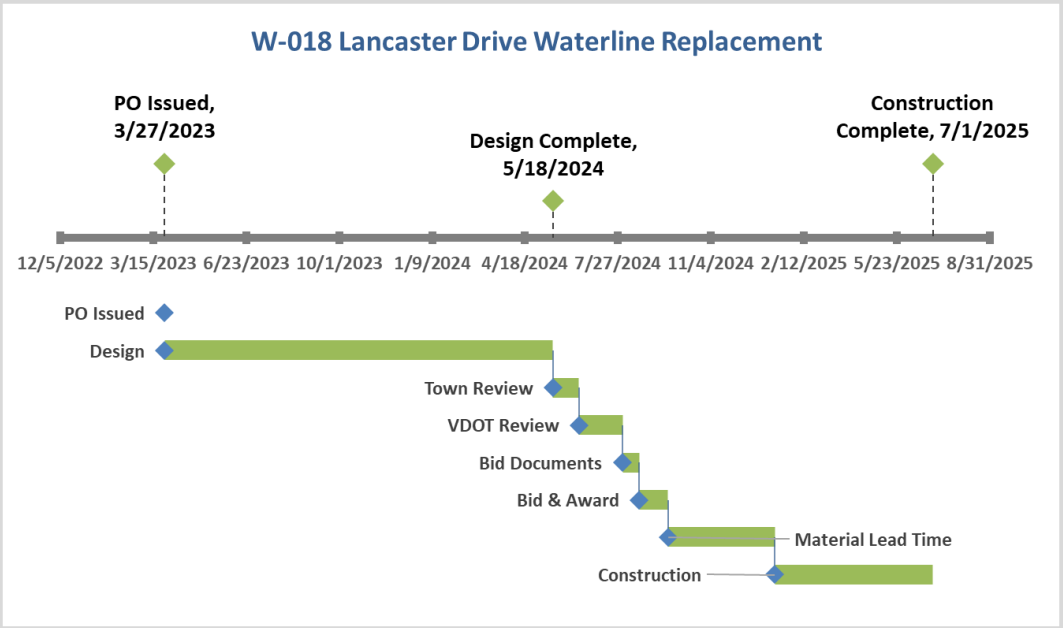
Project Name: W-018 Lancaster Drive Waterline Replacement

Project Objective: Replace the existing cast iron waterline with ductile iron, which will improve fire flows and reduce pipe breaks.

Project Status Update: VDOT is reviewing the final design.

Phase (Task)	Start	Finish	% Complete
Design	March 27, 2023	August 1, 2024	100%
Project Bid	August 1, 2024	September 30, 2024	50%
Construction	October 1, 2024	June 1, 2025	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE	
Design	$ 95,434.00		Debt	$ -
Construction	$ 2,366,930.00		W&S Fund	$ 2,366,930.00



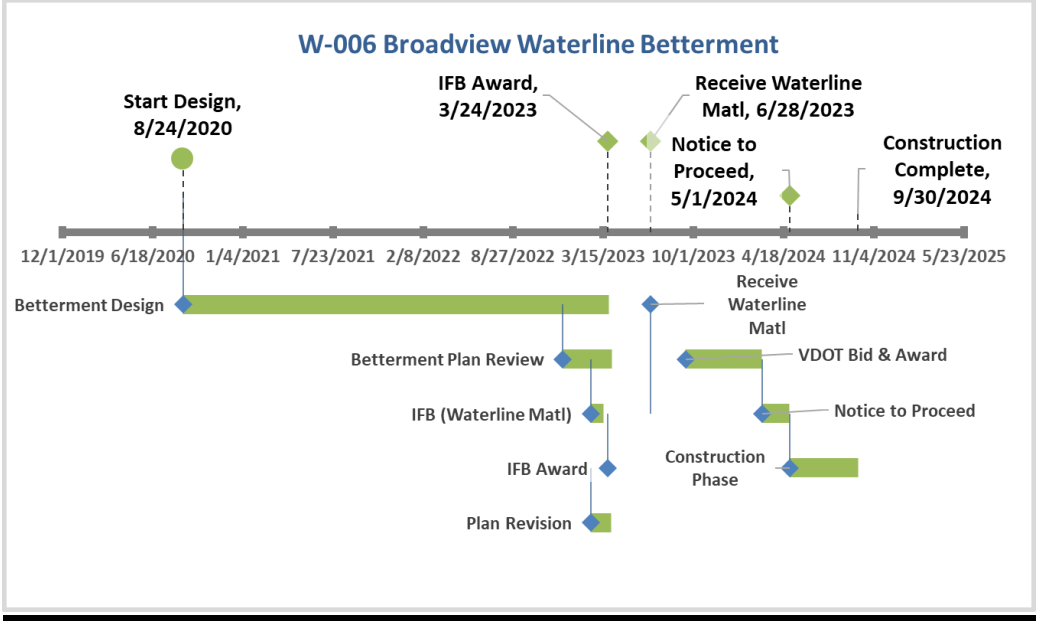
Project Name: W-006 Broadview Waterline Betterment

Project Objective: Improve the Water Distribution System for improved service to businesses and better fire protection.

Project Status Update: VDOT has started installing the water main from Waterloo to Gold Cup. This portion of the project should be completed by end of September 2024.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
Design	August 24, 2020	April 3, 2023	100%
Project Bid	July 3, 2023	February 21, 2024	100%
Construction	March 2024	September 30, 2024	60%

PROJECT BUDGET		PROJECT FUNDING SOURCE	
Design	$ -	Debt	$ -
Construction	$ 872,812.00	W&S Fund	$ 872,812.00



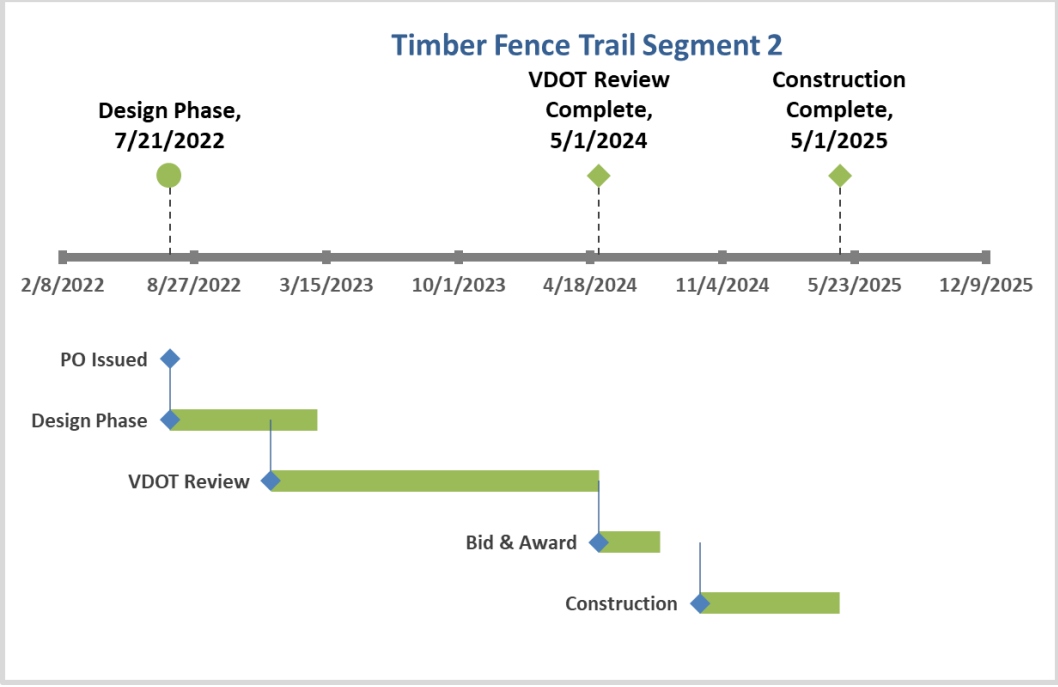
Project Name: Timber Fence Trail Segment 2

Project Objective: The Town will construct an asphalt trail to connect the Northwestern community to Fauquier High School and WARF.

Project Status Update: Waiting for VDOT to close scoping and approve right-of-way agreement. CEI contract was awarded in September 2023.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
Design		July 31, 2023	100%
Project Bid	July 31, 2023	November 15, 2023	70%
Construction	October 2024	May 2025	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE		
Design	$	65,000.00	General Fund	$	50,889.00
Construction	$	443,390.00	VDOT	$	407,112.00
			Other	$	50,889.00



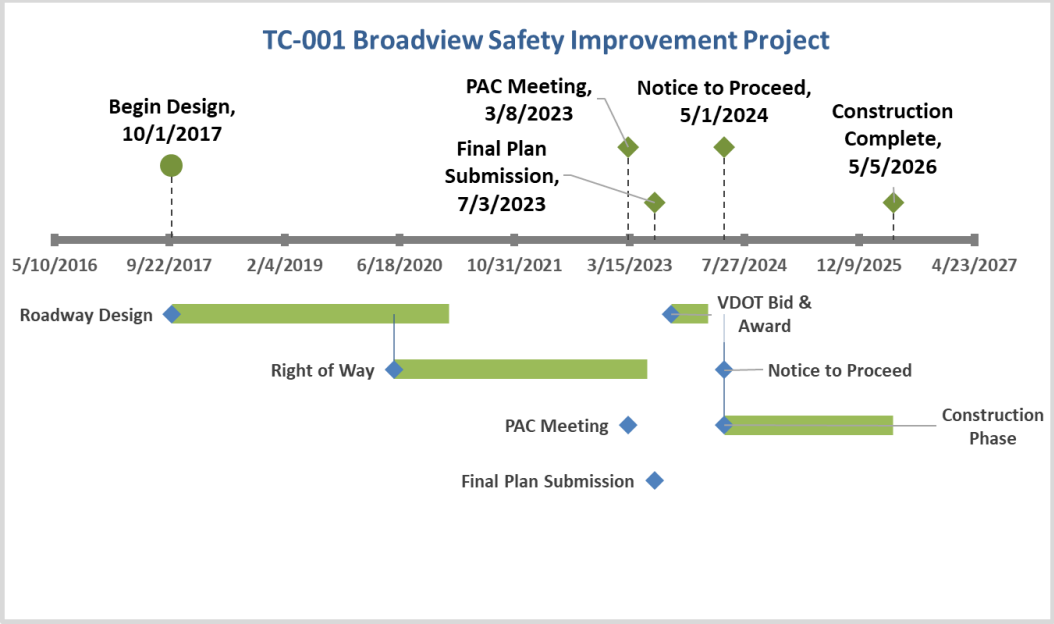
Project Name: TC-001 Broadview Safety Improvement

Project Objective: To improve safety and access management to businesses.

Project Status Update: VDOT has started the project and is on schedule to complete by May 2026.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
Design	October 1, 2017	July 3, 2023	100%
Project Bid	July 3, 2023	February 21, 2024	50%
Construction	May 1, 2024	May 2026	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE		
R/W	$	2,032,481.00	General Fund	$	1,488,000.00
Design	$	-	VDOT	$	6,363,893.00
Construction	$	5,819,412.00			



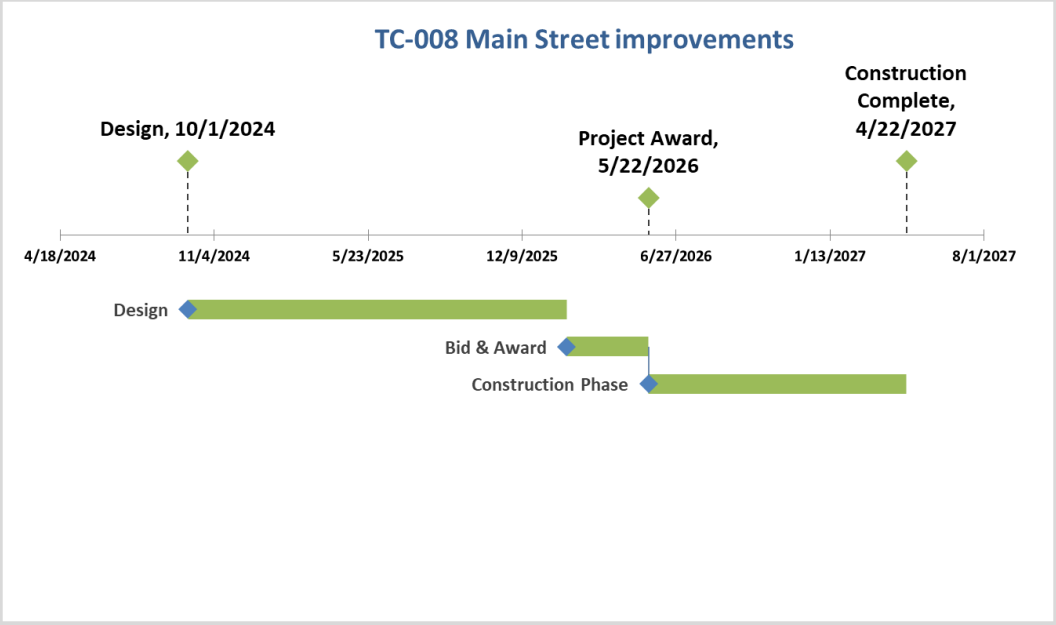
Project Name: TC-008 Main Street Improvements

Project Objective: Town's Main Street Improvements project will enhance the crosswalks and sidewalks.

Project Status Update: Town and VDOT has agreed on a cost estimate. The project agreement will be sent to Town by August 2024 and will be presented to Council in September 2024 meeting.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
Design	October 1, 2024	February 5, 2026	0%
Project Bid	February 5, 2026	May 22, 2026	0%
Construction	May 22, 2026	April 22, 2027	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE	
Design	$ 146,003.00		General Fund	$ 448,002.00
Construction	$ 1,843,614.00		VDOT	$ 807,308.00
			Debt	$ 734,307.00



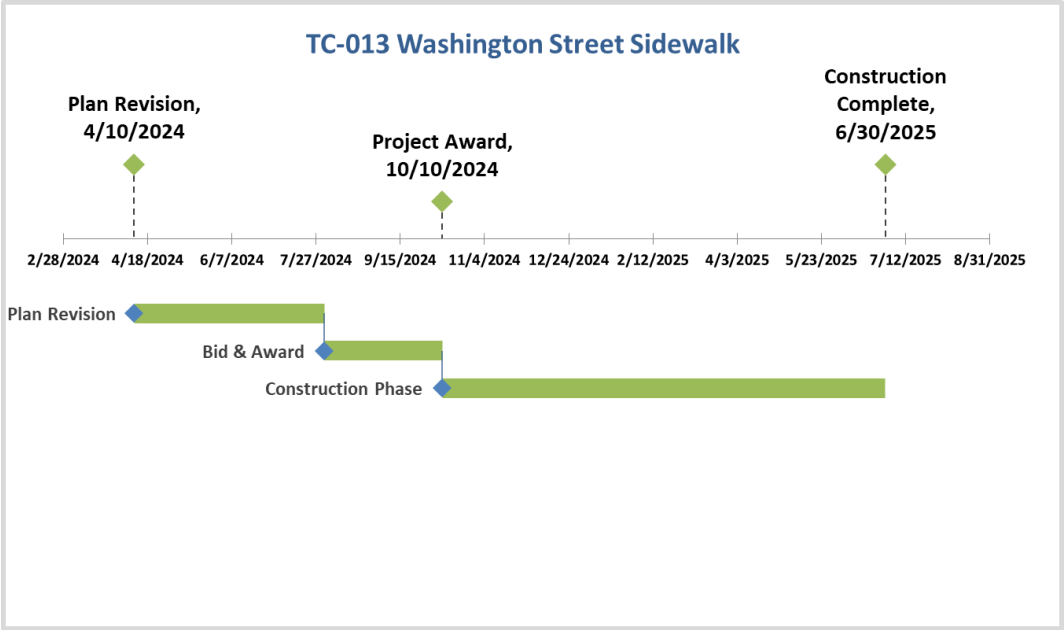
Project Name: TC-013 Washington Street Sidewalk

Project Objective: This section of sidewalk will connect the Greenway with Green Street and provide increased walkability.

Project Status Update: The plan revision is complete and ready to bid by September 2024.

PROJECT SCHEDULE			
Phase (Task)	**Start**	**Finish**	**% Complete**
Plan Revision	April 10, 2024	August 1, 2024	0%
Project Bid	August 1, 2024	October 10, 2024	0%
Construction	October 10, 2024	June 30, 2025	0%

PROJECT BUDGET			PROJECT FUNDING SOURCE		
Design	$	21,250.00	General Fund	$	510,287.00
Construction	$	489,037.00	VDOT	$	-
			Debt	$	-



The Town of Warrenton
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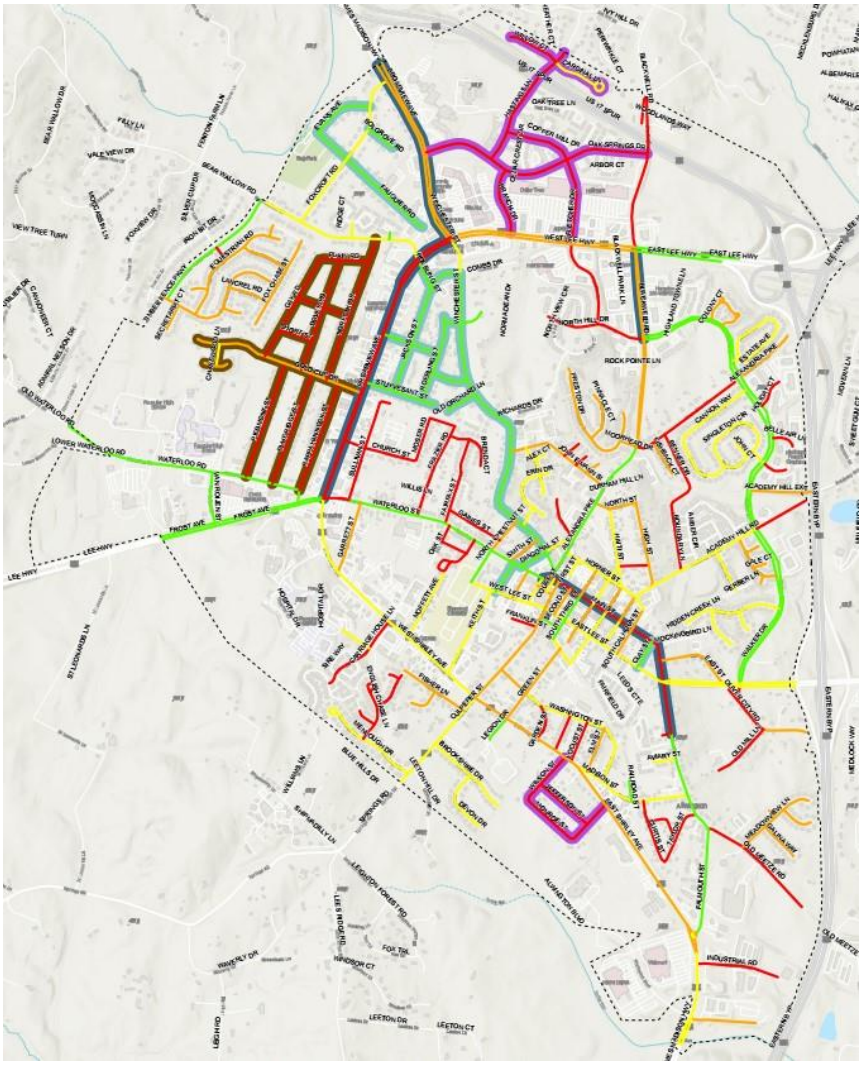
July 2024 Road Conditions Report



VDOT State of Good Repair

- **VDOT State of Good Repair Program- Local Pavement Program**
  - 100% funding from VDOT via FHWA
  - ADA Ramps upgraded to present standards
  - Mill and overlay deteriorated streets

- **SGR targets for October 2023 application**
  - Won a total of $598,723.49 VDOT SGR funds for the following routes
    - Falmouth Street- from Falmouth Court to Main Street
    - Main Street- from Falmouth Street to Alexandria Pike
    - Alexandria Pike- from Main Street to Old Alexandria Pike

- **VDOT CTB Requirements**
  - CTB FY-2029 Goal
    - 82 % of Arterial Streets need a CCI score of 60 or greater
    - 75 % of Collector Streets need a CCI score of 60 or greater

Pavement Overlay and Sidewalk Replacement Plan

- **FY-25 Pavement Overlay Schedule**
  - Award PO July 2024
  - Collector Routes
    - Branch Drive
    - Fletcher Drive
    - Oak Springs Drive
    - Hastings Lane
    - Willow Court
    - Wilson Street
    - Monroe Street
    - Cleveland Street
    - Jefferson Street
  - Fix broken curbs and sidewalks on proposed routes
    - Estimate 35% to 40% replacement
  - Sidewalk Repairs- Spring 2024
  - Asphalt placement- Completed before July 1, 2025

- Estimated Funding Request- $800,000.00

➢ **FY-26 Pavement Overlay Schedule**

- Award PO July 2025
- Collector Routes
  - Beacon Road
  - Blue Ridge Street
  - Dover Road
  - Norfolk Drive
  - Piedmont Street
  - Rappahannock Street
  - Short Street
- Fix broken curbs and sidewalks on proposed routes
  - Estimate 35% to 40% replacement
- Sidewalk Repairs- Spring 2025
- Asphalt placement- Completed before July 1, 2026
- Estimated Funding Request- $450,000.00

➢ **Pavement Evaluation**

- Forecast future funding demands
- Spring 2024 evaluate Poor and Fair Roadways
- Start Planning for FY-27 Pavement Overlay and Sidewalk Replacement

➢ **Current Pavement Conditions**

Current Road Conditions (2nd Quarter 2024)						
Arterial Routes				Collector Routes		
Condition	Lane Miles	Percentage		Condition	Lane Miles	Percentage
Good	10.2	31.1%		Good	12.8	19.4%
Satisfactory	7.1	21.6%		Satisfactory	14.3	21.6%
Fair	9.6	29.3%		Fair	15.2	23.0%
Poor	5.9	18.0%		Poor	23.8	36.0%
Total Lane Miles	32.8			Total Lane Miles	66.1	

➢ **Town Current CCI Score**

- Arterial Street- 64.3
- Collector Street- 57.7

Sidewalk Construction

- **Fauquier Road**
  - Started Preliminary Engineering on September 28, 2023
  - Survey work completed by end of October 2023
  - Concept Plan completed December 2023
  - Public Comment
  - 30% Design completed by end of 2024
  - Submit for VDOT funding in FY-25

- **Haiti Street**
  - Estimated Bid: Mid-August 2024
  - Construction: Spring 2025

- **Main Street**
  - VDOT Agreement: September 2024
  - Start Design: October 2024

- **Washington Street**
  - Estimated Bid: September 2024

- **Waterloo Street**
  - Estimated Construction: Spring 2025

- **Future Sidewalks in planning stage**
  - Gay Road
  - Foxcroft Road
  - Academy Hill Road

Transportation & Safety Improvements

- **Courthouse Square**
  - Install new traffic pattern: Fall 2024

Quarterly Report

Human Capital Department

Town Council Meeting Date: August 13, 2024

Fourth Quarter FY-2024: April, May, June

Please accept this as the quarterly report for the Human Capital department

Department introduction:

The Human Capital (HC) department delivers innovative HC programs and services that are designed to support the Town's most valuable asset, our employees, as well as the Town Council's objectives and initiatives. The HC Department administers a comprehensive HC program that is consistent with Federal, State, and local statutes that is aimed to attract, motivate, and retain a diverse and skilled employee workforce.

HC's purpose is to deliver thought and servant leadership that meets the needs of our employees (current and prospective). To achieve maximum efficiency and success, the HC department is broken into five pillars: Recruitment, Benefits, Cultivation, Governance, and Risk Management & Emergency Services.

HC supports and encourages our employee's personal and professional growth through individual learning opportunities, wellness initiatives, and other Town sponsored activities and programs. We offer competitive benefits packages to employees that include medical, dental, vision, life insurance, short term disability, vacation/sick leave, paid holidays, wellness/financial benefits, deferred compensation plan, retirement, and more.

Commendable Achievements:

- Kasey Braun, Director of Human Capital and Kelly Koernig, Director of Parks & Recreation developed the Excellence in Leadership training for Senior Leadership team. Training for the leadership team was kicked off in June 2024.

Project Progress:

- Health Center partnership with the County is active. Final contract was reviewed/approved, and we began implementation to kick off employee access to the Health Center, which is effective May 3, 2024. Continued enhancements such as DOT and Employee Physicals are in progress.
- Continuation of building partnership with County Human Resources team. Meet monthly, at a minimum, to review County and Town programs and will continue to discuss collaboration efforts. More updates to come in the near future on program efforts.
- Continuing the internal review of job descriptions. Senior leadership will be working closely with their teams on updating all job descriptions – duties, responsibilities, certifications, etc. A new template was provided to which will begin building on the succession planning program in identifying grade levels for positions that do not have this defined.
- Throughout FY24, HC worked with all leaders to streamline the recruitment program through the utilization of our HRIS (Human Resources Information System), Paylocity. This

enhancement and utilization of our system provides a more efficient process for managers, through the workflow feature. We have received great feedback with additional requests for enhancements. We will continue to work with Paylocity on the ability to continue system enhancements.

- Continue to review and enhance the Recruitment program. HC meets with hiring managers on a monthly basis or as needed to discuss recruitment efforts and the overall program processing.
- Development of an in-person onboarding program. Human Capital is partnering with all hiring managers and department heads to identify their onboarding needs. The purpose of this program is to develop an on-site orientation day for new hires to learn about the Town and will provide the information they need to be successful in their position. The program is delayed and is anticipated to be kicked off by 2nd Quarter FY25.
- Organizational Staffing Study. Final discussions are underway with TM to include an assessment report. During FY24 and into Q1 FY25, the TM is working with Department Heads on reviewing needs within their department and to review organizational efficiencies. The organizational staffing study was a benchmarking tool that assisted Department Heads in reviewing their department staffing structure as it relates to overall positional duties, project initiatives, and in meeting the TM & TC goals and objectives. The final report is anticipated to be released within Q2 or Q3 of FY25.
- Lastly, it is important to note that all Human Capital strategic initiatives directly correlate with accomplishing the goals within the Plan Warrenton 2040. In order to meet these, there must be a highly skilled and adaptable workforce that can continue to provide a high level of services and public amenities for all citizens and visitors to enjoy. Therefore, through the enhancement of our internal Human Capital programs to include the training and development program, the Towns workforce will continue to develop their skills to meet the needs of the Plan Warrenton 2040 objectives. Ultimately, the main objective of cultivating a strong workforce is to be able to meet the overall purpose of Town Council strategic goals and the Plan Warrenton 2040 initiatives.

Charts and information:

Hire/Turnover Stats for Q4 (April – June 2024) & FY24 (July 23 – June 24)

2024	Quarter 4	
Total Headcount - Full Time	133	
# Hires	3	
# Voluntary Sep	0	
# Involuntary Sep.	2	
# Voluntary Turnover %	0.00%	
# Involuntary Turnover %	1.51%	
Total Headcount - Part Time	148	
# Hires	11	
# Voluntary Sep	15	
# Involuntary Sep.	0	
# Voluntary Turnover %	10.00%	
# Involuntary Turnover %	0.00%	**FY24 TOTAL**
TOTAL FT - TURNOVER %	***1.51%***	***3.91%***
TOTAL PT - TURNOVER %	***10.00%***	***8.65%***
TOTAL FT/PT - TURNOVER %	***11.51%***	***12.57%***

Quarterly Report

Emergency Services and Risk Management

Town Council Meeting Date: August 13th, 2024

Fourth Quarter 2024: April, May, June

Please accept this as the quarterly report for the Emergency Services and Risk Management department.

Department introduction:

Emergency Services is responsible for all aspects of the Town's comprehensive emergency preparedness program. It involves planning, developing, reviewing, and revising emergency management program elements. It focuses on a collaborative partnership between local, state, and Federal partners in addition to community stakeholders pursuing a whole community approach to preparedness.

Risk Management is responsible for all aspects of workplace safety. It includes building and sustaining a Risk & Safety Program. In addition to planning, developing, and implementing occupational safety programs to ensure the health, safety, and security of Town staff and citizens. Risk management also focuses on the process of identifying potential hazards and mitigating their potential impact on the Town.

2024 Drought:

On June 24th, 2024, the Virginia Department of Environmental Quality (DEQ) in partnership with the interagency Virginia Drought Monitoring Task Force issued a *Drought Warning Advisory Declaration* for the Northern Virginia region which includes the Town of Warrenton. In accordance with the current Virginia Drought Assessment and Response Plan, Town Staff have reviewed our existing local ordinances that would require mandatory non-essential water restrictions if enacted. The plan affords the flexibility for local governments to impose water use restrictions consistent with local water supply conditions at any time.

The Town has advocated for voluntary water conservation measures while taking actions on its own part to conserve water. The bulk automated water fill station was temporarily closed for approximately 3 weeks; however, it was reopened on July 31st, 2024 in an effort to maintain water quality throughout the southern service district.

Identical to the actions taken during last year's drought, Public Utilities staff have maintained a consistent watch on our reservoir water levels. This approach will afford the Town the ability to enact conservation efforts accordingly to minimize any negative impact restrictions would have on the community and Town services.

Training and Professional Development:

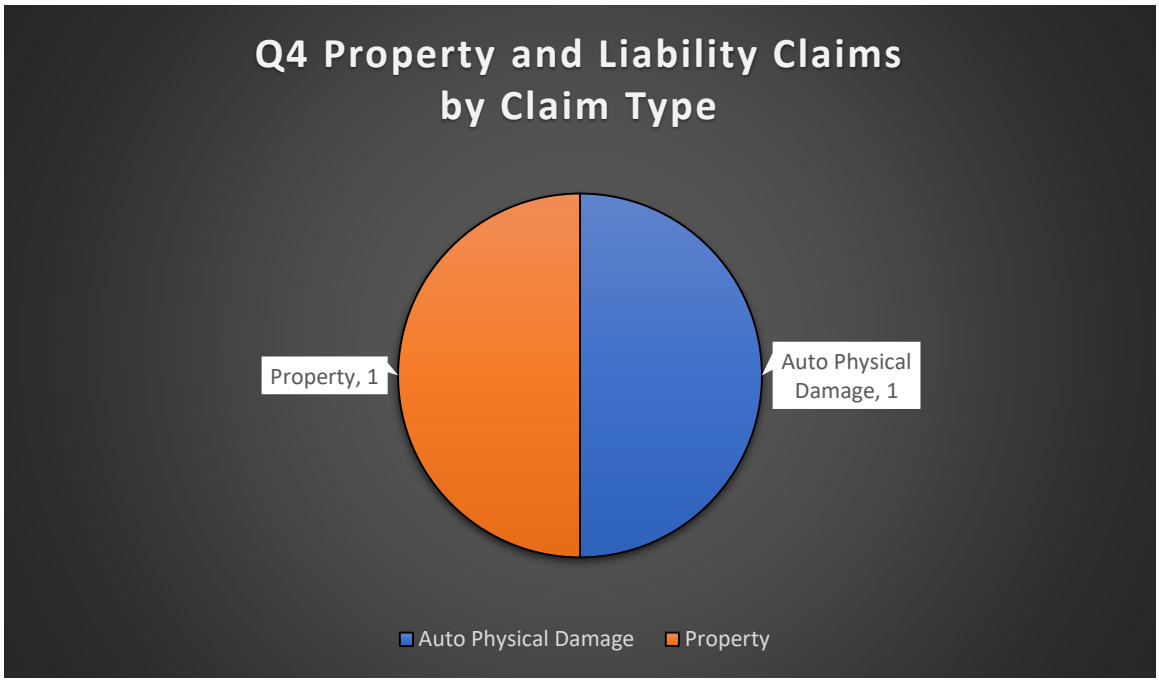
Training has a direct impact on an organization's productivity and performance. Training gives employees a better understanding of their responsibilities and the knowledge and skills needed to complete the job. Training will improve employee confidence which can positively impact performance.

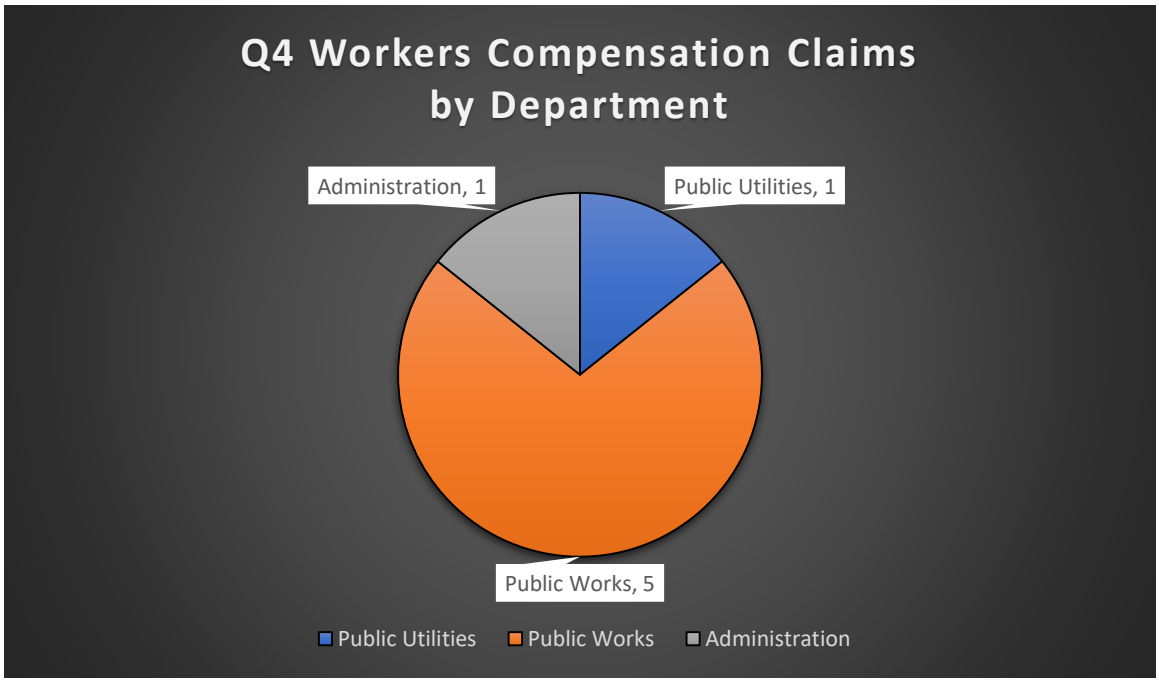
- Fauquier County Full Scale Exercise
  - The Town of Warrenton was invited to participate in the 2024 Fauquier County Full Scale Exercise on June 27th, 2024. The Emergency Services Coordinator and Risk Manager participated in the planning process and observed the overall exercise. And the Warrenton Police Department were invited to act as participants and roleplay the scenario. The scenario tested reunification processes and procedures following an active attack incident.
  - The Full Scale Exercise fostered a collaborative training environment and brought together various local, state, and federal agencies and organizations to include in this exercise include Fauquier County Public Schools, the Fauquier County Sheriff's Office, the Fauquier County Department of Fire, Rescue, and Emergency Management, the Virginia State Police, the Virginia Department of Emergency Management, the Federal Bureau of Investigation, the Cybersecurity and Infrastructure Security Administration, various social welfare and health organizations, and numerous volunteer role players.
  - The Full Scale Exercise focused on strengthening and improving our collective preparedness to respond to and resiliency to recover from disasters and emergencies that may pose a threat to our community.

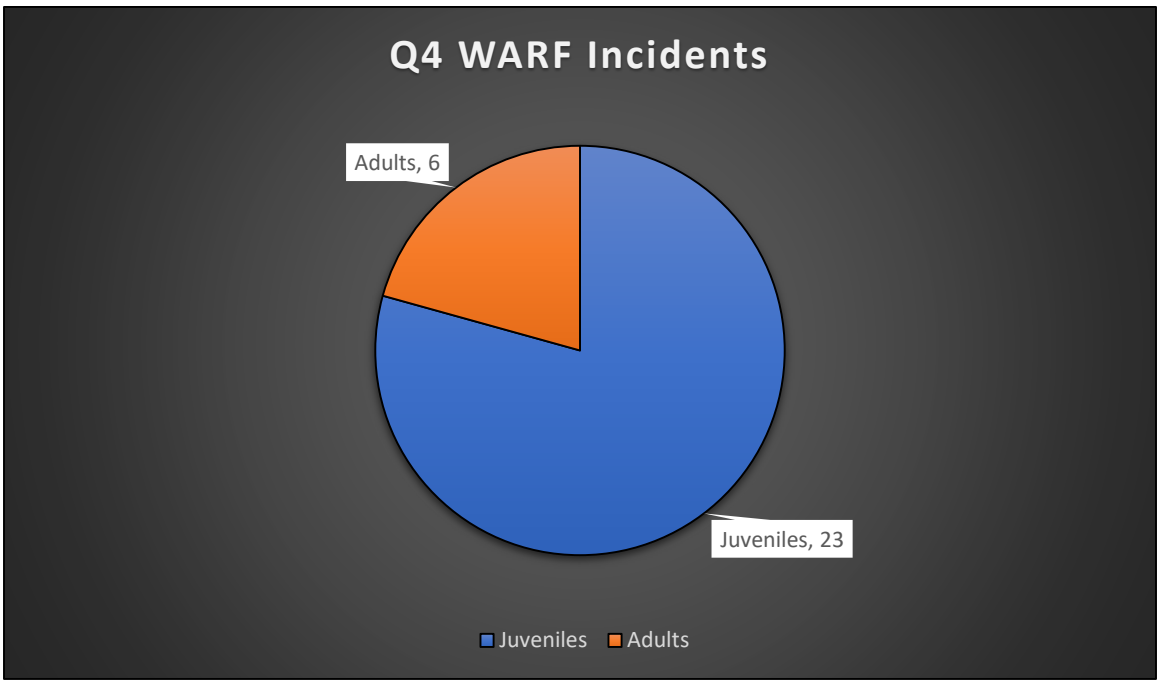
Special Event EOC Activations:

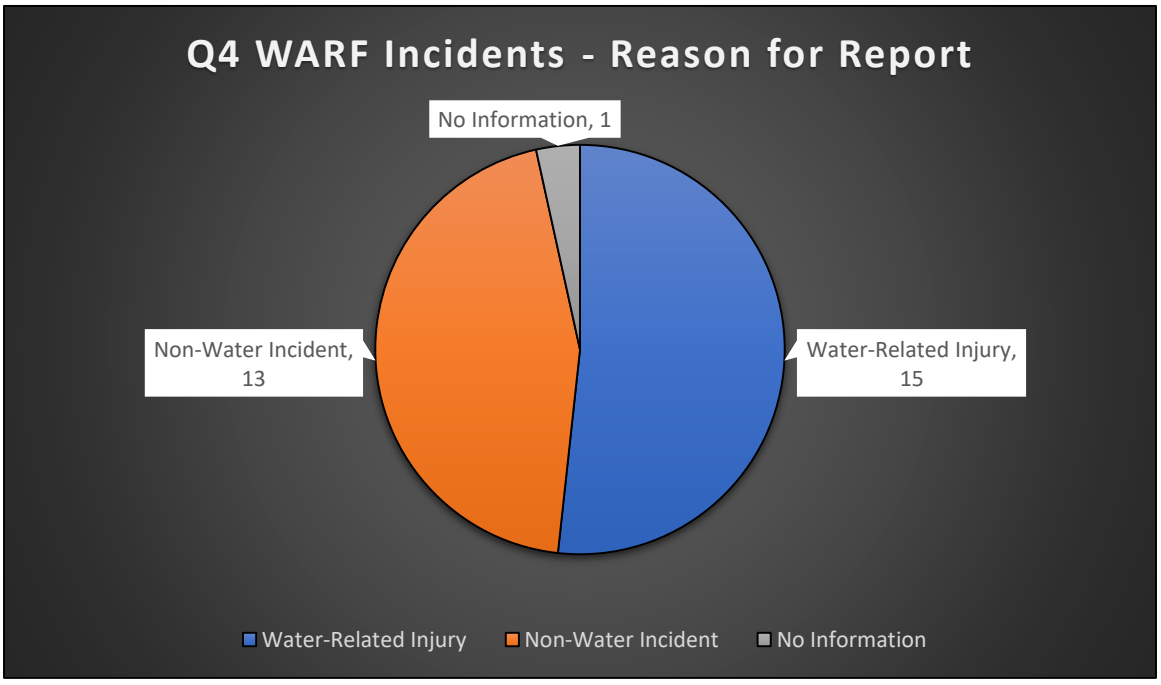
- 2024 Juneteenth Celebration
  - A Special Event EOC was activated for the 2024 Juneteenth Celebration that occurred on Main Street on June 15th, 2024. There were no issues to note with this event. Any issues that were identified were promptly resolved by either the Warrenton Police Department or event staff.
- 2024 Warrenton Town Limits Festival
  - A Special Event EOC was activated for the 2024 Warrenton Town Limits Festival that occurred on the WARF property on June 28th, 2024. There were no issues to note with this event. This was the first time the Warrenton Town Limits Festival was offered in its full capacity since the pandemic. Any issues that were identified were promptly resolved by either the Warrenton Police Department or event staff.

Insurance Charts and Information:






Q4 WARF Incidents
Adults, 6
Juveniles, 23
Juveniles
Adults


Q4 WARF Incidents - Reason for Report
No Information, 1
Non-Water Incident, 13
Water-Related Injury, 15
Water-Related Injury
Non-Water Incident
No Information

Quarterly Report

Department

Town Council Meeting Date: August 13, 2024

Fourth Quarter: April, May, June

Please accept this as the quarterly report for the Department of Public Works & Utilities – Facilities & Fleet Management Division

1) **Department introduction:** The Facilities & Fleet Management Division of the Town of Warrenton is responsible for the maintenance and repair of all town-owned assets, including over 20 properties, 300+ fleet vehicles, and a variety of other equipment, such as parks, traffic safety devices, and traffic signals. The division's staff of five team members is dedicated to providing cost-effective and reliable services to ensure that the town's infrastructure is safe and well-maintained.

2) **Commendable Achievements:**

The FFM team has committed to ensuring that they maintain their training and certifications. As such, the team have all enrolled in both facilities and fleet bio-based certification programs, which are available at no charge to the town via a partnership with the U.S Soybean Board. The team has set a goal to be fully certified by the next reporting cycle.

Staff Training & Certifications: The Facilities & Fleet Management Division is committed to continuous learning and development. The staff actively seeks out training and development opportunities to stay up-to-date on the latest industry best practices and technologies.

Some of the training and development programs that the staff have completed include:

- Biobased certified fleet professional program: This program teaches participants about the benefits of using biobased products in fleet operations. One additional team member has graduated from the program and has become certified.

The Facilities & Fleet Management Division's commitment to training and development is commendable. The staff's dedication to continuous learning ensures that the town receives the best possible services.

3) **Project Progress:**

A. **Traffic Task Force (TTF)** – The traffic task force has taken town traffic issues, challenges, and improvements to the next level. Citizen engagement has become one of the main focus points for the task force. The team has placed monitoring devices, radar boards, and a radar trailer in many areas of the town. The practices have become one of the positive discussion points during the continued town talks events. During this reporting cycle there were over 15 individual engagements with citizens in which there was a positive and/or a desirable outcome for the reported issue.

B. **Waterloo Street** – The team worked to study the traffic on Lower Waterloo with concerns from residents. This study period is ongoing but has already resulted in many successful changes. We are continuing to monitor this area closely and will adjust our traffic calming measures as conditions warrant.

C. **Fleet Asset Replacements** – The bid for the replacement police vehicle was completed during the reporting cycle.

D. **Traffic Light Updates** – The Branch Drive Traffic Light has been updated to the current Video Traffic Detection and Traffic System Controller standards. The old hardware was out of service for approximately three months and the intersection operated on recall during this period.

E. **Sign Replacement** – We continue to replace out-of-compliance signs as indicated in the sign program. This includes radar signs that are failing or identified by a traffic study as a need for new installations. The TTF is utilizing the mobile radar speed trailer with messaging capabilities to be used as part of the ongoing Waterloo & Courthouse Square projects. This unit is traveling throughout the town to study visual warning devices' effects on traffic behavior.

F. **Bear Wallow Drive** – This project has been closed out during the reporting cycle.

G. **Speed Hump** – The team placed the speed hump and is using study devices to monitor its first implementation.

H. **Town Talks** – The facilities & fleet manager attended two town talk events. Both outreach events were tremendously successful. Many citizens brought forth ideas, concerns, and appreciative comments. The team continues to represent the traffic task force at the events and provide the opportunity for citizen engagement.

I. **Hazard Surveys** – The hazard survey has been completed and released over the Risk Manager for next steps.

J. **Standard Operating Procedures** – The team has been working to formulate the existing fleet management SOP guidelines into a common operating handbook for the FFM Division. The APWA accreditation framework has been adopted as the guiding principle in this document.

K. **Sign Program** – The team has replaced over 25 out of compliance signs during this reporting cycle.

L. **Town Fuel Pumps** – The town fuel pumps had the diesel probe repaired due to aged wiring. The system is back online and functional.

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13, 2024
Agenda Title:	Delinquent Tax Lists for Publication
Requested Action:	Review and approve the lists for publication
Department / Agency Lead:	Finance and Procurement
Staff Lead:	Stephanie Miller, Director of Finance and Procurement

EXECUTIVE SUMMARY

Virginia Code § 58.1-3921 and Section 15-4 of the Town Code provide that the Finance Director produce a list of delinquent real estate and personal property taxes within sixty days of the end of the fiscal year. Additionally, Virginia § 58.1-3924 enables Council to have the delinquent tax list published in a local newspaper with the cost associated added to the delinquent tax amount.

BACKGROUND

A list of delinquent real estate and personal property taxes is provided as of August 5, 2024. This list will be published in the local paper. Historically, this collection effort has proved successful in alerting Town taxpayers of their delinquent status. Please note that at least two notices have been mailed to all taxpayers that owe delinquent taxes.

Also provided is a list of real estate and personal property accounts that generated tax bills of less than $5. Virginia Code § 58.1-3912 provides that the treasurer may elect not to send a bill amounting to $20 or less. The list to be published will not include taxpayers with a delinquent amount of $5.00 or less.

A $2.00 fee will be added to the delinquent tax amounts in the attached listing.

STAFF RECOMMENDATION

Approve the list of delinquent real estate and personal property taxes and direct the Finance Director to have this list published in a local newspaper.

Service Level/Collaborative Impact

No service level/collaborative impact.

Policy Direction/Warrenton Plan 2040

None

Fiscal Impact

No fiscal impact.

Legal Impact

No legal impact.

ATTACHMENTS

n/a

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13th, 2024.
Agenda Title:	Consent Agenda- Meeting Minutes
Requested Action:	Review and consider approval of the Town Council Meeting Minutes
Department / Agency Lead:	Town Clerk
Staff Lead:	Stephen Clough, CMC

EXECUTIVE SUMMARY

The following draft minutes have been submitted by the Town Clerk for consideration for approval by the Town Council:

Draft October 10th, 2023, Regular Town Council meeting.

BACKGROUND

The Town Council Meeting minutes are created by the Town Clerk for each meeting of the Town Council to summarize the meetings and act as an official record for the proceedings per Warrenton Town Code (Code 1981, § 2-31).

Per Virginia Code § 2.2-3707(i) the meeting minutes will contain the following:

(a) the date, time, and location of the meeting;
(b) the members of the public body recorded as present and absent; and
(c) a summary of the discussion on matters proposed, deliberated, or decided, and a record of any votes taken.

In addition, for electronic communication meetings conducted in accordance with § 2.2-3708.2 or 2.2-3708.3, minutes shall include (1) the identity of the members of the public body who participated in the meeting through electronic communication means, (2) the identity of the members of the public body who were physically assembled at one physical location, and (3) the identity of the members of the public body who were not present at the location identified in clause (2) but who monitored such meeting through electronic communication means.

STAFF RECOMMENDATION

Review and consider approval of the Town Council Meeting Minutes.

Service Level/Collaborative Impact

The minutes of the Town Council Meetings help facilitate transparency in Government with records management and availability.

Policy Direction/Warrenton Plan 2040

The minutes are an integral part of Plan Warrenton 2040 as they document the steps taken by the Staff and Town Council towards every goal laid out in the Comprehensive plan.

Fiscal Impact

No additional impact is expected. Minutes creation is an assigned duty of the Town Clerk and falls within the budget amount for that role.

Legal Impact

The Town Council Meeting minutes are the legal record of the proceedings and actions of the Town Council

ATTACHMENTS

1. Draft October 10th, 2023, Regular Town Council meeting.

TOWN COUNCIL REGULAR MEETING

21 Main Street

Tuesday, October 10, 2023 at 9:00 AM

MINUTES

AN OPEN MEETING OF THE TOWN COUNCIL OF THE TOWN OF WARRENTON, VIRGINIA, WAS HELD ON OCTOBER 10th, 2023, AT 9:00 AM

Work Session
PRESENT — Mr. Carter Nevill, Mayor; Ms. Heather Sutphin; Mr. William Semple; Mr. Brett Hamby; Mr. James Hartman, Vice Mayor; Mr. Jay Heroux; Mr. Paul Mooney; Mr. David McGuire; Mr. Frank Cassidy, Interim Town Manager; Mr. Stephen Clough, Town Clerk; Mr. Martin Crim, Town Attorney.

ABSENT

Regular Meeting
PRESENT — Mr. Carter Nevill, Mayor; Ms. Heather Sutphin; Mr. William Semple; Mr. Brett Hamby; Mr. James Hartman, Vice Mayor; Mr. Jay Heroux; Mr. Paul Mooney; Mr. David McGuire; Mr. Frank Cassidy, Interim Town Manager; Mr. Stephen Clough, Town Clerk; Mr. Martin Crim, Town Attorney.

ABSENT

Draft

WORK SESSION - 9:00 AM

The Mayor called the meeting to order at 9:00 a.m. A quorum was present, and business could be conducted.

A. A Report from the Center District School Board Member

Susan Pauling, Center District School Board Member for Fauquier County Public Schools, introduced the topic. She provided a report to Council.

Dr. Major R. Warner Jr., Superintendent of Fauquier County Public Schools, said that he could answer any further questions of Council.

Vice Mayor Hartman clarified that there had been unfounded rumors in the community regarding the future of the 244 Waterloo Street property. He expressed his appreciation for the school representatives confirming that those rumors were untrue and that there had been no discussions between the Town and the School Board regarding the development of the property.

Councilmember McGuire asked if the Council could assist the school division in installing crosswalks or any other collaborative initiatives.

Dr. Warner said that the school division had a new safety council this year that included representatives of the Town's Police and Sheriff departments, so he could share Mr. McGuire's question with them and continue the conversation.

Councilmember Heroux requested the school division representatives communicate as much as possible with the Ward 5 constituents who were concerned about the future of the former middle school building.

Councilmember Hamby stated that he was glad the school division representatives were able to clarify the processes regarding the ownership and development of their property.

Dr. Warner stated that the school division currently owned the building and would continue to do so until the 2027-2028 school year, after which they would need to decide the future use of the building. He said that he was always glad to provide information at the request of Council.

B. Finance Department Overview

Stephanie Miller, Director of Finance, introduced the topic. She provided an overview of the Finance Department, including recent accomplishments and current initiatives.

Mayor Nevill noted that it was a significant achievement that there were no restaurants on tax payment plans. This was a good indicator that the Council and Town had helped their businesses to succeed.

Vice Mayor Hartman asked if the businesses operating without BPOL were being brought into compliance.

Ms. Miller answered yes; this was partially why they sought to consolidate the form for new businesses.

Councilmember Heroux clarified that there were governing policies and controls that limited the way the Town took on debt as well as the amount of debt. He noted that the Town's current debt ratios were managed well within their expenditures and thresholds for debt policy. He asked how future debt service was determined with regard to their ratios.

Ms. Miller said that regarding the rate study, a model was run to ensure that future debt service complied with cash balance policy and debt service coverage ratios.

Councilmember Heroux added that regarding the CIP, the debt amounts were potential and subject to change based on the allocations voted on during their annual budget process.

Ms. Miller confirmed that the budget is a legal appropriation from July 1 through June 30, meaning that year one of the CIP would be funded in the budget.

Mayor Nevill noted that some projects in the CIP may remain unfunded for multiple years in order to identify and secure the most effective funding sources for the specific projects.

Draft

Ms. Miller said that it also helped in terms of their five-year planning process.

Mr. Crim noted that proffer monies could only be accepted for projects that were listed in the CIP.

Councilmember Heroux encouraged staff to communicate the specific sources of funding in order to give context to how the total numbers were arrived at.

Councilmember Semple asked if Ms. Miller could explain the 1.2x debt service ratio.

Ms. Miller said that the net operating revenues, which was income minus expenses, must be 1.2x higher in order to cover the debt service expense.

Councilmember Semple asked if it was a statutory requirement.

Ms. Miller replied that no, it was a policy established by staff in collaboration with the Davenport Group. She noted that Davenport would likely lead them through the credit rating process as a best practice; the Town did not currently have a credit rating.

C. Budget Strategic Goals and Policy Updates

Stephanie Miller, Director of Finance, introduced the topic. She provided an update on financial policies to Council.

Councilmember Heroux made suggestions to staff regarding finer detail and clarifying data to contextualize their financial policies and planning.

Councilmember Semple requested that staff include supplemental information about how the Town compared to other localities regarding their financial policies and goals.

Ms. Miller said that staff typically did not do that comprehensively, but when analyzing a specific area, they may pull data from the state comparative report for their benchmarks. All of that data was available on the Virginia Auditor of Public Accounts' website and could be elucidating.

Mayor Nevill stated that these policies were critical to ensuring consistency, efficiency, and predictability. They had established very important guardrails that allowed for comfort with their responsible use of local taxpayers' funds.

Ms. Miller provided an update on the Town's budget strategic goals.

Councilmember Heroux suggested that their vision of the future of work and life in the Town be acknowledged in their strategic goals.

Ms. Miller stated that staff could review the existing information in the Warrenton 2040 plan to align with that or enhance it.

Draft

Mayor Nevill stated that their planning should ensure that a diversity of economy was maintained in the Town so they did not rely on one specific sector as the landscape changed over time.

D. Information and Technology Department Overview

Jonathan Stewart, Director of Information and Technology, introduced the topic. He provided an overview of the Information Technology Department and its operations and future strategic goals.

Councilmember Hamby asked if staff had spoken with Fauquier County about collaboratively updating the accounting software.

Mr. Cassidy said yes, they were exploring those options as they moved forward in order to maximize cost savings and benefits for both entities.

Councilmember Hamby asked if there was an estimate for the cost.

Mr. Cassidy replied that the estimate was $300,000 for the software in this fiscal year, not including future costs to complete the modernization process. He clarified that this was an estimate.

Councilmember Mooney clarified that the funding for the software was already allocated in the budget.

Councilmember Heroux acknowledged the difficulties faced by the IT department and expressed his appreciation for staff's handling of many arduous yet essential tasks.

Councilmember Semple asked if they had any feedback or experience from their peers as to how to implement such a system.

Mr. Cassidy replied that yes, staff was conferring with neighboring localities as part of this complex system update.

Councilmember Hamby asked if they could get a firm commitment from the County that they would work on this together.

Mr. Cassidy said that he could confirm that.

Councilmember Heroux stated that it was a complicated process, but it was achievable so long as they managed their expectations.

Mayor Nevill noted the importance of having an integrated system for all department processes.

E. Strategic Goals Overview

Draft

Frank Cassidy, Interim Town Manager, introduced the topic. He provided an overview of the strategic goals laid out from the September 2022 strategic retreat. Staff recommended Council discuss Council and staff priorities for the upcoming year.

Stephen Clough, Town Clerk, stated that the Virginia Institute of Government currently has a hold placed on their calendar for January 26 through 18, 2024. If the Council has no issues with this date, staff will begin the meeting preparations and bring forward a resolution setting the date for the retreat at a future meeting.

Mayor Nevill confirmed that January 26, 2024 was a date for which all Councilmembers could be in attendance. He asked if Mr. Clough could confirm that date with Ms. Jane Dittmar and then confirm it with Council.

Mr. Clough said that he would get that scheduled.

F. Agenda Review

Mr. Cassidy reviewed the agenda.

With no further business, this meeting was adjourned at 10:29 AM on Tuesday, October 10th, 2023.

REGULAR MEETING - 6:30 PM

The Mayor called the meeting to order at 6:30 PM. A quorum was present, and business could be conducted.

A. INVOCATION.

Father Charles Smith of St. John the Evangelist Catholic Church led the invocation.

B. PLEDGE OF ALLEGIANCE.

Mayor Carter Nevill led the Pledge of Allegiance.

C. PROCLAMATIONS, RECOGNITIONS, AND PROMOTIONS.

Draft

Town Manager Frank Cassidy said there were several staff members they would recognize this evening.

Mr. Cassidy announced the Town's new hires: In the Parks and Recreation Department, Customer Service Specialists Billy Wilson and Ashley Halbrook, Manager on Duty Joel Friedman, Water Safety Instructor Hannah Schoonenberg, and Lifeguards Alberto Brando, Isaac Shepherd, Jerry Pickford, and Fred Gordon.

Mr. Cassidy announced the Town's staff promotion: In the Town Manager Department, Executive Assistant and Communications Manager Lyndie Paul.

Mr. Cassidy announced the following Town's staff achievements: In the Human Capital Department, Emergency Services and Risk Manager Christopher Melmer successfully completed the Homeland Security Exercise and Evaluation Program (HSEEP) Training Course. In the Finance Department, the Town of Warrenton was presented with the Certificate of Achievement for Excellence in Financial Reporting for their Fiscal Year 2022 Annual Comprehensive Financial Report (ACFR). In the Public Works Department, Assistant Director of Public Works John Ward celebrated his 40 years of service and dedication to the Town.

D. CITIZEN'S TIME.

Citizen's time Sign in Town Council Regular Meeting: October 10, 2023		
Name	**Address**	**Topic**
Richard Fisher		Heroes Bridge project
Greg Schumacher		Heroes Bridge project
Molly Brooks		Heroes Bridge project
Carl Chapman	340 Church Street, Warrenton, VA 20186	Heroes Bridge project

Richard Fisher spoke regarding the Heroes Bridge project.

Greg Schumacher spoke regarding the Heroes Bridge project.

Molly Brooks, CEO and Founder of Heroes Bridge, spoke regarding the Heroes Bridge project.

Carl Chapman, Pastor of Warrenton United Methodist Church, spoke regarding the Heroes Bridge project.

E. APPROVAL OF THE AGENDA.

Mayor Nevill sought a motion to approve the agenda.

Draft

Motion put forth by Vice Mayor Hartman was to approve the agenda.

Seconded by Councilmember Mooney.

The vote was as follows:

Ayes: ***Ms. Heather Sutphin; Mr. William Semple; Mr. Brett Hamby; Mr. James Hartman, Vice Mayor; Mr. Jay Heroux; Mr. David McGuire; Mr. Paul Mooney.***

Nays:
Abstention:
Absent:

The motion passed unanimously; the agenda was approved.

F. PUBLIC HEARINGS.

There were none.

G. CONSENT AGENDA.

1. **DEFERRAL REQUEST: Special Use Permit (CUP) 2023-01 St. John the Evangelist Catholic Church** – the Applicant, St. John the Evangelist Catholic Church, and the Owner, the Catholic Diocese of Arlington, seeks to amend a June 3, 1986 SUP approval to allow for the demolition of an existing building and the construction of a new 13,000 square foot office building. The subject parcel is located in the Residential (R-10) District of the Town of Warrenton Zoning Ordinance and is designated as Live/Work on the Future Land Use Map. The subject parcel (GPIN 6984-36-7135-000) is located at 271 Winchester Street on approximately 11.0664 acres. ***The Applicant is requesting a deferral to the November Town Council meeting.***

2. **Approval of Council Minutes: April 11th, 2023**

Mayor Nevill sought a motion on the item.

Motion put forth by Vice Mayor Hartman was to approve the Consent Agenda as presented.

Seconded by Councilmember Hamby.

The vote was as follows:

Ayes: ***Ms. Heather Sutphin; Mr. William Semple; Mr. Brett Hamby; Mr. James Hartman, Vice Mayor; Mr. Jay Heroux; Mr. David McGuire; Mr. Paul Mooney.***

Nays:
Abstention:
Absent:

Draft

The motion passed unanimously; the Consent Agenda was approved.

H. DEPARTMENT REPORTS.

1. Utilities Project Update

Frank Cassidy, Interim Town Manager, introduced the topic. He provided an update to Council.

Councilmember Semple requested staff provide the total cost for these projects along with their funding sources.

Mayor Nevill requested staff provide the associated costs of emergency repairs and other unplanned maintenance due to the Town's aging utility systems.

Mr. Cassidy provided information regarding the infrastructure projects that were part of the CIP and included in the quarterly report for the Utilities Department.

Councilmember Heroux asked if Ms. Miller could discuss the water rates.

Ms. Miller indicated the change in median water and sewer rates for residential Warrenton customers was $36.19 in FY2023 to $44.56 in FY2024.

Councilmember Heroux asked how many of their project investments were due to the need to change aging equipment versus the need due to population growth.

Mr. Cassidy stated that all of them were due to end of life or need for replacement. He clarified that growth was not solely tied to population but also due to growth in use, meaning that people may use the facilities more over time. He noted that the planning of these projects was affected by changes in use and the failing of equipment at different rates.

Councilmember Mooney stated that his constituents' concerns focused on how necessary the expansion of the water treatment plant is and how much they needed to plan for.

Mr. Cassidy stated that based on the completed studies, 2.5 Million Gallons per Day (MGD) was the appropriate amount for the expansion. Staff had determined that upgrading their permit to eventually accommodate 2.5 MGD was the best approach and it was certainly a worthwhile project.

Councilmember Hamby emphasized that the user fees for the water and sewer system were paying back into the system itself, which was an essential infrastructural component of the Town.

Ms. Miller provided information regarding the water and sewer funding, increasing costs, and the rate study of 2022.

Councilmember Heroux stated that there was a strong basis for the outlined projects. He noted that this plan was reviewed every year and future projects would be funded as deemed necessary during each budget season. He clarified that these projects were due to maintenance

Draft

needs, ensuring water treatment plant capacity, and supporting the observed growth in committed projects and service accounts.

2. Public Works, Road Conditions and Project Updates

Frank Cassidy, Interim Town Manager, introduced the topic. He provided an update to Council.

Councilmember Semple asked if there was a preliminary estimate for the Public Works facility.

Mr. Cassidy said that about one year ago, the preliminary estimate without any formal design was approximately $30 million for a two-story structure.

Mr. Cassidy continued providing the update to Council.

Vice Mayor Hartman asked if there was an update on the last connection for the Timber Fence Trail.

Mr. Cassidy said that they were still working with VDOT to establish that final connection.

Michael Wharton, Project Coordinator, stated that staff was waiting for VDOT to close the scoping process. Advertisement was expected between January and March and would take five to six months to complete.

Councilmember Heroux asked who designated an Urban Development Area (UDA) for the roundabout.

Denise Harris, Planning Manager, said that UDAs were designated by the state's Office of Intermodal Planning and Transportation. The Town identified and established a number of UDAs to enable them to apply for Smart Scale funding from the state, which were translated into the character districts created by the Town's steering committees.

Councilmember Heroux clarified that due to the Smart Scale funding from the state, there would be no funding provided from the Town for construction of the roundabouts. He asked if they were included as CIP items.

Ms. Harris said that they were shown in the CIP, but their specific funding source was noted in that list.

Councilmember Heroux noted that state income taxes paid by their constituents were returned to the Town in the form of some of the infrastructure projects. He asked if there were safety concerns that spurred the need for the proposed roundabout.

Ms. Harris said yes; the local VDOT Office analyzed the area for hotspots of accidents and congestion, and this intersection scored very highly for needing further review. VDOT developed a number of scenarios and conducted public outreach and surveys, along with a number of Town Council work sessions and updates. The preferred option was determined to be these roundabouts and was meant to be the best way to achieve Smart Scale funding.

Draft

3. Zoning Update

Rob Walton, Director of Community Development, introduced the topic. He provided an update to Council.

Councilmember Heroux asked how citizen input would be incorporated into this process.

Mr. Walton explained that the Zoning Ordinance Text Amendment required public hearings before the Planning Commission and Town Council. Because this is a large project, staff would likely hold public input sessions prior to the public hearings.

Councilmember McGuire requested staff to analyze best practices of other localities in this process.

4. Town Attorney Report: Nondisclosure Agreements

Martin Crim, Town Attorney, introduced the topic. He provided a report on nondisclosure agreements (NDAs) to Council.

Councilmember Semple asked if Mr. Crim could provide information regarding how NDAs encompass more than the individual who signed it.

Mr. Crim said that an NDA signed by a single individual member of Town staff purports to bind the entire Town. He suggested that if someone was to propose a similar NDA in the future, they should narrow that unless the Council authorized an individual staff member to bind the entire Town staff and elected officials. They must consider the effect of one signed in the past, but he would advise against testing whether the binding was effective or not.

Vice Mayor Hartman asked if NDAs were a standard practice for local governments.

Mr. Crim said that generally, yes, they were not an unusual practice.

Vice Mayor Hartman asked if it would be prudent to not allow any local government staff to participate in an NDA.

Mr. Crim said that he did not believe it would be prudent nor was that type of general prohibition appropriate. The decision should be made at the top management level when a particular circumstance deemed it an appropriate tool to be used.

Mayor Nevill asked if it was typical for staff to receive legal advice from counsel before signing an NDA.

Mr. Crim replied that he would hope so.

Mayor Nevill asked who the legal counsel was that approved the prior NDAs.

Mr. Crim answered that it was their prior legal counsel.

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Councilmember Heroux asked if a locality could establish a policy that they would not sign nondisclosure agreements.

Mr. Crim said that acknowledgement of proprietary information was enforced by state code, so they would have to carefully analyze what they were trying to prevent and draft a policy that addresses that rather than a broad statement that they would not sign nondisclosure agreements. He emphasized that they should avoid a policy indicating they would not acknowledge or honor a statement that included proprietary information; they should avoid violating property rights in proprietary information due to a loosely worded policy.

Councilmember Heroux noted that they must strike a balance between information protected by an NDA during a negotiation and the public record made available after the negotiation was complete.

Mr. Crim confirmed that while tax information, trade secrets, and other matters may remain confidential, much of that information would become public.

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I. NEW BUSINESS.

1. A Report from Dominion Energy

Stan Blackwell from Dominion Energy introduced the topic. He provided a report on data centers to Council.

Mayor Nevill asked for clarification regarding the statement that indoor farming power needs are the equivalent of a standard-sized data center.

Mr. Blackwell stated that both uses required about 30 megawatts (MW). He clarified that indoor farming likely would not need transmission extension, assuming there was available substation capacity in the area.

Councilmember Hamby asked if Dominion lines would own the transmission lines for Vint Hill Farms even though NOVEC is the service provider.

Mr. Blackwell said that the customer and NOVEC would discuss the project, after which NOVEC would contact Dominion and request a certain amount of megawatt load. Dominion would respond by determining if there was substation capacity in the area, and if not, they would build a substation either on site or near the site. Dominion would build the substation and transmission extension to serve NOVEC. NOVEC in turn built infrastructure to take it from the substation to the customer.

Councilmember Hamby asked if NOVEC would own the lines overhead or in the ground.

Mr. Blackwell said that they would not own the transmission lines, but did offer distribution-type services.

Councilmember Hamby clarified that the transmission lines were owned by Dominion.

Mr. Blackwell stated that was correct; the transmission was regulated by the Federal Energy Regulatory Commission (FERC) and the State Corporation Commission (SCC).

Councilmember Hamby asked if Mr. Blackwell knew about the other projects with Dominion numbers on them.

Mr. Blackwell said no.

Councilmember McGuire clarified that there no other data centers being proposed in the Town.

Mr. Blackwell said that there were no other projects within the Town, but there were multiple in the vicinity. If there were questions regarding those projects, they could bring in staff to address those.

J. UNFINISHED BUSINESS.

There was none.

K. TOWN ATTORNEY'S REPORT.

Mr. Crim reported that in the case *Cross et al. v. Town Council et al.*, there would be a hearing on October 31, 2023 on five related matters all pertaining to creating the legislative record the judge would need to consider as part of the case, as well as a related matter of production of documents. This was being handled by the Town's insurance counsel and the judge would make a ruling on the five motions at the October 31, 2023 hearing.

Mr. Crim reported that he met with the Town Board of Zoning Appeals (BZA) regarding some bylaw questions, and the BZA requested Freedom of Information Act (FOIA) and Conflicts of Interest Act (COIA) training. Staff would coordinate that and set up that training for the BZA.

L. TOWN MANAGER'S REPORT.

1. Drought Conditions

Frank Cassidy, Interim Town Manager, reported on drought conditions. The October 9, 2023 report put their precipitation and groundwater in the emergency level, so the remained in the watch. Operations at the water plant remained consistent despite lowering levels, and they were anticipating multiple storm events that should help replenish some of their water.

2. Affordable Housing Update

Mr. Cassidy reported on the Affordable Housing Update. They were still working through the Request for Information in order to determine how to best distribute the funds. He also was

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communicating with the Rappahannock-Rapidan Regional Commission (RRRC) to identify the process of how they could become more active partners in affordable housing initiatives.

3. Additional Items

Mr. Cassidy reported on additional items including the Virginia Municipal League (VML) Conference, Town Talks, fall cleanup and leaf collection, the Halloween parade, and the flashlight candy.

M. COUNCILMEMBERS TIME.

Mr. Mooney: Thanked Mr. Ward for his 40 years of service to the Town. Thanked everyone involved in Fall Fest. Expressed his appreciation for their Emergency Manager and his leadership and preparedness. Reminded everyone to slow down, respect the stop signs, and stay off their phones.

Ms. Sutphin: Thanked everyone for attending tonight's meeting. Welcomed the fall season. Thanked the guest speaker from Dominion Energy for providing such clarifying information to Council. Thanked the Warrenton Volunteer Fire Company for their open house. Thanked Public Works for all of their work on the roads. Emphasized that drivers must acknowledge pedestrians in the crosswalk. Announced that it was Spirit Week this week at Fauquier High School. Expressed her condolences for the loss of Mr. Kraig Kelican, the Principal of Fauquier High School, who passed away due to injuries sustained in a car accident. She noted that Mr. Kelican had a few sayings, and she requested that everyone keep them in mind as they give their peers the respect they deserve as fellow community members and human beings.

Mr. Hamby: Thanked Dominion Power for taking the time to come before the Council tonight. Thanked the School Board representative and Superintendent who came to Council's work session this morning. Congratulated Ms. Miller and the Finance Department on their award, which had been awarded to Warrenton for the 30th year. Reminded the public that November is pickup time for parklets. Noted that their pilot program for signage had worked out well.

Vice Mayor Hartman: Stated that he had a comment regarding last month's meeting and questions about emails currently subject to lawsuit and appeal. During February's meeting, three members of the Council expressed interest in accessing these emails, and the Council voted and agreed to release those emails of Town Council under certain conditions. Individual Councilmembers had no more authority than other citizens unless Council had granted them that authority, they took that position with one Councilmember, which resulted in the vote in the absence of formal action by the Council. All documents exempt from Virginia FOIA would be withheld from Council review unless and until the Council votes to authorize the disclosure to those members. They were no different from the public in that they could not look at the emails without proper authorization. Provided clarifying information regarding the emails reviewed, the Amazon data center plans submitted and the redactions as allowed under state law, as well as staff's review of the confidentiality request and analysis of redacted information. Expressed his concern that there had been many insinuations and untrue statements regarding the information available and the process of review of this application in the Town. Asked that statements made

Draft

be educated and well-thought out, and to not fan the flames of government conspiracy that were wholly untrue. Stated that he would not take part in any conspiracy or illegal activity, and expressed his doubt that his colleagues would either. Reiterated that he would always do the right thing regardless of opinions of himself. Clarified that the Town had not redacted any information; Amazon had redacted information in their application to the Town, and the Town had the ability to accept the redactions as well as scrutinize them as part of their process. Expressed his gratitude for the Council's successful work session this morning. Noted that during the work session, there was corrected information provided from the School Board and Superintendent regarding 244 Waterloo Street, the former Warrenton Middle School site, which dispelled rumors about the site's future. Congratulated Mr. John Ward on his 40 years of service and dedication to the Town. Thanked staff for the new task team.

Councilmember McGuire: Thanked everyone for attending today's meeting. Reiterated that it was great to receive the true information regarding the 244 Waterloo Street school building. Stated that regarding the violence in Gaza, Fresta Valley had some students there who were safely out of harm's way, which showed how world events could impact them locally. Noted that their national politics were majorly messed up; there was no Speaker of the House and there was no ambassador to Israel, which was a bipartisan fault. Emphasized that they should avoid that at the local level, so citizen involvement and truth was essential. Stated that he was passionate about defending veterans, police, fire, and the military, but he would also defend people's right to dissent and ask questions. Stated he understood the concerns voiced by the community regarding potential development, and promised that no project before Council would receive less scrutiny and consideration from him. Requested that they all treat each other civilly and talk with each other rather to achieve solutions. Expressed his appreciation and respect for Councilmember Heroux despite their differing political views. Emphasized that it was essential for politics to be about working together and being open to each other's insight on all topics.

Councilmember Semple: Stated that he recently underwent surgery for pancreatic cancer, and his prognosis was promising enough for his return to the chamber. Stated that he would like to share a few things he reflected on during his time in the hospital. Stated that regarding his responsibilities as an elected official, he tried to honorably discharge those responsibilities in the role of zoning and granting rights to developers while providing protections to residents whose personal and property rights may be affected, of which Heroes Bridge was a practical example. Stated that even before the applicant had been submitted, he did not believe the current public debate helped to resolve it. Expressed his belief that the central word guiding their responsibilities as elected public officials is the word "elected." Stated that governing bodies had their powers to protect the health, safety, and welfare of their citizens, and those were his primary concerns regarding his constituents. Stated that he offered a shared vision for their Town, which had sometimes been framed as a special interest, but was truly a vision of the public interest and the reason why so many of his constituents spoke out against the Amazon Data Center. Expressed his support for the staff's response to Amazon's second submission. Stated that he communicated regularly with his constituents regarding new information available. Stated that regarding zoning, exclusionary zoning did not mean that zonings or rezonings were not possible, and in terms of Heroes Bridge, the issue did not lay with its purpose but with its location. Stated that it would be determined during review whether or not the use was appropriate for the proposed location. Requested Councilmembers wait until that review to give the application the due diligence and careful inquiry the applicant and their citizens deserve.

Draft

Emphasized that any support for the application would be premature and endorsement of the application due to its mission may be construed as arbitrary or capricious, which were ill-advised and potentially invalid. Emphasized that the issue be addressed one step at a time through the Town's process.

Mr. Heroux: Congratulated all the Town's new hires, promotions, and accolades. Expressed his appreciation for Mr. Semple's return and wished him the best. Thanked the constituents who came out to voice their opinions at this meeting. Stated that regarding the redactions, he spent six hours reviewing each page of the submitted site plan, and congratulated staff on their detailed review and comments of the submitted information. Emphasized that all processes regarding redactions were outlined in legal code, and if changes were desired, they must take it up with state legislature. Noted that some areas of redaction in Amazon's application were commented on by Town staff in terms of whether they were truly necessary for redaction. Stated that he agreed with Councilmember Hamby that their morning session was very productive. Expressed his gratitude for working with everyone on the Council. Stated that it was an honor to work with staff despite their ups and downs. Thanked everyone present. Thanked his wife for her support, input, and patience during his tenure on Council. Stated that after living in Warrenton for 30 years, he was certainly better informed about Town operations and relationships by serving on Council. Stated that regarding local democracy, it was essential to be engaged, receptive, and willing to participate. Expressed his appreciation for all his fellow Councilmembers. Expressed his optimism about the success of Warrenton in the future.

Draft

N. ADJOURNMENT.

With no further business, this meeting was adjourned at 9:42 PM on Tuesday, October 10th, 2023.

I hereby certify that this is a true and exact record of actions taken by the Town Council of the Town of Warrenton on October 10th, 2023.

_____

Stephen M. Clough
Town Recorder

Attachments:

1) Handouts to Council from Citizen's time. October 10th, 2023.
2) Citizen Comment Emails and form submissions.

Draft

The Town of Warrenton
P.O. Box 341
Warrenton, VA 20188
P (540) 347-1101
F (540) 349-2414

October 10th, 2023 Regular Town Council Meeting Minutes

Attachment 1: Handouts to Council from Citizen's time. October 10th, 2023

Draft

FAUQUIER COUNTY
OFFICE OF THE COUNTY ATTORNEY

TRACY A. GALLEHR, COUNTY ATTORNEY

10 Hotel Street, Suite 206
Warrenton, Virginia 20186
(540) 422-8010

MARIANNE NOVAK PRIMEAU
Senior Assistant County Attorney

CAROLYN P. DESAI
Senior Assistant County Attorney

October 10, 2023

Councilman John B. Heroux
21 Main Street
Warrenton, VA 20186

Dear Councilman Heroux:

Draft

You asked questions concerning Fauquier County's prior experiences with executing non-disclosure agreements in the economic development context in conjunction with a Virginia Freedom of Information Act (FOIA) request. FOIA does not require that the County provide information or answers to questions, it only requires the County provide access to or copies of existing responsive documents. However, having fully complied in response to your FOIA request, the County is also willing to clarify and provide the following additional information.

The County, typically through employees of the Economic Development and Community Development Departments, are occasionally presented with requests to execute non-disclosure agreements (NDAs) for development project prospects interested in locating within the County. Those employees whose responsibilities involve working with economic development prospects have executed NDAs upon request. Occasionally, if the discussions with the potential business entity involves meetings or dissemination of information with Board of Supervisors members, individual members involved in those discussions, typically the Supervisor of the magisterial district in which the project is proposed, have also been asked to execute NDAs.

The Commonwealth of Virginia recognizes that public bodies may need to keep confidential information concerning the development or expansion of business and/or industry in the locality. The discussions by the public body concerning those prospective development prospects where a public announcement of their intent to locate in the County have not yet been made may be exempt from open meeting requirements of FOIA pursuant to *Code of Virginia* § 2.2-3711.A(5) and records prepared for any such meeting are exempt from mandatory disclosure pursuant to § 2.2-3705.1(5). Although this confidentiality is discretionary pursuant to FOIA, the County will often keep the identity and potential situs of the business confidential until a public announcement of their intent to locate in the County is made. The filing of a land development application with our Department of Community Development is considered such a public announcement. It is the potential disclosure due to the discretionary nature of FOIA that many prospects seek to avoid by requesting NDAs.

The County's Economic Development Department also works in conjunction with the Virginia Economic Development Partnership Authority (VEDP) on projects where the

Commonwealth is competing with other states for economic development projects. Although working with prospects referred to the County by VEDP may involve NDAs, often these projects are of such a confidential nature that they are only disclosed to us as project "code names," where the County does not even know the actual name of the business entity.

Best wishes,

Tracy A. Gallehr
County Attorney

cc: Councilman Heroux via email: jheroux@warrentonva.gov
Martin R. Crim, Town of Warrenton Attorney via email: mcrim@sandsanderson.com

Draft

Comment on Warrenton, Virginia, Amazon Data Center SUP application 2022-03 site plan development - denial requested in accordance with the majority of the community

No Town of Warrenton's Amazon Data Center SUP site plan should be approved by Town Staff. Despite receiving illegitimate pressure from inside the Town structure to push forward for the plan applicant, each Staff member is obliged to act responsibly in accordance with logical reasoning for true and effective governmental investigation and regulation. Staff has been buffered from the call of the majority of the community to now cite all points at which requirements have already been bypassed and SUP-cancelling violations have already occurred, including the following points on this partial list:

The SUP plan never met all the listed requirements before it was passed through the Town Planning Commission and Town Council to be voted upon instead of already being denied by Staff based on its incompleteness.

The SUP has always been out of compliance with the Comprehensive Plan.

Since prior requirements were never met, the point was never achieved for reasonable consideration of SUP Conditions.

SUP Conditions put forth have always been and continue to be unenforceable and are therefore void. Because Town law enforcement and Fauquier county law enforcement have both expressed unwillingness to state the fact of unenforceability to voting bodies in advance of their passing votes does not mean there is any basis for stating that those conditions can or would be attempted to be enforced.

Felling of the trees on the site in the absence of an approved site plan is further proof of the SUP applicant's willful intent to continually equivocate and get away with violating the SUP with impunity. The Staff is obliged to use all its power to both investigate and halt this willing intent to violate, to tolerate violations, and to appease irresponsibility instead of taking appropriate corrective measures absent willingness by others in the Town's corporate structure.

Staff is responsible by primary law, the Virginia Constitution (Article 1, Section 2) to act as the community majority's "trustees and servants, and at all times amenable to them." The community majority has continually expressed repeatedly throughout this entire SUP process their logical objections to this SUP and required its denial but has been bypassed by poor guidance of key Town employees and Staff to violate that constitutional protection and instead proceed through maladministration to promote approval and continuance of this SUP.

It is now again the Staff's obligation and place to halt the process of maladministration promoted internally by employees and Staff and elected officials who have so failed to act either to "secure against maladministration" or to produce "the greatest degree of happiness and safety" as expressed by the majority of the community. The night of the Town Council's vote on the SUP, February 14 and 15, 2023, provided ultimate evidence

Draft

of the will of the majority of the community that the SUP be denied. The motion and vote itself to approve the SUP was unauthorized by the Town Charter since the appointed member of the Town Council, who made the motion and voted on it, has two known conflicts of interest that disallowed him from voting. He and two other council members voting to approve that SUP had months earlier willfully voted against the proven will of the majority of the community on a prior matter and thereby also removed their rights to vote with authority on this SUP; the Town was made aware of that fact but proceeded to illegitimately ignore it, thereby also violating Virginia Constitution, Article 1, Section 3.

It is illegal and unethical for the Staff to further be a party to this continuing Town criminal anarchy (both corporate and through elected officials' misrepresentation) by taking any steps to approve rather than deny and cancel this SUP and all its attachments. Since the Town has no effective criminal policy to address the procedures that have been maladministered with regard to this SUP, no site plan can be reasonably considered for approval at this time under the doubtful auspices of the current Town Council majority and its selective legal guidance.

Respectfully submitted,

Jean Boenish

10/6/23

Draft

5168 Sandy Stone Lane
Broad Run, VA 20137-2131
October 1, 2023

To the Warrenton Town Council,

As a relatively long-time resident of Fauquier County (21 years and counting), and a frequent visitor to Old Town Warrenton, I feel obligated to pass along my thoughts on something.

My family and I are very regular visitors to the Town on Saturday evenings for a night out. Whenever the weather cooperates, we walk Main Street and the surrounding neighborhoods before or after dinner as part of our evening. We thoroughly enjoy seeing people on Main Street, and exploring the side streets which each have a unique character.

One thing that confuses me is the weekly blocking off of an entire block, right in the center of Old Town Main Street, for a ruckus with radio-controlled cars every Saturday evening during peak hours. While there are a few people there enjoying the demolition derby spectacle, it seems to be very much out of character with what one would expect from an Old Town Warrenton experience. The radio-controlled cars are loudly whizzing by and crashing and rolling over, making me wonder if one is going to come flying my way and clip me on my leg as I am walking by on the sidewalk.

I had been shrugging this off every week for some time, but the situation seems to have escalated with whoever is the organizer now loudly calling out the action like a carnival barker. I cannot speak for others but, in my case, his voice, along with the whizzing and crashing of the cars, detracts from the Old Town experience (in particular when dining outside), and it is clearly competing with whatever music is being played.

Again, I may be the only one concerned about this, but I thought I would share my thoughts as a regular Saturday night visitor to Main Street.

Sincerely,

William C. Milano

Bill Milano

Draft

Draft

The Town of Warrenton
P.O. Box 341
Warrenton, VA 20188
P (540) 347-1101
F (540) 349-2414

October 10th, 2023 Regular Town Council Meeting Minutes

Attachment 2: Citizen Comment Emails and form submissions.

Draft

From: "noreply@civicplus.com" on behalf of "noreply@civicplus.com" <noreply@civicplus.com>
Sent: 12 Sep 2023 18:15:44 -0500
To: """ <citizencomment@warrentonva.gov>
Subject: Online Form Submittal: Public Comment

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Public Comment

Name	Erin Lynne McLaughlin
Address	132 Moser Road
City	Warrenton
State	VA
Zip Code	20186
Email Address	readingcamper77@gmail.com
Phone Number	7035860527
Committee, Board, or Commission Type	Town Council
Agenda Item	Hero's Bridge/Warrenton United Methodist
Comment	I don't know if this is the right committee or if this is even on the agenda yet, but I am a town resident who is against the plan of Hero's Bridge and Warrenton UMC to build what is essentially a campground on the church's land. Our neighborhood has beautiful homes and the idea that these organizations are presenting will cheapen and devalue our area. I am not against helping our most vulnerable populations, but I feel that it can be done in a way that is more in line with the neighborhood aesthetic. A few large homes in line with what is already built around the neighborhood where several veterans can live together, supporting each other and where they can more easily receive care (medically, mentally, etc...). This would keep the current vibe of the neighborhood and still help those

Draft

in need. Please don't let them build this campground shack city in this beautiful part of town.

Email not displaying correctly? View it in your browser.

Draft

From: "Kristen Hylton" <kristenhylton@aol.com>
Sent: Wed, 13 Sep 2023 10:49:10 +0000 (UTC)
To: "citizencomment@warrentonva.gov" <citizencomment@warrentonva.gov>
Subject: Reminder of Dog Owners of Cemetery Rules

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good morning –

I'm not sure if this is the proper forum to have this noted for the council but I live near the cemetery and sitting in my yard I see people daily walking dogs in the cemetery. There are signs clearly visible stating No Dogs Allowed but people continue to do so. I'm not sure how enforcement of this rule can take place, if at all, but if it is going to be posted, maybe a reminder to all should be noted via social media, etc, perhaps new signs or remove them if it's not a concern.

Being able to see the lovely wildlife that enjoys the cemetery daily (deer, squirrels, a fat groundhog and all the birds) is such a lovely thing and I believe that dogs in and out of there, besides the possibility of owners not picking up their waste, may also discourage some of these animals from roaming around the area. I'd also think that the Town staff who does such an amazing job of maintaining this beautiful place in town, would prefer to not have the potential of having to dodge dog waste either.

Thanks for your time – not trying to be a 'tattletale' but I think folks need to remember that the signs were posted for a reason, and they should not be walking dogs there with all the other available locations to walk dogs around our beautiful town.

Kristen Hylton
Old Town Warrenton Resident

Draft

From: "Ragan-Ott"
Sent: Fri, 29 Sep 2023 12:41:38 +0000
To: "citizencomment@warrentonva.gov" <citizencomment@warrentonva.gov>
Subject: Light at Wawa intersection

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good Morning,
I work at Central Complex for FCPS. To go home, I drive to the Wawa and make a left onto 211. In the last couple of weeks, this light has become incredibly difficult to get through in a reasonable amount of time. I am sitting through up to 4 light rotations. It seems the amount of time the green LEFT arrow is lit has decreased to about 5 seconds. Traffic is backed up past the hospital and people trying to exit Wawa or turn into the shops on the corner are becoming aggressive in an attempt to get through or back into traffic.

Is there a reason for this change or a faulty system?

Thank you for your time.

Kristen Ott
(I live in Culpeper Co)

Draft

From: "towntraffic" <towntraffic@warrentonva.gov>
Sent: Wed, 4 Oct 2023 22:42:59 +0000
To: "citizencomment" <citizencomment@warrentonva.gov>
Subject: Re: Light at Wawa intersection

Good afternoon,

Thank you for forwarding this email.

We received a duplicate of this issue from the citizen through the town traffic email account, and have responded to their questions.

Thanks,

Johnny Switzer

Get Outlook for iOS
From: citizencomment <citizencomment@warrentonva.gov>
Sent: Wednesday, October 4, 2023 11:25:01 AM
To: towntraffic <towntraffic@warrentonva.gov>
Subject: FW: Light at Wawa intersection

FYSA. This came into citizen Comment.

Stephen Clough
Town Clerk, FOIA Officer
Town of Warrenton, VA

21 Main Street
Warrenton, VA 20186
M: (540)-714-9270
warrentonva.gov

CONFIDENTIALITY NOTICE: This electronic message is intended to be viewed only by the individual or entity to whom it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this communication is strictly prohibited without the permission of the sender. If the reader of this message is not the intended recipient, or if you have received this communication in error, please notify the sender immediately by return e-mail and delete the original message and any copies of it from your computer system.

Draft

From: Ragan-Ott, Kristen <kott@FCPS1.ORG>
Sent: Friday, September 29, 2023 8:42 AM
To: citizencomment <citizencomment@warrentonva.gov>
Subject: Light at Wawa intersection

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good Morning,
I work at Central Complex for FCPS. To go home, I drive to the Wawa and make a left onto 211. In the last couple of weeks, this light has become incredibly difficult to get through in a reasonable amount of time. I am sitting through up to 4 light rotations. It seems the amount of time the green LEFT arrow is lit has decreased to about 5 seconds. Traffic is backed up past the hospital and people trying to exit Wawa or turn into the shops on the corner are becoming aggressive in an attempt to get through or back into traffic.

Is there a reason for this change or a faulty system?

Thank you for your time.

Kristen Ott
(I live in Culpeper Co)

Draft

Motion for Convening a Closed Session

Council Meeting Date: August 13th, 2024.

I move that the Council convene in closed session to discuss the following:

____ As permitted by Virginia Code § 2.2-3711 (A)(1), a personnel matter involving:
____ Discussion, consideration or interviews of prospective candidates for employment or appointment; OR
____ assignment, appointment, promotion, performance, demotion, salaries, disciplining, or resignation of specific public officers, appointees, or employees of the Town;
specifically dealing with _____ *[Give department, job title(s), or job category].*

____ As permitted by Virginia Code § 2.2-3711 (A)(3), a matter involving:
____ discussion or consideration of the acquisition of real property for a public purpose; OR
____ disposition of publicly held real property
specifically involving _____ *[Give location of property]*, because discussion in an open meeting would adversely affect the City's bargaining position or negotiating strategy.

____ As permitted by Virginia Code § 2.2-3711 (A)(4), a matter requiring the protection of the privacy of individuals in personal matters not involving the public business.

__X__ As permitted by Virginia Code § 2.2-3711 (A)(7), consultation with legal counsel pertaining to:
the pending case of **Citizens for Fauquier County v. the Town regarding exemptions under the Virginia Freedom of Information Act,**
where such consultation or briefing in open meeting would adversely affect the negotiating or litigating posture of the City.

____ As permitted by Virginia Code § 2.2-3711 (A)(8), consultation with legal counsel regarding specific legal matters requiring the provision of legal advice by such counsel, relating to

____ As permitted by Virginia Code § 2.2-371 l (A)(29), discussion of the award of a public contract for _____ *[Give nature of the contract]* involving the expenditure of public funds, including interviews of bidders or offerors, and discussion of the terms or scope of such contract, where discussion in an open session would adversely affect the bargaining position or negotiating strategy of the City Council.

____ As permitted by Virginia Code § _____, a matter involving:
_____.

[IDENTIFY THE APPLICABLE PARAGRAPH OF § 2.2-3711(A) OR OTHER LAW AND GIVE THE SUBJECT MATTER AND PURPOSE FOR THE CLOSED SESSION.]

Votes:
Ayes:
Nays:
Absent from Vote: None

CERTIFICATION MOTION AFTER RECONVENING IN PUBLIC SESSION:
(requires a recorded roll call vote)

I move that the Council certify that, in the closed session just concluded, nothing was discussed except the matter or matters (1) specifically identified in the motion to convene in closed session

and (2) lawfully permitted to be discussed in a closed session under the provisions of the Virginia Freedom of Information Act as cited in that motion.

Votes:
Ayes:
Nays:
Absent from Vote: None

For Information:
Town Clerk

Effective date: August 13th, 2024.

Stephen Clough, Town Recorder
_____.

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13th, 2024.
Agenda Title:	Legal Action: Direction of the Town Council
Requested Action:	Direct the Town Attorney on how the Town Council wishes to proceed with the CFFC Lawsuit case.
Department / Agency Lead:	Town Attorney
Staff Lead:	Town Attorney, Martin Crim.

EXECUTIVE SUMMARY

The Court of Appeals has issued a ruling for CFFC vs. the Town of Warrenton regarding exemptions under the Virginia Freedom of Information Act

The Town Attorney is requesting direction from the Town Council on how they wish to proceed. The Council Was briefed in closed session. Draft motions for consideration are below.

Motion 1: I move to authorize the Town Attorney to file an appeal to the Virginal Supreme Court in Citizens for Fauquier County v. the Town regarding exemptions under the Virginia Freedom of Information Act.

Motion 2: I move to direct the Town Attorney not to file an appeal to the Virginia Supreme Court in Citizens for Fauquier County v. the Town regarding exemptions under the Virginia Freedom of Information Act.

Office of the Town Manager
Frank Cassidy

STAFF REPORT

Warrenton Town Council
Carter Nevill, Mayor
Heather Sutphin, Ward 1
William Semple, Ward 2
Brett Hamby, Ward 3
James Hartman, Ward 4 Vice Mayor
Eric Gagnon, Ward 5
Paul Mooney, At Large
David McGuire, At Large

Council Meeting Date:	August 13, 2024.
Agenda Title:	Request from the Board of Zoning Appeals for Funding to Retain Independent Legal Counsel
Requested Action:	Hold a Work Session to Consider the Request
Department / Agency Lead:	Community Development
Staff Lead:	Heather Jenkins, Zoning Administrator

EXECUTIVE SUMMARY

Town Staff have identified a source of funding for the BZA to retain independent legal counsel. A Resolution has been prepared for consideration by the Town Council so as to grant the funding request.

BACKGROUND

The Board of Zoning Appeals is requesting that the Town Council provide funding to retain independent legal counsel to advise the Board regarding legal matters and court filings currently before the Board. A copy of the motion passed by the Board on July 2, 2024 to request funding for legal counsel is included with this staff report as Attachment A; a copy of the email detailing the specifics of the request from the Board Chair is included as Attachment B.

The Board of Zoning Appeals is a quasi-judicial body that is appointed by the Fauquier County Circuit Court. The purpose of the Board is to hear and decide appeals from any order, requirement, decision or determination made by an administrative officer of the Town in the administration or enforcement of the Zoning Ordinance. The duties and powers of the Board of Zoning Appeals are regulated by the Code of Virginia, §15.2-2308 and subsequent sections, as well as the Town Zoning Ordinance, Article 11, Section 11-2 *Board of Zoning Appeals*. A copy of the relevant Code of Virginia sections is included with this staff report as Attachment C; a copy of Zoning Ordinance Section 11-2 is included as Attachment D.

On July 2, 2024 the Board of Zoning Appeals held a work session to discuss recent applications to the Board and court filings listing the Board at the request of the Chair. After lengthy discussion the Board members passed a motion to request that the Town Council provide funds so that the Board may retain legal counsel that is separate and independent from the Town and the Town Attorney on a short-term, as-needed basis.

STAFF RECOMMENDATION

Staff recommends that per Code of Virginia §15.2-2308, Subsection D, that the Town Council should consider the Board of Zoning Appeal's request for appropriation of funds to retain legal counsel.

Service Level/Collaborative Impact

The purpose of the Board of Zoning Appeals is to hear and decide appeals from any order, requirement, decision or determination made by an administrative officer of the Town in the administration or enforcement of the Zoning Ordinance. In the matter of an appeal, the Town Attorney represents the Town, and cannot provide legal advice to the Board of Zoning Appeals.

Fiscal Impact

The Board of Zoning Appeals relies on the Town to provide any funding necessary to perform the duties of the Board. The Board does not have a budget line item for legal counsel. Therefore, should the Board desire legal counsel, the Board must request funds from the Town Council.

Legal Impact

The Code of Virginia, §15.2-2308, Subsection D, states that upon request of the Board of Zoning Appeals, the governing body shall consider appropriation of funds so that the Board may employ or contract for services to include legal counsel.

ATTACHMENTS

A. July 2, 2024 Motion
B. July 5, 2024 Email from Chairman Kovalik
C. Code of Virginia, §15.2-2308
D. Zoning Ordinance Section 11-2

August 13, 2024
Town Council
Regular Meeting
Res. Number

A RESOLUTION TO AMEND THE FISCAL YEAR 2025 ADOPTED BUDGET BY $15,000 FOR OUTSIDE LEGAL COUNSEL TO THE BOARD OF ZONING APPEALS

WHEREAS, the Warrenton Town Council is charged by the Code of Virginia with the preparation of an annual budget for the Town of Warrenton; and

WHEREAS, on June 11, 2024, the Town Council adopted the Town of Warrenton Fiscal Year 2025 Budget; and

WHEREAS, the Warrenton Board of Zoning Appeals has requested funding to engage outside legal counsel regarding recent applications to the Board and court filings listing the Board; and

WHEAREAS, the Town Attorney shall review the legal counsel selected by the Board; and

WHEAREAS, upon approval by the Town Attorney, the Town Manager will enter into an agreement with the selected legal counsel on behalf of the Town of Warrenton and notify the Chairman of the Board of Zoning Appeals that they may proceed to obtain the requested legal advice; and

NOW, THEREFORE, BE IT RESOLVED, that this 13th day of August 2024 the Warrenton Town Council hereby amends the Fiscal Year 2025 Adopted Budget to appropriate $15,000 from the General Fund Balance for the Board of Zoning Appeals legal services.

Votes:
Ayes:
Nays:
Absent from Meeting:

For Information:
Budget Manager

ATTEST: _____
Town Recorder

TOWN COUNCIL
H.E. Carter Nevill, Mayor
Paul W. Mooney
David A. McGuire
Heather D. Sutphin
William T. Semple II
Brett A. Hamby
James N. Hartman III, Vice Mayor
Eric F. Gagnon

Motion of Board of Zoning Appeals Request to Town Council

Ms. Melea Maybach motioned to ask the Town Council to appropriate some funds for independent legal counsel for the Board of Zoning Appeals. Seconded by Mr. A. Van Baggett.

The motion was clarified during discussion to state that the request was for the Town Council to provide funding on a short term as needed basis to discuss the items before the Board of Zoning Appeals currently.

Heather Jenkins

From: Larry Kovalik
Sent: Thursday, July 4, 2024 8:18 PM
To: Heather Jenkins
Cc: Frank Cassidy; Amber Heflin; Rob Walton; Matthew Cute; Griggs, Ruth T.; Stephen Clough
Subject: Re: BZA Funding Request

Good Day Heather,

The funds will be used to understand the Board's legal rights and obligations in light of the competing Writs and associated Exhibits and Statements that have been filed in the Circuit Court by the Town Attorney and concerned citizens.

I have estimated 30-40 hours of work on this assignment based on Rob Walton's observations of similar matters which he conveyed to me during the brief discussion you referenced in your email. This is to cover review of the Writs (Mandamus and Prohibition), Appellants Exhibits 1-11, Plaintiffs-Petitioners Exhibits A-F, Plaintiffs-Petitioners Exhibits 1-3, Plaintiffs Statement of Justification and any additional document(s) deemed pertinent to this matter.

I believe we can accommodate this review within a budget of $15,000. The Board will take all measures to utilize the legal resources and appropriated funding in the most cost efficient and cost effective manner as possible.

Hourly Rates are as follows;

Senior Attorney is $650/hour.

Senior Associate is $375/hour.

Paralegal is $200/hour.

Thank You

Larry Kovalik
Chairman, Town of Warrenton Board of Zoning Appeals

From: Heather Jenkins <hjenkins@warrentonva.gov>
Sent: Wednesday, July 3, 2024 9:31 AM
To: Larry Kovalik <lkovalik@warrentonva.gov>
Cc: Frank Cassidy <fcassidy@warrentonva.gov>; Amber Heflin <aheflin@warrentonva.gov>; Rob Walton <rwalton@warrentonva.gov>; Matthew Cute <mcute@warrentonva.gov>; Griggs, Ruth T. <RGriggs@sandsanderson.com>; Stephen Clough <sclough@warrentonva.gov>
Subject: BZA Funding Request

Good morning, Larry.
As we briefly discussed this morning, please provide the following for the funding request:

- A detailed explanation of what the funds will be used for, to include approximate duration.
- A cost estimate of an hourly rate and total time, as well as a lump sum estimate.

This will be provided to Town Council along with a copy of the Board's resolution from Tuesday evening. Council will need to decide on the funding request, and then administrative staff will need to adjust other departmental budgets to provide the funding.

Please have this information sent to me before noon this Friday (the 5th) so that this can be placed on the July Council agenda.
Thank you,
Heather

Heather E. Jenkins, PLA, CZA
Zoning Administrator
Community Development Department

21 Main Street
Warrenton, VA 20186
(540) 347-1101 x144
warrentonva.gov

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2308. Boards of zoning appeals to be created; membership, organization, etc

A. Every locality that has enacted or enacts a zoning ordinance pursuant to this chapter or prior enabling laws shall establish a board of zoning appeals that shall consist of either five or seven residents of the locality, or in a town with a population of 3,500 or less, either three, five, or seven residents of the locality, appointed by the circuit court for the locality. Boards of zoning appeals for a locality within the fifteenth or nineteenth judicial circuit may be appointed by the chief judge or his designated judge or judges in their respective circuit, upon concurrence of such locality. Their terms of office shall be for five years each, except that original appointments shall be made for such terms that the term of one member shall expire each year. The secretary of the board shall notify the court at least 30 days in advance of the expiration of any term of office and shall also notify the court promptly if any vacancy occurs. Appointments to fill vacancies shall be only for the unexpired portion of the term. Members may be reappointed to succeed themselves. Members of the board shall hold no other public office in the locality, except that one may be a member of the local planning commission, any member may be appointed to serve as an officer of election as defined in § 24.2-101, and any elected official of an incorporated town may serve on the board of the county in which the member also resides. A member whose term expires shall continue to serve until his successor is appointed and qualifies. The circuit court for the City of Chesapeake and the Circuit Court for the City of Hampton shall appoint at least one but not more than three alternates to the board of zoning appeals. At the request of the local governing body, the circuit court for any other locality may appoint not more than three alternates to the board of zoning appeals. The qualifications, terms and compensation of alternate members shall be the same as those of regular members. A regular member when he knows he will be absent from or will have to abstain from any application at a meeting shall notify the chairman 24 hours prior to the meeting of such fact. The chairman shall select an alternate to serve in the absent or abstaining member's place and the records of the board shall so note. Such alternate member may vote on any application in which a regular member abstains.

B. Localities may, by ordinances enacted in each jurisdiction, create a joint board of zoning appeals that shall consist of two members appointed from among the residents of each participating jurisdiction by the circuit court for each county or city, plus one member from the area at large to be appointed by the circuit court or jointly by such courts if more than one, having jurisdiction in the area. The term of office of each member shall be five years, except that of the two members first appointed from each jurisdiction, the term of one shall be for two years and of the other, four years. Vacancies shall be filled for the unexpired terms. In other respects, joint boards of zoning appeals shall be governed by all other provisions of this article.

C. With the exception of its secretary and the alternates, the board shall elect from its own membership its officers who shall serve annual terms as such and may succeed themselves. The board may elect as its secretary either one of its members or a qualified individual who is not a member of the board, excluding the alternate members. A secretary who is not a member of the

board shall not be entitled to vote on matters before the board. Notwithstanding any other provision of law, general or special, for the conduct of any hearing, a quorum shall be not less than a majority of all the members of the board and the board shall offer an equal amount of time in a hearing on the case to the applicant, appellant or other person aggrieved under § 15.2-2314, and the staff of the local governing body. Except for matters governed by § 15.2-2312, no action of the board shall be valid unless authorized by a majority vote of those present and voting. The board may make, alter and rescind rules and forms for its procedures, consistent with ordinances of the locality and general laws of the Commonwealth. The board shall keep a full public record of its proceedings and shall submit a report of its activities to the governing body or bodies at least once each year.

D. Upon request of the board of zoning appeals, the governing body shall consider appropriation of funds so that the board may employ or contract for secretaries, clerks, legal counsel, consultants, and other technical and clerical services. If a board has needs that surpass the budgeted amount, the governing body shall review the board's request. Members of the board may receive such compensation as may be authorized by the respective governing bodies. Any board member or alternate may be removed for malfeasance, misfeasance or nonfeasance in office, or for other just cause, by the court that appointed him, after a hearing held after at least 15 days' notice.

E. Notwithstanding any contrary provisions of this section, in the Cities of Portsmouth and Virginia Beach, members of the board shall be appointed by the governing body. The governing body shall also appoint at least one but not more than three alternates to the board.

Code 1950, §§ 15-825, 15-850, 15-968.8; 1950, pp. 176, 489; 1952, c. 688; 1962, c. 407, § 15.1-494; 1975, c. 641; 1976, c. 642; 1977, c. 172; 1982, c. 3; 1989, c. 27; 1992, c. 47; 1997, cc. 570, 587; 1998, cc. 346, 520, 528;1999, c. 838;2002, cc. 205, 545;2007, c. 813;2009, c. 734;2010, c. 705; 2015, cc. 406, 407, 597;2019, c. 703;2020, cc. 11, 1006;2021, Sp. Sess. I, c. 355;2022, c. 249.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2308.1. Boards of zoning appeals, ex parte communications, proceedings

A. The non-legal staff of the governing body may have ex parte communications with a member of the board prior to the hearing but may not discuss the facts or law relative to a particular case. The applicant, landowner or his agent or attorney may have ex parte communications with a member of the board prior to the hearing but may not discuss the facts or law relative to a particular case. If any ex parte discussion of facts or law in fact occurs, the party engaging in such communication shall inform the other party as soon as practicable and advise the other party of the substance of such communication. For purposes of this section, regardless of whether all parties participate, ex parte communications shall not include (i) discussions as part of a public meeting or (ii) discussions prior to a public meeting to which staff of the governing body, the applicant, landowner or his agent or attorney are all invited.

B. Any materials relating to a particular case, including a staff recommendation or report furnished to a member of the board, shall be made available without cost to such applicant, appellant or other person aggrieved under § 15.2-2314, as soon as practicable thereafter, but in no event more than three business days of providing such materials to a member of the board. If the applicant, appellant or other person aggrieved under § 15.2-2314 requests additional documents or materials be provided by the locality other than those materials provided to the board, such request shall be made pursuant to § 2.2-3704. Any such materials furnished to a member of the board shall also be made available for public inspection pursuant to subsection G of § 2.2-3707.

C. For the purposes of this section, "non-legal staff of the governing body" means any staff who is not in the office of the attorney for the locality, or for the board, or who is appointed by special law or pursuant to § 15.2-1542. Nothing in this section shall preclude the board from having ex parte communications with any attorney or staff of any attorney where such communication is protected by the attorney-client privilege or other similar privilege or protection of confidentiality.

D. This section shall not apply to cases where an application for a special exception has been filed pursuant to subdivision 6 of § 15.2-2309.

2015, c. 597;2023, c. 536.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2309. Powers and duties of boards of zoning appeals

Boards of zoning appeals shall have the following powers and duties:

1. To hear and decide appeals from any order, requirement, decision, or determination made by an administrative officer in the administration or enforcement of this article or of any ordinance adopted pursuant thereto. The decision on such appeal shall be based on the board's judgment of whether the administrative officer was correct. The determination of the administrative officer shall be presumed to be correct. At a hearing on an appeal, the administrative officer shall explain the basis for his determination after which the appellant has the burden of proof to rebut such presumption of correctness by a preponderance of the evidence. The board shall consider any applicable ordinances, laws, and regulations in making its decision. For purposes of this section, determination means any order, requirement, decision or determination made by an administrative officer. Any appeal of a determination to the board shall be in compliance with this section, notwithstanding any other provision of law, general or special.

2. Notwithstanding any other provision of law, general or special, to grant upon appeal or original application in specific cases a variance as defined in § 15.2-2201, provided that the burden of proof shall be on the applicant for a variance to prove by a preponderance of the evidence that his application meets the standard for a variance as defined in § 15.2-2201 and the criteria set out in this section.

Notwithstanding any other provision of law, general or special, a variance shall be granted if the evidence shows that the strict application of the terms of the ordinance would unreasonably restrict the utilization of the property or that the granting of the variance would alleviate a hardship due to a physical condition relating to the property or improvements thereon at the time of the effective date of the ordinance, or alleviate a hardship by granting a reasonable modification to a property or improvements thereon requested by, or on behalf of, a person with a disability, and (i) the property interest for which the variance is being requested was acquired in good faith and any hardship was not created by the applicant for the variance; (ii) the granting of the variance will not be of substantial detriment to adjacent property and nearby properties in the proximity of that geographical area; (iii) the condition or situation of the property concerned is not of so general or recurring a nature as to make reasonably practicable the formulation of a general regulation to be adopted as an amendment to the ordinance; (iv) the granting of the variance does not result in a use that is not otherwise permitted on such property or a change in the zoning classification of the property; and (v) the relief or remedy sought by the variance application is not available through a special exception process that is authorized in the ordinance pursuant to subdivision 6 of § 15.2-2309 or the process for modification of a zoning ordinance pursuant to subdivision A 4 of § 15.2-2286 at the time of the filing of the variance application. Any variance granted to provide a reasonable modification to a property or improvements thereon requested by, or on behalf of, a person with a disability may expire when the person benefited by it is no longer in need of the modification to such property or improvements provided by the variance, subject to the provisions of state and federal fair

housing laws, or the Americans with Disabilities Act of 1990 (42 U.S.C. § 12131 et seq.), as applicable. If a request for a reasonable modification is made to a locality and is appropriate under the provisions of state and federal fair housing laws, or the Americans with Disabilities Act of 1990 (42 U.S.C. § 12131 et seq.), as applicable, such request shall be granted by the locality unless a variance from the board of zoning appeals under this section is required in order for such request to be granted.

No variance shall be considered except after notice and hearing as required by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail.

In granting a variance, the board may impose such conditions regarding the location, character, and other features of the proposed structure or use as it may deem necessary in the public interest and may require a guarantee or bond to ensure that the conditions imposed are being and will continue to be complied with. Notwithstanding any other provision of law, general or special, the property upon which a property owner has been granted a variance shall be treated as conforming for all purposes under state law and local ordinance; however, the structure permitted by the variance may not be expanded unless the expansion is within an area of the site or part of the structure for which no variance is required under the ordinance. Where the expansion is proposed within an area of the site or part of the structure for which a variance is required, the approval of an additional variance shall be required.

3. To hear and decide appeals from the decision of the zoning administrator after notice and hearing as provided by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail.

4. To hear and decide applications for interpretation of the district map where there is any uncertainty as to the location of a district boundary. After notice to the owners of the property affected by the question, and after public hearing with notice as required by § 15.2-2204, the board may interpret the map in such way as to carry out the intent and purpose of the ordinance for the particular section or district in question. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail. The board shall not have the power to change substantially the locations of district boundaries as established by ordinance.

5. No provision of this section shall be construed as granting any board the power to rezone property or to base board decisions on the merits of the purpose and intent of local ordinances duly adopted by the governing body.

6. To hear and decide applications for special exceptions as may be authorized in the ordinance. The board may impose such conditions relating to the use for which a permit is granted as it may deem necessary in the public interest, including limiting the duration of a permit, and may require a guarantee or bond to ensure that the conditions imposed are being and will continue to be complied with.

No special exception may be granted except after notice and hearing as provided by § 15.2-2204.

However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail.

7. To revoke a special exception previously granted by the board of zoning appeals if the board determines that there has not been compliance with the terms or conditions of the permit. No special exception may be revoked except after notice and hearing as provided by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail. If a governing body reserves unto itself the right to issue special exceptions pursuant to § 15.2-2286, and, if the governing body determines that there has not been compliance with the terms and conditions of the permit, then it may also revoke special exceptions in the manner provided by this subdivision.

8. The board by resolution may fix a schedule of regular meetings, and may also fix the day or days to which any meeting shall be continued if the chairman, or vice-chairman if the chairman is unable to act, finds and declares that weather or other conditions are such that it is hazardous for members to attend the meeting. Such finding shall be communicated to the members and the press as promptly as possible. All hearings and other matters previously advertised for such meeting in accordance with § 15.2-2312 shall be conducted at the continued meeting and no further advertisement is required.

Code 1950, §§ 15-831, 15-850, 15-968.9; 1950, p. 176; 1962, c. 407, § 15.1-495; 1964, c. 535; 1972, c. 695; 1975, cc. 521, 641; 1987, c. 8; 1991, c. 513; 1996, c. 555;1997, c. 587;2000, c. 1050; 2002, c. 546;2003, c. 403;2006, c. 264;2008, c. 318;2009, c. 206;2015, c. 597;2018, c. 757.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2310. Applications for special exceptions and variances

Applications for special exceptions and variances may be made by any property owner, tenant, government official, department, board or bureau. Applications shall be made to the zoning administrator in accordance with rules adopted by the board. The application and accompanying maps, plans or other information shall be transmitted promptly to the secretary of the board who shall place the matter on the docket to be acted upon by the board. No special exceptions or variances shall be authorized except after notice and hearing as required by § 15.2-2204. The zoning administrator shall also transmit a copy of the application to the local planning commission which may send a recommendation to the board or appear as a party at the hearing. Any locality may provide by ordinance that substantially the same application will not be considered by the board within a specified period, not exceeding one year.

Code 1950, §§ 15-828 through 15-830, 15-832, 15-833, 15-850, 15-968.10; 1950, p. 176; 1962, c. 407, § 15.1-496; 1966, c. 256; 1975, cc. 521, 641; 1989, c. 407; 1997, c. 587.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2311. Appeals to board

A. An appeal to the board may be taken by any person aggrieved or by any officer, department, board or bureau of the locality affected by any decision of the zoning administrator or from any order, requirement, decision or determination made by any other administrative officer in the administration or enforcement of this article, any ordinance adopted pursuant to this article, or any modification of zoning requirements pursuant to § 15.2-2286. Notwithstanding any charter provision to the contrary, any written notice of a zoning violation or a written order of the zoning administrator dated on or after July 1, 1993, shall include a statement informing the recipient that he may have a right to appeal the notice of a zoning violation or a written order within 30 days in accordance with this section, and that the decision shall be final and unappealable if not appealed within 30 days. The zoning violation or written order shall include the applicable appeal fee and a reference to where additional information may be obtained regarding the filing of an appeal. The appeal period shall not commence until the statement is given and the zoning administrator's written order is sent by registered or certified mail to, or posted at, the last known address or usual place of abode of the property owner or its registered agent, if any. There shall be a rebuttable presumption that the property owner's last known address is that shown on the current real estate tax assessment records, or the address of a registered agent that is shown in the records of the Clerk of the State Corporation Commission. The appeal shall be taken within 30 days after the decision appealed from by filing with the zoning administrator, and with the board, a notice of appeal specifying the grounds thereof. The zoning administrator shall forthwith transmit to the board all the papers constituting the record upon which the action appealed from was taken. The fee for filing an appeal shall not exceed the costs of advertising the appeal for public hearing and reasonable costs. A decision by the board on an appeal taken pursuant to this section shall be binding upon the owner of the property which is the subject of such appeal only if the owner of such property has been provided notice of the zoning violation or written order of the zoning administrator in accordance with this section. The owner's actual notice of such notice of zoning violation or written order or active participation in the appeal hearing shall waive the owner's right to challenge the validity of the board's decision due to failure of the owner to receive the notice of zoning violation or written order. For jurisdictions that impose civil penalties for violations of the zoning ordinance, any such civil penalty shall not be assessed by a court having jurisdiction during the pendency of the 30-day appeal period.

B. An appeal shall stay all proceedings in furtherance of the action appealed from unless the zoning administrator certifies to the board that by reason of facts stated in the certificate a stay would in his opinion cause imminent peril to life or property, in which case proceedings shall not be stayed otherwise than by a restraining order granted by the board or by a court of record, on application and on notice to the zoning administrator and for good cause shown.

C. In no event shall a written order, requirement, decision or determination made by the zoning administrator or other administrative officer be subject to change, modification or reversal by any zoning administrator or other administrative officer after 60 days have elapsed from the date

of the written order, requirement, decision or determination where the person aggrieved has materially changed his position in good faith reliance on the action of the zoning administrator or other administrative officer unless it is proven that such written order, requirement, decision or determination was obtained through malfeasance of the zoning administrator or other administrative officer or through fraud. The 60-day limitation period shall not apply in any case where, with the concurrence of the attorney for the governing body, modification is required to correct clerical errors.

D. In any appeal taken pursuant to this section, if the board's attempt to reach a decision results in a tie vote, the matter may be carried over until the next scheduled meeting at the request of the person filing the appeal.

1975, c. 521, § 15.1-496.1; 1983, c. 12; 1993, c. 780; 1995, c. 424;1997, c. 587;2005, cc. 625, 677; 2008, c. 378;2010, c. 241;2011, c. 457;2012, cc. 400, 550, 606;2017, c. 665;2019, c. 387.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2312. Procedure on appeal

The board shall fix a reasonable time for the hearing of an application or appeal, give public notice thereof as well as due notice to the parties in interest and make its decision within ninety days of the filing of the application or appeal. In exercising its powers the board may reverse or affirm, wholly or partly, or may modify, an order, requirement, decision or determination appealed from. The concurring vote of a majority of the membership of the board shall be necessary to reverse any order, requirement, decision or determination of an administrative officer or to decide in favor of the applicant on any matter upon which it is required to pass under the ordinance or to effect any variance from the ordinance. The board shall keep minutes of its proceedings and other official actions which shall be filed in the office of the board and shall be public records. The chairman of the board, or in his absence the acting chairman, may administer oaths and compel the attendance of witnesses.

1975, c. 521, § 15.1-496.2; 1983, c. 444; 1986, c. 483; 1997, c. 587.

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Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2313. Proceedings to prevent construction of building in violation of zoning ordinance

Where a building permit has been issued and the construction of the building for which the permit was issued is subsequently sought to be prevented, restrained, corrected or abated as a violation of the zoning ordinance, by suit filed within fifteen days after the start of construction by a person who had no actual notice of the issuance of the permit, the court may hear and determine the issues raised in the litigation even though no appeal was taken from the decision of the administrative officer to the board of zoning appeals.

1975, c. 521, § 15.1-496.3; 1997, c. 587.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning
Article 7. Zoning

§ 15.2-2314. Certiorari to review decision of board

Any person or persons jointly or severally aggrieved by any decision of the board of zoning appeals, or any aggrieved taxpayer or any officer, department, board or bureau of the locality, may file with the clerk of the circuit court for the county or city a petition that shall be styled "In Re: date Decision of the Board of Zoning Appeals of [locality name]" specifying the grounds on which aggrieved within 30 days after the final decision of the board.

Upon the presentation of such petition, the court shall allow a writ of certiorari to review the decision of the board of zoning appeals and shall prescribe therein the time within which a return thereto must be made and served upon the secretary of the board of zoning appeals or, if no secretary exists, the chair of the board of zoning appeals, which shall not be less than 10 days and may be extended by the court. Once the writ of certiorari is served, the board of zoning appeals shall have 21 days or as ordered by the court to respond. The allowance of the writ shall not stay proceedings upon the decision appealed from, but the court may, on application, on notice to the board and on due cause shown, grant a restraining order.

Any review of a decision of the board shall not be considered an action against the board and the board shall not be a party to the proceedings; however, the board shall participate in the proceedings to the extent required by this section. The governing body, the landowner, and the applicant before the board of zoning appeals shall be necessary parties to the proceedings in the circuit court. The court may permit intervention by any other person or persons jointly or severally aggrieved by any decision of the board of zoning appeals.

The board of zoning appeals shall not be required to return the original papers acted upon by it but it shall be sufficient to return certified or sworn copies thereof or of the portions thereof as may be called for by the writ. The return shall concisely set forth such other facts as may be pertinent and material to show the grounds of the decision appealed from and shall be verified.

The court may reverse or affirm, wholly or partly, or may modify the decision brought up for review.

In the case of an appeal from the board of zoning appeals to the circuit court of an order, requirement, decision or determination of a zoning administrator or other administrative officer in the administration or enforcement of any ordinance or provision of state law, or any modification of zoning requirements pursuant to § 15.2-2286, the findings and conclusions of the board of zoning appeals on questions of fact shall be presumed to be correct. The appealing party may rebut that presumption by proving by a preponderance of the evidence, including the record before the board of zoning appeals, that the board of zoning appeals erred in its decision. Any party may introduce evidence in the proceedings in the court. The court shall hear any arguments on questions of law de novo.

In the case of an appeal by a person of any decision of the board of zoning appeals that denied or granted an application for a variance, the decision of the board of zoning appeals shall be

presumed to be correct. The petitioner may rebut that presumption by proving by a preponderance of the evidence, including the record before the board of zoning appeals, that the board of zoning appeals erred in its decision.

In the case of an appeal by a person of any decision of the board of zoning appeals that denied or granted application for a special exception, the decision of the board of zoning appeals shall be presumed to be correct. The petitioner may rebut that presumption by showing to the satisfaction of the court that the board of zoning appeals applied erroneous principles of law, or where the discretion of the board of zoning appeals is involved, the decision of the board of zoning appeals was plainly wrong, was in violation of the purpose and intent of the zoning ordinance, and is not fairly debatable.

In the case of an appeal from the board of zoning appeals to the circuit court of a decision of the board, any party may introduce evidence in the proceedings in the court in accordance with the Rules of Evidence of the Supreme Court of Virginia.

Costs shall not be allowed against the locality or the governing body, unless it shall appear to the court that the locality or the governing body acted in bad faith or with malice. In the event the decision of the board is affirmed and the court finds that the appeal was frivolous, the court may order the person or persons who requested the issuance of the writ of certiorari to pay the costs incurred in making the return of the record pursuant to the writ of certiorari. If the petition is withdrawn subsequent to the filing of the return, the locality or the governing body may request that the court hear the matter on the question of whether the appeal was frivolous.

Code 1950, §§ 15-834 through 15-839, 15-850, 15-958.11; 1950, p. 176; 1962, c. 407, § 15.1-497; 1975, c. 641; 1988, c. 856; 1994, c. 705;1996, c. 450;1997, c. 587;2001, c. 422;2003, c. 568;2005, cc. 625, 677;2006, c. 446;2010, c. 241;2015, c. 597;2017, c. 661;2020, c. 86.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Article 11 Administration, Procedures and Enforcement

Amended by Town Council: February 12, 2013
December 11, 2018
December 10, 2019
March 10, 2020
April 12, 2022

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Article 11 Administration, Procedures and Enforcement

11-1 Administration

11-1.1 Zoning Administrator.

The provisions of this Ordinance shall be enforced by the designated agent of the Town of Warrenton, who shall be known as the Zoning Administrator. The Zoning Administrator shall have all necessary authority on behalf of the Town Council to administer and enforce the Zoning Ordinance. His authority shall include:

1. ordering in writing the remedying of any condition found in violation of this Ordinance;
2. insuring compliance with the ordinance, bringing legal action, including injunction, abatement, or other appropriate action or proceeding subject to appeal pursuant to § 15.2-2311 of the Code of Virginia and Article 11 of this Ordinance; and
3. in specific cases, making findings of fact and, with concurrence of the Town attorney, conclusions of law regarding determinations of rights accruing under § 15.2-2307 of the Code of Virginia.
4. granting a variance from any building setback requirement contained in the Zoning Ordinance in accord with Article 11 of this Ordinance and § 15.2-2286 of the Code of Virginia.
5. The Zoning Administrator shall respond within ninety (90) days of a request for a decision or determination on zoning matters within the scope of his authority unless the requester has agreed to a longer period.
6. In addition to the regulations and requirements herein contained concerning the administration of this Ordinance, the Zoning Administrator may establish reasonable additional administrative forms and procedures deemed necessary for the proper administration of this Ordinance.
7. Such other powers as may be granted in the Code of Virginia.

11-1.2 Certified Copy.

A certified copy of the Zoning Ordinance, as adopted and including any amendments, shall be filed in the office of the Zoning Administrator of Warrenton and in the office of the Clerk of the Circuit Court of Fauquier County, Virginia.

11-1.3 Processing Fees.

It is the intent of the Town that at least part of the cost of administering this Ordinance be borne by those responsible for development; therefore, a fee schedule, as prescribed by the Town Council and modified from time to time, shall apply to all permits, reviews, and

processing as required by this Ordinance.

11-1.4 Payment of Delinquent Taxes Prior to Filing a Land Use Application. Prior to the filing of an application for a special use permit, special exception, variance, rezoning, site plan, subdivision plat, land disturbance permit, or other land use permit, the applicant shall produce evidence that any delinquent Town real estate taxes properly assessed against the subject property have been paid in full, in accord with § 15.2-2286 (E) of the Code of Virginia, as amended.

11-2 Board of Zoning Appeals

11-2.1 General Provisions (Purpose, Authority and Membership)

11-2.1.1 The Board of Zoning Appeals shall hear and decide appeals from any order, requirement, decision or determination made by an administrative officer in the administration or enforcement of the Zoning Ordinance.

11-2.1.2 The Board of Zoning Appeals shall adopt such rules and regulations as it may consider necessary to carry out its authorized business.

11-2.1.3 The Board shall consist of five (5) members and shall be appointed by the Circuit Court of Fauquier County. Members shall be residents of the Town of Warrenton. The Board shall receive compensation for traveling expenses and may receive other such compensation as may be authorized by the Town Council. Appointments to fill vacancies occurring otherwise than by expiration of term shall in all cases be for the unexpired term.

11-2.1.4 The term of office shall be for five (5) years. One of the five (5) appointed members may be an active member of the Planning Commission.

11-2.1.5 Any member of the Board may be removed, for malfeasance, misfeasance or nonfeasance in office, or for other just cause, by the Circuit Court, after a hearing held after at least fifteen (15) days written notice.

11-2.1.6 Any member of the Board shall be disqualified to act upon a matter before the Board with respect to property in which the member has an interest.

11-2.1.7 The Board shall choose annually its own chairman and vice-chairman who shall act in the absence of the chairman.

11-2.1.8 The Town Manager shall appoint a staff member to serve as secretary to the Board of Zoning Appeals, without vote and shall prepare minutes of meetings, keep all records and conduct official correspondence of the Board. In the

absence of the secretary at any meeting, the Board shall appoint some other person, who may or may not be a member of the Board, to prepare the minutes thereof.

11-2.2 Rules and Regulations

11-2.2.1 The meeting of the Board shall be held at the call of its chairman or, in his absence, the acting chairman, or at such times as a quorum of the Board may determine.

11-2.2.2 The chairman, or, in his absence, the acting chairman, may administer oaths and compel the attendance of witnesses.

11-2.2.3 The Board shall keep minutes of its proceedings, showing the vote of each member upon each question, or if absent or failing to vote, indicating such fact. It shall keep records of its examinations and other official actions, all of which shall be immediately filed in the office of the Board and shall be a public record.

11-2.2.4 All meetings of the Board shall be open to the public. A favorable vote of three (3) members of the Board shall be necessary to reverse any order, requirement, decision, or determination of any administrative official or to decide in favor of the applicant on any matter upon which the Board is required to pass.

11-2.2.5 For the conduct of any hearing and the taking of any action or transaction of official business, a quorum shall be required of not less than three (3) members of the Board.

11-2.2.6 In exercising its powers the Board may reverse or affirm, wholly or partly, or may modify the order, requirement, decision, or determination appealed from. The concurring vote of three (3) members shall be necessary to reverse any order, requirement, decision or determination of an administrative officer or to decide in favor of the applicant on any matter upon which it is required to pass under the Ordinance or to effect any proceedings and other official actions, which shall be filed in the office of the Board and shall be public records.

11-2.3 Powers and Duties

The Board of Zoning Appeals shall have the following powers and duties:

11-2.3.1. To hear and decide appeals from any order, requirement, decision or determination made by an administrative officer in the administration or enforcement of this Ordinance or of any ordinance adopted pursuant thereto, in

accord with Section 11-3.13 of this Ordinance, including decisions of the Zoning Administrator. The decision on such appeals shall be based on the Board's judgment of whether the administrative officer was correct. The Board shall consider the purpose and intent of any applicable ordinances, laws and regulations in making its decision. In the case of interpreting the zoning map, the board shall interpret the map in such way as to carry out the intent and purpose of the ordinance for the particular section or district in question. The Board shall not have the power to change the locations of district boundaries as established by Ordinance.

11-2.3.2. To authorize upon appeal or original application in specific cases a variance as defined in § 15.2-2201of the Code of Virginia, from the terms of this Ordinance as will not be contrary to the public interest, when, owing to special conditions a literal enforcement of the provisions will result in unnecessary hardship; provided that the spirit of this ordinance shall be observed and substantial justice done and the requirements in Section 11-3.12.

11-2.3.3. No provision of this section shall be construed as granting any Board the power to rezone property or to base Board decisions on the merits of the purpose and intent of any ordinances duly adopted by the Town Council.

11-2.3.4. When giving any required notice to owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the Board may give such notice by first-class mail rather than by registered or certified mail.

11-2.3.5. Records

The Board shall keep minutes of its proceedings, showing the vote of each member upon each question, or if absent or failing to vote, indicating such fact. It shall keep full records of its examinations and other official actions, all of which shall be immediately filed in the office of the Zoning Administrator and shall be a public record.

11-2.3.6. Periodic Reports

The Board shall submit a report of its activities to the Town Council at least once each year.

11-2.3.7. Limitation

All provisions of this Ordinance relating to the Board shall be strictly construed. The Board, as a body of limited jurisdiction, shall act in full

conformity with all provisions and definitions in this Ordinance and in strict compliance with all limitations contained therein.

11-2.3.8. Decisions Subject to Judicial Review

In accord with § 15.2-2314 of the Code of Virginia, as amended, all decisions and findings of the Board shall be final decisions, and shall be subject to judicial review in the following manner:

1. Any person or persons jointly or severally aggrieved by any decision of the Board of Zoning Appeals, or any taxpayer or any officer, department, board or bureau of the Town, may present to the Circuit Court of Fauquier County a petition specifying the grounds on which aggrieved within thirty (30) days after the filing of the decision in the office of the Board of Zoning Appeals.
2. Upon the presentation of such petition, the court shall allow a Writ of Certiorari to review the decision of the Board of Zoning Appeals and shall prescribe therein the time within which a return thereto must be made and served upon the petitioner's attorney, which shall not be less than ten (10) days and may be extended by the court. The allowance of the writ shall not stay proceedings upon the decision appealed from, but the court may, on application, on notice to the Board of Zoning Appeals and on due cause shown, grant a restraining order.
3. The Board of Zoning Appeals shall not be required to return the original papers acted upon by it but it shall be sufficient to return certified or sworn copies thereof or of such portions thereof as may be called for by such writ. The return shall concisely set forth such other facts as may be pertinent and material to show the grounds of the decision appealed from and shall be verified.
4. If, upon the hearing, it shall appear to the court that testimony is necessary for the proper disposition of the matter, it may take evidence or appoint a commissioner to take such evidence as it may direct and report the same to the court with the commissioner's findings of fact and conclusions of law, which shall constitute a part of the proceedings upon which a determination of the court shall be made. The court may reverse or affirm, wholly or partly, or may modify the decision brought up for review.
5. Costs shall not be allowed against the Board of Zoning Appeals, unless it shall appear to the court that the Board acted in bad faith or with malice in making the decision appealed from. In the event the decision of the Board is affirmed and the court finds that the appeal was frivolous, the court may order the person or persons who requested the issuance of the writ of certiorari to pay the costs incurred in making a return of the record pursuant to the Writ of Certiorari.

11-3 Procedures for Application Review and Approval

11-3.1 Types of Permit Applications

This Ordinance provides for the following types of permit applications for land use and development:

1. *Land Disturbance Permit* - subject to review and approval by the Planning Director.
2. *Zoning Permit* - subject to review and approval by the Zoning Administrator.
3. *Building Permit* - subject to review and approval by the Building Official.
4. *Occupancy Permit* - subject to review and approval by the Zoning Administrator.
5. *Site Development Plan* - in accordance with the Zoning Ordinance of the Town of Warrenton and subject to review and approval by the Planning Director.
6. *Subdivision Plat* - in accordance with the Subdivision Ordinance of the Town of Warrenton and subject to review and approval by the Planning Director.
7. *Commission Permit ("2232 Review")* - subject to public review and approval by the Planning Commission.
8. *Zoning Amendment (including Conditional Zoning Procedures)* - subject to review and approval by the Town Council.
9. *Special Use Permit* - subject to review and approval by the Town Council.
10. *Variances* - subject to review and approval by the Board of Zoning Appeals and, for certain cases as provided for herein, subject to review and approval by the Zoning Administrator.
11. *Appeals* - subject to review and approval by the Board of Zoning Appeals.
12. *Additional Governmental Approval.* All departments, officials and public employees of the Town vested with the duty or authority to issue permits or licenses shall conform to the provisions of this chapter. They shall issue permits or licenses for uses, buildings or purposes only when they are in conformance with the provisions of this Ordinance. Any such permit or license, if issued in conflict with the provisions of this Ordinance, shall be null and void.

11-3.2 Public Hearing Procedures

11-3.2.1 Advertisement and Notice is Required.

Prior to each public hearing involving planning and zoning matters before the Planning Commission, the Town Council or the Board of Zoning Appeals, the Town shall provide advertisement and written notice as may be required by §§ 15.2-2204 and 15.2-2285 of the Code of Virginia, as amended.

11-3.2.2 Notice by Town.

Notwithstanding any other provisions of this section, whenever the notices required under this Section are sent on behalf of an agency, department or division of the Town, such notice shall be sent by the Zoning Administrator and may be sent by first class mail; however, the Zoning Administrator shall make affidavit that such mailings have been made and file such affidavit with the papers in the pertinent application or case.

11-3.2.3 Notice and Certification by Applicant.

For any application for amendment or development approval for which a public hearing is required before the Planning Commission and the Council and which is initiated by an applicant, the applicant shall be responsible for providing notice in accord with § 15.2-2204 of the Code of Virginia. A certification of notice and a listing of the persons to whom notice has been sent shall be filed with the Zoning Administrator by the applicant at least five days prior to the first public hearing of the Commission. A counterpart of such affidavit shall be presented to the Planning Commission or the Council at the beginning of its public hearing. The applicant may rely upon records of the local real estate assessor's office or the applicable website, if available, to ascertain the names of persons entitled to notice.

11-3.2.4 Condominium Ownership.

In the case of a condominium, written notice may be sent to the unit owner's association instead of to each individual unit owner.

11-3.2.5 Additional Notice Required for Deferrals

If an item is not heard at a public hearing for which it was noticed, but is deferred to a specific date, no additional notice at a public hearing is required by this Section.

11-3.2.6 Additional Notice Required for Recessed Public Hearings.

If a public hearing is begun but the agenda not completed, thereby requiring the meeting to be recessed, no additional notice is required as long as the dates for completion of the public hearing agenda is announced at the hearing which has been recessed.

11-3.2.7 Speakers at Public Hearings.

All witnesses and speakers presenting facts, evidence or opinion at any public hearing shall provide their name, address and affiliation, if any, for the record.

Witnesses or speakers may be required to give oath or affirmation regarding the truth of their statements. At the discretion of the person presiding over the hearing, speakers may be limited as to the time they are allowed to speak.

11-3.3 Land Disturbance Permit

11-3.3.1 Permit Required

No person shall engage in any kind of land disturbing activity, as defined in Article 11, within the Town of Warrenton until they have acquired a Land Disturbance Permit.

Whenever a land disturbing activity is proposed to be conducted by a contractor performing construction work pursuant to a construction contract, the preparation, submission, and approval of the required erosion and sediment control plan and receipt of a land disturbance permit shall be the responsibility of the owner of the land.

11-3.3.2 Plan Submission

If filed separately from a site development plan, three (3) copies of the erosion and sediment control plan shall be submitted to the Administrator. Is submitted with the site development plan, the erosion and sediment control plan shall accompany each copy of the site plan submission.

11-3.3.3 Approved Plan.

An approved plan is required before the issuing of any other building or development permits.

11-3.3.4 Plan, Action.

Any erosion and sedimentation plan submitted under the provisions of this Article and the Town's Erosion and Sediment Control Ordinance will be acted on within forty-five (45) days from receipt by either approving or disapproving in writing and, if disapproved, giving specific reasons for such disapproval. If no formal action has been taken by the plan approving authority within forty-five (45) days after receipt of a plan, the plan shall be deemed approved.

11-3.3.5 Plan Amendments.

An approved plan may be changed by the plan approving authority in the following cases:

1. where inspection has revealed that the plan is inadequate to satisfy applicable regulations; or
2. where the person responsible for carrying out the approved plan finds that because of changed circumstances, or for other reasons, the approved plan cannot be effectively carried out, and proposed amendments to the plan, consistent with the requirements of this Article, are agreed to by the plan approving authority and the person responsible for carrying out the plan.

11-3.3.6 Bonding.

Prior to the issuance of any permit, the Administrator shall also require an applicant to submit a reasonable performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement acceptable to the Town Attorney for the Town of Warrenton, to ensure that measures could be taken by the Town, at the applicant's expense, should they fail, after proper notice, within the time specified to initiate or maintain appropriate conservation action which may be required of them by the approved plan as a result of their land disturbing activity. This cash escrow, letter of credit, or other acceptable legal arrangement will provide for a right-of-entry by representatives of the Town, for purposes of inspection, reinstallation, maintenance, or any conservation practices as may be necessary.

1. If the Town takes such conservation action upon such failure by the permittee, the agency may collect from the permittee for the difference should the amount of the reasonable cost of such action exceed the amount of the security held.
2. Within sixty (60) days of the achievement of adequate stabilization of the land disturbing activity, the bond, cash escrow, letter of credit, or other legal arrangement, or the unexpended or unobligated portion thereof, shall be refunded to the applicant or terminated.
3. These requirements are in addition to all other provisions of this Article relating to the issuance of such permits and are not intended to otherwise affect the requirements for such permits.

11-3.3.7 Inspections and Enforcement, Generally.

Inspections shall be performed by the Town's Construction Inspector or Building Official and enforcement shall be performed by the Zoning Administrator.

11-3.3.8 Monitoring, Reports, and Inspections.

The Construction Inspector or Building Official, through the Administrator shall: (i) provide for periodic inspections of the land disturbing activity, and (ii) may require monitoring and reports from the person responsible for carrying out the plan, to ensure compliance with the approved plan and to determine whether the measures required in the plan are effective in controlling erosion and sediment. The owner, permittee or person responsible for carrying out the plan, or operator shall be given notice of the inspection. If the plan approving authority through the Administrator determines that there is a failure to comply with the plan, notice shall be served upon the permittee or person responsible for carrying out the plan by registered or certified mail to the address specified in the permit application or in the mail to the plan certification, or by delivery at the site of the land disturbing activity to the agent or employee supervising such activities. The notice shall specify the measures needed to comply with the plan and shall specify the time within which such measures shall be completed. Upon failure to comply within the time specified, the permit may be revoked and the permittee or person responsible for carrying out the plan shall be deemed in violation of this Article and upon conviction shall be subject to the penalties provided in Section 11-5 herein.

With respect to approved plans for erosion and sediment control in connection with all regulated land disturbing activities which require a permit, the Administrator may require of the person responsible for carrying out the plan such monitoring and reports, and may make such on-site inspections, after notice to that person, as are deemed necessary to determine whether the soil erosion and sediment control is performed, and whether such measures are effective in controlling soil erosion and sediment resulting from the land disturbing activity. Such person shall have the opportunity to accompany the inspector on any on-site inspection.

After land clearing operations have begun, no area shall be denuded for more than thirty (3) days unless authorized by the Administrator. All trenches for storm, sewer, water, and gas lines are to be backfilled, compacted, seeded, and mulched within seven (7) days of backfill.

11-3.3.9 Acceptance of Performance.

Upon completion of an approved erosion and sedimentation control plan, the permittee shall notify the Administrator of such completion. The Town Construction Inspector or Building Official shall then inspect the work and plantings, and upon their determination that they are in compliance with the approved plan, they shall notify the Administrator, who shall issue a letter of

preliminary acceptance. A condition of any such preliminary acceptance shall be that the applicant or permittee guarantee all erosion and sedimentation control work for a period of one (1) year from the date of its preliminary acceptance, or for a period of one (1) year from repair or replanting ordered by the Administrator, until such time that all control structures and a minimum of ninety (90) percent of all plantings shall have survived for a year without need of further replanting or repair. The Administrator may order in writing such replanting or repair work as shall be deemed necessary to enforce compliance with the approved plan and guarantee at any time during the one (1) year period. Such an order shall serve to revoke the preliminary acceptance and shall cause the applicant to renew the guarantee for an additional one (1) year from the date of replanting or repair. Final acceptance shall occur when preliminary acceptance has remained unrevoked for a period of one (1) year, or when all control structures and a minimum of ninety (90) percent of all plants have survived for a period of one (1) year without need of further replanting or repair. For the purposes of this Article, normal cleaning of silt basins alone shall not be construed to be repair work.

11-3.3.10 Appeals.

Final decisions of the Administrator under this Article shall be subject to review by the Board of Zoning Appeals, provided, that an appeal is filed within thirty days from the date of any written decision by the Administrator.

Final decisions of the Administrator or Board of Zoning Appeals under the Article shall be subject to review by the Fauquier County circuit court, provided, that an appeal is filed within thirty (30) days from the date of the final written decision of the Board.

11-3.3.11 Violations; Remedies; Civil Penalties; Notice.

1. Stop Work Order.

Upon receipt of a sworn complaint of a violation of this Article from the representative of the program authority or the Board responsible for ensuring program compliance, the chief administrative officer of the program authority or the Board may, in conjunction with or subsequent to a notice to comply as specified in subsection A above, issue an order requiring that all or part of a land-disturbing activities permitted on the site be stopped until the specified corrective measures have been taken or, if land-disturbing activities have commenced without an approved plan requiring that all of the land-disturbing activities be stopped until an approved plan or any required permits are obtained. Where the alleged

noncompliance is causing or is in imminent danger of causing harmful erosion of lands or sediment deposition in waters within the watersheds of the Commonwealth, or where the land-disturbing activities have commenced without an approved plan or any required permits, such an order may be issued whether or not the alleged violator has been issued a notice to comply a specified in subsection A above. Otherwise, such an order may be issued only after the alleged violator has failed to comply with a notice to comply.

The order shall be served in the same manner as a notice to comply, and shall remain in effect for seven days from the date of service pending application by the enforcing authority or alleged violator for appropriate relief to the circuit court of the jurisdiction wherein the violation was alleged to have occurred. If the alleged violator has not obtained an approved plan or any required permits within seven days from the date of service of the order, the chief administrative officer or his designee may issue an order to the owner requiring that all construction and other work on the site other than corrective measures be stopped until an approved plan or any required permit have been obtained.

Such an order shall be served upon the owner by registered or certified mail to the address specified in the permit application or the land records of the locality in which the site is located. The owner may appeal the issuance of an order to the circuit court of the jurisdiction wherein the violation was alleged to have occurred. Any person violating or failing, neglecting, or refusing to obey an order issued by the chief administrative officer or his designee may be compelled in a proceeding instituted in the circuit court of the jurisdiction wherein the violation was alleged to have occurred to obey same and to comply therewith by injunction, mandamus or other appropriate remedy. Upon completion and approval of corrective action or obtaining an approved plan or any required permits, the order shall immediately be lifted.

2. Civil Penalties, generally.

Except as set out immediately herein below, any person who violates this Article may be liable to the Town in a civil action for civil penalties of One Hundred Dollars ($100.00) for any one violation. Each day during which the violation is found to have existed shall constitute a separate offense. The total civil penalties for a series of specified violations arising from the same operative set of facts shall not exceed Three Thousand Dollars ($3,000.00). Notwithstanding the foregoing, the civil penalty for commencement of land-disturbing activities without an

approved permit as provided in Section 4-5 of this ordinance shall be One Thousand Dollars ($1,000.00), except that civil penalties for a series of violations arising from the commencement of land-disturbing activities without an approved plan for any site shall not exceed a total of Ten Thousand Dollars ($10,000.00).

3. Injunctions and Other Relief.

   Notwithstanding any other relief or remedy available under this Article, the Administrator may apply to the Circuit Court of Fauquier County for injunctive or such other equitable relief as might be appropriate in the case of a violation or threatened violation of any of the provisions of the Article, without the necessity of showing that there does not exist an adequate remedy at law.

4. Notice of Violation.

   In no case shall the Administrator begin legal action to enforce the provisions of this Article unless and until they have first given, or made diligent effort to give, specific notice to the applicant or permittee, as the case may be, of any violation of this Article for which such legal or equitable relief is to be sought. Such notice shall give the applicant or permittee a reasonable opportunity under the particular circumstances to correct the situation before the enforcement action is brought.

5. Civil Penalties.

   Any person violating or failing, neglecting, or refusing to obey any injunction, mandamus, or other remedy obtained pursuant to this Article shall be subject, in the discretion of the court, to a civil penalty not to exceed $2,000 for each violation.

6. Cumulative Remedies.

   The remedies provided for in this Article shall be cumulative in the sense that the imposition of, or attempt to impose, one (1) remedy shall not act as a restriction of any right to impose or attempt to impose, any other remedy authorized by this Article.

7. Administrative Fines.

   With the consent of any person who has violated or failed, neglected or refused to obey any regulation or order of the Administrator, or any

condition of a permit or any provision of this Article, the Town Council, or the Administrator may provide, in an order issued by the Town Council or the Administrator against such person, for payment of civil charges for violations in specific sums, not to exceed Two Thousand Dollars ($2,000) for each violation. Such civil charges shall be instead of any appropriate civil penalties which could be imposed as outlined in Section 11-5.

11-3.3.12 Criminal Penalties - Misdemeanor.

Violators of this Article shall be guilty of a Class One misdemeanor and subject to a fine not exceeding $2,500, or twelve months imprisonment in jail, or both, for each violation.

11-3.4 Zoning Permits

11-3.4.1 Zoning Permit Required

No permitted principal or accessory building, structure or use, or building, structure or use permissible by special exception, shall be constructed, reconstructed, moved, added to or structurally altered or otherwise allowed without a zoning permit issued by the Zoning Administrator. A zoning permit is required in all cases where a building permit is required.

Failure to obtain a zoning permit shall be a violation of this chapter and punishable under Section 11-5.

The Zoning Administrator shall maintain a record of all zoning permits and a copy shall be furnished, upon request, to any person.

11-3.4.2 Application for Zoning Permit

An application for a Zoning Permit shall be made to the Zoning Administrator, who shall require and be furnished by the applicant with all plans and documents as may be determined to be necessary to evaluate whether the proposed structure and facilities will be in compliance with the provisions of this Ordinance.

In order for an application for a zoning permit to be deemed complete, each such application shall be accompanied by the following items, unless waived by the Zoning Administrator as not pertinent. The Zoning Administrator may also require additional information necessary in order to determine if the application conforms with the provisions of this Ordinance.

1. A statement from the Town Director of Public Works that all applicable regulations and requirements for water and wastewater facilities have been complied with.
2. A complete description of the intended use or uses.
3. If a dwelling, the number of housekeeping units within the structure.
4. A plot plan signed by the applicant drawn to scale showing dimensions of the structure with respect to property lines and public highways; provided, no part of which is to be located less than the required setback distance from any property line or right-of-way of any public highway.
5. Number, size, location and lighting of signs, if any.
6. Off-street parking and other facilities.
7. Proposed utilities and their locations.
8. Drainage design and proposal.
9. Topographic map, if determined to be necessary by the zoning administrator.
10. Fee in accord with the fee schedule adopted by the Town Council.

11-3.4.3 Standards for Issuance

Zoning permits issued on the basis of plans and applications approved by the zoning administrator authorize only the use, arrangement and construction set forth in the approved plans and applications, and no other use, arrangement or construction. Use, arrangement and construction at variance with that authorized shall be deemed a violation of this chapter and punishable as provided under Section 11-5.

No zoning permit shall be issued where it appears that the structure to be constructed or the use contemplated would be in violation of the provisions of this Ordinance or any other applicable law, ordinance or regulation. The issuance of a zoning permit shall not afford protection to any owner who is found to be in violation of this Ordinance or any other applicable law, ordinance or regulation.

If it appears that the proposed structure and use of land or structure is in conformity with the provisions of this chapter, a zoning permit shall be issued to the applicant by the zoning administrator. If an intended use is found to be in compliance with this Ordinance, before proceeding, the applicant is still required to ensure compliance with the Virginia Uniform Statewide Building Code, and all other applicable laws, ordinances and regulations.

Approval or denial of a zoning permit shall be made within ten (10) working days of the time at which the Zoning Administrator has deemed that the zoning

permit application is complete.

11-3.4.4 Duration of Valid Zoning Permit

Any zoning permit issued shall be valid for one year. If an applicant has not completed construction of the building after one year of receiving the permit, the applicant may re-apply.

11-3.5 Building Permits

11-3.5.1 Building Permit Required

No principal or accessory building, structure or use shall be constructed, reconstructed, moved, added to or structurally altered or otherwise allowed without a building permit issued by the Building Official.

Failure to obtain a building permit shall be a violation of this chapter and punishable under Section 11-5 of this Ordinance.

The Building Official shall maintain a record of all building permits and a copy shall be furnished, upon request, to any person.

11-3.5.2 Application for Building Permit

An application for a Building Permit shall be made to the Building Official, who shall require and be furnished with all such plans and documents as may be required to determine whether the proposed structure and facilities will be in compliance with the provisions of this ordinance and with the Virginia Statewide Uniform Building Code.

In order for an application for a Building Permit to be deemed complete, each such application shall be accompanied by the following items, unless an item is deemed not pertinent by the Building Official, and such additional information as the Building Official may require as being necessary in order to determine if the application conforms with the provisions of this Ordinance and the Building Code:

1. The size and shape of the parcel of land on which the proposed building is to be constructed
2. Scale drawings which accurately show the design, construction, dimensions and materials of all proposed buildings and structures
3. The location of such buildings and structures with respect to the property lines of said parcel of land, and the right-of-way of any street or highway

adjoining said parcel of land.
4. Proposed utilities and their location.
5. Drainage scheme.
6. Fee in accord with the fee schedule adopted by the Town Council.

11-3.5.3 Standards for Issuance

Building permits issued on the basis of plans and applications approved by the Building Official authorize only the use, arrangement and construction set forth in such approved plans and applications, and no other use, arrangement or construction. Use, arrangement and construction at variance with that authorized shall be deemed a violation of this chapter and punishable as provided under Section 11-5 of this chapter.

No building permit shall be issued before receipt of a zoning permit for the proposed use and structure. Building and zoning permits for the same use and structure may be submitted, reviewed and approved concurrently.

No building permit shall be issued where it appears that the structure to be constructed or the use contemplated would be in violation of the provisions of this Ordinance or any other applicable law, ordinance or regulation. The issuance of a building permit, however, shall not afford protection to any owner who is found to be in violation of this Ordinance or any other applicable law, ordinance or regulation.

If the proposed structure is in conformity with the provisions of this Ordinance and the Virginia Uniform Statewide Building Code, a building permit shall be issued to the applicant by the Building Official.

Approval or denial of a building permit shall be made within ten (10) working days of the time at which the Building Official has deemed that the application for permit is complete.

11-3.5.4 Duration of Valid Building Permit

Building permits issued shall be valid for one year.

11-3.6 Occupancy Permit

11-3.6.1 Occupancy Permit Required.

Land may be used, and buildings occupied, structurally altered, erected, or changed in use for any purpose as permitted in the District in which such land

or building is located, only after an occupancy permit has been issued by the Zoning Administrator. Such a permit shall state that the building or the proposed use, or the use of the land, complies with the provisions of this Ordinance. A similar permit shall be issued for the purpose of maintaining, renewing, or changing a nonconforming use. An occupancy permit either for the whole or a part of a building or the use of the land shall be applied for simultaneously with the application for a building permit.

11-3.6.2 Standards for Issuance.

The Occupancy Permit shall be issued within ten (10) days after final approval by the Building Official of the erection or structural alteration of such building or part which has conformed with the provisions of this Ordinance and all previously issued permits and approvals for the site, including building permits, zoning permits and site plans.

No Occupancy Permit shall be granted until all improvements shown on any approved site plan have been completed in accordance therewith.

11-3.7 Site Development Plan

11-3.7.1 Site Development Plan Required

No person shall commence any use or erect any structure, including additions to existing structures, parking areas or other required site plan features, without first obtaining the approval of a site development plan by the Planning Director as set forth in this article. No use shall be carried on, no structure erected or enlarged, and no other improvement or construction undertaken, except as shown upon an approved site development plan.

A site development plan shall be required for the following uses in the enumerated districts:

- Multi-family dwellings, town houses and all other dwellings except single family detached, two-family and accessory dwellings.
- All uses in the RO, PSP, CBD, LI and C Districts
- For all special use permits

11-3.7.2 Exemptions from Site Development Plan Requirement

The following are exempt from having to file a site plan: the lawful construction, alteration and occupancy of a single or two-family dwelling or

accessory unit, with or without a garage. Exemption from the site plan requirements does not authorize violation of any other provision of this Ordinance.

11-3.7.3. Site Development Plan Requirements

Every site plan shall be submitted to the Planning Director in accordance with the applicable standards and regulations for Site Development Plans as provided in the Town of Warrenton Subdivision and Development Ordinance.

11-3.7.4. Review and Approval

Upon receipt of any Site Development Plan, the Zoning Administrator shall review it in accordance with the applicable procedures, standards and regulations for Site Development Plans as provided in this Ordinance.

11-3.7.5. Revisions To, Or Deviation From, Approved Plan.

After a Site Development Plan has been approved by the Zoning Administrator, minor adjustments of the plan, which are in substantial compliance with this article and the other provisions of this Ordinance and which serve the overall purposes of this section, may be approved by the Zoning Administrator. Deviation from an approved site plan without the written approval of the zoning administrator shall void the plan and the Zoning Administrator shall require the applicant to resubmit a new plan for consideration. Any major revision of an approved Site Development Plan shall be made in the same manner as the originally approved plan.

11-3.8 Commission Permit ("2232 Review")

11-3.8.1 Permit Required

In accord with the Code of Virginia, §15.2-2232, no street, park or other public area or public structure, public utility, public building or public service corporation facility other than railroads, whether publicly or privately owned, shall be constructed, established or authorized unless and until the general location or approximate location, character and extent thereof has been submitted to and approved by the Planning Commission as being substantially in accord with the adopted comprehensive plan or part thereof.

Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal

service extensions of public utilities or public service corporations shall not require approval, unless involving a change in location or extent of a street or public area.

11-3.8.2 Application

An application for a commission permit shall be filed with the Zoning Administrator and shall meet the minimum submission requirements as prescribed for a zoning permit in Section 11-3.4.2. and in addition shall include a written statement of justification from the applicant as to why the proposed improvement should be deemed to be in accord with the Comprehensive Plan.

An application is not necessary for features already specifically shown on the Comprehensive Plan, as determined by the Planning Director.

11-3.8.3 Planning Commission Action

In connection with any such determination, the Planning Commission may, and at the direction of the Town Council shall, hold a public hearing, after notice as required by §15.2-2204 of the Code of Virginia.

The Planning Commission shall communicate its findings pursuant to this section to the Town Council, indicating its approval or disapproval, along with written reasons therefore. Failure of the commission to act within sixty (60) days of submission of an application, unless such time is extended by the Council, shall be deemed approval.

11-3.8.4 Issuance of Permit; Town Council Review

The Zoning Administrator, on behalf of the Planning Commission, shall issue a Commission Permit following approval by the Planning Commission pursuant to this section. The Council may overrule the action of the Commission by a vote of a majority of its membership.

11-3.8.5 Appeal of Denial of Permit

The owners or their agents may appeal the decision of the Planning Commission to the Council within ten (10) days after the decision of the Commission. The appeal shall be by written petition to the Council setting forth the complete reasons for the appeal. The appeal shall be heard by the Council within sixty (60) days of its submission. A majority vote of the Council shall overrule the Commission.

11-3.9 Zoning Amendments

11-3.9.1 Authority for Change.

Whenever the public necessity, convenience, general welfare, or good zoning practice require, the Town Council may, by ordinance, amend, supplement, or change the regulations, district boundaries, or classifications of property. Any such amendment may be initiated by resolution of the Town Council, or by motion of the Planning Commission, or by petition of any property owner, addressed to the Town Council, in accord with the procedures and requirements of this Ordinance.

The regulations, restrictions and boundaries established in this Ordinance may, from time to time, be amended, supplemented, changed, modified or repealed, by ordinance, by a majority vote of the Town Council after recommendation by the Planning Commission, provided that a public hearing shall be held in relation thereto at which parties in interest and citizens shall have an opportunity to be heard; and that notice shall be given of the time and place of such hearing as provided for in §§ 15.2-2204 and 15.2-2285 of the Code of Virginia, as amended.

11-3.9.2 Initiation of Amendment

Either a zoning map or text amendment may be proposed by resolution of the Town Council, by motion of the Planning Commission, or by application by the owner, contract purchaser with the owner's written consent, or the owner's agent therefore, of the property which is the subject of the proposed amendment.

11-3.9.3 Submission of Application for Amendment.

Every application for amendment of the Zoning Ordinance shall contain the following items, as applicable. Applicability shall be determined by the Planning Director who may waive or modify any of the designated submission items if appropriate given the nature of the application and so as to facilitate review by the Town and the public. Five (5) copies of the complete application shall be submitted.

1. The applicant's name, address, phone number and email address, and signature.
2. The applicant's authorized representative’s name, address, phone number and email address.

3. The property owner's name, address, phone number and email address and signature.
4. A summary of existing data and conditions of the property, including:

    - Existing zoning classification
    - Tax Map and parcel numbers
    - Address of the property
    - Total acreage

5. A plan of the property, at a scale of 1"=200', showing the extent of the area to be rezoned, streets bounding and intersecting the area, the land use and zone classification of abutting districts, and photographs of the area to be rezoned and abutting areas.
6. A plan to a scale of 1" = 200', unless an alternative scale is requested and approved by the Planning Director, indicating the locations of existing and proposed topography, vegetation, floodplain, wetlands, structures, uses, streets, and areas for off-street parking and loading.
7. A boundary survey of the property to be rezoned
8. Information at the time of submission, on all parcels contiguous to the subject property and any property within 100 feet of the boundary, including:

    - Existing zoning
    - Existing land use
    - Proposed land use
    - Historic buildings or structures

9. A statement of justification that explains the circumstances in the proposed district and the abutting districts and any other factors on which the applicant relied as reasons for supporting the proposed zoning amendment, including the degree of compliance of the proposed request and subsequent development plans with the provisions of the Comprehensive Plan.
10 The approximate time schedule for the beginning and completion of development in the area and any proposed phasing of the development.
11. A Concept Development Plan for the property, showing the proposed uses and their general relationships within the site and external to the site, including proposed structures, uses, streets, parking areas, open space areas, vegetation, sidewalks and trails and means of access to the existing road system
12. A Traffic Study that shows the projections for trip generation, traffic volume and levels of service on site and on the adjacent road system,

including provisions for safely accommodating both vehicular and pedestrian traffic.

13. Information about the market area to be served by the proposed development if a commercial use, including population, effective demand for proposed business facilities, and any other information describing the relationship of the proposed development to the needs of the market area.
14. A statement of Impact Mitigation describing and analyzing the various impacts of the proposed rezoning, including fiscal, environmental conditions, and public facilities and utilities impacts, and the proposed methods for mitigating any anticipated impacts.
15. Any development conditions or proffers
16. Disclosure of Real Parties in Interest
17. Certificate of Payment of Taxes, verifying that real estate taxes have been paid for all property included in the application.
18. Record of Pre-Application Conference
19. Fees, in accord with the fee schedule adopted by the Town Council
20. A statement describing in detail the existing character of the area.

11-3.9.4 Staff Review of Application

1. Pre-Application Conference.

   Prior to filing an application, an applicant shall meet with the Planning Director and discuss the proposed application and land uses and questions regarding the procedures or substantive requirements of this Ordinance. In connection with all such conferences, the Zoning Administrator shall be consulted as appropriate. A request for a pre-application conference shall be made to the Planning Director and shall be accompanied by a sketch map of the site, a description of the proposed project or use, and a list of the issues to be discussed at the conference. The Planning Director shall respond to each written request for a pre-application conference within fifteen (15) calendar days of receipt.

2. Review of Application for Completeness.

   No application shall be accepted and reviewed unless determined by the Planning Director to be complete. A complete application is one which meets the minimum submission requirements established herein. Each application shall be reviewed to determine if it includes the minimum submission requirements. The Planning Director shall maintain a current log of all pending complete applications.

3. Acceptance of Complete Application.

Within fifteen (15) calendar days of submission of the application, the Planning Director shall either officially accept the application as complete and forward to the applicant a notice of acceptance, or reject the application if it is incomplete and forward to the applicant a notice of incompleteness specifying those areas of additional information necessary for acceptance and review.

If a notice of incompleteness is issued, the applicant may resubmit the application with the additional data required. Upon resubmission, the Planning Director will review the resubmitted application in the manner provided in this section for the original application.

If the application is not resubmitted within sixty (60) days of being determined incomplete, the Planning Director shall notify the applicant that the original application has been rejected as incomplete.

4. Referrals. Upon official acceptance of the application for zoning amendment, the Planning Director shall forward a copy of the application to all town departments and county or state agencies whose comments are necessary or desirable for full and appropriate review of the merits of the application.

5. Referral responsibilities. Each reviewing agency shall prepare a staff report of referral comments which sets out in writing its comments and recommendations regarding the application and shall forward such staff report to the Director of Planning.

6. Review of Referrals. All referral comments shall be provided to and reviewed by the Director of Planning within thirty (30) calendar days after an application has been officially accepted. The Planning Director shall forward to the applicant a written review of the issues raised by the application.

7. Applicant Response. Upon receipt of the written report from the Planning Director, an applicant may submit a written request for a meeting with the Planning Director to discuss the matters contained in the report and the application. Such request shall include a response to the matters raised in the Director's written report.

8. Required Action by Other Entities. In the event that this Ordinance requires that an application not be granted until acted upon by some government board or agency other than the Town Planning Commission

and Council, the Planning Director shall forward the application for amendment to such board or agency for appropriate action prior to notification to an applicant that an application is ready to be presented to the Planning Commission or Town Council. The Planning Commission may make its recommendations on an application contingent on required action by the other boards or agencies.

9. Report and Notice to Applicant. The Planning Director shall compile the referrals and other information pertinent to the application, prepare a written staff report with proposed findings and recommendations as to the application, and notify the applicant that the report is complete and the application is ready to be presented to the Planning Commission and Town Council for public hearing.

10. Submission to Planning Commission. Within sixty (60) days of formal acceptance of the application, the Planning Director shall forward the application and staff report to the Planning Commission for its review.

11-3.9.5 Amendment to Application

An application may be amended by the submission of additional information or proposed changes to the application after it has been officially accepted. If the additional information or proposed changes submitted are to conform with recommendations made by Town staff, commissions or boards, then it shall not be deemed an amendment and the application shall continue to be processed on its original time line.

However, if the additional information or proposed changes submitted by the applicant are at the applicant's request, then the Planning Director shall review the information within fifteen (15) calendar days of receipt and render a finding as to whether the submitted information necessitates repeating any portion of the review process including public hearings. If any portion must be repeated, the Director shall notify the applicant in writing within the fifteen (15) calendar day period that the additional information or proposed changes must be withdrawn, submitted as a new application, or will require the applicant to approve an extension of the time limits prescribed in this Section and such notice shall specify the required extension. The applicant will then have fifteen (15) calendar days to provide the Director with a written response either granting the necessary extension or withdrawing the additional information or proposed changes. If the applicant chooses to withdraw the information, then the application will proceed based on its original timeline.

11-3.9.6 Withdrawal of Application

An application for rezoning may be withdrawn at any time upon written request by the applicant and with the consent of either the Planning Commission or the Town Council, whichever body has advertised the hearing; There shall be no refund of rezoning fees in the case of withdrawal either before or after advertising. In the event of and upon such withdrawal, processing of the motion, resolution or petition shall cease without further action.

11-3.9.7 Planning Commission Review.

Within sixty (60) calendar days after a zoning amendment application has been submitted to the Planning Commission from the Planning Director, and generally within one hundred twenty (120) days after official acceptance of the application by the Town, the Planning Commission shall hold a public hearing on the application after notice as required by § 15.2-2204 of the Code of Virginia.

11-3.9.8 Report by Planning Commission

The Planning Commission shall report to the Town Council its recommendation with respect to the proposed amendment. Failure of the Planning Commission to report to the Town Council within one hundred (100) days after the first meeting of the commission after the proposed amendment or reenactment has been referred to the commission, shall be deemed a recommendation for approval, unless the proposed amendment or reenactment has been withdrawn by the applicant prior to the expiration of the time period

If the proposed amendment consists of a change in the text of this Ordinance, the Commission may recommend revisions to the proposal. If the proposed amendment consists of a change in zoning district boundaries, it may recommend that the land be rezoned to a different zoning district classification than that requested if the Commission is of the opinion that such revision is in accord with sound zoning practice and the adopted Comprehensive Plan, is in furtherance of the purposes of this Ordinance and is not more intensive than the advertised/noticed proposed use. Before recommending a larger extent of land or a rezoning to a more intensive classification than was set forth in the application, the Commission shall hold an additional duly noticed public hearing on the matter.

In recommending the approval or denial of any proposed amendment to this Ordinance, the Planning Commission should state its reasons for such

recommendation.

Tabling or deferring an application for rezoning on the grounds of inadequate data may be requested by the applicant for a period of no longer than ninety (90) days, after which the application shall be considered to be automatically withdrawn. All costs involved in re-applying and re-advertising shall be paid by the applicant.

11-3.9.9 Town Council Review and Action.

After receiving the report of the Planning Commission, or after the lapse of one hundred (100) days past the initial meeting of the Planning Commission on the application without Commission recommendation, the Town Council shall hold its own public hearing after notice and advertising required by § 15.2-2204 of the Code of Virginia. The Council may approve the zoning amendment as requested by the applicant, it may deny the amendment, or it may approve a zoning classification of less intensity than that requested, if available in the Ordinance, without holding a new hearing. No land may be zoned to a more intensive use classification than was contained in the public notice without an additional public hearing. The Town Council must act on the proposed zoning amendment within one year of official acceptance of the application.

11-3.9.10 Evidentiary Matters Before the Town Council

All information, testimony or other evidence presented by an applicant for a zoning amendment shall be presented to the Planning Commission in conjunction with its review and hearing on the application. If the Town Council determines that an applicant is presenting evidence which is substantially or materially different from that presented to the Commission, the Council may refer the application back to the Commission for such additional consideration and action as the Council may deem appropriate. All costs in re-advertising shall be paid by the applicant.

11-3. 9.11 Contesting a Decision of the Town Council

Every action contesting a decision of the Town Council for granting or failing to adopt a proposed zoning ordinance or amendment thereto or granting or failing to grant a special exception or special use permit, shall be filed within thirty (30) days of such decision with the Fauquier County Circuit Court.

11-3.9.12 Criteria for Consideration of Zoning Map Amendments.

In considering requests for zoning map amendments, the Planning Commission and Town Council should consider, among other issues, the following factors:

1. whether the rezoning request, if granted, would further the public interest, and whether it conforms with the goals, objectives, and policies of the Comprehensive Plan;
2. whether the rezoning is consistent with the town's Future Land Use Plan, as identified in the Comprehensive Plan, and established character of the area and land use patterns;
3. whether the rezoning is justified by changed or changing conditions;
4. whether the rezoning, if granted, would create an isolated district unrelated to adjacent districts;
5. whether utility, sewer and water, transportation, school, recreation, stormwater management and other facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned;
6. whether the rezoning will be compatible with properties and uses in the vicinity and not have an adverse impact on these properties or their values;
7. whether there are adequate sites available elsewhere in the Town for the proposed use, or uses, in districts where such uses are already allowed;
8. whether the impact that the uses that would be permitted if the property were rezoned will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity and whether the proposed rezoning provides sufficient measures to mitigate such impacts;
9. whether a reasonable and viable economic use of the subject property exists under the current zoning;
10. whether the effect of the proposed rezoning on environmentally sensitive land or natural features, wildlife habitat, vegetation, water quality and air quality is compatible with the Town’s Comprehensive Plan;
11. whether the proposed rezoning encourages economic development activities in areas designated by the Comprehensive Plan and provides desirable employment and enlarges the tax base;
12. whether the proposed rezoning considers the current and future requirements of the community as to land for various purposes, including housing and business, as determined by population and economic studies;
13. the effect of the proposed rezoning to provide moderate housing by enhancing opportunities for all qualified residents of the Town; and
14. the effect of the rezoning on natural, scenic, archaeological, or historic features of significant importance.

11-3.9.13 Criteria for Consideration of Text Amendments.

If the request is for an amendment of the text of this Ordinance, the Planning Commission and Town Council shall consider the following matters, in addition to any relevant matters included in Section 11-3.9.12:

1. Whether the proposed text amendment is consistent with the Comprehensive Plan.
2. Whether the proposed text amendment is consistent with the intent and purpose of this Ordinance.

11-3. 9.14 Joint Public Hearing.

The Town Council and the Planning Commission may hold a joint public hearing following proper public notice under § 15.2-2204 of the Code of Virginia, as amended.

11-3.9.15 Majority Requirement for Change in Ordinance.

An affirmative vote of at least a majority of the members of the Town Council shall be required to adopt, amend, or reenact a zoning ordinance.

11-3.9.16 Timing of Application Consideration and Reconsideration

Proposed amendments shall be considered as soon as feasible, based on the regular schedule of the Planning Commission and the Town Council meetings and the schedule of newspaper publication relative to public notice.

Upon the denial of any application filed to change a zoning district designation, no further application concerning any or all of the same property shall be filed for rezoning to the same use in less than twelve (12) months from the time of denial by the Town Council, unless this requirement is specifically waived by the Town Council.

11-3.9.17 Conditional Zoning

1. Purpose and Authority

As part of a petition to rezone property and amend the official zoning map, the property owner may voluntarily proffer in writing certain conditions and restrictions on the use and development of his property, such conditions being in addition to, or modification of, the regulations provided for a particular zone or zoning district by this Ordinance. The

Zoning Administrator shall be vested with all necessary authority to administer, interpret and enforce such conditions and restrictions, all in accordance with the terms of §15.2-2296 et seq. of the Code of Virginia, as amended..

While the conditions may vary from property to property by reason of the nature of the use and different circumstances at a particular location, it is not the intention of this section to authorize conditions limited to a particular individual or group, owner, or operator, and the provisions of this section shall not be used for the purpose of discrimination in housing.

2. Proffered Conditions.

As a part of an application for rezoning or amendment to the zoning district map, the owner or owners of the property involved may, prior to a public hearing before the Town Council, voluntarily proffer in writing such reasonable conditions, in addition to the regulations provided for the zoning district or districts as herein set forth, as he deems appropriate for the particular case to address impacts of the proposed use.

For the purpose of this Ordinance, proffered conditions may include written statements, development plans, profiles, elevations, and/or other demonstrative materials. Materials of whatever nature and intended as proffers shall be annotated with the following statement signed by the owner or owners of the subject property: "I (we) hereby voluntarily proffer that the development of the subject property of this application shall be in strict accordance with the conditions set forth in this submission unless an amendment thereto is mutually agreed upon by the Town Council, and the undersigned."

3. When Proffers Are Made.

Proffered conditions should be submitted for Staff review as part of the initial application for rezoning..

Proffered conditions made at the Planning Commission meeting shall be forwarded to the Town Council prior to the Council’s public hearing.

To be considered by the Planning Commission, proffers must be submitted with the application prior to advertising for public hearing.

4. Contents of Proffer.

   Proffered conditions shall be signed by all persons having an ownership interest in the property and shall be notarized. Proffered conditions shall contain a statement that the owners voluntarily enter into the proffers contained therein.

5. Review and Revision of Proffered Conditions.

   Additional conditions may be proffered by the applicant during or subsequent to the public hearing before the Planning Commission, provided however that after proffered conditions are signed and made available for public review and the public hearing before the Town Council has been advertised (whether or not jointly held with the Planning Commission) no change or modification to any proffered condition shall be approved without a second advertised public hearing thereon.

6. Modifications to Proffers.

   After the Town Council's public hearing has been advertised, should additional or modified conditions be proffered by the applicant, which conditions were specifically discussed at the public hearing before the Planning Commission, then a second public hearing need be held only before the Town Council before the application and the modified conditions can be reviewed and acted on by the Council.

7. Additional Conditions.

   Should additional conditions be proffered by the applicant at the time of the public hearing before the Town Council, which conditions were not addressed at the public hearing before the Planning Commission, or if the proffered conditions are modified beyond the scope of any conditions considered at the public hearing before the Planning Commission, the application shall be the subject of a second public hearing before both the Planning Commission and the Town Council, which hearing may be held either separately or jointly.

8. Annotation of Zoning District Map.

   The zoning district map shall show by an appropriate symbol on the map the existence of conditions attaching to the zoning on the map. The Zoning Administrator shall keep in his office and make available for

public inspection a Conditional Zoning Index. The Index shall provide ready access to the ordinance creating conditions in addition to the regulations provided for in a particular zoning district. Such conditions shall become a part of the zoning regulations applicable to the property in question, regardless of changes in ownership or operation, unless subsequently changed by an amendment to the zoning district map, and such conditions shall be in addition to the specific regulations set forth in this Ordinance for the zoning district in question.

9. Enforcement of Conditions.

   The Zoning Administrator shall be vested with all necessary authority on behalf of the Town Council to administer, interpret and enforce conditions attached to a rezoning or amendment to the zoning district map, including: (a) the ordering in writing of the remedy of any noncompliance with such conditions; (b) the bringing of legal action to insure compliance with such conditions, including injunction, abatement, or other appropriate action or proceeding; and (c) requiring a guarantee, satisfactory to the Town Council, in an amount sufficient for and conditioned upon the construction of any physical improvements required by the conditions, or a contract for the construction of such improvements and the contractor's guarantee, in like amount and so conditioned, which guarantee shall be reduced or released by the Town Council, or agent thereof, upon the submission of satisfactory evidence that construction of such improvements has been completed in whole or in part. Provided, further, that failure to meet all conditions shall constitute cause to deny the issuance of any of the required use, occupancy, or building permits, as may be appropriate.

   Upon approval by the Town Council, proffered conditions shall become a part of the zoning regulations applicable to the property, and are enforceable under the same provisions for enforcement as all other provisions in the Ordinance.

10. Substantial Conformance Required.

    Upon approval, any site plan, subdivision plat or development plan thereafter submitted for the development of the property in question shall be in substantial conformity with the approved zoning and all proffered statements, plans, profiles, elevations, or other demonstrative materials, and no development shall be approved by any Town official in the absence of said substantial conformity.

11. Substantial Conformance Defined.

    For the purpose of this Section, substantial conformity mean that conformity which leaves a reasonable margin for adjustment due to final engineering data but conforms with the general nature of the development, the specific uses, and the general layout depicted by the plans, profiles, elevations, and other demonstrative materials presented or proffered by the applicant. Determinations of substantial conformance shall be made by the Zoning Administrator.

12. Guarantee for Construction of Improvements.

    A guarantee, satisfactory to the Town Council, may be required in an amount sufficient for and conditioned upon the construction of any public improvements required by a rezoning request and the proffered conditions. This guarantee may be reduced or released by the Council or agent thereof, upon the submission of satisfactory evidence that the construction of such improvements has been completed in whole or in part. The guarantee shall be required no later than final site plan or subdivision approval, whichever may occur earlier in time.

13. No Permits Shall Be Issued That Do Not Comply With Proffers.

    Failure to meet or comply with any proffered conditions shall be sufficient cause to deny the issuance of any site plan or subdivision approvals, grading permits, zoning permits, building permits, or certificates of occupancy as may be determined appropriate by the Zoning Administrator. In addition to the other penalties appropriate for violations of this Ordinance, failure to meet or comply with any proffered condition shall be sufficient cause to deny the issuance of any development approvals or permits relating to the land area which was the subject of the conditional zoning. To this end, each application for a development approval or permit shall include an affidavit by the applicant that all applicable proffers have or will be complied with as agreed upon at the time of rezoning. The burden shall be on the applicant to verify that proposed development complies with all proffered conditions.

14. Appeal of Proffer Decision.

    Any person aggrieved by a decision of the Zoning Administrator regarding any proffered condition may appeal such decision to the Town Council. Such appeal shall be filed within thirty (30) calendar days from

the date of the decision being appealed by filing a notice of appeal with the Zoning Administrator. Such notice shall be a written statement specifying the grounds on which aggrieved and the complete basis for the appeal. Upon receipt of the appeal notice, the Council shall take such testimony as it deems appropriate and should render its decision within sixty (60) calendar days after receipt of the appeal notice. The Town Council may reverse or affirm wholly or partly or may modify the decision of the Zoning Administrator.

15. Change of Approved Conditions.

Once proffered conditions have been approved, and there is cause for an amendment which would not be in substantial conformity with them, then an application shall be filed for an amendment of the proffered conditions. Applications can be filed by any landowner subject to conditions proffered pursuant to § 15.2-2297, 15.2-2298, 15.2-2303 or 15.2-2303.1 and Section 1 of this Article. Written notice of such application shall be provided as prescribed in Section H of § 15.2-2204 to any landowner subject to such existing proffered conditions. The approval of such amendment or variation by the Town Council shall not in itself cause the use of any other property to be determined a non-conforming use per Section 11-4.3 of this Ordinance.

If the amendment concerns an approved site development plan, such application shall include the submission requirements for a site development plan set forth in Section 11-3.7 of this Ordinance, except that the Planning Director may waive any submission requirement if such requirement is not necessary for an adequate review of the amendment application. Such amendment shall be the subject of public hearing in accordance with the requirements for a new application. No such amendment or variation of any conditions proffered pursuant to § 15.2-2297, 15.2-2298, 15.2-2303 or 15.2-2303.1 and Section 1 of this Article until after public hearings before the Planning Commission and Town Council are advertised pursuant to Article 11-3.2 of this Ordinance. Where a landowner subject to the conditions noted above requests an amendment to such proffered conditions and where such amendment does not affect conditions of use or density, the Town may waive requirements for public hearings.

11-3.10 Special Use Permits and Waivers

11-3.10.1 Authorization.

Uses listed in the district regulations as "permissible uses upon approval by the Town Council" shall be reviewed and acted upon by the Planning Commission and Town Council as provided in Section 11-3.2 of this Ordinance.

Uses listed in the district regulations as "permissible uses upon approval by the Town Council" shall be reviewed and acted upon by the Town Council as provided in Section 11-3.10.10 of this Ordinance.

Special use permits may be granted to establish or construct uses or structures which have the potential for a harmful impact upon the health, safety, and welfare of the public upon finding that the use, with conditions, will not have a deleterious impact, and will reflect the spirit and intent of the Comprehensive Plan as well as this Ordinance.

In acting on a request for a special use permit, the Town Council shall consider the impact of the requested special use.

Only those special use permits that are expressly authorized in a particular zoning district, or elsewhere in this Ordinance may be approved, including waivers where authorized. The Council may approve special use permits or waivers subject to conditions on such permits that shall apply to the property or use, regardless of any change in ownership.

11-3.10.2 Application.

Application for a special use permit shall be filed on the appropriate form therefore as provided by the Zoning Administrator and in accordance with the instructions which accompany the form. Special use permit applications shall contain the same information as required for zoning amendment applications set forth in Section 11-3.9. In addition, unless waived in part by the Zoning Administrator, the applicant shall provide all of the information, data, and studies needed to allow the Planning Commission and Town Council, to reach conclusive evaluations, which shall include, but not be limited to, the following:

1 A Statement of Justification explaining the compatibility of the proposed use with the existing and proposed land uses adjacent to and in the vicinity of the site and any potential impacts on the environment

and on the neighborhood due to the proposed use intensity, number of participants, acreage, hours of operation, traffic, lighting, and access, as well as the matters set forth in section 11.3-11.3.

2 A vicinity map depicting the adjacent and nearby (within 1,000 feet) land uses, streets and other data customarily incidental to a vicinity map.

3 A proposed site development plan indicating the location of the anticipated structures, setback lines, street pattern, parking provisions, a screening plan, and common open space if applicable. Such plans shall be contained on sheets measuring a minimum of 18" X 24" and a maximum of 36" X 24".

4 An analysis of the impact on the Town's transportation network and the ability of adjacent streets and intersections to efficiently and safely move the volume of traffic generated by the development, along with estimates of cost and means of providing improvements required to service the proposed special use.

5 An analysis of the impact on the Town's community facilities including estimates of costs and means of providing the additional community facilities which will be needed to serve the proposed special use. Community facilities include, but shall not be limited to, sewage disposal facilities and systems, solid waste disposal facilities and systems, water supply facilities and systems, storm drainage facilities and systems, and electrical utility facilities and systems.

6 An analysis of the ability of the Town to provide police and fire protection to the proposed special use.

7 The proposed configuration and intensity of lighting facilities to be arranged in such a manner to protect the streets and neighboring properties from direct glare or hazardous interference.

8 Noise impact and abatement studies to determine potential impact on adjoining properties and neighborhoods.

9 The delineation of any necessary screening for any uses or structural features deemed to be incompatible with the objectives of this Article, the remainder of this Zoning Ordinance, or the Comprehensive Plan including walls, fences, plantings, and/or other enclosures. Other landscaping to enhance the effectiveness of the screening and to insure the compatibility of use may also be required.

10 The delineation of screening and buffering of all parking areas will be required in accordance with a landscaping plan. Parking areas forward of the established building setback line will be prohibited.

11 The delineation of major trees on the site. Except to protect the public safety, avoid property loss, or provide for required parking, all major trees forward of the building setback line may be required for

preservation if their removal would diminish the character of the neighborhood.

11-3.10.3. Evaluation Criteria; Issues for Consideration

In considering a Special Use Permit application, the following factors should be considered. The applicant also shall address these factors in its statement of justification:

1. Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.
2. Whether the proposed Special Use Permit will adequately provide for safety from fire hazards and have effective measures of fire control.
3. The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.
4. The glare or light that may be generated by the proposed use in relation to uses in the immediate area.
5. The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.
6. The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.
7. The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.
8. The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.
9. The timing and phasing of the proposed development and the duration of the proposed use.
10. Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.
11. Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.
12. The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.
13. Whether the proposed use will facilitate orderly and safe road development and transportation.

14. Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.
15. Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.
16. The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality.
17. Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.
18. The effect of the proposed Special Use Permit use in enhancing affordable shelter opportunities for residents of the Town, if applicable.
19. The location, character, and size of any outdoor storage.
20. The proposed use of open space.
21. The location of any major floodplain and steep slopes.
22. The location and use of any existing non-conforming uses and structures.
23. The location and type of any fuel and fuel storage.
24. The location and use of any anticipated accessory uses and structures.
25. The area of each proposed use.
26. The proposed days/hours of operation.
27. The location and screening of parking and loading spaces and/or areas.
28. The location and nature of any proposed security features and provisions.
29. The number of employees.
30. The location of any existing and/or proposed adequate on and off-site infrastructure.
31. Any anticipated odors which may be generated by the uses on site.
32. Refuse and service areas.

11-3.10.4. Conditions and Restrictions

In approving a Special Use Permit, the Town Council may impose such conditions, safeguards and restrictions as may be necessary to avoid, minimize or mitigate any potentially adverse or injurious effect of such special uses upon other properties in the neighborhood, and to carry out the general purpose and intent of this Ordinance. Conditions and restrictions may include, but are not limited to, those related to fencing, planting or other landscaping, additional set backs from property lines, location and arrangement of lighting, setting of reasonable time limitations and other reasonable requirements deemed necessary to mitigate the impacts of the use and safeguard the interests of the public. The Council may require a

guarantee or bond to ensure that conditions imposed will be complied with. All required conditions shall be set out in the documentation approving the Special Use Permit.

11-3.10.5. Period of Validity

As a condition of approval, a special use permit may be granted for a specific period of time with expiration of the approval to occur at the termination of a stated period. In such case, an extension may be granted prior to expiration by the original approving body, upon written application, without notice or hearing. After expiration, no extension may be granted without complying with the requirements for an initial application for a special use permit unless a qualified application for renewal is actively under consideration by the approving body.

11-3.10.6. Staff Review

Wherever a use or structure is listed either as a permissible use subject to approval of a special use permit, application shall be made to the Planning Director who shall prepare a report and refer such application to the Planning Commission for those uses that are listed as permissible upon approval by the Town Council, and to the Board of Zoning Appeals for those uses listed as permissible upon approval by the Board. Application for a special use permit shall be filed, containing such material and be processed in the same manner as for zoning amendments as provided for in Section 11-3.10. A Special Use Permit may be submitted in conjunction with a zoning map amendment application.

11-3.10.7. For Uses to be Acted Upon by the Town Council, as listed in Article 3

Upon review of the application and supporting data, the Planning Commission shall make its recommendation to the Town Council as to whether the application complies with the special use provisions in the particular district and the Comprehensive Plan, including verification that the use is specifically authorized within the district, and whether it should be approved or denied.

Before submitting its recommendation to Town Council, the Planning Commission shall hold a public hearing which may be a joint public hearing with the Town Council, after notice as required by § 15.2-2204 of the Code of Virginia, as amended. Following the public hearing, the Commission shall forward its recommendation to the Town Council.

11-3.10.8 Town Council Review and Hearing.

For those uses that are listed as permissible upon approval by the Town Council, the Town Council shall consider the recommendations of the Town Planning Commission before granting or denying approval of a special use permit. Before rendering a decision on a particular special use permit, the Town Council shall hold a public hearing, which may be a joint public hearing with the Planning Commission, after notice as required by § 15.2-2204 of the Code of Virginia, as amended.

11-3.10.9 Modifications to the Application or Conditions.

For those uses that are listed as permissible upon approval by the Town Council, after the Planning Commission has made its recommendation to the Town Council, should the application be modified, or additional conditions be agreed to or offered by the applicant that results in a more intense use or higher density or alters conditions that were intended to mitigate the impact of the development as determined by the Zoning Administrator, then a second public hearing shall be held by the Planning Commission before the modified application can be heard by the Town Council. The applicant shall be responsible for paying any additional advertising fees required for a subsequent public hearings before the Planning Commission and the Town Council. The Town Council may still impose reasonable conditions on the applicant, in accord with § 15.2-2286 of the Code of Virginia, as amended.

However, should additional information or modified conditions be submitted by the applicant after the Planning Commission has made its recommendation to the Town Council, which modifications or conditions were discussed at the public hearing before the Planning Commission, then a second public hearing before the Planning Commission shall not be required.

11-3.10.10 For Uses to be Acted Upon by the Town Council

Upon review of the application and supporting data, and before rendering a decision on a particular special use permit, the town Council shall hold a public hearing after notice as required by § 15.2-2204 of the Code of Virginia, as amended, and subsequently shall determine whether the application complies with the special use provisions in the particular district and the Comprehensive Plan, including verification that the use is specifically authorized within the district, and whether it should be approved or denied.

11-3.10.11 Construction Already Commenced.

Nothing contained herein shall require any change in the plans or construction of any building or structure subject to a vested right prior to the effective date of this Ordinance.

11-3.11 Variances

11-3.11.1. Variances Determined by the Board of Zoning Appeals

1. Variances Authorized

a) The Board of Zoning Appeals shall grant a variance if the applicant proves, by a preponderance of the evidence, that the strict application of the terms of the Ordinance would unreasonably restrict the utilization of the property or that the granting of the variance would alleviate a hardship due to the physical condition relating to the property or improvements thereon at the time of the effective date of the Ordinance. For properties located within the Floodplain District, the additional factors and limitations contained in Section 3-5.1.8 of this Ordinance shall also apply.

b) No variance shall be considered except after notice and hearing as required by §15.2-2204 of the Code of Virginia as amended.

c) The concurring vote of the majority of the BZA shall be required to authorize a variance.

2. Standards for Variances

In granting a variance, the BZA may impose such conditions regarding the location, character, and other features of the proposed structure or use as it may deem necessary in the public interest and may require a guarantee or bond to ensure that the conditions imposed are being, and will continue to be, complied with. Notwithstanding any other provision of law, general or special, the property upon which a property owner has been granted a variance shall be treated as conforming for all purposes under state law and local Ordinance; however, the structure permitted by the variance may not be expanded unless the expansion is within an area of the site or part of the structure for which no variance is required under the Ordinance. Where the expansion is proposed within an area of the site or part of the structure

for which a variance is required, the approval of an additional variance shall be required. No variance in the strict application of any provision of this Ordinance shall be authorized by the BZA except upon the following findings:

a) The property interest for which the variance is being requested was acquired in good faith and any hardship was not created by the applicant for the variance;
b) The granting of the variance will not be of substantial detriment to the adjacent property and nearby properties in the proximity of that geographical area;
c) The condition or situation of the property concerned is not of so general or recurring a nature as to make reasonably practicable the formulation of a general regulation to be adopted as an amendment to the Ordinance;
d) The granting of the variance does not result in a use that is not otherwise permitted on such property or a change in the zoning classification of the property; and
e) The relief or remedy sought by the variance application is not available through a special use permit process that is authorized in the Ordinance or the process for modification to the Zoning Ordinance at the time of the filing of the variance application.

11-3.11.2. Unauthorized Variances

1. No variance shall be authorized that would permit the establishment of any use not otherwise permitted in the zoning district under the specific provisions of this Ordinance.
2. No variance shall be authorized that would result in an increase in density from that permitted by the applicable zoning district regulations.
3. No variance shall be authorized that would relate to nonconforming uses.
4. No variance shall be authorized that would reduce the amount of off-street parking space required by Article 7.
5. No variance shall be authorized that would relate to signs.
6. No variance shall be authorized in cases where the applicant, subsequent to the effective date of this Ordinance, has purchased a portion of a larger parcel, which portion has an area or width less than required by the provisions of this Ordinance at the time of such purchase or which portion has unusual physical characteristics, that are

set forth as the basis for the application for a variance, which would not exist if such portion had not been detached by such purchase from the larger parcel of which it was a part.

7. No variance shall be authorized that would permit the establishment of any use not otherwise permitted in a floodplain.
8. No variance shall be authorized merely for the purpose of convenience or economic hardship.

11-3.11.3. Procedures for Variances

1. Application for Variance

Pursuant to provisions of this article and §15.2-2309 of the Code of Virginia, as amended, any person seeking a variance from the application of regulations of this chapter, shall first submit his proposal to the Zoning Administrator on a form to be provided by the Zoning Administrator, including therewith satisfactory evidence that any delinquent real estate taxes owed to the county which have been properly assessed against the subject property have been paid, and all plans and information relating to the application required by the board of zoning appeals pursuant to §15.2-2310 of the Code of Virginia. The application shall be transmitted promptly to the secretary of the Board of Zoning Appeals, who shall place the matter on the docket to be acted upon by the board.

The Zoning Administrator shall also transmit a copy of the application to the local Planning Commission which may send a recommendation to the Board or appear as a party at the hearing.

2. Decision on Variance Application

Upon receipt of an application or appeal, the Board of Zoning Appeals shall fix a reasonable time for a hearing of such application or appeal in conformance with §15.2-2204 of the Code of Virginia.

The proposal shall then be advertised pursuant to provisions of §15.2-2204 of the Code of Virginia prior to public hearing by the Board of Zoning Appeals. The Zoning Administrator shall also transmit a copy of the application to the Planning Commission, which may send a recommendation to the Board or appear as a party at the hearing.

The Board of Zoning Appeals shall render a decision on any application submitted to it within sixty (60) days after the date of the

hearing thereon.

3. Burden of Applicant

The applicant for a variance shall bear the burden of producing evidence to support the required findings and to establish that the requested variance satisfies all standards for a Variance.

4. Withdrawal of Application

An application or appeal to the Board of Zoning Appeals may be withdrawn by the applicant or appellant at any time prior to the deadline for cancellation of the newspaper advertisement for the first public hearing. After such deadline, an application or appeal may be withdrawn only with the permission of the Board of Zoning Appeals. An application or appeal which is not withdrawn pursuant to this subsection shall be either granted or denied on its merits.

5. Re-Application

If any application is denied by the Board of Zoning Appeals on its merits, no application requesting the same relief with respect to all or part of the same property shall be considered by the Board within twelve (12) months after the date of such denial.

11-3.12 Appeal to the Board of Zoning Appeals

11-3.12.1 When Appeals May be Taken

1. An appeal to the Board of Zoning Appeals may be taken by any person aggrieved or by any officer, department, board, or bureau of the municipality affected by any decision of the Zoning Administrator or from any order, requirement, decision or determination made by any other administrative officer in the administration or enforcement of this article or any ordinance adopted pursuant thereto.
2. Such appeal shall be made within thirty (30) days after the decision appealed from by filing with the Zoning Administrator, and with the Board, a notice of appeal specifying the grounds thereof. The Zoning Administrator shall forthwith transmit to the Board all the papers constituting the record upon which the action appealed was taken. An appeal shall stay all proceedings in furtherance of the action appealed from unless the Zoning Administrator certified to the Board that by reason of facts stated in the certificate a stay would in his opinion

cause imminent peril to life or property, in which case proceedings shall not be stayed otherwise, than by a restraining order granted by the Board or by a court of record, on application and on notice to the Zoning Administrator and for good cause shown.

11-3.12.2 Appeal Procedure

1. Appeals shall be filed with the Board of Zoning Appeals in care of the Zoning Administrator, who shall provide a copy of the appeal to the secretary of the Board, and a third copy provided to the individual, official, department, or agency concerned, if any.
2. Appeals requiring an advertised public hearing shall be accompanied by cash payments to the Town in accordance with the Fee Schedule as set by Town Council by resolution.
3. Upon receipt of an application or appeal, the Board shall fix a reasonable time for the hearing, give public notice thereof in accord with § 15.2-2204 of the Code of Virginia, as well as due notice to the parties in interest.
4. The Board shall make its decision within ninety days of the filing of the application or appeal.
5. In exercising its powers the Board may reverse or affirm, wholly or partly, or may modify, an order, requirement, decision or determination appealed from. The concurring vote of a majority of the membership of the Board shall be necessary to reverse any order, requirement, decision or determination of an administrative officer or to decide in favor of the applicant on any matter upon which it is required to pass under the Ordinance or to effect any variance from the Ordinance.
6. The Board shall keep minutes of its proceedings and other official actions which shall be filed in the office of the board and shall be public records. The chairman of the board, or in his absence the acting chairman, may administer oaths and compel the attendance of witnesses.

11-3.12.3 Withdraw of Appeal

An application or appeal to the Board of Zoning Appeals may be withdrawn by the applicant/appellant at any time prior to the deadline for cancellation of the newspaper advertisement provided for in this article. After such deadline, an application or appeal may be withdrawn only with the permission of the Board. An application or appeal which is not withdrawn pursuant to this subsection shall be either granted or denied on the merits by the Board, either in whole or in part.

11-3.12.4 Court Petition

1. Any person or persons jointly or severally aggrieved by any decision of the Board of Zoning Appeals, or any taxpayer or any officer, department, board, or bureau of the Town may present to the circuit court of the county a petition specifying the grounds on which aggrieved within thirty (30) days after the filing of the decision in the office of the Board.
2. Upon the presentation of such petition, the court shall allow a writ of certiorari to review the decision of the Board of Zoning Appeals and shall prescribe therein the time within which a return thereto must be made and served upon the realtor's attorney, which shall not be less than ten (10) days and may be extended by the court. The allowances of the writ shall not stay proceedings upon the decision appealed from, but the court may, on application, on notice to the Board, and on due cause shown, grant a restraining order.
3. The Board of Zoning Appeals shall not be required to return the original papers acted upon by it, but it shall be sufficient to return certified or sworn copies thereof or of such portions thereof as may be called for by such writ. The return shall concisely set forth such other facts as may be pertinent and material to show the grounds of the decision appealed from and shall be verified.
4. If, upon the hearing, it shall appear to the court that testimony is necessary for the proper disposition of the matter, it may take evidence or appoint a commissioner to take such evidence as it may direct and report the same to the court with his findings of fact and conclusions of law, which shall constitute a part of the proceedings upon which the determination of the court shall be made. The court may reverse or affirm, wholly or partly, or may modify the decision brought up for review.
5. Costs shall not be allowed against the Board, unless it shall appear to the court that it acted in bad faith or with malice in making the decision appealed from.

11-3.13 Sign Permit

Signs permits shall be required in accordance with Article 6. The timing and application type used for the permitting of signs shall be as specified in Article 6-4.

11-4 Non-Conforming Uses and Structures

11-4.1 Purpose

The purpose of this section is to regulate and limit the development and continued existence of uses, structures, and lots legally established prior to the effective date of this Ordinance which do not conform to the requirements of this Ordinance. Many nonconformities may continue, but the provisions of this subsection are designed to curtail substantial investment in nonconformities and to bring about their eventual improvement to a conforming status or elimination in order to preserve the integrity of this Ordinance and the desired character of the Town and to protect the public health and safety.

Any nonconforming use, structure, or lot which lawfully existed as of the effective date of this Ordinance and which remains nonconforming, and any use, structure, or lot which has become nonconforming as a result of the adoption of this Ordinance or any subsequent reclassification of zoning districts or other amendment to this Ordinance, may be continued or maintained only in accordance with the terms of this section. The limitations of this section shall not apply to structures or lots whose nonconforming features are the subject of a variance that has been granted by the Board of Zoning Appeals or by the Zoning Administrator, or a modification or condition that was approved by the Town Council.

It is the intent of this chapter to abide by the letter and spirit of the provisions of § 15.2-2307 of the Code of Virginia. It is further the intent of this chapter that nonconformities shall not be enlarged, expanded or extended, nor be used as grounds for adding other structures or uses prohibited elsewhere in the same district.

Nonconforming uses are declared by this chapter to be incompatible with permitted uses in the districts involved.

11-4.2 Continuation

11-4.2.1 If at any time after the enactment of this Ordinance a lawful use of land and/or structures exists which would not be permitted by this chapter, the use may be continued so long as it remains otherwise lawful. A use of land or use of structure established in violation of contemporary zoning regulations is illegal, not nonconforming**.**

11-4.2.2 If any change in title of possession or renewal of a lease of any such lot or structure occurs, the use existing may be continued.

11-4.2.3 If any nonconforming use (structure or activity) is discontinued for a period exceeding two (2) years, after the enactment of this Ordinance, it shall be

deemed abandoned and any subsequent use shall conform to the requirements of this Ordinance.

11-4.2.4 Whenever a nonconforming structure, lot, or activity has been changed to a more restricted nonconforming use, such existing use may only be changed to a use of the same or less restricted category or to a less non-conforming activity as identified in the zoning district within which it is located.

11-4.3 Non-Conforming Uses

11-4.3.1 Expansion

No nonconforming use shall be enlarged, increased or extended to occupy a greater area of land than was occupied on the effective date of this provision to the Ordinance, unless such enlargement does not result in an increase in nonconformity or results in a change to a use permitted in the district.

11-4.3.2 Discontinuance

If any nonconforming use of land and/or structure ceases for any reason for a period of more than two (2) years, any subsequent use of such land and/or structure shall conform to the regulations specified by this chapter for the district in which such land is located.

11-4.3.3 Superseded

When any nonconforming use, or nonconforming structure and use in combination, is superseded by a permitted use and/or structure, the use shall thereafter conform to the regulations for the district, and no nonconforming use and/or structure shall thereafter be resumed.

11-4.3.4 Moving

No such nonconforming use and/or structure shall be moved in whole or in part to any portion of the land or parcel other than that occupied by such use and/or structure at the effective date or amendment of this ordinance, unless such move results in decreasing the degree of nonconformity or results in conformity with the requirements for the district.

11-4.3.5 Additional Uses

No additional uses which would be prohibited in the district involved shall be allowed.

11-4.3.6 Special Use Permits

Any lawful existing use which is permissible as a special permit use in a district under the terms of this Ordinance shall not be deemed a nonconforming use in such district, but shall, with written notification and proof to the Zoning Administrator, be considered a lawful conforming use in that district.

11-4.4 Non-Conforming Structures and Buildings

11-4.4.1 Repairs and Maintenance

On any building or structure devoted in whole or in part to any nonconforming use, work may be done in any period of twelve (12) consecutive months on ordinary repairs or on repair or replacement of nonbearing walls, fixtures, wiring, or plumbing, to an extent-not exceeding twenty (20) percent of the current replacement value of the structure provided that the cubic content of the structure as it existed at the time of passage or amendment of this Ordinance shall not be increased. Nothing in this Ordinance shall be deemed to prevent the strengthening or restoring to a safe condition of any structure or part thereof declared to be unsafe by any official charged with protecting the public safety, upon order of such official.

11-4.4.2 Expansion or Enlargement

A nonconforming structure to be extended or enlarged shall conform with the provisions of this Ordinance, except as provided for herein. No nonconforming use and/or structure shall be enlarged, increased or extended to occupy a greater area of land than twenty-five percent (25%) more than was occupied on the date of adoption or amendment of this ordinance unless such enlargement does not result in an increase in nonconformity or results in a change to a use permitted in the district.

11-4.4.2 Restoration or Replacement

1. If a nonconforming use or structure is destroyed or damaged in any manner to the extent that the cost of restoration to its condition before the occurrence shall exceed seventy-five (75) percent of the cost of reconstructing the entire structure, it shall be restored only if it complies with the requirements of this Ordinance.
2. Where a conforming structure devoted to a nonconforming activity, or where a nonconforming structure is damaged less than seventy-five (75) percent of the cost of reconstructing the entire structure, either may be repaired or restored, provided any such repair or restoration is started

within twelve (12) months and completed within eighteen (18) months from the date of partial destruction.

3. Historic structures designated as contributing structures to an Historic District adopted by the Town Council shall be exempt from the limitations of Sections 11-4.4.2.1 and 11-4.4.2.2.
4. The cost of land or any factors other than the cost of the structure are excluded in the determination of cost of restoration for any structure or activity devoted to a nonconforming use.
5. If a nonconforming structure or portion thereof containing a nonconforming use becomes physically unsafe or unlawful due to lack of repairs and maintenance, and is declared by any duly authorized official to be unsafe or unlawful by reason of physical condition, it shall not thereafter be restored, repaired, rebuilt or used, except in conformity with the regulations of the district in which it is located.

11-4.4.3 Pre-existing Setback

Any structure which existed on the date of adoption of this Ordinance which is nonconforming solely due to a setback or yard requirement imposed by this Ordinance may be enlarged, increased, extended, repaired or replaced so long as any such improvements do not result in an increase in the degree of nonconformity.

11-4.4.4 Illegal Structures

No structure that fails to conform with the requirements of this chapter shall be erected.

11-4.5 Non-Conforming Lots

11-4.5.1 Use

Any lot of record at the time of the adoption of this Ordinance which is less in area or width than the minimum required by this Ordinance may be used when the requirements regarding setbacks, side, and rear yards are met.

11-4.5.2 Changes in District Boundaries

Whenever the boundaries of a district are changed by amendment of this Ordinance, any uses of land, legal structures or buildings which become nonconforming as a result of such change shall become subject to the most current provisions of this Ordinance. Such affected use, lot or structure shall be accorded nonconforming use, lot and/or structure status as may be appropriate

under the terms of this Ordinance.

11-4.5.3 Division, Boundary Line Adjustment

No lot or parcel or portion thereof shall be used or sold in a manner reducing compliance with lot width or other requirements established by this chapter, nor shall any division be made which creates a lot with width or area below the requirements stated in this chapter.

Notwithstanding the provisions of the paragraph above, boundary line adjustments may be permitted between nonconforming lots, or between a conforming and a nonconforming lot, provided that the Zoning Administrator determines that the degree of nonconformity for any lot resulting from such boundary line adjustment is not increased due to such adjustment.

11-4.5.4 Condemnation

Any lawfully created lot which, by reason of condemnation for alignment, realignment of a federal or state road, has been reduced in size to any area less than that required by this Ordinance shall be considered a lawful nonconforming lot of record subject to the provisions set forth in this section.

11-4.5.5 Violations Are Not Nonconformities

Uses or structures established in violation of zoning regulations are lawful non-conformities. The burden of proof shall be upon the owner of the property to establish the lawful nonconforming status of a claimed non-conforming use.

11-4.5.6 Accessory Uses/Buildings, Signs

A lawful nonconforming use of a structure, a lawful nonconforming use of land or a lawful nonconforming use of a structure and land in combination shall not be continued, extended or enlarged by use or establishment of either an accessory use or building or by attachment on a building or premises of additional signs intended to be seen from off the premises. Non-conforming signs are regulated in Article 6-16 unless otherwise noted.

11-5 Enforcement and Penalties

11-5.1 Conformance to Provision. All departments, officials, and public employees of the Town of Warrenton which are vested with the duty or authority to issue permits or licenses shall conform to the provisions of this Ordinance. They shall issue permits for uses, buildings, or purposes only when they are in harmony with the provisions of this Ordinance. Any

such permit, if issued in conflict with the provisions of this Ordinance, shall be null and void.

11-5.2. Zoning Administrator

Whenever a violation of this chapter occurs, or is alleged to have occurred, any person may file a written violation complaint. The Zoning Administrator shall properly record such complaint, investigate it and take appropriate action thereon if warranted.

Upon his becoming aware of any violation of any provision of this chapter, the Zoning Administrator shall serve notice of such violation on the person committing or permitting such violation. If such violation has not ceased within thirty (30) days or such other reasonable time set by the Zoning Administrator and specified in the notice, he shall institute such legal action as may be necessary to remedy and terminate the violation.

The Zoning Administrator shall order the discontinuance of illegal use of land, buildings or structures, removal of illegal building or structures or of illegal additions, alterations or structural changes and discontinuance of any illegal work being done, or shall take any other action authorized by this chapter to ensure compliance with, or to prevent violation of, its provisions.

Notice of a zoning violation or a written order of the Zoning Administrator shall include a statement informing the recipient that he may have a right to appeal the notice of a zoning violation or a written order within thirty (30) days, and that the decision shall be final and unappealable if not appealed within thirty (30) days.

11-5.3 Violation of Provisions.

Any person, firm, or corporation, whether as principal, owner, lessee, agent, employee or otherwise, who violates, causes, or permits the violation of any of the provisions of this Ordinance shall be guilty of a Class 2 misdemeanor. Such person, firm, or corporation shall be deemed to be guilty of a separate offense for each and every day during which any portion of any violation of this Ordinance is committed, continued, or permitted by such person, firm, or corporation, and shall be punishable as herein provided.

11-5.4 Recourse for Unlawful Use.

The Zoning Administrator of the Town of Warrenton may institute any appropriate action of proceedings to prevent the unlawful erection, construction, reconstruction, alteration, repair, or conversion of any building or structure, or the unlawful use of land; to restrain, correct, or abate such violation; to prevent the occupancy of said building, structure, or land; or to prevent any illegal act, conduct, business, or use in or about such premises. The remedies provided for in this section are cumulative and not exclusive and shall be in

addition to any other remedies provided by law.