Planning Commission

Wednesday, May 24, 2023 at 6:00 PM

Theodore D. Washington Municipal Building, 20 Bridge Street, Henry "Emmett" McCracken Jr. Council Chambers

AGENDA

This meeting can be viewed live on Beaufort County Channel, on Hargray Channel 9 and 113 or on Spectrum Channel 1304.

I. CALL TO ORDER

II. ROLL CALL

III. NOTICE REGARDING ADJOURNMENT

The Planning Commission will not hear new items after 9:30 p.m. unless authorized by a majority vote of the Commission Members present. Items which have not been heard before 9:30 p.m. may be continued to the next regular meeting or a special meeting date as determined by the Commission Members.

IV. NOTICE REGARDING PUBLIC COMMENTS*

Every member of the public who is recognized to speak shall address the Chairman and in speaking, avoid disrespect to Commission, Staff, or other members of the Meeting. State your name and address when speaking for the record. COMMENTS ARE LIMITED TO THREE (3) MINUTES.

V. ADOPTION OF THE AGENDA

VI. CIVILITY PLEDGE

We pledge to build a stronger and more prosperous community by advocating for civil engagement, respecting others and their viewpoints, and finding solutions for the betterment of the Town of Bluffton.

VII. ADOPTION OF MINUTES

1. April 26, 2023 Minutes

VIII. PUBLIC COMMENTS FOR ITEMS NOT ON THE AGENDA*

IX. OLD BUSINESS

X. NEW BUSINESS

1. **Buckwalter Crossroads (Master Plan Amendment):** A request by Brian Witmer of Witmer Jones Keefer, Ltd, on behalf of Millstone Ventures, LLC, and with the approval of the property owner, Parcel 8A, LLC, for approval of a master plan amendment application. The Applicant proposes to amend the Buckwalter Crossroads Master Plan by adding an additional 21.92 acres that will include 16.02 acres of residential development and 5.9 acres of commercial development. The property is zoned Buckwalter PUD and consists of 21.92 acres located at the northeast corner of the intersection of SC Highway 170 and Gibbet Road. (MPA-01-23-017595) (Staff – Dan Frazier)
2. Amendments to the Town of Bluffton's Municipal Code of Ordinances, Chapter 23, Unified Development Ordinance (UDO), Article 3 – Application Process, Sec. 3.17, Certificate of Appropriateness – Highway Corridor Overlay District and Article 5 – Sec. 5.8, Lot and Building Standards (Staff – Charlotte Moore)

XI. DISCUSSION

XII. ADJOURNMENT

"FOIA Compliance – Public notification of this meeting has been published and posted in compliance with the Freedom of Information Act and the Town of Bluffton policies."

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 ("ADA"), the Town of Bluffton will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. The Town of Bluffton Council Chambers are ADA compatible. Any person requiring further accommodation should contact the Town of Bluffton ADA Coordinator at 843.706.4500 or adacoordinator@townofbluffton.com as soon as possible but no later than 48 hours before the scheduled event.

**Please note that each member of the public may speak at one public comment session and a form must be filled out and given to the Town Clerk. Public comment must not exceed three (3) minutes.*

Executive Session - The public body may vote to go into executive session for any item identified for action on the agenda.

Planning Commission

Theodore D. Washington Municipal Building, 20 Bridge Street, Henry "Emmett" McCracken Jr. Council Chambers

April 26, 2023

I. CALL TO ORDER

Chairman Denmark called the meeting to order at 6pm.

II. ROLL CALL

PRESENT
Chairwoman Amanda Jackson Denmark
Commissioner Kathleen Duncan
Commissioner Rich Delcore
Commissioner Jim Flynn
Commissioner Lydia DePauw

ABSENT
Vice Chairman Charlie Wetmore
Commissioner Jason Stewart

III. NOTICE REGARDING ADJOURNMENT

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V. ADOPTION OF THE AGENDA

Commissioner Duncan made a motion to adopt the agenda as written.

Seconded by Commissioner Flynn.
Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw

All were in favor and the motion passed.

VI. CIVILITY PLEDGE

VII. ADOPTION OF MINUTES

1. March 22, 2023 Minutes

   Commissioner Duncan made a motion to adopt the minutes as written.

DRAFT

Seconded by Commissioner Delcore.
Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw

All were in favor and the motion passed.

VIII. PUBLIC COMMENTS FOR ITEMS NOT ON THE AGENDA*

IX. OLD BUSINESS

X. NEW BUSINESS

1. **1268 May River Road (Development Plan):** A request by Nathan Sturre of Sturre Engineering on behalf of the property owner, May River Project, LLC for approval of a preliminary development plan application. The project proposes the construction of a concrete apron, gravel access drive, gravel parking spaces and a concrete van accessible ADA space to accommodate conversion of the site use from residential to commercial. The property is zoned Neighborhood General – Historic District (NG-HD), consists of approximately 0.7 acres identified by tax map number R610 039 00A 0147 0000, and is located on the south side of May River Road. (DP-11-22-017440) (Staff - Dan Frazier)

   The applicant was in attendance. Staff presented. The Commission asked the applicant what the uses of the buildings would be. The applicant stated it may be a construction company and an art studio. The Commission discussed the live oak location, service yard, the width of the gravel driveway and accessibility to the accessory structure.

   Commissioner Duncan made a motion to approve with the condition that the applicant provide an ADA-compliant path from the parking area to the smaller building.

   Seconded by Commissioner Delcore.
   Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw

   All were in favor and the motion passed.

2. **120 Persimmon Street (Development Plan):** A request by Sam Connor on behalf of the property owner, James Jeffcoat for approval of a preliminary development plan application. The project proposes a 6,600 SF commercial building including 1,800 SF of office space and 4,800 SF of storage space. The property is zoned Schultz Planned Unit Development and consists of 0.68 acres identified by tax map number R610 031 000 1437 0000 located within the Bluffton Park Master Plan. (DP-02-23-017665) (Staff - Dan Frazier)

   The applicant was in attendance. Staff presented. There was discussion about the fencing material, wetland buffer, and parking table.

   Commissioner Duncan made a motion to approve the application as submitted.

   Seconded by Commissioner Flynn.
   Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw

   All were in favor and the motion passed.

3. **Washington Square Lot 4 - Starbucks (Development Plan):** A request by G3 Engineering & Surveying, LLC on behalf of the property owner, Vaquero Bluffton Partners, LP for approval of a preliminary development plan application. The project proposes a 2,500 SF commercial building to serve as a Starbucks coffeehouse. The property is zoned Buckwalter Planned Unit Development and consists of 1.03 acres identified by tax map number R614 022 000 1131 0000 located within the Berkeley Place Parcel C4 Master Plan and the Washington Square Development Plan. (DP-02-23-017687) (Staff - Dan Frazier)

   The applicant was in attendance. Staff presented. There was discussion about the parking layout, dumpster location and pedestrian crosswalks.

   Commissioner Duncan made a motion to approve the application with the conditions:

   1. Provide a safer design for the sidewalk that crosses in front of the drive-through lane.

   2. Provide additional screening between Bleeker Street South and the dead-end parking area; and

   3. Consider relocating the dumpster.

   Seconded by Commissioner Delcore.
   Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw

   All were in favor and the motion passed.

4. **Unified Development Ordinance Amendments (Public Hearing):** Amendments to the Town of Bluffton's Municipal Code of Ordinances, Chapter 23, Unified Development Ordinance (UDO), Article 3 – Application Process, Sec. 3.14, Certificate of Construction Compliance; Article 4 – Zoning Districts, Sec. 4.4.2.A., Conditional Use Standards, Outdoor Sales; Article 5 – Design Standards, Parking; Article 7 - Nonconformities; Article 9 – Definitions and Interpretation, Sec. 9.2 Defined Terms, Family & Single Household Unit; and, Sec. 9.4.1, Description of Residential Uses (Accessory Dwelling Units and Single-Family Attached Dwelling) and Sec. 9.4.3, Description of Commercial Services (Outdoor Sales). (Staff – Charlotte Moore)

   Chairman Denmark opened the Public Hearing. There was a first, second and third call for Public Hearing. The Public Hearing was closed.

   Staff reviewed the proposed changes. There was discussion about the parking changes, reversed angled parking, definition of family, and the changes to non-conforming sites.

   Commissioner Delcore made a motion to approve the amendments to the Town of Bluffton Code of Ordinances Chapter 23 - Unified Development Ordinance, as recommended by Town Staff, with the following modifications:

   1. Section 5.11.3.B be revised so that it remains written that the new parking standards being minimums rather than maximums.

   2. Section 5.11.4.A.2 that staff provide guidance as to why a minimum of 25 parking spaces would be required before compact car parking spaces would be allowed.

   3. Section 5.11.4.A.2 be revised to say that golf cart parking spaces shall not count towards the required minimal parking spaces.

4. Staff add fractional dimension standards for parking calculations to the UDO in the sections that staff deems appropriate.

Seconded by Commissioner DePauw.
Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw All were in favor and the motion passed.

XI. DISCUSSION

XII. ADJOURNMENT

Commissioner Flynn made a motion to adjourn.

Seconded by Commissioner Duncan.
Voting Yea: Chairwoman Jackson Denmark, Commissioner Duncan, Commissioner Delcore, Commissioner Flynn, Commissioner DePauw

All were in favor and the meeting adjourned at 8:11pm.

DRAFT

PLANNING COMMISSION

STAFF REPORT
Department of Growth Management

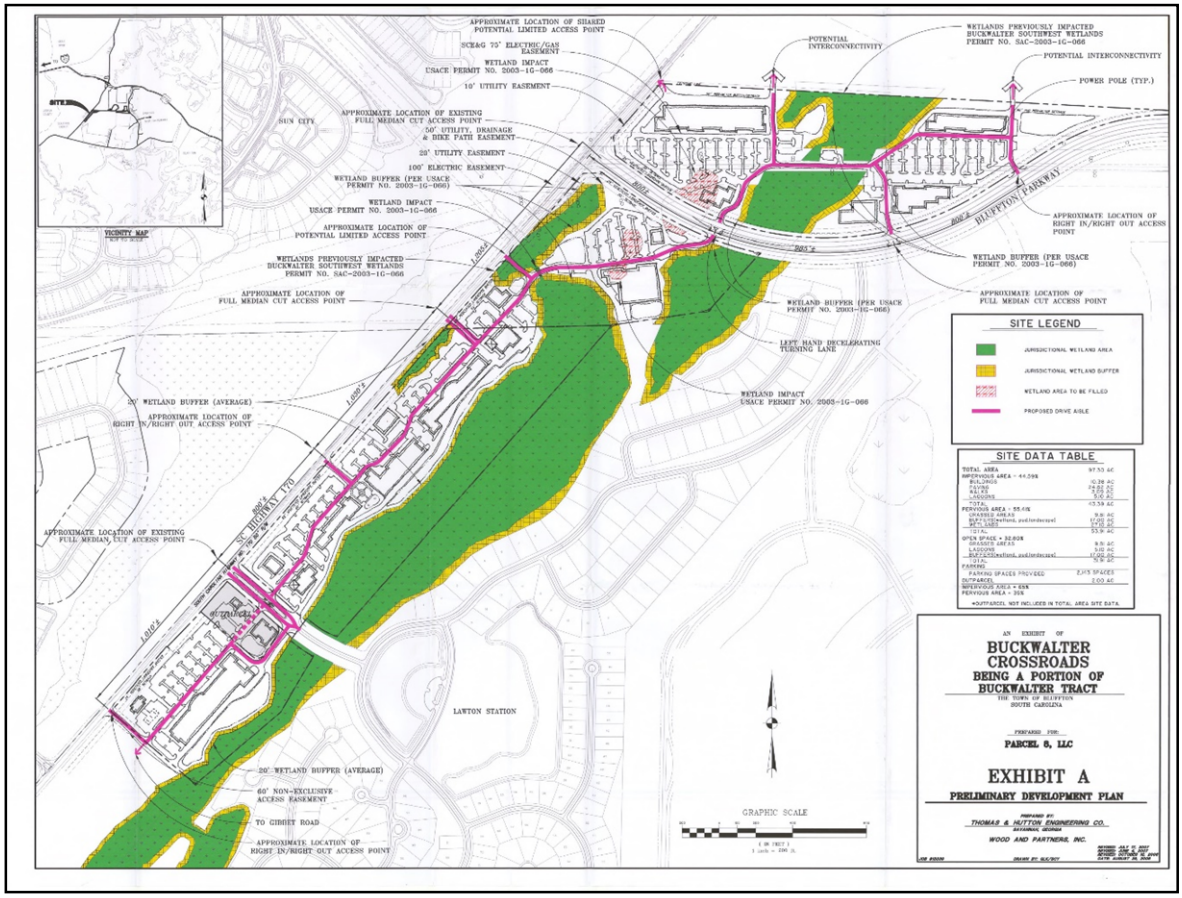
MEETING DATE:	May 24, 2023
PROJECT:	Consideration of approval of an amendment to the Master Plan for Buckwalter Crossroads within the Buckwalter Planned Unit Development to add an additional 21.92 acres that will include 16.02 acres of residential development and 5.9 acres of commercial development.
PROJECT MANAGER:	Dan Frazier, AICP Principal Planner Department of Growth Management

REQUEST: A request for approval of an amendment to the existing Master Plan for Buckwalter Crossroads (Attachments 1 and 2).

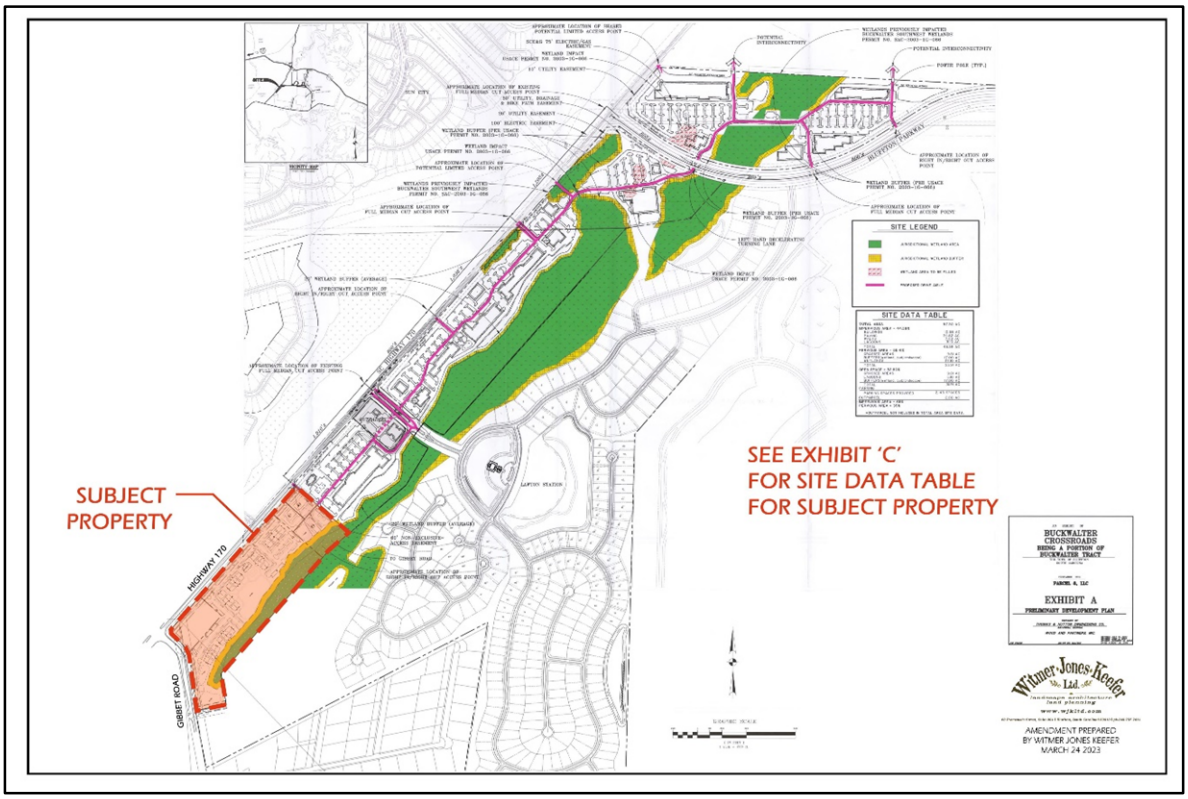
INTRODUCTION: The Applicant, Brian Witmer of Witmer Jones Keefer, Ltd, on behalf of Millstone Ventures, LLC, and with the approval of the property owner, Parcel 8A, LLC, is requesting approval for an amendment to the currently approved Master Plan for Buckwalter Crossroads in the Buckwalter Planned Unit Development (PUD) (Attachment 3). More specifically, the amendment request is to add an additional 21.92 acres that will include 16.02 acres of residential development and 5.9 acres of commercial development (Attachment 4).

BACKGROUND: The subject parcel is identified as a commercial land use area within the Buckwalter Commons Tract of Buckwalter PUD (Attachment 5). As noted in Section 1.E. of the PUD, master plans are required as step two of the three-step process for planning and approving large development projects in the Town of Bluffton. This application requests to amend the existing Buckwalter Crossroads Master Plan to add the subject parcel.

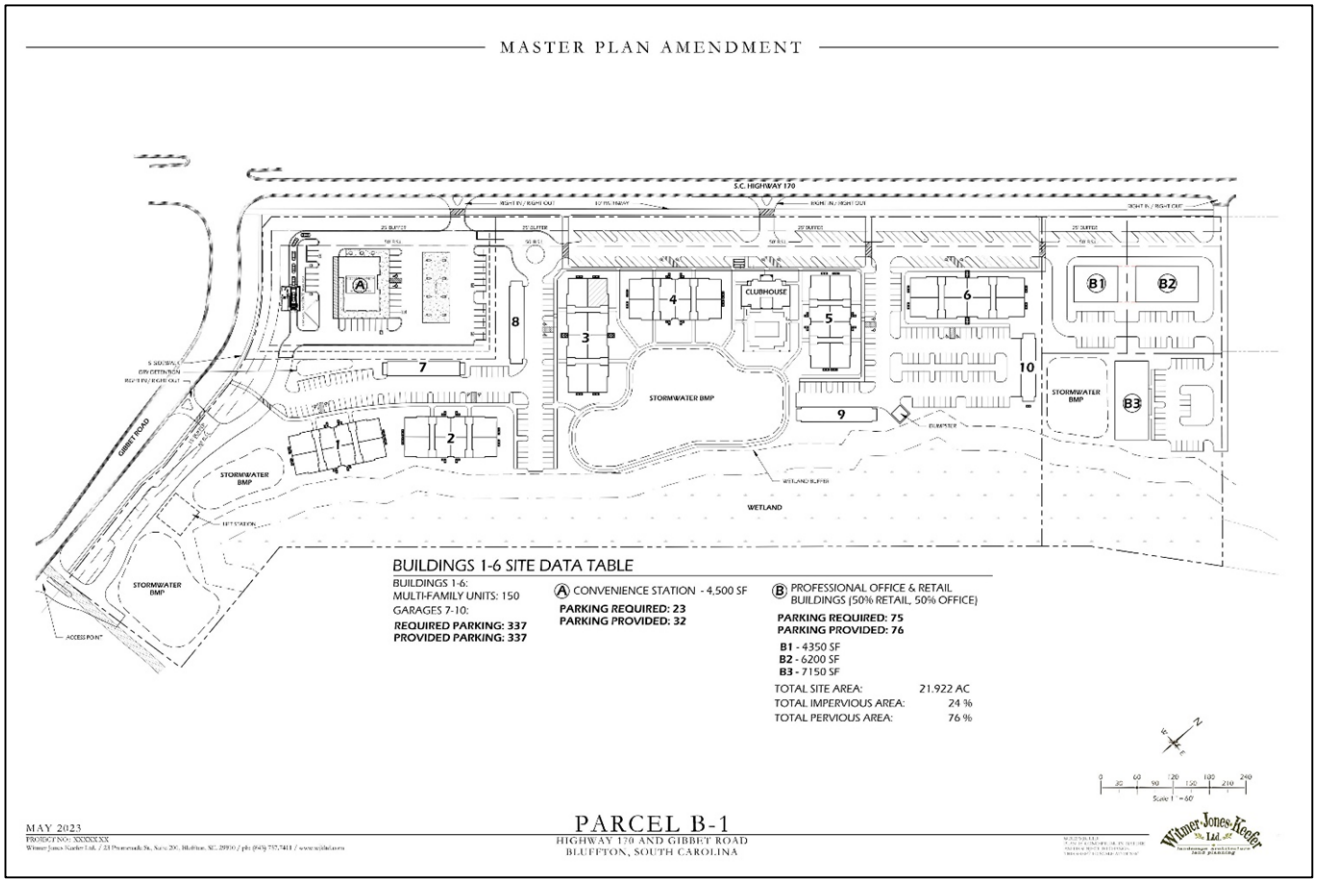
The applicant proposes a conceptual site layout on the subject property that includes a 150-unit multi-family development and two outparcels (Attachment 6). Outparcel A proposes a 4,500 s.f. gas station/convenience store located at the northeast corner of Gibbet Road and SC Highway 170. Outparcel B proposes three professional office and retail buildings totaling 17,700 s.f north of the proposed multi-family development. The conceptual layout provides interconnectivity between the proposed uses and northward into the existing Buckwalter Crossroads Master Plan. This connectivity is consistent with the marginal access road labeled as "proposed drive aisle" on the existing master plan. This drive aisle runs parallel and adjacent to SC Highway 170 and is designed to provide access to abutting properties and control of intersections with the highway.



Existing Master Plan



Proposed Master Plan



Proposed Conceptual Layout

Site layouts shown on the current master plan and proposed master plan amendment are conceptual in nature and are subject to review and approval in accordance with the Town of Bluffton Unified Development Ordinance at time of development plan submittal. All development is subject to the requirements of the Highway Corridor Overlay District. The marginal access road providing interconnectivity between developments is recognized as a requirement of the master plan.

The Applicant's complete submittal booklet provides a master plan narrative and master plan exhibits including existing and proposed conditions, wetlands, and a tree survey (Attachment 7). The Applicant has also provided a traffic impact analysis that has been reviewed and approved by the South Carolina Department of Transportation (SCDOT) (Attachment 8). The five site access locations and movements shown on the conceptual site layout are consistent with the conclusions of the traffic impact analysis.

The Beaufort County CONNECTS 2021 Bicycle and Pedestrian Plan, adopted by resolution by the Town of Bluffton on September 14, 2021, identifies a bicycle and pedestrian facility to be installed on the "Northbound side of SC-170 from SC-46 to Bluffton Parkway". The location of the 10-foot concrete path is to be determined at the time of development plan submittal, and long-term maintenance of the path will be provided by Beaufort County if SCDOT does not assume this responsibility. Whether located on or off-site, the path is to be included in development plan applications and installed in conjunction with individual developments as they are constructed. A statement shall be placed on the amended master plan declaring that all development within the Buckwalter Crossroads Master Plan shall conform to the requirements and recommendations of the Beaufort County CONNECTS 2021 Bicycle and Pedestrian Plan.

Comments on the current master plan amendment were reviewed at the March 1, 2023, meeting of the Development Review Committee (Attachment 9). The Applicant satisfactorily addressed the DRC comments in an April 25, 2023, resubmittal that included the traffic impact analysis.

REVIEW CRITERIA & ANALYSIS: The Planning Commission is required to consider the criteria set forth in Section 3.9.3 of the Unified Development Ordinance in assessing an application for a Master Plan. These criteria are provided below followed by a Staff Finding(s).

1. Section 3.9.3.B. Promotion of and consistency with the land use goals, environmental objectives and overall intent of the policies within the Comprehensive Plan.

   Finding. The application is consistent with the Comprehensive Plan.

   The Land Use Element within the Comprehensive Plan provides a vision that suggests a balance of land uses to ensure a high quality of life, business opportunity, environmentally protected areas, and proper placement of commercial uses. The Buckwalter Crossroads Master Plan Amendment proposes a mix of residential and commercial uses that will stimulate economic growth and contribute to the Town's goal of being a sustainable community with a diversified tax base to support Town facilities and services.

2. Section 3.9.3.C. Consistency with the intent of the Planned Unit Development Zoning District as prescribed in this Ordinance.

   Finding. The application is consistent with the Town of Bluffton Zoning and Development Standards Ordinance that applies to the Buckwalter PUD Concept Plan.

   The Buckwalter PUD Concept Plan was designed to be a mixed-use development, which includes residential and commercial uses. The master plan amendment application proposes a mixed-use development that is consistent with the Buckwalter PUD Concept Plan.

3. Section 3.9.3.D. As applicable, consistency with the provisions of the associated Development Agreement and/or PUD Concept Plan.

   Finding. The application is consistent with the provisions of the Buckwalter PUD Concept Plan.

   The existing Buckwalter Crossroads Master Plan and the proposed amendment to the master plan are consistent with the Buckwalter PUD Concept Plan, which identifies the master plan properties as being within the Buckwalter Commons Land Use Tract, which allows for General Commercial and Multi-family Residential land uses.

4. Section 3.9.3.E. Compatibility of proposed land uses, densities, traffic circulation and design with adjacent land uses and environmental features, as well as the character of the surrounding area.

   Finding. The application is compatible with the surrounding area.

   The proposed land uses and densities are compatible with existing development in the surrounding area. The traffic impact analysis provided with the application was prepared in April 2023, and has been reviewed and approved by SCDOT. The five site access locations and movements shown on the conceptual site layout are consistent with the conclusions of the traffic impact analysis.

5. Section 3.9.3.F. Ability to be served by adequate public services, including, but not limited to, water, sanitary sewer, roads, police, fire, and school services. For developments that have the potential for significant impact on infrastructure and services the applicant shall be required to provide an analysis and mitigation of the impact on transportation, utilities, and community services.

   Finding. The property can be served by adequate public services.

   Existing water mains, located along both Gibbet Road and SC170, will serve the parcels. The water supply system will be designed to provide flow and pressure for fire protection. The wastewater will be collected and pumped to an existing wastewater facility owned and operated by BJWSA. The traffic impact analysis provided with the application was prepared in April 2023, and has been reviewed and approved by SCDOT.

6. Section 3.9.3.G. Demonstration of innovative site planning techniques that improve upon the standards in other allowable Town of Bluffton zoning districts with the purpose of enhancing the Town of Bluffton's health, safety and welfare.

   Finding. The Master Plan includes innovative site planning techniques that enhance the Town's health, safety, and welfare.

   The site will be required to use best practices in stormwater management and is subject to design development guidelines, architectural guidelines and restrictive covenants as referenced in Sections II. And IV.B. of the existing Buckwalter Crossroads Master Plan.

7. Section 3.9.3.H. Ability of the site to sufficiently accommodate the densities and land use intensities of the proposed development.

   Finding. The property can sufficiently accommodate the proposed development.

   The site is consistent with the approved Buckwalter PUD Concept Plan and the existing Buckwalter Crossroads Master Plan.

8. Section 3.9.3.I. Conformance with adopted or accepted plans, policies, and practices of the Town of Bluffton.

Finding. The requested master plan amendment is in conformance with adopted or accepted plans, policies, and practices of the Town.

TOWN STAFF RECOMMENDATION: Town Staff finds that the requirements of Section 3.9.3 of the Unified Development Ordinance can be met with the following conditions and recommends that the Planning Commission provide a recommendation of conditional approval to Town Council for the Buckwalter Crossroads Master Plan Amendment.

1. A statement shall be placed on the amended master plan declaring that all development within the Buckwalter Crossroads Master Plan shall conform to the requirements and recommendations of the Beaufort County CONNECTS 2021 Bicycle and Pedestrian Plan.
2. Whether located on- or off-site, it shall be the responsibility of developers to install a 10-foot-wide concrete bicycle and pedestrian path along SC Highway 170 frontage consistent with the requirements and recommendations of the Beaufort County CONNECTS 2021 Bicycle and Pedestrian Plan in conjunction with individual site development within the Buckwalter Master Plan.
3. Site layouts for all parcels are subject to full Town review and approval at time of development plan submittal.

PLANNING COMMISSION ACTIONS: The Planning Commission has the authority to take the following actions with respect to the recommendation of the application to Town Council:

1. Recommend approval to Town Council of the application as submitted by the Applicant;
2. Recommend approval to Town Council of the application with conditions; or
3. Recommend denial to Town Council of the application as submitted by the Applicant.

NEXT STEPS: Forward recommendation to Town Council:

Master Plan Procedure	Step Completed	Date Completed
Step 1. Pre-Application Meeting	✓	December 1, 2022
Step 2. Application Check-In Meeting	✓	January 24, 2023
Step 3. Review by DRC	✓	March 1, 2023
Step 4. Planning Commission Recommendation	✓	May 24, 2023
Step 5. Town Council Consideration for Approval of Majority Vote		TBD

ATTACHMENTS:

1. Application
2. Location Map
3. Existing Master Plan
4. Proposed Master Plan
5. Buckwalter PUD Concept Master Plan
6. Conceptual Site Layout
7. Complete Submittal Booklet
8. Traffic Impact Analysis (April 18, 2023)
9. DRC Comments (March 1, 2023)

TOWN OF BLUFFTON
PLANNED UNIT DEVELOPMENT (PUD)
MASTER PLAN APPLICATION

Growth Management Custom
20 Bridge Street
Bluffton, SC 29910
(843)706-4522
www.townofbluffton.sc.gov
applicationfeedback@townofbluffton.com

Applicant	Property Owner
Name: WITMER JONES KEEFER	Name: MILLSTONE VENTURES LLC
Phone: 843 757 7411	Phone: 317. 694. 5114
Mailing Address: 23 PROMENADE STREET	Mailing Address:
E-mail: BRIAN@WJKLTD.COM	E-mail: OWEN@MILLSTONEMGMT.COM
Town Business License # (if applicable):	

Project Information

Project Name: BUCKWALTER CROSSROADS	☐ New	☑ Amendment
Project Location: HWY 170 & GIBBET RD.	Acreage: 21.922	
PUD Name: BUCKWALTER		
Tax Map Number(s): R610 028 000 0921 0000		
Project Description: MULTI FAMILY, CONVENANCE STORE, PROFESSIONAL, RETAIL USES		

Minimum Requirements for Submittal

- ☑ 1. Two (2) full sized copies and digital files of the Master Plan.
- ☐ 2. Recorded deed and plat showing proof of property ownership.
- ☑ 3. Project Narrative describing reason for application and compliance with the criteria in Article 3 of the UDO.
- ☐ 4. An Application Review Fee as determined by the Town of Bluffton Master Fee Schedule. Checks made payable to the Town of Bluffton.

Note: **A Pre-Application Meeting is required prior to Application submittal.**

Disclaimer: **The Town of Bluffton assumes no legal or financial liability to the applicant or any third party whatsoever by approving the plans associated with this permit.**

I hereby acknowledge by my signature below that the foregoing application is complete and accurate and that I am the owner of the subject property. As applicable, I authorize the subject property to be posted and inspected.

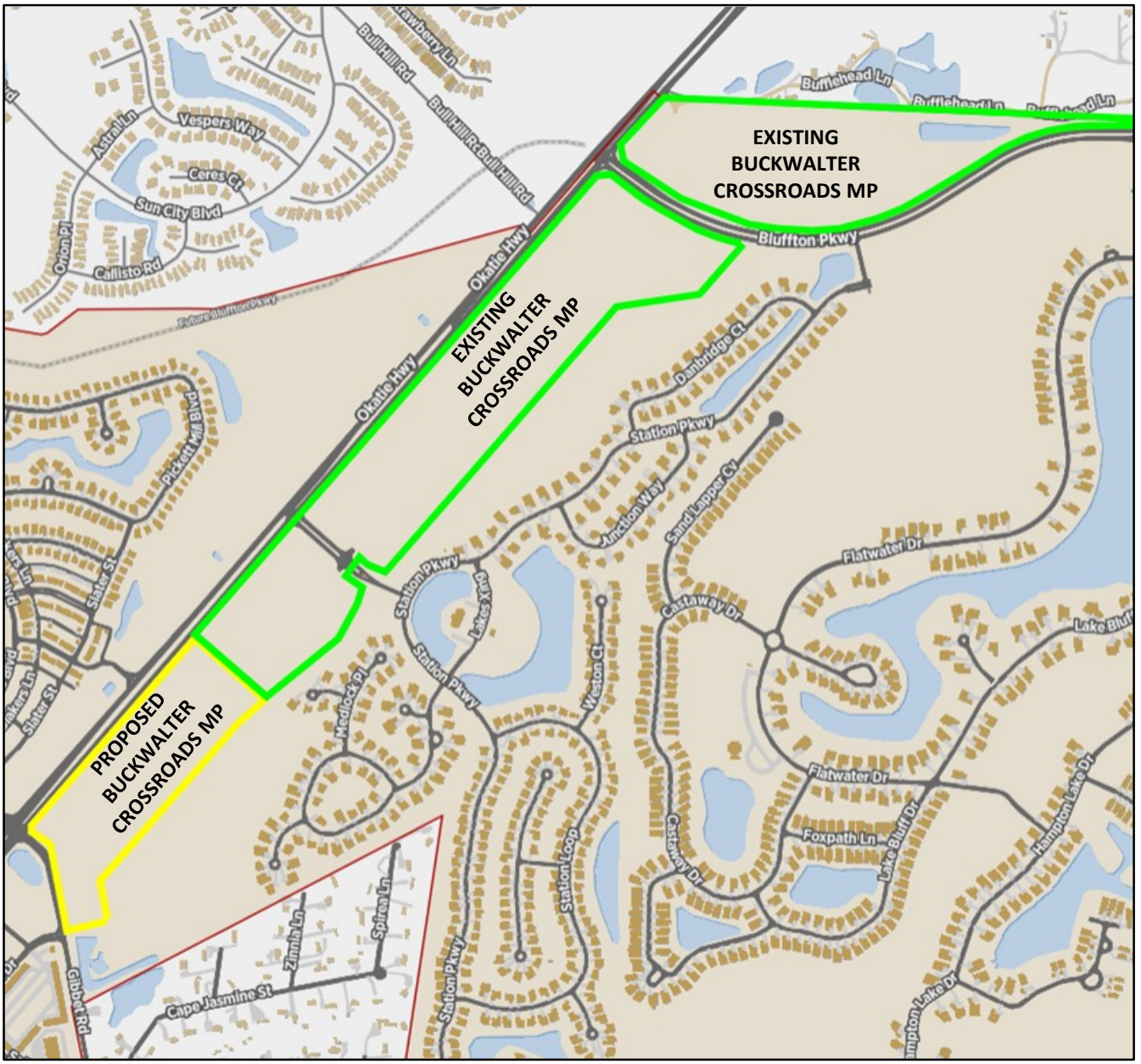
Property Owner Signature: Adrian Dannmiller Date: 1/18/23

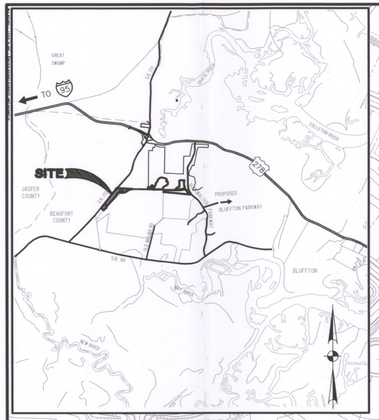
Applicant Signature: Date: 1.18.23

For Office Use

Application Number:	*Date Received:*
Received By:	*Date Approved:*

VICINITY MAP
BUCKWALTER CROSSROADS
MASTER PLAN AMENDMENT





VICINITY MAP
NOT TO SCALE

APPROXIMATE LOCATION OF SHARED POTENTIAL LIMITED ACCESS POINT
SCE&G 75' ELECTRIC/GAS EASEMENT
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
10' UTILITY EASEMENT
APPROXIMATE LOCATION OF EXISTING FULL MEDIAN CUT ACCESS POINT
50' UTILITY, DRAINAGE & BIKE PATH EASEMENT
20' UTILITY EASEMENT
100' ELECTRIC EASEMENT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
APPROXIMATE LOCATION OF POTENTIAL LIMITED ACCESS POINT
WETLANDS PREVIOUSLY IMPACTED BUCKWALTER SOUTHWEST WETLANDS PERMIT NO. SAC-2003-1G-066
APPROXIMATE LOCATION OF FULL MEDIAN CUT ACCESS POINT
20' WETLAND BUFFER (AVERAGE)
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
APPROXIMATE LOCATION OF EXISTING FULL MEDIAN CUT ACCESS POINT
20' WETLAND BUFFER (AVERAGE)
60' NON-EXCLUSIVE ACCESS EASEMENT
TO GIBBET ROAD
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
LAWTON STATION
POTENTIAL INTERCONNECTIVITY
WETLANDS PREVIOUSLY IMPACTED BUCKWALTER SOUTHWEST WETLANDS PERMIT NO. SAC-2003-1G-066
POTENTIAL INTERCONNECTIVITY
POWER POLE (TYP.)
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
APPROXIMATE LOCATION OF FULL MEDIAN CUT ACCESS POINT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
LEFT HAND DECELERATING TURNING LANE
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
BLUFFTON PARKWAY
SC HIGHWAY 170
SOUTH CAROLINA HIGHWAY NO. 170 80' R/W
OUTPARCEL
800'±
1,205'±
1,030'±
1,010'±
985'±
50' PERIMETER BUFFER/SETBACK
50' PUD PERIMETER SETBACK
35' VEGETATED LANDSCAPE BUFFER
30' SETBACK
25' VEGETATED LANDSCAPE BUFFER
50' SETBACK

SITE LEGEND

- JURISDICTIONAL WETLAND AREA
- JURISDICTIONAL WETLAND BUFFER
- WETLAND AREA TO BE FILLED
- PROPOSED DRIVE AISLE

SITE DATA TABLE

TOTAL AREA	97.30 AC
IMPERVIOUS AREA = 44.59%	
BUILDINGS	10.38 AC
PAVING	24.82 AC
WALKS	3.09 AC
LAGOONS	5.10 AC
TOTAL	43.39 AC
PERVIOUS AREA = 55.41%	
GRASSED AREAS	9.81 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
WETLANDS	27.10 AC
TOTAL	53.91 AC
OPEN SPACE = 32.80%	
GRASSED AREAS	9.81 AC
LAGOONS	5.10 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
TOTAL	31.91 AC
PARKING	
PARKING SPACES PROVIDED	2,143 SPACES
OUTPARCEL	2.00 AC
IMPERVIOUS AREA = 65%	
PERVIOUS AREA = 35%	

*OUTPARCEL NOT INCLUDED IN TOTAL AREA SITE DATA.

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

AN EXHIBIT OF

BUCKWALTER CROSSROADS

BEING A PORTION OF BUCKWALTER TRACT

THE TOWN OF BLUFFTON
SOUTH CAROLINA

PREPARED FOR:

PARCEL 8, LLC

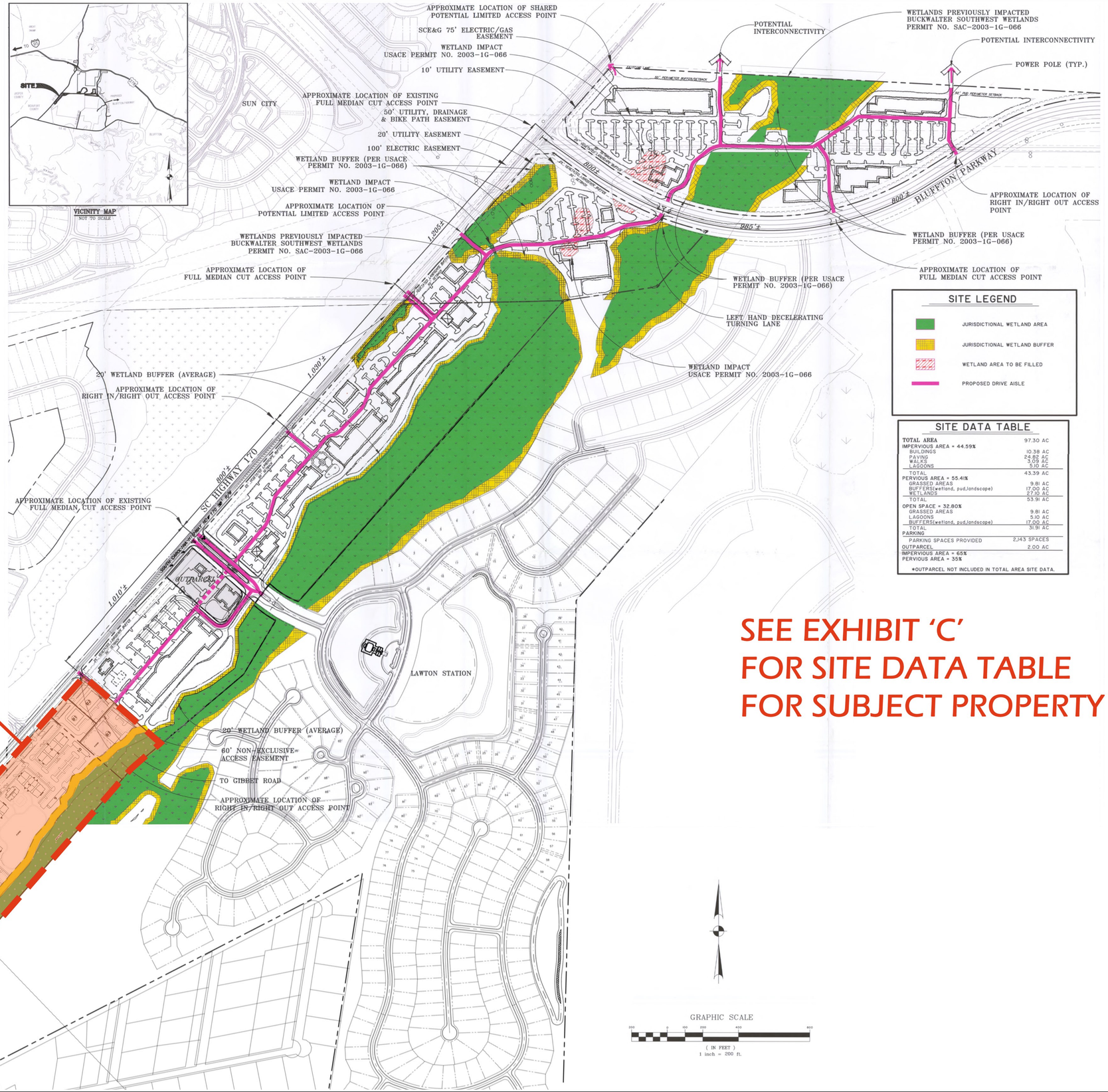
EXHIBIT A

PRELIMINARY DEVELOPMENT PLAN

PREPARED BY:
THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA
WOOD AND PARTNERS, INC.

JOB #18839
DRAWN BY: GLK/BCY
REVISED: JULY 17, 2007
REVISED: JUNE 4, 2007
REVISED: OCTOBER 16, 2006
DATE: AUGUST 29, 2006

ATTACHMENT 4



SITE DATA TABLE

TOTAL AREA	97.30 AC
IMPERVIOUS AREA = 44.59%	
BUILDINGS	10.38 AC
PAVING	24.82 AC
WALKS	3.09 AC
LAGOONS	5.10 AC
TOTAL	43.39 AC
PERVIOUS AREA = 55.41%	
GRASSED AREAS	9.81 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
WETLANDS	27.10 AC
TOTAL	53.91 AC
OPEN SPACE = 32.80%	
GRASSED AREAS	9.81 AC
LAGOONS	5.10 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
TOTAL	31.91 AC
PARKING	
PARKING SPACES PROVIDED	2,143 SPACES
OUTPARCEL	2.00 AC
IMPERVIOUS AREA = 65%	
PERVIOUS AREA = 35%	

*OUTPARCEL NOT INCLUDED IN TOTAL AREA SITE DATA.

SUBJECT PROPERTY

SEE EXHIBIT 'C'
FOR SITE DATA TABLE
FOR SUBJECT PROPERTY

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

AN EXHIBIT OF
BUCKWALTER CROSSROADS
BEING A PORTION OF BUCKWALTER TRACT
THE TOWN OF BLUFFTON
SOUTH CAROLINA

PREPARED FOR:
PARCEL 8, LLC

EXHIBIT A
PRELIMINARY DEVELOPMENT PLAN

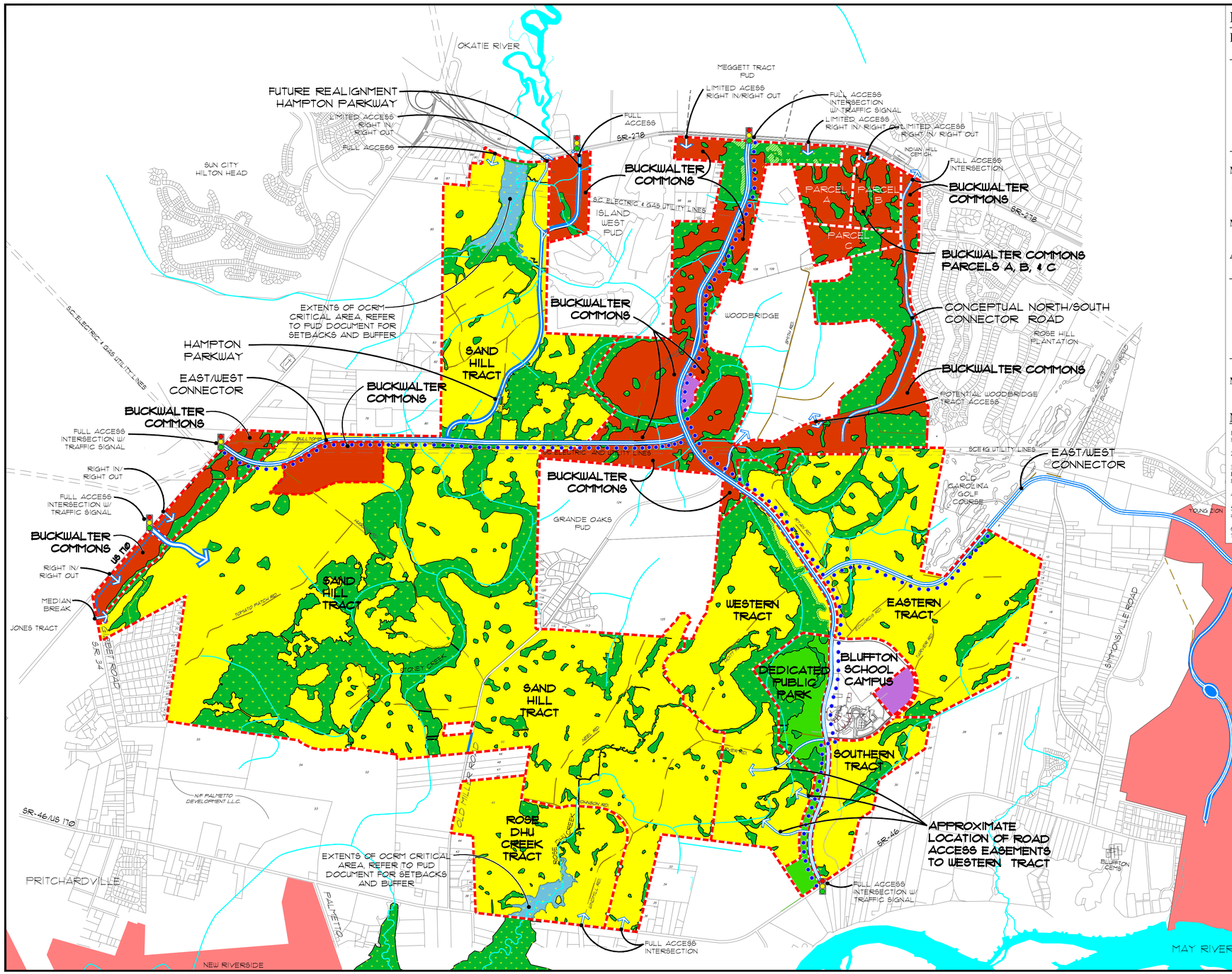
PREPARED BY:
THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA
WOOD AND PARTNERS, INC.

JOB #19020 DRAWN BY: GLK/RCT
REVISED: JULY 12, 2021
REVISED: APRIL 4, 22
REVISED: JULY 29, 2022
DATE: AUGUST 26, 2019

Witmer Jones Keefer Ltd.
landscape architecture
land planning
www.wjkltd.com
23 Promenade Street, Suite 201 ♦ Bluffton, South Carolina ♦ 29910 ♦ ph 843.757.7411

AMENDMENT PREPARED
BY WITMER JONES KEEFER
MARCH 24 2023

ATTACHMENT 5



DEVELOPMENT SUMMARY

DENSITY SUMMARY

LAND USE TRACT	TOTAL ACRES	DWELLING UNITS	DU/ACRE
SAND HILL TRACT	±2911 AC	±4266 DU	±1.4 DU/AC
BUCKWALTER COMMONS	±1161 AC	±2084 DU / 300 HOTEL UNITS	±1.8 DU/AC
EASTERN TRACT	±682 AC	±918 DU	±1.3 DU/AC
WESTERN TRACT	±931 AC	±1335 DU	±1.3 DU/AC
SOUTHERN TRACT	±149 AC	±311 DU	±2.2 DU/AC
ROSE DHU TRACT	±325 AC	±118 DU	±0.4 DU/AC
PUBLIC/ INSTITUTIONAL	±28 AC	±0 DU	±0 DU/AC
DEDICATED PUBLIC PARK	±143 AC	±0 DU	±0 DU/AC
PUBLIC ROAD RIGHT-OF-WAY	±198 AC	±0 DU	±0 DU/AC
TIMBER MANAGEMENT	±17 AC	±0 DU	±0 DU/AC
TOTAL	±6201 AC	±8642 DU	±1.4 DU/AC

MAXIMUM ALLOWED DENSITY

SINGLE FAMILY RESIDENTIAL	8 DU/AC
MULTI-FAMILY RESIDENTIAL	16 DU/AC

HOTEL/INN/BED AND BREAKFAST, INTERVAL OWNERSHIP/TIME SHARING, INSTITUTIONAL PROPERTIES OR GUESTHOUSE SHALL NOT HAVE A SPECIFIED DWELLING UNIT PER ACRE MAXIMUM.

MAXIMUM DWELLING UNITS

DU COUNT SHALL NOT EXCEED 8,642 DU

ACREAGE SUMMARY

LAND USE TRACT	TOTAL ACRES	UPLAND ACRES	WETLAND ACRES
SAND HILL TRACT	±2911AC	±2226 AC	±745 AC
BUCKWALTER COMMONS	±1161 AC	±751 AC	±414 AC
EASTERN TRACT	±682 AC	±567 AC	±115 AC
WESTERN TRACT	±931 AC	±375 AC	±556 AC
SOUTHERN TRACT	±149 AC	±119 AC	±26 AC
ROSE DHU TRACT	±325 AC	±284 AC	±41 AC
PUBLIC/ INSTITUTIONAL	±28 AC	±28 AC	±0 AC
DEDICATED PUBLIC PARK	±143 AC	±103 AC	±40 AC
PUBLIC ROAD RIGHT-OF-WAY	±198 AC	±169 AC	±29 AC
TIMBER MANAGEMENT	±17 AC	±17 AC	±0 AC
TOTAL	±6201 AC	±4641 AC	±1566 AC

MAX. ALLOWABLE ACRES BY LAND USE

BUSINESS PARK/GENERAL & NEIGHBORHOOD COMMERCIAL	±12.99 UPLAND ACRES

NOTES FOR DEVELOPMENT SUMMARY:

1. All acreage are approximate, as is appropriate for the conceptual level of the plan, and are subject to change when Land Use Tract boundaries change. These changes will be in accordance with the Buckwalter Planned Unit Development.

2. Wetlands shown are field surveys and are certified by the US Army Corps of Engineers.

3. The "Development Summary" is not the comprehensive listing of all allowable land uses allowed in the Buckwalter Planned Unit Development District. See the Buckwalter Planned Unit Development District document that accompanies this plan for a comprehensive listing of allowed land uses.

4. Base information (rivers, creeks, roads, etc) was generated from the USGS Pritchardville Quadrangle Sheet.

5. A 50' Leisure trail easement shall be located in the 50' buffer and/or road right-of-ways on the Buckwalter parkway and the east-west connector as indicated on this concept master plan. A 20' utility easement shall be allowed within the 50' leisure trail easement.

6. Access points shown on this plan have been approved by the Town of Bluffton in concept; however the South Carolina Department of Transportation (SCDOT) and Beaufort County shall approve final location(s) and requirements.

CONCEPT MASTER PLAN

For:

Buckwalter

PLANNED UNIT DEVELOPMENT

Bluffton, South Carolina

Prepared For:

Branigar Organization

Savannah, Georgia

BRANIGAR

The Branigar Organization, Inc.

A company of INTERNATIONAL PAPER

Prepared By:

Wood+Partners, Inc.
Landscape Architects/Land Planners
Hilton Head Island, South Carolina
Thomas & Hutton Engineering Co.
Savannah, Georgia

LEGEND:

- ROADS / PUBLIC RIGHT-OF-WAY
- INTERSECTION/ ACCESS POINTS
- EXISTING DIRT ROADS
- STREAMS / WATER CHANNELS
- LAND USE TRACT LIMIT
- LEISURE TRAIL

PUD LAND USE AREAS

- RESIDENTIAL
- COMMERCIAL
- PUBLIC/INSTITUTIONAL
- WETLANDS
- TIMBER MANAGEMENT
- OCRM CRITICAL AREA
- DEDICATED PUBLIC PARK

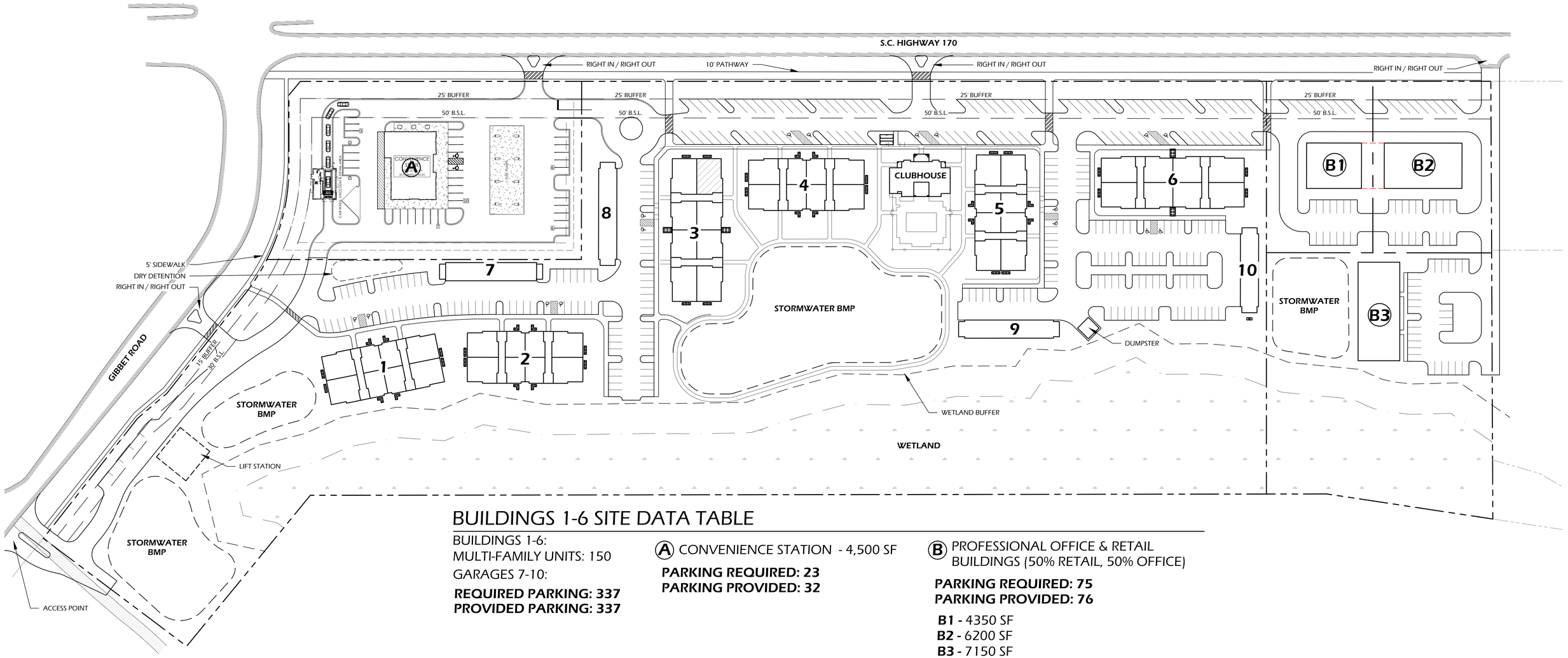
MILEAGE 0 1/2 1

0 600 1200 2400 3600 4800

NORTH

DATE: January 2000
REVISED: March 2000
REVISED: Sept. 2001 - To establish final alignment for East-West Connector (Bluffton Pkwy.)
REVISED: October 2001 - To provide leisure trail along East / West Connector
REVISED: May 2002 - Property addition to the Sand Hill Tract
REVISED: August 2002 - Property addition to the Sand Hill Tract
REVISED: October 2004 - Property addition to Sand Hill Tract & Buckwalter Commons
REVISED: December 2004 - Property addition to the Sand Hill Tract
REVISED: May 2005 - Hampton Parkway addition
REVISED: July 2005 - Graves Tract Addition
REVISED: October 2005 - Rose Dhu Phase 5 addition
REVISED: January 2006 - Jacoby addition
REVISED: May 2007 - Buckwalter Commons
REVISED: November 2007 - Willow Run Tract
REVISED: February 2008 - Unit Counts
REVISED: March 23, 2009 C-1 278 Parcel
REVISED: November 2011 - Buckwalter 10th Amendment - Robertson Site
REVISED: February 2012 - Modified Bluffton Parkway Phase 5B Alignment
REVISED: October 2012 - Modified Sand Hill Tract/Buckwalter Commons Connector Tract to add 70 Acres into Buckwalter Commons

MASTER PLAN AMENDMENT



BUILDINGS 1-6 SITE DATA TABLE

BUILDINGS 1-6:
MULTI-FAMILY UNITS: 150
GARAGES 7-10:

REQUIRED PARKING: 337
PROVIDED PARKING: 337

Ⓐ CONVENIENCE STATION - 4,500 SF

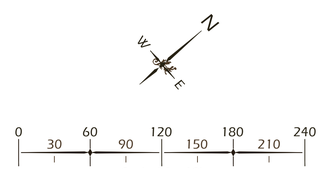
PARKING REQUIRED: 23
PARKING PROVIDED: 32

Ⓑ PROFESSIONAL OFFICE & RETAIL BUILDINGS (50% RETAIL, 50% OFFICE)

PARKING REQUIRED: 75
PARKING PROVIDED: 76

B1 - 4350 SF
B2 - 6200 SF
B3 - 7150 SF

TOTAL SITE AREA:	21.922 AC
TOTAL IMPERVIOUS AREA:	24 %
TOTAL PERVIOUS AREA:	76 %



MAY 2023

PROJECT NO.: XXXXX.XX

Witmer Jones Keefer Ltd. / 23 Promenade St., Suite 201, Bluffton, SC. 29910 / ph: (843) 757.7411 / www.wjkltd.com

PARCEL B-1

HIGHWAY 170 AND GIBBET ROAD
BLUFFTON, SOUTH CAROLINA

© 2022 WJK LTD.
PLAN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO CHANGE.
THIS SHEET TO SCALE AT: 24"X36"

Witmer Jones Keefer Ltd.
landscape architecture
land planning

MASTER PLAN AMENDMENT
FOR:
BUCKWALTER CROSSROADS

TOWN OF BLUFFTON,
SOUTH CAROLINA

PREPARED FOR:
MILLSTONE VENTURES LLC

JANUARY 2023
REVISED APRIL 18TH 2023

Prepared By:
Witmer Jones Keefer, Ltd.

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List of Exhibits

Title	Exhibit
1. Existing Buckwalter Crossroads Master Plan	A
2. Vicinity Map/ Survey	B
3. Master Plan Amendment	C
4. Water Master Plan	D
5. Sewer Master Plan	E
6. Stormwater Master Plan	F
7. Topographic Data	G
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9. Buckwalter Concept Master Plan (dated February 2020)	I
10. Property Deed	J
11. Tree Survey	K
12. Crossroads & Amendment Combination	L
13. Traffic Impact Analysis	M

Project Team

Owner:	Millstone Ventures LLC
Land Planning & Architecture:	
Witmer Jones Keefer, Ltd	Brian Witmer Ashleigh Keaney
Engineering:	
Ward Edwards	Willy Powell
Legal:	
Burr & Forman	Walter Nestor

Master Plan Amendment Narrative

I. Project Introduction and Overview

This application is for a Master Plan Amendment approval to Buckwalter Crossroads Master Plan (Exhibit A). Parcel B-1 is property being added which is 21.92 Acres (Exhibit C), located within the Buckwalter Planned Unit Development. This application is submitted under Section 5.8.8 of the Town of Bluffton Planned Development Ordinance, and the Buckwalter PUD adopted by the Town in January 2000. The Buckwalter Crossroad Master Plan modification includes the addition of 16.02 residential and 5.9 acres of commercial uses.

The Town of Bluffton approved the Concept Plan and a Development Agreement for the Buckwalter PUD in January 2000. The Concept Plan defines the allowed land uses in the various areas of the Buckwalter PUD. The documents also define the development standards, which govern all development activity within the Buckwalter Crossroads Master Plan, including Parcel B1.

This written narrative, together with all exhibits attached hereto, constitutes the full application, and upon approval, shall constitute the official Buckwalter Crossroads Master Plan Amendment.

II. Existing Conditions

The applicant, Witmer Jones Keefer, Ltd. submits the application herein as an agent of the property owner, Millstone.

This applicant seeks final approval of the Master Plan Amendment based on the conditions approved under the Buckwalter PUD, and the matters contained in this application. The attached Exhibits provide detailed information regarding the existing conditions of the property. These items include:

A. Survey

The boundary survey plat (Exhibit B) of the property contains the following information:

1. Vicinity Map
2. Boundary and Dimensions
3. Existing Easements
4. Existing Roads
5. Existing Drainage Ways
6. Property Owners of Adjacent Properties

B. Wetlands Verification

A wetland impacts determination was issued on April 29, 2022. (Exhibit H)

C. Topography

1. Topographic Data is shown on (Exhibit G).

D. Land Cover

Parcel B1 is comprised of planted pine and delineated wetland areas. The preserved wetland areas are predominantly pines, mixed hardwoods, maple, and bay trees.

E. Conceptual Wastewater Collection Master Plan

1. The existing Sanitary Sewer Collection System is provided by BJWSA. (Exhibit E)

F. Conceptual Water Distribution Master Plan

1. Existing Water Distribution System is provided by BJWSA. (Exhibit D)

III. Development Master Plan

The project will be developed in accordance with the Buckwalter PUD, dated February 2020 (Exhibit I). The final location of roads, lagoons, open spaces, buildings, parking, and other elements may vary at the time of Development Permit Applications. The plan demonstrates a potential arrangement of land uses, road corridors and uses. The final layout will vary based on market conditions and environmental constraints. The property will be accessed from two existing locations: SC Highway 170 (Okatie Highwa7) and Gibbet Road.

A. Site Design and Development Standards

Site design standards shall be as set forth under the Buckwalter PUD and Development Agreement. The applicant intends to responsibly exercise the design functions entrusted to the applicant as the private developer under the PUD and Development Agreement.

B. Stormwater Management

Development areas will be designed to meet the requirements of the Town of Bluffton Unified Development Ordinance and Stormwater Design Manual (SWDM), to include the Southern Lowcountry Stormwater Ordinance & Design Manual.

C. Utility Services

1. Potable Water Distribution

   Potable Water will be provided by Beaufort–Jasper Water & Sewer Authority (BJWSA). Existing water mains, located along both Gibbet Road and SC170, will serve the parcels. This water main will provide adequate flow to support this project. (Exhibit D)

2. Wastewater Collection

   Wastewater Collection will be provided by a combination of gravity sewers and a pumping station within the development area. The wastewater will be collected and pumped to an existing wastewater facility owned and operated by BJWSA. Development outparcels will tie into the existing system as determined at time of future development plan submittal. (Exhibit E)

3. Power Supply and Service

   This tract is serviced by Palmetto Electric. Service will be extended as development progresses. PUD Master Plan approval does not amend any rights provided to a landowner by the Public Service Commission or South Carolina.

4. Telecommunication Service

   This tract is serviced by Hargray. The telecommunications infrastructure will include voice, data, and video facilities. Service will be extended and

activated as development progresses. Master Plan approval does not amend any rights provided to a landowner or telecommunications provider as granted by the Public Service Commission.

5. Fire Protection

The community is in the Bluffton Township Fire District (BTFD) jurisdiction. The water supply system will be designed to provide flow and pressure for fire protection.

D. Proposed Streets

Access points will be coordinated with Beaufort County and South Carolina Department of Transportation (SCDOT) at time of Development Plan review.

Roads and Right of Ways outside of the Beaufort County Frontage roads may be privately owned and maintained by the Property Owner's Association, or other entity assigned with the legal responsibility. Roadways, upon mutual agreement between the Town of Bluffton and the Owner, Property Owners Association, or other entity assigned with the legal responsibility, may be transferred to the Town of Bluffton upon completion. Acceptance of these roads will be based on Town of Bluffton requirements.

E. Open Space and Pedestrian connections

The proposed parcels will connect internal sidewalks to public walkways.

F. Ownership and Maintenance of Common Areas and Utilities

1. Common Areas

The Common Areas, which include easements, open space, sidewalks, etc., will be owned by the Property Owners Association or some other legal entity, established in the Covenants and Restrictions. This ownership will include the maintenance of facilities, lagoons and drainage on the property. Lagoon access and maintenance easements may be provided to allow lagoon maintenance. Fees will be assessed from all property owners to provide funding for operation and maintenance of common areas. In some cases, individual elements of the overall stormwater retention and drainage system may be constructed on individually owned development sites, but all functioning elements will be subject to master covenants, including easements and maintenance rights, which will assure the ability and means to maintain the system in perpetuity.

No public lands or methods of dedication and access are proposed.

2. Utilities

Beaufort-Jasper Water & Sewer Authority will own and operate the water and sewer facilities necessary for this project. Electrical power facilities will be owned and operated by Palmetto Electric, or other provider as approved by the Public Service Commission.

IV. Development Rights and Assignment

The Development Agreement states the Owner is required to notify the Town when Development Rights are transferred to a Developer, including the name and address of such Developer, the location and number of acres transferred, the residential density transferred, the commercial acreage transferred, and other relevant information.

V. Development Approvals within Parcel B1

Development Approval applications must meet the application standards of the Bluffton Development Standards Ordinance, approved under the Buckwalter Concept Plan Zoning Approval, and further such applications must meet all standards that are set forth in this Master Plan approval and any applicable land use covenants. Development that meets these specified conditions shall be approved, upon proper application to the Town. Any ambiguities or inconsistencies shall be governed by the hierarchy of applicable standards established under the Concept Plan approval, as set forth under Attachment I of the Concept Plan approval. Any development proposal, which demonstrates compliance with these standards, shall be approved.

Lisa Sulka
Mayor

Larry Toomer
Mayor Pro Tempore

Stephen Steese
Town Manager

Council Members
Fred Hamilton
Dan Wood
Bridgette Frazier

Kimberly Gammon
Town Clerk

March 24, 2022

Burr & Forman LLP
C/O Walter Nester
Shelter Cove Executive Park
23-B Shelter Cove Lane, Suite 400
Hilton Head Island, SC 29928
wnester@burr.com

TRANSMITTED VIA ELECTRONIC MAIL

Re: Millstone Management, LLC: Purchase of Parcels in Buckwalter Crossroads

Dear Mr. Nester:

This correspondence is in response to your request for a formal interpretation of the Development Agreement for Buckwalter Tract between the Town of Bluffton and SP Forests L.L.C. and Buckwalter Crossroads Master Plan, dated August 30, 2006, regarding two proposed uses in Buckwalter Crossroads. More specifically, your client is seeking to purchase and develop a portion of parcel R610-028-000-0921-0000 as a multi-family development and portions of parcels R610-029-000-0610-0000 and R610-029- 000-1708-0000 as mini-warehouse self-storage use.

R610-028-000-0921-0000 (proposed multi-family development)
This parcel is currently not a part of any master plan including the Buckwalter Crossroads Master Plan. The Buckwalter Crossroads Master Plan would need to be amended to include this parcel. The amendment would include amending the site plan (enclosed) to graphically illustrating the proposed multi-family development and update the site data table, and amending the text of the Buckwalter Master Plan, as applicable. The Buckwalter PUD identifies this area as commercial land use including the General Commercial designation that allows multi-family residential development by right.

R610-029-000-0610-0000 and R610-029- 000-1708-0000 (proposed mini-warehouse self-storage)
The Buckwalter Crossroads Master Plan currently includes these two parcels; however, the master plan illustrates a large retail conceptual layout as opposed to a mini-warehouse conceptual layout. The master plan site plan would need to be amended to graphically illustrate the mini-warehouse self-storage conceptual layout as being proposed and amending the text of the Buckwalter Master Plan, as applicable. It should also be noted that while the Buckwalter PUD allows mini-warehouse facilities by right under the General Commercial designation, "mini-warehouse facilities will be limited to a maximum height of 24 feet from finished grade" (Buckwalter PUD, Section 2.D.4.g).

If you have any questions, comments, or I can be of further assistance, please contact me at (843) 540-4582 or dfrazier@townofbluffton.com.

Lastly, the property may be subject to deed restrictions, easements, agreements, restrictive covenants, and/or other recorded documents, which may be discovered through a title search, that are not addressed or confirmed by the Town in this letter.

Sincerely,

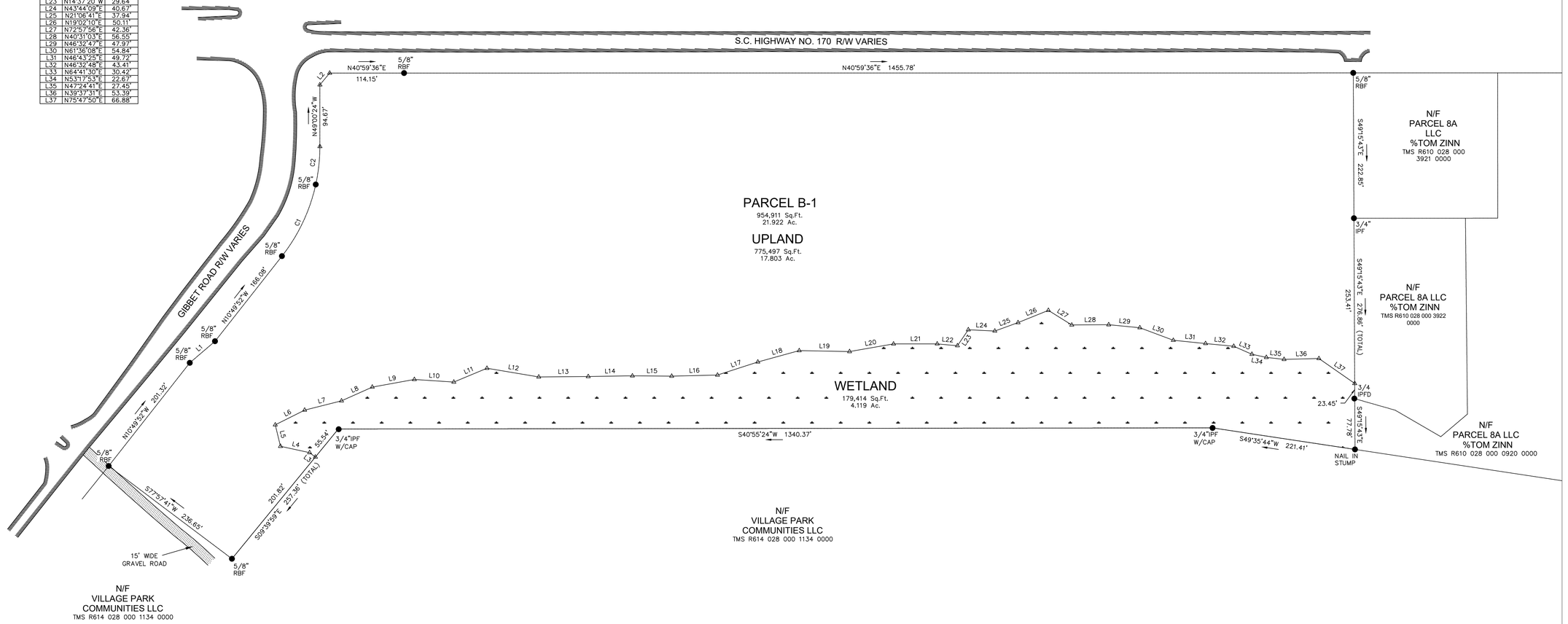


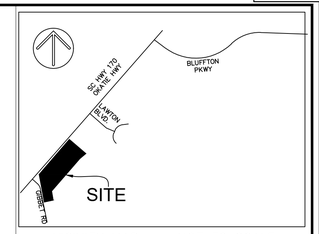
Dan Frazier
Principal Planner
Department of Growth Management

Enclosure: Buckwalter Crossroads Master Plan Site Plan

LINE TABLE		
LABEL	BEARING	DISTANCE
L1	N00°28'44"E	50.99'
L2	N09°12'04"W	23.43'
L3	S78°14'53"W	11.07'
L4	S53°14'48"W	45.78'
L5	N62°32'59"W	33.84'
L6	N14°19'14"E	50.43'
L7	N26°53'51"E	58.32'
L8	N16°52'58"E	51.70'
L9	N30°44'01"E	65.48'
L10	N44°45'13"E	60.67'
L11	N18°27'35"E	55.14'
L12	N50°32'33"E	80.48'
L13	N40°30'14"E	75.84'
L14	N40°04'17"E	67.85'
L15	N41°28'06"E	60.28'
L16	N39°38'00"E	70.22'
L17	N22°59'25"E	65.05'
L18	N25°42'43"E	65.88'
L19	N42°04'18"E	77.14'
L20	N31°09'11"E	68.45'
L21	N40°54'57"E	67.00'
L22	N46°09'43"E	31.10'
L23	N14°37'20"W	29.64'
L24	N43°44'09"E	40.67'
L25	N21°06'41"E	37.94'
L26	N19°09'10"E	50.11'
L27	N72°57'56"E	42.36'
L28	N40°31'03"E	56.55'
L29	N46°39'47"E	47.97'
L30	N61°36'08"E	54.84'
L31	N46°43'25"E	49.72'
L32	N46°32'48"E	43.41'
L33	N64°41'30"E	30.42'
L34	N53°17'53"E	22.67'
L35	N47°24'41"E	27.45'
L36	N39°37'31"E	53.39'
L37	N75°47'50"E	66.88'

CURVE TABLE					
LABEL	RADIUS	ARC	CHORD	CHORD BEARING	DELTA
C1	272.00'	122.51'	121.48'	N23°44'04"W	25°48'23"
C2	272.00'	58.72'	58.61'	N42°49'20"W	12°22'08"





VICINITY MAP NOT TO SCALE

LEGEND

- CALC POINT – CORNER NOT SET
- IPF ● IRON PIPE FOUND
- IPFD ● IRON PIPE FOUND DISTURBED
- RBF ● IRON REBAR FOUND
- EDGE OF PAVEMENT
- △ WETLAND FLAG
- WETLANDS

NOTES

1. THIS PARCEL APPEARS TO LIE IN FLOOD ZONE X. COMMUNITY 450025, MAP NUMBER 45013C0265G.
2. WETLANDS SHOWN AS DELINEATED BY NEWKIRK ENVIRONMENTAL, INC. IN MARCH, 2021.
3. BEARINGS ARE BASED ON SOUTH CAROLINA STATE PLANE GRID (NAD 83).

REFERENCES

1. DEED BOOK: 3270 PAGE: 122
2. DEED BOOK: 2555 PAGE: 1006
3. DEED BOOK: 2042 PAGE: 2177
4. DEED BOOK: 1996 PAGE: 1867
5. DEED BOOK: 3027 PAGE: 2390
6. PLAT BOOK: 100 PAGE: 173
7. PLAT BOOK: 127 PAGE: 105
8. PLAT BOOK: 103 PAGE: 58
9. PLAT BOOK: 109 PAGE: 190
10. PLAT BOOK: 112 PAGE: 134
11. A SET OF CONSTRUCTION PLANS FOR THE WIDENING OF SC HIGHWAY 170. FILE #: 7.036938A BY: THOMAS & HUTTON RPE: DOYLE D. KELLY

PREPARED FOR:
ZINN ASSET MANAGEMENT CORP.

A WETLAND PLAT OF

PARCEL B-1

TAX PARCEL No.
R610 028 000 0921 0000

TOWN OF BLUFFTON
BEAUFORT COUNTY, SOUTH CAROLINA

FIELD WORK:	JLG
FIELD CHECK:	JRW
DRAWN BY:	TGJ
DATE:	09-01-2021
SCALE:	1"=80'
PROJECT No.:	BFT-17327
FILE:	BFT-17327 B1.DWG

PARCEL B-1
ACREAGE CHART

TOTAL UPLAND	775,497 Sq.Ft.	17.803 Ac.
TOTAL WETLAND	179,414 Sq.Ft.	4.119 Ac.
TOTAL ACREAGE	954,911 Sq.Ft.	21.922 Ac.

80 40 0 80 160
GRAPHIC SCALE

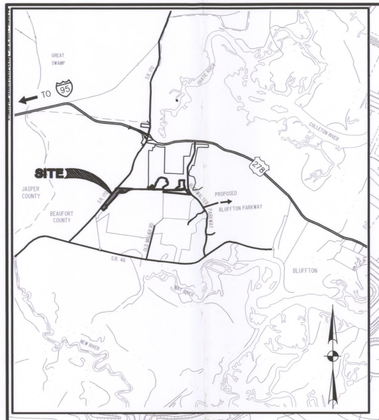
ATLAS SURVEYING INC.
49 BROWN'S COVE ROAD, SUITE #5
RIDGELAND, SC 29936
PHONE: (843) 645-9277
WEBSITE: WWW.ATLASSURVEYING.COM

SOUTH CAROLINA ATLAS SURVEYING BFT LLC No. C05928 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR No. 28139 JEREMY W. REEDER

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN.

JEREMY W. REEDER
S.C.P.L.S. No. 28139



VICINITY MAP
NOT TO SCALE

APPROXIMATE LOCATION OF SHARED POTENTIAL LIMITED ACCESS POINT
SCE&G 75' ELECTRIC/GAS EASEMENT
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
10' UTILITY EASEMENT
APPROXIMATE LOCATION OF EXISTING FULL MEDIAN CUT ACCESS POINT
50' UTILITY, DRAINAGE & BIKE PATH EASEMENT
20' UTILITY EASEMENT
100' ELECTRIC EASEMENT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
APPROXIMATE LOCATION OF POTENTIAL LIMITED ACCESS POINT
WETLANDS PREVIOUSLY IMPACTED BUCKWALTER SOUTHWEST WETLANDS PERMIT NO. SAC-2003-1G-066
APPROXIMATE LOCATION OF FULL MEDIAN CUT ACCESS POINT
20' WETLAND BUFFER (AVERAGE)
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
APPROXIMATE LOCATION OF EXISTING FULL MEDIAN CUT ACCESS POINT
20' WETLAND BUFFER (AVERAGE)
60' NON-EXCLUSIVE ACCESS EASEMENT
TO GIBBET ROAD
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
POTENTIAL INTERCONNECTIVITY
WETLANDS PREVIOUSLY IMPACTED BUCKWALTER SOUTHWEST WETLANDS PERMIT NO. SAC-2003-1G-066
POTENTIAL INTERCONNECTIVITY
POWER POLE (TYP.)
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
APPROXIMATE LOCATION OF FULL MEDIAN CUT ACCESS POINT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
LEFT HAND DECELERATING TURNING LANE
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
LAWTON STATION
BLUFFTON PARKWAY
SC HIGHWAY 170
SOUTH CAROLINA HIGHWAY NO. 170 80' R/W
OUTPARCEL
800'±
1,205'±
1,030'±
1,010'±
985'±
50' PERIMETER BUFFER/SETBACK
50' PUD PERIMETER SETBACK
35' VEGETATED LANDSCAPE BUFFER
30' SETBACK

SITE LEGEND

- JURISDICTIONAL WETLAND AREA
- JURISDICTIONAL WETLAND BUFFER
- WETLAND AREA TO BE FILLED
- PROPOSED DRIVE AISLE

SITE DATA TABLE

TOTAL AREA	97.30 AC
IMPERVIOUS AREA = 44.59%	
BUILDINGS	10.38 AC
PAVING	24.82 AC
WALKS	3.09 AC
LAGOONS	5.10 AC
TOTAL	43.39 AC
PERVIOUS AREA = 55.41%	
GRASSED AREAS	9.81 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
WETLANDS	27.10 AC
TOTAL	53.91 AC
OPEN SPACE = 32.80%	
GRASSED AREAS	9.81 AC
LAGOONS	5.10 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
TOTAL	31.91 AC
PARKING	
PARKING SPACES PROVIDED	2,143 SPACES
OUTPARCEL	2.00 AC
IMPERVIOUS AREA = 65%	
PERVIOUS AREA = 35%	

*OUTPARCEL NOT INCLUDED IN TOTAL AREA SITE DATA.

***AMENDMENT NOT INCLUDED IN TOTAL AREA. SEE SITE DATA ON EXHIBIT 'C'**

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

AN EXHIBIT OF

BUCKWALTER CROSSROADS

BEING A PORTION OF BUCKWALTER TRACT

THE TOWN OF BLUFFTON
SOUTH CAROLINA

PREPARED FOR:
PARCEL 8, LLC

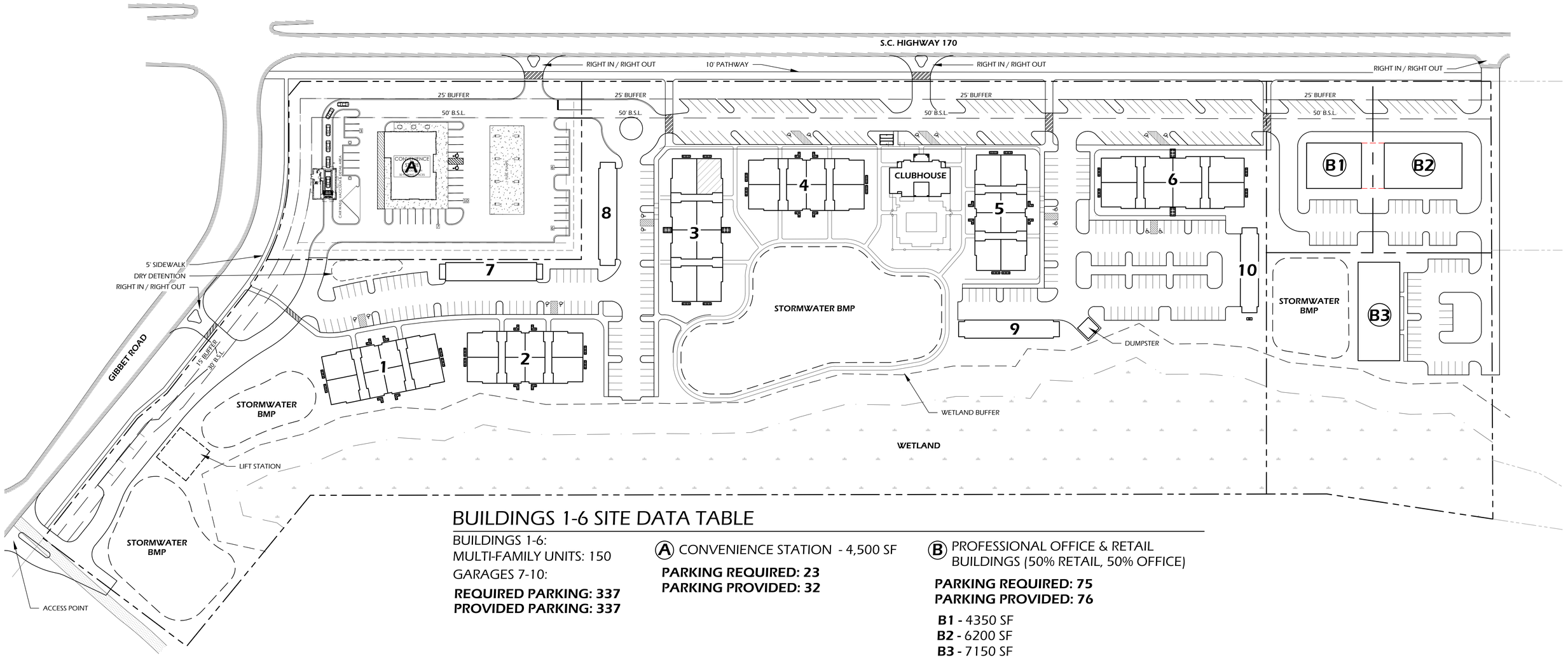
EXHIBIT A

PRELIMINARY DEVELOPMENT PLAN

PREPARED BY:
THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA
WOOD AND PARTNERS, INC.

JOB #19839 DRAWN BY: GLK/SCY
REVISED: JULY 17, 2007
REVISED: JUNE 5, 2007
REVISED: OCTOBER 19, 2006
DATE: AUGUST 25, 2006

MASTER PLAN AMENDMENT



BUILDINGS 1-6 SITE DATA TABLE

BUILDINGS 1-6:
MULTI-FAMILY UNITS: 150
GARAGES 7-10:

REQUIRED PARKING: 337
PROVIDED PARKING: 337

Ⓐ CONVENIENCE STATION - 4,500 SF

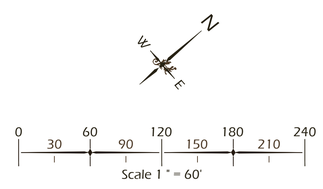
PARKING REQUIRED: 23
PARKING PROVIDED: 32

Ⓑ PROFESSIONAL OFFICE & RETAIL BUILDINGS (50% RETAIL, 50% OFFICE)

PARKING REQUIRED: 75
PARKING PROVIDED: 76

B1 - 4350 SF
B2 - 6200 SF
B3 - 7150 SF

TOTAL SITE AREA:	21.922 AC
TOTAL IMPERVIOUS AREA:	24 %
TOTAL PERVIOUS AREA:	76 %



MAY 2023

PROJECT NO.: XXXXX.XX

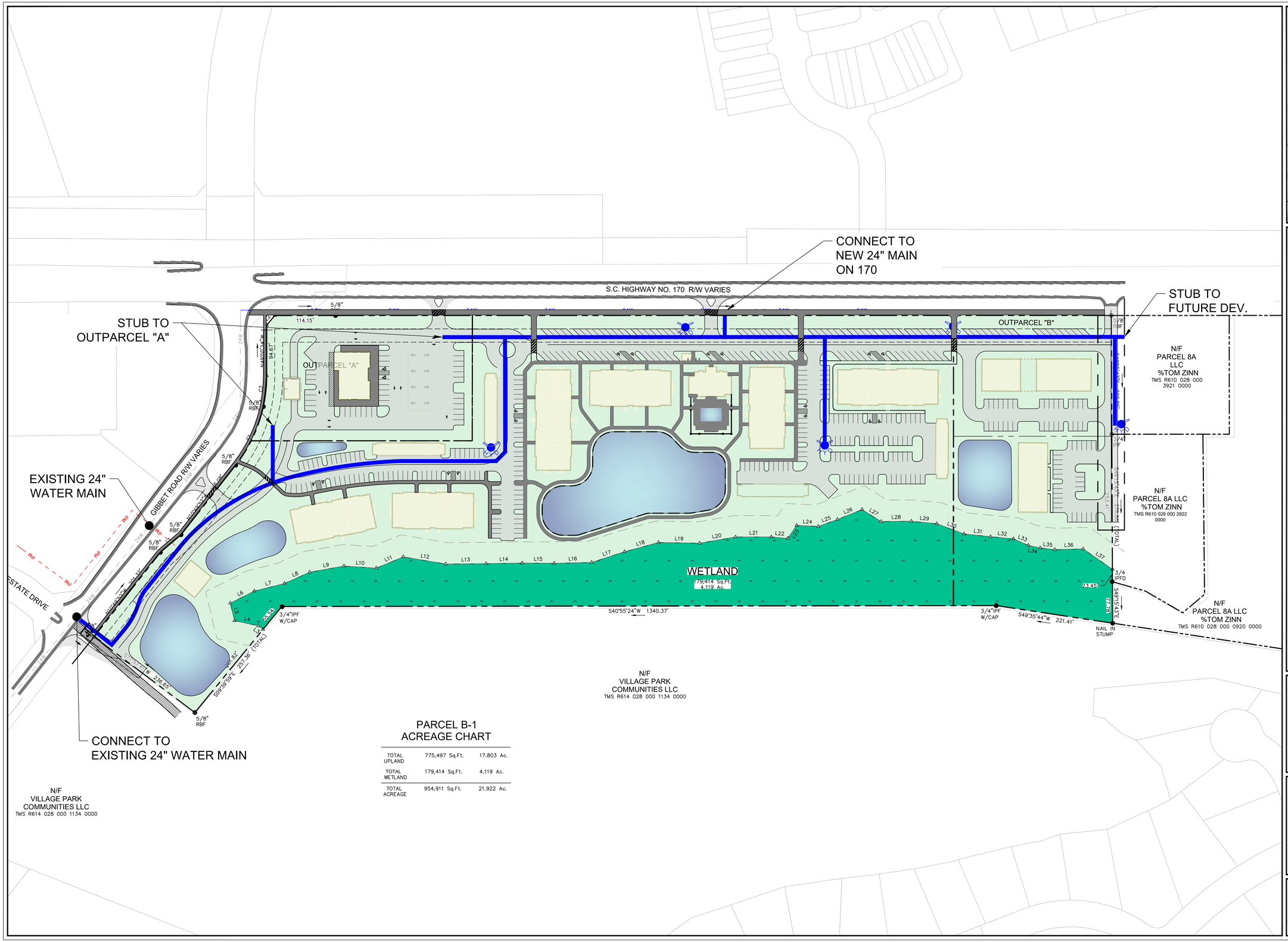
Witmer Jones Keefer Ltd. / 23 Promenade St., Suite 201, Bluffton, SC. 29910 / ph: (843) 757.7411 / www.wjkltd.com

PARCEL B-1

HIGHWAY 170 AND GIBBET ROAD
BLUFFTON, SOUTH CAROLINA

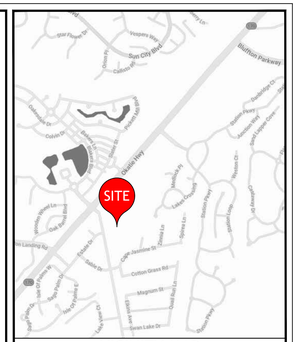
© 2022 WJK LTD.
PLAN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO CHANGE.
THIS SHEET TO SCALE AT: 24"X36"

Witmer Jones Keefer Ltd.
landscape architecture
land planning



PARCEL B-1
ACREAGE CHART

TOTAL UPLAND	775,497 Sq.Ft.	17.803 Ac.
TOTAL WETLAND	179,414 Sq.Ft.	4.119 Ac.
TOTAL ACREAGE	954,911 Sq.Ft.	21.922 Ac.



VICINITY MAP
Not To Scale

WATER MASTER PLAN
EXHIBIT D

PARCEL B-1 TRACT

TOWN OF BLUFFTON, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT LLC.

WATER LEGEND

PROPOSED WATER MAIN

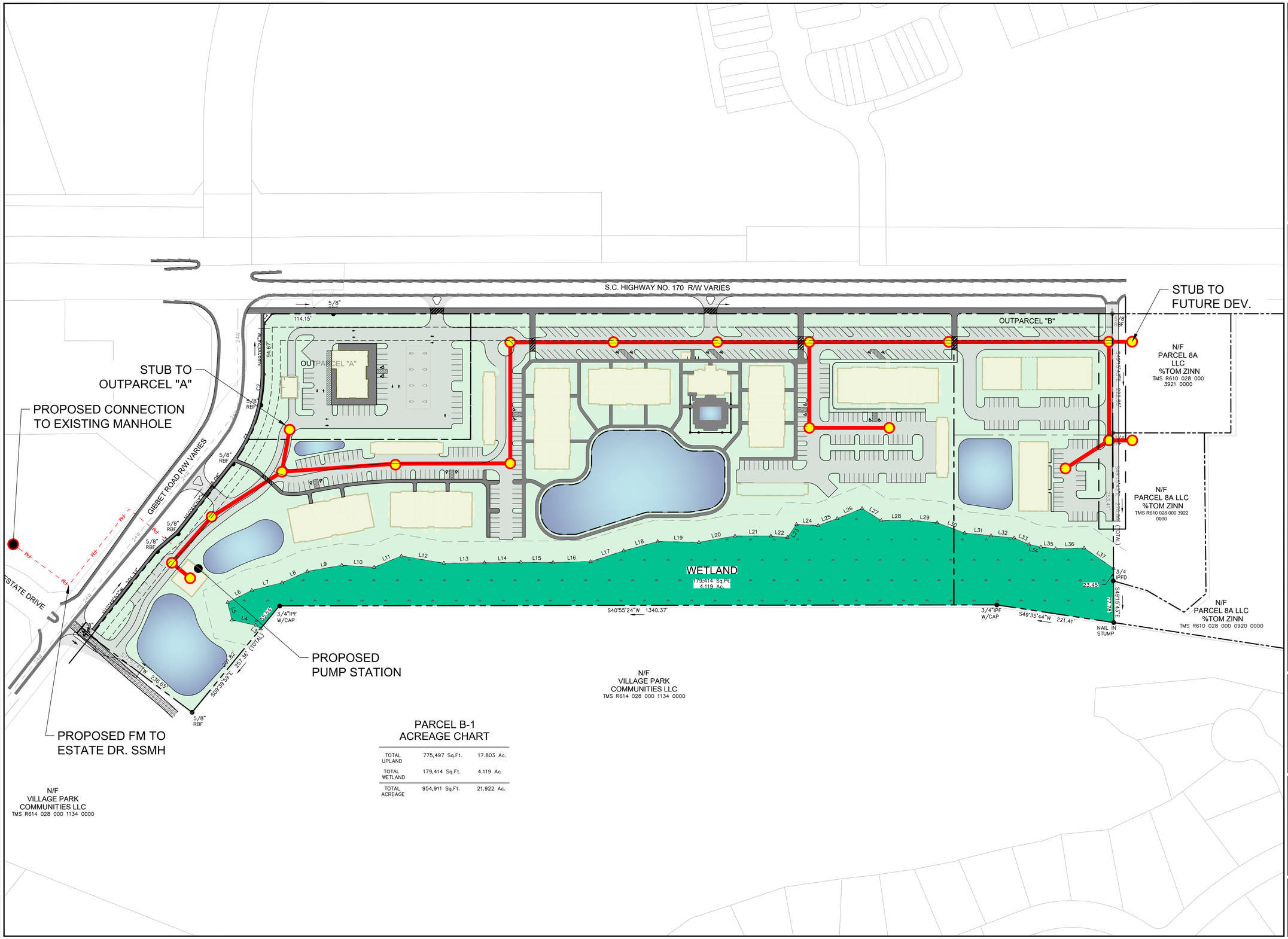
EXISTING WATER MAIN

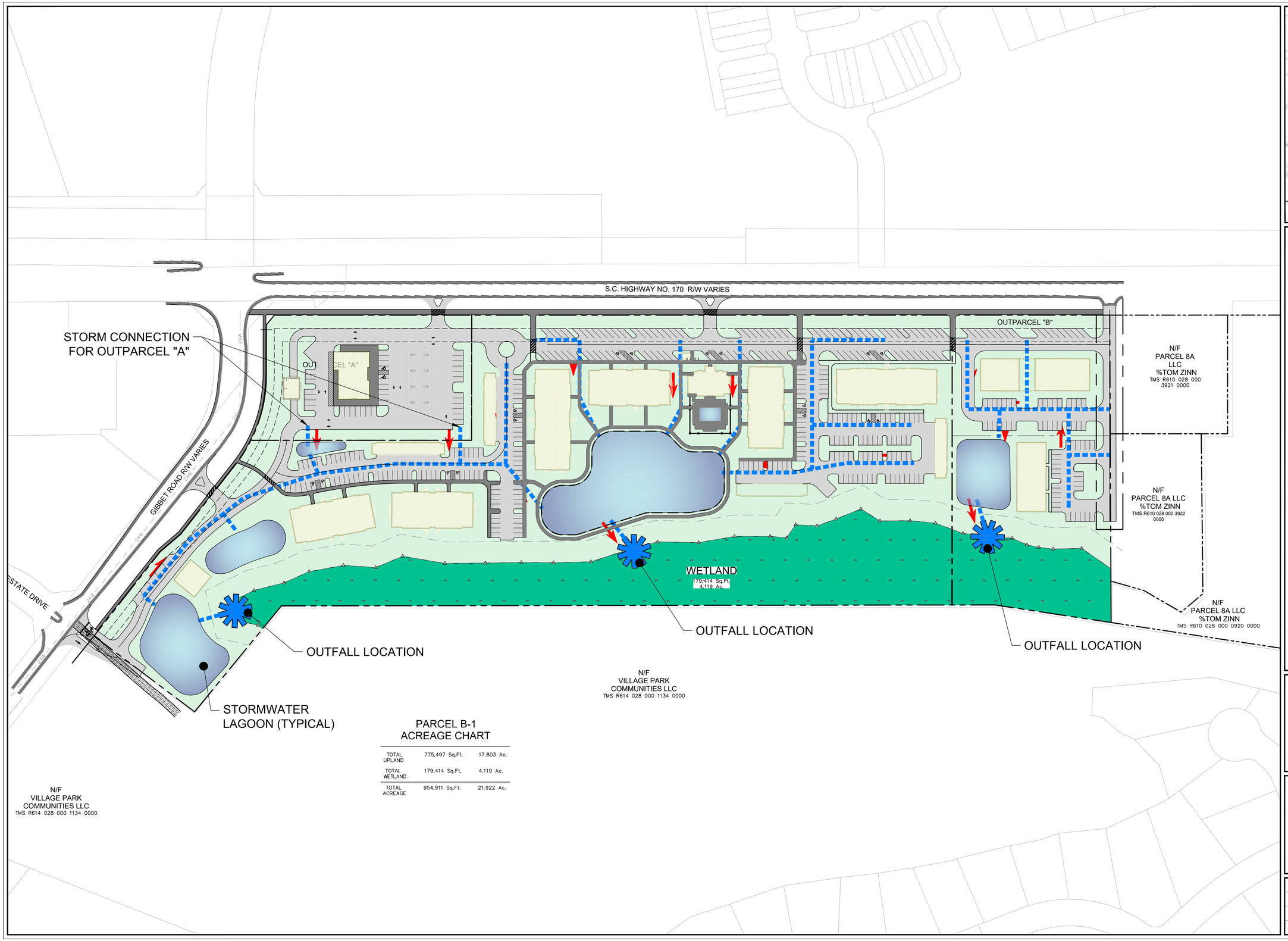
THIS GRAPHIC ILLUSTRATES A GENERAL PLAN OF THE DEVELOPMENT, DOES NOT LIMIT OR BIND THE OWNER/DEVELOPER, AND IS SUBJECT TO CHANGE AND REVISION. DIMENSIONS, BOUNDARIES, AND IMPROVEMENT ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE OWNER/DEVELOPER RESERVES THE RIGHT TO ADJUST FEATURES SUCH AS BUT NOT LIMITED TO LOT LINES, ROADS, LAGOONS, ETC. WHILE MEETING THE INTENT OF THE PDD AND APPROVED BY JURISDICTION OF AUTHORITY.

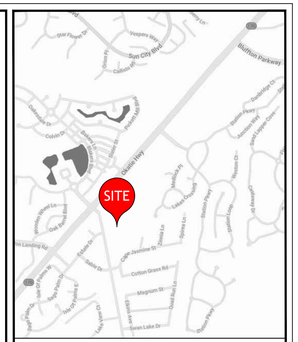
0 80 160 Feet
SCALE: 1" = 80 '

Ward Edwards
ENGINEERING
119C Palmetto Way
P.O. Box 381, Bluffton,
South Carolina 29910
(843) 837-5250
www.WardEdwards.com

PROJECT #:	220137
DATE:	04/18/23
PREPARED BY:	WGP
SHEET NUMBER:	1 OF 1


S.C. HIGHWAY NO. 170 R/W VARIES
STUB TO FUTURE DEV.
OUTPARCEL "B"
OUTPARCEL "A"
STUB TO OUTPARCEL "A"
PROPOSED CONNECTION TO EXISTING MANHOLE
GIBBET ROAD R/W VARIES
ESTATE DRIVE
PROPOSED FM TO ESTATE DR. SSMH
PROPOSED PUMP STATION
WETLAND
179,414 Sq.Ft.
4.119 Ac.
N/F
PARCEL 8A
LLC
%TOM ZINN
TMS R610 028 000 3921 0000
N/F
PARCEL 8A LLC
%TOM ZINN
TMS R610 028 000 3922 0000
N/F
PARCEL 8A LLC
%TOM ZINN
TMS R610 028 000 0920 0000
N/F
VILLAGE PARK
COMMUNITIES LLC
TMS R614 028 000 1134 0000
N/F
VILLAGE PARK
COMMUNITIES LLC
TMS R614 028 000 1134 0000
3/4"IPF W/CAP
3/4"IPF W/CAP
3/4" IPFD
NAIL IN STUMP
S40°55'24"W 1340.37'
S49°35'44"W 221.41'
S49°15'43"W 23.45'
S69°39'39"E 257.38' (TOTAL)
S69°39'39"E 236.65'
114.15'
94.67'
54.44'
23.45'
5/8" RBF
5/8" RBF
5/8" RBF





VICINITY MAP
Not To Scale

STORMWATER MASTER PLAN
EXHIBIT F

PARCEL B-1 TRACT

TOWN OF BLUFFTON, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT LLC.

PARCEL B-1 ACREAGE CHART

TOTAL UPLAND	775,497 Sq.Ft.	17.803 Ac.
TOTAL WETLAND	179,414 Sq.Ft.	4.119 Ac.
TOTAL ACREAGE	954,911 Sq.Ft.	21.922 Ac.

DRAINAGE LEGEND

PROPOSED STORM DRAIN

PROPOSED STORM DRAIN FLOW DIRECTION

PROPOSED STORM OUTLET

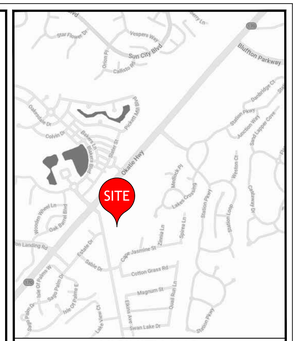
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0 80 160 Feet
SCALE: 1" = 80 '

Ward Edwards ENGINEERING
119C Palmetto Way
P.O. Box 381, Bluffton,
South Carolina 29910
(843) 837-5250
www.WardEdwards.com

PROJECT #:	220137
DATE:	04/18/23
PREPARED BY:	WGP
SHEET NUMBER:	1 OF 1



VICINITY MAP
Not To Scale

TOPOGRAPHIC DATA
EXHIBIT G

PARCEL B-1 TRACT

TOWN OF BLUFFTON, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT LLC.

S.C. HIGHWAY NO. 170 R/W VARIES

N40°59'36"E 1455.78'

N40°59'36"E 114.15'

5/8" RBF

OUTPARCEL "A"

OUTPARCEL "B"

N/F
PARCEL 8A
LLC
%TOM ZINN
TMS R610 028 000
3921 0000

S49°15'43"E 222.85'

3/4" IPF

S49°15'43"E 253.41'

S49°15'43"E 276.86' (TOTAL)

N/F
PARCEL 8A LLC
%TOM ZINN
TMS R610 028 000 3922
0000

GIBBET ROAD R/W VARIES

N10°29'52"W 166.08'

N40°10'49"W 201.12'

S77°07'41"W 236.65'

S39°39'59"E 201.82'

S39°39'59"E 252.36' (TOTAL)

R40'

WETLAND
179,414 Sq.Ft.
4.119 Ac.

S40°55'24"W 1340.37'

3/4"IPF
W/CAP

3/4"IPF
-W/CAP

S49°35'44"W 221.41'

NAIL IN
STUMP

3/4"
IPFD

23.45'

S49°15'43"E 77.78'

N/F
PARCEL 8A LLC
%TOM ZINN
TMS R610 028 000 0920 0000

N/F
VILLAGE PARK
COMMUNITIES LLC
TMS R614 028 000 1134 0000

N/F
VILLAGE PARK
COMMUNITIES LLC
TMS R614 028 000 1134 0000

EXISTING 60-FT
ACCESS EASEMENT

PARCEL B-1
ACREAGE CHART

TOTAL UPLAND	775,497 Sq.Ft.	17.803 Ac.
TOTAL WETLAND	179,414 Sq.Ft.	4.119 Ac.
TOTAL ACREAGE	954,911 Sq.Ft.	21.922 Ac.

THIS GRAPHIC ILLUSTRATES A GENERAL PLAN OF THE DEVELOPMENT. DOES NOT LIMIT OR BIND THE OWNER/DEVELOPER, AND IS SUBJECT TO CHANGE AND REVISION. DIMENSIONS, BOUNDARIES, AND IMPROVEMENT ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE OWNER/DEVELOPER RESERVES THE RIGHT TO ADJUST FEATURES SUCH AS BUT NOT LIMITED TO LOT LINES, ROADS, LAGOONS, ETC. WHILE MEETING THE INTENT OF THE PDD AND APPROVED BY JURISDICTION OF AUTHORITY.

N W E S

0 80 160 Feet

SCALE: 1" = 80 '

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119C Palmetto Way
P.O. Box 381, Bluffton,
South Carolina 29910
(843) 837-5250
www.WardEdwards.com

PROJECT #:	220137
DATE:	04/18/23
PREPARED BY:	WGP
SHEET NUMBER:	1 OF 1

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT
69A HAGOOD AVENUE
CHARLESTON, SC 29403-5107

April 29, 2022

Regulatory Division

Mr. Asher Howell
Newkirk Environmental, Inc.
73 Sea Island Parkway, Ste 20
Beaufort, South Carolina 29907
asher@newkirkenv.com

Dear Mr. Howell:

This is in response to your request for a preliminary jurisdictional determination (PJD) that is part of an overall project known as Zinn - Gibbet Road Project. Based on information submitted to the U.S. Army Corps of Engineers (Corps) we have determined there may be waters of the United States, including wetlands on your parcel located at the following:

Project Number:	SAC-2021-00635
County:	Beaufort County
Project/Site Size:	22 Acres
Latitude:	32.2568441523638°
Longitude:	-80.9651686824472°
Project/Site Location:	Highway 170 and Gibbet Road, Bluffton, SC 29909
Waters (Acreage/Linear Feet):	4.2 Acres

A copy of the PJD form and the plat dated September 1, 2021, and titled A WETLAND PLAT OF PARCEL B-1, is enclosed. Please carefully read this form, then sign and return a copy to the project manager at the following Sean.M.Dillard@usace.army.mil within 30 days from the date of this notification.

Please be advised a Department of the Army permit will be required for regulated work in all areas which may be waters of the United States, as indicated in this PJD. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a PJD will treat all waters and wetlands, which would be affected in any way by the permitted activity on the site, as if they are jurisdictional waters of the United States. Should you desire an approved Corps determination, one will be issued upon request.

You are cautioned that work performed in areas which may be waters of the United States, as indicated in the PJD, without a Department of the Army permit could subject you to enforcement action.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

If you submit a permit application as a result of this PJD, include a copy of this letter and the depiction as part of the application. Not submitting the letter and depiction will cause a delay while we confirm a PJD was performed for the proposed permit project area. Note that some or all of these areas may be regulated by other state or local government entities, and you should contact the South Carolina Department of Health and Environmental Control, Bureau of Water and/or Office of Ocean and Coastal Resource Management, to determine the limits of their jurisdiction.

In all future correspondence, please refer to file number SAC-2021-00635. A copy of this letter is forwarded to State and/or Federal agencies for their information. If you have any questions, please contact Sean M. Dillard, Project Manager, at (843) 329-8046, or by email at Sean.M.Dillard@usace.army.mil.

Sincerely,

Jeremy Kinney

Jeremy Kinney
Project Manager

Enclosures:
Preliminary Jurisdictional Determination Form
Notification of Appeal Options
A WETLAND PLAT OF PARCEL B-1

Copies Furnished:

Mr. Tom Zinn
Parcel BA LLC
PO Box 1726
Bluffton, South Carolina 29910

SC DHEC - Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201
WQCWetlands@dhec.sc.gov

SC DHEC - OCRM
1362 McMillan Avenue, Suite 400
North Charleston, South Carolina 29405
OCRMPermitting@dhec.sc.gov

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: April 28, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Applicant:
Mr. Tom Zinn
Parcel BA LLC
PO Box 1726
Bluffton, South Carolina 29910

Consultant:
Mr. Asher Howell
Newkirk Environmental, Inc.
73 Sea Island Parkway, Ste 20
Beaufort, South Carolina 29907
asher@newkirkenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: SAC-2021-00635 Zinn - Gibbet Road Project

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: The project is located on Highway 170 and Gibbet Road, Bluffton, SC 29909

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: South Carolina County/parish/borough: Beaufort County City: Bluffton

Center coordinates of site (lat/long in degree decimal format):

Lat.: 32.2568441523638 ° Long.: -80.9651686824472 °

Universal Transverse Mercator: 17

Name of nearest waterbody: Okatee River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: April 28, 2022

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Wetland 1	32.256298	-80.964911	4.12 acres	Wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may*

be" waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: A WETLAND PLAT OF PARCEL B-1 dated 09/21
☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
☒ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report. Rationale:

☐ Data sheets prepared by the Corps:

☐ Corps navigable waters' study:
☐ U.S. Geological Survey Hydrologic Atlas:

☒ USGS NHD data. USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name: USGS Topographic dated 4/22

☐ Natural Resources Conservation Service Soil Survey. Citation:

☒ National wetlands inventory map(s). Cite name: NWI dated 4/22

☐ State/local wetland inventory map(s):
☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): Location dated 4/22
☐ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter:

☒ Other information (please specify): Lidar dated 4/22

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Jeremy Kinney

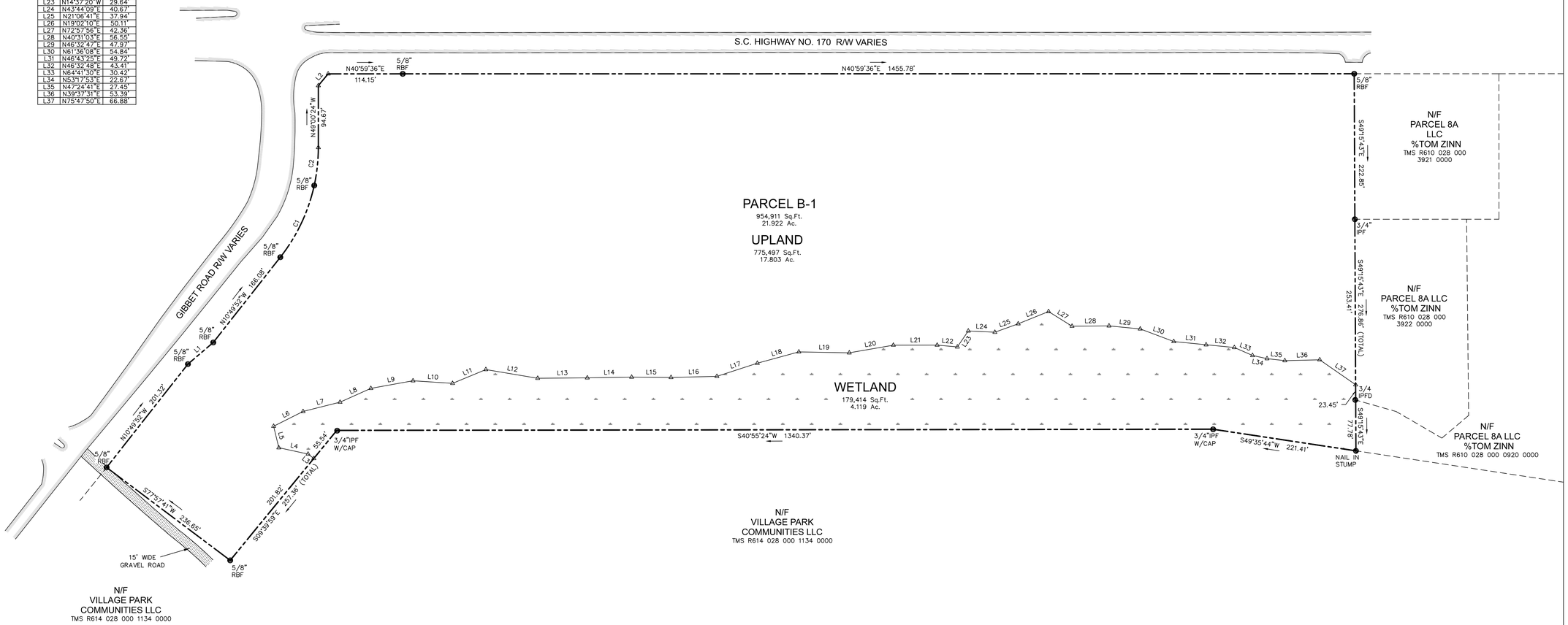
Signature and date of
Regulatory staff member
completing PJD

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining the
signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

LINE TABLE		
LABEL	BEARING	DISTANCE
L1	N00°28'44"E	50.99'
L2	N09°12'04"W	23.43'
L3	S78°14'53"W	11.07'
L4	S53°14'48"W	45.78'
L5	N62°32'59"W	33.84'
L6	N14°19'14"E	50.43'
L7	N26°53'51"E	58.32'
L8	N16°52'58"E	51.70'
L9	N30°44'01"E	65.48'
L10	N44°45'13"E	60.67'
L11	N18°27'35"E	55.14'
L12	N50°32'33"E	80.48'
L13	N40°30'14"E	75.84'
L14	N40°04'17"E	67.85'
L15	N41°28'06"E	60.28'
L16	N39°38'00"E	70.22'
L17	N22°59'29"E	65.05'
L18	N25°42'43"E	65.88'
L19	N42°04'18"E	77.14'
L20	N31°09'11"E	68.45'
L21	N40°54'57"E	67.00'
L22	N46°09'43"E	31.10'
L23	N14°37'20"W	29.64'
L24	N43°44'09"E	40.67'
L25	N21°06'41"E	37.94'
L26	N19°02'10"E	50.11'
L27	N72°57'56"E	42.36'
L28	N40°31'03"E	56.55'
L29	N46°32'47"E	47.97'
L30	N61°36'08"E	54.84'
L31	N46°43'25"E	49.72'
L32	N46°32'48"E	43.41'
L33	N64°41'30"E	30.42'
L34	N53°17'53"E	22.67'
L35	N47°24'41"E	27.45'
L36	N39°37'31"E	53.39'
L37	N75°47'50"E	66.88'

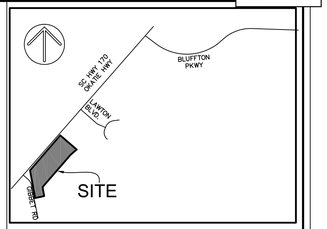
CURVE TABLE					
LABEL	RADIUS	ARC	CHORD	CHORD BEARING	DELTA
C1	272.00'	122.51'	121.48'	N23°44'04"W	25°48'23"
C2	272.00'	98.72'	98.61'	N42°49'20"W	12°22'08"



PARCEL B-1
ACREAGE CHART

TOTAL UPLAND	775,497 Sq.Ft.	17.803 Ac.
TOTAL WETLAND	179,414 Sq.Ft.	4.119 Ac.
TOTAL ACREAGE	954,911 Sq.Ft.	21.922 Ac.

80 40 0 80 160
GRAPHIC SCALE



VICINITY MAP NOT TO SCALE

LEGEND

		CALC POINT – CORNER NOT SET
IPF	●	IRON PIPE FOUND
IPFD	●	IRON PIPE FOUND DISTURBED
RBF	●	IRON REBAR FOUND
		EDGE OF PAVEMENT
	△	WETLAND FLAG
		WETLANDS

NOTES

1. THIS PARCEL APPEARS TO LIE IN FLOOD ZONE X. COMMUNITY 450025, MAP NUMBER 45013C0265G.
2. WETLANDS SHOWN AS DELINEATED BY NEWKIRK ENVIRONMENTAL, INC. IN MARCH, 2021.
3. BEARINGS ARE BASED ON SOUTH CAROLINA STATE PLANE GRID (NAD 83).

REFERENCES

1. DEED BOOK: 3270 PAGE: 122
2. DEED BOOK: 2555 PAGE: 1006
3. DEED BOOK: 2042 PAGE: 2177
4. DEED BOOK: 1996 PAGE: 1867
5. DEED BOOK: 3027 PAGE: 2390
6. PLAT BOOK: 100 PAGE: 173
7. PLAT BOOK: 127 PAGE: 105
8. PLAT BOOK: 103 PAGE: 58
9. PLAT BOOK: 109 PAGE: 190
10. PLAT BOOK: 112 PAGE: 134
11. A SET OF CONSTRUCTION PLANS FOR THE WIDENING OF SC HIGHWAY 170.
    FILE #: 7.036938A
    BY: THOMAS & HUTTON
    RPE: DOYLE D. KELLY

PREPARED FOR:
ZINN ASSET MANAGEMENT CORP.

A WETLAND PLAT OF

PARCEL B-1

TAX PARCEL No.
R610 028 000 0921 0000

TOWN OF BLUFFTON
BEAUFORT COUNTY, SOUTH CAROLINA

FIELD WORK:	JLG
FIELD CHECK:	JRW
DRAWN BY:	TGJ
DATE:	09-01-2021
SCALE:	1"=80'
PROJECT No.:	BFT-17327
FILE:	BFT-17327 B1.DWG

ATLAS
SURVEYING INC.
49 BROWN'S COVE ROAD, SUITE #5
RIDGELAND, SC 29936
PHONE: (843) 645-9277
WEBSITE: WWW.ATLASSURVEYING.COM

SOUTH CAROLINA · ATLAS SURVEYING BFT LLC No. C05928 · CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR No. 28139 JEREMY W. REEDER

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN.

JEREMY W. REEDER
S.C.P.L.S. No. 28139

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant:Asher Howell / Newkirk Environmental	File Number:SAC-2022-00635	Date:April 28, 2022
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer, South Atlantic Division, 60 Forsyth St, SW, Atlanta, GA 30308-8801. This form must be received by the Division Engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD **is not appealable**. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PE

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact the Corps biologist who signed the letter to which this notification is attached. The name and telephone number of this person is given at the end of the letter.

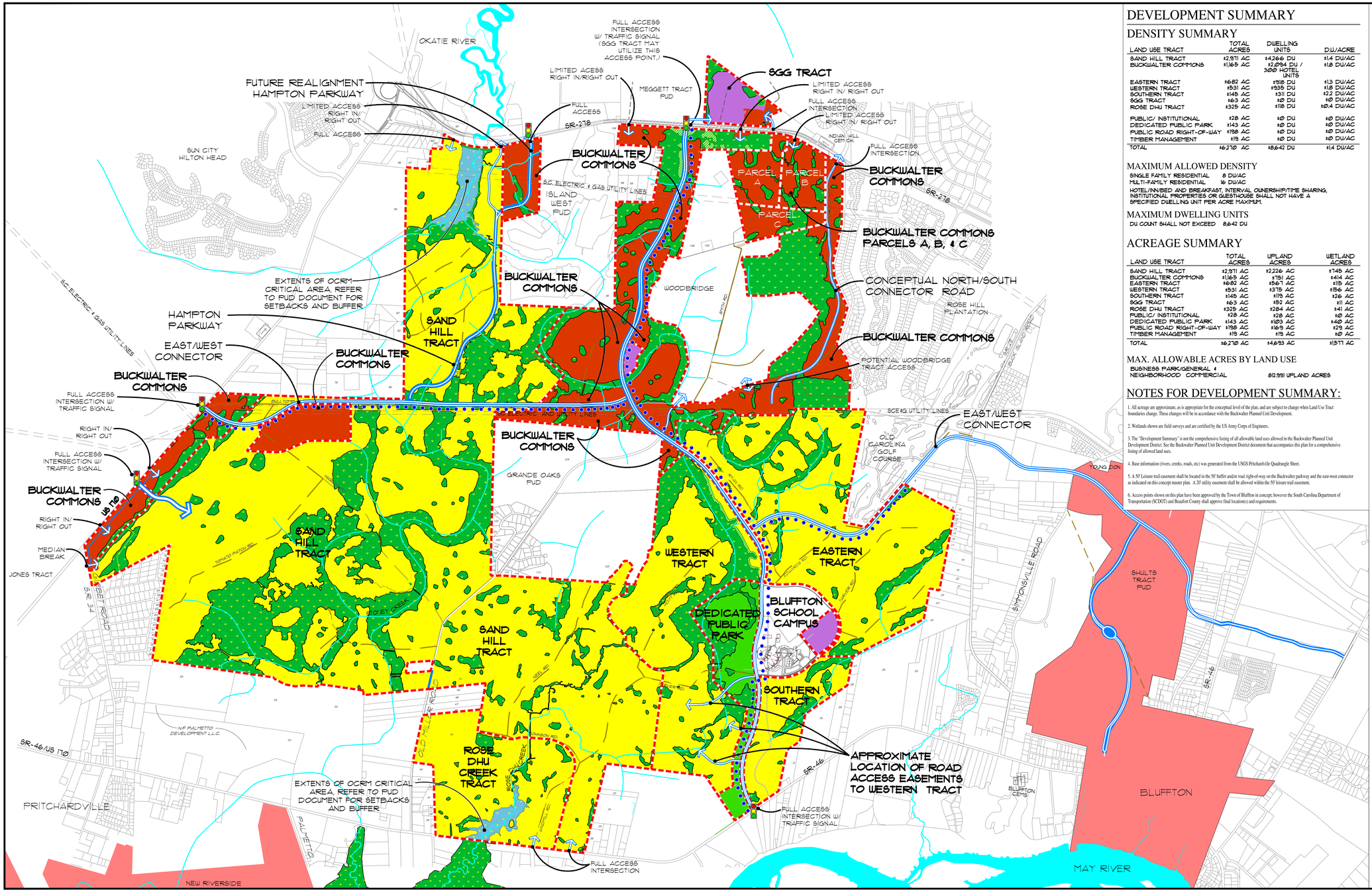
If you only have questions regarding the appeal process you may also contact:

Mr. Philip A. Shannin
Administrative Appeal Review Officer
CESAD-PDS-O
60 Forsyth Street Southwest, Floor M9
Atlanta, Georgia 30303-8803

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

Attachment 7



DEVELOPMENT SUMMARY

DENSITY SUMMARY

LAND USE TRACT	TOTAL ACRES	DWELLING UNITS	DU/ACRE
SAND HILL TRACT	±2,871 AC	±4,266 DU	±1.4 DU/AC
BUCKWALTER COMMONS	±1,165 AC	±2,094 DU / 300 HOTEL UNITS	±1.8 DU/AC
EASTERN TRACT	±682 AC	±918 DU	±1.3 DU/AC
WESTERN TRACT	±531 AC	±935 DU	±1.8 DU/AC
SOUTHERN TRACT	±145 AC	±311 DU	±2.1 DU/AC
SGG TRACT	±63 AC	±0 DU	±0 DU/AC
ROSE DHU TRACT	±325 AC	±118 DU	±0.4 DU/AC
PUBLIC/ INSTITUTIONAL	±28 AC	±0 DU	±0 DU/AC
DEDICATED PUBLIC PARK	±143 AC	±0 DU	±0 DU/AC
PUBLIC ROAD RIGHT-OF-WAY	±138 AC	±0 DU	±0 DU/AC
TIMBER MANAGEMENT	±19 AC	±0 DU	±0 DU/AC
TOTAL	±6,270 AC	±8,642 DU	±1.4 DU/AC

MAXIMUM ALLOWED DENSITY

SINGLE FAMILY RESIDENTIAL	8 DU/AC
MULTI-FAMILY RESIDENTIAL	16 DU/AC

HOTEL/INN/BED AND BREAKFAST, INTERVAL OWNERSHIP/TIME SHARING, INSTITUTIONAL PROPERTIES OR GUESTHOUSE SHALL NOT HAVE A SPECIFIED DWELLING UNIT PER ACRE MAXIMUM.

MAXIMUM DWELLING UNITS

DU COUNT SHALL NOT EXCEED 8,642 DU

ACREAGE SUMMARY

LAND USE TRACT	TOTAL ACRES	UPLAND ACRES	WETLAND ACRES
SAND HILL TRACT	±2,871 AC	±2,226 AC	±745 AC
BUCKWALTER COMMONS	±1,165 AC	±751 AC	±414 AC
EASTERN TRACT	±682 AC	±567 AC	±115 AC
WESTERN TRACT	±531 AC	±375 AC	±156 AC
SOUTHERN TRACT	±145 AC	±119 AC	±26 AC
SGG TRACT	±63 AC	±52 AC	±11 AC
ROSE DHU TRACT	±325 AC	±284 AC	±41 AC
PUBLIC/ INSTITUTIONAL	±28 AC	±28 AC	±0 AC
DEDICATED PUBLIC PARK	±143 AC	±103 AC	±40 AC
PUBLIC ROAD RIGHT-OF-WAY	±138 AC	±59 AC	±79 AC
TIMBER MANAGEMENT	±19 AC	±19 AC	±0 AC
TOTAL	±6,270 AC	±4,693 AC	±1,577 AC

MAX. ALLOWABLE ACRES BY LAND USE

BUSINESS PARK/GENERAL & NEIGHBORHOOD COMMERCIAL	812.991 UPLAND ACRES

NOTES FOR DEVELOPMENT SUMMARY:

1. All acreage are approximate, as is appropriate for the conceptual level of the plan, and are subject to change when Land Use Tract boundaries change. These changes will be in accordance with the Buckwalter Planned Unit Development.

2. Wetlands shown are field surveys and are certified by the US Army Corps of Engineers.

3. The "Development Summary" is not the comprehensive listing of all allowable land uses allowed in the Buckwalter Planned Unit Development District. See the Buckwalter Planned Unit Development District document that accompanies this plan for a comprehensive listing of allowed land uses.

4. Base information (rivers, creeks, roads, etc) was generated from the USGS Pritchardville Quadrangle Sheet.

5. A 50' Leisure trail easement shall be located in the 50' buffer and/or road right-of-way on the Buckwalter parkway and the east-west connector as indicated on this concept master plan. A 20' utility easement shall be allowed within the 50' leisure trail easement.

6. Access points shown on this plan have been approved by the Town of Bluffton in concept; however the South Carolina Department of Transportation (SCDOT) and Beaufort County shall approve final location(s) and requirements.

CONCEPT MASTER PLAN

For:

Buckwalter

PLANNED UNIT DEVELOPMENT

Bluffton, South Carolina

Prepared For:

Branigar Organization

Savannah, Georgia

BRANIGAR

The Branigar Organization, Inc.

A company of INTERNATIONAL PAPER

Prepared By:

Wood+Partners, Inc.

Landscape Architects/Land Planners

Hilton Head Island, South Carolina

Thomas & Hutton Engineering Co.

Savannah, Georgia

LEGEND:

- ROADS / PUBLIC RIGHT-OF-WAY
- INTERSECTION/ ACCESS POINTS
- EXISTING DIRT ROADS
- STREAMS / WATER CHANNELS
- LAND USE TRACT LIMIT
- LEISURE TRAIL

PUD LAND USE AREAS

- RESIDENTIAL
- COMMERCIAL
- PUBLIC/INSTITUTIONAL
- WETLANDS
- TIMBER MANAGEMENT
- OCRM CRITICAL AREA
- DEDICATED PUBLIC PARK

MILEAGE 0 1/2 1

0 600 1200 2400 3600 4800

NORTH

DATE: January 2000

REVISED: March 2000

REVISED: Sept. 2001 - To establish final alignment for East-West Connector (Bluffton Pkwy.)

REVISED: October 2001 - To provide leisure trail along East / West Connector

REVISED: May 2002 - Property addition to the Sand Hill Tract

REVISED: August 2002 - Property addition to the Sand Hill Tract

REVISED: October 2004 - Property addition to Sand Hill Tract & Buckwalter Commons

REVISED: December 2004 - Property addition to the Sand Hill Tract

REVISED: May 2005 - Hampton Parkway addition

REVISED: July 2005 - Graves Tract Addition

REVISED: October 2005 - Rose Dhu Phase 3 addition

REVISED: January 2006 - Jacoby addition

REVISED: May 2007 - Buckwalter Commons

REVISED: November 2007 - Willow Run Tract

REVISED: February 2008 - Unit Counts

REVISED: March 25, 2009 C-1 25N Parcel

REVISED: November 2011 - Buckwalter 10th Amendment - Robertson Site

REVISED: February 2012 - Modified Bluffton Parkway Phase 5B Alignment

REVISED: October 2012 - Modified Sand Hill Tract/Buckwalter Commons Connector Tract to add 70 Acres into Buckwalter Commons

REVISED: February 2020 - Annexed Saint Gregory the Great Tract (SGG Tract). Modification includes addition of 51.8 acres of public / institution and 11.1 acres of commercial.

4/10 RBO Bird

BEAUFORT COUNTY SC - ROD
BK 3644 Pgs 1951-1954
FILE NUM 2018008497
02/15/2018 10:53:45 AM
REC'D BY rbing RCPT# 880521
RECORDING FEES $10.00
County Tax $1,265.00
State Tax $2,990.00

STATE OF SOUTH CAROLINA)
)
COUNTY OF BEAUFORT)

TITLE TO REAL ESTATE

WHEREAS, at a duly authorized meeting of the Charleston-Atlantic Presbytery held on September 16, 2017, a properly constituted quorum being present and acting in accordance with the Book of Order of the Presbyterian Church (U.S.A.), it was resolved that Jesse C. Dove, Baxter Norris, E. M. Seabrook, III and Beulah Washington, or any three of them, as Trustees of Charleston-Atlantic Presbytery, successor in title in interest to Charleston Presbytery, a corporate body organized and existing by Sovereign Charter, were authorized to execute and deliver the within deed upon the terms and conditions stated herein pursuant to Section 6.0100 of the Manual of Administrative Operations, Charleston-Atlantic Presbytery, Presbyterian Church (U.S.A.), as revised from time to time;

NOW, THEREFORE, KNOW ALL PERSONS BY THESE PRESENTS that the undersigned **Jesse C. Dove, Baxter Norris** and **E. M. Seabrook, III**, as Trustees of **Charleston-Atlantic Presbytery**, a South Carolina eleemosynary corporation, in the County and State aforesaid, in consideration of the sum of One Million One Hundred Fifty Thousand and No/Hundreds Dollars ($1,150,000.00) in hand paid at and before the sealing of these Presents by **Parcel 8A, LLC**, a South Carolina limited liability company, the receipt whereof is hereby acknowledged, and subject to zoning ordinances, restrictions, easements and/or rights-of-way affecting the following described Premises and appearing of record in the Office of the Register of Deeds for Beaufort County, South Carolina, have granted, bargained, sold and released, and by these Presents do hereby grant, bargain, sell and release unto the said **Parcel 8A, LLC**, a South Carolina limited liability company, its successors and assigns, the following described Premises:

SEE EXHIBIT A ATTACHED HERETO

AND INCORPORATED HEREIN BY REFERENCE

GRANTEE'S ADDRESS: P. O. Box 1726, Bluffton SC 29910

TOGETHER with all and singular, the Rights, Members, Hereditaments and Appurtenances to the said Premises belonging, or in anywise incident or appertaining.

TO HAVE AND TO HOLD, all and singular, the said Premises before mentioned unto the said **Parcel 8A, LLC**, a South Carolina limited liability company, its successors and assigns, in fee simple forever.

AND **Charleston-Atlantic Presbytery,** a South Carolina eleemosynary corporation, by its undersigned Trustees, does hereby bind itself and its successors and assigns to warrant and forever defend, all and singular, the said Premises unto the said **Parcel 8A, LLC**, a South Carolina limited liability company, its successors and assigns against every person whomsoever lawfully claiming, or to claim the same or any part thereof.

IN WITNESS WHEREOF, **Charleston-Atlantic Presbytery**, by its undersigned Trustees, has caused these presents to be executed this 9th day of February, 2018, in the Two Hundred Forty-Second Year of the Sovereignty and Independence of the United States of America.

Signed, Sealed and Delivered
In the Presence of:

First Witness

Second Witness

Charleston-Atlantic Presbytery

By: Jesse C Dove
Jesse C. Dove, Trustee

By: Baxter Norris
Baxter Norris, Trustee

By: E. M. Seabrook
E. M Seabrook, III, Trustee

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

ACKNOWLEDGEMENT

BEFORE ME, the undersigned Notary Public for said County and State, personally appeared **Jesse C. Dove, Baxter Norris** and **E. M. Seabrook, III, as Trustees of Charleston-Atlantic Presbytery,** each of whom acknowledged his execution of the within instrument for the purposes and uses set forth therein.

ACKNOWLEDGED this 9th day of February, 2018.

Barbara A. Burger
Notary Public
State of South Carolina
My Commission Expires
November 24, 2024

Barbara A. Burger
Print Name: Barbara A. Burger
Notary Public for South Carolina
My commission expires: 11/24/2024

Exhibit "A"

All that tract or parcel of land lying, being and situate in Bluffton Township, Beaufort County, South Carolina, containing 21.681 acres, more or less, and being shown as Parcel B-1 on the plat entitled "A Boundary Survey of Parcel B-1, Tax Parcel Nos. R:600:028:000:0921:0000, Town of Bluffton, Beaufort County, South Carolina," prepared for Zinn Asset Management Corp. by Atlas Surveying, Inc. by Mark E. Lamb, S.C.P.L.S No. 23200 and recorded in Plat Book 148 at Page 133 in the Beaufort County Register of Deeds.

Subject to all easements shown on the above-referenced plat.

Being a portion of the same property conveyed to Charleston-Atlantic Presbytery by deed of Jerome K. Jones, Jacquita J. Jenkins, Wm. Jarrell Jones, Jeffrey H. Jones, Holly Branch Farms, LLLP, a Georgia limited partnership, Jones and Associates Limited Partnership, a South Carolina limited partnership, Dorothy R. Zetterower, Lillian R. Stephenson and Christopher C. Ryals dated October 25, 2004 and recorded October 27, 2004 in Book 21402 at Page 2177, Beaufort County Records.

This Deed was prepared in the Law Office of Stephen S. Bird, LLC, P.O. Box 2474, Bluffton, SC 299910.

R: 610:028:000:0921:0000

First American Title™	Owner's Policy of Title Insuranc
	ISSUED BY **First American Title Insurance Company**
Exhibit A	POLICY NUMBER **5011400-1986261e**

File No.: **1255-009-00**

The Land referred to herein below is situated in the County of Beaufort, State of South Carolina, and is described as follows:

Exhibit "A"

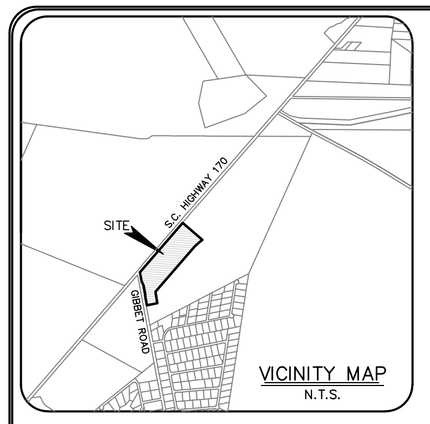
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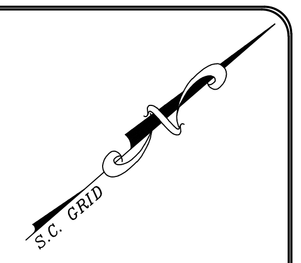
Subject to all easements shown on the above-referenced plat.

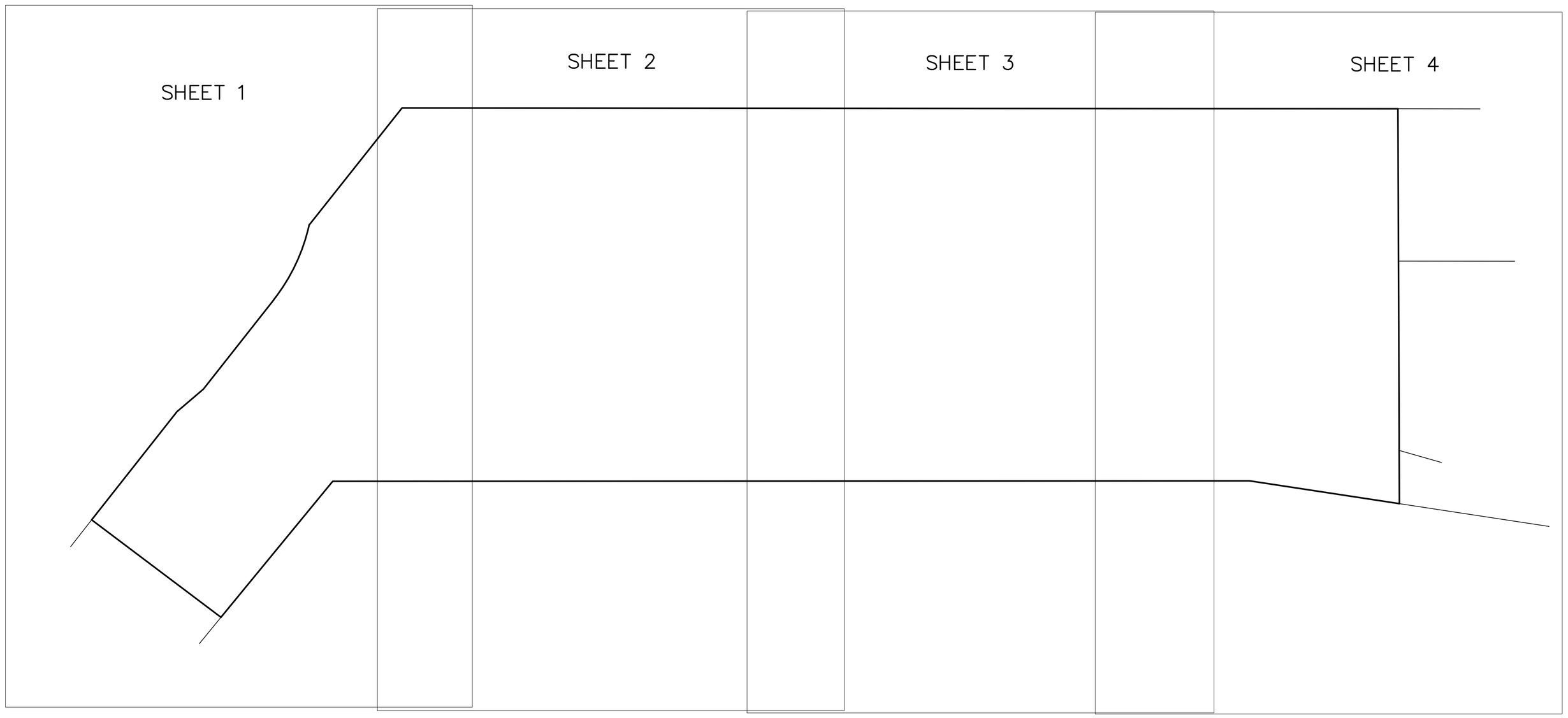
Being a portion of the same property conveyed to Charleston-Atlantic Presbytery by deed of Jerome K. Jones, Jacquita J. Jenkins, Wm. Jarrell Jones, Jeffrey H. Jones, Holly Branch Farms, LLLP, a Georgia limited partnership, Jones and Associates Limited Partnership, a South Carolina limited partnership, Dorothy R. Zetterower, Lillian R. Stephenson and Christopher C. Ryals dated October 25, 2004 and recorded October 27, 2004 in Book 21402 at Page 2177, Beaufort County Records.

R: 610:028:000:0921:0000

Attachment 7







REFERENCE PLAT

1) A BOUNDARY SURVEY OF: PARCEL B–1,
TAX PARCEL NOS. R610 028 000 0921 0000,
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 12/1/2017
RECORDED IN BOOK 148, PAGE 133, DATED 2/15/2018
ROD. BEAUFORT COUNTY, SC
BY: MARK ELLIS LAMB, SR. S.C.R.L.S. # 23200

2) A SUBDIVISION OF PARCEL 8A, TMS: R610 028 000 0920 0000
A PORTION OF PARCEL 8, LLC PROPERTY,
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 1/21/08
RECORDED IN BOOK 127, PAGE 105
ROD. BEAUFORT COUNTY, SC
BY: BOYCE L. YOUNG S.C.R.L.S. # 11079

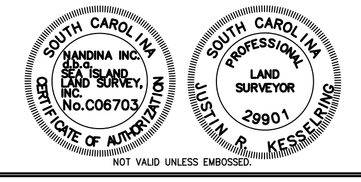
3) A BOUNDARY AND SUBDIVISION PLAT OF 37.89 ACRES KNOWN AS,
"PALMETTO POINT COMMERCIAL SUBDIVISION", BEING A PORTION OF THE CHURCH POINT TRACT,
OFF GIBBET ROAD, TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 1/21/08
RECORDED IN BOOK 112, PAGE 134, DATED: 3/31/06
ROD. BEAUFORT COUNTY, SC
BY: FORREST F. BAUGHMAN S.C.R.L.S. # 4922

PROPERTY AREA = 21.7 Ac. 944,430 Sq. Ft.
ADDRESS: NO STREET ADDRESS
DISTRICT: 610, MAP: 28, PARCEL: 921

THIS PROPERTY LIES IN F.E.M.A. ZONE X
BASE FLOOD ELEVATION = N/A
COMMUNITY NO. 450025, PANEL 0265G, DATED: 3/23/2021

SHEET INDEX

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN; ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.



NOT VALID UNLESS EMBOSSED.

BOUNDARY, TREE AND TOPOGRAPHIC SURVEY OF:
PARCEL B-1, CYPRESS TRACT, GIBBET ROAD,
S.C. HIGHWAY 170, TOWN OF BLUFFTON,
BEAUFORT COUNTY, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT

DATE : 2/21/2023 SCALE : 1" = 100'

GRAPHIC SCALE
0 100 200 300

NANDINA

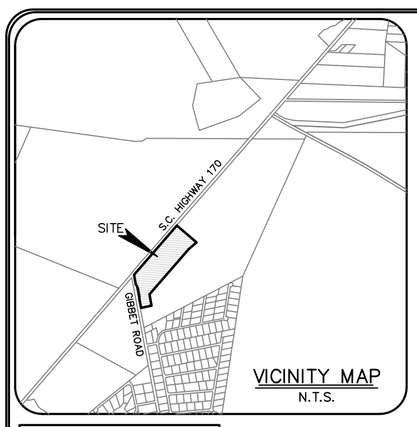
d.b.a. Sea Island Land Survey, Inc.
10 Oak Park Drive, Unit C1, Tel (843) 681-3248
Hilton Head Island, Fax (843) 689-3871
SC 29926 E-mail: admin@nandinainc.com

FILE No : 22311 DWG No. : 9-22311

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CAD: CG, FLD: MW

Attachment 7



VICINITY MAP
N.T.S.

LEGEND & SYMBOLS:

TREE SIZES ARE INCHES IN DIAMETER

9.5 / 9	SPOT ELEVATION / CONTOUR	⌀	ELECTRIC SERVICE
3/4" IPPF ◎	3/4" IRON PIPE FOUND	⌀	ELECTRIC TRANSFORMER
TBM	TEMPORARY BENCH MARK	T	TELEPHONE SERVICE
IE	INVERT ELEVATION	■	TELEVISION SERVICE
RCP	REINFORCED CONCRETE PIPE	V	VALVE BOX
LO	LIVE OAK	S	SEWER VALVE
LA	LAUREL OAK	⌀	UTILITY POLE
MAP	MAPLE	UGP	UNDERGROUND POWER
RO	RED OAK	W	UNDERGROUND WATER LINE
PN	PINE	UTC	UNDERGROUND TELECOMMUNICATION
CHY	CHERRY	OHP	OVERHEAD POWER LINE
WO	WATER OAK		
GUM	GUM		
TUP	TUPELO		
HOL	HOLLY		
HIC	HICKORY		

LINE TABLE					
LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
L1	67.76'	S74°45'06"W	L16	71.66'	S30°49'25"W
L2	52.35'	S39°42'00"W	L17	75.85'	S42°25'59"W
L3	47.72'	S50°21'49"W	L18	67.13'	S32°58'55"W
L4	34.60'	S62°55'58"W	L19	131.31'	S28°07'13"W
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L6	52.63'	S48°15'58"W	L21	143.51'	S40°36'44"W
L7	46.67'	S63°37'10"W	L22	80.07'	S49°03'21"W
L8	53.91'	S46°15'19"W	L23	55.67'	S18°35'00"W
L9	61.86'	S45°24'53"W	L24	59.83'	S45°11'59"W
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L15	64.68'	S39°38'07"W	L30	58.78'	N51°47'38"E

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C1	122.51'	272.00'	62.31'	121.48'	N23°42'46"W	025°48'25"

S.C. HIGHWAY NO. 170 R/W VARIES

EDGE OF PAVEMENT

BACK OF CURB

BACK OF CURB

EDGE OF PAVEMENT

S.C. HIGHWAY NO. 170 R/W VARIES

TRAFFIC VAULT

SIGNAL BOX

3/4" IPPF
ELEV. = 37.43'
N 153859.91
E 2010158.54

EDGE OF PAVEMENT

ABANDONED RIGHT OF WAY AS PER REFERENCE PLAT #3.

SALE SIGN

N10°35'23"W 218.10'

3/4" IPPF

SALE SIGN

GIBBET ROAD R/W VARIES

N10°48'34"W 166.08'

3/4" IPPF

PARCEL B-1

IE = 34.7'
IE = 34.8'
IE = 34.8'

18" RCP

IE = 34.4'

N00°30'02"E 50.99'

3/4" IPPF

IE = 34.2'
IE = 34.3'

N00°30'02"E 201.32'

CENTERLINE OF PAVEMENT

EDGE OF PAVEMENT

WETLAND
180,898 Sq. Ft.
4.15 Ac.

PK NAIL
ELEV. = 37.10'
N 153091.59
E 2010248.76

EDGE OF PAVEMENT

3/4" IPPF

3/4" IPPF

49.67'

MATCH LINE SHEET 1
MATCH LINE SHEET 2

60.0'

12' WIDE GRAVEL DRIVE

S77°58'59"W 236.65'

60' NON-EXCLUSIVE ACCESS EASEMENT

N: 153167.57
E: 2010547.28
3/4" IPPF

S09°38'41"E 257.36'

207.69'

R614 028 000 1134 0000
VILLAGE PARK COMMUNITIES LLC
PO BOX 6476
HILTON HEAD ISLAND SC 29938

REFERENCE PLAT

1) A BOUNDARY SURVEY OF: PARCEL B-1,
TAX PARCEL NOS. R610 028 000 0921 0000,
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 12/1/2017
RECORDED IN BOOK 148, PAGE 133, DATED 2/15/2018
ROD. BEAUFORT COUNTY, SC
BY: MARK ELLIS LAMB, SR. S.C.R.L.S. # 23200

2) A SUBDIVISION OF PARCEL 8A, TMS: R610 028 000 0920 0000
A PORTION OF PARCEL 8, LLC PROPERTY,
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 1/21/08
RECORDED IN BOOK 127, PAGE 105
ROD. BEAUFORT COUNTY, SC
BY: BOYCE L. YOUNG S.C.R.L.S. # 11079

3) A BOUNDARY AND SUBDIVISION PLAT OF 37.89 ACRES KNOWN AS,
"PALMETTO POINT COMMERCIAL SUBDIVISION", BEING A PORTION OF THE CHURCH POINT TRACT,
OFF GIBBET ROAD, TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 1/21/08
RECORDED IN BOOK 112, PAGE 134, DATED: 3/31/06
ROD. BEAUFORT COUNTY, SC
BY: FORREST F. BAUGHMAN S.C.R.L.S. # 4922

PROPERTY AREA = 21.7 Ac. 944,430 Sq. Ft.
ADDRESS: NO STREET ADDRESS

DISTRICT: 610, MAP: 28, PARCEL: 921

THIS PROPERTY LIES IN F.E.M.A. ZONE X
BASE FLOOD ELEVATION = N/A
COMMUNITY NO. 450025, PANEL 0265G, DATED: 3/23/2021

SHEET 1 OF 4

NOTES:
1) UNDERGROUND UTILITIES NOT LOCATED EXCEPT AS SHOWN.
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4) HORIZONTAL DATUM IS LOCAL SC STATE PLANE, NAD83.
5) VERTICAL DATUM IS NAVD88.
6) CONTOUR INTERVAL IS 1'
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9) THIS SURVEY HAS BEEN PREPARED WITHOUT BENEFIT OF A COMPLETE TITLE SEARCH AND IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
10) THIS SURVEY DOES NOT CERTIFY TO THE EXISTENCE OR ABSENCE OF FRESHWATER WETLANDS.
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BOUNDARY, TREE AND TOPOGRAPHIC SURVEY OF:
PARCEL B-1, CYPRESS TRACT, GIBBET ROAD,
S.C. HIGHWAY 170, TOWN OF BLUFFTON,
BEAUFORT COUNTY, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT

DATE : 2/21/2023 SCALE : 1" = 30'

GRAPHIC SCALE
0 30 60 90

NANDINA

d.b.a. Sea Island Land Survey, Inc.
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CAD: CG, FLD: MW

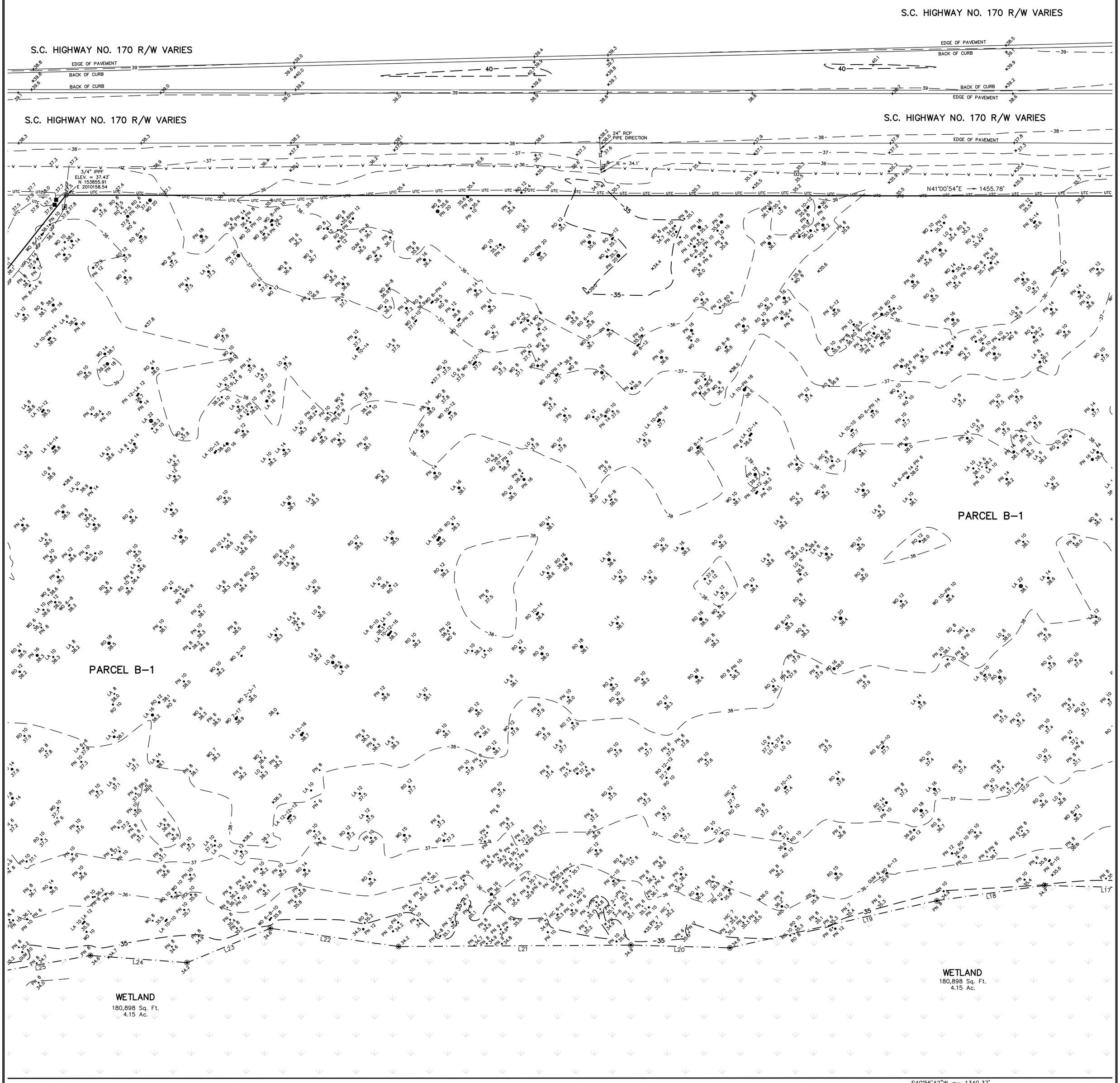
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SOUTH CAROLINA — NANDINA INC. d.b.a. SEA ISLAND LAND SURVEY, INC. No.C06703 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR 29901 JUSTIN R. KESSLERING

NOT VALID UNLESS EMBOSSED.

Attachment 7



MATCH LINE SHEET 1 / MATCH LINE SHEET 2

MATCH LINE SHEET 2 / MATCH LINE SHEET 3

REFERENCE PLAT

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LEGEND & SYMBOLS:

TREE SIZES ARE INCHES IN DIAMETER

9.5	SPOT ELEVATION
9	CONTOUR
3/4" IPPF ◎	3/4" IRON PIPE FOUND
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IE	INVERT ELEVATION
RCP	REINFORCED CONCRETE PIPE
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MAP	MAPLE
RO	RED OAK
PN	PINE
CHY	CHERRY
WO	WATER OAK
GUM	GUM
TUP	TUPELO
HOL	HOLLY
HIC	HICKORY

⌀	ELECTRIC SERVICE
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S	SEWER VALVE
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S.C. HIGHWAY 170, TOWN OF BLUFFTON,
BEAUFORT COUNTY, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT

DATE : 2/21/2023 SCALE : 1" = 30'

GRAPHIC SCALE
0 30 60 90

NANDINA

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FILE No : 22311 DWG No. : 9-22311

COPYRIGHT © BY NANDINA, INC.

CAD: CG, FLD: MW

PROPERTY AREA = 21.7 Ac. 944,430 Sq. Ft.
ADDRESS: NO STREET ADDRESS
DISTRICT: 610, MAP: 28, PARCEL: 921

THIS PROPERTY LIES IN F.E.M.A. ZONE X
BASE FLOOD ELEVATION = N/A
COMMUNITY NO. 450025, PANEL 0265G, DATED: 3/23/2021

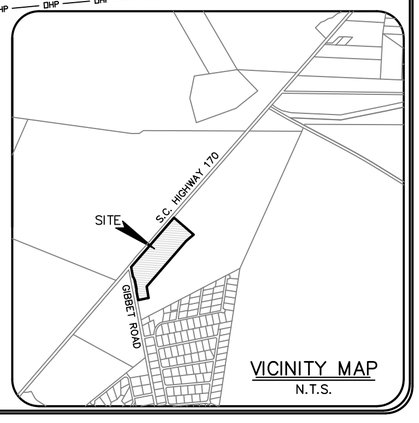
SHEET 2 OF 4

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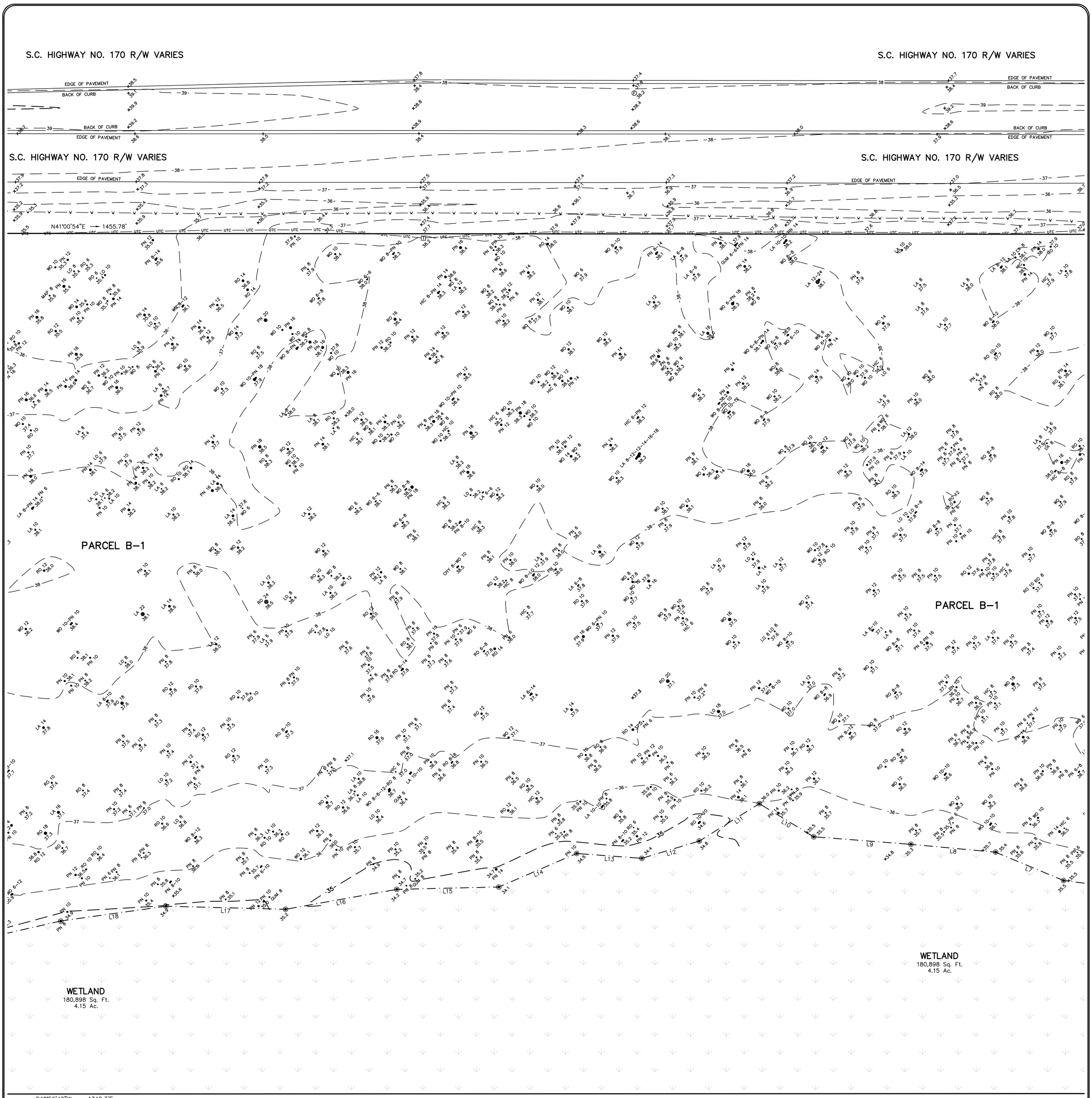
SOUTH CAROLINA — PROFESSIONAL LAND SURVEYOR 29901 — JUSTIN R. KESSELRING

NOT VALID UNLESS EMBOSSED.



VICINITY MAP
N.T.S.

Attachment 7



MATCH LINE SHEET 2 | MATCH LINE SHEET 3

MATCH LINE SHEET 3 | MATCH LINE SHEET 4

R614 028 000 1134 0000
VILLAGE PARK COMMUNITIES LLC
PO BOX 6476
HILTON HEAD ISLAND SC 29938

R614 028 000 1134 0000
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PREPARED FOR:
MILLSTONE MANAGEMENT

DATE : 2/21/2023 SCALE : 1" = 30'

GRAPHIC SCALE
0 30 60 90

NANDINA
d.b.a. Sea Island Land Survey, Inc.
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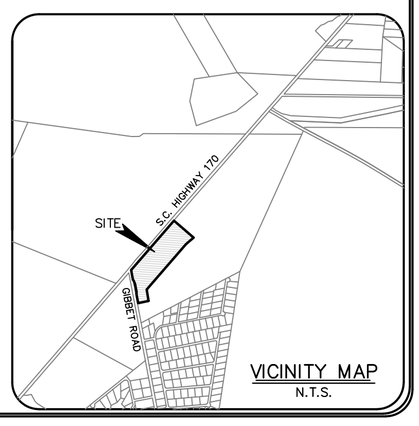
SHEET 3 OF 4

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN: ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

SOUTH CAROLINA — NANDINA INC. d.b.a. SEA ISLAND LAND SURVEY, INC. No.C06703 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — PROFESSIONAL LAND SURVEYOR 29901 — JUSTIN R. KESSELRING

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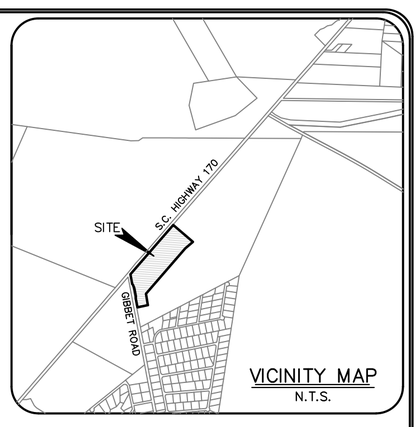
VICINITY MAP
N.T.S.

S.C. HIGHWAY NO. 170 R/W VARIES

EDGE OF PAVEMENT
BACK OF CURB

S.C. HIGHWAY NO. 170 R/W VARIES

EDGE OF PAVEMENT



VICINITY MAP
N.T.S.

18" RCP
PIPE DIRECTION
IE = 34.2'

3/4" IPPF
ELEV. = 36.61'
N 154954.22
E 2011113.78

60' NON-EXCLUSIVE
ACCESS EASEMENT

R610 028 000 3921 0000
PARCEL 8A LLC %TOM ZINN
PO BOX 1726
BLUFFTON SC 29910-1726

PARCEL B-1

3/4" IPPF

S49°14'25"E — 577.49'

120' WIDE UTILITY EASEMENT

R610 028 000 3922 0000
PARCEL 8A LLC %TOM ZINN
PO BOX 1726
BLUFFTON SC 29910-1726

WETLAND
180,898 Sq. Ft.
4.15 Ac.

3/4" IPPF DISTURBED

3/4" IPPF N: 154433.73 E: 2011382.55

S49°37'02"W — 221.41'

132.88'
88.53'
23.91'
77.78'
252.95'
103.90'
118.95'

R610 028 000 0920 0000
PARCEL 8A LLC %TOM ZINN
PO BOX 1726
BLUFFTON SC 29910-1726

MATCH LINE SHEET 3
MATCH LINE SHEET 4

R614 028 000 1134 0000
VILLAGE PARK COMMUNITIES LLC
PO BOX 6476
HILTON HEAD ISLAND SC 29938

REFERENCE PLAT

1) A BOUNDARY SURVEY OF: PARCEL B-1,
TAX PARCEL NOS. R610 028 000 0921 0000,
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 12/1/2017
RECORDED IN BOOK 148, PAGE 133, DATED 2/15/2018
ROD. BEAUFORT COUNTY, SC
BY: MARK ELLIS LAMB, SR. S.C.R.L.S. # 23200

2) A SUBDIVISION OF PARCEL 8A, TMS: R610 028 000 0920 0000
A PORTION OF PARCEL 8, LLC PROPERTY,
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 1/21/08
RECORDED IN BOOK 127, PAGE 105
ROD. BEAUFORT COUNTY, SC
BY: BOYCE L. YOUNG S.C.R.L.S. # 11079

3) A BOUNDARY AND SUBDIVISION PLAT OF 37.89 ACRES KNOWN AS,
"PALMETTO POINT COMMERCIAL SUBDIVISION", BEING A PORTION OF THE CHURCH POINT TRACT,
OFF GIBBET ROAD, TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA
DRAWN: 1/21/08
RECORDED IN BOOK 112, PAGE 134, DATED: 3/31/06
ROD. BEAUFORT COUNTY, SC
BY: FORREST F. BAUGHMAN S.C.R.L.S. # 4922

PROPERTY AREA = 21.7 Ac. 944,430 Sq. Ft.
ADDRESS: NO STREET ADDRESS

DISTRICT: 610, MAP: 28, PARCEL: 921

THIS PROPERTY LIES IN F.E.M.A. ZONE X
BASE FLOOD ELEVATION = N/A
COMMUNITY NO. 450025, PANEL 0265G, DATED: 3/23/2021

NOTES:
1) UNDERGROUND UTILITIES NOT LOCATED EXCEPT AS SHOWN.
2) NANDINA, INC. CERTIFIES TO THE BOUNDARY, TOPOGRAPHIC AND ASBUILT INFORMATION PROVIDED HEREON AS THE DATE OF THE SURVEY. THIS SURVEY MAY BE USED IN DIGITAL FORMAT AS A BASE FOR OTHERS AND ANY REVISIONS OR ADDITIONS MADE HEREAFTER IS NOT THE RESPONSIBILITY OF NANDINA, INC. A HARD COPY AVAILABLE FROM NANDINA, INC. WILL BE THE ONLY OFFICIAL DOCUMENT.
3) SUBJECT PROPERTY DOES NOT APPEAR TO BE AFFECTED BY THE BEACHFRONT SETBACK REQUIREMENTS OF THE S.C. BEACH PROTECTION ACT OF JULY 1, 1988.
4) HORIZONTAL DATUM IS LOCAL SC STATE PLANE, NAD83.
5) VERTICAL DATUM IS NAVD88.
6) CONTOUR INTERVAL IS 1'
7) USE OF THIS PROPERTY MAY BE AFFECTED BY THE TERMS OF COVENANTS RELATING TO THIS PLANNED RESIDENTIAL COMMUNITY.
8) BUILDING SETBACKS, WHETHER SHOWN OR NOT, SHOULD BE VERIFIED BY THE LOCAL BUILDING AUTHORITY OR ARCHITECTURAL REVIEW BOARD.
9) THIS SURVEY HAS BEEN PREPARED WITHOUT BENEFIT OF A COMPLETE TITLE SEARCH AND IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
10) THIS SURVEY DOES NOT CERTIFY TO THE EXISTENCE OR ABSENCE OF FRESHWATER WETLANDS.
11) IF IDENTIFICATION OF TREES IS CRITICAL TO DEVELOPMENT, AN ARBORIST SHOULD BE CONSULTED TO VERIFY SUCH TREE IDENTIFICATION.

LINE TABLE

LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
L1	67.76'	S74°45'06"W	L16	71.66'	S30°49'25"W
L2	52.35'	S39°42'00"W	L17	75.85'	S42°25'59"W
L3	47.72'	S50°21'49"W	L18	67.13'	S32°58'55"W
L4	34.60'	S62°55'58"W	L19	131.31'	S28°07'13"W
L5	43.85'	S44°23'38"W	L20	61.21'	S42°32'04"W
L6	52.63'	S48°15'58"W	L21	143.51'	S40°36'44"W
L7	46.67'	S63°37'10"W	L22	80.07'	S49°03'21"W
L8	53.91'	S46°15'19"W	L23	55.67'	S18°35'00"W
L9	61.86'	S45°24'53"W	L24	59.83'	S45°11'59"W
L10	40.29'	S72°20'50"W	L25	63.01'	S30°56'19"W
L11	44.86'	S09°05'35"W	L26	72.63'	S12°16'02"W
L12	37.97'	S24°12'46"W	L27	90.53'	S26°09'04"W
L13	41.44'	S45°13'36"W	L28	16.05'	S63°23'42"E
L14	53.69'	S17°39'55"W	L29	19.08'	S59°36'53"E
L15	64.68'	S39°38'07"W	L30	58.78'	N51°47'38"E

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	CHORD BEARING	DELTA
C1	122.51'	272.00'	62.31'	121.48'	N23°42'46"W	025°48'25"

LEGEND & SYMBOLS:

TREE SIZES ARE INCHES IN DIAMETER

9.5	SPOT ELEVATION	Ⓔ	ELECTRIC SERVICE
9	CONTOUR	Ⓔ	ELECTRIC TRANSFORMER
3/4" IPPF ◎	3/4" IRON PIPE FOUND	T	TELEPHONE SERVICE
TBM	TEMPORARY BENCH MARK	■	TELEVISION SERVICE
IE	INVERT ELEVATION	V	VALVE BOX
RCP	REINFORCED CONCRETE PIPE	S	SEWER VALVE
LO	LIVE OAK	Ø	UTILITY POLE
LA	LAUREL OAK	UGP	UNDERGROUND POWER
MAP	MAPLE	W	UNDERGROUND WATER LINE
RO	RED OAK	UTC	UNDERGROUND TELECOMMUNICATION
PN	PINE	OHP	OVERHEAD POWER LINE
CHY	CHERRY		
WO	WATER OAK		
GUM	GUM		
TUP	TUPELO		
HOL	HOLLY		
HIC	HICKORY		

BOUNDARY, TREE AND TOPOGRAPHIC SURVEY OF:
PARCEL B-1, CYPRESS TRACT, GIBBET ROAD,
S.C. HIGHWAY 170, TOWN OF BLUFFTON,
BEAUFORT COUNTY, SOUTH CAROLINA

PREPARED FOR:
MILLSTONE MANAGEMENT

DATE : 2/21/2023 SCALE : 1" = 30'

GRAPHIC SCALE
0 30 60 90

SHEET 4 OF 4

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN; ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

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SOUTH CAROLINA — PROFESSIONAL LAND SURVEYOR 29901 — JUSTIN R. KESSELRING

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NANDINA

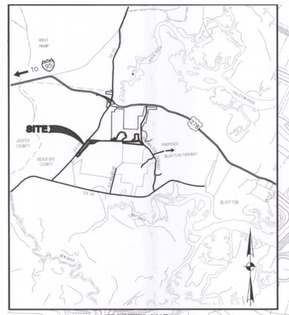
d.b.a. Sea Island Land Survey, Inc.
10 Oak Park Drive, Unit C1,
Hilton Head Island,
SC 29926
Tel (843) 681-3248
Fax (843) 689-3871
E-mail: admin@nandinainc.com

FILE No : 22311 DWG No. : 9-22311

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CAD: CG, FLD: MW

Attachment 7



APPROXIMATE LOCATION OF SHARED POTENTIAL LIMITED ACCESS POINT
SCE&G 75' ELECTRIC/GAS EASEMENT
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
10' UTILITY EASEMENT
APPROXIMATE LOCATION OF EXISTING FULL MEDIAN CUT ACCESS POINT
50' UTILITY, DRAINAGE & BIKE PATH EASEMENT
20' UTILITY EASEMENT
100' ELECTRIC EASEMENT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
APPROXIMATE LOCATION OF POTENTIAL LIMITED ACCESS POINT
WETLANDS PREVIOUSLY IMPACTED BUCKWALTER SOUTHWEST WETLANDS PERMIT NO. SAC-2003-1G-066
APPROXIMATE LOCATION OF FULL MEDIAN CUT ACCESS POINT
20' WETLAND BUFFER (AVERAGE)
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
APPROXIMATE LOCATION OF EXISTING FULL MEDIAN CUT ACCESS POINT
SUN CITY
SC HIGHWAY 170
GUTPARCEL
1,010'±
800'±
1,805'±
985'±
POTENTIAL INTERCONNECTIVITY
WETLANDS PREVIOUSLY IMPACTED BUCKWALTER SOUTHWEST WETLANDS PERMIT NO. SAC-2003-1G-066
POTENTIAL INTERCONNECTIVITY
POWER POLE (TYP.)
BLUFFTON PARKWAY
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
APPROXIMATE LOCATION OF FULL MEDIAN CUT ACCESS POINT
WETLAND BUFFER (PER USACE PERMIT NO. 2003-1G-066)
LEFT HAND DECELERATING TURNING LANE
WETLAND IMPACT USACE PERMIT NO. 2003-1G-066
LAWTON STATION
20' WETLAND BUFFER (AVERAGE)
60' NON-EXCLUSIVE ACCESS EASEMENT
TO GIBBET ROAD
APPROXIMATE LOCATION OF RIGHT IN/RIGHT OUT ACCESS POINT
HIGHWAY 170
GIBBET ROAD

SUBJECT PROPERTY

SITE LEGEND

- JURISDICTIONAL WETLAND AREA
- JURISDICTIONAL WETLAND BUFFER
- WETLAND AREA TO BE FILLED
- PROPOSED DRIVE AISLE

SITE DATA TABLE

TOTAL AREA	97.30 AC
IMPERVIOUS AREA = 44.59%	
BUILDINGS	10.38 AC
PAVING	24.82 AC
WALKS	3.09 AC
LAGOONS	5.10 AC
TOTAL	43.39 AC
PERVIOUS AREA = 55.41%	
GRASSED AREAS	9.81 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
WETLANDS	27.10 AC
TOTAL	53.91 AC
OPEN SPACE = 32.80%	
GRASSED AREAS	9.81 AC
LAGOONS	5.10 AC
BUFFERS(wetland, pud,landscape)	17.00 AC
TOTAL	31.91 AC
PARKING	
PARKING SPACES PROVIDED	2,143 SPACES
OUTPARCEL	2.00 AC
IMPERVIOUS AREA = 65%	
PERVIOUS AREA = 35%	

*OUTPARCEL NOT INCLUDED IN TOTAL AREA SITE DATA.

SEE EXHIBIT 'C'
FOR SITE DATA TABLE
FOR SUBJECT PROPERTY

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

AN EXHIBIT OF
BUCKWALTER CROSSROADS
BEING A PORTION OF BUCKWALTER TRACT
THE TOWN OF BLUFFTON
SOUTH CAROLINA

PREPARED FOR:
PARCEL 8, LLC

EXHIBIT A
PRELIMINARY DEVELOPMENT PLAN

PREPARED BY:
THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA
WOOD AND PARTNERS, INC.

JOB #16639 DRAWN BY: GLK/RCT
REVISED: JULY 12, 2021
REVISED: APRIL 4, 22
REVISED: JULY 29, 2022
DATE: AUGUST 26, 2019

Witmer Jones Keefer Ltd.
landscape architecture
land planning
www.wjkltd.com
23 Promenade Street, Suite 201 ♦ Bluffton, South Carolina ♦ 29910 ♦ ph 843.757.7411

AMENDMENT PREPARED
BY WITMER JONES KEEFER
MARCH 24 2023

Gibbet Road Residential Development

Traffic Impact Analysis

Bluffton, South Carolina

Prepared for

Milestone Management, LLC

Prepared by

Kimley»Horn

April 2023

© Kimley-Horn and Associates, Inc.

Gibbet Road Residential Development

Traffic Impact Analysis

Bluffton, South Carolina

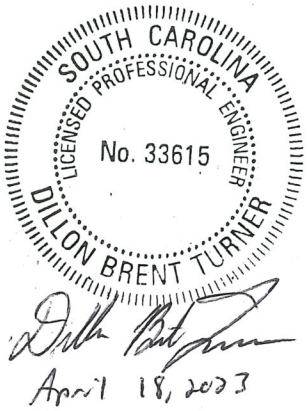
Prepared for

Milestone Management, LLC

Prepared by

Kimley»Horn





April 2023

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115 Fairchild Street, Suite 250
Charleston, South Carolina, 29492

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C – Traffic Volume Development Worksheets

D – Raw Turning Movement Counts

E – Historical Growth Rate Data

F – Capacity Analysis Worksheets

G – Turn Lane Warrant Analysis

1 Executive Summary

The proposed Gibbet Road Residential Development is in the northeast quadrant of the SC 170 (Okatie Highway) and Gibbet Road intersection in Bluffton, South Carolina. This development is planned to consist of the following phases and land uses:

- 2025 Build Phase 1 – 150 multi-family housing units.
- 2027 Build Phase 2 – 6,300 square-foot convenience store and gas station with 12 fueling positions.
- 2029 Build Phase 3 – 8,850 square feet office space and 8,850 square feet retail space.

It was assumed that the project will access the roadway network via the following five unsignalized driveways:

- Site Access #1 – Planned to be constructed under Phase 1 and is located approximately 850' north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #2 – Planned to be constructed under Phase 1 and is located approximately 350' east of SC 170 (Okatie Highway) along Gibbet Road. This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #3 – Planned to be constructed under Phase 1 and is proposed to be full-movement and align with Estate Drive.
- Site Access #4 – Planned to be constructed under Phase 2 and is located approximately 350' feet north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #5 – Planned to be constructed under Phase 3 and is located approximately 875' feet south of Lawton Boulevard along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.

This study summarizes the results of the traffic analyses at the following study intersections:

1) SC 170 (Okatie Highway) at Lawton Boulevard
2) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard
3) Gibbet Road at Estate Drive/Site Access #3
4) SC 170 (Okatie Highway) at Site Access #1
5) Gibbet Road at Site Access #2
6) SC 170 (Okatie Highway) at Site Access #4
7) SC 170 (Okatie Highway) at Site Access #5

Improvements Considered by Others

In the surrounding area, the approved development of the Palmetto Point Pickleball and Commercial Site, Kimley-Horn 2021, was accounted for in the analysis of 2025, 2027, and 2029 conditions. Based on this report, an eastbound right-turn lane along Gibbet Road at the intersection of Estate Drive will be constructed.

Based on the results of the traffic analyses, the following improvements are recommended to mitigate the impact of the proposed development's traffic on the study area intersections:

2025 Build Phase 1

Gibbet Road at Estate Drive/ Site Access #3

- Construct Site Access #3 to align with Estate Drive. Site Access #3 should consist of one ingress lane and two egress lanes. The egress lanes should consist of a left-turn lane and shared through/right-turn lane.

SC 170 (Okatie Highway) at Site Access #1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #1 to be a right-in, right-out access only with one ingress lane and one egress lane.

Gibbet Road at Site Access #2

- Construct Site Access #2 to be a right-in, right-out access only with one ingress lane and one egress lane.

2027 Build Phase 2

Gibbet Road at Estate Drive/ Site Access #3

- Construct an eastbound left-turn lane along Gibbet Road in accordance with the SCDOT *Roadway Design Manual*.

SC 170 (Okatie Highway) at Site Access #4

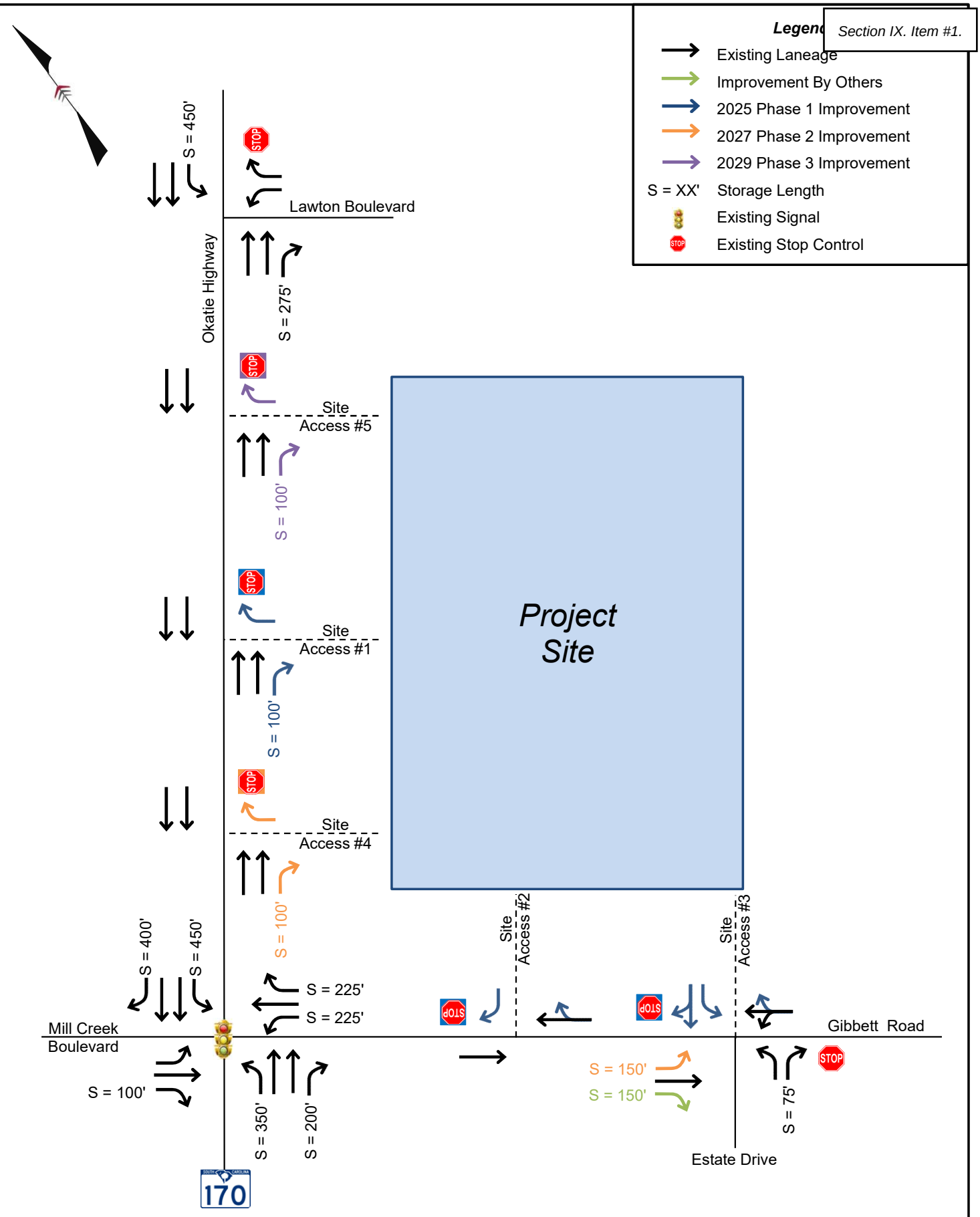
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #4 to be a right-in, right-out access only with one ingress lane and one egress lane.

2029 Build Phase 3

SC 170 (Okatie Highway) at Site Access #5

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #5 to be a right-in, right-out access only with one ingress lane and one egress lane.

Recommended improvements are illustrated in **Figure 1**.


Legend
Existing Laneage
Improvement By Others
2025 Phase 1 Improvement
2027 Phase 2 Improvement
2029 Phase 3 Improvement
S = XX' Storage Length
Existing Signal
Existing Stop Control
Lawton Boulevard
Okatie Highway
S = 450'
S = 275'
Site Access #5
S = 100'
Site Access #1
S = 100'
Site Access #4
S = 100'
Project Site
Site Access #2
Site Access #3
S = 400'
S = 450'
S = 225'
S = 225'
Mill Creek Boulevard
S = 100'
S = 350'
S = 200'
S = 150'
S = 150'
S = 75'
Gibbett Road
Estate Drive
170

1 Introduction

The proposed Gibbet Road Residential Development is in the northeast quadrant of the SC 170 (Okatie Highway) and Gibbet Road intersection in Beaufort County, South Carolina. This development is planned to consist of the following phases and land uses:

- 2025 Build Phase 1 – 150 multi-family housing units.
- 2027 Build Phase 2 – 6,300 square-foot convenience store and gas station with 12 fueling positions.
- 2029 Build Phase 3 – 8,850 square feet office space and 8,850 square feet retail space.

The location of the proposed development is illustrated in **Figure 2**, and the conceptual site plans are attached in **Appendix A**.

It is assumed that Phase 1 of the development will be built and fully occupied by 2025, Phase 2 by 2027, and Phase 3 by 2029. Therefore, this study summarizes the results of the traffic analyses under 2022 Existing conditions, future 2025 conditions, future 2027 conditions, and future 2029 conditions.

The study area consists of the following study intersections:

1) SC 170 (Okatie Highway) at Lawton Boulevard
2) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard
3) Gibbet Road at Estate Drive/Site Access #3 (proposed full-movement)
4) SC 170 (Okatie Highway) at Site Access #1 (proposed right-in, right-out access)
5) Gibbet Road at Site Access #2 (proposed right-in, right-out access)
6) SC 170 (Okatie Highway) at Site Access #4 (proposed right-in, right-out access)
7) SC 170 (Okatie Highway) at Site Access #5 (proposed right-in, right-out access)

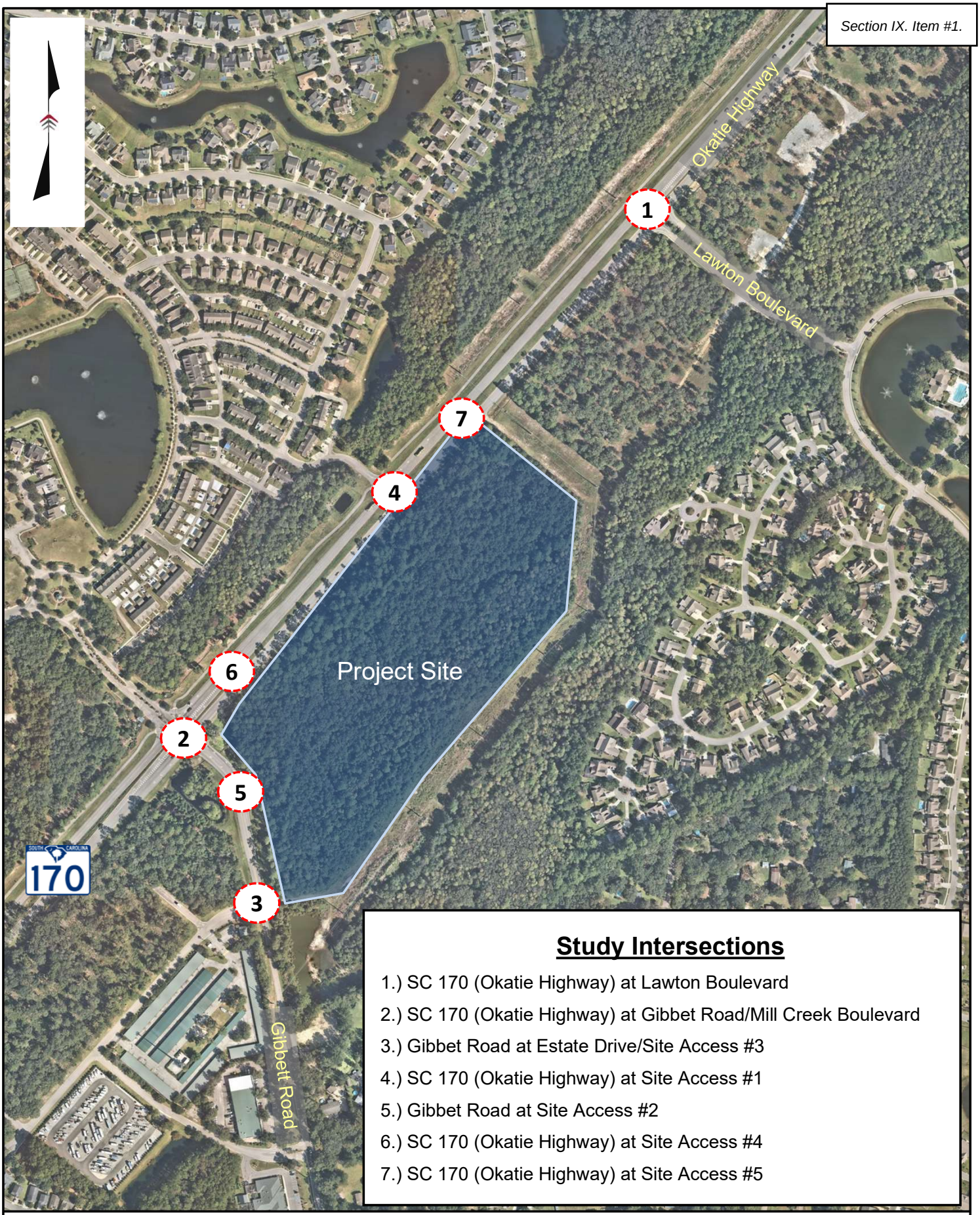
1.1 Existing Conditions

SC 170 (Okatie Highway) is a four-lane divided, urban minor arterial with a posted speed limit of 50 miles per hour (mph) in the study area. Based upon SCDOT data, 25,100 vehicles per day travelled along Okatie Highway in 2021 at count station 07-0165. Count station 07-0165 is good from SC 46 to US 278/W Fording Island Road.

Gibbet Road is a two-lane, urban major collector with a posted speed limit of 45 mph in the study area. Based upon SCDOT data, 3,500 vehicles per day travelled along Gibbet Road in 2021 at count station 07-0325. Count station 07-0325 is good from SC 170 (Okatie Highway) to May River Road.

Estate Drive and Lawton Boulevard are local roads. SCDOT does not provide daily traffic data for Estate Drive and Lawton Boulevard.

The existing geometry and traffic control for the study area intersections is illustrated in **Figure 3**.



Study Intersections

1.) SC 170 (Okatie Highway) at Lawton Boulevard

2.) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard

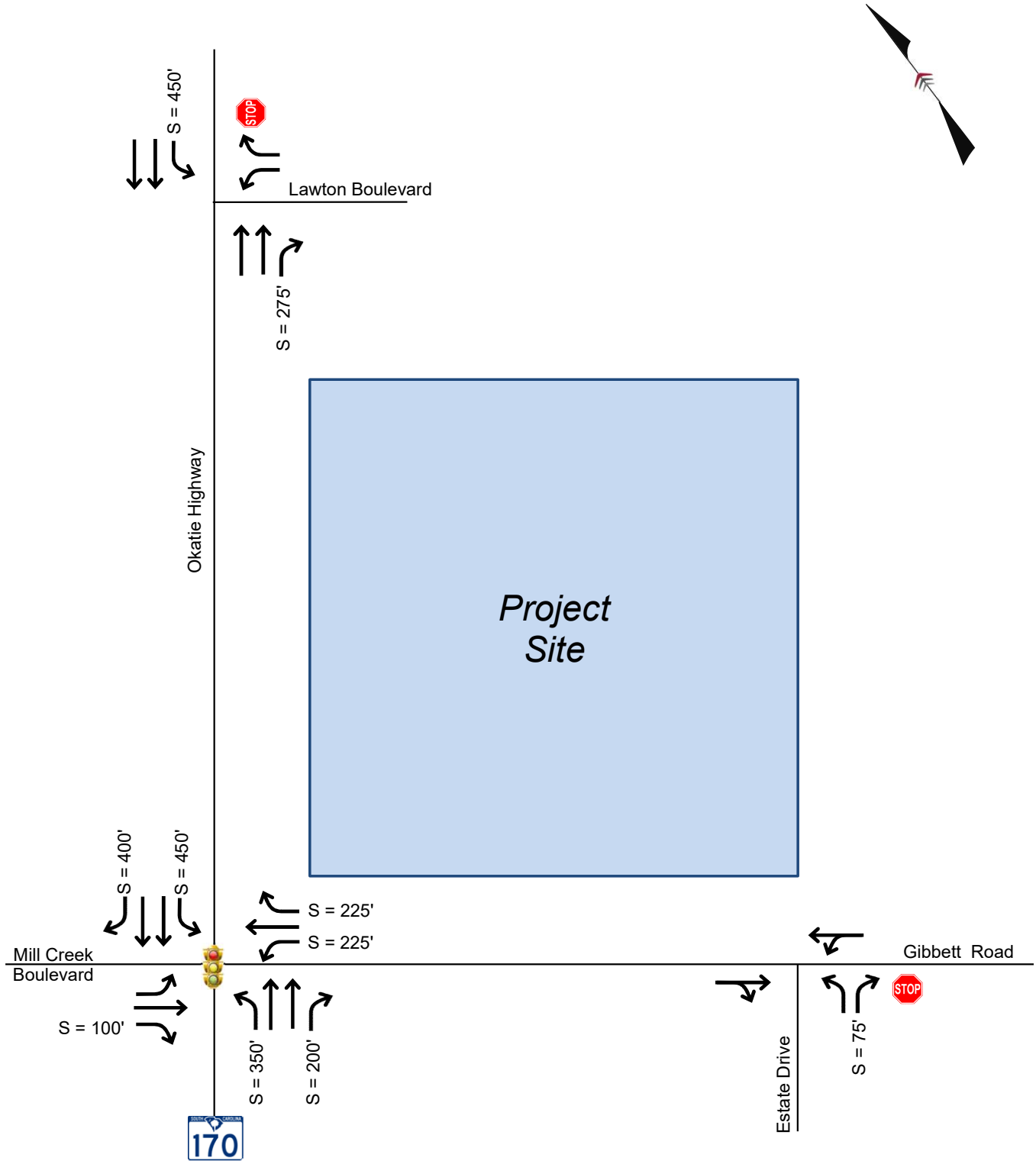
3.) Gibbet Road at Estate Drive/Site Access #3

4.) SC 170 (Okatie Highway) at Site Access #1

5.) Gibbet Road at Site Access #2

6.) SC 170 (Okatie Highway) at Site Access #4

7.) SC 170 (Okatie Highway) at Site Access #5


S = 450'
STOP
Lawton Boulevard
S = 275'
Okatie Highway
Project Site
S = 400'
S = 450'
S = 225'
S = 225'
Mill Creek Boulevard
Gibbett Road
S = 100'
S = 350'
S = 200'
Estate Drive
S = 75'
STOP
170
Legend
Existing Laneage
S = XX' Storage Length
Existing Signal
Existing Stop Conrol

2 Project Traffic

2.1 Trip Generation

The trip generation rates and equations published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual; 11th Edition* were used to estimate the trip generation potential for the development. The analysis was performed using the information provided for the following land use codes (LUCs):

- LUC 220 - Multifamily Housing (Low-Rise) – 150 Dwelling Units
- LUC 712 – Small Office Building – 8,850 SF
- LUC 822 – Strip Retail Plaza (<40K) – 8,850 SF
- LUC 945 – Convenience Store/Gas Station (9-15 Fueling Positions) – 6,300 SF

Pass-by trip reductions were estimated based on the methodologies in the *ITE Trip Generation Manual, 11th Edition*. Furthermore, because Phase 1 only includes a multifamily scenario, pass-by trips were only estimated for Phase 2 and Phase 3 of the development. Since the development includes retail, residential, and office land uses internal capture reductions were calculated. As shown in **Table 1**, Phase 1 of the development is anticipated to generate 69 (17 In/52 Out) new AM peak hour trips and 85 (54 In/31Out) new PM peak hour net new external trips.

Table 2 shows that Phase 2 of the development is anticipated to generate 153 (59 in/94 out) new AM peak hour trips and 138 (81 in/57 out) new PM peak hour trips. The estimated trip generation is summarized in **Table 2**.

Table 3 shows that Phase 3 of the development is anticipated to generate 193 (86 in/107 out) new AM peak hour trips and 214 (116 in/98 out) new PM peak hour trips. The estimated trip generation is summarized in **Table 3**. Trip generation calculations can be found in **Appendix B**.

Table 1 – Phase 1 Trip Generation Summary

Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
220 – Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**
Total Net New External Trips			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**

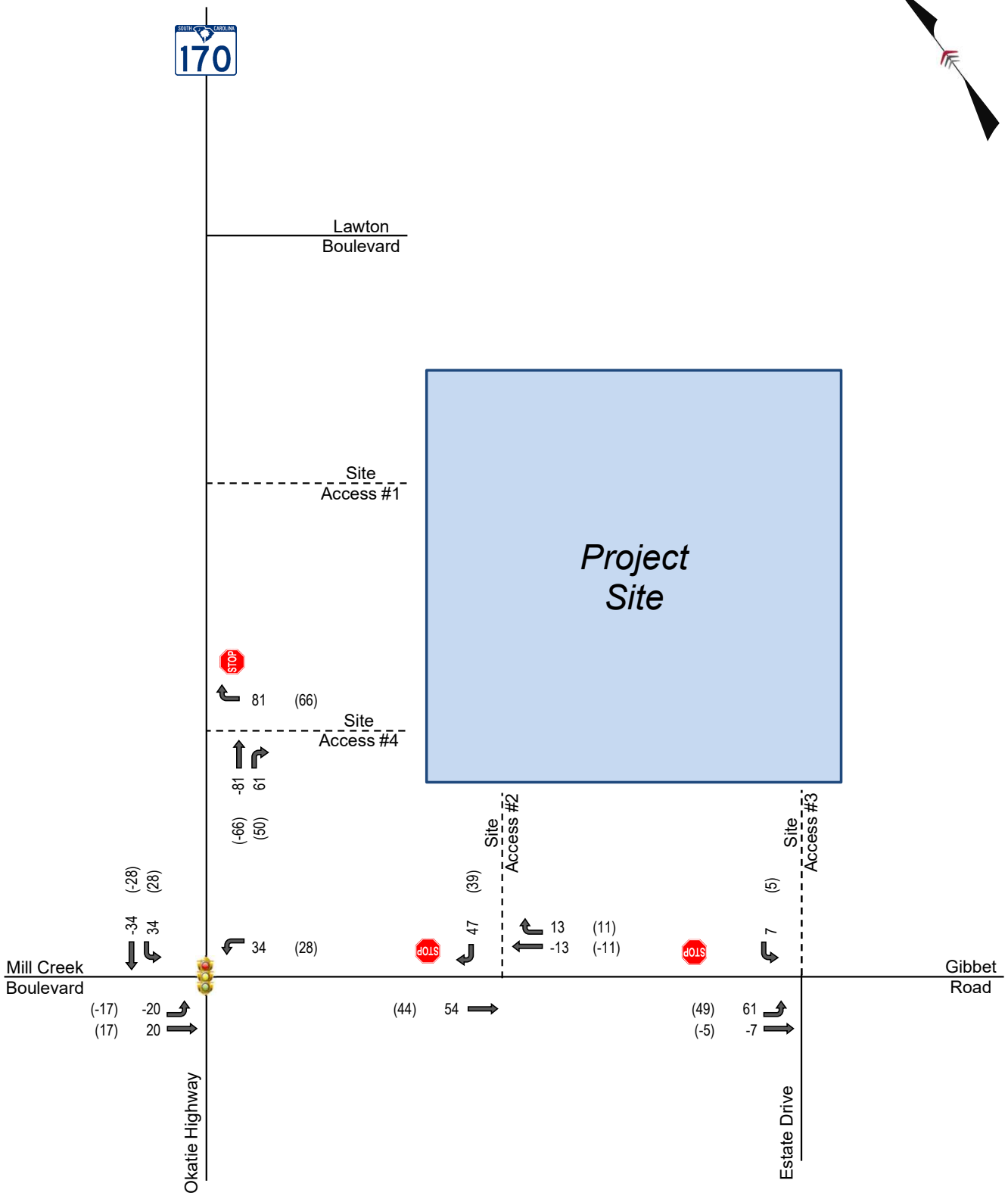
Table 2 - Phase 2 Trip Generation Summary

Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
220 – Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
945 – Convenience Store/Gas Station (9-15 Fueling Positions)	6.3	KSF	4,082	356	178	178	343	172	171
Subtotal			**5,119**	**425**	**195**	**230**	**428**	**226**	**202**
Internal Capture			**-470**	**-2**	**-1**	**-1**	**-70**	**-35**	**-35**
Pass-By			**-3,000**	**-270**	**-135**	**-135**	**-220**	**-110**	**-110**
Total Net New External Trips			**1,649**	**153**	**59**	**94**	**138**	**81**	**57**

Table 3 - Phase 3 Trip Generation Summary

Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
220 – Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
712 – Small Office Building	8.85	KSF	127	15	12	3	19	6	13
822 – Strip Retail Plaza (<40K)	8.85	KSF	603	27	16	11	71	36	35
945 – Convenience Store/Gas Station (9-15 Fueling Positions)	6.3	KSF	4,082	356	178	178	343	172	171
Subtotal			**5,849**	**467**	**223**	**244**	**518**	**268**	**250**
Internal Capture			**-556**	**-6**	**-3**	**-3**	**-80**	**-40**	**-40**
Pass-By			**-3,000**	**-268**	**-134**	**-134**	**-224**	**-112**	**-112**
Total Net New External Trips			**2,293**	**193**	**86**	**107**	**214**	**116**	**98**

The project pass-by project trips for phase 2 and phase 3 of the development is illustrated in **Figure 4** and **Figure 5**, respectively.



Legend

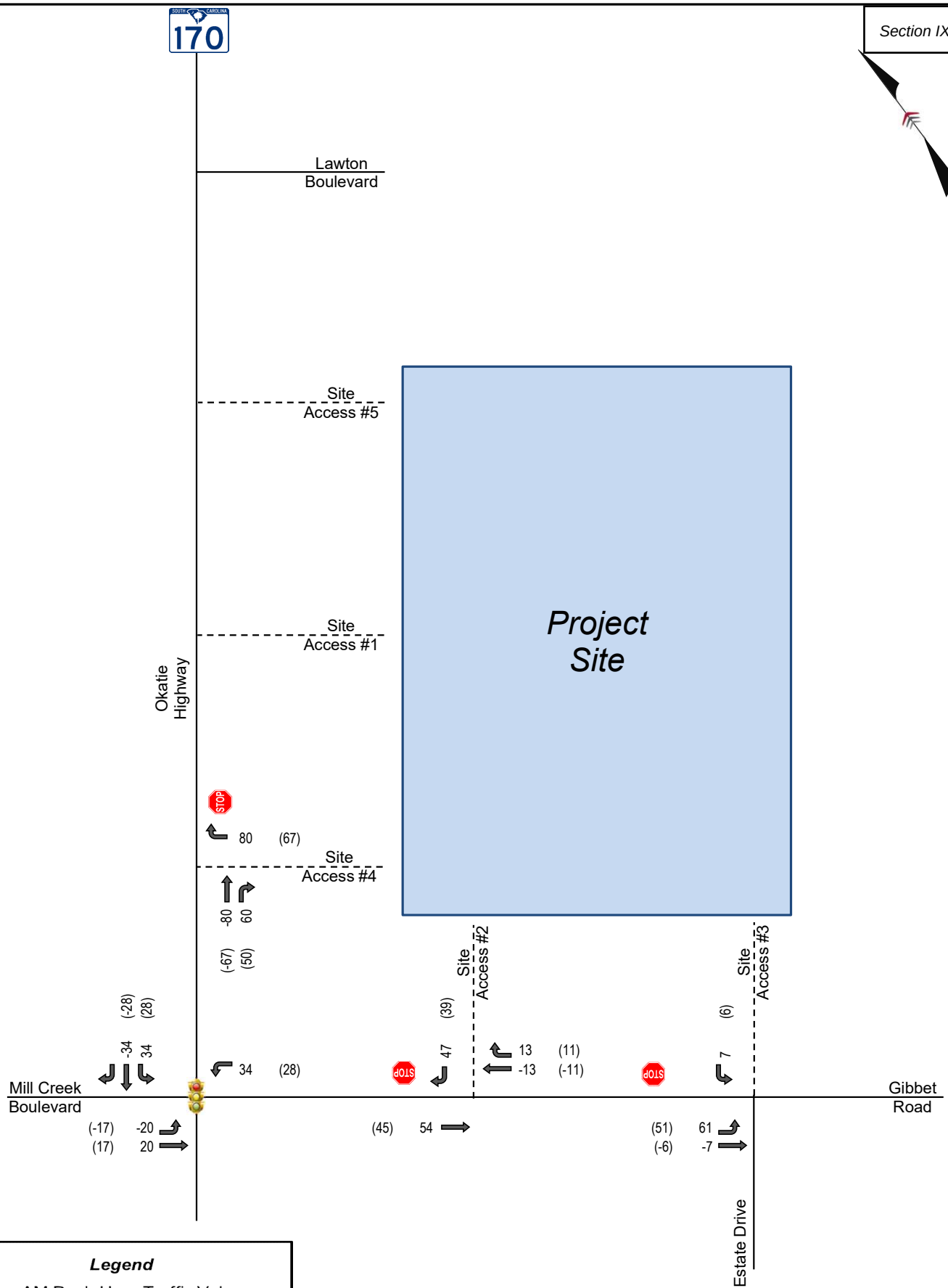
xx AM Peak Hour Pass-By Traffic

(xx) PM Peak Hour Pass-By Traffic

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Figure 4 - Phase 2 Pass-By Project Trips



Legend

xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Gibbet Road Residential Development

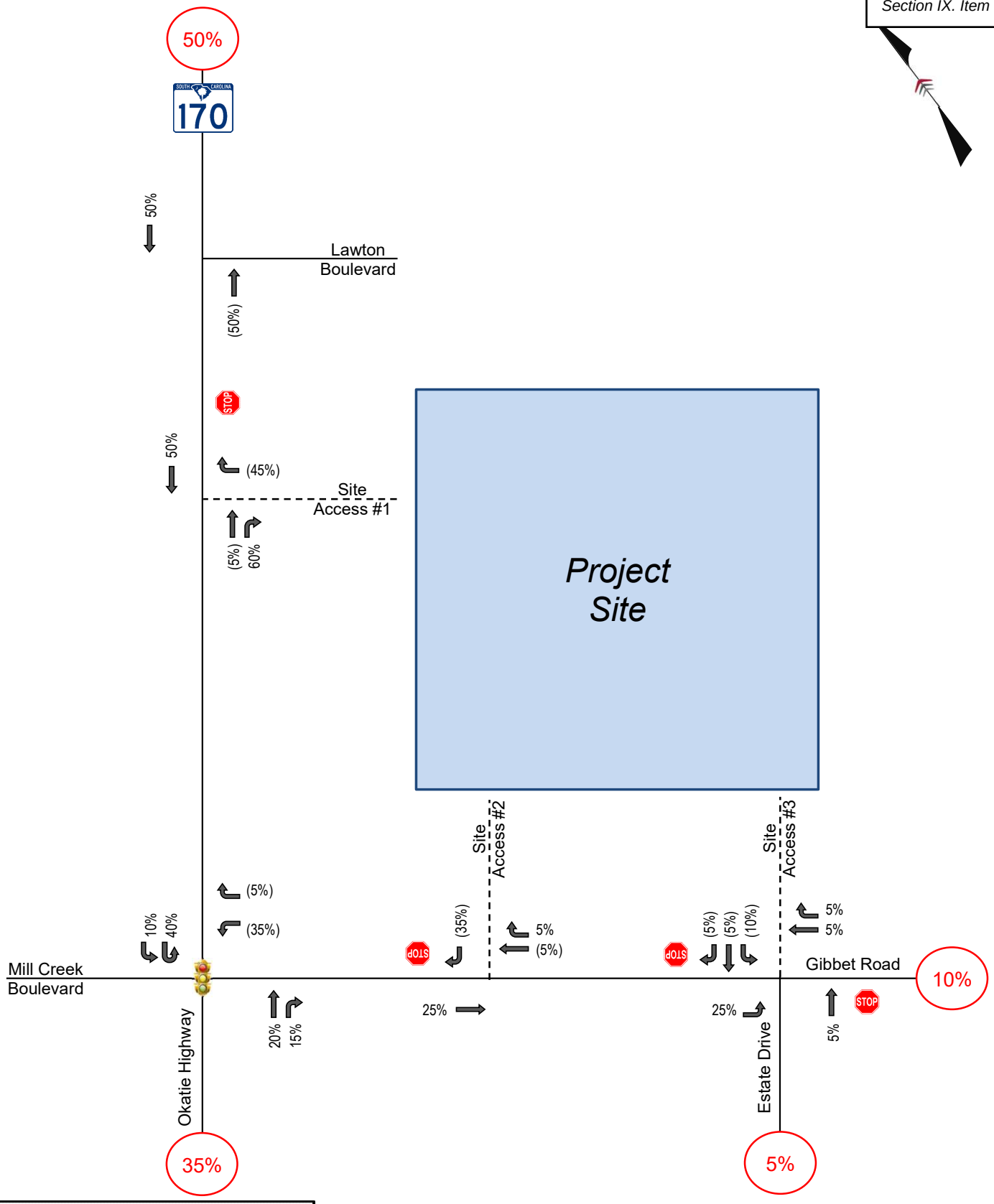
Figure 5 - Phase 3 Project Pass-By Trip

2.2 Trip Distribution & Assignment

New external trips generated by the proposed development were distributed and assigned to the surrounding roadway network based on existing travel patterns, surrounding land uses, and the proposed site layout. The trip distribution percentages used in this analysis are as follows.

- 50% to/from the North via SC 170 (Okatie Highway)
- 35% to/from the South via SC 170 (Okatie Highway)
- 5% to/from the South via Estate Drive
- 10% to/from the East via Gibbet Road

The site trip distributions and assignments for Phase 1, Phase 2, and Phase 3 are illustrated in **Figure 6**, **Figure 7**, and **Figure 8**, respectively. 2025 Phase 1 Project Trips, 2027 Phase 2 Project Trips, and 2029 Phase 3 Project Trips are illustrated in **Figure 9**, **Figure 10**, and **Figure 11**, respectively.



Legend

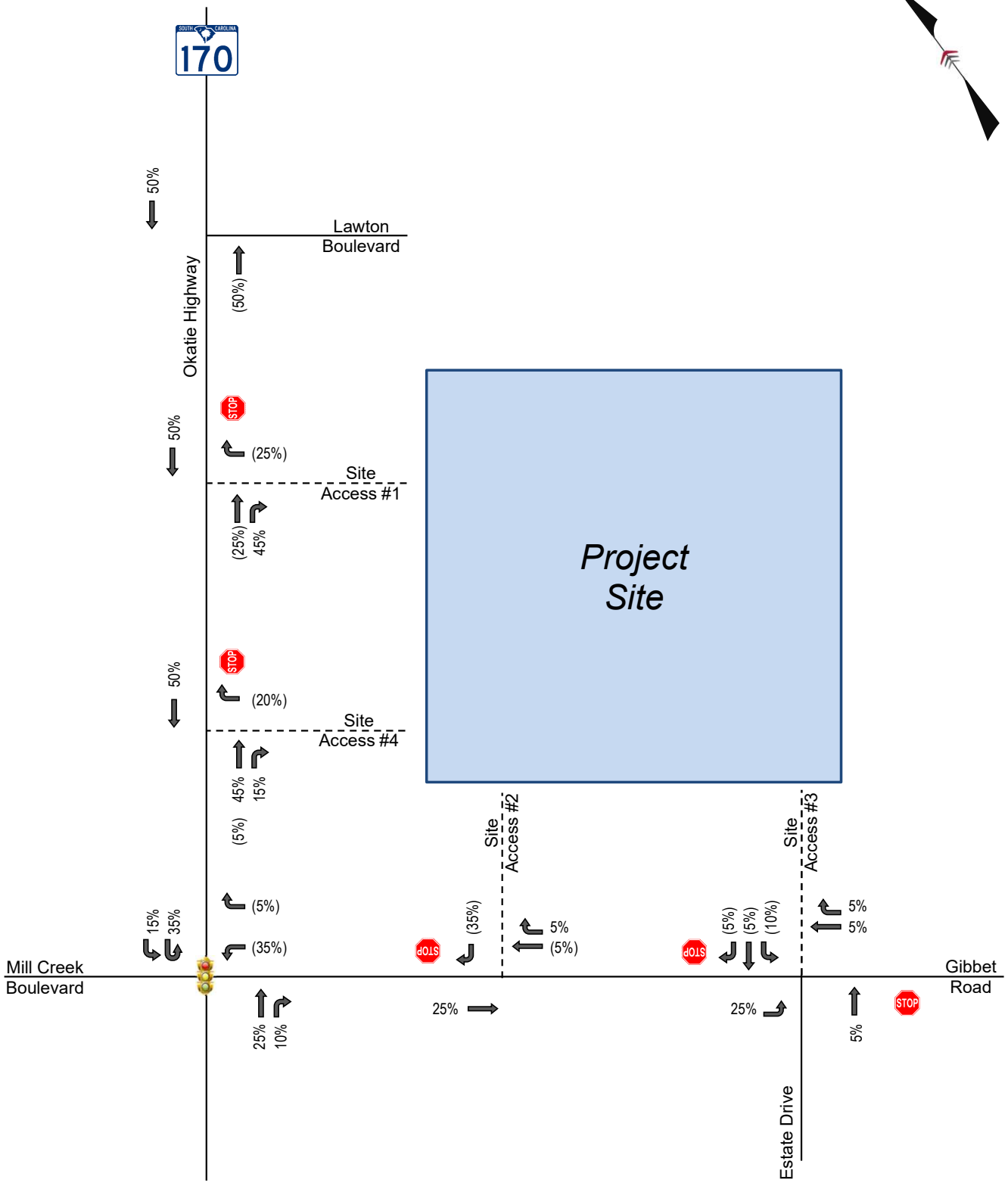
xx% Inbound Trip Distribution

(xx%) Outbound Trip Distribution

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Gibbet Road Residential Development

Figure 6 - Phase 1 Trip Distribution and Assi



Legend

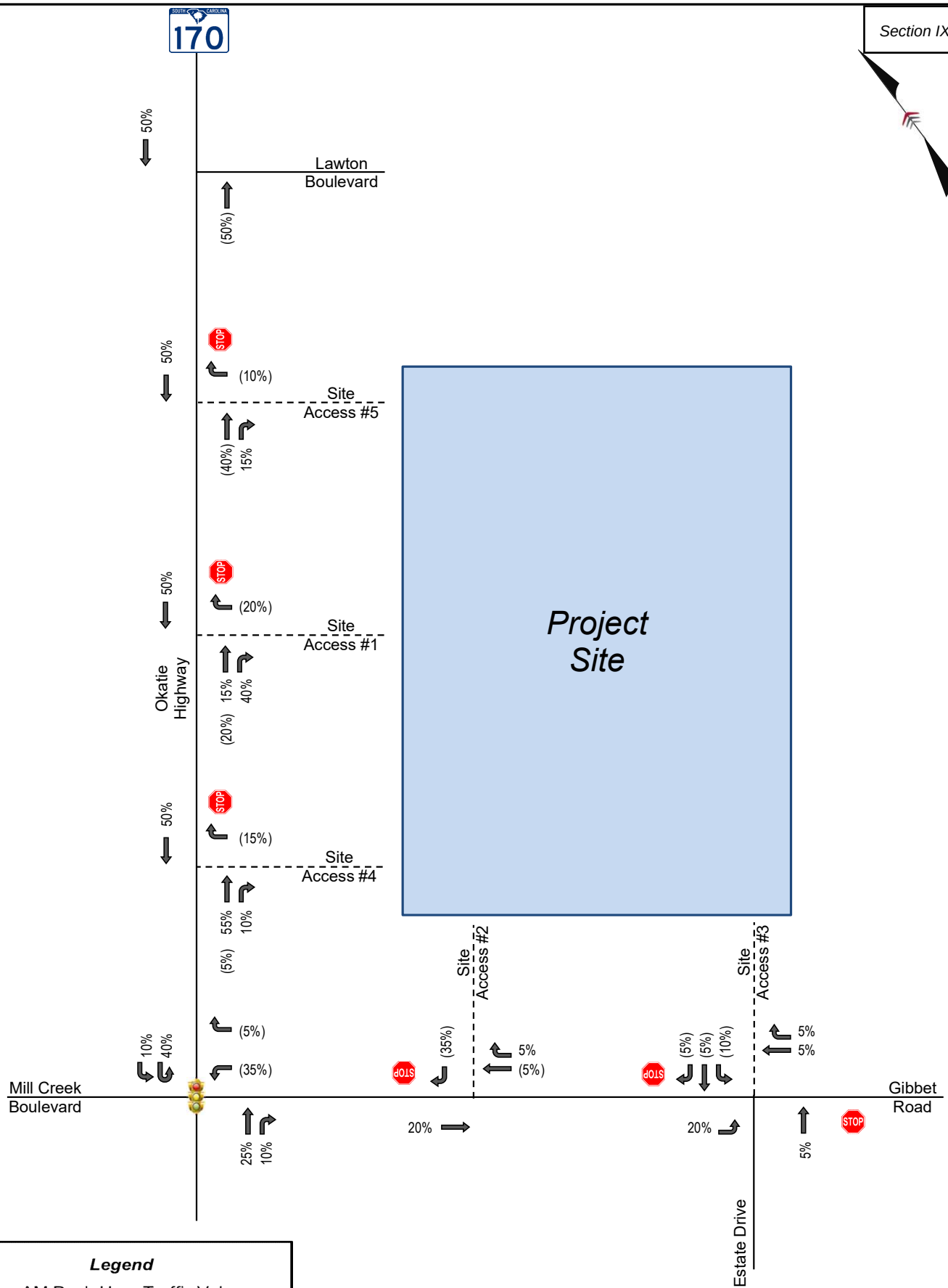
xx% Inbound Trip Distribution

(xx%) Outbound Trip Distribution

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Figure 7 - Phase 2 Trip Distribution and Assignment



Legend

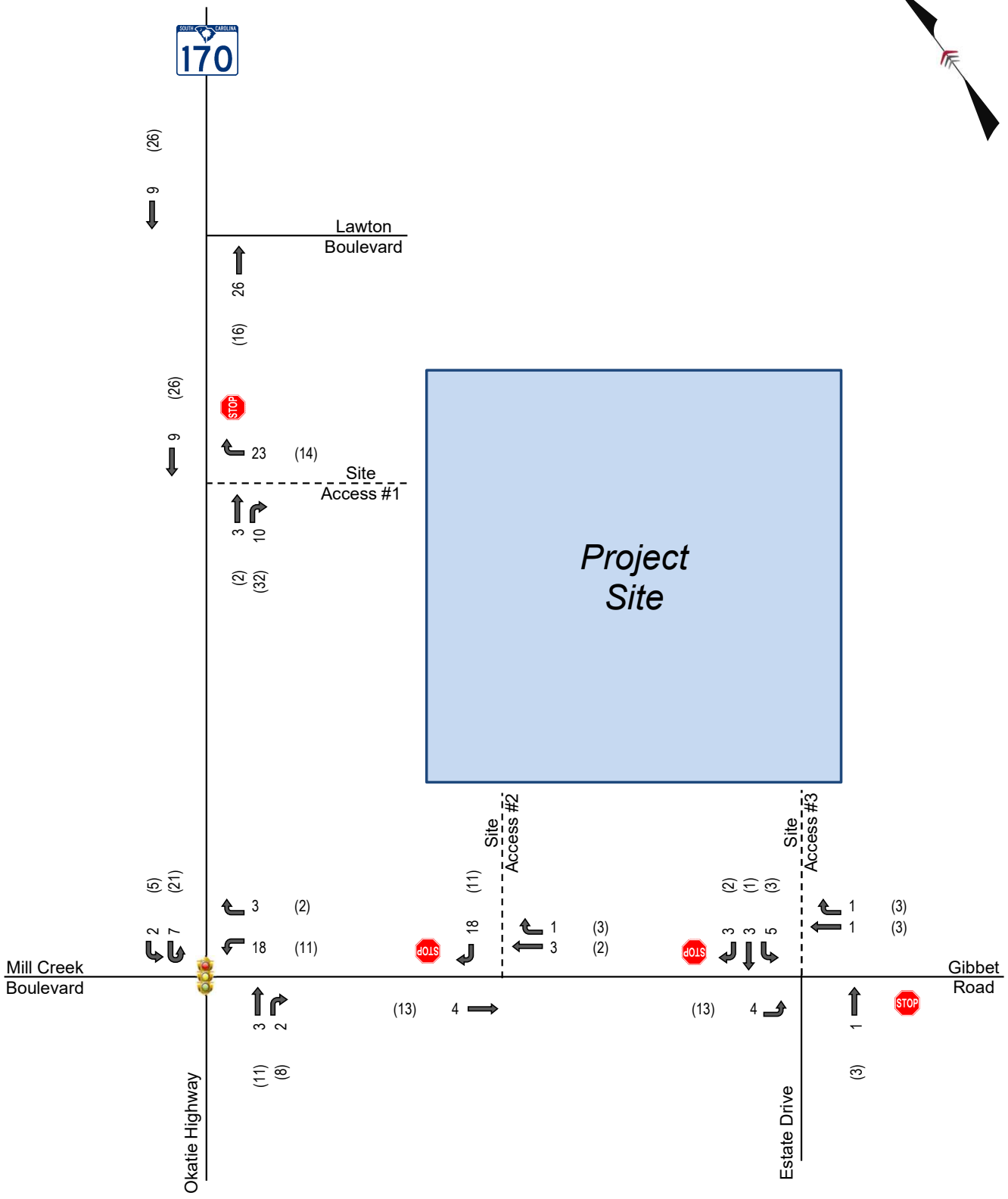
xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Gibbet Road Residential Development

Figure 8 - 2029 Phase 3 Trip Distribution and Ass



Legend

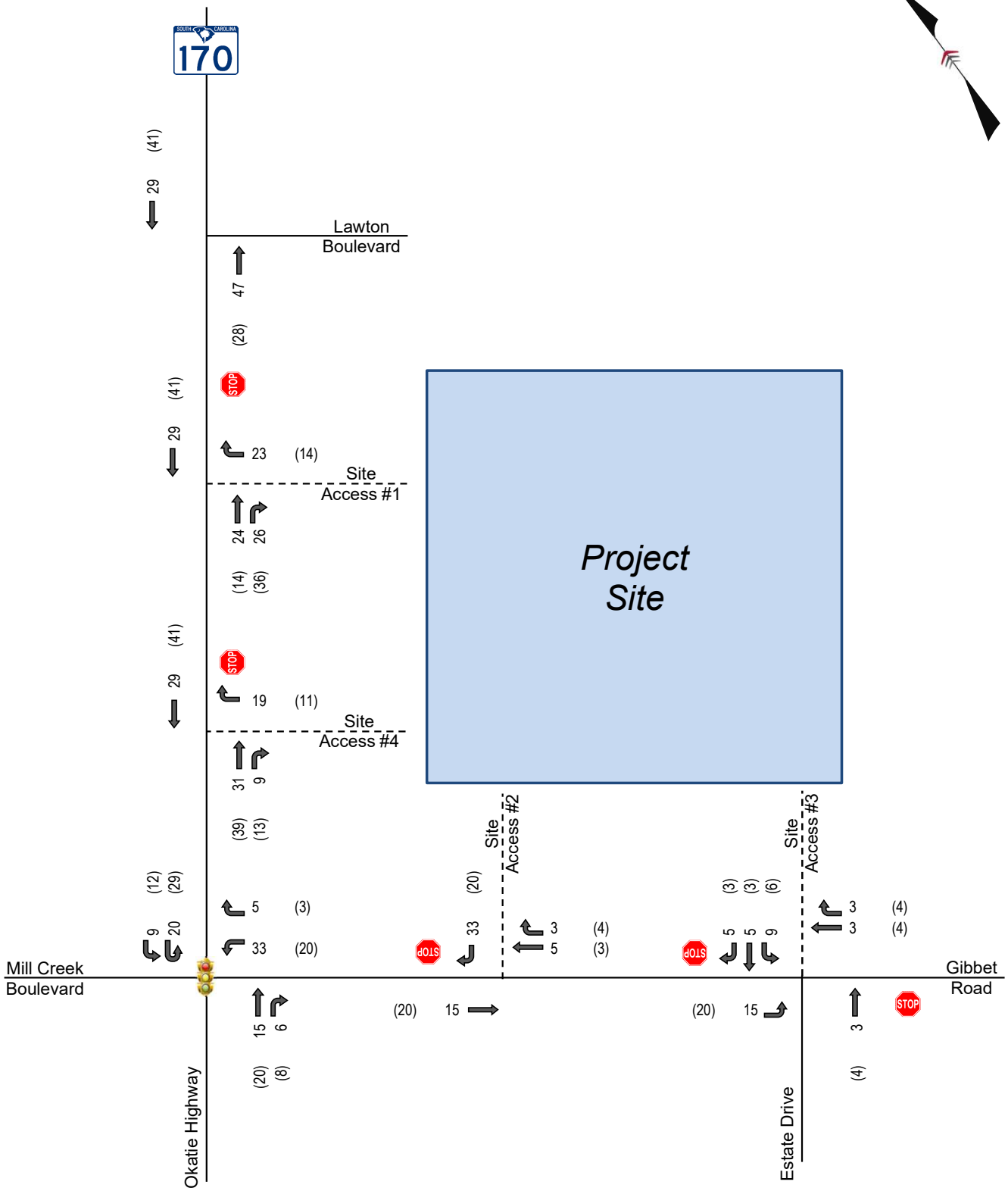
xx AM Peak Hour Project Trips

(xx) PM Peak Hour Project Trips

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Figure 9 - 2025 Phase 1 Project Trips



Legend

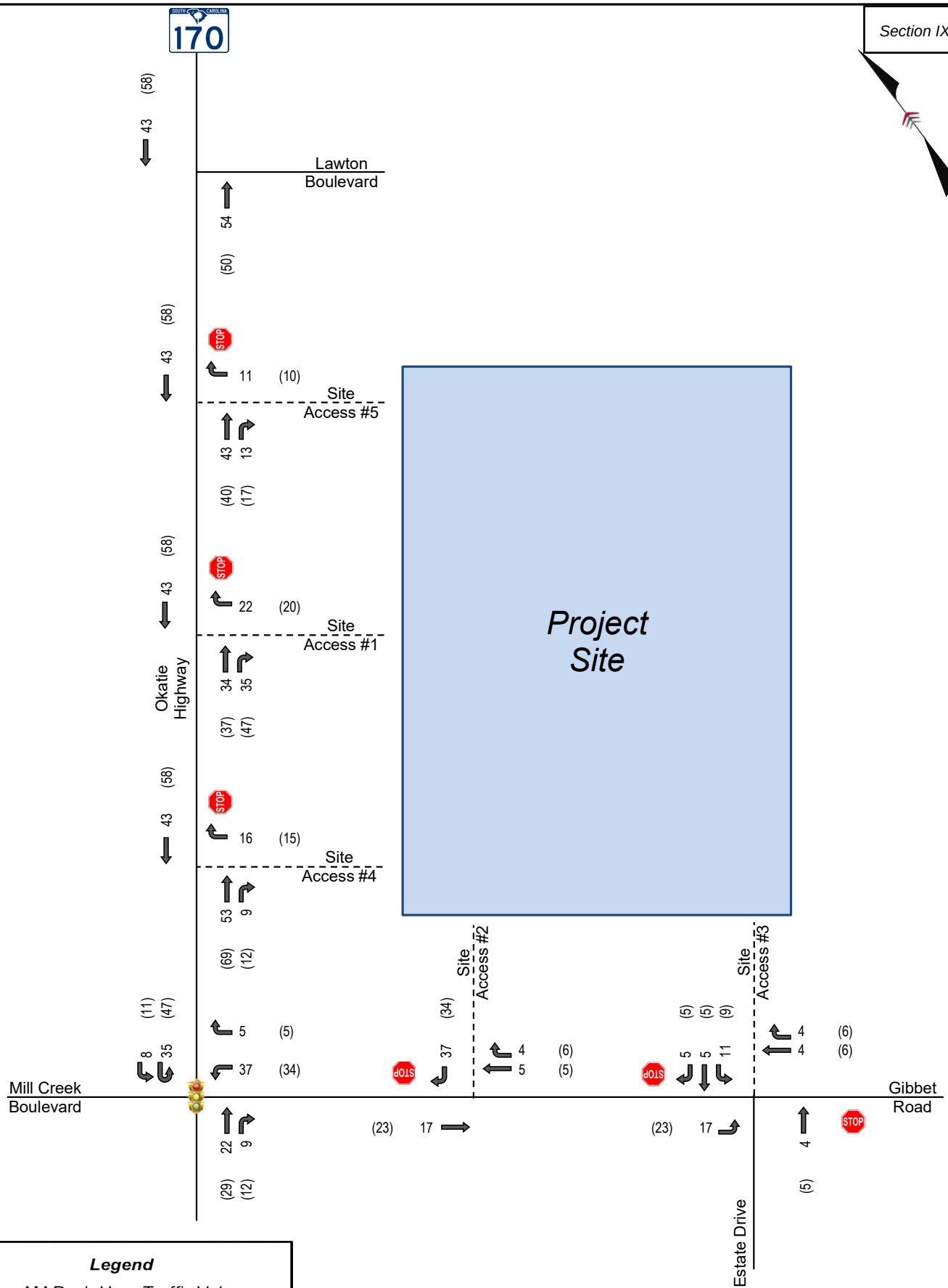
xx AM Peak Hour Project Trips

(xx) PM Peak Hour Project Trips

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Figure 10 - Phase 2 Project Trips



Legend

xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Figure 11 - 2027 Phase 3 Proj

3 Existing and Future Traffic Volume Development

Existing 2022 traffic volumes were utilized in the analysis and future-year traffic volumes were developed for projected 2025, 2027, and 2029 traffic conditions. The future-year volumes consisted of the existing traffic volumes adjusted by an annual growth rate and the projected traffic volumes of the Gibbet Road Residential development. Worksheets documenting the traffic volume development are provided in **Appendix C**.

3.1 2022 Existing Traffic

Peak-hour intersection turning movement counts were conducted in the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM) on Thursday, November 10th, 2022, at the following intersections:

- SC 170 (Okatie Highway) at Gibbet Road
- SC 170 (Okatie Highway) at Lawton Boulevard
- Gibbet Road at Estate Drive

Figure 12 illustrates the 2022 Existing peak-hour traffic volumes for the AM and PM peak hours. The raw-turning movement count data is included in **Appendix D**.

3.2 Future-Year No-Build Traffic Development

It was assumed that Phase 1 of the development will be built and fully occupied by 2025, Phase 2 by 2027, and Phase 3 by 2029. The future-year traffic volumes consist of the 2022 existing traffic volumes adjusted by a growth rate for the no-build scenarios.

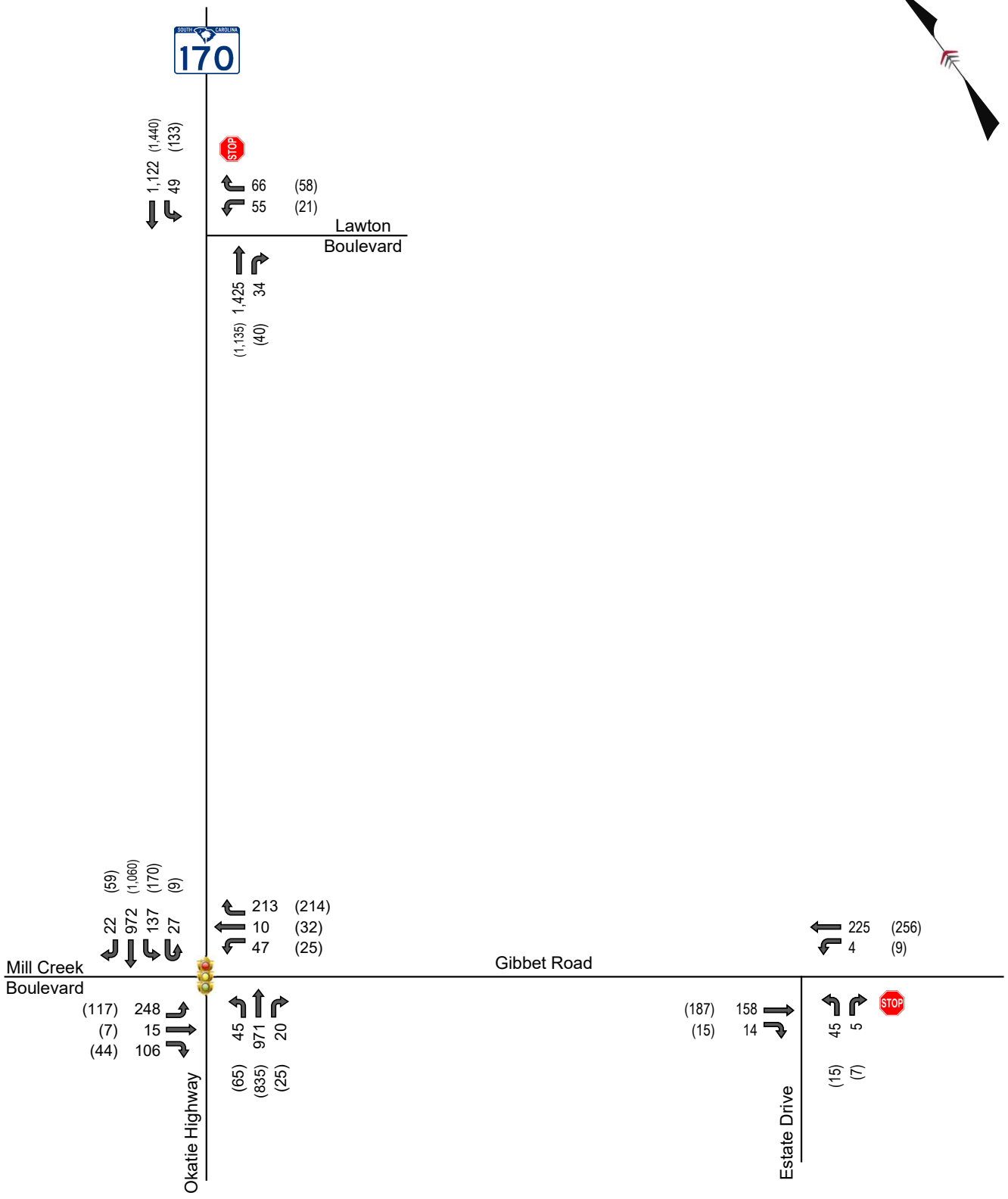
To determine the historical growth rate in the area, traffic count data was obtained from SCDOT for the count stations along Okatie Hwy and Gibbet Road. Over the past ten years, these roadways have experienced an annual growth rate of 6.5%. Therefore, a 7.0% growth rate was used to develop the no-build traffic volumes for the 2025, 2027, and 2029 conditions. A worksheet documenting the growth rate determination is included in **Appendix E**.

In the surrounding area, the approved background development of the *Palmetto Point Pickleball and Commercial Site*, Kimley-Horn 2021, was accounted for in developing 2025 No-Build, 2027 No-Build, and 2029 No-Build traffic volumes. Volumes associated with this development are illustrated in **Figure 13**.

Figure 14 illustrates the 2025 No-Build traffic volumes, **Figure 15** illustrates the 2027 No-Build traffic volumes, and **Figure 16** illustrates the 2029 No-Build traffic volumes for the AM and PM peak hours.

3.3 Future-Year Build Traffic Development

The Gibbet Road Residential project traffic volumes were added to the no-build traffic volumes to develop build traffic volumes for the 2025, 2027, and 2029 build-out scenarios**. Figure 17** illustrates the 2025 build traffic volumes, **Figure 18** illustrates the 2027 build traffic volumes, and **Figure 19** illustrates the 2029 build traffic volumes for the AM and PM peak hours.



Legend

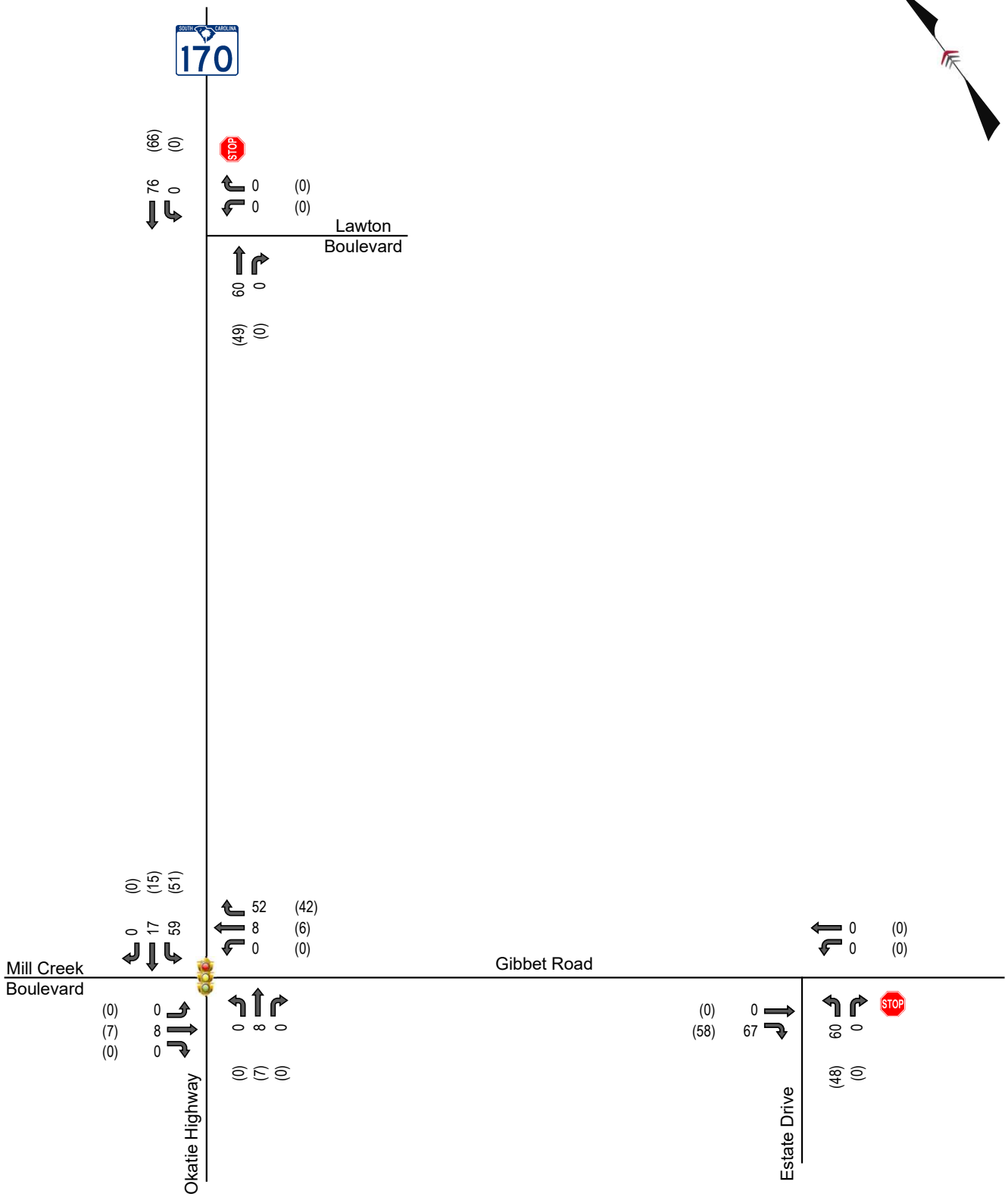
xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Figure 12 - 2022 Existing Peak Hour Traffic Volumes



Legend

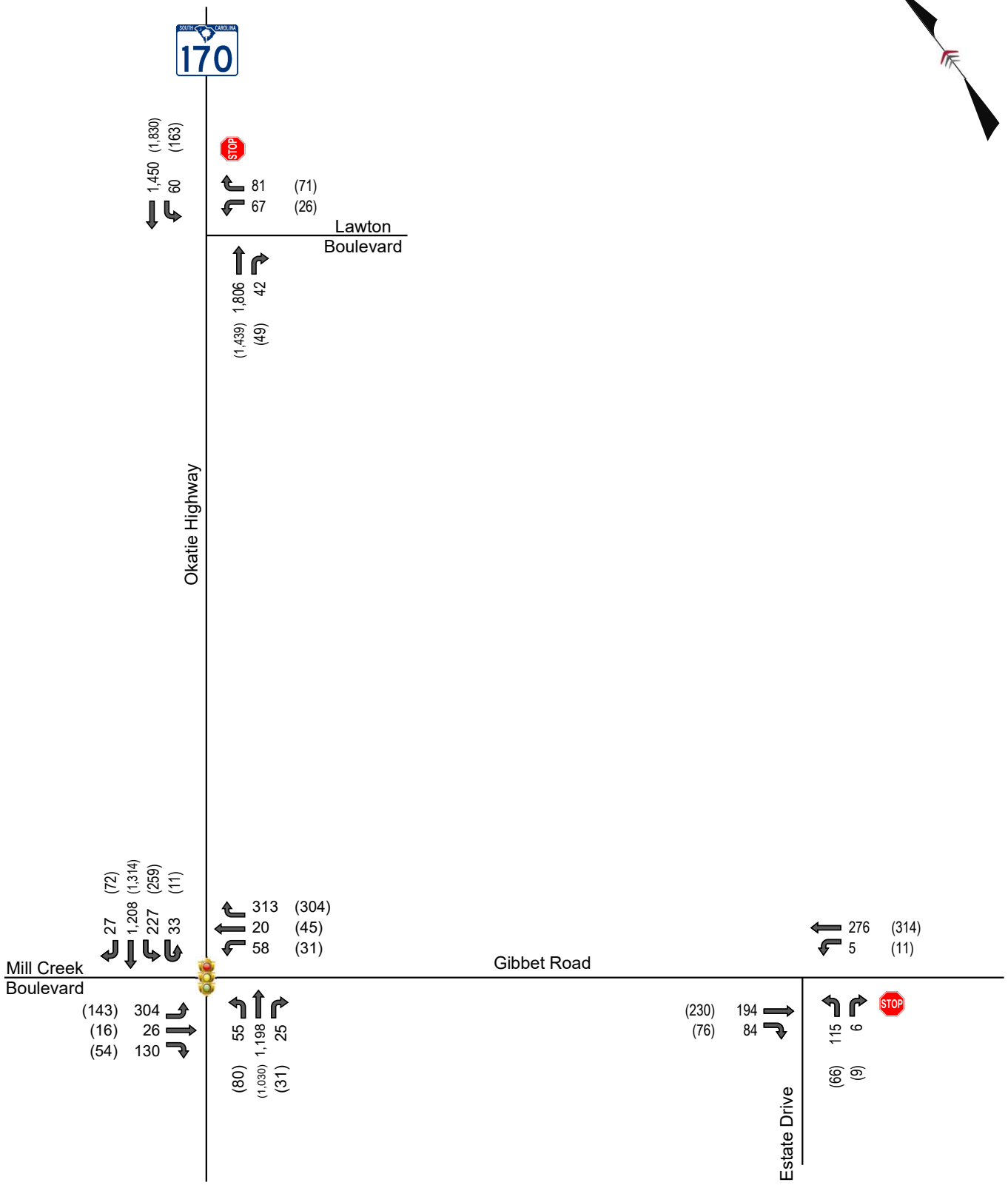
xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Figure 13 - Approved Development Traffic Volumes



Legend

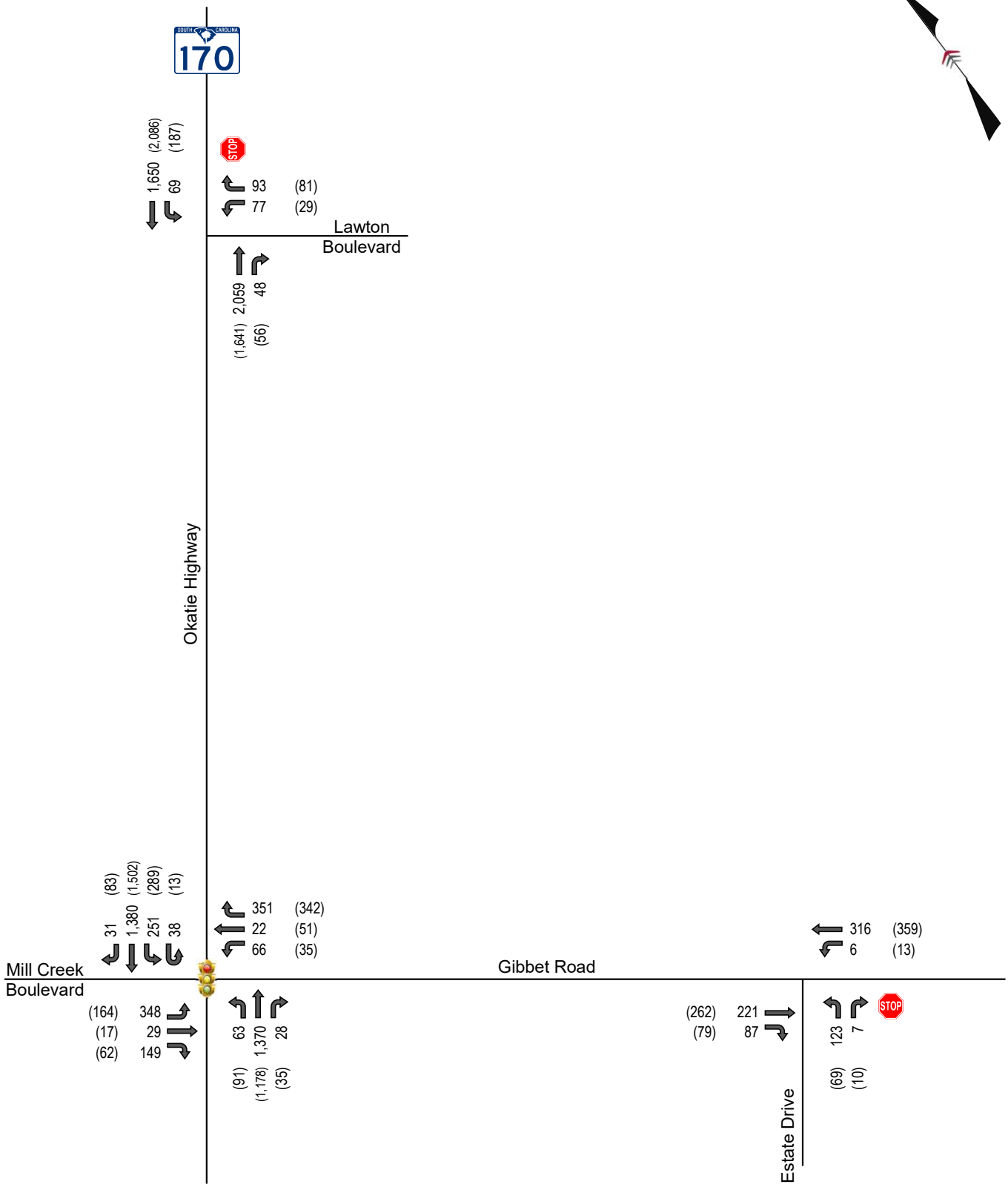
xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Figure 14 - 2025 No-Build Peak Hour Traffic V



Legend

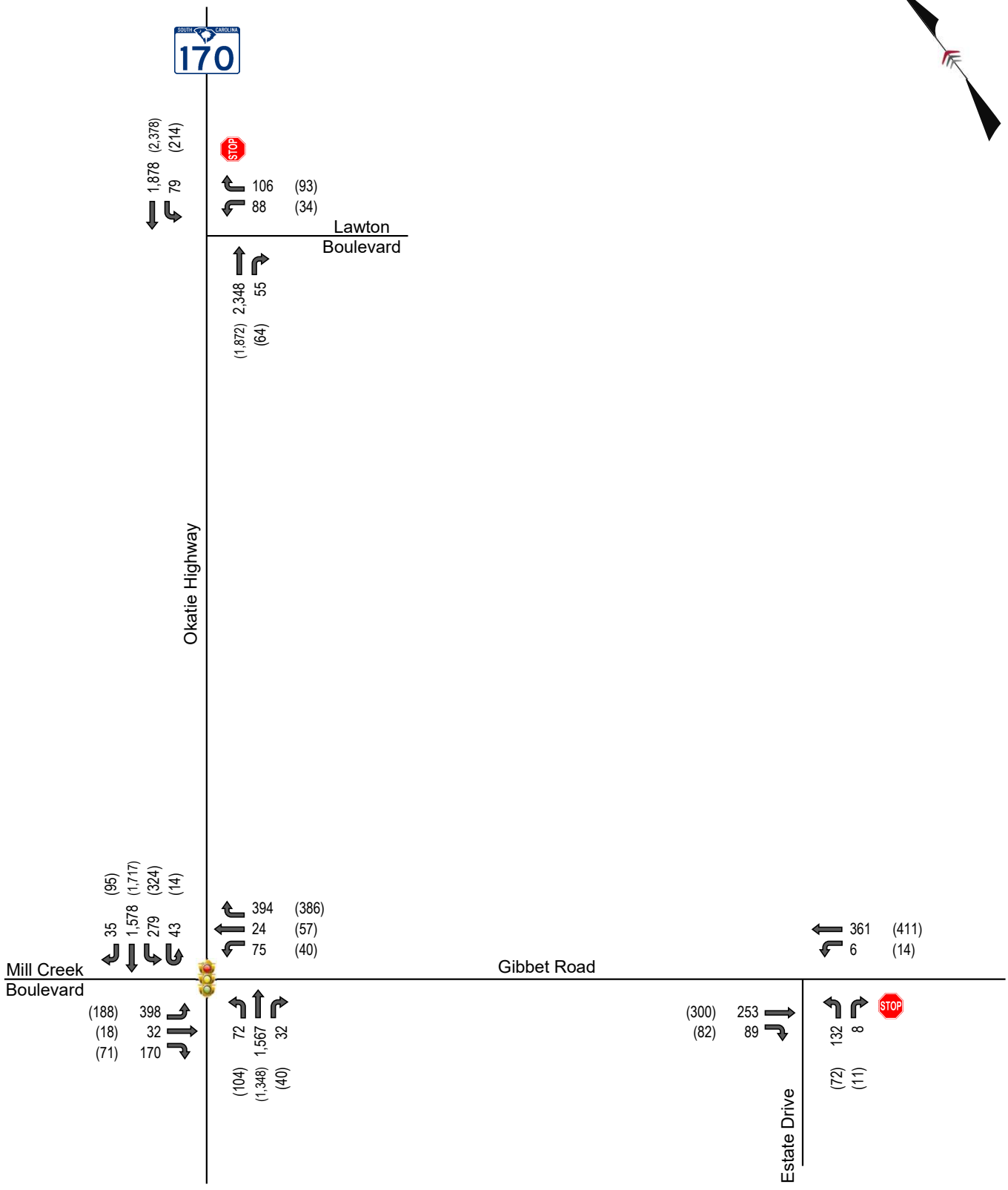
xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

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Figure 15 - 2027 No-Build Peak Hour Traffic V



Legend

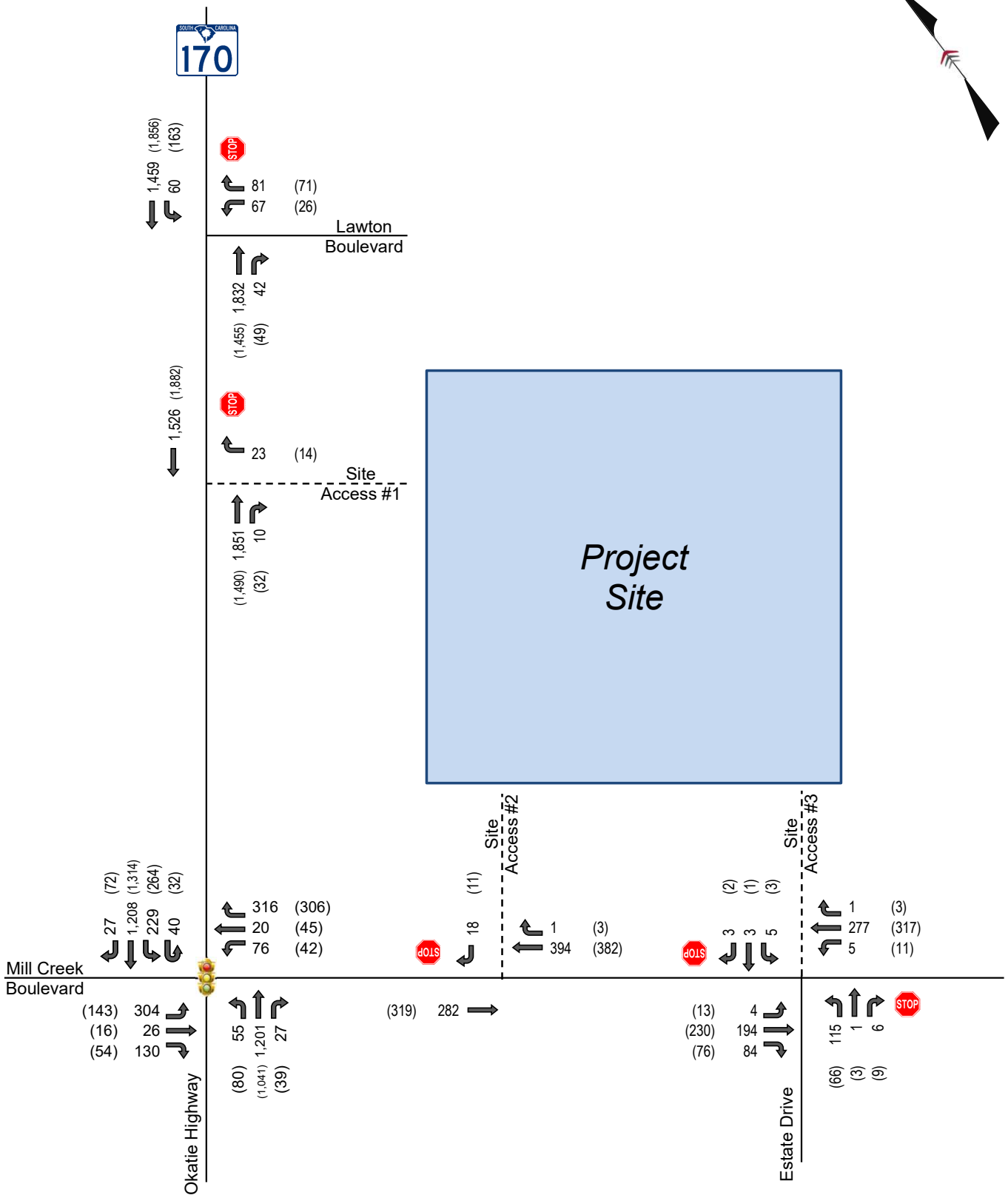
xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

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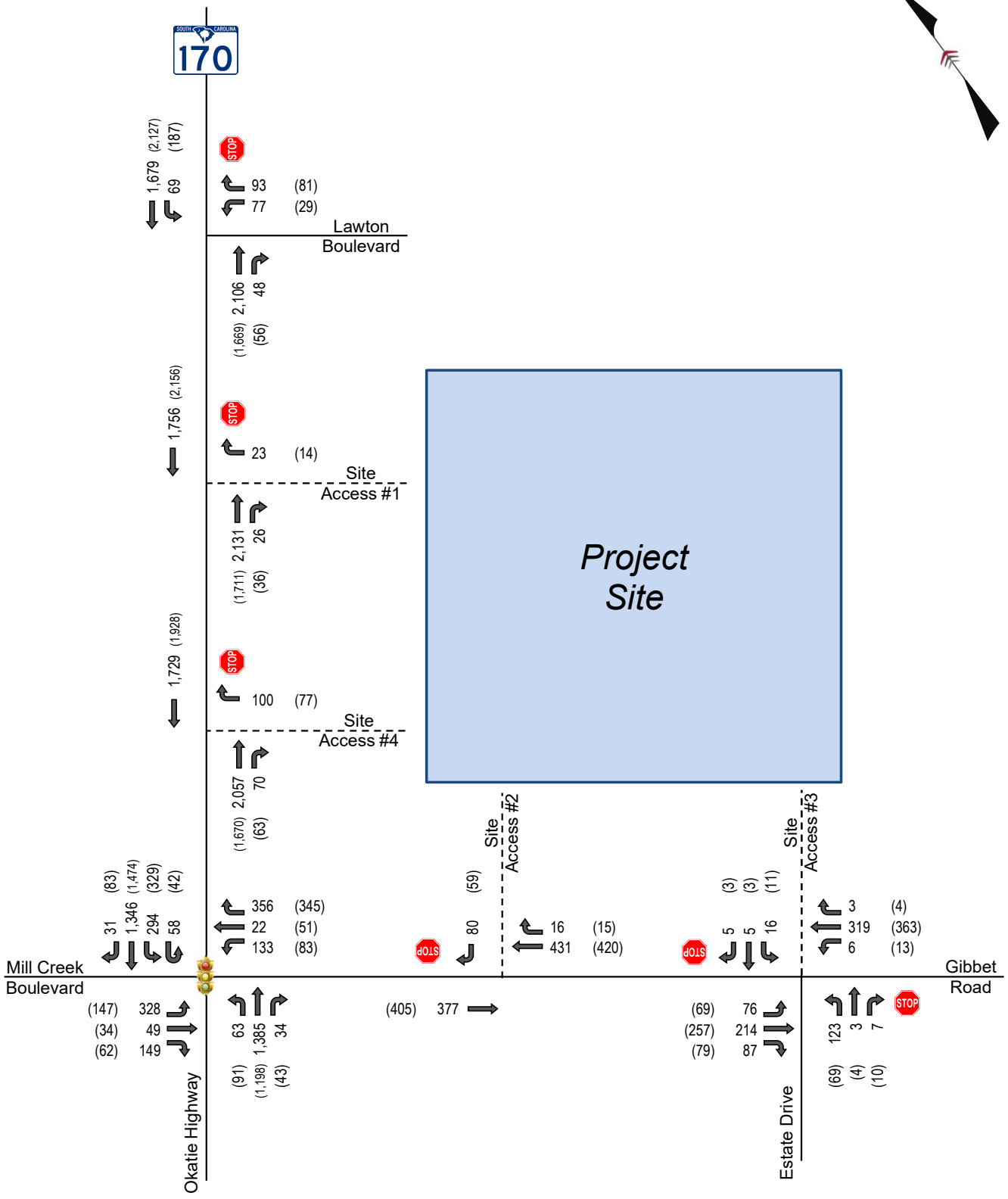
Figure 16 - 2029 No-Build Peak Hour Traffic V



Legend

xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes



Legend

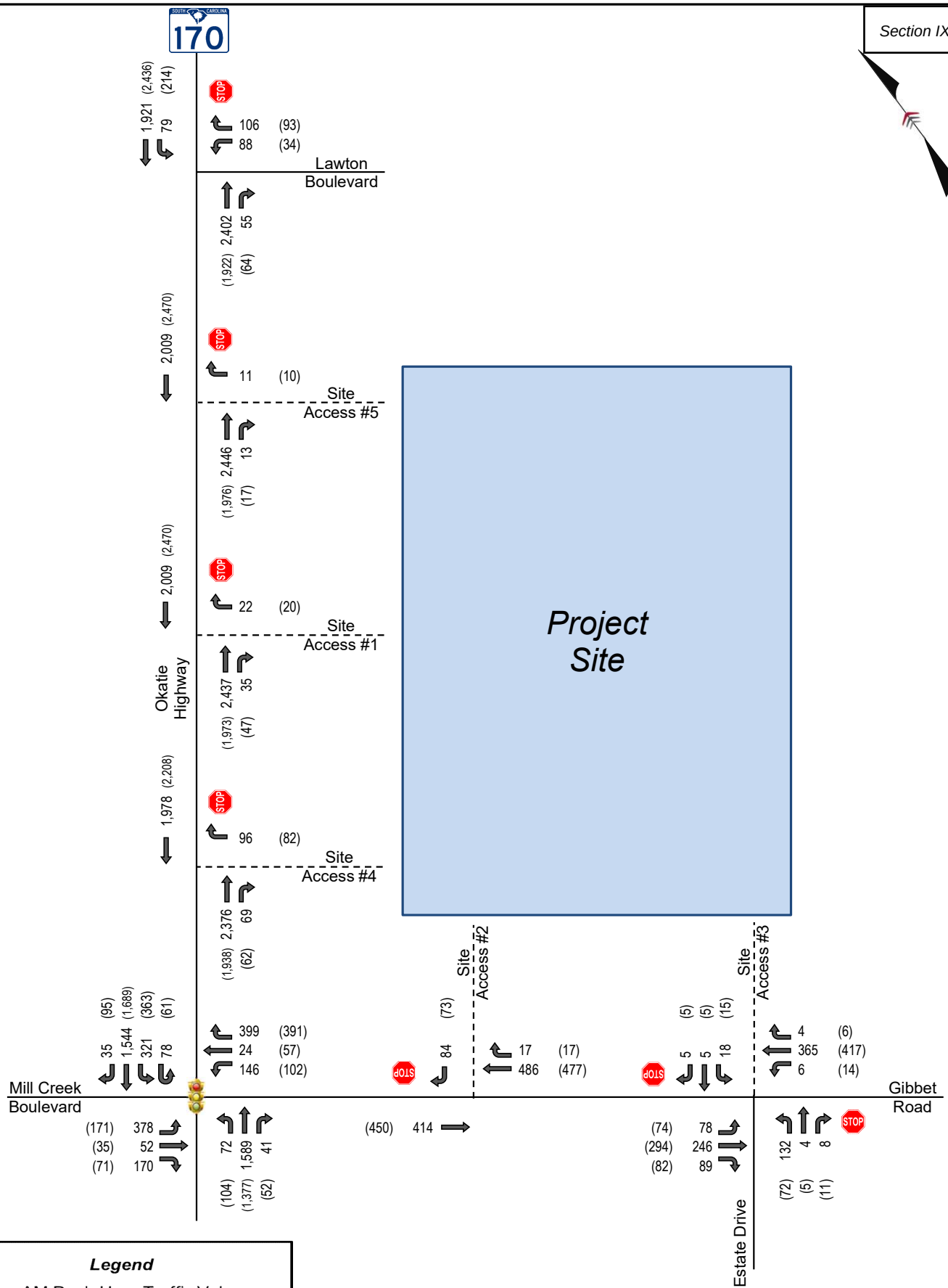
xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

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Figure 18 - 2027 Phase 2 Build Peak Hour Volumes



Legend

xx AM Peak-Hour Traffic Volumes

(xx) PM Peak-Hour Traffic Volumes

4 Capacity Analysis

Capacity/level-of-Service (LOS) analyses were conducted using the *Highway Capacity Manual (HCM),* 6th Edition, methodologies of the *Synchro*, Version 11, traffic analysis software. Capacity analyses were conducted for the AM and PM peak hours of the 2022 Existing conditions, 2025 No-Build conditions, 2025 Build conditions, 2027 No-Build conditions, 2027 Build conditions, 2029 No-Build conditions, and 2029 Build conditions analysis scenarios.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, gridlocked conditions with high vehicular delays, and are generally considered undesirable. **Table 4** lists the LOS control delay thresholds published in the *HCM* for signalized and unsignalized intersections.

Table 4 – *HCM* Level of Service Criteria

LOS	Control Delay per Vehicle (sec/veh)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

As part of the intersection analysis, SCDOT's default Synchro parameters were utilized. Existing peak-hour factors (PHF) were utilized for the existing scenarios and the PHFs for the future-year scenarios were adjusted to a minimum of 0.90 and maximum of 0.95. Existing heavy vehicle percentages were utilized for all scenarios, with a minimum of 2% considered.

Please note, U-turns located at the intersection of SC 170 (Okatie Highway) with Gibbet Road were accounted for in the left-turn volume due to the phasing conflict with the right-turn overlap along Gibbet Road. In addition, the 2027 and 2029 No-Build conditions do not account for the previous phases of the development.

The following sections outline the results of the capacity analysis for each of the study intersections. The capacity analysis worksheets are included in **Appendix F.**

4.1 SC 170 (Okatie Highway) at Lawton Boulevard

The capacity analysis results for the SC 170 (Okatie Highway) at Lawton Boulevard intersection are summarized in **Table 5**.

Table 5 – SC 170 (Okatie Highway) at Lawton Boulevard Analysis Results

Condition	Measure	WB (Lawton Boulevard)		NB (SC 170 Okatie Hwy)		SB (SC 170 Okatie Hwy)	
		WBL	WBR	NBT	NBR	SBL	SBT
AM Peak Hour							
2022 Existing	LOS (Delay)	D (27.2)		A (0.0)		B (13.8)*	
	Synchro 95th Q	38'	18'	0'	0'	10'	0'
2025 No-Build	LOS (Delay)	F (69.1)		A (0.0)		C (19.6)*	
	Synchro 95th Q	100'	35'	0'	0'	20'	0'
2025 Phase 1 Build	LOS (Delay)	F (72.0)		A (0.0)		C (20.0)*	
	Synchro 95th Q	103'	35'	0'	0'	20'	0'
2027 No-Build	LOS (Delay)	F (126.7)		A (0.0)		C (24.1)*	
	Synchro 95th Q	148'	50'	0'	0'	28'	0'
2027 Phase 2 Build	LOS (Delay)	F (141.2)		A (0.0)		D (25.3)*	
	Synchro 95th Q	155'	53'	0'	0'	28'	0'
2029 No-Build	LOS (Delay)	F (298.3)		A (0.0)		E (35.4)*	
	Synchro 95th Q	225'	85'	0'	0'	45'	0'
2029 Phase 3 Build	LOS (Delay)	F ($)		A (0.0)		E (37.8)*	
	Synchro 95th Q	230'	90'	0'	0'	50'	0'
PM Peak Hour							
2022 Existing	LOS (Delay)	C (18.8)		A (0.0)		B (13.2)*	
	Synchro 95th Q	13'	13'	0'	0'	23'	0'
2025 No-Build	LOS (Delay)	D (28.5)		A (0.0)		C (18.5)*	
	Synchro 95th Q	28'	20'	0'	0'	45'	0'
2025 Phase 1 Build	LOS (Delay)	D (29.2)		A (0.0)		C (18.8)*	
	Synchro 95th Q	28'	20'	0'	0'	48'	0'
2027 No-Build	LOS (Delay)	E (45.1)		A (0.0)		D (26.2)*	
	Synchro 95th Q	48'	30'	0'	0'	78'	0'
2027 Phase 2 Build	LOS (Delay)	E (48.6)		A (0.0)		D (27.4)*	
	Synchro 95th Q	53'	30'	0'	0'	83'	0'
2029 No-Build	LOS (Delay)	F (155.8)		A (0.0)		F (50.0)*	
	Synchro 95th Q	108'	45'	0'	0'	150'	0'
2029 Phase 3 Build	LOS (Delay)	F (205.3)		A (0.0)		F (56.7)*	
	Synchro 95th Q	115'	48'	0'	0'	163'	0'

* LOS and Delay shown for the southbound left-turn movement
$ - Delay Exceeds 300 sec/veh

2022 Existing, 2025 No-Build, and 2025 Phase 1 Build

Under 2022 Existing conditions the westbound approach along Lawton Boulevard operates at LOS D during the AM peak hour and LOS C during the PM peak hour. Under 2025 No-Build conditions, the westbound approach is expected to operate at LOS F during the AM peak hour and LOS D during the PM peak hour. This westbound approach is expected to operate similarly under the 2025 Build conditions with the consideration of the proposed development. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of Phase 1 of this proposed development.

2027 No-Build and 2027 Phase 2 Build

Under 2027 No-Build conditions, the westbound approach is expected to operate at LOS F during the AM peak hour and LOS E during the PM peak hour. This westbound approach is expected to operate similarly under the 2027 Build conditions with the consideration of the proposed development. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of Phase 2 of this proposed development.

2029 No-Build and 2029 Phase 3 Build

Under 2029 No-Build conditions, the westbound approach is expected to operate at LOS F during the AM and PM peak hour. The large increase in delay is primarily due to the large background growth of 7% per year over the seven-year period from 2022 to 2029. Additionally, volumes grown along Lawton Boulevard are conservative due to a majority of the neighborhood being built and occupied at the time turning movement counts were conducted. In addition, queues are not only anticipated to increase by one to two vehicles. Based on this, it is recommended that this intersection be monitored for the potential of installation of a traffic signal. It should be noted that Lawton Boulevard will operate at LOS F with or without phase 3 of this development, and if a traffic signal is warranted in the future, the Gibbet Road Residential Development is not responsible for installation.

4.2 SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard

The capacity analysis results for the SC 170 (Okatie Highway) at Gibbet Road/Mill Creek intersection is summarized in **Table 6** on the following page.

2022 Existing, 2025 No-Build, and 2025 Phase 1 Build

Under 2022 Existing conditions the signalized intersection of SC 170 (Okatie Highway) and Gibbet Road/Mill Creek Boulevard operates at LOS C during the AM peak hour and LOS B during the PM peak hour. Under 2025 No-Build conditions this intersection is expected to operate at LOS C during the AM and PM peak hours. However, the eastbound approach is expected to operate at LOS F during the AM peak hour. With the consideration of development traffic, this intersection is expected to operate at LOS D and LOS C under the 2025 Build conditions during the AM and PM peak hours, respectively.

2027 No-Build and 2027 Phase 2 Build

Under 2027 No-Build conditions this intersection is expected to operate at LOS D during the AM Peak hour and LOS C during the PM peak hour. With the consideration of development traffic, the intersection is expected to continue to operate at LOS D during the AM peak hour and LOS C during the PM peak hour. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of the proposed development at this intersection

2029 No-Build and 2029 Phase 3 Build

Under 2029 No-Build conditions this intersection is expected to operate at LOS F during the AM Peak hour and LOS D during the PM peak hour. With the consideration of development traffic, the intersection is expected to continue to operate at LOS F during the AM peak hour and LOS D during the PM peak hour. Although this intersection is expected to operate at LOS F during the PM peak hour, the addition of traffic associate with the development is only anticipated to increase the control delay of the intersection by 72 sec/veh and queues are anticipated to be similar to the No-Build condition. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of the proposed development at this intersection

Table 6 –SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard Analysis Results

Condition	Measure	EB (Mill Creek Boulevard)			WB (Gibbet Road)			NB (SC 170/Okatie Highway)			SB (SC 170/Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour														
2022 Existing	LOS (Delay)		D (41.2)			C (26.9)			C (21.2)			B (18.4)		C (22.6)
	Synchro 95th Q	#283'	26'	3'	59'	19'	128'	26'	371'	0'	80'	316'	0'	
2025 No-Build	LOS (Delay)		F (92.8)			C (29.6)			C (30.2)			C (26.0)		C (34.3)
	Synchro 95th Q	#401'	38'	21'	72'	32'	207'	31'	523'	0'	#285'	440'	0'	
2025 Phase 1 Build	LOS (Delay)		F (93.6)			C (29.3)			C (31.6)			C (26.7)		D (35.1)
	Synchro 95th Q	#401'	38'	21'	90'	32'	210'	31'	524'	0'	#301'	440'	0'	
2027 No-Build	LOS (Delay)		F (164.3)			C (29.8)			D (50.2)			C (32.2)		D (51.2)
	Synchro 95th Q	#474'	42'	34'	79'	34'	237'	34'	#685'	0'	#338'	537'	0'	
2027 Phase 2 Build	LOS (Delay)		F (135.6)			C (31.5)			D (52.7)			D (46.7)		D (53.0)
	Synchro 95th Q	#439'	61'	34'	147'	34'	241'	34'	#697'	0'	#449'	513'	0'	
2029 No-Build	LOS (Delay)		F (254.3)			C (31.6)			F (94.2)			D (44.8)		F (81.8)
	Synchro 95th Q	#560'	44'	50'	88'	37'	276'	#55'	#845'	0'	#395'	#738'	0'	
2029 Phase 3 Build	LOS (Delay)		F (217.8)			C (33.3)			F (99.8)			D (54.0)		F (88.0)
	Synchro 95th Q	#526'	64'	50'	159'	37'	281'	#55'	#863'	0'	#532'	#711'	0'	
PM Peak Hour														
2022 Existing	LOS (Delay)		D (36.9)			C (31.6)			B (14.5)			B (14.0)		B (17.2)
	Synchro 95th Q	#130'	16'	0'	35'	42'	118'	24'	249'	0'	58'	288'	0'	
2025 No-Build	LOS (Delay)		D (51.3)			D (40.0)			B (18.0)			B (17.4)		C (21.9)
	Synchro 95th Q	#190'	28'	0'	45'	58'	188'	31'	364'	0'	176'	395'	3'	
2025 Phase 1 Build	LOS (Delay)		D (51.4)			D (37.6)			B (18.8)			B (18.2)		C (22.3)
	Synchro 95th Q	#190'	28'	0'	56'	58'	189'	31'	370'	0'	#236'	395'	3'	
2027 No-Build	LOS (Delay)		E (76.9)			D (43.9)			C (21.9)			C (23.0)		C (27.7)
	Synchro 95th Q	#227'	29'	0'	48'	64'	219'	52'	#485'	0'	#266'	502'	7'	
2027 Phase 2 Build	LOS (Delay)		E (59.9)			C (32.9)			C (30.3)			C (26.8)		C (28.7)
	Synchro 95th Q	#199'	46'	0'	96'	64'	222'	#57'	#499'	0'	#374'	485'	7'	
2029 No-Build	LOS (Delay)		F (131.4)			D (37.0)			D (48.1)			D (35.8)		D (45.0)
	Synchro 95th Q	#267'	31'	0'	54'	69'	259'	#80'	#605'	0'	#322'	#715'	12'	
2029 Phase 3 Build	LOS (Delay)		F (98.3)			D (38.1)			D (53.2)			D (48.8)		D (51.3)
	Synchro 95th Q	#239'	48'	0'	115'	69'	264'	#80'	#626'	0'	#453'	#696'	12'	

4.3 Gibbet Road at Estate Drive/Site Access #3

The capacity analysis results for the Gibbet Road at Estate Drive/Site Access #3 intersection are summarized in **Table 7**. The southbound Site Access #3 approach is proposed to be constructed under Phase 1 of the development and is planned to consist of one ingress lane and two egress lanes.

Table 7 – Gibbet Road at Estate Drive/Site Access #3 Analysis Results

Condition	Measure	EB (Gibbet Road)			WB (Gibbet Road)			NB (Estate Drive)			SB (Site Access #3)		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2022 Existing	LOS (Delay)	A (0.0)			A (7.6)*			B (11.9)			-		
	Synchro 95th Q	-	0'		0'			8'	-	0'			
2025 No-Build	LOS (Delay)	A (0.0)			A (7.9)*			B (14.4)					
	Synchro 95th Q	-	0'	0'	0'			25'	-	0'			
2025 Phase 1 Build	LOS (Delay)	A (7.9)*			A (7.9)*			C (16.3)			B (13.0)		
	Synchro 95th Q	0'		0'	0'			30'	0'		0'	0'	
2027 No-Build	LOS (Delay)	A (0.0)			A (8.0)*			C (17.0)			-		
	Synchro 95th Q	-	0'	0'	0'			35'	-	0'			
2027 Phase 2 Build	LOS (Delay)	A (8.3)*			A (8.0)*			D (32.5)			C (18.7)		
	Synchro 95th Q	5'		0'	0'			75'	3'		5'	3'	
2029 No-Build	LOS (Delay)	A (0.0)			A (8.1)*			C (19.9)			-		
	Synchro 95th Q	-	0'	0'	0'			48'	-	0'			
2029 Phase 3 Build	LOS (Delay)	A (8.5)*			A (8.1)*			E (45.8)			C (21.2)		
	Synchro 95th Q	8'		0'	0'			108'	3'		8'	3'	
PM Peak Hour													
2022 Existing	LOS (Delay)	A (0.0)			A (7.7)*			B (11.5)			-		
	Synchro 95th Q	-	0'		0'			5'	-	0'			
2025 No-Build	LOS (Delay)	A (0.0)			A (8.8)*			B (14.2)					
	Synchro 95th Q	-	0'	0'	0'			15'	-	0'			
2025 Phase 1 Build	LOS (Delay)	A (8.0)*			A (8.0)*			C (16.3)			B (14.0)		
	Synchro 95th Q	0'		0'	0'			18'	3'		0'	0'	
2027 No-Build	LOS (Delay)	A (0.0)			A (8.1)*			C (16.2)			-		
	Synchro 95th Q	-	0'	0'	0'			20'	-	0'			
2027 Phase 2 Build	LOS (Delay)	A (8.4)*			A (8.1)*			D (25.8)			C (20.7)		
	Synchro 95th Q	5'		0'	0'			35'	3'		5'	3'	
2029 No-Build	LOS (Delay)	A (0.0)			A (8.3)*			C (18.5)			-		
	Synchro 95th Q	-	0'	0'	0'			25'	-	0'			
2029 Phase 3 Build	LOS (Delay)	A (8.6)*			A (8.2)*			D (33.5)			C (24.0)		
	Synchro 95th Q	8'		0'	0'			50'	3'		8'	3'	

* LOS and Delay shown for the southbound left-turn movement

2022 Existing, 2025 No-Build, and 2025 Phase 1 Build

Under 2022 Existing conditions the northbound approach along Estate Drive operates at LOS B during both the AM peak hour and PM peak hours. Under the 2025 No-Build conditions, a eastbound right-turn lane is planned to be constructed as part of the Palmetto Point Pickleball and Commercial Site. The northbound approach is expected to continue to operate at LOS B under 2025 No-Build conditions during both the AM and PM peak hour. With the addition of traffic associated with the proposed development, the northbound approach is expected to increase to LOS C during the AM and PM peak hour. The new southbound approach of Site Access #3 is expected to operate at LOS B during the AM and PM peak hours of the 2025 Build Phase 1 conditions.

Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT Roadway Design Manual. The results of the warrant indicate that under 2025 Build Phase 1 conditions an eastbound left-turn lane and westbound right-turn lane are not necessary along Gibbet Road. Therefore, based on the expected Build operations being a LOS C or better, no improvements are recommended to mitigate the impact of Phase 1 of this proposed development.

2027 No-Build and 2027 Phase 2 Build

Under 2027 No-Build conditions the northbound approach along Estate Drive is expected to operate at LOS C during the AM and PM peak hour. Under 2027 Build Phase 2 conditions the northbound approach is expected to operate at LOS D during the AM and PM peak hour. The southbound approach of Site Access #3 is expected to operate at LOS C during the AM and PM peak hour.

Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2027 Build Phase 2 conditions the eastbound left-turn lane along Gibbet Road should be considered. Therefore, it is recommended to construct an eastbound left-turn lane along Gibbet Road in accordance with the SCDOT *Roadway Design Manual*. Turn lane warrant worksheets can be seen in **Appendix G**.

2029 No-Build and 2029 Phase 3 Build

Under 2029 No-Build conditions the northbound approach along Estate Drive is expected to operate at LOS C during the AM and PM peak hour. Under 2029 Build conditions, it was assumed that the eastbound left-turn lane would be constructed with phase 2 of the development. Under 2029 Build Phase 2 conditions the northbound approach is expected to operate at LOS E during the AM peak hour and LOS D under the PM peak hour. The southbound approach of Site Access #3 is expected to operate at LOS C during the AM and PM peak hour.

Although there is an increase in LOS along the northbound approach with the consideration of project traffic, it is not uncommon for minor street approaches to operate at LOS E, or LOS F, during peak hours of travel. Therefore, no improvements are recommended to mitigate the impact of Phase 3 of this proposed development.

4.4 SC 170 (Okatie Highway) at Site Access #1

The capacity analysis results for the SC 170 (Okatie Highway) at Site Access #1 intersection are summarized in **Table 8**. Site Access #1 is proposed to be constructed as part of Phase 1 and is planned to consist of one ingress lane and one egress lanes that will be restricted to right-in, right-out access only. Site Access #1 is planned to be located approximately 850 feet north of the intersection of SC 170 (Okatie Highway) with Gibbet Road.

Table 8 - SC 170 (Okatie Hwy) at Site Access #1 Analysis Results

Condition	Measure	WB (Site Access #1)	NB (SC 170/Okatie Highway)		SB (SC 170/Okatie Highway)
		WBR	NBT	NBR	SBT
AM Peak Hour					
2025 Phase 1 Build	LOS (Delay)	C (22.7)	A (0.0)		A (0.0)
	Synchro 95th Q	10'	0'		0'
2027 Phase 2 Build	LOS (Delay)	D (28.6)	A (0.0)		A (0.0)
	Synchro 95th Q	13'	0'		0'
2029 Phase 3 Build	LOS (Delay)	E (36.1)	A (0.0)		A (0.0)
	Synchro 95th Q	15'	0'		0'
PM Peak Hour					
2025 Phase 1 Build	LOS (Delay)	C (17.4)	A (0.0)		A (0.0)
	Synchro 95th Q	5'	0'		0'
2027 Phase 2 Build	LOS (Delay)	C (20.2)	A (0.0)		A (0.0)
	Synchro 95th Q	5'	0'		0'
2029 Phase 3 Build	LOS (Delay)	C (24.4)	A (0.0)		A (0.0)
	Synchro 95th Q	10'	0'		0'

2025 Phase 1 Build

Under 2025 Build Phase 1 conditions the westbound approach along Site Access #1 is expected to operate at LOS C during the AM and PM peak hours. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2025 Build Phase 1 conditions and 2027 Build Phase 2 conditions, a northbound right-turn lane is not necessary along SC 170 (Okatie Highway). However, based on coordination with the SCDOT, all driveways located along SC 170 (Okatie Highway) will be required to construct turn lanes for ingress movements. Turn lane warrant worksheets can be seen in **Appendix G**. Based on the capacity analysis, Site Access #1 is recommended to be constructed as a right-in, right-out only driveway with one ingress lane and one egress lane.

2027 Phase 2 Build

Under 2027 Build Phase 2 the westbound approach is anticipated to increase to LOS D during the AM peak hour and remain at LOS C during the PM peak hour. Therefore, no improvements are recommended to mitigate the impact of Phase 2 of this proposed development.

2029 Phase 3 Build

Under 2029 Build Phase 3 the westbound approach is anticipated to increase to LOS E during the AM peak hour and remain at LOS C during the PM peak hour. Please note that although the westbound approach along Site Access #1 is anticipated to operate at LOS E, it is not uncommon for unsignalized driveways to operate at LOS E, or LOS F, during peak hours of travel. In addition, queues are not anticipated to be more than two vehicles along the westbound approach. Based on this, no improvements are recommended to mitigate the impact of Phase 3 of this proposed development.

4.5 Gibbet Road at Site Access #2

The capacity analysis results for the Gibbet Road at Site Access #2 intersection are summarized in **Table 9.** Site Access #2 is proposed to be constructed as part of Phase 1 and is planned to consist of one ingress lane and one egress lanes that will be restricted to a right-in, right-out access only. Site Access #2 is planned to be located approximately 350' east of the intersection of SC 170 (Okatie Highway) at Gibbet Road.

Table 9 - Gibbet Road at Site Access #2 Analysis Results

Condition	Measure	EB (Gibbet Road)	WB (Gibbet Road)	SB (Site Access #2)
		EBT	WBTR	SBR
AM Peak Hour				
2025 Phase 1 Build	LOS (Delay)	A (0.0)	A (0.0)	B (11.0)
	Synchro 95th Q	0'	0'	3'
2027 Phase 2 Build	LOS (Delay)	A (0.0)	A (0.0)	B (12.3)
	Synchro 95th Q	0'	0'	13'
2029 Phase 3 Build	LOS (Delay)	A (0.0)	A (0.0)	B (13.1)
	Synchro 95th Q	0'	0'	13'
PM Peak Hour				
2025 Phase 1 Build	LOS (Delay)	A (0.0)	A (0.0)	B (10.8)
	Synchro 95th Q	0'	0'	0'
2027 Phase 2 Build	LOS (Delay)	A (0.0)	A (0.0)	B (11.9)
	Synchro 95th Q	0'	0'	10'
2029 Phase 3 Build	LOS (Delay)	A (0.0)	A (0.0)	B (12.8)
	Synchro 95th Q	0'	0'	13'

All approaches at this intersection are anticipated to operate with short delays during the AM and PM peak hours. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2025 Build Phase 1 conditions, 2027 Phase 2 Build conditions, and 2029 Phase 3 Build conditions a westbound right-turn lane is not necessary along Gibbet Road. Turn lane warrant worksheets can be seen in **Appendix G**.

Based on all approaches anticipated to operate with short delays, and turn lane warrants not being met, no improvements are recommended for this intersection. Site Access #2 should be constructed as a right-in, right-out only driveway with one ingress lane and one egress lane.

4.6 SC 170 (Okatie Hwy) at Site Access #4

The capacity analysis results for the SC 170 (Okatie Highway)/ Site Access #4 intersection is summarized in **Table 10**. Site Access #4 is proposed to be constructed as part of Phase 2 and is planned to consist of one ingress lane and one egress lanes that will be restricted to a right-in, right-out access only. Site Access #4 is planned to be located approximately 350' north of the intersection of SC 170 (Okatie Highway) at Gibbet Road.

Table 10 - SC 170 (Okatie Hwy) at Site Access #4 Analysis Results

Condition	Measure	WB (Site Access #4)	NB (SC 170/Okatie Highway)		SB (SC 170/Okatie Highway)
		WBR	NBT	NBR	SBT
AM Peak Hour					
2027 Phase 2 Build	LOS (Delay)	F (51.7)	A (0.0)		A (0.0)
	Synchro 95th Q	85'	0'		0'
2029 Phase 3 Build	LOS (Delay)	F (76.4)	A (0.0)		A (0.0)
	Synchro 95th Q	108'	0'		0'
PM Peak Hour					
2027 Phase 2 Build	LOS (Delay)	D (26.0)	A (0.0)		A (0.0)
	Synchro 95th Q	35'	0'		0'
2029 Phase 3 Build	LOS (Delay)	D (33.5)	A (0.0)		A (0.0)
	Synchro 95th Q	50'	0'		0'

The westbound approach at this proposed intersection is anticipated to operate at LOS F during the AM peak hour and LOS D during the PM peak hour. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2027 Build conditions, a northbound right-turn lane should be considered along SC 170 (Okatie Highway). Turn lane warrant worksheets can be seen in **Appendix G**.

Based on the capacity and turn lane warrant analysis, it is recommended to construct Site Access #4 as a right-in, right-out only driveway with one ingress and one egress lane, and construct a northbound right turn lane in accordance with the SCDOT *Roadway Design Manual*.

4.7 SC 170 (Okatie Hwy) at Site Access #5

The capacity analysis results for the SC 170 (Okatie Highway)/ Site Access #5 intersection is summarized in **Table 11**. Site Access #5 is proposed to be constructed as part of Phase 3 and is planned to consist of one ingress lane and one egress lanes that will be restricted to a right-in, right-out access only. Site Access #5 is planned to be located approximately 875' south of the intersection of SC 170 (Okatie Highway) at Lawton Boulevard.

Table 11 - SC 170 (Okatie Hwy) at Site Access #5 Analysis Results

Condition	Measure	WB (Site Access #5)	NB (SC 170/Okatie Highway)		SB (SC 170/Okatie Highway)
		WBR	NBT	NBR	SBT
AM Peak Hour					
2029 Phase 3 Build	LOS (Delay)	D (33.8)	A (0.0)		A (0.0)
	Synchro 95th Q	8'	0'		0'
PM Peak Hour					
2029 Phase 3 Build	LOS (Delay)	C (23.7)	A (0.0)		A (0.0)
	Synchro 95th Q	5'	0'		0'

The westbound approach at this proposed intersection is anticipated to operate at LOS D during the AM peak hour and LOS C during the PM peak hour. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2029 Build Phase 3 conditions a northbound right-turn lane is not necessary along SC 170 (Okatie Highway). However, based on coordination with the SCDOT, all driveways located along SC 170 (Okatie Highway) will be required to construct turn lanes for ingress movements. Turn lane warrant worksheets can be seen in **Appendix G**.

Based on the capacity and turn lane warrant analysis, it is recommended to construct Site Access #5 as a right-in, right-out only driveway with one ingress and one egress lane, and construct a northbound right turn lane in accordance with the SCDOT *Roadway Design Manual*.

6 Conclusion

The proposed Gibbet Road Residential Development is in the northeast quadrant of the SC 170 (Okatie Highway) and Gibbet Road intersection in Bluffton, South Carolina. This development is planned to consist of the following phases and land uses:

- 2025 Build Phase 1 – 150 multi-family housing units.
- 2027 Build Phase 2 – 6,300 square-foot convenience store and gas station with 12 fueling positions.
- 2029 Build Phase 3 – 8,850 square feet office space and 8,850 square feet retail space.

It was assumed that the project will access the roadway network via the following five unsignalized driveways:

- Site Access #1 – Planned to be constructed under Phase 1 and is located approximately 850' north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #2 – Planned to be constructed under Phase 1 and is located approximately 350' east of SC 170 (Okatie Highway) along Gibbet Road. This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #3 – Planned to be constructed under Phase 1, and is proposed to be full-movement and align with Estate Drive.
- Site Access #4 – Planned to be constructed under Phase 2 and is located approximately 350' feet north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #5 – Planned to be constructed under Phase 3 and is located approximately 875' feet south of Lawton Boulevard along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.

This study summarizes the results of the traffic analyses at the following study intersections:

1) SC 170 (Okatie Highway) at Lawton Boulevard
2) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard
3) Gibbet Road at Estate Drive/Site Access #3
4) SC 170 (Okatie Highway) at Site Access #1
5) Gibbet Road at Site Access #2
6) SC 170 (Okatie Highway) at Site Access #4
7) SC 170 (Okatie Highway) at Site Access #5

Improvements Considered by Others

In the surrounding area, the approved development of the Palmetto Point Pickleball and Commercial Site, Kimley-Horn 2021, was accounted for in the analysis of 2025, 2027, and 2029 conditions. Based on this report, an eastbound right-turn lane along Gibbet Road at the intersection of Estate Drive will be constructed.

Based on the results of the traffic analyses, the following improvements are recommended to mitigate the impact of the proposed development's traffic on the study area intersections:

2025 Build Phase 1

Gibbet Road at Estate Drive/ Site Access #3

- Construct Site Access #3 to align with Estate Drive. Site Access #3 should consist of one ingress lane and two egress lanes. The egress lanes should consist of a left-turn lane and shared through/right-turn lane.

SC 170 (Okatie Highway) at Site Access #1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #1 to be a right-in, right-out access only with one ingress lane and one egress lane.

Gibbet Road at Site Access #2

- Construct Site Access #2 to be a right-in, right-out access only with one ingress lane and one egress lane.

2027 Build Phase 2

Gibbet Road at Estate Drive/ Site Access #3

- Construct an eastbound left-turn lane along Gibbet Road in accordance with the SCDOT *Roadway Design Manual*.

SC 170 (Okatie Highway) at Site Access #4

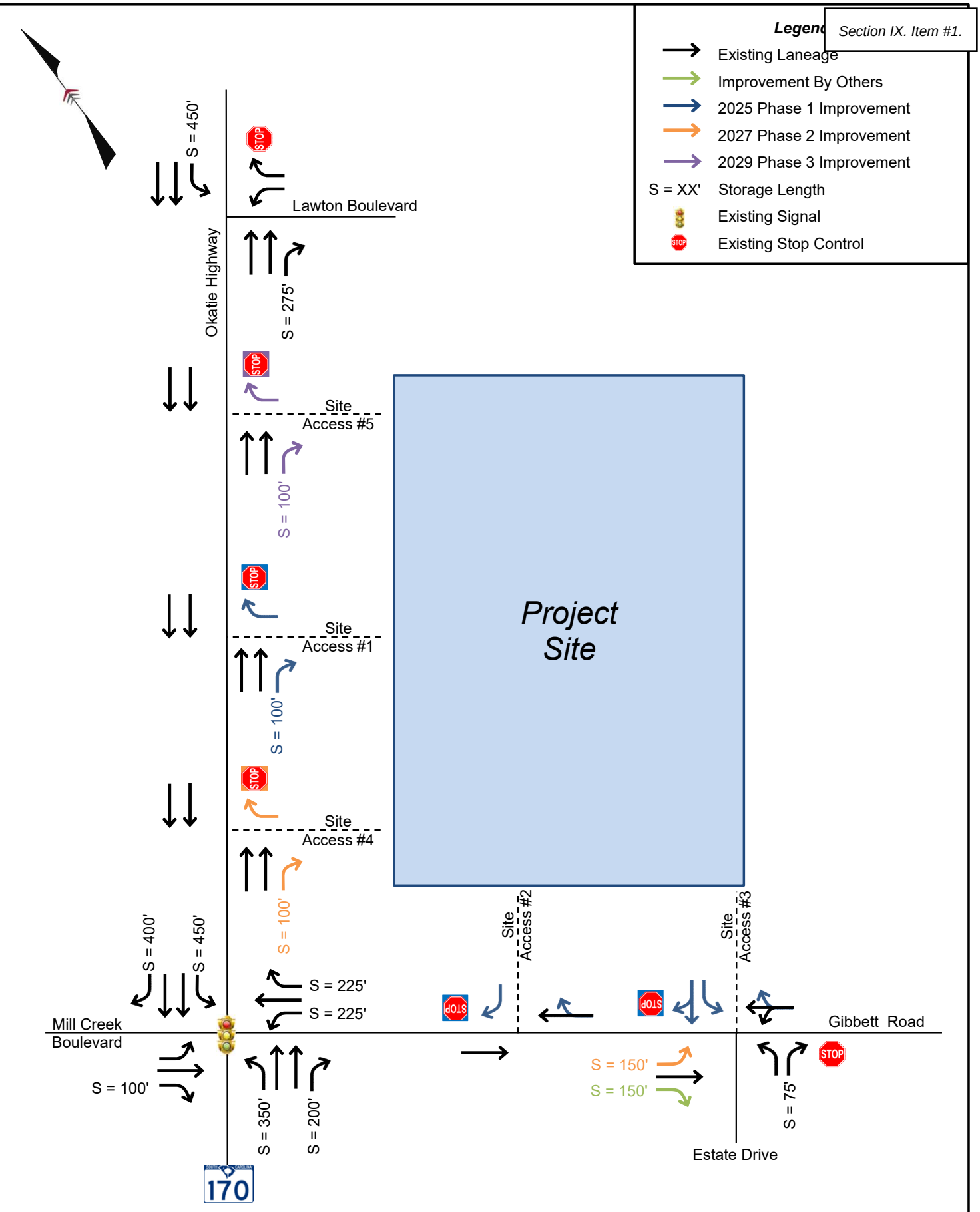
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #4 to be a right-in, right-out access only with one ingress lane and one egress lane.

2029 Build Phase 3

SC 170 (Okatie Highway) at Site Access #5

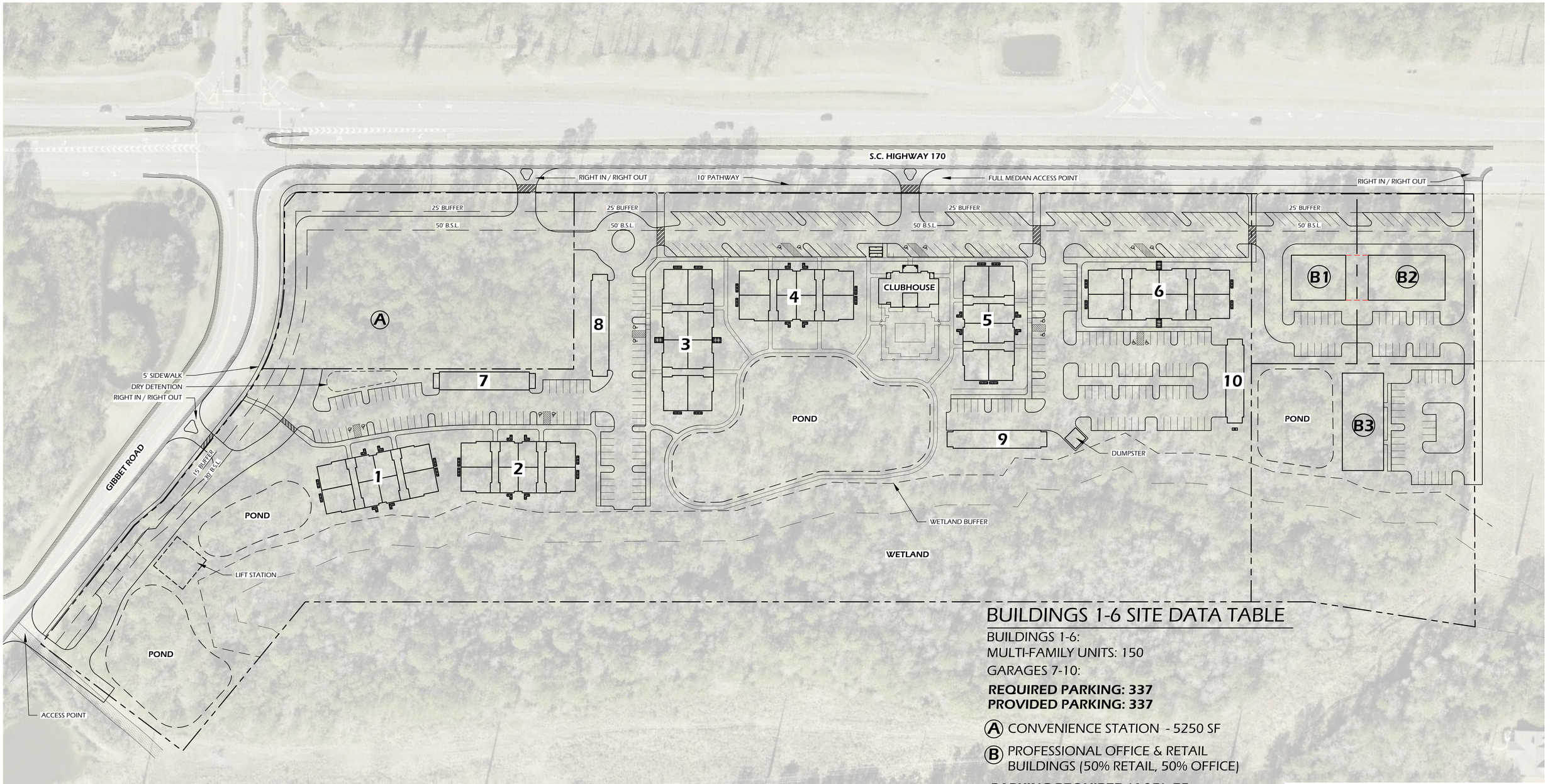
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #5 to be a right-in, right-out access only with one ingress lane and one egress lane.

Figure 20 illustrates the recommended improvements for the study area.


Legend
Existing Laneage
Improvement By Others
2025 Phase 1 Improvement
2027 Phase 2 Improvement
2029 Phase 3 Improvement
S = XX' Storage Length
Existing Signal
Existing Stop Control
Lawton Boulevard
Okatie Highway
S = 450'
S = 275'
Site Access #5
S = 100'
Site Access #1
S = 100'
Site Access #4
S = 100'
Project Site
Site Access #2
Site Access #3
S = 400'
S = 450'
S = 225'
S = 225'
Mill Creek Boulevard
S = 100'
S = 350'
S = 200'
S = 150'
S = 150'
S = 75'
Gibbett Road
Estate Drive
170

Appendix A – Site Plan

MASTER PLAN AMENDMENT



BUILDINGS 1-6 SITE DATA TABLE

BUILDINGS 1-6:
MULTI-FAMILY UNITS: 150
GARAGES 7-10:

REQUIRED PARKING: 337
PROVIDED PARKING: 337

(A) CONVENIENCE STATION - 5250 SF

(B) PROFESSIONAL OFFICE & RETAIL BUILDINGS (50% RETAIL, 50% OFFICE)

PARKING REQUIRED (A&B): 75
PARKING PROVIDED (A&B): 76

B1 - 4350 SF
B2 - 6200 SF
B3 - 7150 SF

TOTAL SITE AREA:	21.922 AC
TOTAL IMPERVIOUS AREA:	24 %
TOTAL PERVIOUS AREA:	76 %

N W E

0 30 60 90 120 150 180 210 240

Scale 1 " = 60'

APRIL 2023

PROJECT NO.: XXXXX.XX

Witmer Jones Keefer Ltd. / 23 Promenade St., Suite 201, Bluffton, SC. 29910 / ph: (843) 757.7411 / www.wjkltd.com

PARCEL B-1

HIGHWAY 170 AND GIBBET ROAD
BLUFFTON, SOUTH CAROLINA

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PLAN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO CHANGE.
THIS SHEET TO SCALE AT: 24"X36"

Witmer Jones Keefer Ltd.
landscape architecture
land planning

Appendix B – Trip Generation Calculations

Gibbet Road Multifamily Phase 1 Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Residential Land Uses			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**
220 - Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**
Total Net New External Trips			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**

Note: Trip generation was calculated using the following data:

Daily Traffic Generation

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = T = 6.41 * (X) + (75.31); (50 % In; 50 % Out)

AM Peak-Hour Traffic Generation

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = T = 0.31 * (X) + (22.85); (24 % In; 76 % Out)

PM Peak-Hour Traffic Generation

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = T = 0.43 * (X) + (20.55); (63 % In; 37 % Out)

Gibbet Road Residential Phase 2 Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Retail Land Uses			**4,082**	**356**	**178**	**178**	**343**	**172**	**171**
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	6.3	KSF	4,082	356	178	178	343	172	171
Residential Land Uses			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**
220 - Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			**5,119**	**425**	**195**	**230**	**428**	**226**	**202**
Internal Capture			**470**	**2**	**1**	**1**	**70**	**35**	**35**
ITE Pass-By			***3,510***	***270***	***135***	***135***	***220***	***110***	***110***
Adjacent Street Traffic			*30,000*	*3,000*			*3,000*		
10% Adjacent Street Traffic			*3,000*	*300*	*150*	*150*	*300*	*150*	*150*
Pass-By			**3,000**	**270**	**135**	**135**	**220**	**110**	**110**
Total Net New External Trips			**1,649**	**153**	**59**	**94**	**138**	**81**	**57**

Note: Trip generation was calculated using the following data:

Daily Traffic Generation

Retail Land Uses

945 - Convenience Store/Gas Station (9-15 Fueling Positions) ITE 945 = T = 560.88 * (X) + (548.79); (50 % In; 50 % Out)

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = T = 6.41 * (X) + (75.31); (50 % In; 50 % Out)

AM Peak-Hour Traffic Generation

Retail Land Uses

945 - Convenience Store/Gas Station (9-15 Fueling Positions) ITE 945 = T = 56.52 (X); (50 % In; 50 % Out)

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = T = 0.31 * (X) + (22.85); (24 % In; 76 % Out)

PM Peak-Hour Traffic Generation

Retail Land Uses

945 - Convenience Store/Gas Station (9-15 Fueling Positions) ITE 945 = T = 54.52 (X); (50 % In; 50 % Out)

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = T = 0.43 * (X) + (20.55); (63 % In; 37 % Out)

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Gibbet Road Residential Phase 2	**Organization:**	Kimley-Horn
Project Location:	Okatie, SC	**Performed By:**	
Scenario Description:		**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				356	178	178
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				69	17	52
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				425	195	230

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses[2]	1.10	0%	0%	1.10	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	468	215	253
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	423	194	229
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	2%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Gibbet Road Residential Phase 2	**Organization:**	Kimley-Horn
Project Location:	Okatie, SC	**Performed By:**	
Scenario Description:		**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				343	172	171
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				85	54	31
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				428	226	202

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses[2]	1.10	0%	0%	1.10	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1000	1000		1000	
Retail					1000	
Restaurant					1000	
Cinema/Entertainment					1000	
Residential		1000	1000			
Hotel					1000	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	27	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	11	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	470	248	222
Internal Capture Percentage	16%	15%	17%
External Vehicle-Trips[5]	358	191	167
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	6%	14%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	32%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Gibbet Road Residential Phase 3 Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Office Land Uses			**127**	**15**	**12**	**3**	**19**	**6**	**13**
712 - Small Office Building	8.85	KSF	127	15	12	3	19	6	13
Retail Land Uses			**4,685**	**383**	**194**	**189**	**414**	**208**	**206**
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	6.30	KSF	4,082	356	178	178	343	172	171
822 - Strip Retail Plaza (<40k)	8.85	KSF	603	27	16	11	71	36	35
Residential Land Uses			**1,037**	**69**	**17**	**52**	**85**	**54**	**31**
220 - Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			**5,849**	**467**	**223**	**244**	**518**	**268**	**250**
Internal Capture			**556**	**6**	**3**	**3**	**80**	**40**	**40**
ITE Pass-By			***3,996***	***268***	***134***	***134***	***224***	***112***	***112***
Adjacent Street Traffic			*30,000*	*3,000*			*3,000*		
10% Adjacent Street Traffic			*3,000*	*300*	*150*	*150*	*300*	*150*	*150*
Pass-By			**3,000**	**268**	**134**	**134**	**224**	**112**	**112**
Total Net New External Trips			**2,293**	**193**	**86**	**107**	**214**	**116**	**98**

Note: Trip generation was calculated using the following data:

Daily Traffic Generation

Office Land Uses			
712 - Small Office Building	ITE 712	=	T = 14.39 (X); (50 % In; 50 % Out)
Retail Land Uses			
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	ITE 945	=	T = 560.88 * (X) + (548.79); (50 % In; 50 % Out)
822 - Strip Retail Plaza (<40k)	ITE 822	=	T = 42.2 * (X) + (229.68); (50 % In; 50 % Out)
Residential Land Uses			
220 - Multifamily Housing (Low-Rise)	ITE 220	=	T = 6.41 * (X) + (75.31); (50 % In; 50 % Out)

AM Peak-Hour Traffic Generation

Office Land Uses			
712 - Small Office Building	ITE 712	=	T = 1.67 (X); (82 % In; 18 % Out)
Retail Land Uses			
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	ITE 945	=	T = 56.52 (X); (50 % In; 50 % Out)
822 - Strip Retail Plaza (<40k)	ITE 822	=	LN (T) = 0.66 * LN (X) + (1.84); (60 % In; 40 % Out)
Residential Land Uses			
220 - Multifamily Housing (Low-Rise)	ITE 220	=	T = 0.31 * (X) + (22.85); (24 % In; 76 % Out)

PM Peak-Hour Traffic Generation

Office Land Uses			
712 - Small Office Building	ITE 712	=	T = 2.16 (X); (34 % In; 68 % Out)
Retail Land Uses			
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	ITE 945	=	T = 54.52 (X); (50 % In; 50 % Out)
822 - Strip Retail Plaza (<40k)	ITE 822	=	LN (T) = 0.71 * LN (X) + (2.72); (50 % In; 50 % Out)
Residential Land Uses			
220 - Multifamily Housing (Low-Rise)	ITE 220	=	T = 0.43 * (X) + (20.55); (63 % In; 37 % Out)

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Gibbet Road Residential Phase 3	**Organization:**	Kimley-Horn
Project Location:	Okatie, SC	**Performed By:**	
Scenario Description:		**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				15	12	3
Retail				383	194	189
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				69	17	52
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				467	223	244

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses[2]	1.10	0%	0%	1.10	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	0	0	0	0
Retail	1		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	513	245	268
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[5]	461	220	241
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	8%	33%
Retail	1%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	2%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Gibbet Road Residential Phase 3	**Organization:**	Kimley-Horn
Project Location:	Okatie, SC	**Performed By:**	
Scenario Description:		**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				19	6	13
Retail				414	208	206
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				85	54	31
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				518	268	250

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses[2]	1.10	0%	0%	1.10	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1000	1000		1000	
Retail					1000	
Restaurant					1000	
Cinema/Entertainment					1000	
Residential		1000	1000			
Hotel					1000	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	0	0
Retail	2		0	0	27	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	11	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	570	295	275
Internal Capture Percentage	15%	15%	16%
External Vehicle-Trips[5]	440	229	211
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	43%	14%
Retail	6%	13%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	35%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Appendix C – Traffic Volume Development Worksheets

PHASE 1 VOLUME DEVELOPMENT

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: SC 170/Okatie Highway at Lawton Boulevard
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.98 **AM FUTURE PEAK HOUR FACTOR:** 0.95
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**55**	**0**	**66**	**0**	**0**	**1,425**	**34**	**0**	**49**	**1,122**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	6%	2%
AM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	12	0	15	0	0	321	8	0	11	252	0
AM 2025 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	67	0	81	0	0	1,746	42	0	60	1,374	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2025 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**67**	**0**	**81**	**0**	**0**	**1,806**	**42**	**0**	**60**	**1,450**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering															50%	
Distribution	Exiting											50%					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	26	0	0	0	9	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**0**	**0**	**9**	**0**
AM 2025 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**67**	**0**	**81**	**0**	**0**	**1,832**	**42**	**0**	**60**	**1,459**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	21	0	58	0	0	1,134	40	0	133	1,440	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**58**	**0**	**0**	**1,135**	**40**	**0**	**133**	**1,440**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	5	0	13	0	0	255	9	0	30	324	0
PM 2025 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	26	0	71	0	0	1,390	49	0	163	1,764	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2025 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**71**	**0**	**0**	**1,439**	**49**	**0**	**163**	**1,830**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering															50%	
Distribution	Exiting											50%					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	16	0	0	0	26	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**26**	**0**
PM 2025 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**26**	**0**	**71**	**0**	**0**	**1,455**	**49**	**0**	**163**	**1,856**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: SC 170/Okatie Highway at Gibbet Road
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.96 **AM FUTURE PEAK HOUR FACTOR:** 0.95
PM PEAK HOUR FACTOR: 0.91 **PM FUTURE PEAK HOUR FACTOR:** 0.91

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22
AM Volume Balancing	0	0	3	0	0	0	0	0	0	0	10	4	0	14	0	0
AM 2022 EXISTING TRAFFIC	**0**	**248**	**15**	**106**	**0**	**47**	**10**	**213**	**0**	**45**	**971**	**20**	**27**	**137**	**972**	**22**
AM Heavy Vehicle Percentage	2%	1%	8%	3%	2%	4%	10%	1%	2%	9%	3%	2%	2%	6%	6%	2%
AM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH	0	56	3	24	0	11	2	48	0	10	219	5	6	31	219	5
AM 2025 NO-BUILD TRAFFIC (No AD)	0	304	18	130	0	58	12	261	0	55	1,190	25	33	168	1,191	27
Approved Development 1: Palmetto Point Pickleball and			8				8	52			8			59	17	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	8	0	0	0	8	52	0	0	8	0	0	59	17	0
AM 2025 NO-BUILD TRAFFIC	**0**	**304**	**26**	**130**	**0**	**58**	**20**	**313**	**0**	**55**	**1,198**	**25**	**33**	**227**	**1,208**	**27**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering											20%	15%	40%	10%		
Distribution	Exiting						35%		5%								

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	18	0	3	0	0	3	2	7	2	0	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**18**	**0**	**3**	**0**	**0**	**3**	**2**	**7**	**2**	**0**	**0**
AM 2025 BUILD-OUT TRAFFIC		**0**	**304**	**26**	**130**	**0**	**76**	**20**	**316**	**0**	**55**	**1,201**	**27**	**40**	**229**	**1,208**	**27**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59
PM Volume Balancing	0	0	1	0	0	0	0	0	0	0	0	2	0	17	0	0
PM 2022 EXISTING TRAFFIC	**0**	**117**	**7**	**44**	**0**	**25**	**32**	**214**	**0**	**65**	**835**	**25**	**9**	**170**	**1,060**	**59**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	5%	2%	11%	1%	2%	2%
PM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH	0	26	2	10	0	6	7	48	0	15	188	6	2	38	239	13
PM 2025 NO-BUILD TRAFFIC (No AD)	0	143	9	54	0	31	39	262	0	80	1,023	31	11	208	1,299	72
Approved Development 1: Palmetto Point Pickleball and			7				6	42			7			51	15	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	7	0	0	0	6	42	0	0	7	0	0	51	15	0
PM 2025 NO-BUILD TRAFFIC	**0**	**143**	**16**	**54**	**0**	**31**	**45**	**304**	**0**	**80**	**1,030**	**31**	**11**	**259**	**1,314**	**72**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering											20%	15%	40%	10%		
Distribution	Exiting						35%		5%								

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	11	0	2	0	0	11	8	21	5	0	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**11**	**0**	**2**	**0**	**0**	**11**	**8**	**21**	**5**	**0**	**0**
PM 2025 BUILD-OUT TRAFFIC		**0**	**143**	**16**	**54**	**0**	**42**	**45**	**306**	**0**	**80**	**1,041**	**39**	**32**	**264**	**1,314**	**72**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: Gibbet Road at Estate Drive/Site Access #3
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.86 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.87 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	158	14	0	4	212	0	0	42	0	5	0	0	0	0
AM Volume Balancing	0	0	0	0	0	0	13	0	0	3	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**158**	**14**	**0**	**4**	**225**	**0**	**0**	**45**	**0**	**5**	**0**	**0**	**0**	**0**
AM Heavy Vehicle Percentage	2%	2%	4%	21%	2%	2%	2%	2%	2%	5%	2%	20%	2%	2%	2%	2%
AM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH	0	0	36	3	0	1	51	0	0	10	0	1	0	0	0	0
AM 2025 NO-BUILD TRAFFIC (No AD)	0	0	194	17	0	5	276	0	0	55	0	6	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				67						60						
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	67	0	0	0	0	0	60	0	0	0	0	0	0
AM 2025 NO-BUILD TRAFFIC	**0**	**0**	**194**	**84**	**0**	**5**	**276**	**0**	**0**	**115**	**0**	**6**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering		25%					5%	5%			5%					
Distribution	Exiting														10%	5%	5%

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	4	0	0	0	0	1	1	0	0	1	0	0	5	3	3
AM TOTAL PROJECT TRIPS		**0**	**4**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**5**	**3**	**3**
AM 2025 BUILD-OUT TRAFFIC		**0**	**4**	**194**	**84**	**0**	**5**	**277**	**1**	**0**	**115**	**1**	**6**	**0**	**5**	**3**	**3**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	187	15	0	9	254	0	0	15	0	7	0	0	0	0
PM Volume Balancing	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**187**	**15**	**0**	**9**	**256**	**0**	**0**	**15**	**0**	**7**	**0**	**0**	**0**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH	0	0	43	3	0	2	58	0	0	3	0	2	0	0	0	0
PM 2025 NO-BUILD TRAFFIC (No AD)	0	0	230	18	0	11	314	0	0	18	0	9	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				58						48						
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	58	0	0	0	0	0	48	0	0	0	0	0	0
PM 2025 NO-BUILD TRAFFIC	**0**	**0**	**230**	**76**	**0**	**11**	**314**	**0**	**0**	**66**	**0**	**9**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering		25%					5%	5%			5%					
Distribution	Exiting														10%	5%	5%

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	13	0	0	0	0	3	3	0	0	3	0	0	3	1	2
PM TOTAL PROJECT TRIPS		**0**	**13**	**0**	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**3**	**0**	**0**	**3**	**1**	**2**
PM 2025 BUILD-OUT TRAFFIC		**0**	**13**	**230**	**76**	**0**	**11**	**317**	**3**	**0**	**66**	**3**	**9**	**0**	**3**	**1**	**2**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: SC 170/Okatie Highway at Site Access #1
COUNT DATE: November 11, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459**	**0**	**0**	**0**	**1,177**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	329	0	0	0	264	0
AM 2025 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,788	0	0	0	1,441	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2025 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,848**	**0**	**0**	**0**	**1,517**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering												**60%**			**50%**	
Distribution	Exiting								**45%**			**5%**					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	**23**	0	0	**3**	**10**	0	0	**9**	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**3**	**10**	**0**	**0**	**9**	**0**
AM 2025 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**1,851**	**10**	**0**	**0**	**1,526**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,461	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**0**	**0**	**0**	**1,461**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	264	0	0	0	329	0
PM 2025 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,439	0	0	0	1,790	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2025 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,488**	**0**	**0**	**0**	**1,856**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering												**60%**			**50%**	
Distribution	Exiting								**45%**			**5%**					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	**14**	0	0	**2**	**32**	0	0	**26**	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**2**	**32**	**0**	**0**	**26**	**0**
PM 2025 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**1,490**	**32**	**0**	**0**	**1,882**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: Gibbet Road at Site Access #2
COUNT DATE: November 12, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	151	0	0	0	270	0	0	0	0	0	0	0	0	0
AM Volume Balancing	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**172**	**0**	**0**	**0**	**270**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AM Heavy Vehicle Percentage	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
AM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH	0	0	39	0	0	0	61	0	0	0	0	0	0	0	0	0
AM 2025 NO-BUILD TRAFFIC (No AD)	0	0	211	0	0	0	331	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and			67				60									
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	67	0	0	0	60	0	0	0	0	0	0	0	0	0
AM 2025 NO-BUILD TRAFFIC	**0**	**0**	**278**	**0**	**0**	**0**	**391**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering			**25%**					**5%**								
Distribution	Exiting							**5%**									**35%**

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	**4**	0	0	0	**3**	**1**	0	0	0	0	0	0	0	**18**
AM TOTAL PROJECT TRIPS		**0**	**0**	**4**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**
AM 2025 BUILD-OUT TRAFFIC		**0**	**0**	**282**	**0**	**0**	**0**	**394**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	182	0	0	0	271	0	0	0	0	0	0	0	0	0
PM Volume Balancing	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**202**	**0**	**0**	**0**	**271**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PM Heavy Vehicle Percentage	2%	2%	1%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2025 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH	0	0	46	0	0	0	61	0	0	0	0	0	0	0	0	0
PM 2025 NO-BUILD TRAFFIC (No AD)	0	0	248	0	0	0	332	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and			58				48									
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	58	0	0	0	48	0	0	0	0	0	0	0	0	0
PM 2025 NO-BUILD TRAFFIC	**0**	**0**	**306**	**0**	**0**	**0**	**380**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering			**25%**					**5%**								
Distribution	Exiting							**5%**									**35%**

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	**13**	0	0	0	**2**	**3**	0	0	0	0	0	0	0	**11**
PM TOTAL PROJECT TRIPS		**0**	**0**	**13**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**
PM 2025 BUILD-OUT TRAFFIC		**0**	**0**	**319**	**0**	**0**	**0**	**382**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**

PHASE 2 VOLUME DEVELOPMENT

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Lawton Boulevard
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.98 **AM FUTURE PEAK HOUR FACTOR:** 0.98
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**55**	**0**	**66**	**0**	**0**	**1,425**	**34**	**0**	**49**	**1,122**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	6%	2%
AM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	22	0	27	0	0	574	14	0	20	452	0
AM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	77	0	93	0	0	1,999	48	0	69	1,574	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2027 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**77**	**0**	**93**	**0**	**0**	**2,059**	**48**	**0**	**69**	**1,650**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering															**50%**	
	Exiting											**50%**					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	0	0	0	**47**	0	0	0	**29**	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**0**	**0**	**29**	**0**
AM 2027 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**77**	**0**	**93**	**0**	**0**	**2,106**	**48**	**0**	**69**	**1,679**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	21	0	58	0	0	1,134	40	0	133	1,440	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**58**	**0**	**0**	**1,135**	**40**	**0**	**133**	**1,440**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	8	0	23	0	0	457	16	0	54	580	0
PM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	29	0	81	0	0	1,592	56	0	187	2,020	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2027 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**29**	**0**	**81**	**0**	**0**	**1,641**	**56**	**0**	**187**	**2,086**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering															**50%**	
	Exiting											**50%**					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	0	0	0	**28**	0	0	0	**41**	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**41**	**0**
PM 2027 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**29**	**0**	**81**	**0**	**0**	**1,669**	**56**	**0**	**187**	**2,127**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Gibbet Road
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.96 **AM FUTURE PEAK HOUR FACTOR:** 0.96
PM PEAK HOUR FACTOR: 0.91 **PM FUTURE PEAK HOUR FACTOR:** 0.91

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22
AM Volume Balancing	0	0	3	0	0	0	0	0	0	0	10	4	0	14	0	0
AM 2022 EXISTING TRAFFIC	**0**	**248**	**15**	**106**	**0**	**47**	**10**	**213**	**0**	**45**	**971**	**20**	**27**	**137**	**972**	**22**
AM Heavy Vehicle Percentage	2%	1%	8%	3%	2%	4%	10%	1%	2%	9%	3%	2%	2%	6%	6%	2%
AM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH	0	100	6	43	0	19	4	86	0	18	391	8	11	55	391	9
AM 2027 NO-BUILD TRAFFIC (No AD)	0	348	21	149	0	66	14	299	0	63	1,362	28	38	192	1,363	31
Approved Development 1: Palmetto Point Pickleball and			8				8	52			8			59	17	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	8	0	0	0	8	52	0	0	8	0	0	59	17	0
AM 2027 NO-BUILD TRAFFIC	**0**	**348**	**29**	**149**	**0**	**66**	**22**	**351**	**0**	**63**	**1,370**	**28**	**38**	**251**	**1,380**	**31**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		-15%	15%											25%	-25%	
	Exiting						25%										
Net New Distribution	Entering											25%	10%	35%	15%		
	Exiting						35%		5%								

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		-20	20			34								34	-34	
	Net New	0	0	0	0	0	33	0	5	0	0	15	6	20	9	0	0
AM TOTAL PROJECT TRIPS		**0**	**-20**	**20**	**0**	**0**	**67**	**0**	**5**	**0**	**0**	**15**	**6**	**20**	**43**	**-34**	**0**
AM 2027 BUILD-OUT TRAFFIC		**0**	**328**	**49**	**149**	**0**	**133**	**22**	**356**	**0**	**63**	**1,385**	**34**	**58**	**294**	**1,346**	**31**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59
PM Volume Balancing	0	0	1	0	0	0	0	0	0	0	0	2	0	17	0	0
PM 2022 EXISTING TRAFFIC	**0**	**117**	**7**	**44**	**0**	**25**	**32**	**214**	**0**	**65**	**835**	**25**	**9**	**170**	**1,060**	**59**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	5%	2%	11%	1%	2%	2%
PM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH	0	47	3	18	0	10	13	86	0	26	336	10	4	68	427	24
PM 2027 NO-BUILD TRAFFIC (No AD)	0	164	10	62	0	35	45	300	0	91	1,171	35	13	238	1,487	83
Approved Development 1: Palmetto Point Pickleball and			7				6	42			7			51	15	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	7	0	0	0	6	42	0	0	7	0	0	51	15	0
PM 2027 NO-BUILD TRAFFIC	**0**	**164**	**17**	**62**	**0**	**35**	**51**	**342**	**0**	**91**	**1,178**	**35**	**13**	**289**	**1,502**	**83**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		-15%	15%											25%	-25%	
	Exiting						25%										
Net New Distribution	Entering											25%	10%	35%	15%		
	Exiting						35%		5%								

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		-17	17			28								28	-28	
	Net New	0	0	0	0	0	20	0	3	0	0	20	8	29	12	0	0
PM TOTAL PROJECT TRIPS		**0**	**-17**	**17**	**0**	**0**	**48**	**0**	**3**	**0**	**0**	**20**	**8**	**29**	**40**	**-28**	**0**
PM 2027 BUILD-OUT TRAFFIC		**0**	**147**	**34**	**62**	**0**	**83**	**51**	**345**	**0**	**91**	**1,198**	**43**	**42**	**329**	**1,474**	**83**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: Gibbet Road at Estate Drive/Site Access #3
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.86 **AM FUTURE PEAK HOUR FACTOR:** 0.86
PM PEAK HOUR FACTOR: 0.87 **PM FUTURE PEAK HOUR FACTOR:** 0.87

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	158	14	0	4	212	0	0	42	0	5	0	0	0	0
AM Volume Balancing	0	0	0	0	0	0	13	0	0	3	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**158**	**14**	**0**	**4**	**225**	**0**	**0**	**45**	**0**	**5**	**0**	**0**	**0**	**0**
AM Heavy Vehicle Percentage	2%	2%	4%	21%	2%	2%	2%	2%	2%	5%	2%	20%	2%	2%	2%	2%
AM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH	0	0	63	6	0	2	91	0	0	18	0	2	0	0	0	0
AM 2027 NO-BUILD TRAFFIC (No AD)	0	0	221	20	0	6	316	0	0	63	0	7	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				67						60						
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	67	0	0	0	0	0	60	0	0	0	0	0	0
AM 2027 NO-BUILD TRAFFIC	**0**	**0**	**221**	**87**	**0**	**6**	**316**	**0**	**0**	**123**	**0**	**7**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		45%	-5%													
	Exiting														5%		
Net New Distribution	Entering		25%					5%	5%			5%					
	Exiting														10%	5%	5%

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		61	-7											7		
	Net New	0	15	0	0	0	0	3	3	0	0	3	0	0	9	5	5
AM TOTAL PROJECT TRIPS		**0**	**76**	**-7**	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**3**	**0**	**0**	**16**	**5**	**5**
AM 2027 BUILD-OUT TRAFFIC		**0**	**76**	**214**	**87**	**0**	**6**	**319**	**3**	**0**	**123**	**3**	**7**	**0**	**16**	**5**	**5**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	187	15	0	9	254	0	0	15	0	7	0	0	0	0
PM Volume Balancing	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**187**	**15**	**0**	**9**	**256**	**0**	**0**	**15**	**0**	**7**	**0**	**0**	**0**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH	0	0	75	6	0	4	103	0	0	6	0	3	0	0	0	0
PM 2027 NO-BUILD TRAFFIC (No AD)	0	0	262	21	0	13	359	0	0	21	0	10	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				58						48						
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	58	0	0	0	0	0	48	0	0	0	0	0	0
PM 2027 NO-BUILD TRAFFIC	**0**	**0**	**262**	**79**	**0**	**13**	**359**	**0**	**0**	**69**	**0**	**10**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		45%	-5%													
	Exiting														5%		
Net New Distribution	Entering		25%					5%	5%			5%					
	Exiting														10%	5%	5%

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		49	-5											5		
	Net New	0	20	0	0	0	0	4	4	0	0	4	0	0	6	3	3
PM TOTAL PROJECT TRIPS		**0**	**69**	**-5**	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**4**	**0**	**0**	**11**	**3**	**3**
PM 2027 BUILD-OUT TRAFFIC		**0**	**69**	**257**	**79**	**0**	**13**	**363**	**4**	**0**	**69**	**4**	**10**	**0**	**11**	**3**	**3**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Site Access #1
COUNT DATE: November 11, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459**	**0**	**0**	**0**	**1,177**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	588	0	0	0	474	0
AM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	2,047	0	0	0	1,651	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2027 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,107**	**0**	**0**	**0**	**1,727**	**0**

"SITE TRAFFIC DISTRUBUTION" LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering												45%			50%	
	Exiting								25%			25%					

"AM PROJECT TRIPS" LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	23	0	0	24	26	0	0	29	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**24**	**26**	**0**	**0**	**29**	**0**
AM 2027 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**2,131**	**26**	**0**	**0**	**1,756**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,461	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**0**	**0**	**0**	**1,461**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	473	0	0	0	588	0
PM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,648	0	0	0	2,049	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2027 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,697**	**0**	**0**	**0**	**2,115**	**0**

"SITE TRAFFIC DISTRUBUTION" LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering												45%			50%	
	Exiting								25%			25%					

"PM PROJECT TRIPS" LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	14	0	0	14	36	0	0	41	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**14**	**36**	**0**	**0**	**41**	**0**
PM 2027 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**1,711**	**36**	**0**	**0**	**2,156**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: Gibbet Road at Site Access #2
COUNT DATE: November 12, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	151	0	0	0	270	0	0	0	0	0	0	0	0	0
AM Volume Balancing	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**172**	**0**	**0**	**0**	**270**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AM Heavy Vehicle Percentage	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
AM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH	0	0	69	0	0	0	109	0	0	0	0	0	0	0	0	0
AM 2027 NO-BUILD TRAFFIC (No AD)	0	0	241	0	0	0	379	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and			67				60									
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	67	0	0	0	60	0	0	0	0	0	0	0	0	0
AM 2027 NO-BUILD TRAFFIC	**0**	**0**	**308**	**0**	**0**	**0**	**439**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering			**40%**				**-10%**	**10%**								
	Exiting																**35%**
Net New Distribution	Entering			**25%**					**5%**								
	Exiting							**5%**									**35%**

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By			**54**				**-13**	**13**								**47**
	Net New	0	0	**15**	0	0	0	**5**	**3**	0	0	0	0	0	0	0	**33**
AM TOTAL PROJECT TRIPS		**0**	**0**	**69**	**0**	**0**	**0**	**-8**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**80**
AM 2027 BUILD-OUT TRAFFIC		**0**	**0**	**377**	**0**	**0**	**0**	**431**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**80**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	182	0	0	0	271	0	0	0	0	0	0	0	0	0
PM Volume Balancing	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**202**	**0**	**0**	**0**	**271**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PM Heavy Vehicle Percentage	2%	2%	1%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH	0	0	81	0	0	0	109	0	0	0	0	0	0	0	0	0
PM 2027 NO-BUILD TRAFFIC (No AD)	0	0	283	0	0	0	380	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and			58				48									
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	58	0	0	0	48	0	0	0	0	0	0	0	0	0
PM 2027 NO-BUILD TRAFFIC	**0**	**0**	**341**	**0**	**0**	**0**	**428**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering			**40%**				**-10%**	**10%**								
	Exiting																**35%**
Net New Distribution	Entering			**25%**					**5%**								
	Exiting							**5%**									**35%**

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By			**44**				**-11**	**11**								**39**
	Net New	0	0	**20**	0	0	0	**3**	**4**	0	0	0	0	0	0	0	**20**
PM TOTAL PROJECT TRIPS		**0**	**0**	**64**	**0**	**0**	**0**	**-8**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**59**
PM 2027 BUILD-OUT TRAFFIC		**0**	**0**	**405**	**0**	**0**	**0**	**420**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**59**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Site Access #4
COUNT DATE: November 13, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,144	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459**	**0**	**0**	**0**	**1,158**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	588	0	0	0	466	0
AM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	2,047	0	0	0	1,624	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2027 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,107**	**0**	**0**	**0**	**1,700**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering											-60%	45%				
	Exiting								60%								
Net New Distribution	Entering											45%	15%			50%	
	Exiting								20%			5%					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By								81			-81	61				
	Net New	0	0	0	0	0	0	0	19	0	0	31	9	0	0	29	0
AM TOTAL PROJECT TRIPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**0**	**0**	**-50**	**70**	**0**	**0**	**29**	**0**
AM 2027 BUILD-OUT TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**0**	**0**	**2,057**	**70**	**0**	**0**	**1,729**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,281	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	17	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**0**	**0**	**0**	**1,298**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
PM 2027 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	473	0	0	0	523	0
PM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,648	0	0	0	1,821	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2027 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,697**	**0**	**0**	**0**	**1,887**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering											-60%	45%				
	Exiting								60%								
Net New Distribution	Entering											45%	15%			50%	
	Exiting								20%			5%					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By								66			-66	50				
	Net New	0	0	0	0	0	0	0	11	0	0	39	13	0	0	41	0
PM TOTAL PROJECT TRIPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**77**	**0**	**0**	**-27**	**63**	**0**	**0**	**41**	**0**
PM 2027 BUILD-OUT TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**77**	**0**	**0**	**1,670**	**63**	**0**	**0**	**1,928**	**0**

PHASE 3 VOLUME DEVELOPMENT

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Lawton Boulevard
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.98 **AM FUTURE PEAK HOUR FACTOR:** 0.98
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**55**	**0**	**66**	**0**	**0**	**1,425**	**34**	**0**	**49**	**1,122**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	33	0	40	0	0	863	21	0	30	680	0
AM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	88	0	106	0	0	2,288	55	0	79	1,802	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**88**	**0**	**106**	**0**	**0**	**2,348**	**55**	**0**	**79**	**1,878**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering															**50%**	
	Exiting											**50%**					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	0	0	0	**54**	0	0	0	**43**	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**54**	**0**	**0**	**0**	**43**	**0**
AM 2029 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**88**	**0**	**106**	**0**	**0**	**2,402**	**55**	**0**	**79**	**1,921**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	21	0	58	0	0	1,134	40	0	133	1,440	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**58**	**0**	**0**	**1,135**	**40**	**0**	**133**	**1,440**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	13	0	35	0	0	688	24	0	81	872	0
PM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	34	0	93	0	0	1,823	64	0	214	2,312	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**34**	**0**	**93**	**0**	**0**	**1,872**	**64**	**0**	**214**	**2,378**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering															**50%**	
	Exiting											**50%**					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	0	0	0	**50**	0	0	0	**58**	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**50**	**0**	**0**	**0**	**58**	**0**
PM 2029 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**34**	**0**	**93**	**0**	**0**	**1,922**	**64**	**0**	**214**	**2,436**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Gibbet Road
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.96 **AM FUTURE PEAK HOUR FACTOR:** 0.96
PM PEAK HOUR FACTOR: 0.91 **PM FUTURE PEAK HOUR FACTOR:** 0.91

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22
AM Volume Balancing	0	0	3	0	0	0	0	0	0	0	10	4	0	14	0	0
AM 2022 EXISTING TRAFFIC	**0**	**248**	**15**	**106**	**0**	**47**	**10**	**213**	**0**	**45**	**971**	**20**	**27**	**137**	**972**	**22**
AM Heavy Vehicle Percentage	2%	1%	8%	3%	2%	4%	10%	1%	2%	9%	3%	2%	2%	6%	6%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	150	9	64	0	28	6	129	0	27	588	12	16	83	589	13
AM 2029 NO-BUILD TRAFFIC (No AD)	0	398	24	170	0	75	16	342	0	72	1,559	32	43	220	1,561	35
Approved Development 1: Palmetto Point Pickleball and			8				8	52			8			59	17	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	8	0	0	0	8	52	0	0	8	0	0	59	17	0
AM 2029 NO-BUILD TRAFFIC	**0**	**398**	**32**	**170**	**0**	**75**	**24**	**394**	**0**	**72**	**1,567**	**32**	**43**	**279**	**1,578**	**35**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		-15%	15%											25%	-25%	
	Exiting						25%										
Net New Distribution	Entering											25%	10%	40%	10%		
	Exiting						35%		5%								

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		-20	20			34								34	-34	
	Net New	0	0	0	0	0	37	0	5	0	0	22	9	35	8	0	0
AM TOTAL PROJECT TRIPS		**0**	**-20**	**20**	**0**	**0**	**71**	**0**	**5**	**0**	**0**	**22**	**9**	**35**	**42**	**-34**	**0**
AM 2029 BUILD-OUT TRAFFIC		**0**	**378**	**52**	**170**	**0**	**146**	**24**	**399**	**0**	**72**	**1,589**	**41**	**78**	**321**	**1,544**	**35**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59
PM Volume Balancing	0	0	1	0	0	0	0	0	0	0	0	2	0	17	0	0
PM 2022 EXISTING TRAFFIC	**0**	**117**	**7**	**44**	**0**	**25**	**32**	**214**	**0**	**65**	**835**	**25**	**9**	**170**	**1,060**	**59**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	5%	2%	11%	1%	2%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	71	4	27	0	15	19	130	0	39	506	15	5	103	642	36
PM 2029 NO-BUILD TRAFFIC (No AD)	0	188	11	71	0	40	51	344	0	104	1,341	40	14	273	1,702	95
Approved Development 1: Palmetto Point Pickleball and			7				6	42			7			51	15	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	7	0	0	0	6	42	0	0	7	0	0	51	15	0
PM 2029 NO-BUILD TRAFFIC	**0**	**188**	**18**	**71**	**0**	**40**	**57**	**386**	**0**	**104**	**1,348**	**40**	**14**	**324**	**1,717**	**95**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		-15%	15%											25%	-25%	
	Exiting						25%										
Net New Distribution	Entering											25%	10%	40%	10%		
	Exiting						35%		5%								

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		-17	17			28								28	-28	
	Net New	0	0	0	0	0	34	0	5	0	0	29	12	47	11	0	0
PM TOTAL PROJECT TRIPS		**0**	**-17**	**17**	**0**	**0**	**62**	**0**	**5**	**0**	**0**	**29**	**12**	**47**	**39**	**-28**	**0**
PM 2029 BUILD-OUT TRAFFIC		**0**	**171**	**35**	**71**	**0**	**102**	**57**	**391**	**0**	**104**	**1,377**	**52**	**61**	**363**	**1,689**	**95**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: Gibbet Road at Estate Drive/Site Access #3
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.86 **AM FUTURE PEAK HOUR FACTOR:** 0.86
PM PEAK HOUR FACTOR: 0.87 **PM FUTURE PEAK HOUR FACTOR:** 0.87

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	158	14	0	4	212	0	0	42	0	5	0	0	0	0
AM Volume Balancing	0	0	0	0	0	0	13	0	0	3	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**158**	**14**	**0**	**4**	**225**	**0**	**0**	**45**	**0**	**5**	**0**	**0**	**0**	**0**
AM Heavy Vehicle Percentage	2%	2%	4%	21%	2%	2%	2%	2%	2%	5%	2%	20%	2%	2%	2%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	0	95	8	0	2	136	0	0	27	0	3	0	0	0	0
AM 2029 NO-BUILD TRAFFIC (No AD)	0	0	253	22	0	6	361	0	0	72	0	8	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				67						60						
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	67	0	0	0	0	0	60	0	0	0	0	0	0
AM 2029 NO-BUILD TRAFFIC	**0**	**0**	**253**	**89**	**0**	**6**	**361**	**0**	**0**	**132**	**0**	**8**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		45%	-5%													
	Exiting														5%		
Net New Distribution	Entering		20%					5%	5%			5%					
	Exiting														10%	5%	5%

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		61	-7											7		
	Net New	0	17	0	0	0	0	4	4	0	0	4	0	0	11	5	5
AM TOTAL PROJECT TRIPS		**0**	**78**	**-7**	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**4**	**0**	**0**	**18**	**5**	**5**
AM 2029 BUILD-OUT TRAFFIC		**0**	**78**	**246**	**89**	**0**	**6**	**365**	**4**	**0**	**132**	**4**	**8**	**0**	**18**	**5**	**5**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	187	15	0	9	254	0	0	15	0	7	0	0	0	0
PM Volume Balancing	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**187**	**15**	**0**	**9**	**256**	**0**	**0**	**15**	**0**	**7**	**0**	**0**	**0**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	0	113	9	0	5	155	0	0	9	0	4	0	0	0	0
PM 2029 NO-BUILD TRAFFIC (No AD)	0	0	300	24	0	14	411	0	0	24	0	11	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				58						48						
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	58	0	0	0	0	0	48	0	0	0	0	0	0
PM 2029 NO-BUILD TRAFFIC	**0**	**0**	**300**	**82**	**0**	**14**	**411**	**0**	**0**	**72**	**0**	**11**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		45%	-5%													
	Exiting														5%		
Net New Distribution	Entering		20%					5%	5%			5%					
	Exiting														10%	5%	5%

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		51	-6											6		
	Net New	0	23	0	0	0	0	6	6	0	0	5	0	0	9	5	5
PM TOTAL PROJECT TRIPS		**0**	**74**	**-6**	**0**	**0**	**0**	**6**	**6**	**0**	**0**	**5**	**0**	**0**	**15**	**5**	**5**
PM 2029 BUILD-OUT TRAFFIC		**0**	**74**	**294**	**82**	**0**	**14**	**417**	**6**	**0**	**72**	**5**	**11**	**0**	**15**	**5**	**5**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Site Access #1
COUNT DATE: November 11, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459**	**0**	**0**	**0**	**1,177**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	884	0	0	0	713	0
AM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	2,343	0	0	0	1,890	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,403**	**0**	**0**	**0**	**1,966**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering											**15%**	**40%**			**50%**	
	Exiting								**20%**			**20%**					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	**22**	0	0	**34**	**35**	0	0	**43**	0
AM TOTAL PROJECT TRIPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**0**	**34**	**35**	**0**	**0**	**43**	**0**
AM 2029 BUILD-OUT TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**0**	**2,437**	**35**	**0**	**0**	**2,009**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,461	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**0**	**0**	**0**	**1,461**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	712	0	0	0	885	0
PM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,887	0	0	0	2,346	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,936**	**0**	**0**	**0**	**2,412**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering											**15%**	**40%**			**50%**	
	Exiting								**20%**			**20%**					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	**20**	0	0	**37**	**47**	0	0	**58**	0
PM TOTAL PROJECT TRIPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**37**	**47**	**0**	**0**	**58**	**0**
PM 2029 BUILD-OUT TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**1,973**	**47**	**0**	**0**	**2,470**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: Gibbet Road at Site Access #2
COUNT DATE: November 12, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	151	0	0	0	270	0	0	0	0	0	0	0	0	0
AM Volume Balancing	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**172**	**0**	**0**	**0**	**270**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AM Heavy Vehicle Percentage	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	0	104	0	0	0	164	0	0	0	0	0	0	0	0	0
AM 2029 NO-BUILD TRAFFIC (No AD)	0	0	276	0	0	0	434	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and			67				60									
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	67	0	0	0	60	0	0	0	0	0	0	0	0	0
AM 2029 NO-BUILD TRAFFIC	**0**	**0**	**343**	**0**	**0**	**0**	**494**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering			**40%**				**-10%**	**10%**								
	Exiting																**35%**
Net New Distribution	Entering			**20%**					**5%**								
	Exiting							**5%**									**35%**

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By			**54**				**-13**	**13**								**47**
	Net New	0	0	**17**	0	0	0	**5**	**4**	0	0	0	0	0	0	0	**37**
AM TOTAL PROJECT TRIPS		**0**	**0**	**71**	**0**	**0**	**0**	**-8**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**84**
AM 2029 BUILD-OUT TRAFFIC		**0**	**0**	**414**	**0**	**0**	**0**	**486**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**84**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	182	0	0	0	271	0	0	0	0	0	0	0	0	0
PM Volume Balancing	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**202**	**0**	**0**	**0**	**271**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PM Heavy Vehicle Percentage	2%	2%	1%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	0	122	0	0	0	164	0	0	0	0	0	0	0	0	0
PM 2029 NO-BUILD TRAFFIC (No AD)	0	0	324	0	0	0	435	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and			58				48									
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	58	0	0	0	48	0	0	0	0	0	0	0	0	0
PM 2029 NO-BUILD TRAFFIC	**0**	**0**	**382**	**0**	**0**	**0**	**483**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering			**40%**				**-10%**	**10%**								
	Exiting																**35%**
Net New Distribution	Entering			**20%**					**5%**								
	Exiting							**5%**									**35%**

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By			**45**				**-11**	**11**								**39**
	Net New	0	0	**23**	0	0	0	**5**	**6**	0	0	0	0	0	0	0	**34**
PM TOTAL PROJECT TRIPS		**0**	**0**	**68**	**0**	**0**	**0**	**-6**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**73**
PM 2029 BUILD-OUT TRAFFIC		**0**	**0**	**450**	**0**	**0**	**0**	**477**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**73**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Site Access #4
COUNT DATE: November 13, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,144	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459**	**0**	**0**	**0**	**1,158**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	884	0	0	0	701	0
AM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	2,343	0	0	0	1,859	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,403**	**0**	**0**	**0**	**1,935**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering											-60%	45%				
	Exiting								60%								
Net New Distribution	Entering											55%	10%			50%	
	Exiting								15%			5%					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By								80			-80	60				
	Net New	0	0	0	0	0	0	0	16	0	0	53	9	0	0	43	0
AM TOTAL PROJECT TRIPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**96**	**0**	**0**	**-27**	**69**	**0**	**0**	**43**	**0**
AM 2029 BUILD-OUT TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**96**	**0**	**0**	**2,376**	**69**	**0**	**0**	**1,978**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,281	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	17	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**0**	**0**	**0**	**1,298**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	712	0	0	0	786	0
PM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,887	0	0	0	2,084	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,936**	**0**	**0**	**0**	**2,150**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering											-60%	45%				
	Exiting								60%								
Net New Distribution	Entering											55%	10%			50%	
	Exiting								15%			5%					

"PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By								67			-67	50				
	Net New	0	0	0	0	0	0	0	15	0	0	69	12	0	0	58	0
PM TOTAL PROJECT TRIPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**82**	**0**	**0**	**2**	**62**	**0**	**0**	**58**	**0**
PM 2029 BUILD-OUT TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**82**	**0**	**0**	**1,938**	**62**	**0**	**0**	**2,208**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Site Access #5
COUNT DATE: November 13, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459**	**0**	**0**	**0**	**1,177**	**0**
AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	884	0	0	0	713	0
AM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	2,343	0	0	0	1,890	0
Approved Development 1: Palmetto Point Pickleball and											60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,403**	**0**	**0**	**0**	**1,966**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering												15%			50%	
	Exiting								10%			40%					

"AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	11	0	0	43	13	0	0	43	0
AM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**43**	**13**	**0**	**0**	**43**	**0**
AM 2029 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**2,446**	**13**	**0**	**0**	**2,009**	**0**

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts[1]	0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,461	0
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**0**	**0**	**0**	**1,461**	**0**
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2029 NO-BUILD TRAFFIC	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	712	0	0	0	885	0
PM 2029 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	0	0	0	0	0	1,887	0	0	0	2,346	0
Approved Development 1: Palmetto Point Pickleball and											49				66	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,936**	**0**	**0**	**0**	**2,412**	**0**

"SITE TRAFFIC DISTRUBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering												15%			50%	
	Exiting								10%			40%					

"PM PROJECT TRIPS"

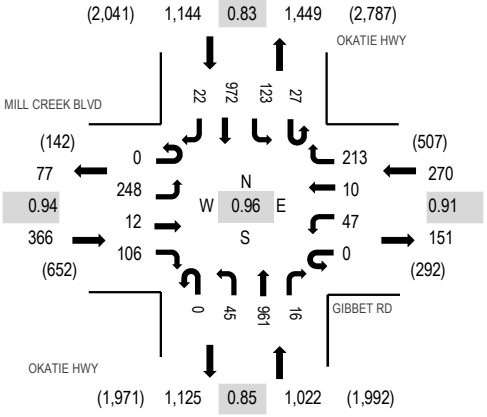
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	10	0	0	40	17	0	0	58	0
PM TOTAL PROJECT TRIPS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**40**	**17**	**0**	**0**	**58**	**0**
PM 2029 BUILD-OUT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**1,976**	**17**	**0**	**0**	**2,470**	**0**

Appendix D – Raw Turning Movement Counts

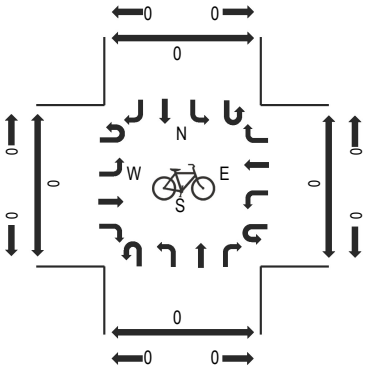
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 OKATIE HWY & GIBBET RD AM
Date: Thursday, November 10, 2022
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

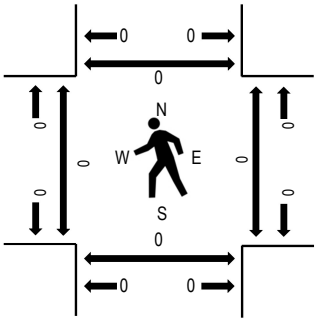
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MILL CREEK BLVD Eastbound				GIBBET RD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	63	1	21	0	11	0	58	0	2	211	3	10	20	164	0	564	2,631	0	0	0	0
7:15 AM	0	66	3	30	1	7	3	58	1	10	258	8	6	17	175	2	645	2,723	0	0	0	0
7:30 AM	0	59	2	30	0	9	1	64	0	16	300	4	6	23	207	6	727	2,802	0	0	0	0
7:45 AM	0	67	3	17	0	14	6	60	0	11	258	4	8	34	210	3	695	2,710	0	0	0	0
8:00 AM	0	78	5	17	0	8	1	49	0	9	191	6	6	32	249	5	656	2,561	0	0	0	0
8:15 AM	0	44	2	42	0	16	2	40	0	9	212	2	7	34	306	8	724		0	0	0	0
8:30 AM	0	43	4	16	0	7	1	48	0	16	216	3	7	43	220	11	635		1	0	0	0
8:45 AM	0	29	0	10	0	6	2	35	0	13	226	3	4	35	178	5	546		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	0	0	0	0	6	0	0	1	14	0	22
Lights	0	246	11	103	0	45	9	210	0	41	933	16	27	116	911	22	2,690
Mediums	0	2	1	3	0	1	1	3	0	4	22	0	0	6	47	0	90
Total	0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22	2,802

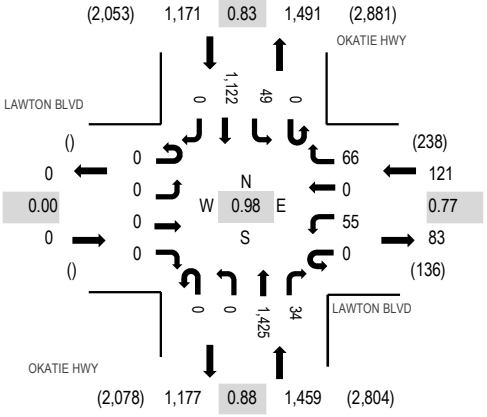
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.4%				0.6%				1.3%			0.8%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.8%	1.4%	0.0%	0.8%
Peak Hour Factor		0.94				0.91				0.85				0.83			0.96
Peak Hour Factor	0.00	0.87	0.70	0.63	0.25	0.73	0.46	0.94	0.25	0.73	0.86	0.69	0.75	0.84	0.80	0.66	0.96

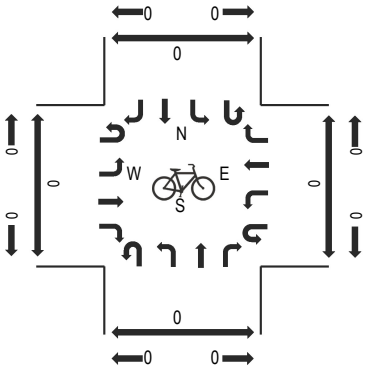
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 OKATIE HWY & LAWTON BLVD AM
Date: Thursday, November 10, 2022
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

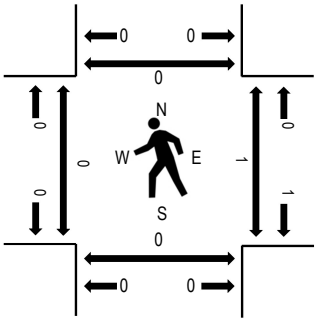
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LAWTON BLVD Eastbound				LAWTON BLVD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	13	0	16	0	0	337	3	0	2	172	0	543	2,565	0	0	0	0
7:15 AM	0	0	0	0	0	19	0	23	0	0	375	7	0	6	186	0	616	2,670	0	0	0	0
7:30 AM	0	0	0	0	0	7	0	15	0	0	431	16	0	11	225	0	705	2,751	0	0	0	0
7:45 AM	0	0	0	0	0	13	0	17	0	0	389	7	0	13	262	0	701	2,684	0	0	0	0
8:00 AM	0	0	0	0	0	10	0	17	0	0	320	7	0	13	281	0	648	2,530	0	1	0	0
8:15 AM	0	0	0	0	0	25	0	17	0	0	285	4	0	12	354	0	697		0	0	0	0
8:30 AM	0	0	0	0	0	14	0	16	0	0	324	6	0	9	269	0	638		0	0	0	0
8:45 AM	0	0	0	0	0	6	0	10	0	0	289	4	0	16	222	0	547		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	6	0	0	0	15	0	21
Lights	0	0	0	0	0	55	0	65	0	0	1,394	33	0	48	1,053	0	2,648
Mediums	0	0	0	0	0	0	0	1	0	0	25	1	0	1	54	0	82
Total	0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0	2,751

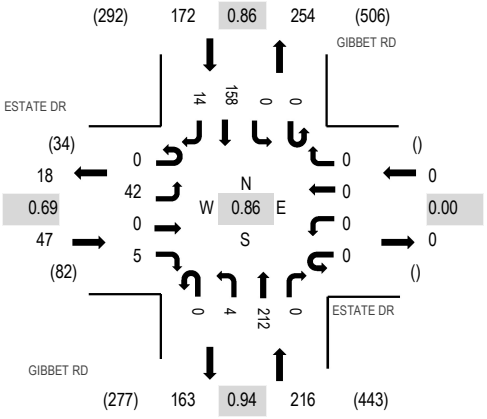
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.0%				0.4%				1.3%			0.8%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.3%	0.0%	0.8%
Peak Hour Factor		0.00				0.77				0.88				0.83			0.98
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.78	0.00	0.00	0.89	0.58	0.00	0.78	0.82	0.00	0.98

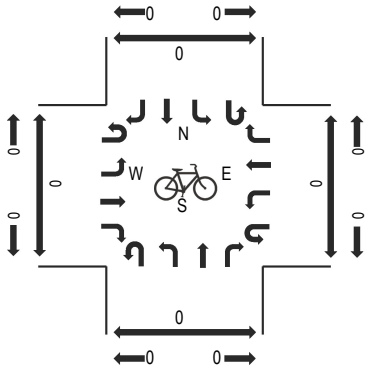
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 GIBBET RD & ESTATE DR AM
Date: Thursday, November 10, 2022
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

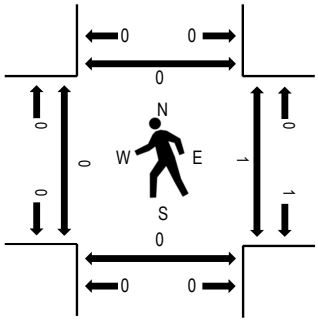
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ESTATE DR Eastbound				ESTATE DR Westbound				GIBBET RD Northbound				GIBBET RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	13	0	0	0	0	0	0	0	0	59	0	0	0	22	2	96	428	0	0	0	0
7:15 AM	0	6	0	1	0	0	0	0	0	2	63	0	0	0	25	3	100	430	0	0	0	0
7:30 AM	0	8	0	2	0	0	0	0	0	1	64	0	0	0	27	3	105	431	0	0	0	0
7:45 AM	0	17	0	1	0	0	0	0	0	3	65	0	0	0	37	4	127	435	0	0	0	0
8:00 AM	0	9	0	2	0	0	0	0	0	0	46	0	0	0	38	3	98	389	0	0	0	0
8:15 AM	0	10	0	1	0	0	0	0	0	1	49	0	0	0	38	2	101		0	1	0	0
8:30 AM	0	6	0	1	0	0	0	0	0	0	52	0	0	0	45	5	109		0	0	0	0
8:45 AM	0	4	0	1	0	0	0	0	0	3	35	0	0	0	36	2	81		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	40	0	4	0	0	0	0	0	4	208	0	0	0	152	11	419
Mediums	0	1	0	1	0	0	0	0	0	0	4	0	0	0	6	3	15
Total	0	42	0	5	0	0	0	0	0	4	212	0	0	0	158	14	435

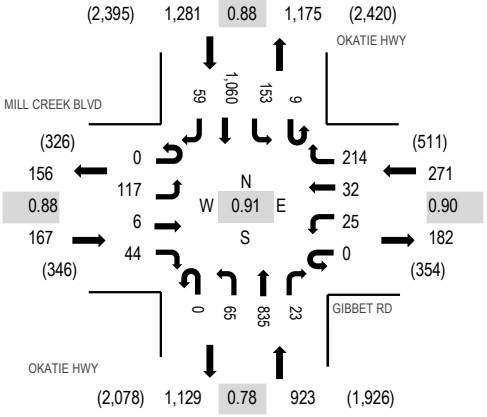
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		2.1%				0.0%				0.0%				0.0%			0.2%
Heavy Vehicle %	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Peak Hour Factor		0.69				0.00				0.94				0.86			0.86
Peak Hour Factor	0.00	0.65	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.50	0.97	0.00	0.00	0.00	0.88	0.70	0.86

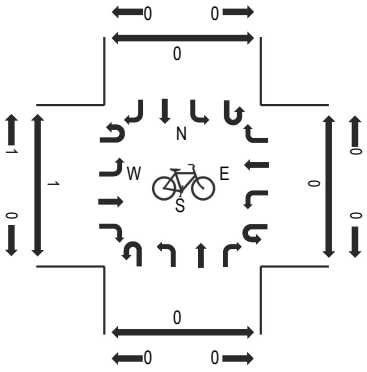
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 OKATIE HWY & GIBBET RD PM
Date: Thursday, November 10, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

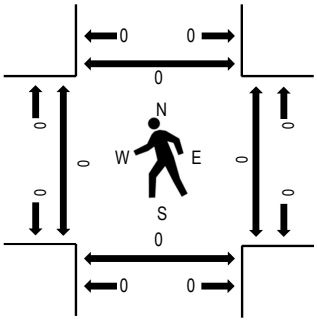
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MILL CREEK BLVD Eastbound				GIBBET RD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	35	2	10	0	5	9	53	0	15	314	3	3	35	207	18	709	2,578	0	0	0	0
4:15 PM	0	25	0	9	0	6	7	37	0	19	219	5	5	36	209	23	600	2,520	0	0	0	0
4:30 PM	0	32	2	10	0	3	7	51	0	13	216	5	3	29	265	9	645	2,642	0	0	0	0
4:45 PM	0	29	2	14	0	5	3	50	0	18	199	7	1	38	237	21	624	2,617	0	0	0	0
5:00 PM	0	32	2	8	0	8	14	54	0	17	197	5	2	37	269	6	651	2,600	0	0	0	0
5:15 PM	0	24	0	12	0	9	8	59	0	17	223	6	3	49	289	23	722		0	0	0	0
5:30 PM	0	40	2	8	0	4	9	46	0	17	191	11	5	46	224	17	620		0	0	0	0
5:45 PM	0	30	4	14	0	7	5	52	0	19	188	2	2	26	246	12	607		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	6	0	0	1	2	0	10
Lights	0	115	6	43	0	25	32	212	0	65	796	23	8	152	1,036	59	2,572
Mediums	0	2	0	1	0	0	0	1	0	0	33	0	1	0	22	0	60
Total	0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59	2,642

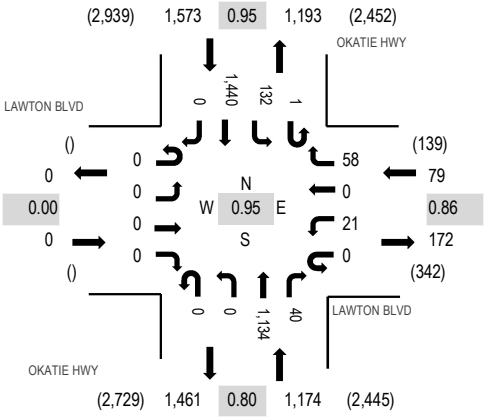
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.4%				0.7%				0.2%			0.4%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%	0.2%	0.0%	0.4%
Peak Hour Factor		0.88				0.90				0.78				0.88			0.91
Peak Hour Factor	0.00	0.79	0.50	0.79	0.00	0.78	0.64	0.91	0.00	0.92	0.75	0.66	0.60	0.87	0.92	0.77	0.91

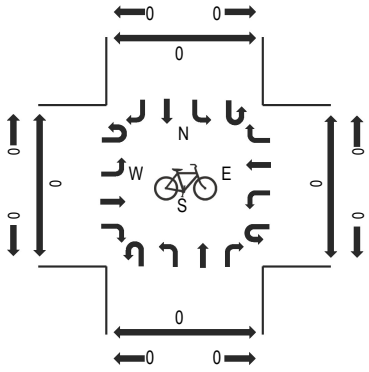
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 OKATIE HWY & LAWTON BLVD PM
Date: Thursday, November 10, 2022
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

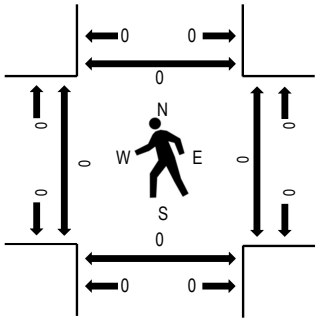
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LAWTON BLVD Eastbound				LAWTON BLVD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	7	0	8	0	0	380	22	0	30	290	0	737	2,729	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	13	1	0	301	7	0	28	314	0	666	2,707	0	0	0	0
4:30 PM	0	0	0	0	0	5	0	11	0	0	286	15	0	31	322	0	670	2,786	0	0	0	0
4:45 PM	0	0	0	0	0	3	0	12	0	0	268	10	0	26	337	0	656	2,826	0	0	0	0
5:00 PM	0	0	0	0	0	7	0	13	0	0	279	15	0	36	365	0	715	2,794	0	0	0	0
5:15 PM	0	0	0	0	0	9	0	14	0	0	298	10	1	34	379	0	745		0	0	0	0
5:30 PM	0	0	0	0	0	2	0	19	0	0	289	5	0	36	359	0	710		0	0	0	0
5:45 PM	0	0	0	0	0	8	0	6	0	0	254	5	0	32	319	0	624		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	9
Lights	0	0	0	0	0	21	0	58	0	0	1,102	40	1	132	1,420	0	2,774
Mediums	0	0	0	0	0	0	0	0	0	0	24	0	0	0	19	0	43
Total	0	0	0	0	0	21	0	58	0	0	1,134	40	1	132	1,440	0	2,826

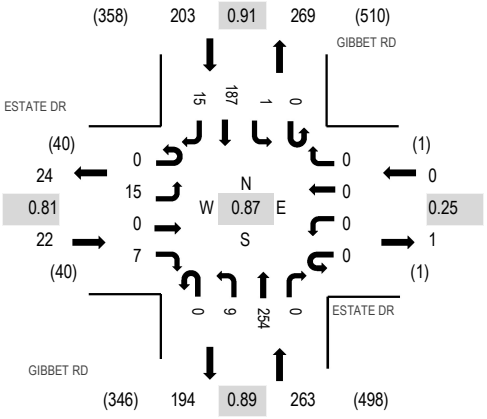
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.0%				0.7%				0.1%			0.3%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.3%
Peak Hour Factor		0.00				0.86				0.80				0.95			0.95
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.76	0.25	0.00	0.81	0.61	0.25	0.96	0.95	0.00	0.95

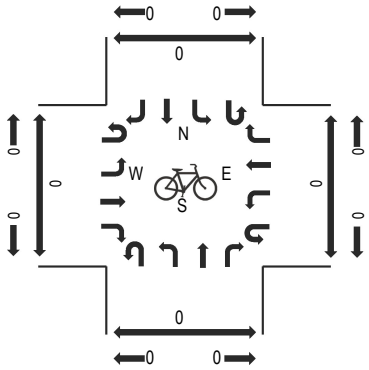
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 GIBBET RD & ESTATE DR PM
Date: Thursday, November 10, 2022
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

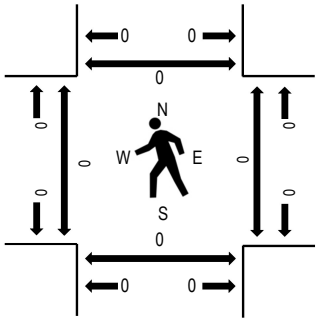
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ESTATE DR Eastbound				ESTATE DR Westbound				GIBBET RD Northbound				GIBBET RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	0	2	0	0	0	0	0	1	63	0	0	0	39	2	109	415	0	0	0	0
4:15 PM	0	4	0	0	0	0	0	0	0	4	45	0	0	0	40	2	95	427	0	0	0	0
4:30 PM	0	5	0	3	0	0	0	0	0	0	54	0	0	0	33	3	98	472	0	0	0	0
4:45 PM	0	4	0	2	0	0	0	0	0	3	57	0	0	0	42	5	113	488	0	0	0	0
5:00 PM	0	4	0	0	0	0	0	0	0	4	69	0	0	0	40	4	121	482	0	0	0	0
5:15 PM	0	6	0	2	0	0	0	0	0	0	76	0	0	0	51	5	140		0	0	0	0
5:30 PM	0	1	0	3	0	0	0	0	0	2	52	0	0	1	54	1	114		0	0	0	0
5:45 PM	0	1	0	1	0	0	0	1	0	2	66	0	0	0	34	2	107		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	15	0	7	0	0	0	0	0	9	253	0	0	1	187	15	487
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	15	0	7	0	0	0	0	0	9	254	0	0	1	187	15	488

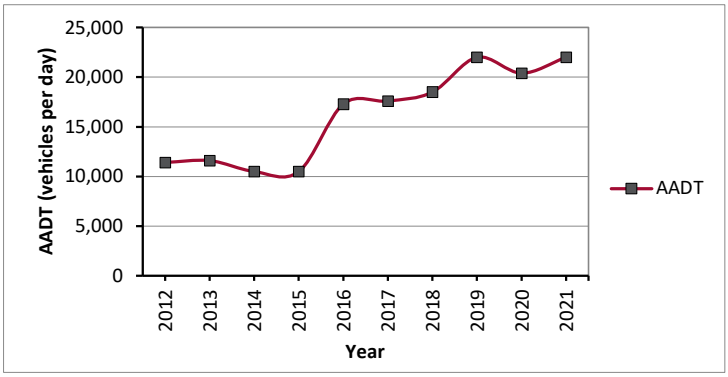
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.0%				0.4%				0.0%			0.2%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Peak Hour Factor		0.81				0.25				0.89				0.91			0.87
Peak Hour Factor	0.00	0.79	0.00	0.58	0.00	0.00	0.00	0.25	0.00	0.69	0.87	0.00	0.00	0.25	0.87	0.85	0.87

Appendix E – Historical Growth Rate Data

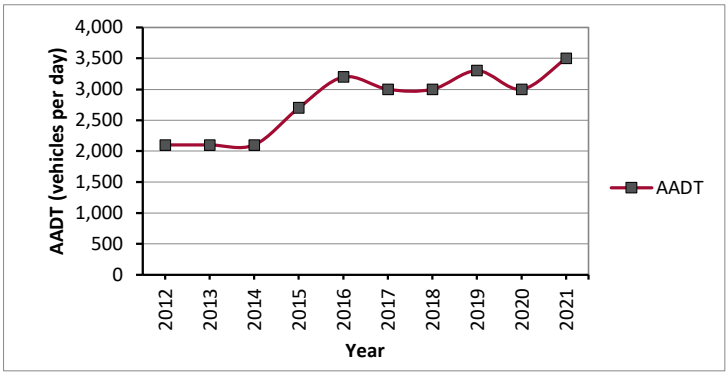
Annual Average Daily Traffic (AADT) from the South Carolina Department of Transportation (SCDOT)

Station	070165
Route	SC 170
Location	SC 46 (OKATIE HWY) TO US 278 (W FORDING ISLAND RD)
2012	11,400
2013	11,600
2014	10,500
2015	10,500
2016	17,300
2017	17,600
2018	18,500
2019	22,000
2020	20,400
2021	22,000



Annual Growth for Last Five (5) Years --- SC 170 is 4.6%
Annual Growth for Last Ten (10) Years --- SC 170 is 6.8%

Station	070325
Route	S- 34
Location	SC 170 (OKATIE HWY) TO SC 46 (MAY RIVER RD)
2012	2,100
2013	2,100
2014	2,100
2015	2,700
2016	3,200
2017	3,000
2018	3,000
2019	3,300
2020	3,000
2021	3,500



Annual Growth for Last Five (5) Years --- S- 34 is 3.1%
Annual Growth for Last Ten (10) Years --- S- 34 is 5.2%

Appendix F – Capacity Analysis Worksheets

2022 EXISTING CONDITIONS

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	66	1425	34	49	1122
Future Vol, veh/h	55	66	1425	34	49	1122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	56	67	1454	35	50	1145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2127	727	0	0	1454	0
Stage 1	1454	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 43	366	-	-	461	-
Stage 1	181	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 38	366	-	-	461	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	417	-	-	-	-	-

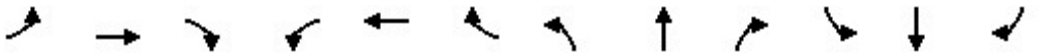
Approach	WB	NB	SB
HCM Control Delay, s	27.2	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	159	366	461	-
HCM Lane V/C Ratio	-	-	0.353	0.184	0.108	-
HCM Control Delay (s)	-	-	39.5	17	13.8	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	1.5	0.7	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Queues

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	258	16	110	49	10	222	47	1011	21	171	1013	23
v/c Ratio	0.76	0.04	0.21	0.15	0.02	0.30	0.17	0.79	0.03	0.55	0.60	0.03
Control Delay	47.2	28.5	1.2	29.6	28.5	13.5	10.0	29.4	0.1	17.1	19.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	28.5	1.2	29.6	28.5	13.5	10.0	29.4	0.1	17.1	19.0	0.0
Queue Length 50th (ft)	129	7	0	21	4	56	10	251	0	41	230	0
Queue Length 95th (ft)	#283	26	3	59	19	128	26	371	0	80	316	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	449	560	624	434	549	873	272	1925	952	442	2326	1117
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.03	0.18	0.11	0.02	0.25	0.17	0.53	0.02	0.39	0.44	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2022 Existing AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	15	106	47	10	213	45	971	20	164	972	22
Future Volume (veh/h)	248	15	106	47	10	213	45	971	20	164	972	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	258	16	0	49	10	222	47	1011	21	171	1012	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	354	438		403	431	514	278	1569	706	323	1664	
Arrive On Green	0.25	0.25	0.00	0.25	0.25	0.25	0.04	0.45	0.45	0.08	0.48	0.00
Sat Flow, veh/h	1158	1781	1572	1375	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	258	16	0	49	10	222	47	1011	21	171	1012	0
Grp Sat Flow(s),veh/h/ln	1158	1781	1572	1375	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	21.0	0.7	0.0	2.7	0.4	10.6	1.3	21.5	0.7	5.1	20.7	0.0
Cycle Q Clear(g_c), s	21.4	0.7	0.0	3.4	0.4	10.6	1.3	21.5	0.7	5.1	20.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	438		403	431	514	278	1569	706	323	1664	
V/C Ratio(X)	0.73	0.04		0.12	0.02	0.43	0.17	0.64	0.03	0.53	0.61	
Avail Cap(c_a), veh/h	384	484		439	476	555	305	1652	743	480	2005	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.7	27.7	0.0	29.0	27.6	25.8	13.8	20.8	15.0	15.8	18.2	0.0
Incr Delay (d2), s/veh	6.3	0.0	0.0	0.1	0.0	0.6	0.3	0.9	0.0	1.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.3	0.0	0.9	0.2	3.8	0.5	8.0	0.2	1.8	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	27.7	0.0	29.1	27.6	26.4	14.1	21.7	15.1	17.2	18.7	0.0
LnGrp LOS	D	C		C	C	C	B	C	B	B	B	
Approach Vol, veh/h		274	A		281			1079			1183	A
Approach Delay, s/veh		41.2			26.9			21.2			18.4	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	50.7		31.5	10.5	54.5		31.5				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	7.1	23.5		23.4	3.3	22.7		12.6				
Green Ext Time (p_c), s	0.3	16.8		0.3	0.0	23.9		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		22.6	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	14	4	225	45	5
Future Vol, veh/h	158	14	4	225	45	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	184	16	5	262	52	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	464	192
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1372	-	551	806
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1372	-	549	806
Mov Cap-2 Maneuver	-	-	-	-	549	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	549	806	-	-	1372	-
HCM Lane V/C Ratio	0.095	0.007	-	-	0.003	-
HCM Control Delay (s)	12.2	9.5	-	-	7.6	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-

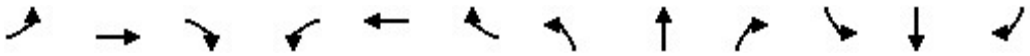
Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	58	1135	40	133	1440
Future Vol, veh/h	21	58	1135	40	133	1440
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	22	61	1195	42	140	1516

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2233	598	0	0	1195	0
Stage 1	1195	-	-	-	-	-
Stage 2	1038	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	36	445	-	-	580	-
Stage 1	250	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	27	445	-	-	580	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	229	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.8	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	160	445	580	-
HCM Lane V/C Ratio	-	-	0.138	0.137	0.241	-
HCM Control Delay (s)	-	-	31.1	14.4	13.2	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.5	0.9	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	129	8	48	27	35	235	71	918	27	197	1165	65
v/c Ratio	0.53	0.02	0.10	0.11	0.10	0.39	0.23	0.64	0.03	0.45	0.58	0.07
Control Delay	38.8	28.4	0.4	29.4	28.9	14.1	7.4	19.4	0.1	9.6	15.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	28.4	0.4	29.4	28.9	14.1	7.4	19.4	0.1	9.6	15.6	0.1
Queue Length 50th (ft)	53	3	0	10	13	50	11	172	0	32	215	0
Queue Length 95th (ft)	#130	16	0	35	42	118	24	249	0	58	288	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	283	387	507	290	387	783	309	2066	1041	639	2607	1203
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.02	0.09	0.09	0.09	0.30	0.23	0.44	0.03	0.31	0.45	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2022 Existing PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	7	44	25	32	214	65	835	25	179	1060	59
Future Volume (veh/h)	117	7	44	25	32	214	65	835	25	179	1060	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	129	8	0	27	35	235	71	918	27	197	1165	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	241	292		300	292	377	315	1719	785	417	1873	
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.05	0.50	0.50	0.08	0.53	0.00
Sat Flow, veh/h	1109	1870	1585	1407	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	129	8	0	27	35	235	71	918	27	197	1165	0
Grp Sat Flow(s),veh/h/ln	1109	1870	1585	1407	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	9.5	0.3	0.0	1.4	1.3	11.0	1.5	15.2	0.7	4.4	19.3	0.0
Cycle Q Clear(g_c), s	10.8	0.3	0.0	1.7	1.3	11.0	1.5	15.2	0.7	4.4	19.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	241	292		300	292	377	315	1719	785	417	1873	
V/C Ratio(X)	0.53	0.03		0.09	0.12	0.62	0.23	0.53	0.03	0.47	0.62	
Avail Cap(c_a), veh/h	243	295		303	295	380	337	1719	785	619	2089	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.0	29.9	0.0	30.7	30.4	28.7	10.5	14.5	10.8	10.5	13.9	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.1	0.2	3.1	0.4	0.4	0.0	0.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.0	0.5	0.6	4.2	0.5	5.1	0.2	1.4	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	30.0	0.0	30.8	30.6	31.8	10.8	14.9	10.9	11.4	14.5	0.0
LnGrp LOS	D	C		C	C	C	B	B	B	B	B	
Approach Vol, veh/h		137	A		297			1016			1362	A
Approach Delay, s/veh		36.9			31.6			14.5			14.0	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	49.3		20.9	10.9	51.9		20.9				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	6.4	17.2		12.8	3.5	21.3		13.0				
Green Ext Time (p_c), s	0.4	15.3		0.0	0.0	22.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		17.2	
HCM 6th LOS		B	

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	187	15	9	256	15	7
Future Vol, veh/h	187	15	9	256	15	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	215	17	10	294	17	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	232	0	538	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1336	-	504	815
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1336	-	499	815
Mov Cap-2 Maneuver	-	-	-	-	499	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	734	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	499	815	-	-	1336	-
HCM Lane V/C Ratio	0.035	0.01	-	-	0.008	-
HCM Control Delay (s)	12.5	9.5	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

2025 NO BUILD CONDITIONS

Intersection	
Int Delay, s/veh	3.3

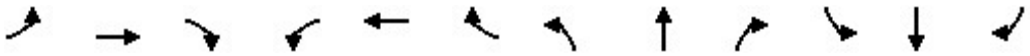
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	81	1806	42	60	1450
Future Vol, veh/h	67	81	1806	42	60	1450
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	71	85	1901	44	63	1526

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2790	951	0	0	1901	0
Stage 1	1901	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 15	260	-	-	309	-
Stage 1	103	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 12	260	-	-	309	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	103	-	-	-	-	-
Stage 2	288	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	69.1	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	91	260	309	-
HCM Lane V/C Ratio	-	-	0.775	0.328	0.204	-
HCM Control Delay (s)	-	-	121.8	25.5	19.6	-
HCM Lane LOS	-	-	F	D	C	-
HCM 95th %tile Q(veh)	-	-	4	1.4	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	320	27	137	61	21	329	58	1261	26	274	1272	28
v/c Ratio	0.94	0.06	0.26	0.19	0.05	0.43	0.30	0.90	0.04	0.88	0.72	0.03
Control Delay	77.0	32.9	3.1	35.1	32.8	18.7	12.3	40.3	0.1	55.8	23.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.0	32.9	3.1	35.1	32.8	18.7	12.3	40.3	0.1	55.8	23.0	0.1
Queue Length 50th (ft)	224	15	0	34	12	130	15	423	0	136	354	0
Queue Length 95th (ft)	#401	38	21	72	32	207	31	523	0	#285	440	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	348	437	528	336	429	777	194	1505	784	327	1818	899
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.06	0.26	0.18	0.05	0.42	0.30	0.84	0.03	0.84	0.70	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2025 Phase 1 No-Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	26	130	58	20	313	55	1198	25	260	1208	27
Future Volume (veh/h)	304	26	130	58	20	313	55	1198	25	260	1208	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	320	27	0	61	21	329	58	1261	26	274	1272	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	315	440		388	433	572	219	1516	682	306	1729	
Arrive On Green	0.25	0.25	0.00	0.25	0.25	0.25	0.04	0.43	0.43	0.11	0.50	0.00
Sat Flow, veh/h	1039	1781	1572	1361	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	320	27	0	61	21	329	58	1261	26	274	1272	0
Grp Sat Flow(s),veh/h/ln	1039	1781	1572	1361	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.2	1.2	0.0	3.8	1.0	17.7	1.7	33.7	1.0	9.4	31.0	0.0
Cycle Q Clear(g_c), s	26.2	1.2	0.0	5.0	1.0	17.7	1.7	33.7	1.0	9.4	31.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	440		388	433	572	219	1516	682	306	1729	
V/C Ratio(X)	1.02	0.06		0.16	0.05	0.58	0.26	0.83	0.04	0.89	0.74	
Avail Cap(c_a), veh/h	315	440		388	433	572	235	1516	682	376	1822	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.2	30.6	0.0	32.5	30.5	27.5	16.8	26.8	17.5	22.7	20.8	0.0
Incr Delay (d2), s/veh	54.9	0.1	0.0	0.2	0.0	1.4	0.6	4.2	0.0	20.1	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	0.5	0.0	1.2	0.4	6.6	0.6	13.6	0.3	5.0	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.1	30.6	0.0	32.7	30.5	29.0	17.5	31.0	17.6	42.9	22.4	0.0
LnGrp LOS	F	C		C	C	C	B	C	B	D	C	
Approach Vol, veh/h		347	A		411			1345			1546	A
Approach Delay, s/veh		92.8			29.6			30.2			26.0	
Approach LOS		F			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.7	53.4		34.0	11.0	61.1		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	11.4	35.7		28.2	3.7	33.0		19.7				
Green Ext Time (p_c), s	0.4	8.8		0.0	0.0	20.4		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		34.3
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	194	84	5	276	115	6
Future Vol, veh/h	194	84	5	276	115	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	216	93	6	307	128	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	309	0	535	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1252	-	501	781
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1252	-	498	781
Mov Cap-2 Maneuver	-	-	-	-	498	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	781	-	-	1252	-
HCM Lane V/C Ratio	0.257	0.009	-	-	0.004	-
HCM Control Delay (s)	14.7	9.6	-	-	7.9	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	1	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.6

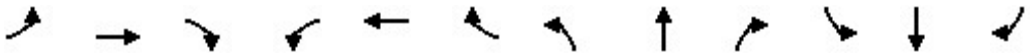
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	71	1439	49	163	1830
Future Vol, veh/h	26	71	1439	49	163	1830
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	27	75	1515	52	172	1926

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2822	758	0	0	1515	0
Stage 1	1515	-	-	-	-	-
Stage 2	1307	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 14	350	-	-	437	-
Stage 1	168	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 8	350	-	-	437	-
Mov Cap-2 Maneuver	96	-	-	-	-	-
Stage 1	168	-	-	-	-	-
Stage 2	132	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.5	0	1.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	96	350	437	-
HCM Lane V/C Ratio	-	-	0.285	0.214	0.393	-
HCM Control Delay (s)	-	-	56.8	18.1	18.5	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.1	0.8	1.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	157	18	59	34	49	334	88	1132	34	297	1444	79
v/c Ratio	0.74	0.06	0.14	0.16	0.17	0.48	0.42	0.82	0.04	0.77	0.76	0.09
Control Delay	58.5	33.3	0.6	34.9	34.4	17.8	12.7	27.6	0.1	30.3	18.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	33.3	0.6	34.9	34.4	17.8	12.7	27.6	0.1	30.3	18.7	0.4
Queue Length 50th (ft)	81	8	0	16	23	104	14	270	0	85	310	0
Queue Length 95th (ft)	#190	28	0	45	58	188	31	364	0	176	395	3
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	225	310	451	231	310	763	208	1659	880	466	2199	1037
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.06	0.13	0.15	0.16	0.44	0.42	0.68	0.04	0.64	0.66	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2025 Phase 1 No-Build PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	16	54	31	45	304	80	1030	31	270	1314	72
Future Volume (veh/h)	143	16	54	31	45	304	80	1030	31	270	1314	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	157	18	0	34	49	334	88	1132	34	297	1444	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	209	281		280	281	414	257	1682	769	392	1932	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.48	0.48	0.11	0.54	0.00
Sat Flow, veh/h	1000	1870	1585	1395	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	157	18	0	34	49	334	88	1132	34	297	1444	0
Grp Sat Flow(s),veh/h/ln	1000	1870	1585	1395	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	11.2	0.7	0.0	1.9	2.0	13.2	1.9	21.9	1.0	7.1	27.5	0.0
Cycle Q Clear(g_c), s	13.2	0.7	0.0	2.6	2.0	13.2	1.9	21.9	1.0	7.1	27.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	281		280	281	414	257	1682	769	392	1932	
V/C Ratio(X)	0.75	0.06		0.12	0.17	0.81	0.34	0.67	0.04	0.76	0.75	
Avail Cap(c_a), veh/h	209	281		280	281	414	271	1682	769	525	1988	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.4	32.1	0.0	33.2	32.6	30.5	13.3	17.3	11.9	15.0	15.4	0.0
Incr Delay (d2), s/veh	14.0	0.1	0.0	0.2	0.3	11.2	0.8	1.1	0.0	4.4	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.3	0.0	0.6	0.9	7.4	0.6	7.6	0.3	2.6	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	32.2	0.0	33.4	32.9	41.7	14.0	18.4	11.9	19.4	17.0	0.0
LnGrp LOS	D	C		C	C	D	B	B	B	B	B	
Approach Vol, veh/h		175	A		417			1254			1741	A
Approach Delay, s/veh		51.3			40.0			18.0			17.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	50.4		21.0	11.3	55.6		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	9.1	23.9		15.2	3.9	29.5		15.2				
Green Ext Time (p_c), s	0.5	12.3		0.0	0.0	18.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	230	76	11	314	66	9
Future Vol, veh/h	230	76	11	314	66	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	256	84	12	349	73	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	340	0	629	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1219	-	446	783
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1219	-	441	783
Mov Cap-2 Maneuver	-	-	-	-	441	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	688	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	441	783	-	-	1219	-
HCM Lane V/C Ratio	0.166	0.013	-	-	0.01	-
HCM Control Delay (s)	14.8	9.7	-	-	8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-

2025 BUILD PHASE 1 CONDITIONS

Intersection	
Int Delay, s/veh	3.4

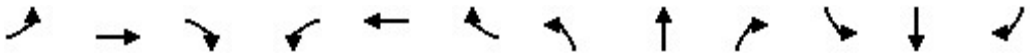
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	81	1832	42	60	1459
Future Vol, veh/h	67	81	1832	42	60	1459
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	71	85	1928	44	63	1536

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2822	964	0	0	1928	0
Stage 1	1928	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 14	255	-	-	302	-
Stage 1	100	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 11	255	-	-	302	-
Mov Cap-2 Maneuver	89	-	-	-	-	-
Stage 1	100	-	-	-	-	-
Stage 2	285	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	89	255	302	-
HCM Lane V/C Ratio	-	-	0.792	0.334	0.209	-
HCM Control Delay (s)	-	-	127.6	26	20	-
HCM Lane LOS	-	-	F	D	C	-
HCM 95th %tile Q(veh)	-	-	4.1	1.4	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	320	27	137	80	21	333	58	1264	28	283	1272	28
v/c Ratio	0.94	0.06	0.26	0.24	0.05	0.43	0.30	0.91	0.04	0.90	0.72	0.03
Control Delay	77.8	33.0	3.1	36.1	32.8	18.8	12.3	40.7	0.1	59.9	22.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.8	33.0	3.1	36.1	32.8	18.8	12.3	40.7	0.1	59.9	22.9	0.1
Queue Length 50th (ft)	224	15	0	46	12	132	15	424	0	145	354	0
Queue Length 95th (ft)	#401	38	21	90	32	210	31	524	0	#301	440	0
Internal Link Dist (ft)		776			302			1441			1136	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	346	435	526	335	427	775	194	1497	781	325	1809	895
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.06	0.26	0.24	0.05	0.43	0.30	0.84	0.04	0.87	0.70	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2025 Phase 1 Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	26	130	76	20	316	55	1201	27	269	1208	27
Future Volume (veh/h)	304	26	130	76	20	316	55	1201	27	269	1208	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	320	27	0	80	21	333	58	1264	28	283	1272	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	314	440		388	433	585	219	1487	669	314	1729	
Arrive On Green	0.25	0.25	0.00	0.25	0.25	0.25	0.04	0.42	0.42	0.12	0.50	0.00
Sat Flow, veh/h	1035	1781	1572	1361	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	320	27	0	80	21	333	58	1264	28	283	1272	0
Grp Sat Flow(s),veh/h/ln	1035	1781	1572	1361	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.2	1.2	0.0	5.1	1.0	17.7	1.7	34.3	1.1	10.3	31.0	0.0
Cycle Q Clear(g_c), s	26.2	1.2	0.0	6.3	1.0	17.7	1.7	34.3	1.1	10.3	31.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	440		388	433	585	219	1487	669	314	1729	
V/C Ratio(X)	1.02	0.06		0.21	0.05	0.57	0.26	0.85	0.04	0.90	0.74	
Avail Cap(c_a), veh/h	314	440		388	433	585	235	1502	675	370	1822	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.2	30.6	0.0	33.0	30.5	26.9	16.8	27.7	18.1	24.3	20.8	0.0
Incr Delay (d2), s/veh	55.7	0.1	0.0	0.3	0.0	1.3	0.6	4.9	0.0	21.9	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	0.5	0.0	1.6	0.4	6.6	0.6	14.1	0.4	5.6	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.9	30.6	0.0	33.2	30.5	28.2	17.5	32.6	18.1	46.2	22.4	0.0
LnGrp LOS	F	C		C	C	C	B	C	B	D	C	
Approach Vol, veh/h		347			434			1350			1555	
Approach Delay, s/veh		93.6			29.3			31.6			26.7	
Approach LOS		F			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	52.6		34.0	11.0	61.1		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	12.3	36.3		28.2	3.7	33.0		19.7				
Green Ext Time (p_c), s	0.3	8.3		0.0	0.0	20.4		0.9				

Intersection Summary		
HCM 6th Ctrl Delay		35.1
HCM 6th LOS		D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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	4	194	84	5	277	1	115	1	6	5	3	3
Future Vol, veh/h	4	194	84	5	277	1	115	1	6	5	3	3
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	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	4	21	2	2	2	5	2	20	2	2	2
Mvmt Flow	4	216	93	6	308	1	128	1	7	6	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	309	0	0	548	545	216	596	638	309
Stage 1	-	-	-	-	-	-	224	224	-	321	321	-
Stage 2	-	-	-	-	-	-	324	321	-	275	317	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.52	6.4	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.018	3.48	3.518	4.018	3.318
Pot Cap-1 Maneuver	1252	-	-	1252	-	-	443	446	781	415	394	731
Stage 1	-	-	-	-	-	-	772	718	-	691	652	-
Stage 2	-	-	-	-	-	-	682	652	-	731	654	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1252	-	-	1252	-	-	435	442	781	408	390	731
Mov Cap-2 Maneuver	-	-	-	-	-	-	435	442	-	408	390	-
Stage 1	-	-	-	-	-	-	769	715	-	688	648	-
Stage 2	-	-	-	-	-	-	671	648	-	721	651	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	16.3	13
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	435	704	1252	-	-	1252	-	-	408	509
HCM Lane V/C Ratio	0.294	0.011	0.004	-	-	0.004	-	-	0.014	0.013
HCM Control Delay (s)	16.7	10.2	7.9	-	-	7.9	0	-	13.9	12.2
HCM Lane LOS	C	B	A	-	-	A	A	-	B	B
HCM 95th %tile Q(veh)	1.2	0	0	-	-	0	-	-	0	0

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	23	1851	10	0	1526
Future Vol, veh/h	0	23	1851	10	0	1526
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	26	2057	11	0	1696

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1034	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	229	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	229	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	229	-
HCM Lane V/C Ratio	-	-	0.112	-
HCM Control Delay (s)	-	-	22.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	282	394	1	0	18
Future Vol, veh/h	0	282	394	1	0	18
Conflicting Peds, #/hr	0	0	0	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	313	438	1	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	439
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	618
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	618
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	618
HCM Lane V/C Ratio	-	-	-	0.032
HCM Control Delay (s)	-	-	-	11
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.6

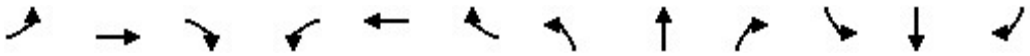
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	71	1455	49	163	1856
Future Vol, veh/h	26	71	1455	49	163	1856
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	27	75	1532	52	172	1954

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2853	766	0	0	1532	0
Stage 1	1532	-	-	-	-	-
Stage 2	1321	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 13	345	-	-	430	-
Stage 1	164	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 8	345	-	-	430	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	164	-	-	-	-	-
Stage 2	128	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.2	0	1.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	93	345	430	-
HCM Lane V/C Ratio	-	-	0.294	0.217	0.399	-
HCM Control Delay (s)	-	-	59.1	18.3	18.8	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.1	0.8	1.9	-

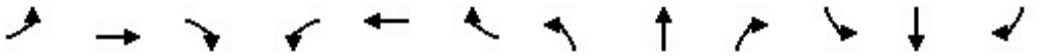
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	157	18	59	46	49	336	88	1144	43	325	1444	79
v/c Ratio	0.75	0.06	0.14	0.21	0.17	0.47	0.42	0.84	0.06	0.81	0.76	0.09
Control Delay	59.7	33.5	0.6	36.1	34.7	17.5	12.5	29.3	0.2	36.1	18.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	33.5	0.6	36.1	34.7	17.5	12.5	29.3	0.2	36.1	18.4	0.4
Queue Length 50th (ft)	84	9	0	23	24	105	14	286	0	107	310	0
Queue Length 95th (ft)	#190	28	0	56	58	189	31	370	0	#236	395	3
Internal Link Dist (ft)		776			302			1441			1136	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	222	307	449	228	307	756	209	1640	872	455	2174	1027
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.06	0.13	0.20	0.16	0.44	0.42	0.70	0.05	0.71	0.66	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	16	54	42	45	306	80	1041	39	296	1314	72
Future Volume (veh/h)	143	16	54	42	45	306	80	1041	39	296	1314	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	157	18	0	46	49	336	88	1144	43	325	1444	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	209	281		280	281	429	257	1649	753	398	1932	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.48	0.48	0.12	0.54	0.00
Sat Flow, veh/h	998	1870	1585	1395	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	157	18	0	46	49	336	88	1144	43	325	1444	0
Grp Sat Flow(s),veh/h/ln	998	1870	1585	1395	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	11.2	0.7	0.0	2.6	2.0	13.2	1.9	22.7	1.3	7.9	27.5	0.0
Cycle Q Clear(g_c), s	13.2	0.7	0.0	3.3	2.0	13.2	1.9	22.7	1.3	7.9	27.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	281		280	281	429	257	1649	753	398	1932	
V/C Ratio(X)	0.75	0.06		0.16	0.17	0.78	0.34	0.69	0.06	0.82	0.75	
Avail Cap(c_a), veh/h	209	281		280	281	429	271	1649	753	514	1988	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.4	32.1	0.0	33.5	32.6	29.8	13.3	18.1	12.4	15.7	15.4	0.0
Incr Delay (d2), s/veh	14.1	0.1	0.0	0.3	0.3	9.1	0.8	1.3	0.0	7.8	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.3	0.0	0.8	0.9	7.2	0.6	8.0	0.4	3.4	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	32.2	0.0	33.8	32.9	38.9	14.0	19.4	12.5	23.5	17.0	0.0
LnGrp LOS	D	C		C	C	D	B	B	B	C	B	
Approach Vol, veh/h		175			431			1275			1769	
Approach Delay, s/veh		51.4			37.6			18.8			18.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.3	49.6		21.0	11.3	55.6		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	9.9	24.7		15.2	3.9	29.5		15.2				
Green Ext Time (p_c), s	0.5	11.8		0.0	0.0	18.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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	13	230	76	11	317	3	66	3	9	3	1	2
Future Vol, veh/h	13	230	76	11	317	3	66	3	9	3	1	2
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	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	14	256	84	12	352	3	73	3	10	3	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	355	0	0	340	0	0	663	663	256	711	746	354
Stage 1	-	-	-	-	-	-	284	284	-	378	378	-
Stage 2	-	-	-	-	-	-	379	379	-	333	368	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1204	-	-	1219	-	-	375	382	783	348	342	690
Stage 1	-	-	-	-	-	-	723	676	-	644	615	-
Stage 2	-	-	-	-	-	-	643	615	-	681	621	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1204	-	-	1219	-	-	365	372	783	334	333	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	365	372	-	334	333	-
Stage 1	-	-	-	-	-	-	712	666	-	634	608	-
Stage 2	-	-	-	-	-	-	632	608	-	659	612	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.3	16.3	14
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	365	614	1204	-	-	1219	-	-	334	508
HCM Lane V/C Ratio	0.201	0.022	0.012	-	-	0.01	-	-	0.01	0.007
HCM Control Delay (s)	17.3	11	8	-	-	8	0	-	15.9	12.1
HCM Lane LOS	C	B	A	-	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.7	0.1	0	-	-	0	-	-	0	0

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	1490	32	0	1882
Future Vol, veh/h	0	14	1490	32	0	1882
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	16	1656	36	0	2091

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	846	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	306	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	306	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	306	-
HCM Lane V/C Ratio	-	-	0.051	-
HCM Control Delay (s)	-	-	17.4	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	319	382	3	0	11
Future Vol, veh/h	0	319	382	3	0	11
Conflicting Peds, #/hr	0	0	0	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	0	354	424	3	0	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	426
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	628
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	628
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	628
HCM Lane V/C Ratio	-	-	-	0.019
HCM Control Delay (s)	-	-	-	10.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

2027 NO-BUILD CONDITIONS

Intersection	
Int Delay, s/veh	5.8

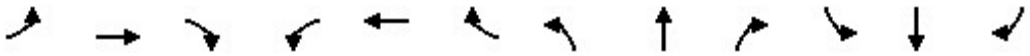
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	93	2059	48	69	1650
Future Vol, veh/h	77	93	2059	48	69	1650
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	79	95	2101	49	70	1684

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3083	1051	0	0	2101	0
Stage 1	2101	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 9	223	-	-	258	-
Stage 1	80	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 7	223	-	-	258	-
Mov Cap-2 Maneuver	~ 71	-	-	-	-	-
Stage 1	80	-	-	-	-	-
Stage 2	235	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	126.7	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	71	223	258	-
HCM Lane V/C Ratio	-	-	1.107	0.426	0.273	-
HCM Control Delay (s)	-	-	240.4	32.6	24.1	-
HCM Lane LOS	-	-	F	D	C	-
HCM 95th %tile Q(veh)	-	-	5.9	2	1.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

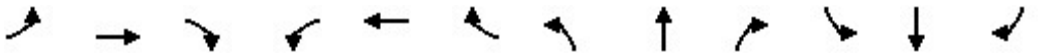


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	363	30	155	69	23	366	66	1427	29	301	1438	32
v/c Ratio	1.09	0.07	0.30	0.21	0.06	0.49	0.42	0.99	0.04	0.96	0.79	0.04
Control Delay	117.1	33.2	4.5	35.8	33.0	20.6	16.6	54.4	0.1	74.2	25.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.1	33.2	4.5	35.8	33.0	20.6	16.6	54.4	0.1	74.2	25.6	0.1
Queue Length 50th (ft)	~290	16	0	39	13	152	17	517	0	163	435	0
Queue Length 95th (ft)	#474	42	34	79	34	237	34	#685	0	#338	537	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	321	411	754	159	1440	758	313	1814	897
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.07	0.30	0.21	0.06	0.49	0.42	0.99	0.04	0.96	0.79	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	29	149	66	22	351	63	1370	28	289	1380	31
Future Volume (veh/h)	348	29	149	66	22	351	63	1370	28	289	1380	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	362	30	0	69	23	366	66	1427	29	301	1438	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	294	424		371	417	614	192	1449	651	322	1782	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	1003	1781	1572	1358	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	362	30	0	69	23	366	66	1427	29	301	1438	0
Grp Sat Flow(s),veh/h/ln	1003	1781	1572	1358	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.1	1.4	0.0	4.6	1.1	20.1	2.0	44.1	1.2	14.5	38.1	0.0
Cycle Q Clear(g_c), s	26.2	1.4	0.0	6.0	1.1	20.1	2.0	44.1	1.2	14.5	38.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	424		371	417	614	192	1449	651	322	1782	
V/C Ratio(X)	1.23	0.07		0.19	0.06	0.60	0.34	0.99	0.04	0.94	0.81	
Avail Cap(c_a), veh/h	294	424		371	417	614	204	1449	651	322	1782	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.2	32.5	0.0	34.8	32.3	27.0	19.3	32.1	19.4	33.4	22.0	0.0
Incr Delay (d2), s/veh	130.0	0.1	0.0	0.2	0.1	1.6	1.1	20.1	0.0	33.9	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.8	0.6	0.0	1.5	0.5	7.5	0.7	21.1	0.4	6.6	14.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	175.2	32.5	0.0	35.0	32.4	28.6	20.4	52.1	19.5	67.3	24.9	0.0
LnGrp LOS	F	C		D	C	C	C	D	B	E	C	
Approach Vol, veh/h		392	A		458			1522			1739	A
Approach Delay, s/veh		164.3			29.8			50.2			32.2	
Approach LOS		F			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.2	64.8		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	16.5	46.1		28.2	4.0	40.1		22.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	15.1		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		51.2
HCM 6th LOS		D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	221	87	6	316	123	7
Future Vol, veh/h	221	87	6	316	123	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	257	101	7	367	143	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	358	0	638	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	381	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1201	-	436	740
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	684	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1201	-	433	740
Mov Cap-2 Maneuver	-	-	-	-	433	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	679	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	433	740	-	-	1201	-
HCM Lane V/C Ratio	0.33	0.011	-	-	0.006	-
HCM Control Delay (s)	17.4	9.9	-	-	8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	1.4	0	-	-	0	-

Intersection	
Int Delay, s/veh	2.4

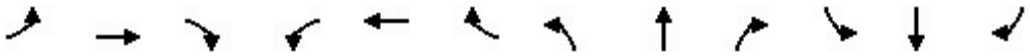
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	81	1641	56	187	2086
Future Vol, veh/h	29	81	1641	56	187	2086
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	31	85	1727	59	197	2196

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3219	864	0	0	1727	0
Stage 1	1727	-	-	-	-	-
Stage 2	1492	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 7	297	-	-	362	-
Stage 1	129	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	297	-	-	362	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	129	-	-	-	-	-
Stage 2	79	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.1	0	2.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	62	297	362	-
HCM Lane V/C Ratio	-	-	0.492	0.287	0.544	-
HCM Control Delay (s)	-	-	109.8	21.9	26.2	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	1.9	1.2	3.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



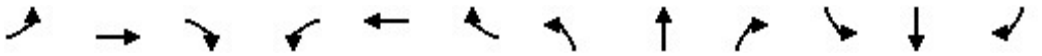
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	180	19	68	38	56	376	100	1295	38	332	1651	91
v/c Ratio	0.88	0.07	0.16	0.18	0.20	0.54	0.53	0.91	0.05	0.85	0.84	0.10
Control Delay	78.1	33.9	0.8	36.1	35.7	19.8	19.5	34.4	0.1	43.0	21.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.1	33.9	0.8	36.1	35.7	19.8	19.5	34.4	0.1	43.0	21.4	0.7
Queue Length 50th (ft)	102	9	0	19	28	132	16	347	0	125	393	0
Queue Length 95th (ft)	#227	29	0	48	64	219	52	#485	0	#266	502	7
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	205	286	433	212	286	721	190	1526	828	419	2024	966
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.07	0.16	0.18	0.20	0.52	0.53	0.85	0.05	0.79	0.82	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2027 Phase 2 No-Build PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	17	62	35	51	342	91	1178	35	302	1502	83
Future Volume (veh/h)	164	17	62	35	51	342	91	1178	35	302	1502	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	180	19	0	38	56	376	100	1295	38	332	1651	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	197	277		275	277	438	219	1643	751	373	1948	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.47	0.47	0.13	0.55	0.00
Sat Flow, veh/h	956	1870	1585	1393	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	180	19	0	38	56	376	100	1295	38	332	1651	0
Grp Sat Flow(s),veh/h/ln	956	1870	1585	1393	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.9	0.8	0.0	2.2	2.3	13.2	2.1	28.0	1.2	8.7	35.0	0.0
Cycle Q Clear(g_c), s	13.2	0.8	0.0	2.9	2.3	13.2	2.1	28.0	1.2	8.7	35.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	277		275	277	438	219	1643	751	373	1948	
V/C Ratio(X)	0.91	0.07		0.14	0.20	0.86	0.46	0.79	0.05	0.89	0.85	
Avail Cap(c_a), veh/h	197	277		275	277	438	230	1643	751	471	1961	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.1	32.7	0.0	33.9	33.3	30.7	17.7	19.7	12.7	18.7	17.0	0.0
Incr Delay (d2), s/veh	40.5	0.1	0.0	0.2	0.4	15.6	1.5	2.7	0.0	15.8	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.4	0.0	0.7	1.0	9.0	1.0	10.2	0.4	4.4	12.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.6	32.8	0.0	34.2	33.7	46.4	19.2	22.4	12.7	34.5	20.7	0.0
LnGrp LOS	F	C		C	C	D	B	C	B	C	C	
Approach Vol, veh/h		199	A		470			1433			1983	A
Approach Delay, s/veh		76.9			43.9			21.9			23.0	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	50.0		21.0	11.5	56.7		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	10.7	30.0		15.2	4.1	37.0		15.2				
Green Ext Time (p_c), s	0.5	7.7		0.0	0.0	11.9		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	262	79	13	359	69	10
Future Vol, veh/h	262	79	13	359	69	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	301	91	15	413	79	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	392	0	744	301
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	443	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1167	-	382	739
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1167	-	376	739
Mov Cap-2 Maneuver	-	-	-	-	376	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	739	-	-	1167	-
HCM Lane V/C Ratio	0.211	0.016	-	-	0.013	-
HCM Control Delay (s)	17.1	9.9	-	-	8.1	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-

2027 BUILD PHASE 2 CONDITIONS

Intersection	
Int Delay, s/veh	6.3

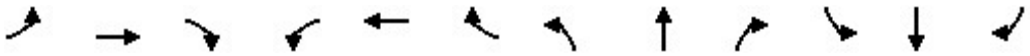
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	93	2106	48	69	1679
Future Vol, veh/h	77	93	2106	48	69	1679
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	79	95	2149	49	70	1713

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3146	1075	0	0	2149	0
Stage 1	2149	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 8	215	-	-	247	-
Stage 1	~ 75	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 6	215	-	-	247	-
Mov Cap-2 Maneuver	~ 67	-	-	-	-	-
Stage 1	~ 75	-	-	-	-	-
Stage 2	228	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	141.2	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	67	215	247	-
HCM Lane V/C Ratio	-	-	1.173	0.441	0.285	-
HCM Control Delay (s)	-	-	270.4	34.3	25.3	-
HCM Lane LOS	-	-	F	D	D	-
HCM 95th %tile Q(veh)	-	-	6.2	2.1	1.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	342	51	155	139	23	371	66	1443	35	367	1402	32
v/c Ratio	1.03	0.12	0.30	0.44	0.06	0.49	0.40	1.00	0.05	1.17	0.77	0.04
Control Delay	99.5	33.9	4.5	40.9	33.0	20.8	15.6	57.1	0.1	137.4	24.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.5	33.9	4.5	40.9	33.0	20.8	15.6	57.1	0.1	137.4	24.8	0.1
Queue Length 50th (ft)	~259	28	0	84	13	155	17	~529	0	~262	416	0
Queue Length 95th (ft)	#439	61	34	147	34	241	34	#697	0	#449	513	0
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	315	411	754	166	1440	758	313	1814	897
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.12	0.30	0.44	0.06	0.49	0.40	1.00	0.05	1.17	0.77	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2027 Phase 2 Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	49	149	133	22	356	63	1385	34	352	1346	31
Future Volume (veh/h)	328	49	149	133	22	356	63	1385	34	352	1346	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	342	51	0	139	23	371	66	1443	35	367	1402	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	293	424		353	417	614	199	1449	651	319	1782	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	998	1781	1572	1332	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	342	51	0	139	23	371	66	1443	35	367	1402	0
Grp Sat Flow(s),veh/h/ln	998	1781	1572	1332	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.1	2.5	0.0	10.0	1.1	20.5	2.0	44.9	1.5	16.1	36.5	0.0
Cycle Q Clear(g_c), s	26.2	2.5	0.0	12.5	1.1	20.5	2.0	44.9	1.5	16.1	36.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	424		353	417	614	199	1449	651	319	1782	
V/C Ratio(X)	1.17	0.12		0.39	0.06	0.60	0.33	1.00	0.05	1.15	0.79	
Avail Cap(c_a), veh/h	293	424		353	417	614	211	1449	651	319	1782	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.3	32.9	0.0	37.8	32.3	27.1	18.6	32.3	19.5	35.1	21.6	0.0
Incr Delay (d2), s/veh	105.7	0.1	0.0	0.7	0.1	1.7	1.0	22.7	0.0	97.8	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	1.1	0.0	3.2	0.5	7.7	0.7	21.9	0.5	12.5	13.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.0	33.0	0.0	38.5	32.4	28.8	19.6	55.0	19.6	133.0	24.1	0.0
LnGrp LOS	F	C		D	C	C	B	D	B	F	C	
Approach Vol, veh/h		393			533			1544			1769	
Approach Delay, s/veh		135.6			31.5			52.7			46.7	
Approach LOS		F			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.2	64.8		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	18.1	46.9		28.2	4.0	38.5		22.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	16.4		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		55.2	
HCM 6th LOS		E	

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↰		↰	↱		↰	↱	
Traffic Vol, veh/h	76	214	87	6	319	3	123	3	7	16	5	5
Future Vol, veh/h	76	214	87	6	319	3	123	3	7	16	5	5
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	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	4	21	2	2	2	5	2	20	2	2	2
Mvmt Flow	88	249	101	7	371	3	143	3	8	19	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	374	0	0	350	0	0	818	813	249	868	913	373
Stage 1	-	-	-	-	-	-	425	425	-	387	387	-
Stage 2	-	-	-	-	-	-	393	388	-	481	526	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.52	6.4	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.018	3.48	3.518	4.018	3.318
Pot Cap-1 Maneuver	1184	-	-	1209	-	-	291	313	748	273	273	673
Stage 1	-	-	-	-	-	-	601	586	-	637	610	-
Stage 2	-	-	-	-	-	-	626	609	-	566	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1184	-	-	1209	-	-	262	282	748	247	246	673
Mov Cap-2 Maneuver	-	-	-	-	-	-	262	282	-	247	246	-
Stage 1	-	-	-	-	-	-	545	531	-	577	606	-
Stage 2	-	-	-	-	-	-	610	605	-	504	479	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.1	32.5	18.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	262	500	1184	-	-	1209	-	-	247	360
HCM Lane V/C Ratio	0.546	0.023	0.075	-	-	0.006	-	-	0.075	0.032
HCM Control Delay (s)	34.1	12.4	8.3	-	-	8	0	-	20.8	15.3
HCM Lane LOS	D	B	A	-	-	A	A	-	C	C
HCM 95th %tile Q(veh)	3	0.1	0.2	-	-	0	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	23	2131	26	0	1756
Future Vol, veh/h	0	23	2131	26	0	1756
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	200	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	26	2368	29	0	1951

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3359	1199	0	0	2397	0
Stage 1	2383	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	6	178	-	-	197	-
Stage 1	55	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	6	178	-	-	197	-
Mov Cap-2 Maneuver	51	-	-	-	-	-
Stage 1	55	-	-	-	-	-
Stage 2	326	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	178	197	-
HCM Lane V/C Ratio	-	-	-	0.144	-	-
HCM Control Delay (s)	-	-	0	28.6	0	-
HCM Lane LOS	-	-	A	D	A	-
HCM 95th %tile Q(veh)	-	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	377	431	16	0	80
Future Vol, veh/h	0	377	431	16	0	80
Conflicting Peds, #/hr	0	0	0	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	419	479	18	0	89

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	488
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	580
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	580
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	580
HCM Lane V/C Ratio	-	-	-	0.153
HCM Control Delay (s)	-	-	-	12.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	100	2057	70	0	1729
Future Vol, veh/h	0	100	2057	70	0	1729
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	111	2286	78	0	1921

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1182	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	182	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	182	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	51.7	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	182	-
HCM Lane V/C Ratio	-	-	0.611	-
HCM Control Delay (s)	-	-	51.7	-
HCM Lane LOS	-	-	F	-
HCM 95th %tile Q(veh)	-	-	3.4	-

Intersection	
Int Delay, s/veh	2.5

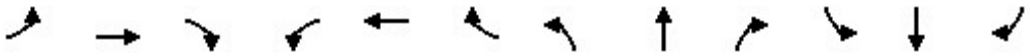
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	81	1669	56	187	2127
Future Vol, veh/h	29	81	1669	56	187	2127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	31	85	1757	59	197	2239

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3271	879	0	0	1757	0
Stage 1	1757	-	-	-	-	-
Stage 2	1514	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 7	291	-	-	352	-
Stage 1	124	-	-	-	-	-
Stage 2	168	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	291	-	-	352	-
Mov Cap-2 Maneuver	58	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	74	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48.6	0	2.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	58	291	352	-
HCM Lane V/C Ratio	-	-	0.526	0.293	0.559	-
HCM Control Delay (s)	-	-	121.9	22.4	27.4	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	2.1	1.2	3.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	162	37	68	91	56	379	100	1316	47	408	1620	91
v/c Ratio	0.84	0.14	0.16	0.46	0.21	0.54	0.54	0.92	0.06	1.00	0.80	0.09
Control Delay	73.3	35.0	0.8	43.7	36.1	20.0	21.0	35.9	0.1	70.4	19.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.3	35.0	0.8	43.7	36.1	20.0	21.0	35.9	0.1	70.4	19.8	0.7
Queue Length 50th (ft)	91	19	0	48	28	134	16	357	0	~183	380	0
Queue Length 95th (ft)	#199	46	0	96	64	222	#57	#499	0	#374	485	7
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	201	280	429	205	280	698	186	1494	815	410	2024	966
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.13	0.16	0.44	0.20	0.54	0.54	0.88	0.06	1.00	0.80	0.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2027 Phase 2 Build PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	34	62	83	51	345	91	1198	43	371	1474	83
Future Volume (veh/h)	147	34	62	83	51	345	91	1198	43	371	1474	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	162	37	0	91	56	379	100	1316	47	408	1620	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	195	275		258	275	521	226	1468	671	430	1959	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.42	0.42	0.18	0.55	0.00
Sat Flow, veh/h	954	1870	1585	1371	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	162	37	0	91	56	379	100	1316	47	408	1620	0
Grp Sat Flow(s),veh/h/ln	954	1870	1585	1371	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.8	1.5	0.0	5.6	2.4	13.2	2.1	31.7	1.6	14.6	33.8	0.0
Cycle Q Clear(g_c), s	13.2	1.5	0.0	7.1	2.4	13.2	2.1	31.7	1.6	14.6	33.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	275		258	275	521	226	1468	671	430	1959	
V/C Ratio(X)	0.83	0.13		0.35	0.20	0.73	0.44	0.90	0.07	0.95	0.83	
Avail Cap(c_a), veh/h	195	275		258	275	521	236	1476	674	430	1959	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.0	33.3	0.0	36.4	33.7	26.7	16.9	24.1	15.4	24.6	16.6	0.0
Incr Delay (d2), s/veh	24.8	0.2	0.0	0.8	0.4	5.0	1.4	7.7	0.1	30.4	3.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.7	0.0	1.8	1.0	7.3	0.9	12.8	0.5	11.6	11.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	33.5	0.0	37.2	34.0	31.8	18.2	31.7	15.5	55.0	19.8	0.0
LnGrp LOS	E	C		D	C	C	B	C	B	D	B	
Approach Vol, veh/h		199			526			1463			2028	
Approach Delay, s/veh		59.9			32.9			30.3			26.8	
Approach LOS		E			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	45.8		21.0	11.5	57.3		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	16.6	33.7		15.2	4.1	35.8		15.2				
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	13.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		30.4
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	257	79	13	363	4	69	4	10	11	3	3
Future Vol, veh/h	69	257	79	13	363	4	69	4	10	11	3	3
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	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	79	295	91	15	417	5	79	5	11	13	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	386	0	0	906	905	295	957	994	420
Stage 1	-	-	-	-	-	-	453	453	-	450	450	-
Stage 2	-	-	-	-	-	-	453	452	-	507	544	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1137	-	-	1172	-	-	257	276	744	237	245	633
Stage 1	-	-	-	-	-	-	586	570	-	589	572	-
Stage 2	-	-	-	-	-	-	586	570	-	548	519	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1137	-	-	1172	-	-	232	247	744	211	219	633
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	247	-	211	219	-
Stage 1	-	-	-	-	-	-	533	519	-	536	562	-
Stage 2	-	-	-	-	-	-	569	560	-	487	472	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.3	25.8	20.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	232	472	1137	-	-	1172	-	-	211	325
HCM Lane V/C Ratio	0.342	0.034	0.07	-	-	0.013	-	-	0.06	0.021
HCM Control Delay (s)	28.4	12.9	8.4	-	-	8.1	0	-	23.1	16.3
HCM Lane LOS	D	B	A	-	-	A	A	-	C	C
HCM 95th %tile Q(veh)	1.4	0.1	0.2	-	-	0	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	1711	36	0	2156
Future Vol, veh/h	0	14	1711	36	0	2156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	200	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	16	1901	40	0	2396

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3119	971	0	0	1941	0
Stage 1	1921	-	-	-	-	-
Stage 2	1198	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	9	252	-	-	298	-
Stage 1	101	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	9	252	-	-	298	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	101	-	-	-	-	-
Stage 2	249	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	252	298	-
HCM Lane V/C Ratio	-	-	-	0.062	-	-
HCM Control Delay (s)	-	-	0	20.2	0	-
HCM Lane LOS	-	-	A	C	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	405	420	15	0	59
Future Vol, veh/h	0	405	420	15	0	59
Conflicting Peds, #/hr	0	0	0	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	0	450	467	17	0	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	476
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	589
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	589
HCM Lane V/C Ratio	-	-	-	0.111
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	77	1670	63	0	1928
Future Vol, veh/h	0	77	1670	63	0	1928
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	86	1856	70	0	2142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	963	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	256	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	256	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	256	-
HCM Lane V/C Ratio	-	-	0.334	-
HCM Control Delay (s)	-	-	26	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	1.4	-

2029 NO-BUILD CONDITIONS

Intersection	
Int Delay, s/veh	13.3

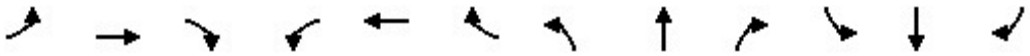
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	106	2348	55	79	1878
Future Vol, veh/h	88	106	2348	55	79	1878
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	90	108	2396	56	81	1916

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3516	1198	0	0	2396	0
Stage 1	2396	-	-	-	-	-
Stage 2	1120	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 5	178	-	-	197	-
Stage 1	~ 54	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	178	-	-	197	-
Mov Cap-2 Maneuver	~ 48	-	-	-	-	-
Stage 1	~ 54	-	-	-	-	-
Stage 2	161	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	298.3	0	1.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	48	178	197	-
HCM Lane V/C Ratio	-	-	1.871	0.608	0.409	-
HCM Control Delay (s)	-	-	$ 594.5	52.4	35.4	-
HCM Lane LOS	-	-	F	F	E	-
HCM 95th %tile Q(veh)	-	-	9	3.4	1.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	415	33	177	78	25	410	75	1632	33	335	1644	36
v/c Ratio	1.25	0.08	0.35	0.24	0.06	0.54	0.54	1.13	0.04	1.07	0.91	0.04
Control Delay	171.7	33.3	6.6	36.4	33.0	22.2	27.2	100.7	0.1	103.1	32.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	171.7	33.3	6.6	36.4	33.0	22.2	27.2	100.7	0.1	103.1	32.7	0.1
Queue Length 50th (ft)	~367	18	0	45	14	179	19	~706	0	~214	555	0
Queue Length 95th (ft)	#560	44	50	88	37	276	#55	#845	0	#395	#738	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	320	411	754	140	1440	758	313	1814	897
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.08	0.35	0.24	0.06	0.54	0.54	1.13	0.04	1.07	0.91	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2029 Phase 3 No-Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	32	170	75	24	394	72	1567	32	322	1578	35
Future Volume (veh/h)	398	32	170	75	24	394	72	1567	32	322	1578	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	415	33	0	78	25	410	75	1632	33	335	1644	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	284	424		369	417	614	155	1449	651	318	1777	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	961	1781	1572	1354	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	415	33	0	78	25	410	75	1632	33	335	1644	0
Grp Sat Flow(s),veh/h/ln	961	1781	1572	1354	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.0	1.6	0.0	5.2	1.2	23.4	2.3	45.2	1.4	16.1	48.7	0.0
Cycle Q Clear(g_c), s	26.2	1.6	0.0	6.8	1.2	23.4	2.3	45.2	1.4	16.1	48.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	424		369	417	614	155	1449	651	318	1777	
V/C Ratio(X)	1.46	0.08		0.21	0.06	0.67	0.48	1.13	0.05	1.05	0.93	
Avail Cap(c_a), veh/h	284	424		369	417	614	165	1449	651	318	1777	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.4	32.5	0.0	35.2	32.4	28.0	24.8	32.4	19.5	35.3	24.6	0.0
Incr Delay (d2), s/veh	226.5	0.1	0.0	0.3	0.1	2.8	2.3	66.4	0.0	65.3	8.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.8	0.7	0.0	1.7	0.5	8.9	1.0	30.9	0.5	9.6	19.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	271.9	32.6	0.0	35.4	32.4	30.8	27.1	98.8	19.5	100.6	33.5	0.0
LnGrp LOS	F	C		D	C	C	C	F	B	F	C	
Approach Vol, veh/h		448	A		513			1740			1979	A
Approach Delay, s/veh		254.3			31.6			94.2			44.8	
Approach LOS		F			C			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.4	64.6		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	18.1	47.2		28.2	4.3	50.7		25.4				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.4		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		81.8	
HCM 6th LOS		F	

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	253	89	6	361	132	8
Future Vol, veh/h	253	89	6	361	132	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	294	103	7	420	153	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	397	0	728	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1162	-	386	705
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1162	-	383	705
Mov Cap-2 Maneuver	-	-	-	-	383	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	383	705	-	-	1162	-
HCM Lane V/C Ratio	0.401	0.013	-	-	0.006	-
HCM Control Delay (s)	20.5	10.2	-	-	8.1	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1.9	0	-	-	0	-

Intersection	
Int Delay, s/veh	6.5

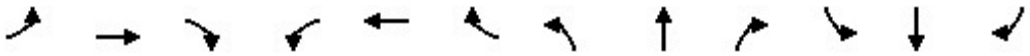
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	93	1872	64	214	2378
Future Vol, veh/h	34	93	1872	64	214	2378
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	36	98	1971	67	225	2503

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3673	986	0	0	1971	0
Stage 1	1971	-	-	-	-	-
Stage 2	1702	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 4	247	-	-	290	-
Stage 1	94	-	-	-	-	-
Stage 2	133	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 1	247	-	-	290	-
Mov Cap-2 Maneuver	~ 27	-	-	-	-	-
Stage 1	94	-	-	-	-	-
Stage 2	~ 30	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	155.8	0	4.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	27	247	290	-
HCM Lane V/C Ratio	-	-	1.326	0.396	0.777	-
HCM Control Delay (s)	-	-	$ 503	28.8	50	-
HCM Lane LOS	-	-	F	D	F	-
HCM 95th %tile Q(veh)	-	-	4.3	1.8	6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	207	20	78	44	63	424	114	1481	44	371	1887	104
v/c Ratio	1.06	0.07	0.18	0.22	0.23	0.62	0.62	1.01	0.05	0.93	0.98	0.11
Control Delay	121.3	34.0	1.0	37.0	36.5	22.5	26.9	52.0	0.1	56.4	36.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	121.3	34.0	1.0	37.0	36.5	22.5	26.9	52.0	0.1	56.4	36.4	1.1
Queue Length 50th (ft)	~130	10	0	22	32	159	19	~447	0	154	514	0
Queue Length 95th (ft)	#267	31	0	54	69	259	#80	#605	0	#322	#715	12
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	195	273	424	203	273	693	184	1472	806	405	1934	929
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.07	0.18	0.22	0.23	0.61	0.62	1.01	0.05	0.92	0.98	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2029 Phase 3 No-Build PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	18	71	40	57	386	104	1348	40	338	1717	95
Future Volume (veh/h)	188	18	71	40	57	386	104	1348	40	338	1717	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	207	20	0	44	63	424	114	1481	44	371	1887	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	186	274		271	274	520	183	1472	673	401	1958	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.42	0.42	0.18	0.55	0.00
Sat Flow, veh/h	909	1870	1585	1392	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	207	20	0	44	63	424	114	1481	44	371	1887	0
Grp Sat Flow(s),veh/h/ln	909	1870	1585	1392	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.5	0.8	0.0	2.5	2.7	13.2	2.4	38.2	1.5	14.2	45.8	0.0
Cycle Q Clear(g_c), s	13.2	0.8	0.0	3.4	2.7	13.2	2.4	38.2	1.5	14.2	45.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	274		271	274	520	183	1472	673	401	1958	
V/C Ratio(X)	1.11	0.07		0.16	0.23	0.82	0.62	1.01	0.07	0.92	0.96	
Avail Cap(c_a), veh/h	186	274		271	274	520	191	1472	673	401	1958	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	33.1	0.0	34.6	33.9	27.9	21.1	25.9	15.3	26.9	19.3	0.0
Incr Delay (d2), s/veh	98.9	0.1	0.0	0.3	0.4	9.7	5.7	24.9	0.0	27.0	12.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.4	0.0	0.8	1.2	9.1	1.4	18.6	0.5	5.9	18.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	140.9	33.2	0.0	34.9	34.3	37.6	26.8	50.8	15.4	54.0	32.2	0.0
LnGrp LOS	F	C		C	C	D	C	F	B	D	C	
Approach Vol, veh/h		227	A		531			1639			2258	A
Approach Delay, s/veh		131.4			37.0			48.1			35.8	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	46.0		21.0	11.6	57.4		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	16.2	40.2		15.2	4.4	47.8		15.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	82	14	411	72	11
Future Vol, veh/h	300	82	14	411	72	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	345	94	16	472	83	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	439	0	849	345
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	504	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1121	-	331	698
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1121	-	325	698
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	595	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	18.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	325	698	-	-	1121	-
HCM Lane V/C Ratio	0.255	0.018	-	-	0.014	-
HCM Control Delay (s)	19.8	10.3	-	-	8.3	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-

2029 BUILD PHASE 3 CONDITIONS

Intersection	
Int Delay, s/veh	14.4

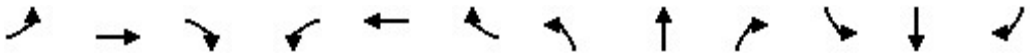
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	106	2402	55	79	1921
Future Vol, veh/h	88	106	2402	55	79	1921
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	90	108	2451	56	81	1960

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3593	1226	0	0	2451	0
Stage 1	2451	-	-	-	-	-
Stage 2	1142	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 4	170	-	-	188	-
Stage 1	~ 51	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 2	170	-	-	188	-
Mov Cap-2 Maneuver	~ 45	-	-	-	-	-
Stage 1	~ 51	-	-	-	-	-
Stage 2	151	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 329.9	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	45	170	188	-
HCM Lane V/C Ratio	-	-	1.995	0.636	0.429	-
HCM Control Delay (s)	-	-	$ 658.3	57.3	37.8	-
HCM Lane LOS	-	-	F	F	E	-
HCM 95th %tile Q(veh)	-	-	9.2	3.6	2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	394	54	177	152	25	416	75	1655	43	416	1608	36
v/c Ratio	1.19	0.13	0.35	0.48	0.06	0.55	0.54	1.15	0.06	1.33	0.89	0.04
Control Delay	148.3	34.0	6.6	42.2	33.0	22.4	27.2	107.1	0.1	197.9	31.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.3	34.0	6.6	42.2	33.0	22.4	27.2	107.1	0.1	197.9	31.0	0.1
Queue Length 50th (ft)	~336	30	0	93	14	184	19	~724	0	~335	532	0
Queue Length 95th (ft)	#526	64	50	159	37	281	#55	#863	0	#532	#711	0
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	314	411	754	140	1440	758	313	1814	897
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.13	0.35	0.48	0.06	0.55	0.54	1.15	0.06	1.33	0.89	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2029 Phase 3 Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	378	52	170	146	24	399	72	1589	41	399	1544	35
Future Volume (veh/h)	378	52	170	146	24	399	72	1589	41	399	1544	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	394	54	0	152	25	416	75	1655	43	416	1608	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	283	424		350	417	614	162	1449	651	318	1777	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	956	1781	1572	1329	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	394	54	0	152	25	416	75	1655	43	416	1608	0
Grp Sat Flow(s),veh/h/ln	956	1781	1572	1329	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.0	2.6	0.0	11.2	1.2	23.8	2.3	45.2	1.8	16.1	46.7	0.0
Cycle Q Clear(g_c), s	26.2	2.6	0.0	13.8	1.2	23.8	2.3	45.2	1.8	16.1	46.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	424		350	417	614	162	1449	651	318	1777	
V/C Ratio(X)	1.39	0.13		0.43	0.06	0.68	0.46	1.14	0.07	1.31	0.90	
Avail Cap(c_a), veh/h	283	424		350	417	614	171	1449	651	318	1777	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.4	32.9	0.0	38.3	32.4	28.2	24.1	32.4	19.6	35.3	24.1	0.0
Incr Delay (d2), s/veh	197.7	0.1	0.0	0.8	0.1	3.0	2.1	72.9	0.1	159.7	7.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.4	1.2	0.0	3.6	0.5	9.1	1.0	32.1	0.6	17.9	18.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	243.1	33.1	0.0	39.2	32.4	31.1	26.2	105.3	19.7	195.0	31.2	0.0
LnGrp LOS	F	C		D	C	C	C	F	B	F	C	
Approach Vol, veh/h		448			593			1773			2024	
Approach Delay, s/veh		217.8			33.3			99.8			64.9	
Approach LOS		F			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.4	64.6		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	18.1	47.2		28.2	4.3	48.7		25.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		88.0	
HCM 6th LOS		F	

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	246	89	6	365	4	132	4	8	18	5	5
Future Vol, veh/h	78	246	89	6	365	4	132	4	8	18	5	5
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	150	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	4	21	2	2	2	5	2	20	2	2	2
Mvmt Flow	91	286	103	7	424	5	153	5	9	21	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	429	0	0	389	0	0	915	911	286	968	1012	427
Stage 1	-	-	-	-	-	-	468	468	-	441	441	-
Stage 2	-	-	-	-	-	-	447	443	-	527	571	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.52	6.4	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.018	3.48	3.518	4.018	3.318
Pot Cap-1 Maneuver	1130	-	-	1170	-	-	250	274	712	233	239	628
Stage 1	-	-	-	-	-	-	570	561	-	595	577	-
Stage 2	-	-	-	-	-	-	585	576	-	535	505	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1130	-	-	1170	-	-	227	250	712	212	218	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	250	-	212	218	-
Stage 1	-	-	-	-	-	-	524	516	-	547	572	-
Stage 2	-	-	-	-	-	-	569	571	-	481	464	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0.1	45.8	21.2
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	227	441	1130	-	-	1170	-	-	212	324
HCM Lane V/C Ratio	0.676	0.032	0.08	-	-	0.006	-	-	0.099	0.036
HCM Control Delay (s)	48.7	13.4	8.5	-	-	8.1	0	-	23.8	16.5
HCM Lane LOS	E	B	A	-	-	A	A	-	C	C
HCM 95th %tile Q(veh)	4.3	0.1	0.3	-	-	0	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	2437	35	0	2009
Future Vol, veh/h	0	22	2437	35	0	2009
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	24	2708	39	0	2232

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1354	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	140	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	140	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	36.1	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	140	-
HCM Lane V/C Ratio	-	-	0.175	-
HCM Control Delay (s)	-	-	36.1	-
HCM Lane LOS	-	-	E	-
HCM 95th %tile Q(veh)	-	-	0.6	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	414	486	17	0	84
Future Vol, veh/h	0	414	486	17	0	84
Conflicting Peds, #/hr	0	0	0	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	460	540	19	0	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	550
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	535
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	535
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	535
HCM Lane V/C Ratio	-	-	-	0.174
HCM Control Delay (s)	-	-	-	13.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	96	2376	69	0	1978
Future Vol, veh/h	0	96	2376	69	0	1978
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	107	2640	77	0	2198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1320	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	147	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	147	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	76.4	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	147	-
HCM Lane V/C Ratio	-	-	0.726	-
HCM Control Delay (s)	-	-	76.4	-
HCM Lane LOS	-	-	F	-
HCM 95th %tile Q(veh)	-	-	4.3	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	2446	13	0	2009
Future Vol, veh/h	0	11	2446	13	0	2009
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	12	2718	14	0	2232

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1366	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	137	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	137	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.8	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	137	-
HCM Lane V/C Ratio	-	-	0.089	-
HCM Control Delay (s)	-	-	33.8	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Intersection	
Int Delay, s/veh	8

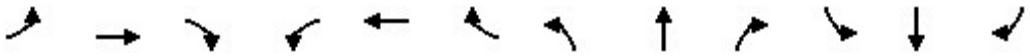
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	93	1922	64	214	2436
Future Vol, veh/h	34	93	1922	64	214	2436
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	36	98	2023	67	225	2564

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3755	1012	0	0	2023	0
Stage 1	2023	-	-	-	-	-
Stage 2	1732	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 3	237	-	-	277	-
Stage 1	88	-	-	-	-	-
Stage 2	128	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 1	237	-	-	277	-
Mov Cap-2 Maneuver	~ 22	-	-	-	-	-
Stage 1	88	-	-	-	-	-
Stage 2	~ 24	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	205.3	0	4.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	22	237	277	-
HCM Lane V/C Ratio	-	-	1.627	0.413	0.813	-
HCM Control Delay (s)	-	-	$ 683.4	30.5	56.7	-
HCM Lane LOS	-	-	F	D	F	-
HCM 95th %tile Q(veh)	-	-	4.6	1.9	6.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	188	38	78	112	63	430	114	1513	57	466	1856	104
v/c Ratio	0.96	0.14	0.18	0.56	0.23	0.62	0.62	1.04	0.07	1.15	0.96	0.11
Control Delay	96.8	35.0	1.0	47.5	36.5	22.6	26.9	60.7	0.2	119.3	33.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.8	35.0	1.0	47.5	36.5	22.6	26.9	60.7	0.2	119.3	33.4	1.1
Queue Length 50th (ft)	108	19	0	60	32	163	19	~492	0	~262	496	0
Queue Length 95th (ft)	#239	48	0	115	69	264	#80	#626	0	#453	#696	12
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	195	273	424	200	273	693	184	1459	801	405	1934	929
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.14	0.18	0.56	0.23	0.62	0.62	1.04	0.07	1.15	0.96	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary — Gibbet Road Multifamily De

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road — 2029 Phase 3 Build PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	35	71	102	57	391	104	1377	52	424	1689	95
Future Volume (veh/h)	171	35	71	102	57	391	104	1377	52	424	1689	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	188	38	0	112	63	430	114	1513	57	466	1856	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	186	274		257	274	520	188	1472	673	401	1958	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.42	0.42	0.18	0.55	0.00
Sat Flow, veh/h	904	1870	1585	1370	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	188	38	0	112	63	430	114	1513	57	466	1856	0
Grp Sat Flow(s),veh/h/ln	904	1870	1585	1370	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.5	1.6	0.0	7.0	2.7	13.2	2.4	38.2	1.9	16.1	44.2	0.0
Cycle Q Clear(g_c), s	13.2	1.6	0.0	8.6	2.7	13.2	2.4	38.2	1.9	16.1	44.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	274		257	274	520	188	1472	673	401	1958	
V/C Ratio(X)	1.01	0.14		0.44	0.23	0.83	0.61	1.03	0.08	1.16	0.95	
Avail Cap(c_a), veh/h	186	274		257	274	520	196	1472	673	401	1958	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	33.4	0.0	37.2	33.9	28.0	20.9	25.9	15.5	28.2	19.0	0.0
Incr Delay (d2), s/veh	69.3	0.2	0.0	1.2	0.4	10.6	4.9	30.8	0.1	96.9	10.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	0.7	0.0	2.3	1.2	9.4	1.4	19.8	0.6	14.3	17.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.3	33.7	0.0	38.3	34.3	38.6	25.8	56.7	15.5	125.1	29.6	0.0
LnGrp LOS	F	C		D	C	D	C	F	B	F	C	
Approach Vol, veh/h		226			605			1684			2322	
Approach Delay, s/veh		98.3			38.1			53.2			48.8	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	46.0		21.0	11.6	57.4		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	18.1	40.2		15.2	4.4	46.2		15.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	3.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	51.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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	74	294	82	14	417	6	72	5	11	15	5	5
Future Vol, veh/h	74	294	82	14	417	6	72	5	11	15	5	5
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	150	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	85	338	94	16	479	7	83	6	13	17	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	486	0	0	432	0	0	1029	1026	338	1080	1117	483
Stage 1	-	-	-	-	-	-	508	508	-	515	515	-
Stage 2	-	-	-	-	-	-	521	518	-	565	602	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1077	-	-	1128	-	-	212	235	704	196	207	584
Stage 1	-	-	-	-	-	-	547	539	-	543	535	-
Stage 2	-	-	-	-	-	-	539	533	-	510	489	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1077	-	-	1128	-	-	190	212	704	175	187	584
Mov Cap-2 Maneuver	-	-	-	-	-	-	190	212	-	175	187	-
Stage 1	-	-	-	-	-	-	504	496	-	500	525	-
Stage 2	-	-	-	-	-	-	518	523	-	456	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.3	33.5	24
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	190	408	1077	-	-	1128	-	-	175	283
HCM Lane V/C Ratio	0.436	0.045	0.079	-	-	0.014	-	-	0.099	0.041
HCM Control Delay (s)	37.8	14.2	8.6	-	-	8.2	0	-	27.8	18.3
HCM Lane LOS	E	B	A	-	-	A	A	-	D	C
HCM 95th %tile Q(veh)	2	0.1	0.3	-	-	0	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1973	47	0	2470
Future Vol, veh/h	0	20	1973	47	0	2470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	22	2192	52	0	2744

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1096	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	208	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	208	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	208	-
HCM Lane V/C Ratio	-	-	0.107	-
HCM Control Delay (s)	-	-	24.4	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	450	477	17	0	73
Future Vol, veh/h	0	450	477	17	0	73
Conflicting Peds, #/hr	0	0	0	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	0	500	530	19	0	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	540
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	542
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	542
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	542
HCM Lane V/C Ratio	-	-	-	0.15
HCM Control Delay (s)	-	-	-	12.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	82	1938	62	0	2208
Future Vol, veh/h	0	82	1938	62	0	2208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	91	2153	69	0	2453

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1077	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	215	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	215	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.5	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	215	-
HCM Lane V/C Ratio	-	-	0.424	-
HCM Control Delay (s)	-	-	33.5	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	2	-

Intersection	
Int Delay, s/veh	0.1

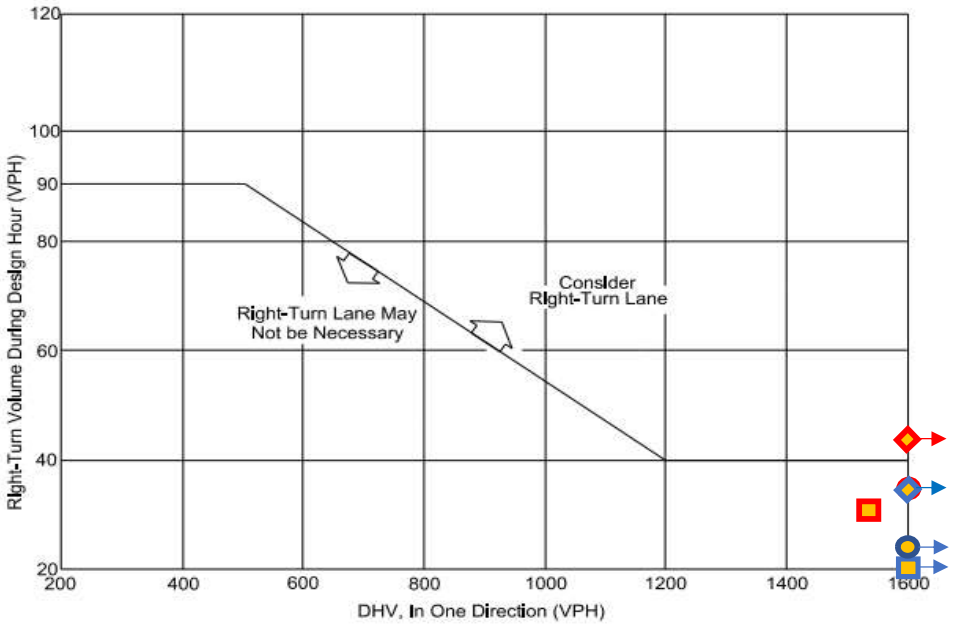
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	1976	17	0	2470
Future Vol, veh/h	0	10	1976	17	0	2470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	11	2196	19	0	2744

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1108	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	204	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	204	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	204	-
HCM Lane V/C Ratio	-	-	0.054	-
HCM Control Delay (s)	-	-	23.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Appendix G – Turn Lane Warrant Analysis

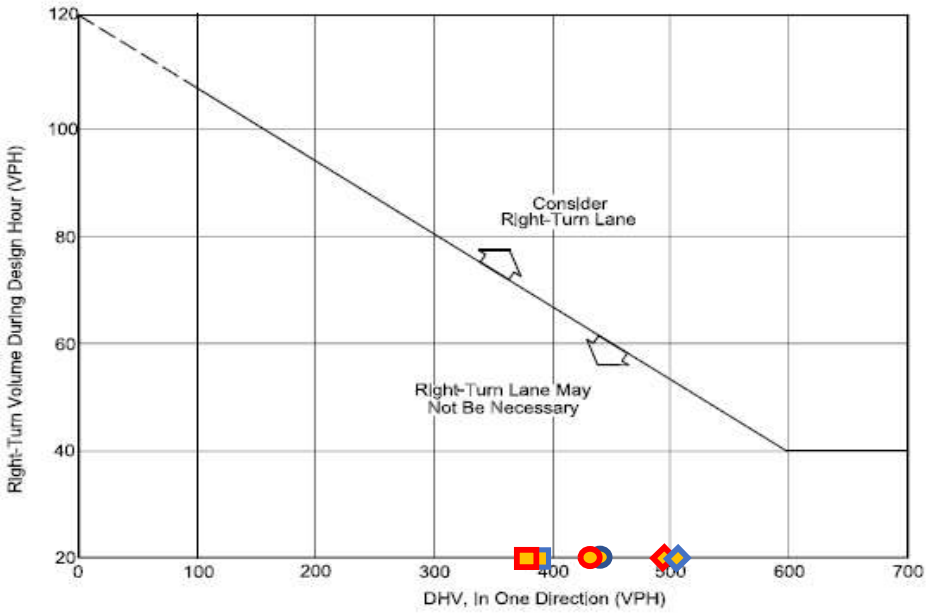


Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON FOUR-LANE HIGHWAYS
Figure 9.5-B

Gibbet Road at Site Access #1

Northbound	Right	DHV	RTs
	2025 Phase 1 Build AM	1861	10
	2025 Phase 1 Build PM	1522	32
	2027 Phase 2 Build AM	2157	26
	2027 Phase 2 Build PM	1747	36
	2029 Phase 3 Build AM	2382	35
	2029 Phase 3 Build PM	2020	47



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given:	Design Speed	=	35 miles per hour
	DHV	=	250 vehicles per hour
	Right Turns	=	100 vehicles per hour

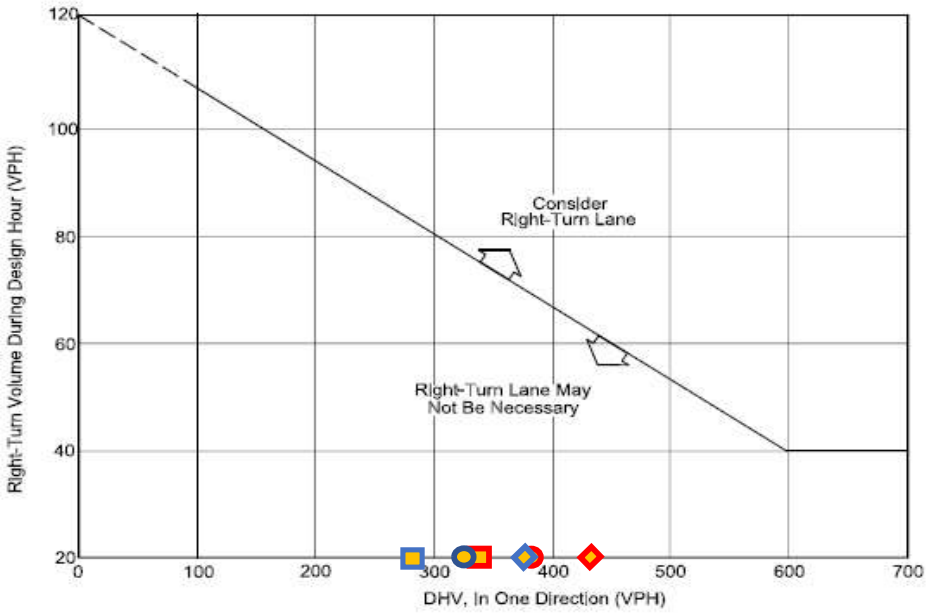
Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use 100 – 20 = 80 vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS
Figure 9.5-A

Gibbet Road at Site Access #2

Southbound	Right	DHV	RTs
	2025 Phase 1 Build AM	395	1
	2025 Phase 1 Build PM	385	3
	2027 Phase 2 Build AM	447	16
	2027 Phase 2 Build PM	435	15
	2029 Phase 3 Build AM	503	17
	2029 Phase 3 Build PM	494	17



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given:	Design Speed	=	35 miles per hour
	DHV	=	250 vehicles per hour
	Right Turns	=	100 vehicles per hour

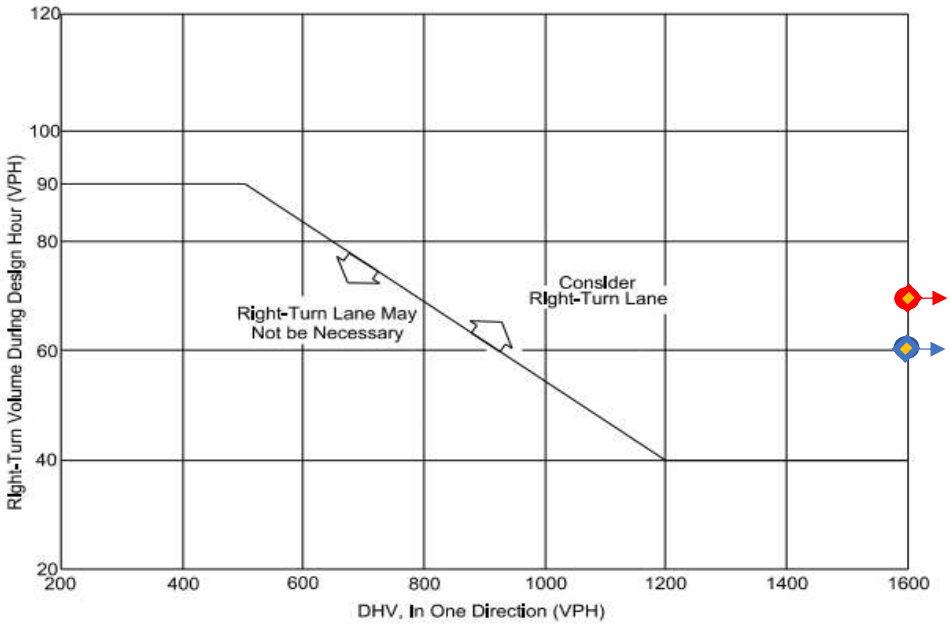
Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use 100 – 20 = 80 vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS
Figure 9.5-A

Gibbet Road at Site Access #3

Westbound	Right	DHV	RTs
	2025 Phase 1 Build AM	283	1
	2025 Phase 1 Build PM	331	3
	2027 Phase 2 Build AM	328	3
	2027 Phase 2 Build PM	380	4
	2029 Phase 3 Build AM	375	4
	2029 Phase 3 Build PM	437	6

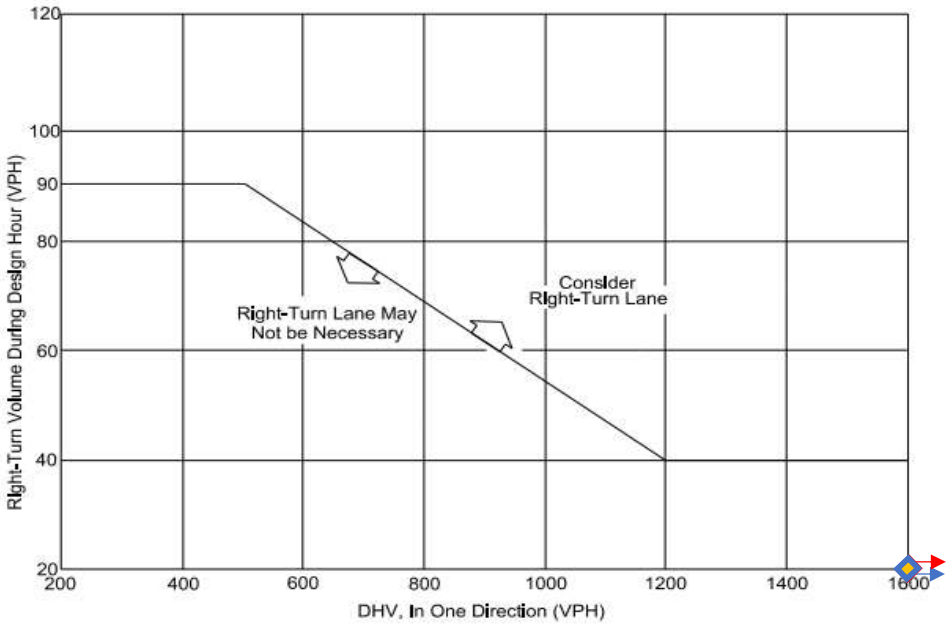


Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON FOUR-LANE HIGHWAYS
Figure 9.5-B

Gibbet Road at Site Access #4

Northbound	Right	DHV	RTs
	2027 Phase 2 Build AM	2127	70
	2027 Phase 2 Build PM	1733	63
	2029 Phase 3 Build AM	2445	69
	2029 Phase 3 Build PM	2000	62



Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON FOUR-LANE HIGHWAYS
Figure 9.5-B

Gibbet Road at Site Access #5

Northbound	Right	DHV	RTs
◆	2029 Phase 3 Build AM	2459	13
◆	2029 Phase 3 Build PM	1993	17

PLAN REVIEW COMMENTS FOR MPA-01-23-017595

Town of Bluffton
Department of Growth Management
20 Bridge Street P.O. Box 386 Bluffton, South Carolina 29910
Telephone 843-706-4522
BUCKWALTER CROSSROADS

Plan Type: Major
Apply Date: 01/24/2023
Plan Status: Pending
Plan Address:
Case Manager: Dan Frazier
Plan PIN #: R610 028 000 0921 0000
Plan Description: **A request by Brian Witmer of Witmer Jones Keefer, Ltd, on behalf of Millstone Ventures, LLC, and with the approval of the property owner, Parcel 8A, LLC, for approval of a master plan amendment application. The Applicant proposes to amend the Buckwalter Crossroads Master Plan by adding an additional 21.92 acres that will include 16.02 acres of residential development and 5.9 acres of commercial development. The property is zoned Buckwalter PUD and consists of 21.92 acres located at the northeast corner of the intersection of SC Highway 170 and Gibbet Road.**

Development Review Committee

Submission #: 1 Received: 01/24/2023 Completed: 02/24/2023

Reviewing Dept.	*Complete Date*	*Reviewer*	*Status*
Planning Commission Review	02/24/2023	Dan Frazier	Revisions Required

Comments:

1. Provide a Traffic Impact Analysis as the proposed development will result in a large number of potential trips generated and a need to improve adjacent roadways and intersection.
2. Provide a proposed Buckwalter Crossroads Master Plan that incorporates the proposed development.
3. Provide a breakdown of how parking has been calculated. Per Buckwalter PUD,, the commercial/office area parking is based on use - 3.5 p.s./1,000 s.f. for office, 5 p.s./1,000 s.f. for retail, and 12 p.s./1,000 s.f. for restaurant.
4. Redesign gas station to put building towards the front and pumps behind.
5. The site design of the carwash is too large (takes up too much area).
6. Provide parking lot connections between Building B parking areas.
7. Revise Section III.E. - walkways will be required to connect to public walkways.
8. Provide a sidewalk on Gibbet adjacent to the property.
9. Coordinate external sidewalk connection to Okatie Hwy and Gibbet Road intersection.
10. Provide a sidewalk on Gibbet Road adjacent to the subject property.
11. Provide a 10-foot wide pedestrian and bicycle trail along the Buckwalter Crossroads Master Plan SC Highway 170 frontage.
12. Confirm locations of future stubs are consistent to existing Master Plan
Storm pond closest to Estate Drive seems out of place, there is no water flowing to it, only an outfall.
13. Provide a tree survey.
14. Is the multi-family development proposed to be gated?
15. Relocate the trash enclosure for the multi-family development, it is too far from the units.

Planning Review - SR	02/24/2023	Jordan Holloway	Revisions Required

Comments:

1. Buffer widths and building setbacks need to be verified with the HCOD requirements of the Buckwalter PUD.

Watershed Management Review DRC	02/20/2023	Samantha Crotty	Revisions Required

Comments:

1. Re-label master plan to show stormwater BMPs. (SWDM 2.1)

Building Safety Review	02/06/2023	Richard Spruce	Revisions Required

Comments:

1 Feb 23 - RAS
wherever sidewalks cross vehicle travel lanes, detectable warning devices are required.
Buildings B shall require accessible parking when they are built.

Beaufort Jasper Water and Sewer Review	02/21/2023	James Clardy	Approved with Conditions

Comments:
Pending formal submittal of water and sewer design for review by BJWSA's Design Review Team.

Fire Department Review	02/24/2023	Dan Wiltse	Approved with Conditions

Comments:
Comments may be provided at DRC.

Police Department Review	02/21/2023	Adam Barberio	Approved
Planning Review - Address	01/25/2023	Ryan Coleman	Approved
Transportation Department Review	01/25/2023	Megan James	Approved

Comments:
No comments

Plan Review Case Notes:

PLANNING COMMISSION

STAFF REPORT
Growth Management Department

MEETING DATE:	May 24, 2023
PROJECT:	Amendments to the Town of Bluffton's Municipal Code of Ordinances, Chapter 23, Unified Development Ordinance (UDO), Article 3 – Application Process, Sec. 3.17, Certificate of Appropriateness – Highway Corridor Overlay District and Article 5 – Sec. 5.8, Lot and Building Standards
PROJECT MANAGER:	Charlotte Moore, AICP Principal Planner

INTRODUCTION: As set forth in Section 3.5.2 of the Unified Development Ordinance (UDO), "an application for a UDO Text Amendment may be initiated by a Town of Bluffton property owner, Town Council, Planning Commission, or the UDO Administrator when public necessity, convenience, State or Federal law, general welfare, new research, or published recommendations on zoning and land development justifies such action."

REQUEST: The UDO Administrator requests that the Planning Commission recommend approval to Town Council of certain text amendments to the Town of Bluffton's Municipal Code of Ordinances, Chapter 23, Unified Development Ordinance as follows:

> Article 3 – Application Process, Sec. 3.17, Certificate of Appropriateness – Highway Corridor Overlay District and Article 5 – Sec. 5.8, Lot and Building Standards.

BACKGROUND: From time to time, amendments to the UDO are necessary to address insufficient procedural processes and standards. The attached proposed amendments relate to both processes and standards and are highlighted below:

- **Certificate of Appropriateness – Highway Corridor Overlay (HCO) District:** The proposed amendment would require that an application for a Certificate of Appropriateness – HCO be consistent with approved plans and agreements (including the recommended addition of a Final Development Plan). The amendment would also remove the reference to "PUD" (as the HCO applies to areas of town not zoned Planned Unit Development). See Attachment 1.

- **Lot and Building Standards:** A development proposal in the Buck Island Road area using the Large Multi-family Lot Type caused the Planning Commission to express concern regarding the allowed front yard setback requirements in relationship to the proposed four-story building

height. The required front yard build-to line for the Large Multi-family lot type ranges from 10 feet minimum to 24 feet maximum and the building height ranges from two to four stories. The development will include two four-story buildings adjacent to Buck Island Road that will have staggered facades that are proposed to be approximately 15 feet to 20 feet from the property line. A 30-foot minimum setback was suggested by the Planning Commission as a more appropriate setback for the buildings, but it was not a requirement of development plan approval.

Because the Unified Development Ordinance (UDO) requires a form-based approach to development, development standards (lot widths, building widths, setbacks, and height) are based on the "lot type" to be applied. There are 17 different lot types that vary by use (house, townhome, multi-family, mixed-use, multi-family, industrial and civic). In the southern portion of the Buck Island corridor, there are two zoning districts (Light Industrial and Neighborhood Core – see Figure 1); between these two districts, 16 lot types are permitted with varying development standards. Potentially, multiple lot types could be used in this area leading to an inconsistent development pattern.

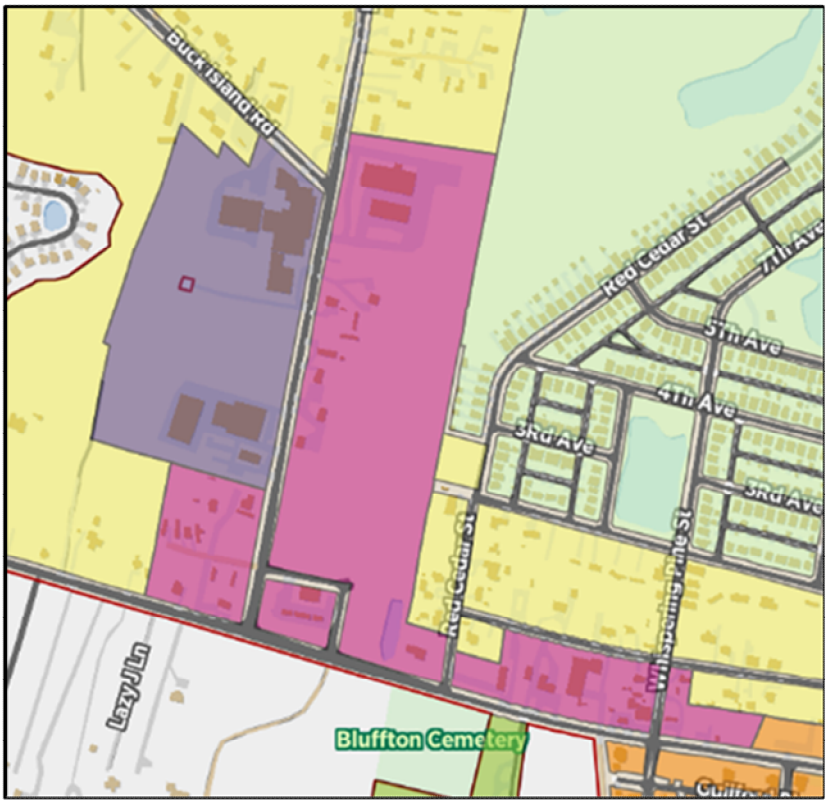


Figure 1-Light Industrial (Purple) and Neighborhood Core (NC) Zoning Districts

Front building setbacks for the various lot types, for example, range from zero (0) feet (Small and Large Townhouse Lots) to no maximum (Small and Large Commercial Lots, Industrial Lots and Civic Lots). As another example, most lot types have a building width limitation, but a maximum width is not required of Small Commercial, Large Commercial, Industrial and Civic Lots.

The Comprehensive Plan identifies the Future Land Use Map classification of the southern portion of Buck Island Road as "Neighborhood Center." The Neighborhood Center designation is intended to promote neighborhood-serving uses in a pedestrian-oriented environment. To support this scale, buildings would be oriented towards the street and be no taller than three stories, with appropriate buffering where adjacent uses are of lower intensity. Increasing the front yard setback for the Large Multi-family lot type would not achieve this goal, and multiple other changes would be necessary to the other permitted lot types to support the long-range vision. Such changes could affect other areas of the community where the existing lot type requirements may be appropriate. This suggests that a zoning overlay district may be appropriate for the southern portion of Buck Island Road zoned Light Industrial and Neighborhood Core.

Adjustments to Table 5.8.3.B (Lot Standards) should be considered carefully and the use of numerous lot types may need reconsideration. At this time, only the following amendments to this table, as shown in Attachment 2, are suggested:

- Removal of the Light Industrial (LI) district from the Large Commercial Lot, Large Mixed-Use Lot, and Large Multi-family Lot types as development standards for these lot types are not characteristic of the LI-zoned areas of Buck Island Road and Goethe Road where most of the LI-zoned property within town limits is located. Related to this, allowance of the LI district in the Medium Mixed-Use and Medium Multi-family lot types. There is not Medium Commercial Lot Type, however, the Small Commercial lot type already includes the LI district;

- Reduction of the maximum height for the Large Commercial Lot and Civic lot types from five (5) stories to four (4) stories as five stories is uncharacteristic of Bluffton; and,

- An increase of the rear yard setback for Large Multi-family and Large Mixed Use lot types from 20 feet and 10 feet, respectively, to 30 feet because buildings may be up to four stories in height.

REVIEW CRITERIA & ANALYSIS: When assessing an application for UDO Text Amendments, Town Council is required to consider the criteria set forth in UDO Section 3.5.3, Application Review Criteria. These criteria are provided below, followed by a Finding.

1. **Section 3.5.3.A.** Consistency with the Comprehensive Plan or, if conditions have changed since the Comprehensive Plan was adopted, consistency with the overall intent of the Plan, recent development trends and the general character of the area.

   Finding. The proposed amendments have no relationship to this criterion.

2. **Section 3.5.3.B.** Consistency with demographic changes, prevailing economic trends, and/or newly recognized best planning practices.

   Finding. The proposed amendments have no relationship to this criterion.

3. **Section 3.5.3.C.** Enhancement of the health, safety, and welfare of the Town of Bluffton.

   Finding. The proposed amendments have no relationship to this criterion.

4. **Section 3.5.3.D.** Impact of the proposed amendment on the provision of public services.

   Finding. The proposed amendments have no relationship to this criterion.

5. **Section 3.5.3.E.** The application must comply with applicable requirements in the Applications Manual.

   Finding. The application complies with all applicable requirements of the Applications Manual.

NEXT STEPS:

UDO Text Amendment Procedure	Date	Complete
Step 1. Planning Commission Public Hearing and Recommendation	May 24, 2023	✓
Step 2. Town Council – 1st Reading	July 11, 2023	✗
Step 3. Town Council Meeting – Final Reading and Public Hearing	August 8, 2023	✗

PLANNING COMMISSION ACTIONS: As granted by the powers and duties set forth in Sec. 2.2.6.C.4 of the UDO, the Planning Commission has the authority to take the following actions with respect to this application:

1. Approval of the application as submitted;

2. Approval of the application with amendments; or

3. Denial of the application as submitted by the Applicant.

STAFF RECOMMENDATION: Growth Management staff recommends the Planning Commission recommend approval of the proposed Text Amendments as submitted.

ATTACHMENTS:

1. Sec. 3.17, COFA-HCO Amendments
2. Sec. 5.8, Lot and Building Standards Amendments

Sec. 3.17 CERTIFICATE OF APPROPRIATENESS – HIGHWAY CORRIDOR OVERLAY (HCO)

Purpose: To require that the application for a Certificate of Appropriateness – HCO be consistent with approved plans and agreements (including the addition of the Final Development Plan), and to remove the reference to "PUD" (as the HCO applies to areas not zoned Planned Unit Development).

3.17.1 Intent

[No change.]

3.17.2 Applicability

[No change.]

3.17.3 Application Review Criteria

The Planning Commission shall consider the following criteria in assessing an application for Certificate of Appropriateness HCO:

A. The application must be in conformance with the applicable landscaping, lighting, and architectural provisions provided in Article 5, Design Standards;

B. The application must be in conformance with the approved Development Agreement, ~~PUD~~ Concept Plan, ~~PUD~~ Master Plan, Final Development Plan, Subdivision Plan, ~~or~~ and any other agreements or plans, ~~that are~~ as applicable; and

C. The application must comply with applicable requirements in the Applications Manual.

3.17.4 Effect and Expiration of Approvals

[No change.]

3.17.5 Amendments to Approvals

[No change.]

Sec. 5.8 Lot and Building Standards

Sec. 5.8.1 Intent

[No change.]

Sec. 5.8.2 Applicability

[No change.]

Sec. 5.8.3 Standards

Purpose of amendments for Table 5.8.3.A.: 1) To remove the asterisks because the footnote for these lot types appears in Table 5.8.3.B; 2) To remove the "Live/Work Lot" type, which was removed as a permitted lot type in Table 5.8.3.B. in a previous UDO amendment; 3) To correct the Light Industrial abbreviation; and, 4) Revise lot types recommended to be allowed or not allowed in the Light Industrial (LI) zoning district.

The existing or proposed use in combination with the lot width shall determine the lot type and applicable standards. Lot types shall only be permitted in those Districts listed. The maximum allowed density is based on the dimensional characteristics of the lot type in combination with other site characteristics that may limit the amount of land able to accommodate density. These other site characteristics include, but are not limited to, lot configuration, right-of-way, easements, protected natural resources, open space, and topography.

Table 5.8.3.A
Lot Types by District

	Estate House Lot	Large House Lot	Medium House Lot	Small House Lot	Duplex House Lot	Small Townhouse Lot~~*~~	Large Townhouse Lot~~*~~	~~Live/Work Lot~~	Small Multi-family Lot	Medium Multi-family Lot	Large Multi-family Lot	Small Mixed-use Lot	Medium Mixed-use Lot	Large Mixed-use Lot	Small Commercial Lot	Large Commercial Lot	Industrial Lot	Civic Lot
PR																		•
AG	•																	•
RMU	•	•	•									•			•			•
RG	•	•	•	•	•	•	•											•
NC		•	•	•	•	•	•	•	•	•		•	•		•			•
GM				•	•	•	•	•		•	•	•	•	•	•	•		•
LI~~T~~		•					•			•	•		•	•	•	•	•	•

Purpose of amendments for Table 5.8.3.B.: 1) To remove the Light Industrial (LI) district from the Large Commercial Lot, Large Mixed-Use Lot, and Large Multi-family Lot types as development standards for these lot types are not characteristic of the LI-zoned areas of Buck Island and Goethe roads where most of the LI-zoned property within town limits is located; 2) Related to purpose 1, to allow the LI district in the Medium Multi-family Lot and Medium Mixed-Use Lot types; 3) To increase the rear yard setback for Large Multi-family and Large Mixed Use lot types from 20 feet and 10 feet, respectively, to 30 feet; and, 4) To reduce the maximum height for the Large Commercial Lot and Civic lot types from five (5) stories to four (4) stories as five stories is uncharacteristic of Bluffton.

Table 5.8.3.B
Lot Standards

Lot Type	Permitted In Districts	Lot Width/Building Width (if specified)	Building Setbacks[2]			Lot Coverage (max)	Height (min/ max in stories [5]
			Front [3]	Rear [4]	Side [3,4]		
Estate House Lot	AG RMU RG	90 ft. min, no max	30 ft. min	40 ft. min.	15 ft. min	50%	1-3
Large House Lot	RMU RG NC LI	70 ft. min, 89 ft. max	12 ft. min 40 ft. max	30 ft. min.	10 ft. min	60%	1-3
Medium House Lot	RMU RG NC	50 ft. min.,69 ft. max	12 ft. min 30 ft. max	30 ft. min.	8 ft. min	60%	1-3
Small House Lot [6]	RG NC GM	40 ft. min., 49 ft. max	10 ft. min 24 ft. max	25 ft. min.	5 ft. min	65%	1-3
Duplex House Lot	RG NC GM	25 ft. min., 39 ft. max	10 ft. min 24 ft. max	20 ft. min.	0 ft. min. 5 ft. min. total	65%	1-3
Small Townhouse Lot [1]	RG NC GM	16 ft. min., 23 ft. max	0 ft. min 12 ft. max	10 ft. min.	0 ft. min.	80%	1-3
Large Townhouse Lot [1]	RG NC GM LI	24 ft. min., 40 ft. max	0 ft. min 20 ft. max	10 ft. min.	0 ft. min.	70%	2-3
Small Multi-family Lot	NC GM	60 ft. min., 79 ft. max	10 ft. min 20 ft. max	10 ft. min.	6 ft. min.	80%	1-2
Medium Multi-family Lot	NC GM LI	80 ft. min., 119 ft. max	10 ft. min 25 ft. max	20 ft. min.	10 ft. min.	75%	2-3
Large Multi-family Lot	GM ~~LI~~	120 ft. min., 600 ft. max, provided that no building may exceed 200 ft. in width	10 ft. min 24 ft. max	~~20~~ 30 ft. min.	15 ft. min.	70%	2-4
Small Mixed-Use Lot	RMU NC GM	22 ft. min., 79 ft. maximum, provided that no building may exceed 79 ft. in width	10 ft. min 24 ft. max	10 ft. min.	0 ft. min. 6 ft. min. total	80%	1-2

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Table 5.8.3.B
Lot Standards

Lot Type	Permitted In Districts	Lot Width/Building Width (if specified)	Building Setbacks[2]			Lot Coverage (max)	Height (min/ max in stories [5]
			Front [3]	Rear [4]	Side [3,4]		
Medium Mixed-Use Lot	NC GM LI	80 ft. minimum, 119 ft. maximum, provided that no building may exceed 119 ft. in width	10 ft. min. 24 ft. max.	10 ft. min.	0 ft. min. 10 ft. min. total	75%	2-3
Large Mixed-use Lot	GM ~~HI~~	120 ft. minimum, no maximum, provided that no building may exceed 200 ft. in width	10 ft. min. 24 ft. max.	~~10~~ 30 ft. min.	0 ft. min. 15 ft. min. total	70%	2-4
Small Commercial Lot	RMU NC GM LI	16 ft. min., 199 ft. max	10 ft. min	20 ft. min	5 ft. min	80%	1-2
Large Commercial Lot	GM ~~HI~~	200 ft. min., no max	10 ft. min	30 ft. min	10 ft. min	75%	1-~~5~~4
Industrial Lot	LI	150 ft. min, no max	30 ft. min	30 ft. min	20 ft. min	60%	1-3
Civic Lot	All Non-HD Districts	50 ft. min., no max	10 ft. min	10 ft. min	10 ft. min.	80%	1-~~5~~4

Notes:

1 No more than 6 townhouses are permitted in a grouping. Groupings must be separated by a minimum of 10 feet.

2 Where a buffer is required the required setback shall be measured from the buffer line.

3 When a residential use includes a driveway accessed from a street, the driveway shall be at least 22 feet in length as measured from the property line. Covered parking accessed by a driveway, including garages and carports, shall set back at least 22 feet from the property line.

4 Detached accessory structures must be set back a minimum of 3 feet from the property line.

5 See Sec. 9.3.E.

6 Vehicular access is permitted only in the rear lot.

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