PLANNING COMMISSION REGULAR MEETING

Tuesday, September 20, 2022 at 7:00 PM

AGENDA

CALL TO ORDER AND ESTABLISHMENT OF A QUORUM.

ADOPTION OF MINUTES.

1. **Draft PC July 26, 2022 Regular Meeting Minutes**
2. **Draft PC August 16, 2022 Regular Meeting Minutes**
3. **Draft PC August 23, 2022 Work Session Minutes**

HEARING OF PUBLIC HEARING ITEMS.

4. **ZMA/SUP 2021-01 North Rock Harris Teeter Service Station:** The Applicant is applying for a Zoning Map Amendment and Special Use Permit to allow for a fuel service station in the North Rock Shopping Center located at 530 Fletcher Drive. The subject parcel was rezoned with a Master Zoning Plan in 1999. The request is to amend the Master Zoning Plan to include a fuel service station and seek a Special Use Permit for the use.
5. **SUP 2022-4 Oak View National Bank Drive-Thru:** the Applicant is applying for a Special Use Permit to allow for a drive-thru to be located in a by-right bank at an empty parcel on the corner of Garrett Street and Waterloo Street (6984-04-7890-000).

COMMENTS FROM THE COMMISSION.

COMMENTS FROM THE STAFF.

ADJOURN.

PLANNING COMMISSION WORK SESSION

TOWN OF WARRENTON

MINUTES

A WORK SESSION OF THE TOWN OF WARRENTON PLANNING COMMISSION WAS HELD JULY 26TH, 2022 AT 7:00 P.M. IN THE MUNICIPAL BUILDING IN WARRENTON, VIRGINIA

P R E S E N T Ms. Susan Helander, Chair; Mr. James Lawrence, Vice Chair; Mr. Ali Zarabi; Mr. Ryan Stewart; Mr. Gerald Johnston; Mr. Steve Ainsworth; Mr. Rob Walton, Community Development Director; Ms. Denise Harris, Planning Manager; Ms. Grainne Mazon-Schafer, Permittech

A B S E N T None

CALL TO ORDER AND ESTABLISHMENT OF QUORUM

Ms. Susan Helander called the meeting to order at 7:00 P.M.

WORK SESSION

Ms. Helander provides a brief overview of the Planning Commission review process stating this is a time for the Applicant to give an overview of the application. There is no staff analysis at this time. A Staff report be included at the Public Hearing stage.

ZMA/CP/SP 22-1 Waterloo Junction Mixed-Use

Ms. Harris provides an introduction and overview of the application.

Ms. Harris introduces Mr. John Foote, Applicant's Representative, for a detailed presentation.

Mr. John Foote introduces the Applicant's and individuals involved the proposed development.

Mr. Foote provides a detailed explanation of the proposed mixed-use development.

Mr. Foote opens the floor to question, comments, and concerns.

Ms. Helander comments on the nature of the proposed mixed-use development and asks about any study or report on noise levels.

Mr. Foote responds that no formal studies have been done and limitations on delivery times and trash pick-up are being discussed.

Ms. Helander asks about installing elevators in the proposed town houses.

Mr. Foote responds needing to consult the preferred builder for their expertise.

Ms. Helander asks about the preferred parking layout for the proposed homes.

Mr. Foote confirms the layout as driveway with garage.

Mr. Steve Ainsworth asks about emergency services access.

Mr. Foote responds that the plans would follow the Uniform Statewide Building Code and the associated fire codes.

Mr. Ainsworth asks about aggregate impact of multiple proposed projects on local schools.

Ms. Harris responds explaining management of the county school system.

Mr. Foote adds further detail on estimated impact of project as it relates to the Town.

Mr. Ainsworth asks if someone is looking at the total impact across a variety of developments being built.

Mr. Foote responds that one of the ways to monitor impact is to have an evaluation done for each development project.

Mr. Ainsworth asks about improving the walkability of Broadview Avenue.

Ms. Harris details ongoing VDOT Broadview Safety Improvement Project.

Ms. Helander adds that there is no crosswalk from Winchester Street to U.S. Route 211/Frost Ave.

Mr. Stewart asks if the park will be publicly accessible.

Mr. Foote responds that he is unsure if that decision has been made.

Ms. Helander advises that the decision should fall to the Homeowner’s Associations insurance.

Mr. Foote adds that site maintenance will fall to the Homeowner’s Associations.

Mr. Stewart asks if the park will be a passive space or contain active elements.

Mr. Foote refers the question to Mr. Keith Farrish, Applicant.

Mr. Farrish discusses the intended ambiance and uses for park.

Mr. Stewart and Mr. Farrish discuss the need for youth and family recreational opportunities in Warrenton.

Mr. Ali Zarabi asks for an explanation of the affordable housing administration.

Mr. Foote responds that it will be administered by the Homeowner's Association and outlines qualifiers.

Mr. Zarabi asks about any allocation of homes for first responders and teachers.

Mr. Foote responds discussing the Federal Fair Housing Act and previous projects.

Mr. Zarabi asks about the wire factory with multiple family housing applications and difficulties with enforcement.

Mr. Foote responds that he does not know about the subject.

Mr. Zarabi suggests that development on the parcel be postponed until the Town has a clear idea for remediation of traffic congestion along 29 Business and Winchester.

Mr. Zarabi asks for a list of all waivers requested by the Applicant.

Mr. Foote responds outlining the waivers.

Mr. Zarabi asks about the proposed street width waiver.

Mr. Foote responds that road width has been reduced to staff recommendation.

Mr. Zarabi asks Ms. Harris for road width details.

Ms. Harris provides details for road width and impervious surface requirements and ownership of the roads.

Mr. Zarabi asks for details on road ownership.

Ms. Harris asks Mr. John Wright, the Applicant's engineer with Bolher, to provide details.

Mr. Wright provides details on road width and ownership and maintenance.

Mr. Zarabi asks about impact on public utilities and infrastructure.

Mr. Wright provides brief details of utilities and infrastructure impact.

Mr. Zarabi asks for specific numbers.

Mr. Wright advises that they need to come back with the specific numbers.

Mr. Foote advises that another waiver was brought to his attention.

Mr. Wright provides a brief description of the waiver.

Mr. Zarabi asks to see the slide showing the landscaping buffer.

Mr. Wright provides a more detailed explanation of the landscaping requirements and requested waiver.

Mr. Foote speaks on regulations and planned unit developments.

Ms. Helander asks about conderations to move the trash enclosure.

Mr. Wright responds pointing to alternate location and asking for suggestions.

Mr. Zarabi asks Mr. Foote and Ms. Harris about the proposed site zoning and breakdown of uses.

Ms. Harris responds clarifying details for commercial mixed-use development and intent.

Mr. Zarabi and Ms. Harris discuss percentages of use and zoning requirements.

Mr. Zarabi asks about maximum residential lot density.

Ms. Harris responds.

Mr. Zarabi asks for the extent the plan goes over allotted density limits.

Mr. Foote refers the question to Mr. Wright.

Mr. Wright responds providing the information.

Mr. Zarabi asks about parking requirements.

Mr. Wright provides details for proposed parking.

Mr. Zarabi thanks the applicant.

Ms. Helander opens the floor to Mr. Ryan Stewart.

Mr. Stewart ask about square footage for units.

Mr. Foote responds.

Mr. Stewart asks about the proposed timeframe to begin construction.

Mr. Foot provides a proposed timeline.

Mr. Stewart asks Ms. Harris about Broadview Safety Improvement efforts.

Ms. Harris briefly outlines status and scope of the Smartscale Project.

Ms. Helander introduces Mr. James Lawrence.

Mr. Lawrence has no questions.

Ms. Helander asks about number of proposed tenants in commercial space.

Mr. Foote responds.

Ms. Helander asks for any further questions.

Ms. Helander states that with no further questions the Public Hearing will be held on August 16th.

The Commission breaks for 5 minutes.

SUP 22-3 – Amazon Data Center

Ms. Helander asks Ms. Harris to introduce the application prior to turning the presentation over to the Applicant.

Ms. Harris provides an introduction and overview of the application.

Ms. Harris introduces Mr. John Foote, Applicant's Representative for a detailed presentation.

Mr. Foote provides a detailed explanation of the application, proposed plan, and waivers requested.

Mr. Foote introduces Mr. John Wright of Bohler Engineering, to explain the landscaping plan.

Mr. Wright provides detail explanation of landscaping plan.

Mr. Foote resumes explanation of proposed plan.

Mr. Foote finishes his explanation and thanks the Commission.

Ms. Helander asks if a tree survey has been completed

Mr. Wright states that a survey has been completed.

Ms. Helander asks about the possibility of a balloon test.

Mr. Foote responds that a balloon test will be completed.

Ms. Helander explains balloon tests and expresses interest in the Commissioners doing a site visit.

Ms. Helander opens the floor to Mr. Lawrence.

Mr. Lawrence about potential for overhead power lines disrupting scenic gateways into town.

Mr. Foote responds.

Mr. Lawrence asks for further clarification on the subject.

Mr. Foote briefly details the difference between the Applicant and the energy provider.

Mr. Lawrence and Mr. Foote briefly discuss the proposed substation in the proposed plans and power needed by the facility.

Mr. Lawrence has no further questions.

Ms. Helander opens the floor to Mr. Ainsworth.

Mr. Ainsworth asks if there are any plans for Dominion access or right of way.

Mr. Foote responds that they are not involved in that process.

Mr. Ainsworth asks about signage.

Mr. Foote responds that no signage aside from address expected.

Mr. Ainsworth asks about site lighting and security lighting along fence.

Mr. Wright briefly outlines expected lighting along fence line.

Mr. Ainsworth ask about communication with Country Chevrolet.

Mr. Foote responds briefly detailing contact.

Mr. Ainsworth has no further questions.

Ms. Helander comments on future opportunity for questions.

Ms. Helander asks for further questions.

Mr. Stewart asks about coordination with provider for future utilities.

Mr. Foote responds outlining available details.

Mr. Stewart asks about community outreach.

Mr. Foote responds.

Mr. Zarabi ask about the nature of the proposed structure and function of a data center.

Mr. Zarabi speaks on the need for the Commission to better understand the function of a data center and placement of other data centers in areas with existing infrastructure.

Mr. Foote responds citing an approved data center in neighboring county.

Mr. Zarabi speaks on the nature and needs of Fauquier County and site impact.

Mr. Johnston requests a grading plan.

Mr. Wright responds offering to provide conceptual plans.

Mr. Johnston asks about line of sight from nearby houses.

Mr. Wright responds that will be included in balloon test.

Mr. Johnston expresses concern over visibility during fall and winter months.

Mr. Wright reiterates landscaping details.

Mr. Johnston ask about noise generation.

Mr. Foot responds that noise study will be provided.

Ms. Helander states that there are no further questions.

COMMENTS FROM COMMISSION

None.

COMMENTS FROM STAFF

None

ADJOURN

Mr. Lawrence moved, and Mr. Ainsworth seconded.

The meeting adjourned at 9:08 pm.

PLANNING COMMISSION REGULAR MEETING

TOWN OF WARRENTON

MINUTES

A REGULAR MEETING OF THE TOWN OF WARRENTON PLANNING COMMISSION WAS HELD AUGUST 16, 2022, AT 7:00 P.M. IN THE MUNICIPAL BUILDING IN WARRENTON, VIRGINIA

P R E S E N T Ms. Susan Helander, Chair; Mr. James Lawrence, Vice Chair; Mr. Steve Ainsworth; Mr. Ali Zarabi; Mr. Gerald Johnston; Mr. Ryan Stewart; Ms. Denise Harris, Planning Manager; Mr. Rob Walton, Community Development Director

A B S E N T

CALL TO ORDER AND ESTABLISHMENT OF QUORUM

Ms. Helander called the meeting to order at 7:00PM.

Ms. Susan Helander states we have four advertised public hearings. Per the request of the applicants two have been postponed.

Ms. Helander states there is no public hearing for ZMA/CP/SUP2021-01 Waterloo Junction.

Ms. Helander states there is no public hearing for ZMA/SUP2021-01 Harris Teeter. The Planning Commission will need to make a motion to move the Public Hearing to September since it was held open previously.

PUBLIC HEARING

ZMA 2021-01/SUP 2021-01 North Rock Harris Teeter Service Station - APPLICANT REQUEST POSTPONEMENT

Mr. Ryan Stewart moved to approve the motion at the request of the applicant to move the ZMA 2021-01/SUP 2021-01 North Rock Harris Teeter Service Station to September 20th, 2022, Regular Meeting for a public hearing.
Mr. James Lawrence seconded. All were in favor, no discussion, vote was unanimous as follows:

Ayes:	***Ms. Susan Helander, Chair; Mr. James Lawrence, Vice Chair; Mr. Gerald Johnston; Mr. Ali Zarabi; Mr. Steven Ainsworth; Mr. Ryan Stewart***
Nays:	***None***
Absent During Vote:	***None***
Abstention:	***None***

A Zoning Ordinance Text Amendment (ZOTA 2022-2) to Article 3 as it Relates to Property Maintenance Within the Historic District

A Zoning Ordinance text amendment to Section 3-5.3.4.10 Hazardous Buildings or Structures and Section 3-5.3.4.11 Demolition By Neglect which sets forth when a Certificate of Appropriateness is not required prior to the demolition of a building and also providing specific examples of what can be considered Demolition By Neglect.

Mr. Rob Walton states to the Commission there are changes to the Town Code as it relates to property maintenance. He presents the zoning ordinance text amendment and states this is a follow up to Article 3 within the Historic District two sections, hazards building and structures and the demolition by neglect.

Chair: Helander asks if there are any questions.

Mr. Ali Zarabi asked Mr. Walton to give an overview on the actions the Town and Commission is taking in reference to this application.

Mr. Walton gives a brief overview of Section 3-5.3.4.10 Hazardous Buildings or Structures and Section 3-5.3.4.11 Demolition By Neglect.
Mr. Ali Zarabi asks at what point is an oversite with the (ARB) Architectural Review Board pertaining to significant properties in decline.

Mr. Walton explains the process and abilities of the ARB.

Mr. Steven Ainsworth asks it there a specific incident that prompted this change.

Mr. Walton explains the Town looked at it' s ordinances and found town code was out of date. That there are a number of properties the Town are currently looking at.

Mr. Zarabi asks Mr. Walton if there are funding options for those needing maintenance who may not be able to afford it?

Mr. Walton explains yes there are options.

Ms. Susan Helander opens the Public Hearing at 7:09 PM

Ms. Susan Helander invites Mr. John Albertella to the podium and asks him to state his name and address.

Mr. John Albertella of 360 Culpeper St, Warrenton VA states the recent amendments to the Ordinance adopted by the Council in regard to building codes are long overdue. The prevention of demolition and neglect is important to him.

Mr. Albertella he states he wholly endorses and congratulates the Town for bringing them to the floor and passing them.

Ms. Helander closed the Public Hearing at 7:13 PM

Ms. Helander asks if the Planning Commission has a motion.

Mr. Ali Zarabi moved to approve the Zoning Ordinance Text Amendment (ZOTA 2022-2) to Article 3 as it Relates to Property Maintenance Within the Historic District and Mr. Ryan Stewart seconded. All were in favor, no discussion, vote was unanimous as follows:

Ayes:	***Ms. Susan Helander, Chair; Mr. James Lawrence, Vice Chair; Mr. Gerald Johnston; Mr. Ali Zarabi; Mr. Steven Ainsworth; Mr. Ryan Stewart***
Nays:	***None***
Absent During Vote:	***None***
Abstention:	***None***

Zoning Ordinance Text Amendment (ZOTA 2022-1)

An Applicant Initiated Zoning Ordinance Text Amendment (ZOTA 2022-1) To Increase the Permitted Density in the Central Business District from Twenty-Five (25) Units Per Acre to Fifty (50) Units Per Acre on Parcels Less Than 1/2 Acre. The Proposal Also Includes Allowing Apartments as a Stand Alone Use or Part of a Mixed-Use Development with the Approval of a Special Use Permit.

Mr. Rob Walton gave a brief presentation on the application.

Mr. Walton states the introduction regarding the stand-alone apartments and mixed-use development has been removed.

Mr. Walton states what is currently proposed, 25 units per acre is being increased to 50 dwelling units per acre on parcels that are less than half an acre.

Mr. Walton explains density increases and standards being proposed. Additional standards in Article 9.

Mr. Walton explains there are a couple of parcels that will benefit from this.

Mr. Walton introduce the Applicant Mr. Charles Mothersead.

Mr. Mothersead gave a brief presentation and explains his submittal to request for a Zoning Ordinance Text Amendment to Articles 3, 7, and 9. changes to Article 7 - Parking and Article 9 - Supplemental Regulations, and the Fee Schedule pertaining to the apartment use.

Ms. Helander asks the Commission if they have any questions for Mr. Mothersead.

Mr. Ali Zarabi asks for clarification on the ground floor.

Mr. Mothersead states the request for ground floor residential has been removed as it exists in other sections of the Zoning Ordinance.

Mr. Zarabi asks in order to determine to basis for this density bonus did he use a Floor Area Ratio to determine the maximum usage for a particular lot.

Mr. Mothersead explains he had to use density.

Mr. Zarabi asks Mr. Mothersead did he use FAR as a model.

Mr. Mothersead explains no. He did the calculations of the TFB previous Fauquier Bank. On a raw acreage basis, it would be more than 12 units.

Mr. James Lawrence states that previously the Planning Commission have asked the Applicant to set aside for affordable housing and that he expressed this is a difficult proposal based on the size of the units.

Mr. Mothersead states it is difficult based on the percentage of the set aside.

Mr. James Lawrence states there is no affordable housing component.

Mr. Mothersead states that is correct.

Mr. Lawrence asks Mr. Mothersead if the Applicant Mr. Alls he has multiple applicants units in Town.

Mr. Mothersead states yes.

Mr. Steven Ainsworth explains affordable housing is part of the overall Comprehensive Plan.

Mr. Mothersead states Town adopts this does not preclude other things from modifying it in the future if a decision is made on the best course to take with affordable housing.

Mr. Lawrence asks Mr. Walton what the units per acre is over the proposed development over by O'Brien's.

Mr. Walton responds approximately 10 Units per acre.

Mr. Lawrence states he has a problem with this level of density in downtown. This is a ballpark 5 times as dense as O'Brien's.

Public hearing opens at 7:35 PM. There were no speakers.

Public hearing closed 7:35 PM

Ms. Helander asks if the Planning Commission has any questions.

Mr. Steven Ainsworth makes a statement comparing O'Brien's and Waterloo Junction to downtown saying they are apples and oranges.

Mr. Stewart explains there is a great opportunity to make this a better solution for the property owners for increasing the opportunities for people to live, work, dine and recreate in one location downtown.

Mr. Stewart states his reservation is lack of affordable housing.

Mr. Lawrence explains the Applicant has repeated their refusal to work on the affordable house part.

Mr. Zarabi explains that under the general aspirations of 15 envisioned for the Main Steet corridor there is an opportunity to better utilize the spaces that are available. He does not have any major objections to this proposal.

Mr. Gerald Johnston explains that smart development is needed and mentions the O'Brien's application. Until the infrastructure issue solved regarding streets there.

Mr. Johnston states he is not for this increased density right now there until other things are taken care of.

Ms. Susan Helander inquires what about Parking.

Mr. Johnston explains the parking is part of his infrastructure concern and. Town does not have the money it would take to build a parking garage.

Ms. Susan Helander explains people who rent in town may have a car and they will be parking in the already crowded parking lots. There is not a good solution as to where these people will park.

Mr. Ainsworth states a sad state of affair for bicycle parking and that should be addressed as well.

Ms. Helander asks for a motion.

Mr. Steven Ainsworth moved to recommend approval of the Applicant Initiated Zoning Ordinance Text Amendment (ZOTA 2022-1) To Increase the Permitted Density in the Central Business District from Twenty Five (25) Units Per Acre to Fifty (50) Units Per Acre on Parcels Less Than 1/2 Acre. The Proposal Also Includes Allowing Apartments as a Stand Alone Use or Part of a Mixed-Use Development with the Approval of a Special Use Permit and Mr. Ali Zarabi seconded the Motion Fails, vote was as follows:

Ayes:	***Mr. Ali Zarabi; Mr. Steven Ainsworth; Mr. Ryan Stewart***
Nays:	***Ms. Susan Helander, Chair; Mr. James Lawrence, Vice Chair; Mr. Gerald Johnston.***
Absent During Vote:	***None***
Abstention:	***None***

Ms. Helander states per Roberts Rules the motion fails with a tie.

APPLICANTS REQUEST POSTPONEMENT

ZMA/CP/SUP 2022-01 Waterloo Junction - POSTPONED By Applicant

COMMENTS FROM THE COMMISSION

Ms. Susan Helander states there is a Work Session next week for the SUP Oakview Bank Drive Through. Amazon is not on the Ms. Helander states the Planning Commission has have specific questions for the Amazon Applicant to forward those to the Chair.

Ms. Helander asks the Commission if they have any questions.

Mr. Zarabi states at the last meeting he asked Mr. Walton about if the public is being charged under FOIA to view the Planning Commission Meetings. He thanked Mr. Walton for responding to the Commission the following day with clarification of rules, procedure, and process.

Mr. Zarabi expressed for the record that he had hard time with the reluctance from the legal representation that evening who did not clarify the process and allowed Mr. Walton to take the blame and responsibility.

Mr. Walton stated the Town Attorney is not part of the processing of the FOIA requests as it relates to changes and would be unaware of the associated costs.

Mr. Stewart welcomes Mr. Martin the new interim Town Manager and states he looks forward to working with him and thanked Mr. Cureton for serving as the acting Town Manager.

Mr. Stewart states in regard to the Harris Teeter application, the Commissions received a petition from the Warrenton BP not in favor of approving the fuel pumps.

COMMENTS FROM THE STAFF

Mr. Walton Town has updated its policy, the Planning Commission, recordings are available on the website.

There were no other comments.

ADJOURN

Mr. James Lawrence moved to adjourn and Mr. Ryan Stewart
seconded. With no further business this meeting was adjourned at 7:59 P.M.

PLANNING COMMISSION WORK SESSION

TOWN OF WARRENTON

MINUTES

A WORK SESSION OF THE TOWN OF WARRENTON PLANNING COMMISSION WAS HELD AUGUST 23RD, 2022 AT 7:00 P.M. IN THE MUNICIPAL BUILDING IN WARRENTON, VIRGINIA

P R E S E N T Mr. James Lawrence, Vice Chair; Mr. Ryan Stewart; Mr. Gerald Johnston; Mr. Steve Ainsworth; Ms. Denise Harris, Planning Manager; Ms. Millie Latack, Preservation Planner

A B S E N T Ms. Susan Helander, Chair; Mr. Ali Zarabi

CALL TO ORDER AND ESTABLISHMENT OF QUORUM

Mr. James Lawrence called the meeting to order at 7:00 P.M.

WORK SESSION

Mr. Lawrence provides a brief overview of the Planning Commission review process.

Mr. Lawrence asks Ms. Millie Latack to introduce the application prior to turning the presentation over to the Applicant.

SUP 22-4 Oak View Bank Drive-Thru

Ms. Latack provides an introduction and overview of the application.

Ms. Latack introduces Mr. Mike Ewing, Applicant for a detailed presentation.

Mr. Ewing introduces the other Applicants and individuals involved with the proposed development.

Mr. Ewing clarifies several points with the proposed bank plans.

Vice Chair Lawrence opens the floor to questions.

Mr. Steve Ainsworth asks about traffic studies for the proposed plan.

Mr. Ewing responds no studies currently.

Ms. Denise Harris advises that the proposed plan did not trigger requirement for a traffic impact analysis.

Mr. Ryan Stewart asks about the estimated trips per day for the site.

Mr. Ewing responds providing source of figure.

Mr. Gerald Johnston comments that his questions regarding traffic have already been answered.

Mr. Lawrence comments on the proposed site and states he has no further questions.

Mr. Lawrence asks staff if they have further comments or information.

Mr. Lawrence states that with no further questions the Public Hearing will be held on September 20th.

COMMENTS FROM COMMISSION

Mr. Johnston asks staff about agenda for September 20th meeting.

Mr. Harris responds there are two public hearings scheduled.

Mr. Lawrence asks about Amazon's submission.

Mr. Harris responds staff is awaiting the Applicant's next submission and response to the Planning Commission.

COMMENTS FROM STAFF

None

ADJOURN

Mr. Stewart moved, and Mr. Ainsworth seconded.

The meeting adjourned at 7:20 pm.

TOWN OF WARRENTON
Department of Community Development
PO BOX 341
WARRENTON, VIRGINIA 20188
http://www.warrentonva.gov
TELEPHONE (540) 347-1101
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September 20, 2022

TO: Planning Commission

FROM: Denise Harris, Planning Manager

RE: Zoning Map Amendment 2021-01/Special Use Permit 2021-01
Harris Teeter Fuel Station

I. Summary:

A. Applicant/Owner: Harris Teeter/ North Rock Center LLC

B. Representative: John Foote/Jessica Pfeiffer of Walsh, Colucci, Lubeley & Walsh

C. Request: The Applicant is proposing a revision to the North Rock Planned Unit Development (PUD) Master Plan and a Special Use Permit (SUP) to allow for the construction of an eight-pump service station for Harris Teeter. The existing PUD was granted in 1999 and proffered that the site would be developed per the Master Development Plan and ties all permitted/permissible uses to those listed under the 1991 Zoning Ordinance PUD District. The 1991 Zoning Ordinance allowed all uses in the Commercial Limited (CL) District within the PUD District upon issuance of a Special Use Permit, which includes service stations. While the CL District was repealed/replaced with the Commercial District in the 2006 Zoning Ordinance, the uses on site remain tied to the PUD proffers.

North Rock Center	Existing	Proposed Use
Parcel Site Acreage	+/- 11 Acres	+/- 11 Acres
SUP/site area	N/A	0.48 SF
Parking	N/A	2 Spaces
Proposed Use	Drive Through Bank Pad	Fuel Station
Hours of Operation	N/A	Fuel Pumps 24 Hours, 7 Days Staffed: Monday-Sunday 6 AM-10 PM

D. Site Location: The site is located at 530 Fletcher Drive (see maps in Attachment A) in the existing North Rock Shopping Center, in the existing undeveloped pad site (GPIN 6984-38-9605).

E. Comprehensive Plan: The site is designated New Town Character District.

F. Zoning: The site is zoned Planned Unit Development.

G. Surrounding Land Uses:

Direction	Zoning	Current Land Use
North	Commercial	White Horse Auto Wash / Applebee's / The Fauquier Bank
South	R-10	Reserve at Moorhead Subdivision
East	Commercial	Capital One Bank / Longhorn Steakhouse / Glory Days Grill
West	Commercial / R-10	BP Fuel Station / Blalock Co / Residential

II. Planning Commission Updates:

The Planning Commission held a Public Hearing on July 19, 2022. Several members of the public spoke in opposition to the proposal. Concerns over transportation, parking, blasting, fumes, noise, emergency spillage, pedestrian safety, light pollution, and impacts on existing businesses were among the issues raised. In addition, the Applicant did not agree with several of the draft Conditions of Approval. The Planning Commission raised additional concerns regarding the phasing of the construction, pedestrian movements, potential unattended fuel spills due to no employee on site after hours, lighting, signage, conformance with the Comprehensive Plan, access, and a variety of other topics.

The Planning Commission proceeded to make a motion that resulted in an unsuccessful vote to recommend denial of the application (1-5-0 Helander, Lawrence, Stewart, Johnston, Ainsworth Against). At that point the Applicant requested additional time to work on the outstanding issues. The Planning Commission moved to hold the Public Hearing open until the August meeting (5-1-0 Zarabi Against). The Applicant requested a further postponement until the September meeting which was granted at the August Regular Meeting of the Planning Commission.

On August 31, 2022 the Applicant submitted proposed updated Conditions of Approval. After discussing further with staff, the Applicant submitted on September 14, 2022 the following proposed changes (Attached):

- #4 Site Preparation – The civil engineer confirmed with Terracon that the condition regarding no blasting is not an issue. All of the materials encountered at the site can be excavated with a trackhoe. As such, the Applicant added a trackhoe to the language.
- #10 Deliveries and Refuse – The Applicant removed all references to the stated times to simply follow Town Code in case the Code is ever revised in the future.
- # 11 Lighting – The Applicant added a second clause 11.b per the request of Planning Commission Stewart's comments on lighting.
- #13 Site Transportation Circulation – The Applicant confirmed with their civil engineer that 85% is not an issue. In order to provide a staging plan now, we would need to consult with a GC to get an understanding of how they want to phase this work. We left that out.
- # 16 Electric Vehicle Charging Space – This is a new condition added by the Applicant.
- #18 Termination of SUP Use – The Applicant is proposing to remove the word "canopy" as was previously discussed with the Planning Commission.

The last remaining outstanding issue related to the placement of signage for the use. The Applicant is proposing a two-fold approach. First, in the draft Conditions of Approval the Applicant is proposing #12 to read "Signs - The service station shall not have a single tenant monument sign for their use along the frontage of Route 29." The proffers are then amended to state:

"Notwithstanding any zoning requirement to the contrary, signage for the service station shall be permitted as one of the following options at the Applicant's election:

Monument signage may be constructed along the shopping center entrance road off Fletcher Drive adjacent to the service station. Any such monument signs shall not exceed 8 feet in height or 45 square feet; or, alternatively,

Canopy signage may be employed that does not exceed 6 total canopy signs and a cumulative maximum square footage of 140 square feet. "

The result is the Applicant would not construct a single use monument sign on Lee Highway for the use; however, would be allowed to construct a sign adjacent to the use off Fletcher Drive. The intent is to keep the signage approximate to the use. The Zoning Ordinance allows for two monument signs along Lee Highway and Fletcher Drive. Currently there is one existing monument sign on Lee Highway and two existing monument signs on Fletcher.

Staff has raised concerns with the Applicant regarding the proposed signage on the canopy proposed in the proffer. The Applicant indicated they will be bringing forth more information and illustratives to the Public Hearing.

III. Staff Recommendation:

Staff recommends the Planning Commission conclude the Public Hearing on ZMA 2021-01 and SUP 2021-01 Harris Teeter Fuel Station and discuss subject to draft Proffers and Conditions of Approval.

IV. Suggested Motions

1. I move that the Planning Commission recommend approval to the Town Council of ZMA 2021-01 with the submitted amended proffers dated September 13, 2022 to amend the North Rock Planned Unit Development zoning district (ZMA 1998-02) and SUP 2021-01 subject to the Conditions of Approval dated September 14, 2022 for an eight (8) pump fuel station.

OR

2. I move that the Planning Commission forward ZMA 2021-01 and SUP 2021-01 to the next Planning Commission Regular Meeting and ask the Applicant to address....

OR

3. I move that the Planning Commission recommend denial of ZMA 2021-01 and SUP 2021-01 for the following reasons: [Insert].

OR

4. I move an alternative motion.

Attachments

A. Updated Draft Conditions of Approval
B. Updated Amended Proffers

AMENDED PROFFERS
NORTH ROCK PLANNED UNIT DEVELOPMENT

REZONING:	ZMA 2021-01 (Formerly ZMA 1998-02)
PROPERTY:	Approximately 11.6762 acres GPIN 6984-38-9605-000 (the "Property")
RECORD OWNER AND APPLICANT:	Northrock Center LLC
ORIGINAL PROFFERS:	August 10, 1999
REVISED:	January 28, 2022 ~~June 8~~September 15, 2022

Pursuant to the provisions of §15.2-2297, et seq., of the Code of Virginia 1950, as amended, and the provisions of §11-3.9.17, et seq. of the 2006 Zoning Ordinance for the Town of Warrenton, Virginia, Northrock Center LLC ("the Applicant"), as owner of certain property described as Parcel A, Northrock Shopping Center ("Northrock Shopping Center"), and more specifically identified in the application for rezoning submitted herewith, does hereby submit these Amended Proffers (this "Amended Proffer Statement") to the Proffer Statement dated August 10, 1999 (the "Original Proffer Statement"), and proffers that the development of Northrock Shopping Center shall be in strict accordance with the conditions set forth in this Amended Proffer Statement, unless a further amendment hereto is mutually agreed upon by the Town Council and the undersigned or its successors or assigns.

Northrock Shopping Center (as part of the larger Property that is governed by the Original Proffer Statement) remains subject to the Original Proffer Statement to the extent the proffered conditions in the Original Proffer Statement are applicable to Northrock Shopping Center, and this Amended Proffer Statement is solely for the purpose of amending those proffered conditions in the Original Proffer Statement that require amendment for the purposes of amending the original Master Plan (as hereinafter defined) to the extent necessary for the construction of an automotive fuel dispensing facility on a portion of Northrock Shopping Center pursuant to a special use permit therefor.

This Amended Proffer Statement does not substantively amend any provision of the Original Proffer Statement applicable to the portion of the Property that is subject to residential uses as originally rezoned. The Applicant has no obligation for the administration of proffers that have been satisfied regarding the portion of the Property that is outside of Northrock Shopping Center and is subject to the Original Proffer Statement, which is owned by other owners with no affiliation to the Applicant. For avoidance of doubt, the following sections of this Amended Proffer Statement shall impose no additional obligation on the Applicant or Northrock Shopping Center with respect to the Applicant's application for the special use permit for the automotive fuel

dispensing facility and/or the application for amendment of the PUD rezoning of Northrock Shopping Center: Paragraphs 2, 3, 5, 6, 7, 8, 9 and 12.

This Amended Proffer Statement is specifically conditioned upon the Town Council of the Town of Warrenton, Virginia, approving the application for amendment of the PUD rezoning of the Property heretofore granted, and approving an application for a special use permit for an automotive fuel dispensing facility. In the event such applications are not approved in substantially the form in which they have been submitted including this Amended Proffer Statement, then this Amended Proffer Statement shall be deemed withdrawn, and of no effect whatsoever, and the previously approved Proffers associated with ZMA 1998-02 shall continue in effect.

This Amended Proffer Statement shall be binding on the Applicant, and its agents, assigns, and successors in interest to the extent referenced above.

1. ~~1.~~Proffered Master Development Plan. The Applicant proffers that the development of Northrock Shopping Center shall be in substantial conformance with:

1.1 ~~a)~~ The Master Plan for North Rock Planned Unit Development, prepared by Frederick Ward Associates, Inc., dated November 10, 1998, and revised June 1999, and the Landscape Plan, pages PS-1 and PS-2 (as amended, the "Master Plan"), as and to the extent the same is applicable to Northrock Shopping Center, and

1.2 ~~b)~~ The Zoning Map Amendment for Harris Teeter Service Station prepared by Kimley-Horn, and dated September 2, 2021, consisting of four sheets which is attached hereto and incorporated herein by reference ("Amended Master Plan"), which Amended Master Plan shall be applicable only to Northrock Shopping Center. Upon the submission of final site and building plans, the Applicant may make adjustments to the building footprints, parking lots, travel lanes, lot lines and other engineering details, which are necessary to design and locate the structures permitted by the zoning of Northrock Shopping Center and shown on the Master Plan, provided that any final plans demonstrate the required conformance with ~~those~~ that Master Plan. In the event that there is any conflict between the Master Plan and this Amended Proffer Statement, this Amended Proffer Statement shall control.

1.3 Notwithstanding any zoning requirement to the contrary, signage for the service station shall be permitted as one of the following options at the Applicant's election:

1.3.1 Monument signage may be constructed along the shopping center entrance road off Fletcher Drive adjacent to the service station. Any such monument signs shall not exceed 8 feet in height or 45 square feet; or, alternatively,

1.3.2 Canopy signage may be employed that does not exceed 6 total canopy signs and a cumulative maximum square footage of 140 square feet.

2. **Residential Density.**

2.1 Except as otherwise authorized in this Amended Proffer Statement, the residential density which may be constructed on the Property shall not exceed 81 total single family attached or detached residential units, to consist of 29 single family detached dwellings, and 52 single family attached dwelling development, in the locations generally shown on the Master Plan. One of such permitted residential units shall consist of the existing North Rock residence to be accessed by roads within the development. A second residential parcel shall, to the extent permitted by law, be an outparcel with separate access to North Rock Drive. No road connection shall be made between North Rock Drive and other roads in the project.

2.2 The predecessor in interest to the Applicant (the "Original Applicant") has applied for a special use permit for the construction of an assisted living facility consisting of not more than 92 units in the location depicted on the Master Plan. If the special use permit for assisted living is not approved, or if the Original Applicant determines, in the exercise of its reasonable judgment, that assisted living facilities cannot be made economically or practically feasible on the site, then the Original Applicant shall be permitted to construct sixteen single family attached units in the location shown on the Master Plan for assisted living, in addition to those single family attached units otherwise permitted hereunder.

3. **Creation of Property Owners' Association.**

The Original Applicant shall create a single Property Owners' Association consisting of all owners of residential property within the project, not to include the owners or residents of any assisted living facility which may be constructed hereunder. Such Association shall be created not later than the issuance of the first occupancy permit for residential uses. Among its other responsibilities, such Association shall be responsible for the maintenance of all private streets within the Property.

4. **Limitations on Commercial Development.**

4.1 The Applicant shall construct not more than 107,000 square feet of those commercial uses authorized for commercial components of a PUD pursuant to the Zoning Ordinance, and any special use permit for commercial uses which may be approved in accordance with that Ordinance. Commercial uses shall be constructed in the general locations shown on the Master Plan and the Amended Master Plan.

4.2 In the event that a special use permit is issued for the construction of a retail structure in excess of 50,000 square feet, but less than 60,000 square feet, and any use is hereafter proposed for such structure which is a use other than those commercial uses applied for and analyzed with regard to such structure in the Traffic Impact Analysis prepared in connections herewith, and if it is determined by the Planning Director that such other uses would generate an estimated number of vehicle trips per day greater that the uses analyzed, then before any building

permit may be issued for new construction, or before any occupancy permit may be issued for an existing structure, for such other use or uses, then the Applicant shall conduct a revised traffic impact analysis to determine what mitigation measures, if any, are be required to maintain required levels of service at those intersections and on those roadways analyzed in the aforesaid Traffic Impact Analysis. The estimated trip generation from any such other use shall be determined by reference to the Trip Generation Manual published by the Institute of Transportation Engineers, 11th Edition, employed in the preparation of the traffic Impact Analysis.

5. **Open space**. Approximately 29.3% of the site shall be retained in common open space to be under the ownership, control and maintenance of the Property Owners' Association, in such locations as are generally shown on the Master Plan. In no event shall the amount of open space be less than required by the PUD Ordinance applicable at the time of site plan approval.

6. **Preservation of the North Rock Residence.** Notwithstanding any other provision of these proffers, the existing North Rock residence shall be preserved, but may be redeveloped as a duplex residential unit or two-family condominium unit. Nothing contained herein shall be deemed to preclude exterior renovations and repairs to the residence.

7. **Phasing.** Notwithstanding any other provision of this Amended Proffer Statement, and pursuant to the authority retained by the Town Council in §14-2.1 of the Warrenton Zoning Ordinance, building permits for not less than 20% of the permitted single family attached and detached residential units shall have been issued within five years of the date of approval of this application and the acceptance of these proffers. In the event that such residential permits have not been so issued, the Original Applicant shall pay to the Town Council for inclusion in its general fund the sun of $50,000 annually, on the fifth through the tenth anniversaries of the date of the approval of the Master Plan, until such residential units have been so permitted.

8. **Transportation.**

8.1 **Traffic signalization.**

8.1.1 ~~.1~~Immediately following the approval of the rezoning of the Property, the Original Applicant agrees to be responsible for the cost of all design and materials, and to install or cause to be installed, an approved traffic signal at the intersection of Fletcher Drive Extended and Lee highway. The design and cost of such traffic signal shall accommodate the improvements to that intersection herein proffered. The installation of such traffic signal shall be complete before any certificate of occupancy for commercial uses may be issued.

8.1.2 The Original Applicant shall be responsible for the connection of the control boxes for the traffic signals which are existing or are to be constructed at Fletcher Drive Extended/Lee Highway, Winchester Street/Lee Highway, and Blackwell/Lee Highway.

8.1.3 The Original Applicant shall re-phase and re-time signal operations at the Route 29/Blackwell Road and Route 29/Winchester intersections to accommodate a 120 second cycle length, in accordance with the approved Traffic Impact Analysis.

8.1.4 The Original Applicant shall re-phase and re-time the existing traffic control device within a 120 second cycle length, in accordance with the approved Traffic Impact Analysis.

8.2 **Specific Improvements.**

8.2.1 **In General.**

The design of internal roads and their connections to existing public roads, shall be generally as shown on the Master Plan and shall be designed to accommodate the anticipated traffic flows demonstrated by the Original Applicant's Traffic Impact Analysis dated May 19, 1999. Final design of all roads shall be accomplished at the time of site plan preparation for such improvements as their timing may be otherwise required hereby.

8.2.2 **Fletcher Drive Extended.**

8.2.2.1 The Original Applicant shall construct Fletcher Drive Extended in the location generally shown on the Master Plan, and as more specifically set forth herein.

8.2.2.2 Fletcher Drive Extended from its "T" intersection with North Hill Drive north to it's the primary internal commercial entrance shall be constructed as a two lane road with raised median, as generally shown on the Master Plan.

8.2.2.3 Fletcher Drive Extended northbound from its internal primary commercial entrance to lee highway shall be constructed as a three lane egress, to consist of a northbound dedicated left turn lane, a center through lane with shared left turn capability, and a dedicated right turn lane operating as an "overlap." Fletcher Drive Extended southbound (ingress) lanes shall consist of a southbound through/left shared lane with a dedicated right turn lane into the commercial component.

8.2.2.4 The Original Applicant shall construct a single, standard length dedicated eastbound right turn lane into the Property on Lee Highway, at its intersection with Fletcher Drive Extended.

8.2.4 **U.S. Route 29, Lee Highway.**

8.2.4.1 The Original Applicant shall lengthen the existing westbound left turn lane on Lee Highway into Fletcher Drive Extended to a 275 foot storage length, at the time of site plan approval for the commercial component.

8.2.4.2 The Original Applicant shall, upon request of the Town, dedicate such right-of-way as may be necessary across the frontage of its property sufficient for

the construction by others of a third eastbound lane on Lee Highway and any necessary relocation of the deceleration lane otherwise proffered herein, and shall, upon request of the Town, grant such landscaping or structures shall be placed in the area reserved for such dedication.

8.2.4.3 The Original Applicant shall grade the area to be reserved in such a manner as reasonably to accommodate the relocation of the eastbound right turn lane into the reserved area when the aforesaid third eastbound lane is constructed.

8.3 **Right of Way Dedication for Branch Drive.** The Original Applicant shall dedicate not more than sixty feet of on site right-of-way along the western boundary of the Property, in the general location shown on the Master Plan, for the future construction of Branch Drive by others. Such dedication shall be made prior to the approval of the first building permits for any commercial construction on the site. The Original Applicant shall further reserve right-of-way from the commercial component of its Property sufficient to permit a future connection to Branch Drive once constructed from Route 29 to a mutually agreeable access point on or adjacent to the Property boundary, provided that the Original Applicant shall not be required to acquire any off-site right-of-way which may be necessary to effect such connection.

9. **Project Amenities.** The Original Applicant shall construct and dedicate to the Property Owners' Association a pedestrian trail system providing access within the residential component and to the commercial component. Such system shall be constructed with the development of the single-family detached units permitted hereby. In conjunction with such trail system the Original Applicant shall construct ponds, scenic view sites, and a system of active exercise/recreation and fitness stations along such trail in the areas generally identified on the Master Plan. The Original Applicant further agrees to pay the sum of $500 per detached or attached residential unit at the time of the issuance of certificates of occupancy for each, for use by the Town in its discretion in providing recreational facilities component of the Property in a location identified on the Master Plan.

10. **Architectural/Building Materials.** The commercial component of the project will be developed with a unified architectural theme that emphasizes traditional architectural forms, features, and materials compatible with the Town's historic architectural character. The standard of compatibility may be met through scale, materials, forms and/or colors which may be embodied in architecture that is cotemporary as well as traditional. Retail and business structures shall be designed to meet the following general standards.

10.1 Building materials utilized for the front and side facades of the buildings shall be limited to brick, split-faced block, metal, fluted clock, tile, concrete tile, dryvit or other simulated stucco (EFIS), real or simulated wood and/or glass. Metal may be used for not more than 15% of front and side building facade materials, exclusive of window frames and door frames. Roofs, including Mansard and other decorative roofs, shall not be interpreted to be a part of any building façade. Standard concrete masonry block shall not be used for the front and side facades of any buildings.

10.2 Service and delivery loading docks and loading spaces required by the Zoning Ordinance or provided for the users will be oriented, to the extent feasible, to reduce their visibility from public road frontages. If such facilities are not substantially blocked from view from the public roadways, or adjacent residential uses, they will be d with architectural elements and/or decorative fencing and/or evergreen landscaping to screen their visibility from the public roadways.

10.3 Any mechanical units placed on the rooftops of buildings shall be screened by architectural features compatible with building façade architecture. Screening shall be designed so as to block such units from view by persons on any public streets immediately adjoining the Property, or from adjacent residential uses.

10.4 Adjacent facades will be compatible with each other and architectural features such as setback, changes in buildings materials, canopies or differences in roof height will be used to add visual interest. Exterior walls fronting a promenade will not exceed one hundred feet in length without altering the appearance of the building(s) by using a mixture of compatible building materials or, alternatively, by providing a variance in setback of at least two feet.

10.5 In order to buffer the view of the residential component with relation to the commercial component, the rear of the commercial structures shall be buffered from adjacent residential units by the construction of landscaped berms, from the eastern edge of the commercial component westward to include the assisted living facility area, and up to the Branch Drive Connector by the Town at the time of site plan review.

11. **Site lighting.** To the extent not already provided, the Applicant shall provide lighting in the commercial area which assure that in high activity area, such as store fronts and drop off lanes, lighting measures between 7 and 30 foot candles. In medium activity areas such as parking lots and pedestrian pathways, lighting shall measure between 4 and 7 foot candles. In other areas not herein specified, lighting shall measure from 2 to 5 foot candles. Such lighting shall be so arranged as reasonably to protect adjacent properties from direct glare or hazardous interference.

12. **Contributions to affordable housing program.** The Original Applicant shall contribute the sum of $45,000.00 to the Town for application to the Town for the improvement of substandard housing units within the Town as the Council may, in its sole discretion, determine. One-half of such payment shall be made upon issuance of the first building permit for approved new residential construction, and one half shall be made upon issuance of the first building permit for approved commercial uses.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

Original Approval August 10, 1999
Revised January 28, 2022
~~June 8~~September 15, 2022

NORTHROCK CENTER LLC

By: _____
John F. Collich, Vice President

STATE OF MARYLAND)

COUNTY OF)

On this ____ day of __June, 2022, before me appeared John F. Collich, who acknowledged himself to be Vice President of the above named limited liability company and that he, as such authorized officer, being authorized so to do by the Operating Agreement of said limited liability company, executed the foregoing instrument on behalf of said limited liability company for the purposes therein contained.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid, the day and year first above written.

_____

Notary Public

My term expires:_____

Registration #:

My Commission expires:

STAFF PROPOSED SPECIAL USE PERMIT CONDITIONS
Applicant: HARRIS TEETER, LLC (the "Applicant")
Owner: NORTHROCK CENTER LLC
Special Use Permit: SUP2021-0l, North Rock Harris Teeter Service Station
Address: 530 Fletcher Drive, Warrenton, Virginia
GPIN #: 6984-38-9605 (the “Property”)
Zoning: Planned Unit Development (PUD)
Date: ~~July 19~~September 14, 2022

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

1. Site Development ~~–~~ - The property shall be developed in substantial conformance with these conditions and the Special Use Permit Plan for Harris Teeter Service Station prepared by Kimley Horn, sealed April 18, 2021, dated September 2, 2021, and consisting of three sheets, subject to minor modifications in connection with final site plan review or final engineering (the "SUP Plan").
2. Use Parameters ~~–~~ -
    a. Special Use Permit Area ~~–~~ - The special use permit shall apply to the identified area on the SUP Plan consisting of approximately +/- 0.48 acres on the larger 11.68 acres property.
    b. Use Limitations ~~–~~ - The use approved with this SUP shall be limited to service station containing eight (8) fueling positions. The uses permitted herewith shall not limit or restrict by-right uses otherwise allowed on the Property.
3. Architecture - The design of the fuel station building, and canopy shall substantially conform to the elevations entitled "Illustrative Elevations," dated May 25, 2022 (hereinafter, the "Elevations"). The Elevations may be subject to minor modification approved by the Zoning Administrator in connection with site plan review. Additional changes to the design and materials may be made provided that any such changes are approved by the Town prior to the issuance of a building permit. Such approval shall be based on a determination that the changes result in equal to or better than the quality shown on the Elevations.
4. Site Preparation~~:~~ - No blasting shall be allowed on the SUP site. If denser materials are encountered in excavations, they will be removed using a trackhoe, hoe ram or pneumatic spade.
5. Foundation Excavations - The bearing subgrade should be evaluated under the direction of the Geotechnical Engineer and supervised by a competent professional as outlined in the March 3, 2020 Terracon GeoReport for Harris Teeter Fuel Center Store #329 and the March 23, 2022 ECS Mid-Atlantic, LLC Review of Terracon Geotechnical Report memo.
    a. If unanticipated conditions are encountered, the Geotechnical Engineer shall prescribe mitigation options.
    b. Once materials have been removed, the entire area should be proof rolled with heavy, rubber tire construction equipment, to aid in delineating areas of soft or otherwise unsuitable soil. Once unsuitable materials have been remediated, and the subgrade has passed the proof roll test, the existing and undocumented fill that was removed may be evaluated for reuse as structural fill.

c. If the owner elects to construct pavement on the existing fill, the following protocol should be followed. Once the planned subgrade elevation has been reached the entire pavement area should be proof rolled. Areas of soft or otherwise unsuitable material should be undercut and replaced with either new structural fill or suitable, existing on site fill materials.

d. The above items shall be shown in connection with, and determined on, the Site Plan. The Town may approve other options, measures, and/or protocols.

6. Site Requirements –
   a. The existing storm line drain shall be moved so as not to be in conflict with the proposed construction areas. The relocation of the storm drain shall be approved at Site Plan to ensure proper soil support, environmental protection, and installation.
   b. Utility trenches penetrating beneath the building will be effectively sealed to restrict water intrusion and flow through the trenches. Trenches will be provided with an effective trench plug that extends at least five feet from the face of the building exterior. The plug material will consist of cementitious flowable fill or low permeability clay. The construction shall be supervised by a competent professional as outlined in the March 3, 2020, Terracon GeoReport for Harris Teeter Fuel Center Store #329, and the March 23, 2022 ECS Mid-Atlantic, LLC Review of Terracon Geotechnical Report memo.
   c. Underground storage tanks - Pea gravel shall be used as backfill around the tanks and up to one to two feet above the tops of tanks. The pea gravel will be compacted with vibratory energy, such as through the use of a hand operated sled-tamper, prior to the placement of the overlying backfill or pavement materials. In addition, there will be a separation geotextile between the pea gravel and adjoining soil to help prevent soil piping.
   d. The above items shall be shown in connection with, and determined on, the Site Plan. The Town may approve other options, measures, and/or protocols.
7. Emergency Spill Contingency/Notification – Prior to final site plan approval, the Applicant shall prepare and submit an Emergency Spill Notification Contingency Plan for the Fire Marshal for the Town's approval, and shall post that Plan on the SUP Area before the issuance of any occupancy permit. The Applicant shall be responsible for immediately notifying the Fire Marshal for the Town in the event of a spill of more than ten gallons of any petroleum or chemicals on the Property.
8. Oil/Water Separators and Emergency Spills – Prior to discharging from the SUP Site, all stormwater runoff shall be routed through an oil and water separator(s) or an equivalent device or facility approved by the Director of Building and Development. In addition, a gate valve capable of containing any on-site spills shall also be provided. The location of the oil and water separator(s) and gate valve shall be shown on each approved Site Plan for the SUP Use, and such oil and water separators) and gate valve shall be installed prior to the issuance of the first Occupancy Permit for the SUP Use.
9. Safety and Emergency Procedures – The SUP Use shall employ the following safety procedures:
   a. Spills – If any spills of fuel occur, the SUP Use shall apply absorbent material to the spill, which shall be swept into and stored in sealed drums. The material in the sealed drums shall be disposed of according to hazardous material disposal procedures by companies licensed to perform such work. For larger spills, absorbent booms shall be placed around the perimeter of the spill to contain it during the clean-up procedures. For spills large enough to present the possibility of draining off-site, the oil/water separator shall contain

the spilled fuel on-site and in the pipes and manhole structures until clean-up occurs. In the event of a spill of this magnitude, a professional "hazmat" team shall be employed to promptly perform the clean-up and dispose of the waste.

b. Tank Ruptures~~.~~ - The underground tanks shall have a double-wall design. The SUP Use shall also install continuous leak detection monitoring system to provide for automatic leak detection and tank shutdown. The continuous leak detection monitoring system shall be equipped with an audible alarm to alert staff should a leak occur. A professional "hazmat" team shall be employed to promptly perform the clean-up and waste disposal should an underground leak occur.

10. Deliveries and Refuse ~~—~~- All refuse pickup is the responsibility of the applicant/owner as the Town does not supply commercial trash service. Deliveries and refuse/ solid waste pick-up shall ~~not occur between the hours of 7 PM and 9 AM and shall~~ follow ~~the~~ Town Code Section 11-19(9).

11. Lighting -

a. ~~11.Lighting —~~ All outdoor lighting shall conform to the Zoning Ordinance. In addition, the gas pump canopy lighting shall be recessed into the ceiling of the canopy or installed with a slope adapter attached to the ceiling of the canopy, such that pinpoint glare from such lighting shall not be visible to drivers and passengers in cars passing the gas pump canopy on adjacent roadways. Pinpoint glare is defined as glare created when the actual light source (i.e., the bulb) is visible from adjacent roadways or off-site property. The lighting installed for the gas pump canopy shall not exceed 40 foot candles.

~~12. Signs —~~

~~a. The use may utilize one of the existing monument sign locations already permitted on the property.~~

b. The Applicant shall prepare and submit a photometric plan in connection with Site Plan review. The Applicant shall have light readings taken before and after construction of the service station.

12. Signs - The service station shall not have a single tenant monument sign for their use along the frontage of Route 29.

13. Site Transportation Circulation – The pedestrian improvements and parking lot reconfiguration shall be constructed first ~~to ensure the construction of the use on the existing businesses and customers is mitigated~~. Construction shall be staged as to not interfere with the existing businesses and customers. During all times of construction~~.~~ , the parking lot for this project will maintain at least 85% of the parking requirements, as required in the Zoning Ordinance and approved plans, for the businesses at that time.

14. Site Maintenance ~~—~~- The Applicant shall maintain the site in a clean and orderly manner and shall pick up trash, litter, and debris on a daily basis.

15. Access ~~—~~- Access to the site shall be provided as shown on the SUP Plan, subject to changes as may be approved through a Site Plan.

16. Electric Vehicle Charging Space – If electric vehicle charging (EVC) providers are agreeable to providing EVC parking spaces, those spaces shall be located on GPIN #6984-38-9605.

17. ~~16.~~Water & Public Sewer Connection ~~—~~- The Property shall connect to public water and public sewer.

18. ~~17.~~The Town may terminate the SUP after two years of non-use. Upon termination of the Town, the owner shall be responsible for immediately removing all ~~canopy,~~ underground tanks~~,~~ and

pumps down to the surface of the ground.

19. ~~18.~~Spill mitigation and containment facilities as approved by the Site Plan will continue to operate as designed for the life of the SUP, provided however that they may be upgraded from time to time with a Site Plan Amendment.

TOWN OF WARRENTON
Department of Community Development
PO BOX 341
WARRENTON, VIRGINIA 20188
http://www.warrentonva.gov
TELEPHONE (540) 347-1101
FAX (540) 349-2414

July 19, 2022

TO: Planning Commission

FROM: Denise Harris, Planning Manager

RE: Zoning Map Amendment 2021-01/Special Use Permit 2021-01
Harris Teeter Fuel Station

I. Summary:

A. Applicant/Owner: Harris Teeter/ North Rock Center LLC

B. Representative: John Foote/Jessica Pfeiffer of Walsh, Colucci, Lubeley & Walsh

C. Request: The applicant is proposing a revision to the North Rock Planned Unit Development (PUD) Master Plan and a Special Use Permit (SUP) to allow for the construction of an eight-pump service station for Harris Teeter. The existing PUD was granted in 1999 and proffered that the site would be developed per the Master Development Plan and ties all permitted/permissible uses to those listed under the 1991 Zoning Ordinance PUD District. The 1991 Zoning Ordinance allowed all uses in the Commercial Limited (CL) District within the PUD District upon issuance of a Special Use Permit, which includes service stations. While the CL District was repealed/replaced with the Commercial District in the 2006 Zoning Ordinance, the uses on site remain tied to the PUD proffers.

North Rock Center	Existing	Proposed Use
Parcel Site Acreage	+/- 11 Acres	+/- 11 Acres
SUP/site area	N/A	0.48 SF
Parking	N/A	2 Spaces
Proposed Use	Drive Through Bank Pad	Fuel Station
Hours of Operation	N/A	Fuel Pumps 24 Hours, 7 Days Staffed: Monday-Sunday 6 AM-10 PM

D. Site Location: The site is located at 530 Fletcher Drive (see maps in Attachment A) in the existing Northrock Shopping Center, in the existing undeveloped pad site (GPIN 6984-38-9605).

E. Comprehensive Plan: The site is designated New Town Character District.

F. Zoning: The site is zoned Planned Unit Development.

G. Surrounding Land Uses:

Direction	Zoning	Current Land Use
North	Commercial	White Horse Auto Wash / Applebee's / The Fauquier Bank
South	R-10	Reserve at Moorhead Subdivision
East	Commercial	Capital One Bank / Longhorn Steakhouse / Glory Days Grill
West	Commercial / R-10	BP Fuel Station / Blalock Co / Residential

II. Outstanding Issues:

Staff has proposed a number of draft Conditions of Approval the Applicant has issues with accepting. Including:

1) Condition #4 - A condition stating no blasting allowed. The Applicant does not anticipate the need to blast based on geotechnical reports. Staff would like assurances due to the unique nature of the site positioned in between an existing retaining wall and existing commercial/residential structures on a hill.
2) Condition #12 - A condition stating the location of any monument signage shall be incorporated into the existing monument signage on Fletcher and/or Lee Highway. The Applicant states that due to existing lease restrictions/obligations already in place with existing businesses and wants the ability to install a third monument sign on Lee Highway.
3) Condition #13 - Staff is recommending pedestrian and parking lot improvements occur in the first phase of construction and a condition that states 85% of parking requirements will be maintained during construction for existing businesses and that staging of construction will not interfere with existing businesses. The Applicant has requested this be removed. The existing site is beyond the required parking and it is important to ensure existing businesses and customers are not negatively impacted during construction.
4) Condition #17 - Staff is recommending the removal of underground tanks, canopy, and pumps after two years of termination of the use. The Applicant would like this modified to three years.

III. Staff Recommendation:

Staff recommends the Planning Commission hold a public hearing on ZMA 2021-01 and SUP 2021-01 Harris Teeter Fuel Station and discuss subject to draft Conditions of Approval dated July 14, 2022 and submitted proffers.

IV. Suggested Motions

1. I move that the Planning Commission recommend approval to the Town Council of ZMA 2021-01 and SUP 2021-01 subject to the Conditions of Approval dated July 14, 2022 and submitted proffers.

OR

2. I move that the Planning Commission forward ZMA 2021-01 and SUP 2021-01 to the next Planning Commission Regular Meeting and ask the Applicant to address....

OR

3. I move that the Planning Commission recommend denial of ZMA 2021-01 and SUP 2021-01 for the following reasons: [Insert].

OR

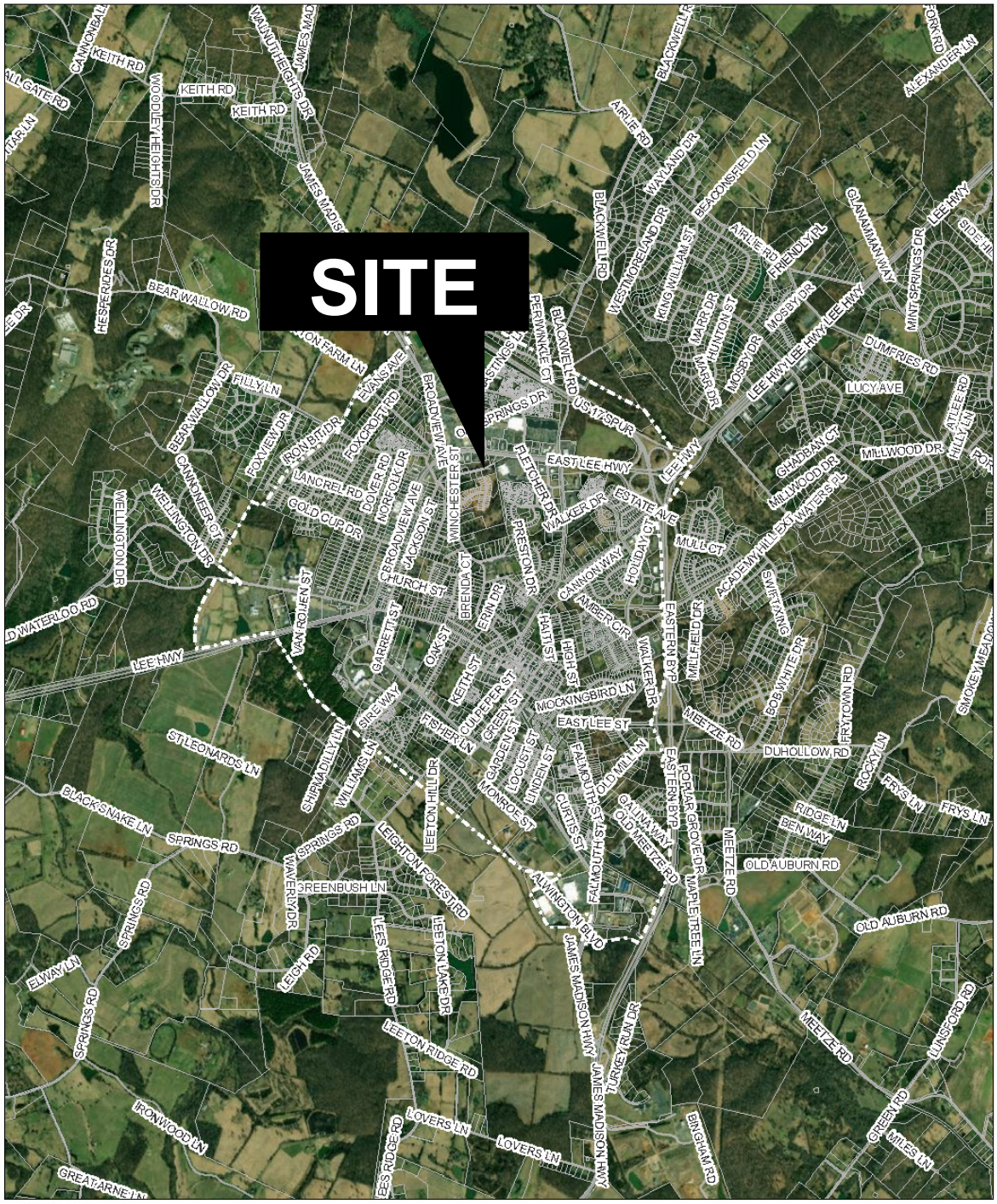
4. I move an alternative motion.

Attachments

A. Area Maps
B. SUP Staff Analysis
C. Draft Conditions of Approval
D. Application

Attachment A - Map

VICINITY MAP



7/12/2022, 2:55:58 PM

Municipal Boundary

Roads

Parcels

1:36,112

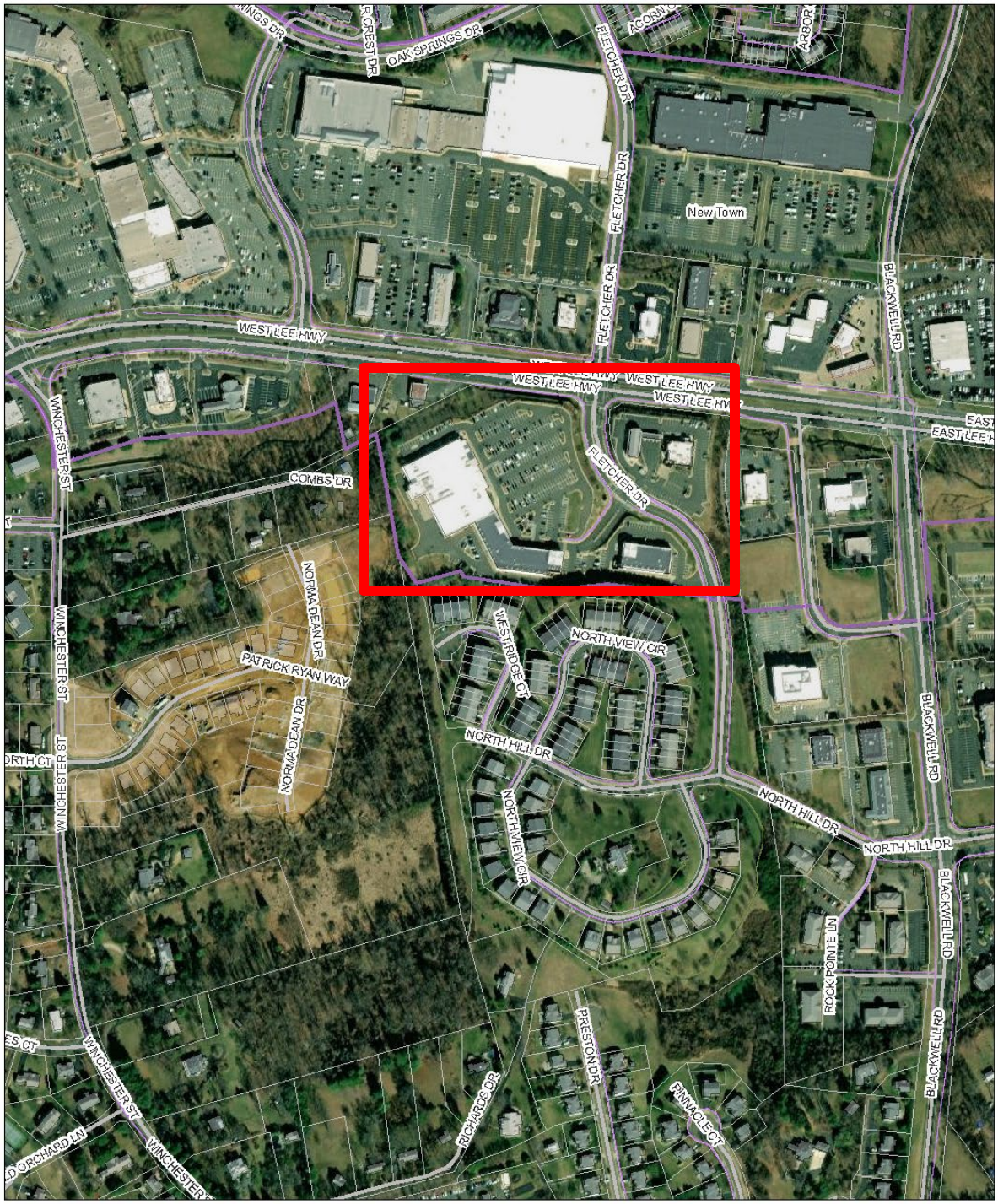
0 0.33 0.65 1.3 mi

0 0.5 1 2 km

Fauquier County GIS, Maxar

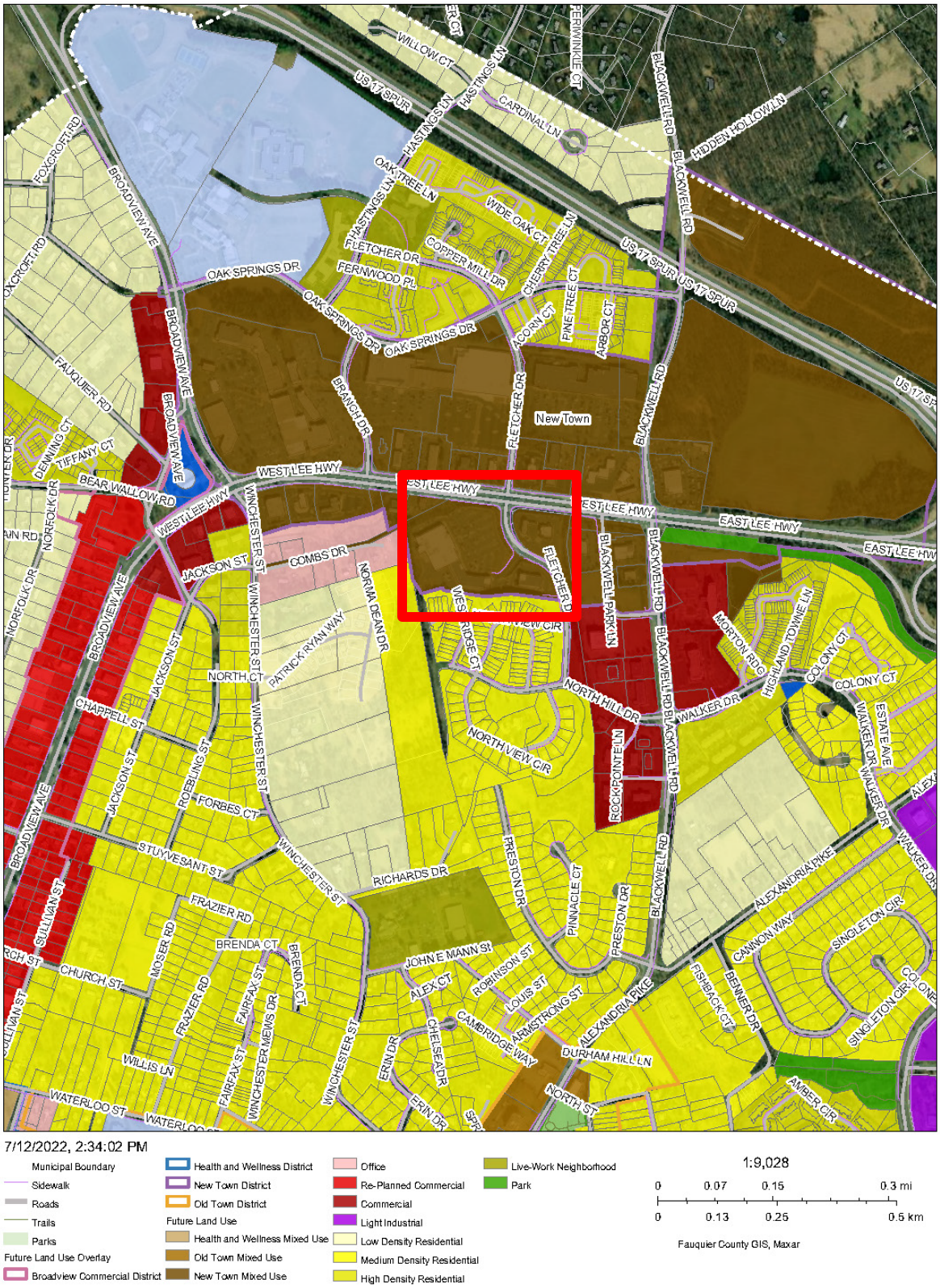
Attachment A - Map

AERIAL MAP



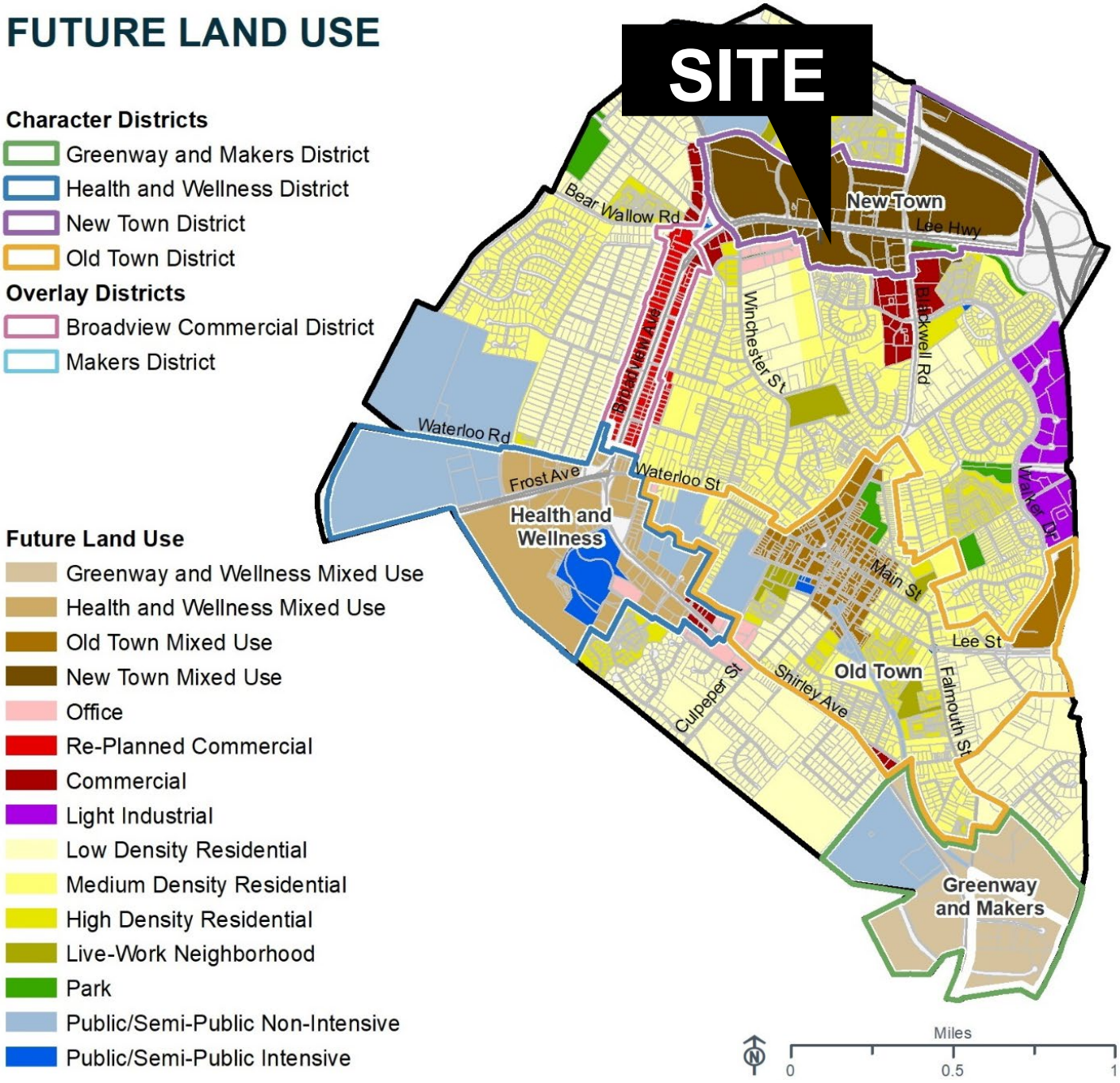
Attachment A - Map

EXISTING ZONING MAP



Attachment A - Map

FUTURE LAND USE MAP



Staff Analysis

This analysis is based on the Comprehensive Plan, Zoning Ordinance, and review comments by Town Departments. The standards/analysis tables in the sections below contain the criteria for Planning Commission and Town Council consideration of Zoning Map Amendments (ZMA) and Special Use Permits (SUP).

The Applicant is proposing a revision to the North Rock Planned Unit Development (PUD) Master Plan and a Special Use Permit (SUP) to allow for the construction of an eight-pump service station for Harris Teeter. The existing PUD was granted in 1999 and proffered that the site would be developed per the Master Development Plan and ties all permitted/permissible uses to those listed under the 1991 Zoning Ordinance PUD District. The 1991 Zoning Ordinance allowed all uses in the Commercial Limited (CL) District within the PUD District upon issuance of a Special Use Permit, which includes service stations. While the CL District was repealed/replaced with the Commercial District in the 2006 Zoning Ordinance, the uses on site remain tied to the PUD proffers.

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

Direction	Land Use	Future Land Use Map Designation	Zoning
North	White Horse Auto Wash / Applebee's / The Fauquier Bank	New Town Mixed Use	Commercial
South	Reserve at Moorfield Subdivision	Medium Density Residential	R-10
East	Capital One Bank / Longhorn Steakhouse / Glory Days Grill	New Town Mixed Use	Commercial
West	BP Fuel Station / Blalock Co / Residential	New Town Mixed Use / Office / Medium Density Residential	Commercial / R-10

The site is located at 530 Fletcher Drive in the existing Northrock Shopping Center, in the undeveloped pad site (GPIN 6984-38-9605-000) approved for a future bank with a drive through. The 11-acre site consists of an existing strip mall and detached structure. There are 16 existing commercial uses varying from restaurant to retail with the Harris Teeter grocery store anchoring the strip mall. The immediate uses surrounding the proposed fuel station include Harris Teeter (Mon-Sun 6AM-11PM), Sweet Frog (Mon-Thurs 12PM-8PM & Fri-Sun 12PM-9PM), and Capital One Bank (Mon-Fri 9AM-5PM & Sat 9AM-12PM).

Comprehensive Plan Future Land Use Analysis

Plan Warrenton 2040 labels this parcel in the Future Land Use Map as the New Town Character District. As stated by the Character District Design Guidelines, *"The New Town Character District is ideal for mixed-use or office development with a plaza or open space amenity because it has some the largest lot areas which can accommodate a greater intensity of development with larger floor plans. A form-based transect approach to development would define form with greater maximum height towards*

Lee Highway and the center of the district, with a gradual step down in scale towards Oak Springs Drive.”

An economic goal of Plan Warrenton 2040 is to drive mixed-use development in Town to “*transform from a collection of aging commercial buildings into a vibrant mixed-use community, and destination for entertainment, such as movie theaters, bowling and music or theatrical performance space.*” The New Town District is specifically intended to “*support the revitalization of the commercial shopping malls with a walkable development pattern that includes a mix of uses, green space and public amenities, as well as provide a location for a major employer.*”

Standard	Analysis
Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.	The Plan Warrenton 2040 New Town Character District designates this are as mixed-use or office development. A fuel station or similar use does not fall within the provided definitions of encouraged use, however the overall site is part of a larger approved mixed-use development.
The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.	The use is surrounded by commercial uses varying from education centers, restaurants, wellness, and salons. The connection related to the fuel station resides with the Harris Teeter grocery store, which is an anchor to the strip mall.

Staff Findings

The Comprehensive Plan encourages the redevelopment of aging commercial sectors of the Town. The proposed fuel center is a new construction that benefits and ties to the patrons of Harris Teeter directly (through the Harris Teeter Fuel Points, noted by the applicant). The applicant notes the economic benefits of station located in the Town of Warrenton but there is no other comment made to the benefits related to mixed-use or building development. That notes, the proposed use is located within a larger approved mixed use Planned Unit Development.

Zoning Analysis

The legislative intent of the Planned Unit Development District is, “*to encourage innovations in residential and nonresidential development so that the growing demands of Warrenton may be met by greater variety in type, design and layout of buildings and housing types and to achieve the purposes set out in Section 15.2-2283 of the Code of Virginia, the Town's Comprehensive Plan…*”

Standard	Analysis
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.	Noise is not discussed in the letter of justification. The use is surrounded by commercial development. Staff drafted a Condition of Approval restating the Town Code requirements in Section 11-19 for Noise.

Standard	Analysis
The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.	Applicant is proposing a new electronic monument sign on the northwest corner of the property with two existing monument signs located on the northeast side and west entrance to be preserved. Staff recommends a Condition of Approval to utilize one of the existing monument signs.
The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.	The Master Development Plan and SUP Plan sheets submitted by the Applicant show existing/proposed footprint. The sign plans show some elevation details. The building kiosk will need to meet proffered design requirements and draft Conditions of Approval.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	Interior landscape proposed to be shown at time of Site Plan. Existing buffer is not to be changed.
The timing and phasing of the proposed development and the duration of the proposed use.	Applicant narrative notes construction is to be complete in 2021.
Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.	Applicant narrative states that the proposed service station will provide economic benefits and has been found to be desired by Harris Teeter customers.
Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.	Not applicable.
The effect of the proposed Special Use Permit use in enhancing affordable shelter opportunities for residents of the Town, if applicable.	Not applicable.
The location, character, and size of any outdoor storage.	No additional outdoor storage is proposed with the expansion.
The proposed use of open space.	The expansion is proposed on an area currently containing parking.
The location of any major floodplain and steep slopes.	Floodplain is located along the back corner behind Harris Teeter. The proposed use will be outside of the floodplain.
The location and use of any existing non-conforming uses and structures.	None noted on site.
The location and type of any fuel and fuel storage.	To be located under the facility.
The location and use of any anticipated accessory uses and structures.	No additional accessory uses/structures proposed.

Standard	Analysis
The area of each proposed use.	The proposed site area is shown on the submitted plans. A 300 square foot kiosk is proposed with a 2,950 square foot canopy.
The location and screening of parking and loading spaces and/or areas.	Parking striping shown on the proposed SUP Plan.
The location and nature of any proposed security features and provisions.	None noted.
Any anticipated odors which may be generated by the uses on site.	None proposed. General usage of fuel stations will present odors, especially in cases of spills or equipment failures.
Refuse and service areas.	Location is shown on the SUP plan. Would be required to meet Article 9-14.9 for screening.
Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.	The Applicant submitted a Geo-technical Report and staff had a third-party peer review of the document. Due to the unique nature of the proposed use between an existing retaining wall and existing structures on a hillside, draft Conditions of Approval include recommendations from the reports.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	Interior landscape proposed to be shown at time of Site Development Plan. Existing buffer is not to be changed.
The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality. The location of any major floodplain and steep slopes.	The Applicant submitted a Geo-technical Report and staff had a third-party peer review of the document. Due to the unique nature of the proposed use between an existing retaining wall and existing structures on a hillside, draft Conditions of Approval include recommendations from the reports.
The glare or light that may be generated by the proposed use in relation to uses in the immediate area.	Applicant states any lighting to be in accordance with the Zoning Ordinance and will be addressed at Site Plan phase. Staff recommends a Condition of Approval specifying pinpoint glare shall not be visible to drivers and passengers in cars passing the gas pump canopy on adjacent roadways.
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area. Any anticipated odors, which may be generated by the uses on site.	Noise is not discussed in the letter of justification. The use is surrounded by commercial development and will be subject to the Town Code Section 11-19 Noise.

Staff Findings

The existing pad site was originally proposed in consideration of a bank or similar commercial business

that may incorporate a drive through. The main concerns relate to potential impacts on the existing built environment, residents, and businesses. Retrofitting the site to accommodate underground tanks needs to be done with the utmost attention to ensure none of the existing facilities or structures are negatively impacted in the short or long term. Several draft Conditions of Approval are proposed to address construction, emergency spills, notification, safety procedures, maintenance, lighting, and site circulation.

The proposed electronic sign located on Lee Highway/Broadview is not adjacent to the proposed use as the two existing monuments signs are located. Consideration of utilizing one of the two existing monument signs should be accommodated. The Applicant has noted the majority of fuel station patrons will be from internal shopping center patrons already in the area.

Transportation and Circulation Analysis

The primary transportation and circulation goal for the Town of Warrenton is to *"Improve multimodal safety by enacting access management strategies, incorporating bike-friendly policies into new development standards, and deconflicting through-travel and local traffic movements."* The Transportation and Circulation section of the Comprehensive Plan sets out policies and objectives that work to further this goal. The section includes recommendations addressing improvements for pedestrian use, new street connections, parking and sidewalks, trails, cost sharing, traffic calming techniques, safety, and signage.

Standard	Analysis
The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.	A Traffic Impact Analysis was provided by the Applicant addressing the impact of new trips generation related to patrons and deliveries.
Whether the proposed use will facilitate orderly and safe road development and transportation.	

Staff Findings

Internal circulation will be integral to the success of the site. Pedestrian safety and vehicle guidance to proper exit and entrance routes are necessary given the constraints of the site located on the main entry corner for the entire commercial development. The Applicant worked to address staff comments and the recommendations of the Town Transportation Consultant, Kittelson, to address the conflict points in the existing parking lot by removing parking spaces along the drive aisle and introducing pedestrian refuges and crossings.

As a use proposed to rely on mainly internal trips, the Applicant stated "during the AM peak hour, there are 87 existing vehicles entering and exiting the shopping center without the gas station. The gas station is projected to add 30 new vehicles entering and exiting (15 entering and 15 exiting). This would be the equivalent of a car arriving and departing every 4 minutes. The morning gas station volumes generate a 33% increase in trips, but this percentage should be used with caution, given the low magnitude of existing volumes in the morning peak hour. During the PM peak hour, the gas station is

projected to produce 45 new trips (22 entering/23 exiting) from the 450 existing shopping center trips, resulting in a 10% increase. This would be the equivalent of a car arriving and departing every 2-3 minutes." Staff finds the traffic generation of the proposed use does not significantly alter from the approved pad site originally contemplated with the PUD rezoning.

Community Facilities and Services Analysis

Public community facilities in the Town are provided by the Town, Fauquier County, and other public groups for the benefit of all residents. The availability and quality of these facilities, that include, schools, libraries, hospitals, parks, police and fire and rescue services, are evaluated when people are considering moving into the Town or nearby area. The provision of these facilities adds to the desirability of living in the Town. The Comprehensive Plan's primary community facilities and services goals for the Town of Warrenton are:

1. *Foster high-quality, equitable, and accessible community facilities that meet the Town's service requirements and support a high quality of life for the community.*
2. *Make responsible and strategic community facility investments that support the Town's vision for a live/work community, sustaining its fiscal well-being and economic resiliency.*
3. *Promote sustainability in all Town-owned facilities.*
4. *Reinforce the role of County community facilities into the Town fabric.*
5. *Promote livability through properly located Town services, schools, libraries, courts, and County administrative functions.*
6. *Support the connection of residential dwellings to public water and sewer.*
7. *Provide a high quality of life to capture economic benefits through diverse businesses, employers, and residences.*

Public services are essential to the community structure and quality of life, as well as to long-term economic vitality. They support existing and planned developments and contribute to the health, safety, education and general welfare of Warrenton residents.

Standard	Analysis
Whether the proposed Special Use Permit will adequately provide for safety from fire hazards and have effective measures of fire control.	The use is required to meet all building and safety codes.
Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.	Applicant states the project will use the existing underground detention facility with retrofit of existing inlets and pipes to support the site.
The location of any existing and/or proposed adequate on and off-site infrastructure.	A stormwater detention facility is to be under the parking lot to the north side of the service station.

Staff Findings

The site is served by public water and sewer. Staff utilized the recommendations of the March 3, 2020, Terracon GeoReport for Harris Teeter Fuel Center Store #329, and the March 23, 2022, ECS Mid-Atlantic, LLC Review of Terracon Geotechnical Report memo to develop draft Conditions of Approval to address the short and long term concerns related to stormwater, emergency spills, and notification.

Economic Resources Analysis

The Town of Warrenton seeks to strengthen its economic base through business development and tourism promotion. The goals of the Economic Resources section of the Comprehensive Plan are to:

1. *Create a robust strategy for housing and employment, become more proactive in business retention and recruitment, and locate major employers within the Town's Character Districts.*
2. *Promote the Town as an integral part of the regional economy that is manageable, maintains a small-town character, and reduces the percentage of Town residents out commuting for work.*
3. *Promote the Town's Character Districts as the focal point for revitalization to allow for mixed-use and multi-family development at an appropriate scale compatible with the Town's character and existing neighborhoods. Transform aging commercial corridors to vibrant mixed-use neighborhoods.*

Standard	Analysis
Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.	The Applicant's narrative states the use will provide economic benefits by increasing competition in the market.
The number of employees.	Applicant stated the booth will be staffed by one employee during the working hours.
The proposed days/hours of operation.	Proposed staffed hours are Monday-Sunday 6 AM-10 PM; the fuel pumps will be open 24 hours, 7 days a week.

Staff Findings

The Applicant offers trip generation information as a statistic that may be considered in providing economic development impact. Within the statistic, most of the use will be through Harris Teeter patrons or internal shopping center trips. Only a portion of the projected use would pull patrons specifically to the site encouraging additional spending in the existing commercial businesses. The economic benefit from the construction and use would exist but does not speak to the Comprehensive Plan strategy to create unique development, beyond what Warrenton already has available.

Staff proposed draft Conditions of Approval to address potential impacts on existing businesses and their patrons during construction. Staff recommends conditions that 1) ensure pedestrian and parking lot modifications occur at the beginning of construction; 2) 85% of required parking is preserved during construction; and 3) construction staging and equipment does not interfere with existing businesses or their customers.

Proffer Review

In order to seek a Special Use Permit approval, the Applicant must also amend the proffers and Master Development Plan for the Northrock Planned Unit Development approved in 1999 under the 1991 Zoning Ordinance. The Applicant is proposing to remove the pad site reserved for the bank on the Master Development Plan and revise the proffers to accommodate the proposed new fuel station use. Other revisions relate to addressing the fact the majority of the PUD is built and how to incorporate this

one use into the existing document.

Staff Findings
The Town Attorney reviewed the amended proffer statement and offered minimal wording suggestions for clarity.

STAFF PROPOSED SPECIAL USE PERMIT CONDITIONS
Applicant: HARRIS TEETER, LLC (the "Applicant")
Owner: NORTHROCK CENTER LLC
Special Use Permit: SUP2021-0l, North Rock Harris Teeter Service Station
Address: 530 Fletcher Drive, Warrenton, Virginia
GPIN #: 6984-38-9605 (the “Property”)
Zoning: Planned Unit Development (PUD)
Date: July 19, 2022

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

1. Site Development – The property shall be developed in substantial conformance with these conditions and the Special Use Permit Plan for Harris Teeter Service Station prepared by Kimley Horn, sealed April 18, 2021, dated September 2, 2021, and consisting of three sheets, subject to minor modifications in connection with final site plan review or final engineering (the "SUP Plan").
2. Use Parameters –
    a. Special Use Permit Area – The special use permit shall apply to the identified area on the SUP Plan consisting of approximately +/- 0.48 acres on the larger 11.68 acres property.
    b. Use Limitations – The use approved with this SUP shall be limited to service station containing eight (8) fueling positions. The uses permitted herewith shall not limit or restrict by-right uses otherwise allowed on the Property.
3. Architecture - The design of the fuel station building, and canopy shall substantially conform to the elevations entitled "Illustrative Elevations," dated May 25, 2022 (hereinafter, the "Elevations"). The Elevations may be subject to minor modification approved by the Zoning Administrator in connection with site plan review. Additional changes to the design and materials may be made provided that any such changes are approved by the Town prior to the issuance of a building permit. Such approval shall be based on a determination that the changes result in equal to or better than the quality shown on the Elevations.
4. Site Preparation: No blasting shall be allowed on the SUP site. If denser materials are encountered in excavations, they will be removed using a hoe ram or pneumatic spade.
5. Foundation Excavations - The bearing subgrade should be evaluated under the direction of the Geotechnical Engineer and supervised by a competent professional as outlined in the March 3, 2020 Terracon GeoReport for Harris Teeter Fuel Center Store #329 and the March 23, 2022 ECS Mid-Atlantic, LLC Review of Terracon Geotechnical Report memo.
    a. If unanticipated conditions are encountered, the Geotechnical Engineer shall prescribe mitigation options.
    b. Once materials have been removed, the entire area should be proof rolled with heavy, rubber tire construction equipment, to aid in delineating areas of soft or otherwise unsuitable soil. Once unsuitable materials have been remediated, and the subgrade has passed the proof roll test, the existing and undocumented fill that was removed may be

evaluated for reuse as structural fill.

c. If the owner elects to construct pavement on the existing fill, the following protocol should be followed. Once the planned subgrade elevation has been reached the entire pavement area should be proof rolled. Areas of soft or otherwise unsuitable material should be undercut and replaced with either new structural fill or suitable, existing on site fill materials.

d. The above items shall be shown in connection with, and determined on, the Site Plan. The Town may approve other options, measures, and/or protocols.

6. Site Requirements –

a. The existing storm line drain shall be moved so as not to be in conflict with the proposed construction areas. The relocation of the storm drain shall be approved at Site Plan to ensure proper soil support, environmental protection, and installation.

b. Utility trenches penetrating beneath the building will be effectively sealed to restrict water intrusion and flow through the trenches. Trenches will be provided with an effective trench plug that extends at least five feet from the face of the building exterior. The plug material will consist of cementitious flowable fill or low permeability clay. The construction shall be supervised by a competent professional as outlined in the March 3, 2020, Terracon GeoReport for Harris Teeter Fuel Center Store #329, and the March 23, 2022 ECS Mid-Atlantic, LLC Review of Terracon Geotechnical Report memo.

c. Underground storage tanks - Pea gravel shall be used as backfill around the tanks and up to one to two feet above the tops of tanks. The pea gravel will be compacted with vibratory energy, such as through the use of a hand operated sled-tamper, prior to the placement of the overlying backfill or pavement materials. In addition, there will be a separation geotextile between the pea gravel and adjoining soil to help prevent soil piping.

d. The above items shall be shown in connection with, and determined on, the Site Plan. The Town may approve other options, measures, and/or protocols.

7. Emergency Spill Contingency/Notification – Prior to final site plan approval, the Applicant shall prepare and submit an Emergency Spill Notification Contingency Plan for the Fire Marshal for the Town's approval, and shall post that Plan on the SUP Area before the issuance of any occupancy permit. The Applicant shall be responsible for immediately notifying the Fire Marshal for the Town in the event of a spill of more than ten gallons of any petroleum or chemicals on the Property.

8. Oil/Water Separators and Emergency Spills – Prior to discharging from the SUP Site, all stormwater runoff shall be routed through an oil and water separator(s) or an equivalent device or facility approved by the Director of Building and Development. In addition, a gate valve capable of containing any on-site spills shall also be provided. The location of the oil and water separator(s) and gate valve shall be shown on each approved Site Plan for the SUP Use, and such oil and water separators) and gate valve shall be installed prior to the issuance of the first Occupancy Permit for the SUP Use.

9. Safety and Emergency Procedures – The SUP Use shall employ the following safety procedures:

a. Spills. If any spills of fuel occur, the SUP Use shall apply absorbent material to the spill, which shall be swept into and stored in sealed drums. The material in the sealed drums

shall be disposed of according to hazardous material disposal procedures by companies licensed to perform such work. For larger spills, absorbent booms shall be placed around the perimeter of the spill to contain it during the clean-up procedures. For spills large enough to present the possibility of draining off-site, the oil/water separator shall contain the spilled fuel on-site and in the pipes and manhole structures until clean-up occurs. In the event of a spill of this magnitude, a professional "hazmat" team shall be employed to promptly perform the clean-up and dispose of the waste.

b. Tank Ruptures. The underground tanks shall have a double-wall design. The SUP Use shall also install continuous leak detection monitoring system to provide for automatic leak detection and tank shutdown. The continuous leak detection monitoring system shall be equipped with an audible alarm to alert staff should a leak occur. A professional "hazmat" team shall be employed to promptly perform the clean-up and waste disposal should an underground leak occur.

10. Deliveries and Refuse – All refuse pickup is the responsibility of the applicant/owner as the Town does not supply commercial trash service. Deliveries and refuse/ solid waste pick-up shall not occur between the hours of 7 PM and 9 AM and shall follow the Town Code Section 11-19(9).
11. Lighting – All outdoor lighting shall conform to the Zoning Ordinance. In addition, the gas pump canopy lighting shall be recessed into the ceiling of the canopy or installed with a slope adapter attached to the ceiling of the canopy, such that pinpoint glare from such lighting shall not be visible to drivers and passengers in cars passing the gas pump canopy on adjacent roadways. Pinpoint glare is defined as glare created when the actual light source (i.e., the bulb) is visible from adjacent roadways or off-site property. The lighting installed for the gas pump canopy shall not exceed 40 foot candles.
12. Signs –
    a. The use may utilize one of the existing monument sign locations already permitted on the property.
13. Site Transportation Circulation – The pedestrian improvements and parking lot reconfiguration shall be constructed first to ensure the construction of the use on the existing businesses and customers is mitigated. Construction shall be staged as to not interfere with the existing businesses and customers. During all times of construction the parking lot for this project will maintain at least 85% of the parking requirements, as required in the Zoning Ordinance and approved plans, for the businesses at that time.
14. Site Maintenance – The Applicant shall maintain the site in a clean and orderly manner and shall pick up trash, litter, and debris on a daily basis.
15. Access – Access to the site shall be provided as shown on the SUP Plan, subject to changes as may be approved through a Site Plan.
16. Water & Public Sewer Connection – The Property shall connect to public water and public sewer.
17. The Town may terminate the SUP after two years of non-use. Upon termination of the Town, the owner shall be responsible for immediately removing all canopy, underground tanks, and pumps down to the surface of the ground.
18. Spill mitigation and containment facilities as approved by the Site Plan will continue to operate as designed for the life of the SUP, provided however that they may be upgraded from time to time with a Site Plan Amendment.

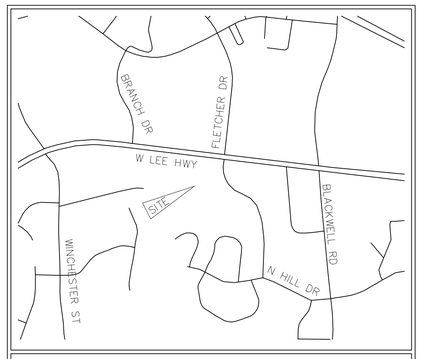
ZONING MAP AMENDMENT for

HARRIS TEETER SERVICE STATION

STORE #329 - 530 FLETCHER DRIVE

WARRENTON, FAUQUIER COUNTY, VIRGINIA

PIN 6984-38-9605 (PORTION)



SITE LOCATION MAP

NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
C-00 SHEET 1 OF 4	COVER SHEET
C-01 SHEET 2 OF 4	EXISTING CONDITIONS PLAN
C-02 SHEET 3 OF 4	MASTER PLAN AMENDMENT NORTH ROCK PLANNED UNIT DEVELOPMENT
C-03 SHEET 4 OF 4	CONCEPT DEVELOPMENT PLAN

GENERAL SITE NOTES

1. PROPERTY DELINEATED HEREON IS IDENTIFIED AS A PORTION OF PARCEL PIN # 6984-38-9605.
2. THE PARCEL IS 11.67 ACRES AND IS LOCATED AT 530 N. FLETCHER DRIVE, WARRENTON, VA.
3. THE PARCEL IS ZONED PLANNED UNIT DEVELOPMENT (PUD).
4. THE TOTAL PUD SITE AREA IS 45.3 ACRES.
5. THE PROPERTY IS LOCATED IN THE CENTER MAGISTERIAL DISTRICT, TOWN OF WARRENTON.
6. EXISTING USE: SHOPPING CENTER WITH DRIVE THROUGH BANK
7. PROPOSED USE: SHOPPING CENTER WITH SERVICE STATION

PROJECT OWNER AND CONSULTANT INFORMATION		
OWNER	**ENGINEER:**	**SURVEYOR:**
NORTHROCK CENTER LLC 7501 WISCONSIN AVE #1500A BETHESDA, MD 20814 PHONE (301) 986-6200	KIMLEY-HORN AND ASSOCIATES, INC. 11400 COMMERCE PARK DRIVE SUITE 400 RESTON, VIRGINIA 20190 (703) 674-1372 TEL CONTACT: KYLE BOLLINGER, P.E.	GRS GROUP, LLC 6703 DELAND COURT SPRINGFIELD, VA 22152 PHONE (703) 727-5828 FAX (703) 763-2320 CONTACT: KEVIN F. STEINHILBER

Kimley»Horn
11400 COMMERCE PARK DRIVE, SUITE 400
RESTON, VA 20191
PHONE: (703) 674-1300

COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
04/18/2022
PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS

CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON
530 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: COVER SHEET

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-00
SHEET 1 OF 4

April 18, 2022 - 11:50am By: Caycee.Hart
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ZONE: R-10 RESIDENTIAL
USE: RESIDENTIAL

ZONE X 500-YEAR FLOODPLAIN, AREA OF 100-YEAR FLOODPLAIN WITH AVERAGE FLOOD DEPTHS LESS THAN 1 FOOT PER FEMA MAP 51061C0306C EFFECTIVE DATE FEBRUARY 6, 2008

ZONE AE 100-YEAR FLOODPLAIN PER FEMA MAP 51061C0306C EFFECTIVE DATE FEBRUARY 6, 2008

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: COMMERCIAL
(SHOPPING CENTER WITH SERVICE STATION)
11.67 ACRES

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: TOWN HOMES
6.19 ACRES

ADA COMPLIANT PARKING SPOTS

FENCE

LIGHT POLE (TYP.)

FIRE HYDRANT

STORM GRATE (TYP.)

WATER VALVE

STORMWATER DRAINAGE PIPE

ADA COMPLIANT PARKING SPOTS

UNDERGROUND STORMWATER DETENTION SYSTEM

SWM MANHOLE (TYP.)

FILTERA

TRANSFORMER

STORMWATER DRAINAGE PIPE

STORM INLET (TYP.)

CURB INLET (TYP.)

LEE HIGHWAY – U.S. RTE. 29/211
VARIABLE WIDTH RIGHT-OF-WAY

FLETCHER DRIVE
VARIABLE WIDTH RIGHT-OF-WAY

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: COMMERCIAL
2.91 ACRES

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

Kimley»Horn
11400 COMMERCE PARK DRIVE, SUITE 400
RESTON, VA 20191
PHONE: (703) 674-1300

COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
04/18/2022
PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS

CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON
530 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: EXISTING CONDITIONS

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-03
SHEET 2 OF 4

LEGEND

LIMITS OF ZONING MAP AMENDMENT

PLANNED UNIT DEVELOPMENT ZONE

ZONE: R-10 RESIDENTIAL
USE: RESIDENTIAL

ZONE: R-10 RESIDENTIAL
USE: RESIDENTIAL

ZONE: R-10 RESIDENTIAL
USE: RESIDENTIAL

ZONE: R-10 RESIDENTIAL
USE: RESIDENTIAL

ZONE: R-10 RESIDENTIAL
USE: RESIDENTIAL

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: SINGLE FAMILY RESIDENTIAL
6.76 ACRES

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: TOWN HOMES
6.19 ACRES

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: COMMERCIAL
(SHOPPING CENTER WITH SERVICE STATION)
11.67 ACRES

LIMITS OF ZONING MAP AMENDMENT (11.06 ACRES)

ZONE: PLANNED UNIT DEVELOPMENT (PUD)
USE: COMMERCIAL
2.91 ACRES

ZONE: C COMMERCIAL
USE: COMMERCIAL

ZONE: C COMMERCIAL
USE: COMMERCIAL

ZONE: C COMMERCIAL
USE: COMMERCIAL

ZONE: C COMMERCIAL
USE: COMMERCIAL

ZONE: C COMMERCIAL
USE: COMMERCIAL

ZONE: C COMMERCIAL
USE: COMMERCIAL

MAGISTER STREET

FLETCHER DRIVE
VARIABLE WIDTH RIGHT-OF-WAY

LEE HIGHWAY - U.S. RTE. 29/211
VARIABLE WIDTH RIGHT-OF-WAY

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

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COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
PROFESSIONAL ENGINEER
04/18/2022

NO.	DATE	REVISIONS

CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON
530 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: MASTER PLAN
AMENDMENT NORTH
ROCK PLANNED UNIT
DEVELOPMENT

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-02

SHEET 3 OF 4

LEGEND

SHOPPING CENTER PARKING FIELD

(#) PARKING COUNTS

Kimley»Horn
11400 COMMERCE PARK DRIVE, SUITE 400
RESTON, VA 20191
PHONE: (703) 674-1300

COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
PROFESSIONAL ENGINEER
04/18/2022

NO.	DATE	REVISIONS

CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON

539 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: CONCEPT DEVELOPMENT PLAN

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-03

SHEET 4 OF 4

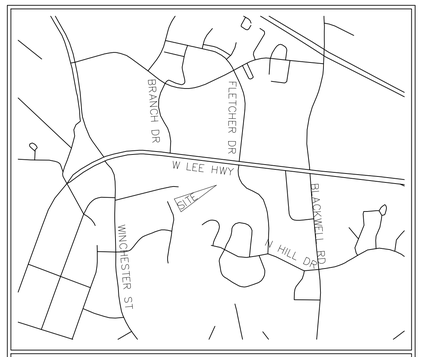
SPECIAL USE PERMIT for

HARRIS TEETER SERVICE STATION

STORE #329 - 530 FLETCHER DRIVE

WARRENTON, FAUQUIER COUNTY, VIRGINIA

PIN 6984-38-9605 (PORTION)



SITE LOCATION MAP

SCALE 1" = 1000'

Sheet List Table	
Sheet Number	Sheet Title
C-00 SHEET 1 OF 3	COVER SHEET
C-01 SHEET 2 OF 3	SPECIAL USE PERMIT PLAN
C-02 SHEET 3 OF 3	ADJACENT PROPERTIES

GENERAL SITE NOTES

1. PROPERTY DELINEATED HEREON IS IDENTIFIED AS A PORTION OF PARCEL PIN # 6984-38-9605.
2. THE TOTAL PARCEL IS 11.67 ACRES THE SPECIAL USE PERMIT AREA IS 0.48 ACRES.
3. THE SITE IS LOCATED AT 530 N. FLETCHER DRIVE, WARRENTON, VA.
4. THE PARCEL IS ZONED PLANNED UNIT DEVELOPMENT (PUD) PER MASTER PLAN AMENDMENT NORTH ROCK PLANNED UNIT DEVELOPMENT PLAN LAST REVISED JUNE 1999.
5. THE TOTAL PUD SITE AREA IS 45.3 ACRES.
6. THE PROPERTY IS LOCATED IN THE CENTER MAGISTERIAL DISTRICT, TOWN OF WARRENTON.
7. EXISTING USE: PARKING
8. PROPOSED USE: SERVICE STATION
9. THERE ARE NO CONFLICTS OF INTEREST IN THIS PROPOSED DEVELOPMENT
10. A PORTION OF THIS PROPERTY FALLS WITHIN THE 100-YR FLOOD PLAIN PER FEMA MAP 51061C0306C.
11. LOT SIZE REQUIREMENTS
    - COMMERCIAL RETAIL:
      - 80' LOT WIDTH
12. SETBACK/BUFFER REQUIREMENTS
    - COMMERCIAL RETAIL:
      - FRONT YARD: 40' (FROM RT. 29)
      - SIDE YARD: 25'
      - REAR YARD: 25'
      - 25' BUFFER FROM RESIDENTIAL
      - 25' BUFFER FROM HIGHWAY
      - 15' BUFFER FROM COLLECTOR
13. PARKING REQUIREMENTS:

RETAIL SALES PARKING

- PARKING RATE: 1 SPACE PER 300 SF OF GFA FOR THE FIRST 12,000 SF PLUS 2 SPACES PER EACH ADDITIONAL 1,000 SF
- PROPOSED GFA OF RETAIL SALES: 78,727 SF
- REQUIRED: 174
- PROVIDED: 244

SERVICE STATION PARKING

- PARKING RATE: 1.5 SPACES PER SERVICE BAY PLUS 1 SPACE PER 6 FUEL PUMPS PLUS 1 SPACE FOR EACH EMPLOYEE ON THE LARGEST SHIFT PLUS 1 PER 300 SF OF GFA FOR RETAIL SALES
- 0 SERVICE BAYS, 8 FUEL PUMPS PROPOSED, 2 EMPLOYEES ON THE LARGEST SHIFT, 300 SF KIOSK
- REQUIRED: 5 SPACES
- PROVIDED: 5 SPACES - PARKING SPACES ARE INCLUDED IN THE PARKING FIELD.

14. SEE ASSOCIATED TRAFFIC IMPACT STUDY FOR ADDITIONAL INFORMATION ON TRAFFIC VOLUMES AND VPD.

PROJECT OWNER AND CONSULTANT INFORMATION		
OWNER	**ENGINEER:**	**SURVEYOR:**
NORTHROCK CENTER LLC 7501 WISCONSIN AVE #1500A BETHESDA, MD 20814 PHONE (301) 986-6200	KIMLEY-HORN AND ASSOCIATES, INC. 11400 COMMERCE PARK DRIVE SUITE 400 RESTON, VIRGINIA 20190 (703) 674-1372 TEL CONTACT: KYLE BOLLINGER, P.E.	GRS GROUP, LLC 6703 DELAND COURT SPRINGFIELD, VA 22152 PHONE (703) 727-5828 FAX (703) 763-2320 CONTACT: KEVIN F. STEINHILBER

Kimley»Horn
11400 COMMERCE PARK DRIVE, SUITE 400
RESTON, VA 20191
PHONE: (703) 674-1300

COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
PROFESSIONAL ENGINEER
04/18/2022

NO.	DATE	REVISIONS

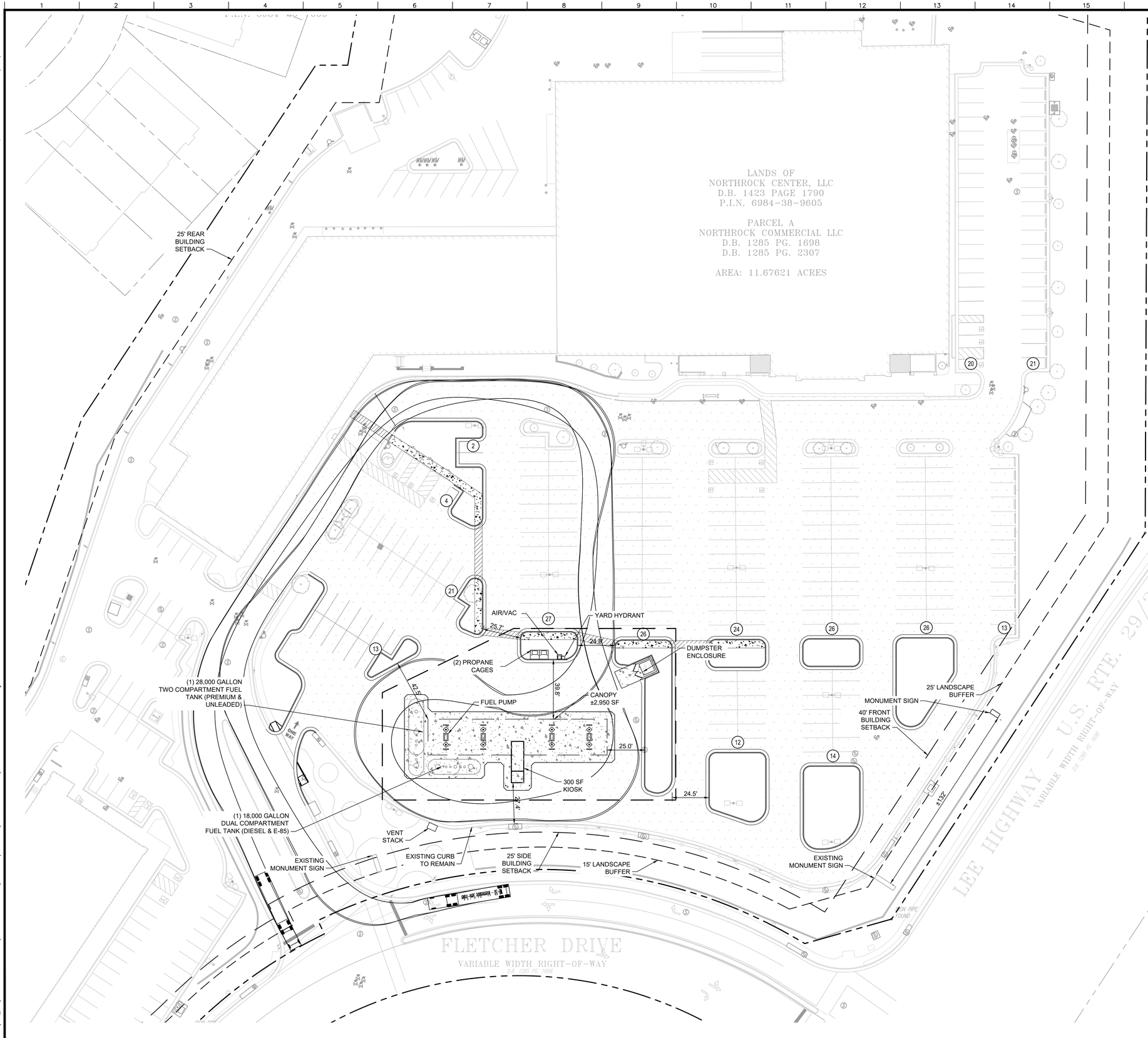
CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON
530 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: COVER SHEET

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-00
SHEET 1 OF 3



LEGEND

- SHOPPING CENTER PARKING FIELD
- AREA OF SPECIAL USE PERMIT
- (#) PARKING COUNTS

ZONING

- ZONE: PLANNED UNIT DEVELOPMENT (PUD)
- EXISTING USE: PARKING
- PROPOSED USE: SERVICE STATION
- PARCEL ACREAGE: 11.67 ACRES
- SPECIAL USE PERMIT ACREAGE: 0.48 ACRES

PARKING

RETAIL SALES PARKING

- PARKING RATE: 1 SPACE PER 300 SF OF GFA FOR THE FIRST 12,000 SF PLUS 2 SPACES PER EACH ADDITIONAL 1,000 SF
- PROPOSED GFA OF RETAIL SALES: 78,727 SF
- REQUIRED: 174
- PROVIDED: 244

SERVICE STATION PARKING

- PARKING RATE: 1.5 SPACES PER SERVICE BAY PLUS 1 SPACE PER 6 FUEL PUMPS PLUS 1 SPACE FOR EACH EMPLOYEE ON THE LARGEST SHIFT PLUS 1 PER 300 SF OF GFA FOR RETAIL SALES
- 0 SERVICE BAYS, 8 FUEL PUMPS PROPOSED, 2 EMPLOYEES ON THE LARGEST SHIFT, 300 SF KIOSK
- REQUIRED: 5 SPACES
- PROVIDED: 5 SPACES - PARKING SPACES PROVIDED IN PARKING FIELD

SIGHT LIGHTING

- PHOTOMETRIC CALCULATIONS SHALL BE PROVIDED AT SITE PLAN SUBMITTAL.
- LIGHT FIXTURES PROPOSED WITH THE SITE PLAN SUBMITTAL SHALL GURANTEE THAT GLARE IS NOT CASTED ON THE ADJACENT STREETS.
- • LIGHTING SHALL BE PROVIDED IN COMPLIANCE WITH THE ZONING ORDINANCE ARTICLE 9.

LANDSCAPING

- INTERIOR LANDSCAPING REQUIREMENTS: 10% OF PARKING LOT PER ZONING ORDINANCE SECTION 8.6.2.3.
- INTERIOR LANDSCAPING PROVIDED: ±10.4%
- INTERIOR LANDSCAPE PLANTINGS WILL BE PROVIDED AT SITE PLAN SUBMITTAL AND SHALL CONFORM WITH ARTICLE 8 OF THE ZONING ORDINANCE.
- THE EXISTING LANDSCAPE BUFFER/SCREENING IS NOT BEING MODIFIED WITH THIS PROJECT.

STORMWATER MANAGEMENT

- THE EXISTING UNDERGROUND DETENTION SYSTEM WILL BE USED FOR WATER QUANTITY REQUIREMENTS. ADDITIONAL PERVIOUS AREA WILL BE ADDED TO THE SITE AND THEREFORE PEAK RUNOFF WILL BE REDUCED FROM PRE-DEVELOPMENT CONDITIONS.
- WATER QUALITY WILL PROVIDED VIA MEANS OF STORMWATER BEST MANAGEMENT PROCESSES AND/OR NUTRIENT CREDITS. PER THE TOWN OF WARRENTON STANDARDS UP TO 25% OF THE NUTRIENT REDUCTION MAY BE PURCHASED FROM AN APPROVED OFF-SITE PROVIDER.
- THE DESIGN FOR STORMWATER QUANTITY AND QUALITY WILL BE PROVIDED AT SITE PLAN SUBMITTAL. THE STORMWATER DESIGN FOR THIS PROJECT WILL COMPLY WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL MANUAL (VESCH), VIRGINIA STORMWATER MANAGEMENT REGULATIONS, ZONING ORDINANCE ARTICLE 14, ARTICLE 5, AND THE TOWN OF WARRENTON PUBLIC FACILITIES MANUAL.

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PHONE: (703) 674-1300

COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
PROFESSIONAL ENGINEER
04/18/2022

NO.	DATE	REVISIONS

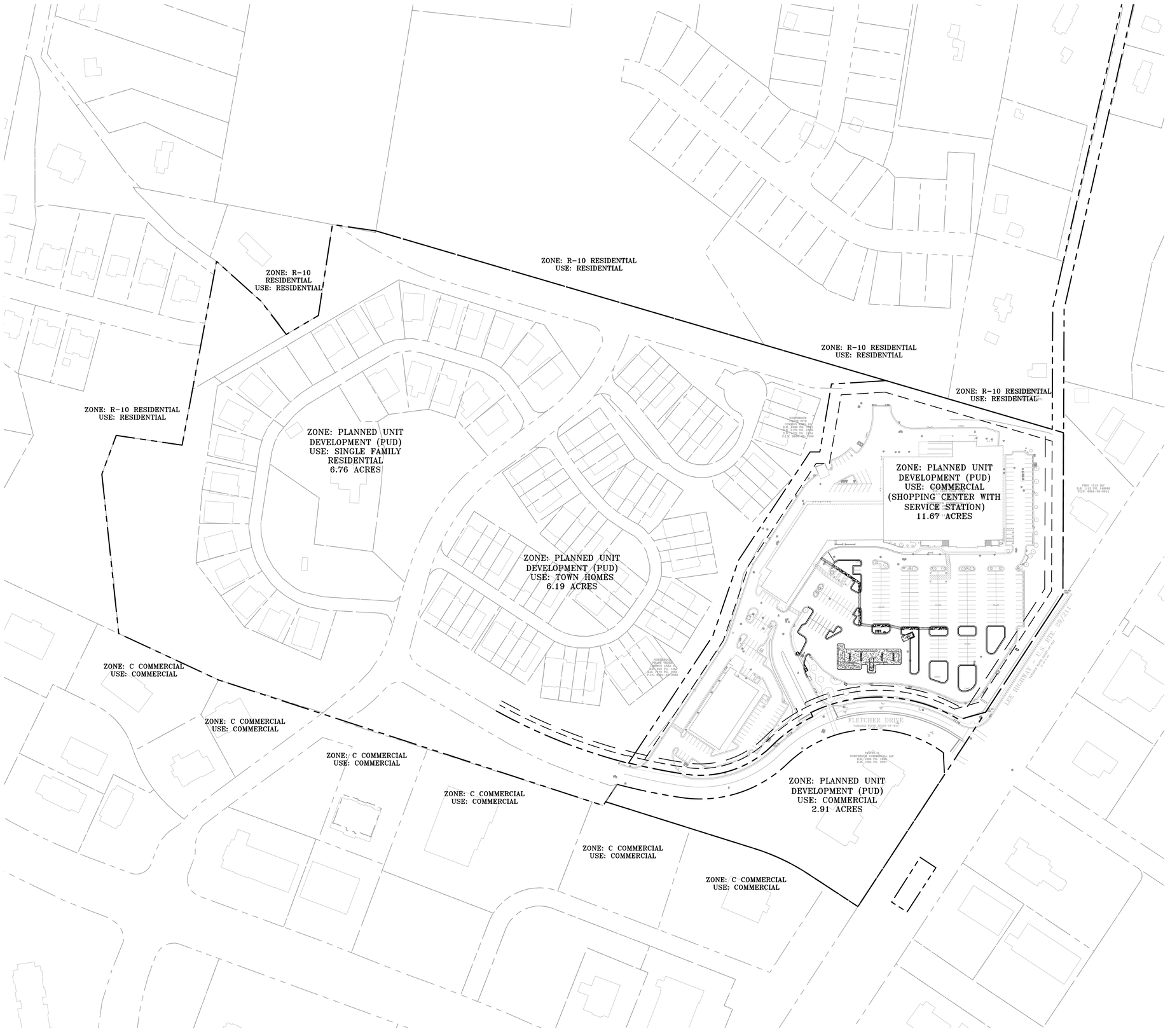
CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON
530 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: SPECIAL USE PERMIT PLAN

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-01
SHEET 2 OF 3



Kimley»Horn
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RESTON, VA 20191
PHONE: (703) 674-1300

COMMONWEALTH OF VIRGINIA
Caycee Hart
CAYCEE HART
Lic. No. 0402063059
PROFESSIONAL ENGINEER
04/18/2022

NO.	DATE	REVISIONS

CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER SERVICE STATION
STORE #329 WARRENTON
530 FLETCHER DRIVE
WARRENTON, VIRGINIA 20186
FAQUIER COUNTY

TITLE: ADJACENT PROPERTIES

DESIGNED BY:	CJC
DRAWN BY:	CJC
CHECKED BY:	CAH
DATE:	09/02/2021
PROJECT#:	015640126

C-02
SHEET 3 OF 3

Illustrative Sign Package

HT Fuel Center #329
Warrenton, VA

Latest revision: April 22nd, 2022

PRESENTED BY:

199 Wilshire Ave. SW
Concord, NC 28025
www.cascosigns.com
Contact: Darin Martin
704-788-9055

Customer:
Harris Teeter #329
Fuel Center

530 Fletcher Dr
Warrenton, VA

Drawing #:
298786

Date:
11/12/2019

Revision:
04/14/22DD

Customer Approval:

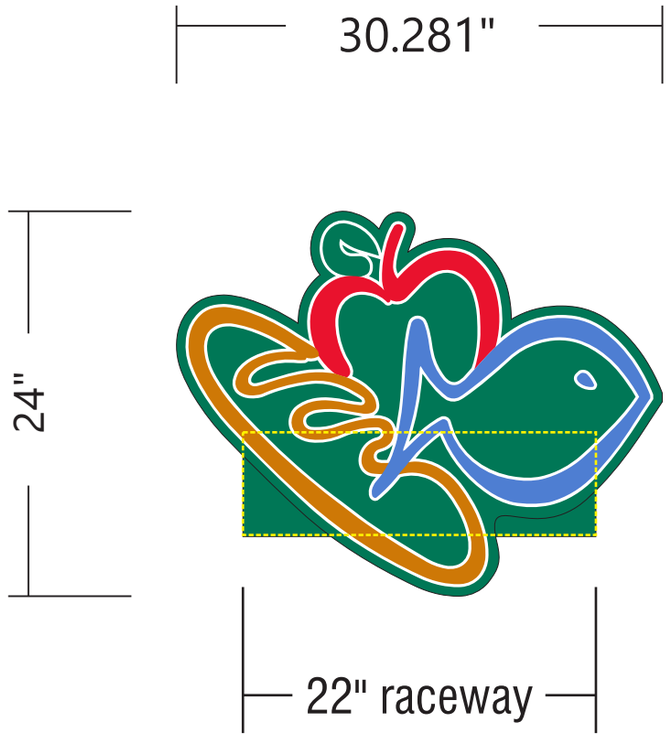
Date:

Sales:
D. Martin

Design:	Check by:
K@	DD

All components & installations are approved & listed by UL UNDERWRITERS LABORATORIES

Drawing Type:
Sales



B2 **B3**

(2) 24" Closed-Face Lighted Channel Logo

Scale: NTS

Footprint of Logo (Boxed) = 5 Sq.Ft

Customer:
Harris Teeter #329
Fuel Center

530 Fletcher Dr
Warrenton, VA

Drawing #:
298786

Date:
11/12/2019

Revision:
04/14/22DD

Customer Approval:

Date:

Sales:
D. Martin

Design:
K@

Check by:
DD

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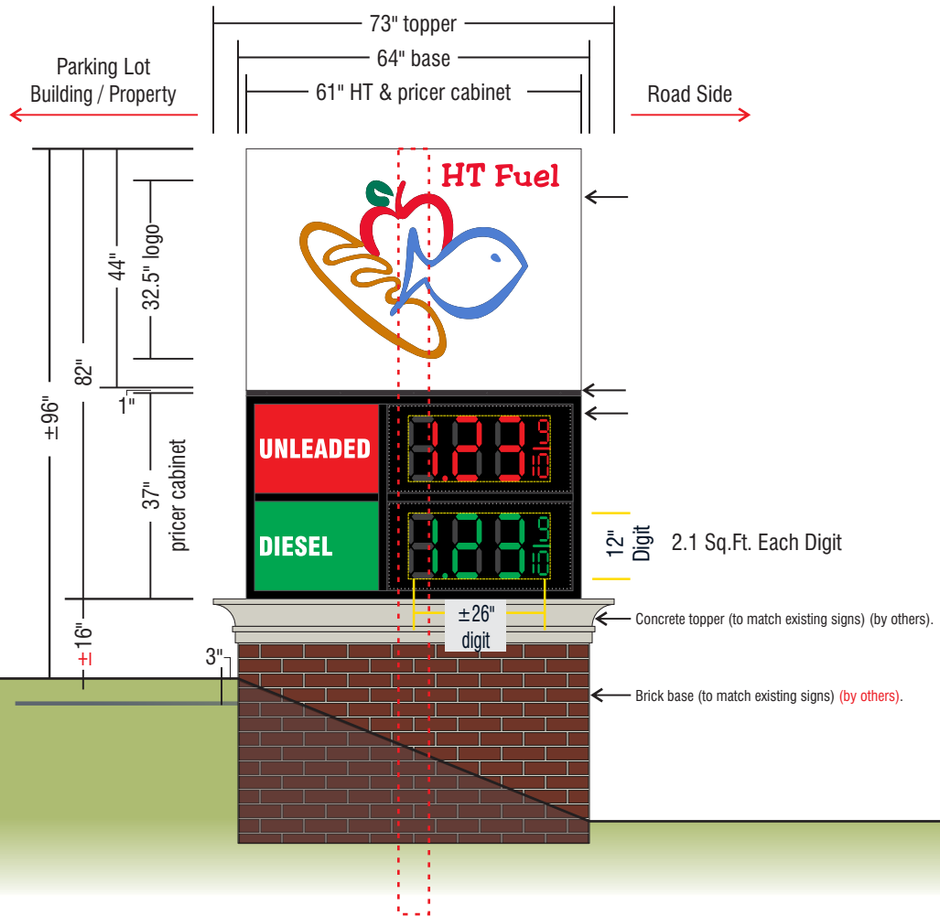
Drawing Type:
Sales



D **Fuel Price Monument Sign**

Scale: 3/8" = 1'-0" **TOTAL: 34.7 sq. ft.**

Customer:
Harris Teeter #329
Fuel Center

530 Fletcher Dr
Warrenton, VA

Drawing #:
298786

Date:
11/12/2019

Revision:
04/14/22DD

Customer Approval:

Date:

Sales:
D. Martin

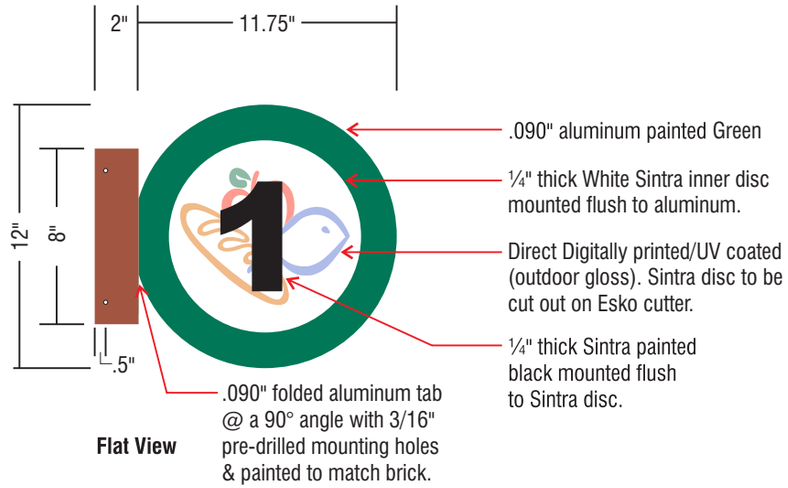
Design: **K@**

Check by: **DD**

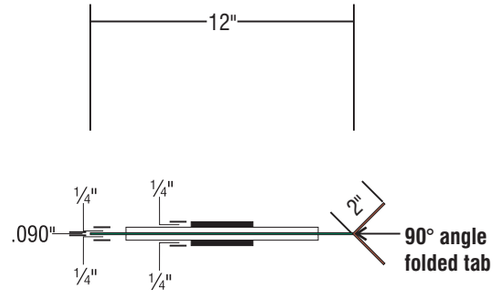
All components & installations are approved & listed by UL UNDERWRITERS LABORATORIES

Drawing Type:
Sales

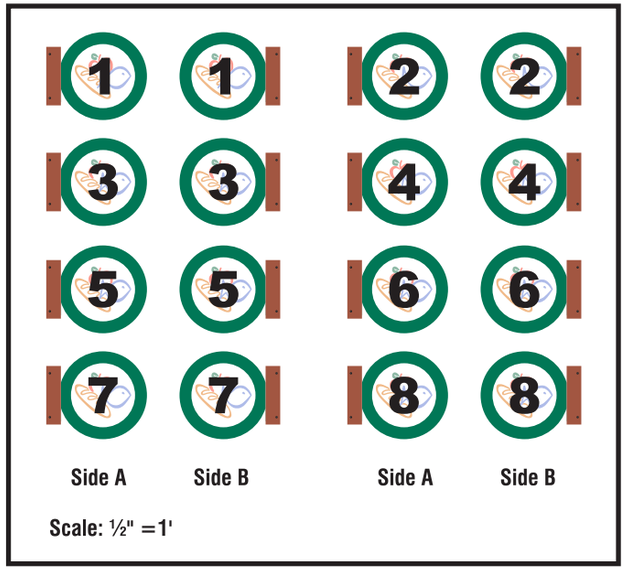
casco signs incorporated



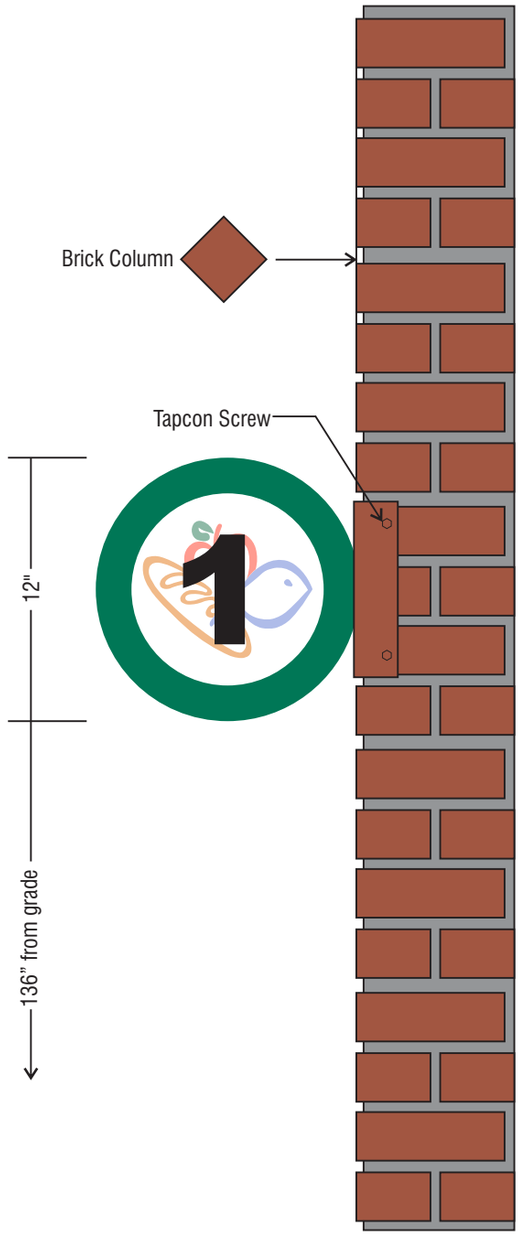
Flat View



Top View



Scale: ½" =1'



C1 C2 C3 C4
C5 C6 C7 C8

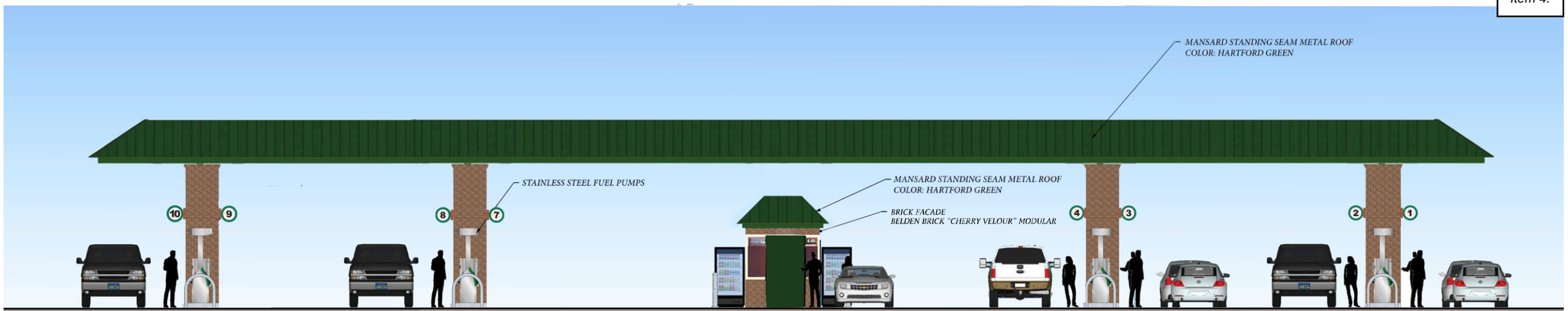
(8) D/F Aluminum (Mouse Ear Style) Pump ID Signs
Scale: 1½" = 1'-0"

Sign Specifications

Manufacture & install aluminum pump ID sign (mouse ears). Mouse ears to have dimensional white inner disc sintra background w/ direct printed graphics on face UV coated outdoor gloss. Dimensional sintra numbers painted black.

Color Notes

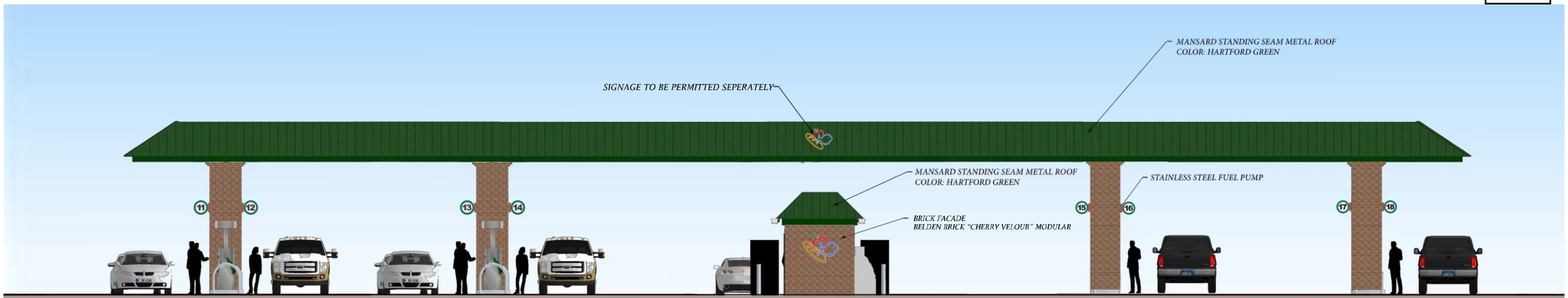
- PMS 3415 C (gloss) - .090" panel
- White Sintra - inner disc background
- Black (gloss) - numbers
- SW 6349 Pennywise (satin) - mounting tab/touch up paint
- PMS 1385 C Brown 50% (printed vinyl) - HT logo
- PMS 2718 C Blue 50% (printed vinyl) - HT logo
- PMS 3415 C Green 50% (printed vinyl) - HT logo
- PMS 185 C Red 50% (printed vinyl) - HT logo



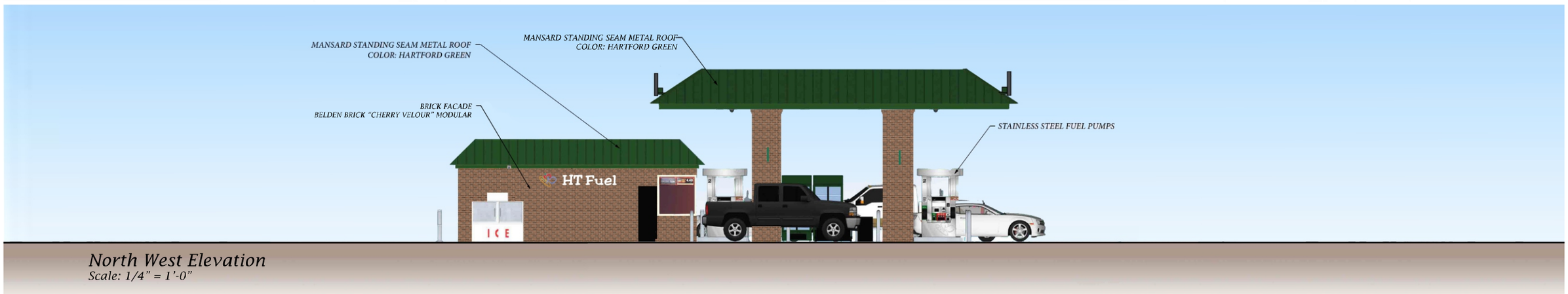
South West Elevation
Scale: 1/4" = 1'-0"

South East Elevation
Scale: 1/4" = 1'-0"

HARRIS TEETER FUEL CENTER - WARRENTON, VIRGINIA #329



North East Elevation
Scale: 1/4" = 1'-0"



North West Elevation
Scale: 1/4" = 1'-0"

HARRIS TEETER FUEL CENTER - WARRENTON, VIRGINIA #329

Customer:
Harris Teeter #329
Fuel Center

530 Fletcher Dr
Warrenton, VA

Drawing #:
298786

Date:
11/12/2019

Revision:
04/14/22DD

Customer Approval:

Date:

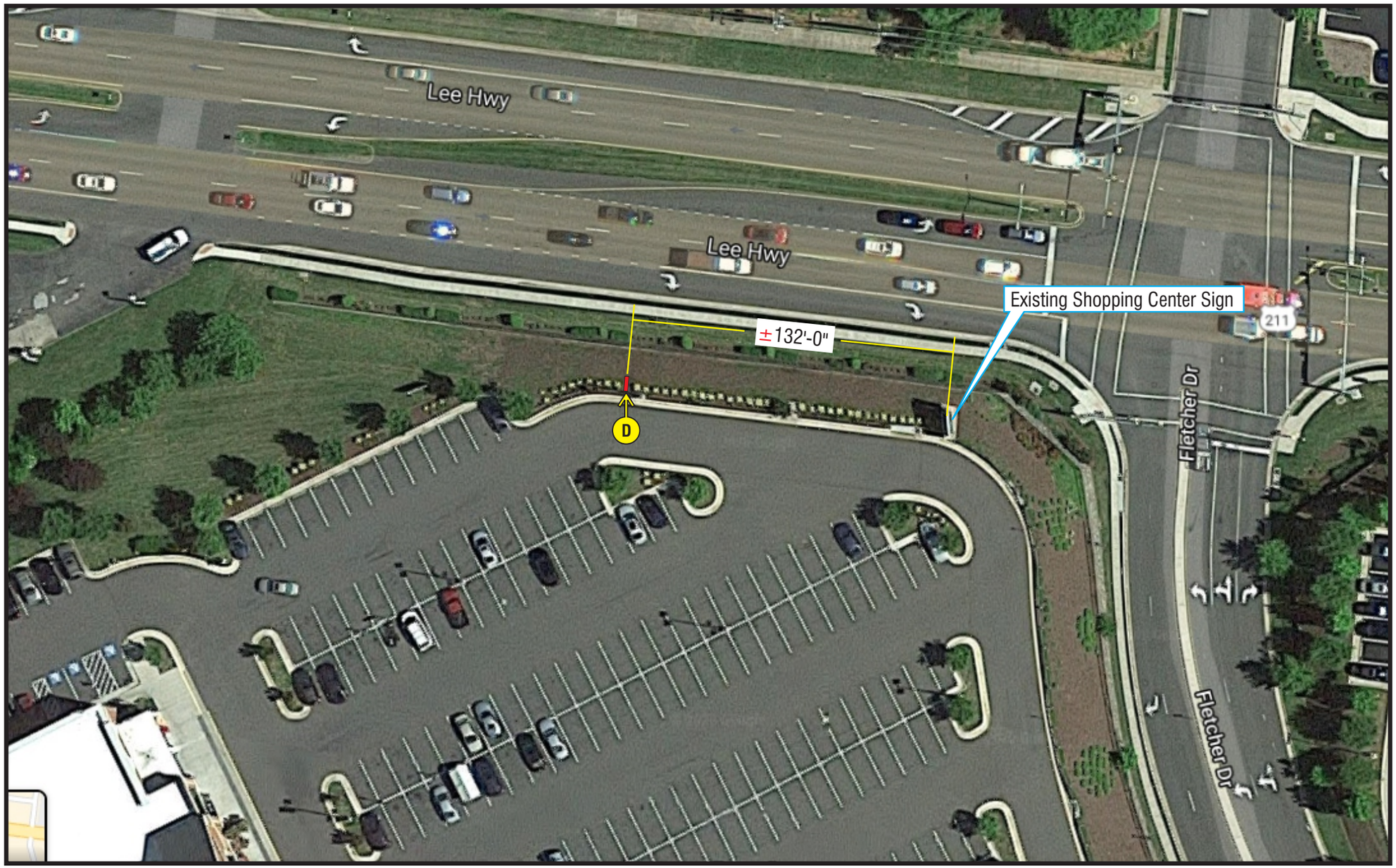
Sales:
D. Martin

Design:	Check by:
K@	DD

All components & installations are approved & listed by UL UNDERWRITERS LABORATORIES

Drawing Type:
Sales

casco signs incorporated



Site Map

Scale: NTS

Customer:
Harris Teeter #329
Fuel Center

530 Fletcher Dr
Warrenton, VA

Drawing #:
298786

Date:
11/12/2019

Revision:
04/14/22DD

Customer Approval:

_____

Date:

_____

Sales:
D. Martin

Design:	Check by:
K@	DD

All components & installations are approved & listed by UL UNDERWRITERS LABORATORIES

Drawing Type:
Sales

casco signs incorporated

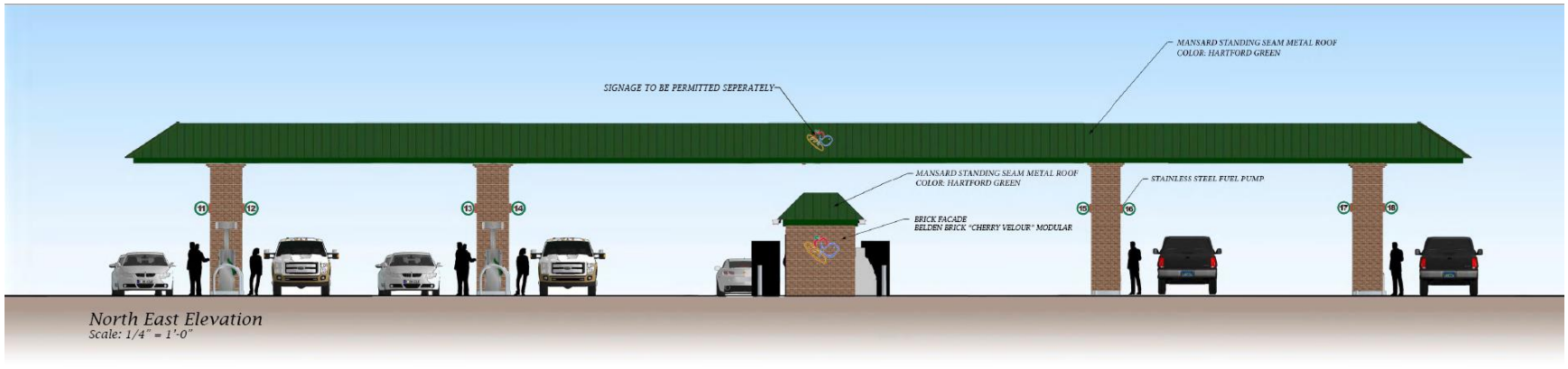
East Approach to Fletcher Drive

Scale: NTS

South West Elevation
Scale: 1/4" = 1'-0"

South East Elevation
Scale: 1/4" = 1'-0"

Illustrative Elevations
May 25, 2022



North East Elevation
Scale: 1/4" = 1'-0"

North West Elevation
Scale: 1/4" = 1'-0"

Illustrative Elevations
May 25, 2022

HARRIS TEETER SERVICE STATION ZONING MAP AMENDMENT AND SPECIAL USE PERMIT

STATEMENT OF JUSTIFICATION

March 10, 2021

Harris Teeter seeks a Zoning Map Amendment and Special Use Permit to authorize a Fueling Center (service station) on a portion of Parcel ID 6984-38-9605/530 Fletcher Drive. The area of the zoning map amendment is approximately 11 acres and the special use permit area is approximately .48 acres.

This Property is zoned with the overlay PUD, Planned Unit Development classification, and subject to the proffers associated with Rezoning 1998-02, Northrock Planned Unit Development. But Northrock has a unique zoning history. It is subject to a Master Zoning Plan first approved in 1999, and subsequently amended. In order for the Fueling Center to be included in the Northrock Commercial Area, that Master Plan must be further amended to provide for the proposed use through a Zoning Map Amendment. Moreover, it has been twice determined by the Town's Zoning Administrator, most recently on January 28, 2013, to be vested to the provisions of the repealed CL Zoning District, in which service stations were permitted by Special Use Permit.

Harris Teeter seeks a Zoning Map Amendment to amend the Master Zoning Plan as noted above, and the special use permit specifically to authorize the service station.

THE REASONS FOR THE PROPOSED ZONING MAP AMENDMENT AND SPECIAL USE PERMIT

Harris Teeter has a "fuel points" program whereby it awards points to customers in connection with grocery purchases. Those points can be redeemed at Fueling Centers that are participants in the program. Many of these are existing service stations, but Harris Teeter also has name branded centers as well, and it seeks to provide this additional service to its customers at its store in the Northrock Shopping Center. This service is a use consistent with the Shopping Center's function, would be most convenient for its patrons, and would constitute an infill development in an underutilized portion of the existing parking lot.[1]

CONSISTENCY OF THESE APPLICATIONS WITH THE TOWN'S COMPREHENSIVE PLAN

The Northrock Shopping Center Commercial Area is planned Commercial on the Town's Future Land Use Plan Map. This proposal is consistent with numerous goals and objectives of the Town's 2002-2025 Plan and its 2009 Supplement.

---

[1] While the Service Station would be available to Harris Teeter customers to use their fuel points, it would also be available to others as well.

The Plan notes that it is anticipated that there will be only a moderate amount of additional retail development in Warrenton, commensurate with the overall population and employment growth, yet retail development within the Warrenton Service District will occur only within the Town boundaries. Plan, p. 2-3. By 2009, the Town had identified a relatively large amount of commercial, industrial, and office space, and that it continued to function as "major commercial activity center" for the County, but that if residential growth continued as it had been, that supply would soon be exhausted. Supp. p. 10-11.

Thus, the Town set goals for overall commercial development to maintain and encourage efficient land use patterns that integrate residential, commercial, public, and employment uses in planned neighborhoods designed to reflect Warrenton's existing character and to use planning, zoning and public facility investment tools to encourage infill development. Northrock is a prime example of just such a planned community, indeed it was one of the first such developments in the Town. The addition of an infill use in an established area that is compatible and in scale with existing land uses, and that meets the current and future needs of the community, is manifestly consistent with that goal. Plan, pp. 2-11-13, 3-31.

The Town has also specifically encouraged encourage development of a variety of commercial centers (neighborhood convenience, community and mixed-use centers) appropriately located to provide retail and service opportunities. Plan, p. 3-33. This proposal adds a use to Northrock that adds a convenient and useful element to Northrock that no other shopping center in Town can provide, in the manner that Harris Teeter can provide it.

There will be no additional access to a major street or highway as a consequence of this proposal, and the application provides careful site design and planning, convenient, safe and efficient traffic access to all commercial areas in the Northrock Shopping Center and to the Fueling Center itself. Plan, p. 2-13. Commercial expansions should only occur where compatible land uses exist, and the local street system can accommodate the additional traffic demand. In addition, such uses should be designed to fit into the character of the area in which they locate. Plan, p. 3-63. Any new project should maintain a level of service that is in keeping with the surrounding road networks capability. Plan, p. 3-64. And as noted elsewhere in this Statement, there will be no degradation in the Level of Service at any relevant intersection and traffic movement has been planned so that the flow of vehicles to and within Northrock will be fluid.

Northrock is a Limited Commercial area, as recognized in the Town's Plan, and therefore has heretofore been well planned with retail and service commercial centers and a coordinated integration of different uses. It reduces traffic congestion and facilitates pedestrian access within the Shopping Center, removes traffic from East Lee Highway and Blackwell, and the Fueling Center will reduce trips on those roads that would otherwise be generated by those who would fuel elsewhere. Northrock is a community shopping center that functions as one, and does not contain high intensity, traffic-generating, freestanding uses that make up the majority of the general commercial areas. Plan, p. 3-65. The largest store in the Shopping Center is the Harris Teeter itself, which, in the nature of grocery stores, ably services its surrounding community.

The proposed Fueling Center will also advance the Town's economic goad of promoting a stable and healthy commercial tax base that expands in proportion to the residential tax base. Plan, p. 3-115.

Finally, Northrock has served the community for some 20 years, and it is a Town goal to promote the reuse and redevelopment of retail commercial areas. Plan, p. 3-121, Supp. p 43.

THE APPROXIMATE TIME SCHEDULE FOR THE COMPLETION OF THE DEVELOPMENT

The service station is anticipated to be completed in 2021.

INFORMATION REGARDING THE MARKET AREA TO BE SERVED.

Harris Teeter has found that there is a demand for the retail sales of gasoline in connection with its stores. As is well known, there is a Harris Teeter store in the Shopping Center, so it will be convenient for customers to use the grocery store and to redeem fuel points at the service station. This program is unique, and is an additional service for those customers.

IMPACT MITIGATION

There will be little additional impact associated with the service station since the Harris Teeter store is an existing use within the shopping center.

Included with the Zoning Map Amendment and Special Use Permit Application is a Traffic Impact Analysis prepared by Kimley-Horn and submitted as required by the 1999 Proffers. The TIA concludes that the service station will have minimal impact on the study area intersections, and will not change the overall level of service at any of them. It also found that all relevant queues are anticipated to be less than the available storage length and the existing site entrance will be adequate for the site generated trips.

A principal benefit to be derived from the approval of these Applications, of course, is the economic benefit that will come from this infill development, which will provide taxable area from an underutilized parking lot.

The site will also be physically improved during the development process and will be more visually appealing than a parking lot. Specifically, stormwater quality and quantity will be brought up to current Virginia stormwater regulations. This final design and calculations will be provided with final site plan. Also, additional interior landscape islands have been added to the parking field in order achieve minimum of 10% interior landscaping as required by Zoning Ordinance.

THE CHARACTER OF THE SURROUNDING AREA

The Northrock Shopping Center is situated on the south side of Lee Highway in a commercial area. There are commercially zoned properties and existing commercial uses on both sides of Lee Highway in this area. The shopping center is designated Commercial on the Future Land Use Plan of the Comprehensive Plan. One of the Overall Commercial Objectives in the

Comprehensive Plan is to create an environment where businesses can expand. This additional use will be an expansion to the existing Harris Teeter store to better serve their customers.

Harris Teeter Fuel Center

Traffic Impact Analysis

WARRENTON, VIRGINIA

Prepared for:

HARRIS TEETER

REVISED: SEPTEMBER 8, 2021

VERSION 1: JANUARY 30, 2020

Prepared By:

Kimley»Horn

Harris Teeter Fuel Center
Traffic Impact Analysis

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Prepared By:

Kimley»Horn

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EXECUTIVE SUMMARY

This report presents the results of a transportation study for the proposed fuel center located on-site of the existing Harris Teeter Grocery Store in Warrenton, VA. The site parcel (including the existing Harris Teeter Grocery) is approximately 11.67 acres and is zoned as PUD. The fuel center will consist of 8 fueling positions and is anticipated to be completed in 2021.

Intersections were analyzed during the weekday AM and PM peak hours as well as the Saturday midday peak hour. The traffic volumes used in this study include 2019 existing traffic volumes, forecast future traffic volumes without the development of the fuel center but with the application of an annual traffic growth factor, and future traffic with the development of the fuel center for opening year 2021. The weekday traffic counts were conducted at the study area intersections on Thursday, November 21, 2019 from 5:30 AM to 8:30 AM and 4:30 PM to 7:30 PM as well as Saturday, November 16, 2019 from 11:00 AM to 2:00 PM.

Based on the trip generation rates in the ITE Trip Generation Manual, 10th Edition, the proposed development is anticipated to generate 30 primary vehicle trips during the AM peak hour, 80 primary vehicle trips during the PM peak hour, and 74 primary vehicle trips during the Saturday peak hour. The peak hour trips generated by the proposed development were assigned to the site driveway and to the study area streets based on agreed upon trip distributions as documented in the scoping form with Town of Warrenton staff.

Intersection capacity analyses were conducted for 2019 existing, 2021 future without development, 2021 future with development at the study intersections using the Synchro 10 software package. This software uses methodologies in the *Highway Capacity Manual 6th Edition* to determine performance of signalized and unsignalized intersections.

This transportation study shows that the proposed fuel center located on-site of the existing Harris Teeter Grocery Store in Warrenton, VA will have a minimal impact on the study area intersections. There will be no changes in overall intersection levels of service due to the proposed development compared to the future without development scenario.

The capacity analysis of the future conditions with development shows that the increase in delay at the study intersections due to the proposed fuel center are negligible. The proposed development increases the LOS at the following approaches:

- Eastbound approach of Harris Teeter Driveway at Fletcher Drive worsens from LOS A to LOS B during the PM peak hour and the Saturday midday peak hour. The associated delay increases by 0.8 seconds and 0.7 seconds in the PM peak hour and Saturday midday peak hour, respectively.
- Westbound approach of W Lee Highway at Fletcher Drive worsens from LOS A to LOS B during the Saturday midday peak hour. The associated delay increased by 1.0 seconds.

All intersections operate at overall LOS D or better in 2021 future with and without development during the weekday AM and PM and Saturday midday peak hours.

Under the 2021 future with and without conditions, all intersection approaches operate at LOS D or better except for the following:

- Northbound Fletcher Drive at W Lee Highway operates at LOS E during the AM, PM, and Saturday midday peak hours.

- Southbound Fletcher Drive at W Lee Highway operates at LOS F during the AM peak hour and LOS E during the PM and Saturday midday peak hours.
- Eastbound North Hill Drive at Blackwell Road operates at LOS E during the AM, PM, and Saturday midday peak hours.
- Westbound Walker Drive at Blackwell Road operates at LOS E during the AM, PM, and Saturday midday peak hours.

All of these approaches were previously operating at LOS E in 2019 existing conditions.

In addition to the approaches and associated movements noted above, the following movements operate at LOS E or LOS F in 2019 existing conditions, and 2021 future with and without development conditions. The proposed development nominally increases the delay at these congested movements:

- Westbound left-turn lane from W Lee Highway to Fletcher Dr increases in delay by 1.6 seconds in the AM peak hour, decreases in delay by 0.9 seconds in the PM peak hour, and decreases in delay by 0.6 seconds in the Saturday midday peak hour. The slight decreases are likely attributable to the slight redistribution of traffic through the intersection caused by the proposed development. The movement is expected to operate at LOS F during weekday AM and PM and Saturday midday peak hours under 2019 existing conditions and 2021 future with and without development conditions.
- Eastbound left turn lane from W Lee Highway to Fletcher Dr had no change in delay. This movement is expected to operate at LOS F during weekday AM and PM and Saturday midday peak hours under 2019 existing conditions and 2021 future with and without development conditions.

The increase in delay related to the proposed development is less than 2 seconds at the movement, approach and intersection level, indicating negligible effects on the intersection's operations.

No significant queuing is anticipated at any of the study area intersections during typical AM weekday, PM weekday, or Saturday midday peak hour conditions. All queues are anticipated to be less than the available storage length. The existing site entrance will be adequate for the site generated trips. The site generated trips will have a negligible effect on the study area intersections.

1. INTRODUCTION

1.1 PROJECT DESCRIPTION

The proposed development includes a fuel center located on-site of an existing Harris Teeter Grocery Store located at the southwest corner of W Lee Highway at Fletcher Dr in Warrenton, VA. The site parcel (including the existing Harris Teeter Grocery) is approximately 11.67 acres and is zoned as PUD. The fuel center will consist of 8 fueling positions and is anticipated to be completed in 2021. The study area, site location, and study intersections are shown on a map in **Figure 1-1** and a concept site plan graphic is included in **Appendix A.**

Source: Google Earth Pro

Kimley»Horn

Study Area Map

Harris Teeter Fuel Center

Figure 1-1

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1.2 METHODOLOGY

A Traffic Study Scoping Agreement was prepared with VDOT and the Town of Warrenton. A copy of the signed scoping agreement form is included in **Appendix B.**

Per the scoping agreement, the following methodology was used in preparation of this study:

- Traffic volume forecasts and capacity analyses were conducted for the weekday AM and PM peak hours as well as Saturday midday peak hour.
- Intersection capacity analyses were based on the Highway Capacity Manual (using the Synchro 10 software package).
- ITE Trip Generation Manual, 10th edition was used to calculate site generated trips. Land use code 944, Gasoline/Service Station, was used in these calculations.
- 2021 was identified as the development horizon year.
- A one (1) percent annual exponential growth rate was agreed upon to grow existing count data to future conditions traffic.
- No approved and unbuilt developments were included in the analysis.
- Trip distribution for the proposed development was based on surrounding land use, population density, and access to local and regional roadways.
- Fifty-eight percent (58%) and forty-eight percent (48%) pass-by was assumed in the weekday AM and PM peak hours, respectively. The lower of the weekday AM and PM pass-by (48%) was assumed for the Saturday midday peak hour. Weekday AM and PM pass-by rates were identified from ITE Trip Generation Handbook.
- Internal capture rates between the proposed fuel center and the existing grocery story were obtained from data collection of similar Harris Teeter fuel station sites. The Town of Warrenton and VDOT approved the usage of these rates on January 9, 2020.
- Existing signal timings were obtained from the Town of Warrenton.

2. EXISTING CONDITIONS

2.1 OVERVIEW

This chapter of the report examines the existing transportation conditions in the project study area. Included are descriptions of the existing transportation network.

2.2 STREET NETWORK

The existing street network examined as part of this study includes Fletcher Drive from W Lee Highway to North Hill Drive and North Hill Drive from Fletcher Drive to Blackwell Road. Two (2) signalized intersections, and two (2) stop-controlled intersections represent the study area. The following is a brief description of the surrounding street network, study intersections, and intersection operations.

STUDY AREA STREETS

W Lee Highway is a four-lane divided roadway that runs east-west through the study area. The current VDOT functional classification is a principal arterial. The posted speed limit is 45 miles per hour (mph).

Fletcher Drive is a two-lane divided roadway, except for an approximate 300-ft section between the two Harris Teeter shopping center driveways where the road is undivided. The roadway runs north-south through the study area and is classified as a major collector. The posted speed limit is 25 mph.

North Hill Drive/Walker Drive is a two-lane undivided roadway west of Blackwell Rd and transitions to a four-lane divided roadway east of Blackwell Road. The roadway runs east-west through the study area. It is classified as a major collector, east of Fletcher Drive. The posted speed limit is 25 mph.

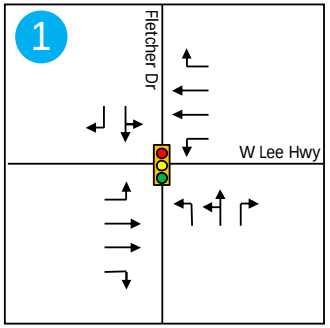
Blackwell Road is primarily a four-lane roadway with a center turn lane within the vicinity of the study area. The roadway runs north-south and is a minor arterial. The posted speed limit is 35 mph.

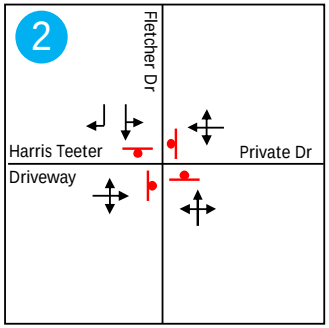
STUDY INTERSECTIONS

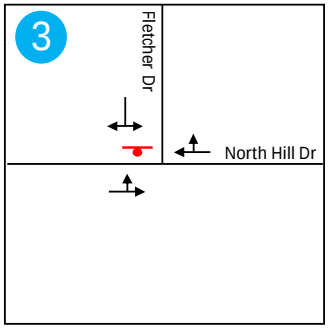
The vehicular impacts of the proposed development were studied at the following intersections:

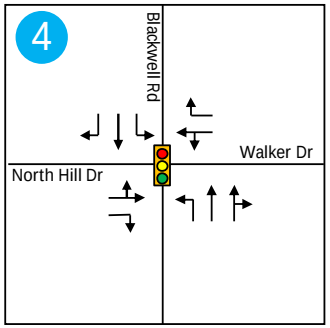
1. W Lee Highway at Fletcher Drive (Signalized)
2. Fletcher Drive at Harris Teeter Driveway (Unsignalized)
3. Fletcher Drive at North Hill Drive (Unsignalized)
4. Blackwell Road at North Hill Drive / Walker Drive (Signalized)

The existing lane designations and traffic control at the study intersections are shown in **Figure 2-1.**









Source: Google Earth Pro

Kimley»Horn

Existing Lane Designations and Traffic Control

Harris Teeter Fuel Center

Figure 2-1
Page 9

EXISTING TRAFFIC VOLUMES

Traffic counts were conducted on Thursday, November 21, 2019 from 5:30 AM to 8:30 AM and 4:30 PM to 7:30 PM as well as Saturday, November 16, 2019 from 11:00 AM to 2:00 PM. Vehicle, pedestrian, and bicycle movement counts were collected at the following intersections:

- W Lee Highway at Fletcher Drive (Signalized)
- Fletcher Drive at Harris Teeter Driveway (Unsignalized)
- Fletcher Drive at North Hill Drive (Unsignalized)
- Blackwell Road at North Hill Drive / Walker Drive (Signalized)

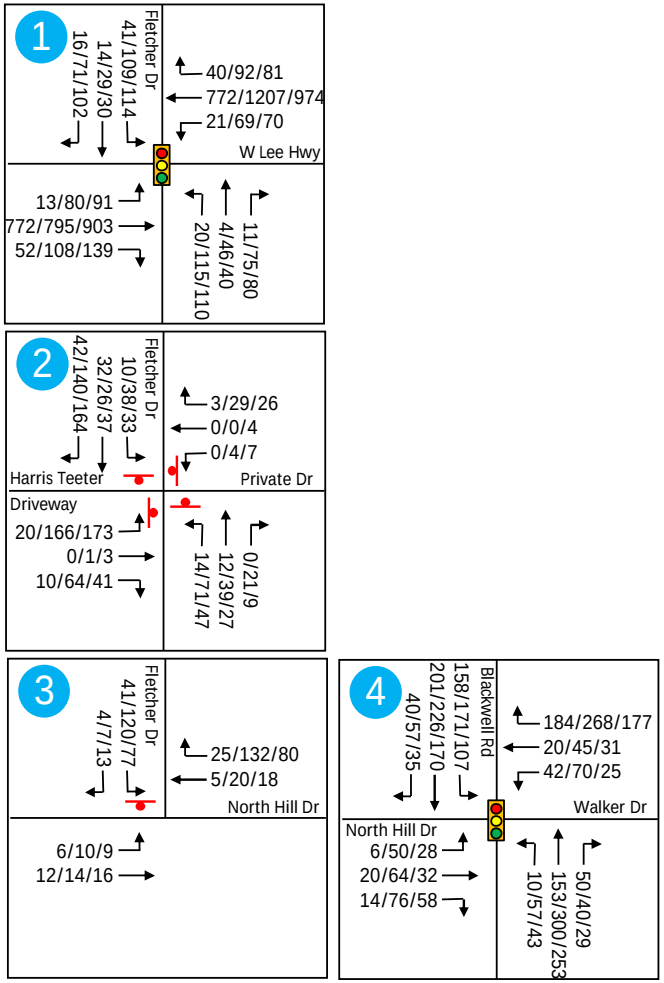
These counts were used to establish a network peak hour by identifying the peak sixty (60) minutes of traffic during which the most traffic is within the entire study area during the weekday AM and PM peak periods. The network peak hours of the study area were identified as 7:30 AM to 8:30 AM during the AM peak period, 4:30 PM to 5:30 PM during the PM peak period, and 11:45 AM to 12:45 PM during the Saturday midday peak period. The weekday AM and PM and Saturday midday peak hour turning movement counts at the study area intersections are summarized in **Figure 2-2**. The full turning movement traffic count data are in **Appendix C.**

EXISTING INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were conducted using the existing weekday AM and PM and Saturday midday peak hour turning movement volumes at the study intersections. The capacity analyses were conducted using Synchro and based on methodologies contained in the *Highway Capacity Manual*, *6th Edition* (HCM6) for signalized and unsignalized intersections. According to the HCM, capacity is defined as the maximum number of vehicles that can pass over a road segment or through an intersection within a fixed time duration. Operational conditions are described by a level of service (LOS), which is a qualitative measure that describes the operational conditions of an intersection or street and is an indicator of motorist perceptions within a traffic stream. The HCM defines six (6) levels of service, LOS A through F, with A as the best and F as the worst. **Table 2-1** shows the level of service delay per vehicle for signalized and unsignalized intersections.

Table 2-1: Level of Service and Ranges of Delay

Level of Service (LOS)	Delay per Vehicle (seconds)	
	Signalized intersection	Unsignalized Intersection
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
Source: *Highway Capacity Manual 6th Edition*		



Source: Google Earth Pro

Kimley»Horn

2019 Existing Peak Hour Traffic Volumes

Harris Teeter Fuel Center

Figure 2-2
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The 2019 existing conditions analyses were based on the existing peak hour turning movement volumes, peak hour factors, lane designations, and traffic control and signal timings at the study intersections.

The results of the 2019 existing intersection capacity analyses are summarized in **Table 2-2**. Analysis results show overall level of service (LOS) and corresponding delay information for each movement, approach, and overall intersection. The LOS for the weekday AM and PM and Saturday midday peak hours under 2019 existing conditions are shown in **Figure 2-3**.The Synchro analysis reports are contained in **Appendix D**.

These capacity analysis results show that under existing conditions, most study intersections and approaches operate at an overall LOS D or better during the AM and PM weekday and Saturday midday peak hours, except for the following:

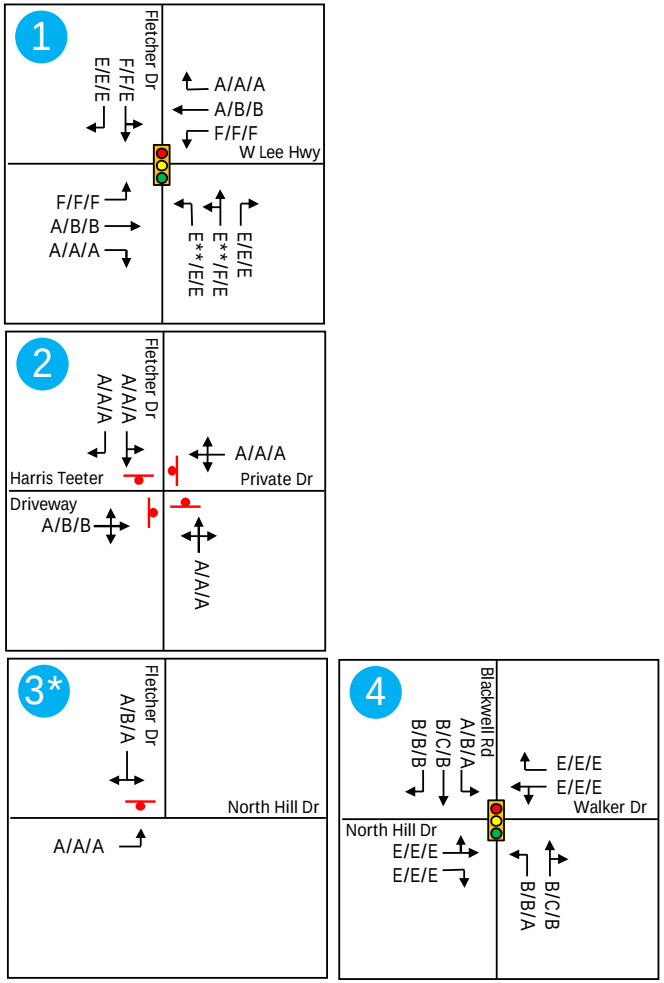
- W Lee Highway at Fletcher Drive
    - Northbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.
    - Southbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.
- Blackwell Road at Walker Drive / North Hill Drive
    - Eastbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.
    - Westbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.

Table 2-2: Existing Intersection Capacity Analysis

Intersection	Mvmt	AM Peak		PM Peak		SAT Peak	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)							
Eastbound (W Lee Highway)	L	89.5	F	87.8	F	81.3	F
	T	7.6	A	13.9	B	15.4	B
	R	4.3	A	7.7	A	8.5	A
	Approach	*8.7*	*A*	*19.2*	*B*	*19.8*	*B*
Westbound (W Lee Highway)	L	90.9	F	89.5	F	84.3	F
	T	7.2	A	17.6	B	17.1	B
	R	3.5	A	6.4	A	6.8	A
	Approach	*9.2*	*A*	*20.5*	*C*	*20.6*	*C*
Northbound (Fletcher Drive)	L**	70.8	E	78.6	E	73.6	E
	L/T**	70.8	E	80.6	F	75.2	E
	R	67.5	E	66.8	E	62.5	E
	Approach	*69.7*	*E*	*75.8*	*E*	*70.6*	*E*
Southbound (Fletcher Drive)	L/T	82.8	F	80.4	F	74.4	E
	R	69.9	E	71.0	E	69.1	E
	Approach	*79.9*	*E*	*77.2*	*E*	*72.2*	*E*
Overall Intersection		***12.9***	***B***	***29.0***	***C***	***29.3***	***C***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)							
Eastbound (Harris Teeter Driveway)	L/T/R	7.4	A	10.3	B	10.2	B
Westbound (Private Drive)	L/T/R	6.7	A	7.9	A	8.0	A
Northbound (Fletcher Drive)	L/T/R	7.6	A	9.3	A	8.9	A
Southbound (Fletcher Drive)	L/T	8.0	A	9.1	A	9.0	A
	R	6.9	A	8.6	A	8.8	A
3. Fletcher Drive at North Hill Drive (TWSC)*							
Eastbound (North Hill Drive)	L	7.4	A	7.7	A	7.4	A
Southbound (Fletcher Drive)	L/R	9.0	A	10.5	B	9.6	A
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)							
Eastbound (North Hill Drive)	L/T	71.6	E	80.0	E	76.9	E
	R	66.7	E	65.1	E	64.9	E
	Approach	*69.9*	*E*	*74.0*	*E*	*71.0*	*E*
Westbound (Walker Drive)	L/T	57.8	E	57.0	E	58.8	E
	R	58.2	E	60.2	E	59.7	E
	Approach	*58.1*	*E*	*59.3*	*E*	*59.5*	*E*
Northbound (Blackwell Road)	L	11.2	B	16.4	B	9.8	A
	T/R	13.3	B	22.0	C	13.5	B
	Approach	*13.2*	*B*	*21.2*	*C*	*13.5*	*B*
Southbound (Blackwell Road)	L	10.0	A	16.6	B	9.9	A
	T	12.1	B	20.9	C	13.3	B
	R	10.7	B	18.4	B	12.0	B
	Approach	*11.1*	*B*	*18.9*	*B*	*12.0*	*B*
Overall Intersection		***27.1***	***C***	***37.8***	***D***	***30.6***	***C***

*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Source: Google Earth Pro



*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

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2019 Existing Peak Hour Levels of Service

Harris Teeter Fuel Center

Figure 2-3
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3. 2021 FUTURE CONDITIONS WITHOUT DEVELOPMENT

This chapter examines future year conditions without the proposed fuel center. Included in this chapter are future traffic volumes and future traffic analysis results without the development. This study analyzes future without development conditions in the year 2021 (the build-out year of the proposed fuel center).

Future weekday AM and PM and Saturday midday peak hour turning movement volumes without development are the future without development volumes that will travel through the study area intersections without the proposed fuel center in 2021. Future without development traffic volumes were forecasted based on an increase of the existing traffic volumes due to general regional traffic growth and traffic generated by nearby approved and unbuilt developments.

3.1 REGIONAL TRAFFIC GROWTH

As outlined in the scoping document, an annual growth rate of one (1) percent was used as a conservative estimate of future growth throughout the study area. Existing (2019) peak hour traffic volumes were increased by the one (1) percent annual growth rate to background (2021) future base volumes.

3.2 2021 APPROVED AND UNBUILT DEVELOPMENTS

No approved and unbuilt developments were included in this traffic analysis.

3.3 2021 FUTURE WITHOUT DEVELOPMENT TRAFFIC VOLUMES

The 2021 peak hour turning movement volumes without the proposed fuel center were calculated by increasing the existing traffic volumes to the year 2021 using the previously mentioned growth rate of one (1) percent. The resulting 2021 future without development peak hour turning movement volumes at the study area intersections are shown in **Figure 3-1.**

FUTURE WITHOUT DEVELOPMENT INTERSECTION CAPACITY ANALYSES

The 2021 future conditions without development analyses were based on the future turning movements. Existing traffic signal operations and timings were maintained through future conditions analysis. The results of the intersection capacity analyses for the AM peak hour, PM peak hour, and Saturday midday peak hour are summarized in **Table 3-1**, **Table 3-2**, **Table 3-3**, respectively. Results of the existing conditions analysis are shown for comparison. Analysis results show overall level of service (LOS) and corresponding delay information for each movement, approach, and overall intersection. The LOS for the weekday AM and PM and Saturday midday peak hours under 2021 future without development are shown in **Figure 3-2.** The Synchro analysis reports are contained in **Appendix D**.

These capacity analysis results show that under future without development conditions, most study intersections and approaches operate at an overall LOS D or better during the AM and PM weekday and Saturday midday peak hours, except for the following:

- W Lee Highway at Fletcher Drive
    - Northbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.
    - Southbound approach is expected to operate at LOS F in the weekday AM peak hour and LOS E in the PM and Saturday midday peak hours.

- Blackwell Road at Walker Drive / North Hill Drive
    - Eastbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.
    - Westbound approach is expected to operate at LOS E in the weekday AM and PM and Saturday midday peak hours.

Table 3-1: 2021 Future without Development Intersection Capacity Analysis - AM Peak Hour

Intersection	Mvmt	Existing (2019)		Future without Development (2021)	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)					
Eastbound (W Lee Highway)	L	89.5	F	88.4	F
	T	7.6	A	7.4	A
	R	4.3	A	4.2	A
	Approach	*8.7*	*A*	*8.4*	*A*
Westbound (W Lee Highway)	L	90.9	F	92.5	F
	T	7.2	A	7.2	A
	R	3.5	A	3.5	A
	Approach	*9.2*	*A*	*9.1*	*A*
Northbound (Fletcher Drive)	L**	70.8	E	70.8	E
	L/T**	70.8	E	70.8	E
	R	67.5	E	67.6	E
	Approach	*69.7*	*E*	*69.8*	*E*
Southbound (Fletcher Drive)	L/T	82.8	F	83.1	F
	R	69.9	E	69.9	E
	Approach	*79.9*	*E*	*80.2*	*F*
Overall Intersection		***12.9***	***B***	***12.8***	***B***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)					
Eastbound (Harris Teeter Driveway)	L/T/R	7.4	A	7.4	A
Westbound (Private Drive)	L/T/R	6.7	A	6.6	A
Northbound (Fletcher Drive)	L/T/R	7.6	A	7.6	A
Southbound (Fletcher Drive)	L/T	8.0	A	7.9	*A*
	R	6.9	A	6.9	A
3. Fletcher Drive at North Hill Drive (TWSC)*					
Eastbound (North Hill Drive)	L	7.4	A	7.4	A
Southbound (Fletcher Drive)	L/R	9.0	A	9.0	A
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)					
Eastbound (North Hill Drive)	L/T	71.6	E	71.6	E
	R	66.7	E	66.7	E
	Approach	*69.9*	*E*	*69.9*	*E*
Westbound (Walker Drive)	L/T	57.8	E	58.2	E
	R	58.2	E	58.7	E
	Approach	*58.1*	*E*	*58.6*	*E*
Northbound (Blackwell Road)	L	11.2	B	10.9	B
	T/R	13.3	B	12.9	B
	Approach	*13.2*	*B*	*12.8*	*B*
Southbound (Blackwell Road)	L	10.0	A	9.7	A
	T	12.1	B	11.7	B
	R	10.7	B	10.4	B
	Approach	*11.1*	*B*	*10.8*	*B*
Overall Intersection		***27.1***	***C***	***27.0***	***C***

*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Table 3-2: 2021 Future without Development Intersection Capacity Analysis - PM Peak Hour

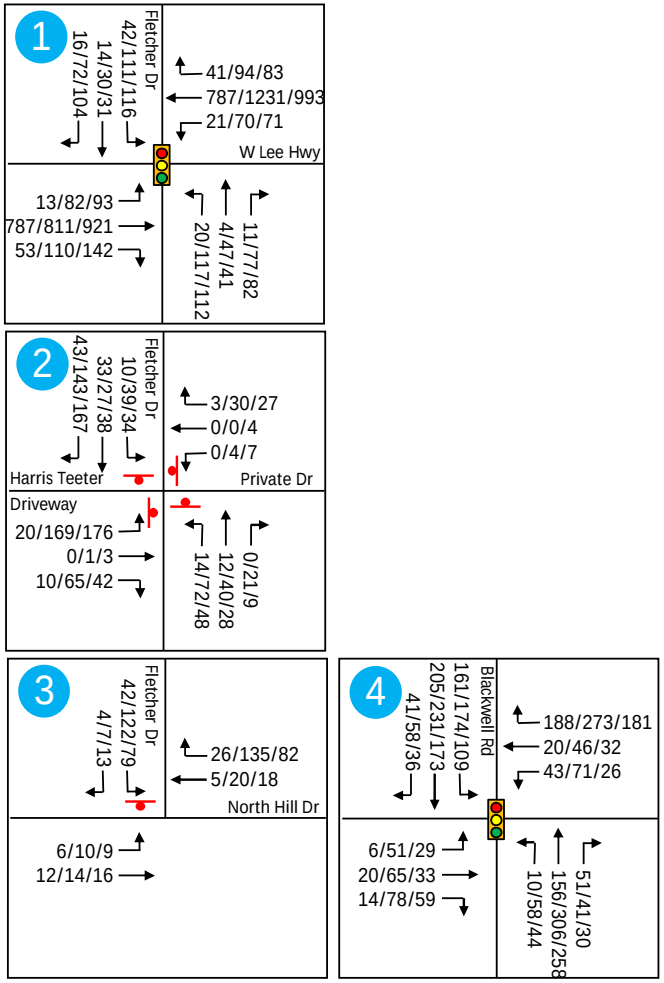
Intersection	Mvmt	Existing (2019)		Future without Development (2021)	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)					
Eastbound (W Lee Highway)	L	87.8	F	87.5	F
	T	13.9	B	14.2	B
	R	7.7	A	7.8	A
	Approach	*19.2*	*B*	*19.6*	*B*
Westbound (W Lee Highway)	L	89.5	F	89.3	F
	T	17.6	B	18.3	B
	R	6.4	A	6.5	A
	Approach	*20.5*	*C*	*21.1*	*C*
Northbound (Fletcher Drive)	L**	78.6	E	78.3	E
	L/T**	80.6	F	80.5	F
	R	66.8	E	66.6	E
	Approach	*75.8*	*E*	*75.6*	*E*
Southbound (Fletcher Drive)	L/T	80.4	F	80.3	F
	R	71.0	E	70.8	E
	Approach	*77.2*	*E*	*77.1*	*E*
Overall Intersection		***29.0***	***C***	***29.5***	***C***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)					
Eastbound (Harris Teeter Driveway)	L/T/R	10.3	B	10.4	B
Westbound (Private Drive)	L/T/R	7.9	A	7.9	A
Northbound (Fletcher Drive)	L/T/R	9.3	A	9.3	A
Southbound (Fletcher Drive)	L/T	9.1	A	9.1	*A*
	R	8.6	A	8.6	A
3. Fletcher Drive at North Hill Drive (TWSC)*					
Eastbound (North Hill Drive)	L	7.7	A	7.7	A
Southbound (Fletcher Drive)	L/R	10.5	B	10.2	B
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)					
Eastbound (North Hill Drive)	L/T	80.0	E	80.1	F
	R	65.1	E	65.4	E
	Approach	*74.0*	*E*	*74.2*	E
Westbound (Walker Drive)	L/T	57.0	E	57.4	E
	R	60.2	E	60.6	E
	Approach	*59.3*	*E*	*59.7*	E
Northbound (Blackwell Road)	L	16.4	B	15.7	B
	T/R	22.0	C	20.8	C
	Approach	*21.2*	*C*	*20.0*	B
Southbound (Blackwell Road)	L	16.6	B	15.9	B
	T	20.9	C	20.2	C
	R	18.4	B	17.9	B
	Approach	*18.9*	*B*	*18.3*	B
Overall Intersection		***37.8***	***D***	***37.4***	***D***

*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Table 3-3: 2021 Future without Development Intersection Capacity Analysis - Saturday Peak Hour

Intersection	Mvmt	Existing (2019)		Future without Development (2021)	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)					
Eastbound (W Lee Highway)	L	81.3	F	81.2	F
	T	15.4	B	15.8	B
	R	8.5	A	8.6	A
	Approach	*19.8*	*B*	*20.2*	*C*
Westbound (W Lee Highway)	L	84.3	F	84.1	F
	T	17.1	B	17.6	B
	R	6.8	A	6.9	A
	Approach	*20.6*	*C*	*21.0*	*C*
Northbound (Fletcher Drive)	L**	73.6	E	73.4	E
	L/T**	75.2	E	74.9	E
	R	62.5	E	62.3	E
	Approach	*70.6*	*E*	*70.3*	*E*
Southbound (Fletcher Drive)	L/T	74.4	E	74.2	E
	R	69.1	E	68.9	E
	Approach	*72.2*	*E*	*72.0*	*E*
Overall Intersection		***29.3***	***C***	***29.6***	***C***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)					
Eastbound (Harris Teeter Driveway)	L/T/R	10.2	B	10.2	B
Westbound (Private Drive)	L/T/R	8.0	A	8.0	A
Northbound (Fletcher Drive)	L/T/R	8.9	A	8.9	A
Southbound (Fletcher Drive)	L/T	9.0	A	9.0	A
	R	8.8	A	8.8	A
3. Fletcher Drive at North Hill Drive (TWSC)*					
Eastbound (North Hill Drive)	L	7.4	A	7.4	A
Southbound (Fletcher Drive)	L/R	9.6	A	9.6	A
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)					
Eastbound (North Hill Drive)	L/T	76.9	E	74.9	E
	R	64.9	E	64.3	E
	Approach	*71.0*	*E*	*69.8*	*E*
Westbound (Walker Drive)	L/T	58.8	E	59.0	E
	R	59.7	E	59.6	E
	Approach	*59.5*	*E*	*59.5*	*E*
Northbound (Blackwell Road)	L	9.8	A	9.7	A
	T/R	13.5	B	13.2	B
	Approach	*13.5*	*B*	*12.7*	B
Southbound (Blackwell Road)	L	9.9	A	9.8	A
	T	13.3	B	13.1	B
	R	12.0	B	11.9	B
	Approach	*12.0*	*B*	*11.8*	B
Overall Intersection		***30.6***	***C***	***30.4***	***C***

*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.



Source: Google Earth Pro

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2021 Future without Development Peak Hour Traffic Volumes

Harris Teeter Fuel Center

Figure 3-1
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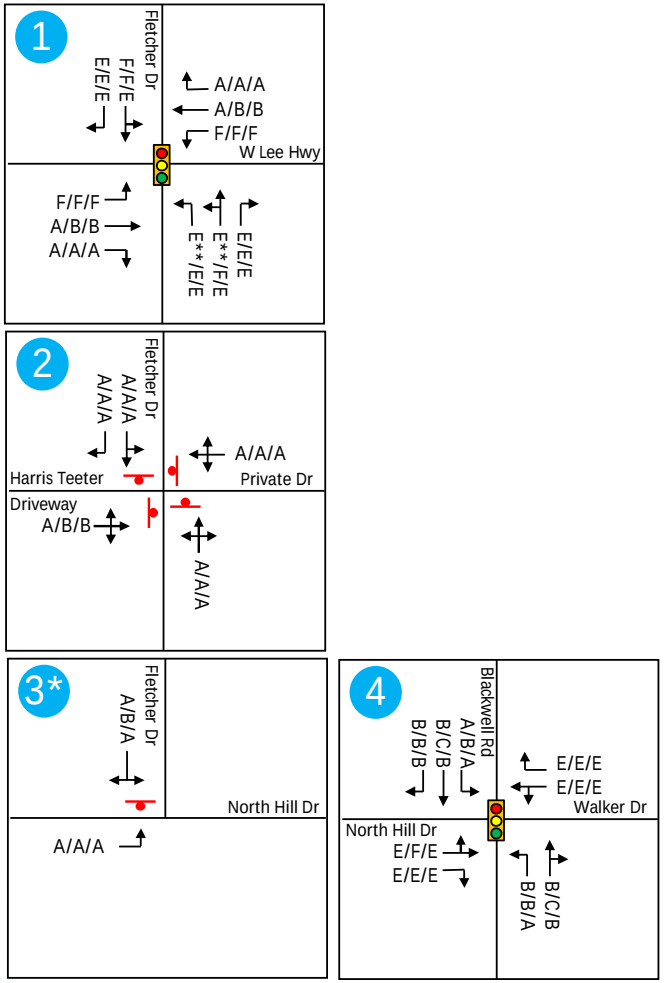
Source: Google Earth Pro



*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

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2021 Future without Development Peak Hour Levels of Service

Harris Teeter Fuel Center

Figure 3-2
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4. 2021 FUTURE CONDITIONS WITH DEVELOPMENT

This chapter examines 2021 future conditions with the new proposed fuel center. Included in this chapter are the trip generation, distribution, and assignment for the proposed site, and future traffic volumes and traffic analysis results with the development.

4.1 SITE ACCESS

Site access will utilize the existing Harris Teeter site access: one (1) full-access intersection along Fletcher Drive. From the driveway on Fletcher Drive, the site plan proposes to introduce a one-way entry to the fuel center that will navigate customers to the fueling stations through a more direct route than traversing the drive aisles of the rest of the shopping center. This will reduce conflicts with other parking patrons of the adjacent uses. Access will also be provided directly from the drive aisles of Harris Teeter, which is likely to have significant customer overlap with the fuel center. No additional conflicting movements are anticipated with the addition of the proposed fuel center.

4.2 SITE TRIP GENERATION

Trip generation rates for the proposed development were obtained from the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 10th Edition. Land use categories and descriptions were reviewed from this manual to determine which category has comparable characteristics and traffic patterns as the proposed fuel center. After careful review, land use code 944, Gasoline/Service Station was selected for trip generation calculations.

Internal capture percentages were applied to the total external trips to the site to account for trips generated by an individual land use that then remain internal to the site for a different land use. An example of such would be stopping by the existing Harris Teeter and then additionally stopping by the proposed fuel center, within the same trip. Internal capture was estimated from data collected at similar existing Harris Teeter Grocery Store and Fuel Centers. This internal capture data collection is summarized in **Appendix E.**

Pass-by percentages, obtained from ITE Trip Generation Handbook, 3rd Edition, were applied to the total external trips to the site, minus the internal capture, to account for traffic passing the site on adjacent streets that make an intermediate stop on the way from an origin to a primary trip destination. An example of such would be stopping by the proposed fuel center on the way from work to home in the evening. The lowest pass-by of the AM and PM peak period was applied to the Saturday peak period, as agreed upon in the scoping document. **Table 4-1** shows the primary site generated trips, including the internal capture and pass-by reductions.

Table 4-1: Proposed Site Trip Generation

ITE Code	Land Use Setting/ Location	Density		AM Peak Hour			PM Peak Hour			SAT Peak Hour			Daily
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	
944	Gasoline/ Service Station	8	f.p.	41	41	82	56	56	112	51	51	102	1,376
Internal Capture Trips (11% AM,28% PM,28% SAT)				-5	-5	-10	-16	-16	-32	-14	-14	-28	---
Pass-by Trips (58% AM,42% PM,42% SAT)				*-21*	*-21*	*-42*	*-17*	*-17*	*-34*	*-16*	*-16*	*-32*	---
Primary Trips (Total External minus Pass-by)				15	15	30	23	23	46	21	21	42	1,376

4.3 TRIP DISTRIBUTION

The weekday AM and PM and Saturday midday peak hour trips generated by the proposed fuel center were assigned to the study area streets based on surrounding land uses, population density, and transportation network improvements. The resulting distribution of site generated trips is summarized in **Table 4-2** and shown in **Figure 4-1**.

Table 4-2: 2021 Trip Distribution of Site Generated Traffic

Direction	Percentage Trips AM/PM/SAT Peaks
To/From the East on W Lee Highway	20%
To/From the West on W Lee Highway	35%
To/From the North on Fletcher Drive	10%
To/From the West on North Hill Drive	2%
To/From the East on North Hill Drive	16%
To/From the South on Blackwell Road	17%

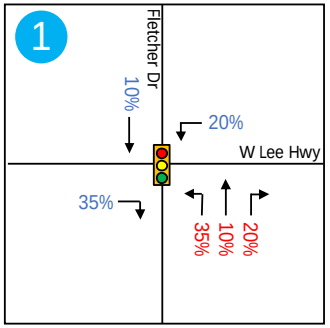
4.4 TRIP ASSIGNMENT

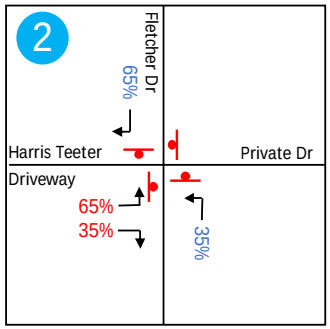
The site generated trips for this study were assigned to the study area intersections according to the distribution shown in **Table 4-2.** The site generated peak hour assignment is shown in **Figure 4-1**. The resulting primary site generated peak hour trips are shown in **Figure 4-2**.

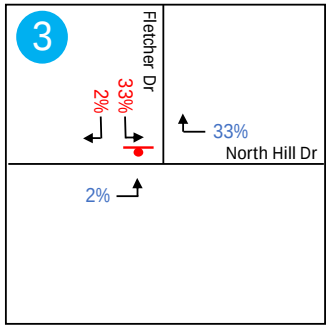
Additionally, pass-by trips were distributed amongst the study area intersections. Thirty-five percent (35%) of the pass-by trips were assumed to enter the site along Fletcher Drive from the south and sixty-five percent (65%) were assumed to enter the site along Fletcher Drive from the north. The resulting pass-by trips are shown in **Figure 4-3**

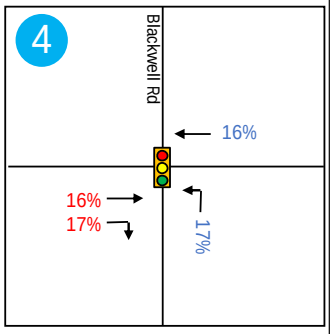
4.5 TOTAL FUTURE WITH DEVELOPMENT TRAFFIC VOLUMES

The total 2021 future with development peak hour traffic volumes were calculated by adding the net new site generated trips, including the primary and pass-by trips, to the 2021 future without development volumes. The resulting total future peak hour traffic volumes with development are shown on **Figure 4-4**.









Source: Google Earth Pro

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2021 Directional Distribution and Trip Assignment of Site Generated Trips

Harris Teeter Fuel Center

Figure 4-1
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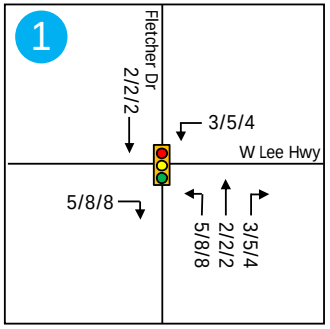

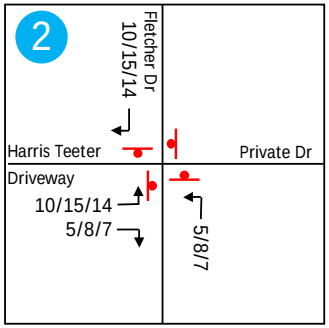

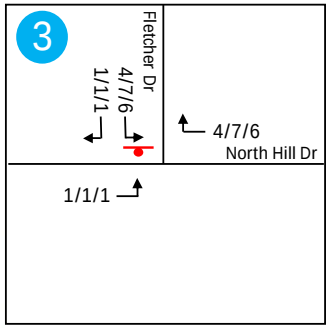

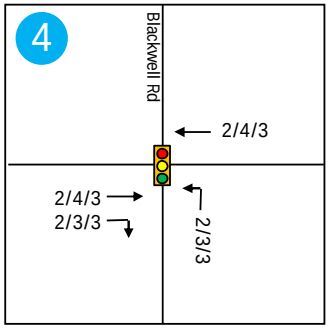

Source: Google Earth Pro

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2021 Primary Site Generated Peak Hour Trips

Harris Teeter Fuel Center

Figure 4-2

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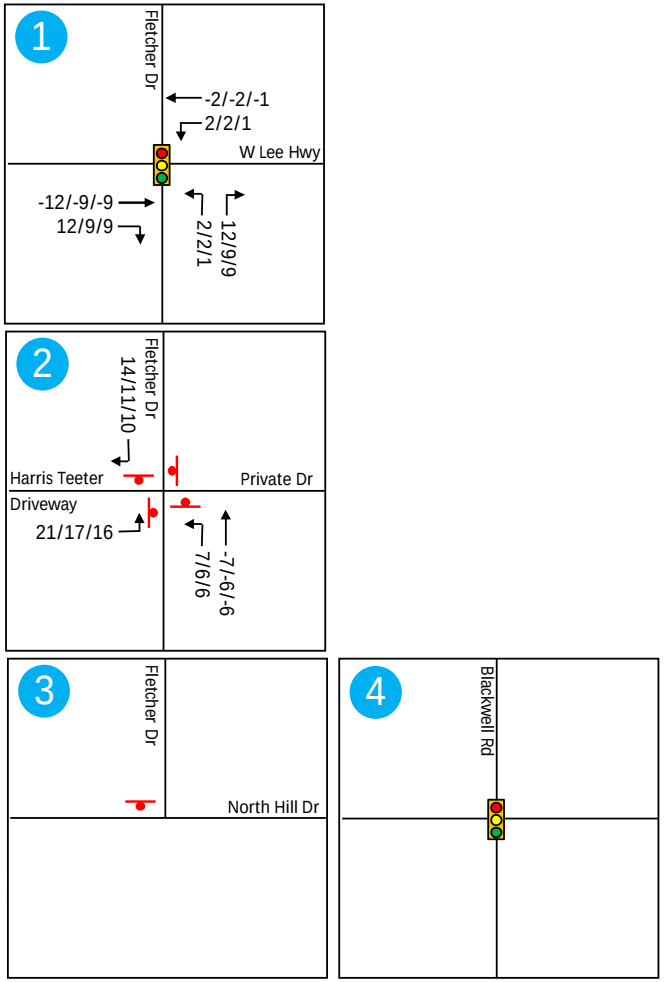

Source: Google Earth Pro

Kimley»Horn

2021 Pass-By Peak Hour Trips

Harris Teeter Fuel Center

Figure 4-3
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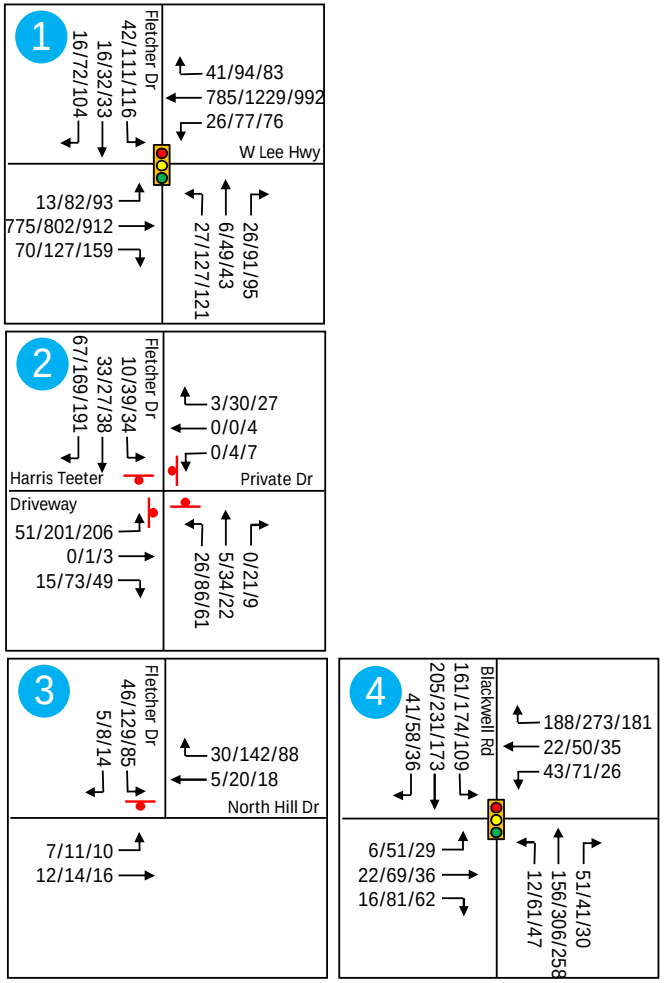

Source: Google Earth Pro

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2021 Future with Development Peak Hour Traffic Volumes

Harris Teeter Fuel Center

Figure 4-4
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FUTURE WITH DEVELOPMENT INTERSECTION CAPACITY ANALYSES

Capacity analyses were performed for 2021 future with development traffic volumes with the proposed fuel center. The analyses were based on the 2021 future without development scenario geometry, traffic control, and signal timing at the study area intersections.

The results of the intersection capacity analyses for the AM peak hour, PM peak hour, and Saturday midday peak hour are summarized in **Table 4-3**, **Table 4-4**, **Table 4-5**, respectively. Results of the existing conditions analysis and the future without development are shown for comparison. Analysis results show overall level of service (LOS) and corresponding delay information for each movement, approach, and overall intersection. The LOS for the weekday AM and PM and Saturday midday peak hours under 2021 future with development conditions are shown in **Figure 4-5**. Complete analysis results and Synchro HCM reports are provided in **Appendix D.**

The capacity analysis of the future conditions with development show that the increase in delay at the study intersections due to the proposed fuel center negligible. The proposed development worsens the LOS at the following movements:

- Eastbound approach of Harris Teeter Driveway at Fletcher Drive worsens from LOS A to LOS B during the PM peak hour and the Saturday midday peak hour. The associated delay increases by 0.8 seconds and 0.7 seconds in the PM peak hour and Saturday midday peak hour, respectively.
- Westbound approach of W Lee Highway at Fletcher Drive worsens from LOS A to LOS B during the Saturday midday peak hour. The associated delay increased by 1.0 seconds.

All intersections operate at overall LOS D or better in 2021 future conditions with and without development during the weekday AM and PM and Saturday midday peak hours.

Under the 2021 future with and without development, all intersection approaches operated at LOS D or better except for the following:

- Northbound Fletcher Drive at W Lee Highway operates at LOS E during the AM, PM, and Saturday midday peak hours.
- Southbound Fletcher Drive at W Lee Highway operates at LOS F during the AM peak hour and LOS E during the PM and Saturday midday peak hours.
- Eastbound North Hill Drive at Blackwell Road operates at LOS E during the AM, PM, and Saturday midday peak hours.
- Westbound Walker Drive at Blackwell Road operates at LOS E during the AM, PM, and Saturday midday peak hours.

All of these approaches were previously operating at LOS E in 2019 existing conditions.

In addition to the approaches and associated movements noted above, the following movements operate at LOS E or LOS F in 2019 existing conditions, and 2021 future with and without development conditions. The proposed development nominally increases the delay at these congested movements:

- Westbound left-turn lane from W Lee Highway to Fletcher Dr increases in delay by 1.6 seconds in the AM peak hour, decreases in delay by 0.9 seconds in the PM peak hour, and decreases in delay by 0.6 seconds in the Saturday midday peak hour. The slight decreases are likely attributable to the slight redistribution of traffic through the intersection caused by the proposed development. The movement is expected to operate at LOS F during weekday AM and PM and

Saturday midday peak hours under 2019 existing conditions and 2021 future with and without development conditions.

- Eastbound left turn lane from W Lee Highway to Fletcher Dr had no change in delay. This movement is expected to operate at LOS F during weekday AM and PM and Saturday midday peak hours under 2019 existing conditions and 2021 future with and without development conditions.

The increase in delay related to the proposed development is less than 2 seconds at the movement, approach and intersection level, indicating negligible effects on the intersection's operations.

Table 4-3: 2021 Future with Development Capacity Analysis – AM Peak Hour

Intersection	Mvmt	Existing (2019)		Future without Development (2021)		Future with Development (2021)	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)							
Eastbound (W Lee Highway)	L	89.5	F	88.4	F	88.4	F
	T	7.6	A	7.4	A	8.0	A
	R	4.3	A	4.2	A	4.4	A
	Approach	*8.7*	*A*	*8.4*	*A*	*8.9*	*A*
Westbound (W Lee Highway)	L	90.9	F	92.5	F	95.0	F
	T	7.2	A	7.2	A	7.6	A
	R	3.5	A	3.5	A	3.8	A
	Approach	*9.2*	*A*	*9.1*	*A*	*10.1*	*B*
Northbound (Fletcher Drive)	L**	70.8	E	70.8	E	70.7	E
	L/T**	70.8	E	70.8	E	70.6	E
	R	67.5	E	67.6	E	67.4	E
	Approach	*69.7*	*E*	*69.8*	*E*	*69.3*	*E*
Southbound (Fletcher Drive)	L/T	82.8	F	83.1	F	82.8	F
	R	69.9	E	69.9	E	69.6	E
	Approach	*79.9*	*E*	*80.2*	*F*	*80.0*	*E*
Overall Intersection		***12.9***	***B***	***12.8***	***B***	***14.3***	***B***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)							
Eastbound (Harris Teeter Driveway)	L/T/R	7.4	A	7.4	A	7.8	A
Westbound (Private Drive)	L/T/R	6.7	A	6.6	A	6.7	A
Northbound (Fletcher Drive)	L/T/R	7.6	A	7.6	A	7.8	A
Southbound (Fletcher Drive)	L/T	8.0	A	7.9	A	8.0	A
	R	6.9	A	6.9	A	7.1	A
3. Fletcher Drive at North Hill Drive (TWSC)*							
Eastbound (North Hill Drive)	L	7.4	A	7.4	A	7.4	A
Southbound (Fletcher Drive)	L/R	9.0	A	9.0	A	9.0	A
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)							
Eastbound (North Hill Drive)	L/T	71.6	E	71.6	E	71.6	E
	R	66.7	E	66.7	E	66.2	E
	Approach	*69.9*	*E*	*69.9*	*E*	*69.7*	*E*
Westbound (Walker Drive)	L/T	57.8	E	58.2	E	58.3	E
	R	58.2	E	58.7	E	57.7	E
	Approach	*58.1*	*E*	*58.6*	*E*	*58.6*	*E*
Northbound (Blackwell Road)	L	11.2	B	10.9	B	10.8	B
	T/R	13.3	B	12.9	B	13.0	B
	Approach	*13.2*	*B*	*12.8*	B	*12.8*	B
Southbound (Blackwell Road)	L	10.0	A	9.7	A	10.0	A
	T	12.1	B	11.7	B	12.0	B
	R	10.7	B	10.4	B	10.6	B
	Approach	*11.1*	*B*	*10.8*	B	*11.0*	B
Overall Intersection		***27.1***	***C***	***27.0***	***C***	***27.3***	***C***

*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Table 4-4: 2021 Future with Development Capacity Analysis – PM Peak Hour

Intersection	Mvmt	Existing (2019)		Future without Development (2021)		Future with Development (2021)	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)							
Eastbound (W Lee Highway)	L	87.8	F	87.5	F	87.5	F
	T	13.9	B	14.2	B	15.0	B
	R	7.7	A	7.8	A	8.2	A
	Approach	*19.2*	*B*	*19.6*	*B*	*20.0*	*B*
Westbound (W Lee Highway)	L	89.5	F	89.3	F	88.4	F
	T	17.6	B	18.3	B	18.9	B
	R	6.4	A	6.5	A	6.7	A
	Approach	*20.5*	*C*	*21.1*	*C*	*21.9*	*C*
Northbound (Fletcher Drive)	L**	78.6	E	78.3	E	77.7	E
	L/T**	80.6	F	80.5	F	80.0	E
	R	66.8	E	66.6	E	66.0	E
	Approach	*75.8*	*E*	*75.6*	*E*	*74.8*	*E*
Southbound (Fletcher Drive)	L/T	80.4	F	80.3	F	80.2	F
	R	71.0	E	70.8	E	70.5	E
	Approach	*77.2*	*E*	*77.1*	*E*	*77.0*	*E*
Overall Intersection		***29.0***	***C***	***29.5***	***C***	***30.4***	***C***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)							
Eastbound (Harris Teeter Driveway)	L/T/R	10.3	B	10.4	B	11.4	B
Westbound (Private Drive)	L/T/R	7.9	A	7.9	A	8.1	A
Northbound (Fletcher Drive)	L/T/R	9.3	A	9.3	A	9.8	A
Southbound (Fletcher Drive)	L/T	9.1	A	9.1	A	9.4	A
	R	8.6	A	8.6	A	9.1	A
3. Fletcher Drive at North Hill Drive (TWSC)*							
Eastbound (North Hill Drive)	L	7.7	A	7.7	A	7.7	A
Southbound (Fletcher Drive)	L/R	10.5	B	10.2	B	10.3	B
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)							
Eastbound (North Hill Drive)	L/T	80.0	E	80.1	F	79.9	E
	R	65.1	E	65.4	E	65.2	E
	Approach	*74.0*	*E*	*74.2*	*E*	*74.0*	*E*
Westbound (Walker Drive)	L/T	57.0	E	57.4	E	57.6	E
	R	60.2	E	60.6	E	60.6	E
	Approach	*59.3*	*E*	*59.7*	*E*	*59.6*	*E*
Northbound (Blackwell Road)	L	16.4	B	15.7	B	15.9	B
	T/R	22.0	C	20.8	C	21.0	C
	Approach	*21.2*	*C*	*20.0*	*B*	*20.2*	*C*
Southbound (Blackwell Road)	L	16.6	B	15.9	B	16.1	B
	T	20.9	C	20.2	C	20.4	C
	R	18.4	B	17.9	B	18.1	B
	Approach	*18.9*	*B*	*18.3*	*B*	*18.5*	*B*
Overall Intersection		***37.8***	***D***	***37.4***	***D***	***37.6***	***D***

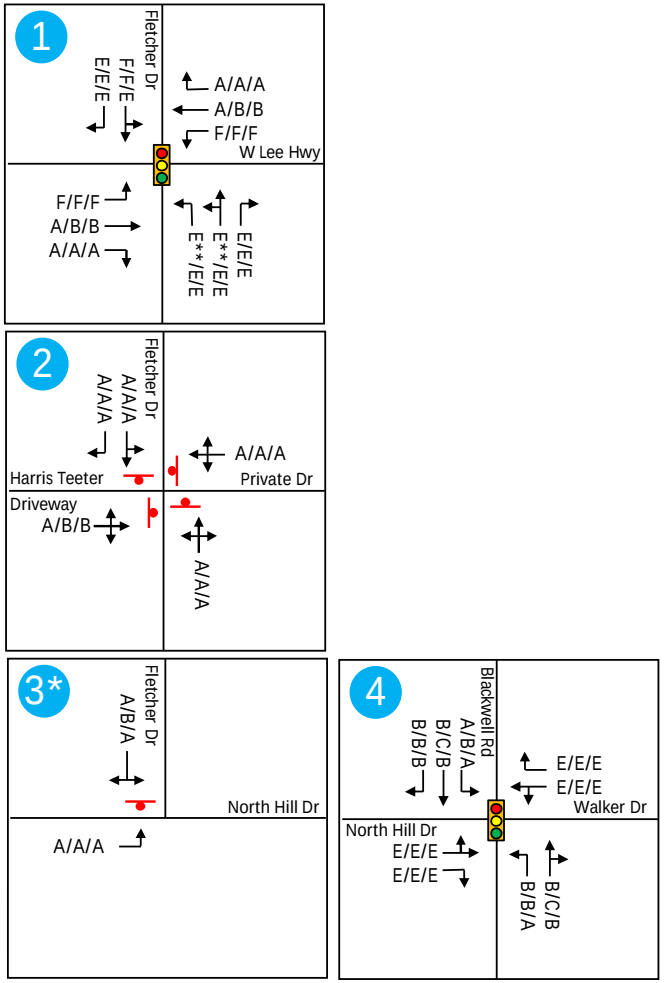
*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Table 4-5: 2021 Future with Development Capacity Analysis – Saturday Peak Hour

Intersection	Mvmt	Existing (2019)		Future without Development (2021)		Future with Development (2021)	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. W Lee Highway at Fletcher Drive (Signalized)							
Eastbound (W Lee Highway)	L	81.3	F	81.2	F	81.2	F
	T	15.4	B	15.8	B	16.7	B
	R	8.5	A	8.6	A	8.6	A
	Approach	*19.8*	*B*	*20.2*	*C*	*21.3*	*C*
Westbound (W Lee Highway)	L	84.3	F	84.1	F	83.5	F
	T	17.1	B	17.6	B	18.4	B
	R	6.8	A	6.9	A	7.3	A
	Approach	*20.6*	*C*	*21.0*	*C*	*21.9*	*C*
Northbound (Fletcher Drive)	L**	73.6	E	73.4	E	71.5	E
	L/T**	75.2	E	74.9	E	72.7	E
	R	62.5	E	62.3	E	61.3	E
	Approach	*70.6*	*E*	*70.3*	*E*	*68.4*	*E*
Southbound (Fletcher Drive)	L/T	74.4	E	74.2	E	74.1	E
	R	69.1	E	68.9	E	68.6	E
	Approach	*72.2*	*E*	*72.0*	*E*	*71.9*	*E*
Overall Intersection		***29.3***	***C***	***29.6***	***C***	***30.7***	***C***
2. Fletcher Drive at Harris Teeter Driveway (AWSC)							
Eastbound (Harris Teeter Driveway)	L/T/R	10.2	B	10.2	B	11.1	B
Westbound (Private Drive)	L/T/R	8.0	A	8.0	A	8.2	A
Northbound (Fletcher Drive)	L/T/R	8.9	A	8.9	A	9.2	A
Southbound (Fletcher Drive)	L/T	9.0	A	9.0	A	9.2	A
	R	8.8	A	8.8	A	9.3	A
3. Fletcher Drive at North Hill Drive (TWSC)*							
Eastbound (North Hill Drive)	L	7.4	A	7.4	A	7.4	A
Southbound (Fletcher Drive)	L/R	9.6	A	9.6	A	9.7	A
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)							
Eastbound (North Hill Drive)	L/T	76.9	E	74.9	E	75.6	E
	R	64.9	E	64.3	E	64.3	E
	Approach	*71.0*	*E*	*69.8*	*E*	*70.1*	*E*
Westbound (Walker Drive)	L/T	58.8	E	59.0	E	59.1	E
	R	59.7	E	59.6	E	59.6	E
	Approach	*59.5*	*E*	*59.5*	*E*	*59.5*	*E*
Northbound (Blackwell Road)	L	9.8	A	9.7	A	9.7	A
	T/R	13.5	B	13.2	B	13.2	B
	Approach	*13.5*	*B*	*12.7*	B	*12.7*	B
Southbound (Blackwell Road)	L	9.9	A	9.8	A	9.8	A
	T	13.3	B	13.1	B	13.1	B
	R	12.0	B	11.9	B	11.9	B
	Approach	*12.0*	*B*	*11.8*	B	*11.9*	B
Overall Intersection		***30.6***	***C***	***30.4***	***C***	***30.7***	***C***

*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Source: Google Earth Pro



*Only yielding movements reported for two-way STOP-controlled intersections.
**HCM Report combines left-turn and shared left/through lane groups into one due to insufficient volume.

Kimley»Horn

2021 Future with Development Peak Hour Levels of Service

Harris Teeter Fuel Center

Figure 4-5
Page 33

5. QUEUING ANALYSIS

The queueing analyses were conducted using Synchro 10 methodology to determine the 95th percentile queues for each approach. The resulting 95th percentile queues are summarized in **Table 5-1.** No significant queuing is anticipated at any of the study area intersections during typical AM weekday, PM weekday, or Saturday midday peak hour conditions. All queues are anticipated to be less than the available storage length. The existing site entrance will be adequate for the site generated trips. The site generated trips will have a negligible effect on the study area intersections.

Table 5-1: Queuing Analysis

Intersection	Mvmt	Existing Storage Length (ft)	2019 Existing Conditions			2021 Future without Conditions			2021 Future with Development Conditions		
			AM Peak	PM Peak	SAT Peak	AM Peak	PM Peak	SAT Peak	AM Peak	PM Peak	SAT Peak
			95th Queue (ft)			95th Queue (ft)			95th Queue (ft)		
1. W Lee Highway at Fletcher Drive (Signalized)											
Eastbound (W Lee Highway)	L	200	40	142	151	39	145	153	39	145	153
	T	-	263	368	442	260	380	456	264	384	460
	R	350	0	25	29	0	25	29	6	27	31
Westbound (W Lee Highway)	L	215	54	126	124	54	127	126	62	137	131
	T	-	153	653	503	252	680	520	257	688	525
	R	310	2	12	10	3	13	10	3	13	11
Northbound (Fletcher Drive)	L	400*	37	148	133	38	149	135	47	158	143
	L/T	400*	37	150	136	38	152	140	47	161	145
	R	110	0	32	30	0	31	30	0	33	32
Southbound (Fletcher Drive)	L/T	-	106	215	213	107	218	217	109	221	219
	R	165	0	22	53	0	23	56	0	23	56
2. Fletcher Drive at Harris Teeter Driveway (AWSC)											
Eastbound (Harris Teeter Driveway)	L/T/R	-	3	38	35	3	38	35	8	50	45
Westbound (Private Drive)	L/T/R	-	0	3	5	0	3	5	0	5	5
Northbound (Fletcher Drive)	L/T/R	-	3	18	10	3	18	10	3	20	13
Southbound (Fletcher Drive)	L/T	400*	5	10	10	5	10	10	5	10	10
	R	400*	5	18	23	5	18	23	8	25	28
3. Fletcher Drive at North Hill Drive (TWSC)											
Eastbound (North Hill Drive)	L	-	0	0	0	0	0	0	0	0	0
Southbound (Fletcher Drive)	L/R	-	5	18	10	5	15	10	5	18	10
4. Blackwell Road at Walker Drive / North Hill Drive (Signalized)											
Eastbound (North Hill Drive)	L/T	760*	61	197	113	63	198	116	65	202	120
	R	80	0	23	35	0	25	34	0	27	36
Westbound (Walker Drive)	L/T	-	116	198	108	117	198	109	120	202	113
	R	-	59	66	66	67	74	68	67	74	68
Northbound (Blackwell Road)	L	120	9	48	28	9	47	28	10	49	30
	T/R	-	65	157	96	64	154	96	65	156	97
Southbound (Blackwell Road)	L	180	78	124	59	78	122	59	79	123	60
	T	-	134	206	121	134	204	120	136	206	121
	R	300	0	6	0	0	6	0	0	6	0

**Storage Length is restricted by next intersection*

AWSC = All-way STOP-Controlled unsignalized intersection (Assume a vehicle is 25 feet long)

TWSC = Two-way STOP-Controlled unsignalized intersection (Assume a vehicle is 25 feet long)

6. CONCLUSIONS

This transportation study shows that the proposed fuel center located on-site of the existing Harris Teeter Grocery Store in Warrenton, VA will have a negligible impact on the study area intersections. There will be no changes in overall intersection levels of service due to the proposed development compared to the future without development scenario.

The capacity analysis of the future conditions with development show that the increase in delay at the study intersections due to the proposed fuel center is negligible. The proposed development increases the LOS at the following approaches:

- Eastbound approach of Harris Teeter Driveway at Fletcher Drive worsens from LOS A to LOS B during the PM peak hour and the Saturday midday peak hour. The associated delay increases by 0.8 seconds and 0.7 seconds in the PM peak hour and Saturday midday peak hour, respectively.
- Westbound approach of W Lee Highway at Fletcher Drive worsens from LOS A to LOS B during the Saturday midday peak hour. The associated delay increased by 1.0 seconds.

All intersections operate at overall LOS D or better in 2021 future with and without development during the weekday AM and PM and Saturday midday peak hours.

Under the 2021 future with and without development conditions, all intersection approaches operate at LOS D or better except for the following:

- Northbound Fletcher Drive at W Lee Highway operates at LOS E during the AM, PM, and Saturday midday peak hours.
- Southbound Fletcher Drive at W Lee Highway operates at LOS F during the AM peak hour and LOS E during the PM and Saturday midday peak hours.
- Eastbound North Hill Drive at Blackwell Road operates at LOS E during the AM, PM, and Saturday midday peak hours.
- Westbound Walker Drive at Blackwell Road operates at LOS E during the AM, PM, and Saturday midday peak hours.

All of these approaches were previously operating at LOS E in 2019 existing conditions.

In addition to the approaches and associate movements noted above, the following movements operate at LOS E or LOS F in 2019 existing conditions and 2021 future with or without development conditions. The proposed development nominally increases the delay at these congested movements:

- Westbound left-turn lane from W Lee Highway to Fletcher Dr increases in delay by 1.6 seconds in the AM peak hour, decreases in delay by 0.9 seconds in the PM peak hour, and decreases in delay by 0.6 seconds in the Saturday midday peak hour. The slight decreases are likely attributable to the slight redistribution of traffic through the intersection caused by the proposed development. The movement is expected to operate at LOS F during weekday AM and PM and Saturday midday peak hours under 2019 existing conditions and 2021 future with and without development conditions.
- Eastbound left turn lane from W Lee Highway to Fletcher Dr had no change in delay. This movement is expected to operate at LOS F during weekday AM and PM and Saturday midday peak hours under 2019 existing conditions and 2021 future with and without development conditions.

The increase in delay related to the proposed development is less than 2 seconds at the movement, approach and intersection level, indicating negligible effects on the intersection's operations.

No significant queuing is anticipated at any of the study area intersections during typical AM weekday, PM weekday, or Saturday midday peak hour conditions. All queues are anticipated to be less than the available storage length. The existing site entrance will be adequate for the site generated trips. The site generated trips will have a negligible effect on the study area intersections.

Appendix A

Concept Site Plan

Appendix B

Scoping Form

Appendix C

Existing Traffic Counts

Appendix D

Traffic Analysis HCM Reports

Appendix E

Internal Capture Data Collection

VDOT Comment Responses
January 28, 2022

General:

1. Applicant should clarify what would be the largest vehicle accessing the site and provide an Autoturn analysis as part of the site plan submission. Given the location of the fueling tanks, the analysis should include vehicle turning movements exiting/entering the site as well as its internal circulation within the parking lot. (LU)

   Response: Comment addressed.

2. Page 22, Section 4.1 of the TIS should include a description of the new right-in only that is being proposed within the existing private street that serves Harris Teeter. (LU)

   Response: Comment addressed.

3. The Town of Warrenton should consider a future study to try to mitigate the existing low LOS at the intersections. (LU)

   Response: This comment is not applicable to the TIS.

4. In Tables 3-1, 3-2, and 3-3 several of the "Future without Development" movement delays are lower than the existing delay. In most cases, the differences are minor, but in some cases, the difference is approximately 1 second. Additionally, the overall intersection delay was reduced for the future movements for 2 of the 4 intersections. It does not seem reasonable that the traffic volumes increased, but the delay went down without any improvements being made. (TE)

   Response: The analysis has been revised, and the delay decreases remain from existing to future conditions. The delay decreases are due to the adjustment of the peak hour factors in future conditions analysis, based on minimums provided by TOSAM guidance. The increase in some peak hour factors resulted in slight modifications to the future without development results.

5. In Tables 4-3, 4-4, and 4-5, several of the "Future with Development" movements are lower than the "Future without Development" movements. It does not seem reasonable that the traffic volumes increased, but the delay went down without any improvements being made. (TE)

   Response: The redistribution of volumes at the signalized intersections, resulting from the future development conditions, caused the actuated signals to reallocate the green time for a few phases. This resulted in some movements receiving more green allocation than in the future without development conditions, which improved the delay of some movements by a nominal amount.

6. Per TOSAM, the PHF for future Synchro model scenarios (i.e. No-Build and Build) in urban environments should be the higher of the existing conditions or 0.92; is there a reason this was not the case in the Future without Development (No-Build) and Future (Build) scenarios? (PL)

   Response: The analysis has been revised to reflect the appropriate PHF per TOSAM guidance.

7. The Existing PM and Sat Synchro model scenarios should use the estimated PHFs from the turning movement counts per TOSAM. (PL)

   Response: The analysis has been revised to reflect the appropriate PHF per TOSAM guidance.

8. Page 35, Table 5-1: “Sat” appears incorrectly labelled as “PM” for 2021

   Response: Comment addressed.

Geotechnical and Environmental Engineering Report

Harris Teeter Fuel Center Store #329
Warrenton, VA 20186
March 3, 2020
Terracon Project No. JD205028

Prepared for:
Kimley-Horn & Associates
Charlotte, NC

Prepared by:
Terracon Consultants, Inc.
Ashburn, Virginia

March 3, 2020

Kimley-Horn & Associates
200 South Tryon Street
Charlotte, NC 28202

Attn: Ms. Maggie Jones
P: (704) 409 1812
E: Maggie.Jones@kimley-horn.com

Re: Geotechnical and Environmental Engineering Report
Harris Teeter Fuel Center Store #329
530 Fletcher Drive,
Warrenton, VA 20186
Terracon Project No. JD205028

Dear Ms. Jones:

We have completed the Geotechnical and Environmental Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. PJD205028 dated January 27, 2020. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations and floor slabs for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

COMMONWEALTH OF VIRGINIA
DENIZ KARADENIZ
Lic. No. 050668
PROFESSIONAL ENGINEER

Lindsay Valentino, P.G.
Project Manager

Deniz Karadeniz, PhD, P.E.
Geotechnical Department Manager

Senior Review: Paul Burkart, P.E., Senior Principal

REPORT TOPICS

Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the ***GeoReport*** logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

Note: Refer to each individual Attachment for a listing of contents.

EXECUTIVE SUMMARY

A geotechnical investigation has been performed for the proposed fuel center at 530 Fletcher Drive, Warrenton, Virginia. The investigation at the project site included eight test borings, designated B-01 through B-08, performed to depths of approximately 10 to 35 feet below the existing ground surface.

Based on the information obtained from our subsurface exploration, the site can be developed for the proposed project. The following geotechnical considerations were identified:

- Support of floor slabs and pavements on or above existing fill materials is discussed in this report. However, even with the recommended construction procedures, there is inherent risk for the owner that compressible fill or unsuitable material, within or buried by the fill, will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill, but can be reduced by following the recommendations contained in this report. To take advantage of the cost benefit of not removing the entire amount of undocumented fill, the owner must be willing to accept the risk associated with building over the undocumented fills following the recommended reworking of the material. Should this be the case, development may be supported on a shallow foundation system.
- Based on the results of our field testing and Section 20.4 of ASCE 7 and the International Building Code (IBC), the seismic site classification is C.
- Environmental sampling/screening of select borings was performed at the same time as our geotechnical investigation. The results of the photo-ionization detector (PID) screening are included on the borings logs. The full results of our environmental services are provided in a separate report.

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **General Comments** should be read for an understanding of the report limitations.

Geotechnical and Environmental Engineering Report

Harris Teeter Fuel Center Store #329
530 Fletcher Drive,
Warrenton, VA 20186

Terracon Project No. JD205028

March 3, 2020

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed fuel center store to be located at 530 Fletcher Drive, in Warrenton, VA 20186. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Excavation considerations
- Dewatering considerations
- Stormwater pond considerations
- Foundation design and construction
- Floor slab design and construction
- Seismic site classification per IBC
- Lateral earth pressures
- Pavement design and construction
- Frost considerations

The geotechnical engineering Scope of Services for this project included the advancement of eight test borings to depths ranging from approximately 10 to 35 feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at 530 Fletcher Drive, Warrenton, VA 20186. See **Site Location**
Existing Improvements	Existing Harris Teeter building with associated paved parking and drive areas.
Current Ground Cover	Asphalt Pavement

Item	Description
Existing Topography (from Google Earth)	Relatively level, between EL 518 and EL 520.
Geology	Piedmont Physiographic Region. See **Geology**.

PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed during project planning. Aspects of the project, undefined or assumed, are highlighted as shown below. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Information Provided	Overall Concept Plan provided by Kimley-Horn.
Project Description	The project includes a walk-in kiosk building, fuel center canopy, and two fuel tanks. The building will be slab-on-grade (non-basement).
Building Construction	Load-bearing masonry walls, slab-on-grade, and steel-framed fuel canopy.
Finished Floor Elevation	Assumed close to existing grades.
Maximum Loads	■ Columns: 50 kips ■ Walls: 3 kips per linear foot (klf) ■ Slabs: 100 pounds per square foot (psf)
Grading/Slopes	Up to 10 feet of cut may be required for the underground storage tank installation. We assume final grades will be close to existing grades.
Below-Grade Structures	Two fuel tanks.
Free-Standing Retaining Walls	None.
Below-Grade Areas	Storm Tie-in area.
Pavements	We assume both rigid (concrete) and flexible (asphalt) pavement sections will be considered. Anticipated traffic is as follows: ■ Autos/light trucks: 1,000 vehicles per day ■ Light delivery and trash collection vehicles: 100 vehicles per week ■ Tractor-trailer trucks: 1 vehicle per week The pavement design period is 20 years.

GEOTECHNICAL CHARACTERIZATION

Geology

The project site is located in the Piedmont Physiographic Province, an area underlain by igneous and metamorphic rocks. The residual soils in this area are the product of in-place chemical weathering of rock. The typical residual soil profile consists of clayey soils near the surface where soil weathering is more advanced, underlain by sandy silts and silty sands that generally become harder with depth to the top of parent bedrock. Alluvial soils are typically present within floodplain areas along creeks and rivers in the Piedmont. According to the 1993 Geologic Map of Virginia, the site is mapped within the Catoctin Formation. The bedrock underlying the site generally consists of metabasalt.

The boundary between soil and rock in the Piedmont is not sharply defined. A transitional zone termed “Intermediate Geo-Material” is normally found overlying the parent bedrock. Intermediate Geo-Material (IGM) is defined for engineering purposes as residual material with a standard penetration test resistance exceeding 50 blows per six inches. The transition between hard/dense residual soils and partially weathered rock occurs at irregular depths due to variations in degree of weathering.

Groundwater is typically present in fractures within the partially weathered rock or underlying bedrock in upland areas of the Piedmont. Fluctuations in groundwater levels on the order of 2 to 4 feet are typical in residual soils and partially weathered rock in the Piedmont, depending on variations in precipitation, evaporation, and surface water runoff. Seasonal high groundwater level fluctuations should also be considered.

Subsurface Profile

The table below summarizes the subsurface conditions encountered at each boring location:

Boring ID	Boring Depth (ft)[1]	Asphalt or Stone Thickness (feet)	Depth of Existing Fill Soils Encountered (ft)[1]	Depth of Residual Soils Encountered (ft)[1]	Depth of IGM Encountered (ft)[1]
B-01	19.4	0.75	0.75 to 1.25	1.25 to 19.4	NE
B-02	15	0.75	0.75 to 3	3 to 15	NE
B-03	19.9	NE	0 to 2.5	2.5 to 13.5	13.5 to 19.9
B-04	34.4	NE	NE	0 to 23.5	23.5 to 34.4
B-05	20	NE	NE	0 to 20	NE
B-06	10	NE	0 to 1.5	1.5 to 10	NE
B-07	10	0.75	0.75 to 3	3 to 10	NE
B-08	10	0.75	0.75 to 3	3 to 10	NE

1. Feet below existing ground surface.
2. NE = Not encountered.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation, foundation options and pavement options. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

Groundwater Conditions

The boreholes were observed while drilling and after completion for the presence and level of groundwater. The water levels observed in the boreholes can be found on the boring logs in **Exploration Results**, and are summarized in the following table.

Boring Number	Approximate Depth to Groundwater (feet) [1]	Approximate Depth to Groundwater (feet) [1]
B-01 through B-03, and B-05 through B-08	Not encountered	Not encountered
B-04	14.5 feet upon completion of drilling	15 feet after 7 days

1. Below ground surface.

As summarized in the table above, groundwater was not observed in the remaining borings while drilling, or for the short duration the borings could remain open. However, this does not necessarily mean the borings terminated above groundwater, or the water levels summarized above are stable groundwater levels. A relatively long period may be necessary for a groundwater level to develop and stabilize in a borehole. Long term observations in piezometers or observation wells sealed from the influence of surface water are often required to more accurately define groundwater levels.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Infiltration Testing

Two methods were used to estimate infiltration capabilities on the subject site: in-situ infiltration testing and published correlations with soil classifications. Infiltration structure details were not finalized at the time of the field investigation, and so the test was performed at a generic depth

that was discussed with the client. Based on the results of the in-situ infiltration tests, the infiltration rates have been calculated and are presented below:

Boring Number	Approximate Test Depth (ft) [1]	Approximate Test Elevation (ft) [1]	Field Infiltration Rate (inches/hour)
B-06A	5	514	0.6

1. Below ground surface.

Based on a Soil Survey Report from the USDA, the site is mapped primarily as a hydrologic soil group rating of B. According to the VA DEQ Stormwater Design Specification No. 8, soils with a hydrologic soil group rating of B have moderate infiltration rates even when thoroughly wetted. The USDA report is included in the Supporting Information section of this report.

GEOTECHNICAL OVERVIEW

Existing fill materials were encountered in Borings B-01, B-02, B-03, B-06, B-07, and B-08. Support of foundations, floor slabs and pavements on or above existing fill materials is discussed in this report. However, even with the recommended construction procedures, there is an inherent risk for the owner that compressible fill or unsuitable material, within or buried by the fill, will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill, but can be reduced by following the recommendations contained in this report. To take advantage of the cost benefit of not removing the entire amount of undocumented fill, the owner must be willing to accept the risk associated with building over the undocumented fills following the recommended reworking of the material. Should this be the case, the structures may be supported on a shallow foundation system.

The proposed gas station structures may be supported on conventional spread and strip footings with an allowable bearing pressure of 3,000 psf. These recommendations should be considered preliminary and should be verified during final design with additional investigations. Further details and recommendations are provided herein.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

Earthwork is anticipated to include demolition, excavations, and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria, as necessary, to render the site in the state considered in our geotechnical engineering evaluation for foundations, floor slabs, and pavements.

Site Preparation

Site preparation should begin with the demolition of the existing structure and debris removal. As part of the demolition, buried utilities and/or concrete foundations should also be removed. Existing utilities that are to be abandoned should be removed or filled with grout. The excavations resulting from foundation and utility removal should be properly backfilled with compacted engineered fill as described in the following subsections. Utilities that are to remain in service should be accurately located horizontally and vertically to minimize conflict with new foundation construction.

Existing vegetation, topsoil, and any otherwise unsuitable material should be removed from the construction areas prior to placing fill. Stripped materials consisting of vegetation and organic materials should be wasted off site, or used to vegetate landscaped areas or exposed slopes after completion of grading operations. The exposed subgrade soils should be proofrolled to detect soft or loose soils and identify unsuitable or poorly compacted fill. Proofrolling should be performed with a fully-loaded, tandem-axle dump truck or similar pneumatic-tired construction equipment. A Terracon representative should observe this operation to aid in delineating unstable soil areas. Proofrolling should be performed after a suitable period of dry weather to avoid degrading an otherwise acceptable subgrade. Soils which continue to rut or deflect excessively under the proofrolling operations should be remediated as recommended by the geotechnical engineer.

Existing Fill

As noted in **Geotechnical Characterization**, borings B-01, B-02, B-03, B-06, B-07, and B-08 encountered existing fill to depths ranging from about 0 to 3 feet below existing grades. The fill appears to have been placed in a controlled manner, but we have no records to indicate the degree of control. Support of footings, floor slabs, and pavements, on or above existing fill soils, is discussed in this report. However, even with the recommended construction procedures, there is inherent risk for the owner that compressible fill or unsuitable material, within or buried by the fill will, not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill, but can be reduced by following the recommendations contained in this report.

If the owner elects to construct the footings and floor slabs on the existing fill, the following protocol should be followed. Once materials have been removed, the entire area should be proofrolled with heavy, rubber tire construction equipment, to aid in delineating areas of soft or otherwise unsuitable soil. Once unsuitable materials have been remediated, and the subgrade has passed the proofroll test, the existing and undocumented fill that was removed can be evaluated for reuse as structural fill.

If the owner elects to construct pavements on the existing fill, the following protocol should be followed. Once the planned subgrade elevation has been reached the entire pavement area

should be proofrolled. Areas of soft or otherwise unsuitable material should be undercut and replaced with either new structural fill or suitable, existing on site materials.

Fill Material Types

Structural fill should meet the following compaction requirements.

Soil Type [1]	USCS Classification	Acceptable Location for Placement
Low Plasticity Cohesive [2]	CL, ML, CL-ML	Not acceptable
High Plasticity Cohesive [2]	CH, MH	Not acceptable
Granular	GW, GP, GM, GC, SW, SP, SM, SC	Less than 10% Passing No. 200 sieve.

1. Structural fill should consist of approved materials free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site.
2. Cohesive soils should not be used as structural fill for this project.

Fill Compaction Requirements

Structural and general fill should meet the following compaction requirements.

Item	Description
Maximum Lift Thickness	8 inches or less in loose thickness when heavy, self-propelled compaction equipment is used. 4 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used.
Minimum Compaction Requirements [1, 2, 3]	Minimum 95% of the material's maximum standard Proctor dry density (ASTM D 698). The upper 12 inches of subgrade in pavement areas should be compacted to at least 100% of the materials maximum standard Proctor dry density (ASTM D 698).
Water Content Range [1]	Within 3% of optimum moisture content

1. Maximum density and optimum water content as determined by the standard Proctor test (ASTM D 698).
2. If the granular material is a coarse sand or gravel, or of a uniform size, or has a low fines content, compaction comparison to relative density may be more appropriate. In this case, granular materials should be compacted to at least 70% relative density (ASTM D 4253 and D 4254).

Underground Storage Tanks

We recommend using pea gravel as backfill around the tanks and up to one to two feet above the tops of tanks. The pea gravel should be compacted with vibratory energy, such as through the use of a hand operated sled-tamper, prior to the placement of the overlying backfill or pavement

materials. In addition, we recommend placing a separation geotextile between the pea gravel and adjoining soil to help prevent soil piping.

Utility Trench Backfill

For low permeability subgrades, utility trenches are a common source of water infiltration and migration. Utility trenches penetrating beneath the building should be effectively sealed to restrict water intrusion and flow through the trenches, which could migrate below the building. The trench should provide an effective trench plug that extends at least 5 feet from the face of the building exterior. The plug material should consist of cementitious flowable fill or low permeability clay. The trench plug material should be placed to surround the utility line. If used, the clay trench plug material should be placed and compacted to comply with the water content and compaction recommendations for structural fill stated previously in this report.

Grading and Drainage

All grades must provide effective drainage away from the building during and after construction and should be maintained throughout the life of the structure. Water retained next to the building can result in soil movements greater than those discussed in this report. Greater movements can result in unacceptable differential floor slab and/or foundation movements, cracked slabs and walls, and roof leaks. The roof should have gutters/drains with downspouts that discharge onto splash blocks at a distance of at least 10 feet from the building.

Exposed ground should be sloped and maintained at a minimum 5% away from the building for at least 10 feet beyond the perimeter of the building. Locally, flatter grades may be necessary to transition ADA access requirements for flatwork. After building construction and landscaping have been completed, final grades should be verified to document effective drainage has been achieved. Grades around the structure should also be periodically inspected and adjusted, as necessary, as part of the structure's maintenance program. Where paving or flatwork abuts the structure, a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

Earthwork Construction Considerations

Shallow excavations for the proposed structure are anticipated to be accomplished with conventional construction equipment. Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction of floor slabs. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to floor slab construction.

The groundwater table could affect overexcavation efforts, especially for over-excavation and replacement of lower strength soils. A temporary dewatering system consisting of sumps with pumps could be necessary to achieve the recommended depth of over-excavation.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, “Excavations” and its appendices, and in accordance with any applicable local, and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of vegetation and topsoil, proofrolling, and mitigation of areas delineated by the proofroll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked, as necessary, until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas. One density and water content test should be performed for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. If unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer’s evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

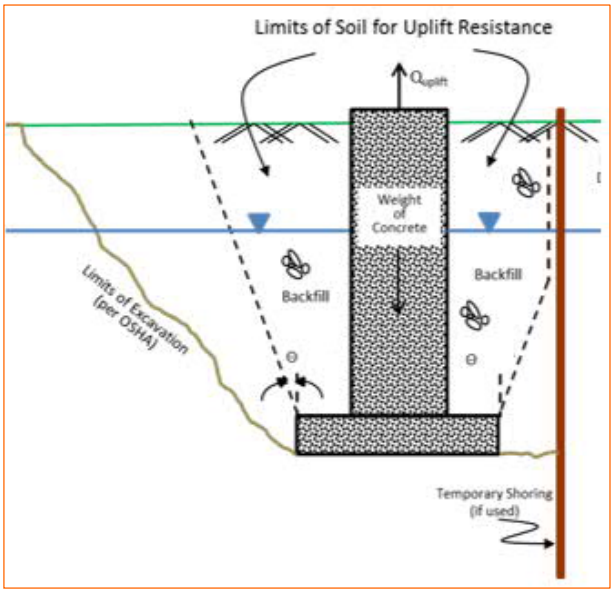
Design Parameters – Compressive Loads

Item	Description
Allowable Bearing pressure [1]	3,000 psf
Minimum Foundation Dimensions [2]	Columns: 48 inches
Minimum Embedment below Finished Grade [4]	24 inches
Ultimate Coefficient of Sliding Friction [5]	0.6 (New Structural Fill material)
Estimated Total Settlement from Structural Loads [2]	Less than about 0.5 inches
Estimated Differential Settlement [2, 6]	About 1/2 of total settlement

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. An appropriate factor of safety has been applied. Values assume that exterior grades are no steeper than 20% within 10 feet of structure.
2. Values provided are for maximum loads noted in **Project Description**.
3. Unsuitable or soft soils should be over-excavated and replaced per the recommendations presented in the **Earthwork**.
4. Embedment necessary to minimize the effects of frost and/or seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.
5. Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Should be neglected for foundations subject to net uplift conditions.
6. Differential settlements are as measured over a span of 50 feet.

Design Parameters - Uplift Loads

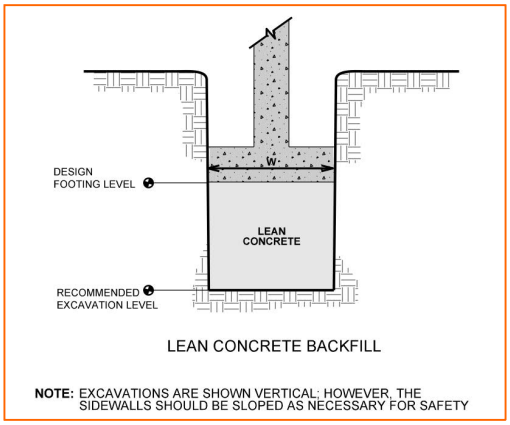
Uplift resistance of spread footings can be developed from the effective weight of the footing and the overlying soils. As illustrated on the subsequent figure, the effective weight of the soil prism defined by diagonal planes extending up from the top of the perimeter of the foundation to the ground surface at an angle, θ, of 20 degrees from the vertical can be included in uplift resistance. The maximum allowable uplift capacity should be taken as a sum of the effective weight of soil plus the dead weight of the foundation, divided by an appropriate factor of safety. A maximum total unit weight of 100 pcf should be used for the backfill. This unit weight should be reduced to 40 pcf for portions of the backfill or natural soils below the groundwater elevation.



Foundation Construction Considerations

As noted in **Earthwork**, the footing excavations should be evaluated under the direction of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are encountered at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. This is illustrated on the sketch below.



SEISMIC CONSIDERATIONS

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil properties encountered at the site and as described on the exploration logs and results, it is our professional opinion that the Seismic Site Classification is C. Subsurface explorations at this site were extended to a maximum depth of 35 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

FLOOR SLABS

Design parameters for floor slabs assume the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure and positive drainage of the aggregate base beneath the floor slab.

Floor Slab Design Parameters

Item	Description
Floor Slab Support [1]	Suitable existing soils or new engineered fill compacted in accordance with **Earthwork** section of this report. [1]
Estimated Modulus of Subgrade Reaction [2]	100 pounds per square inch per inch (psi/in) for point loads
Aggregate base course/capillary break [3]	Minimum 4 inches of free-draining granular material (less than 5% passing the U.S. No. 200 sieve)

1. Floor slabs should be structurally independent of building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.
2. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.
3. Free-draining granular material should have less than 5% fines (material passing the No. 200 sieve). Other design considerations such as cold temperatures and condensation development could warrant more extensive design provisions.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will

support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

Settlement of floor slabs supported on existing fill materials cannot be accurately predicted, but could be larger than normal and result in some cracking. Mitigation measures, as noted in **Existing Fill** within **Earthwork**, are critical to the performance of floor slabs. In addition to the mitigation measures, the floor slab can be stiffened by adding steel reinforcement, grade beams and/or post-tensioned elements.

Floor Slab Construction Considerations

Finished subgrade, within and for at least 10 feet beyond the floor slab, should be protected from traffic, rutting, or other disturbance and maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become damaged or desiccated prior to construction of floor slabs, the affected material should be removed and structural fill should be added to replace the resulting excavation. Final conditioning of the finished subgrade should be performed immediately prior to placement of the floor slab support course.

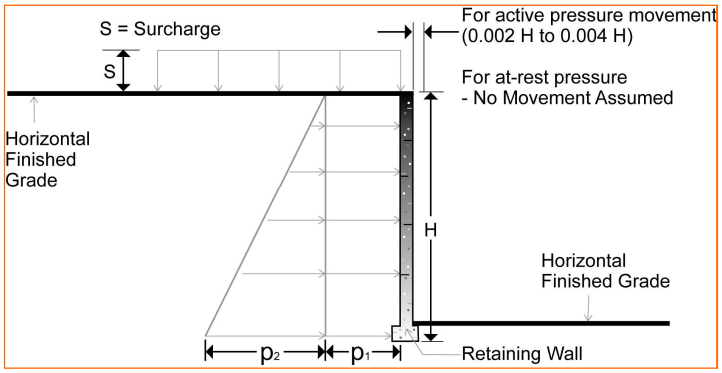
The Geotechnical Engineer should approve the condition of the floor slab subgrades immediately prior to placement of the floor slab support course, reinforcing steel, and concrete. Attention should be paid to high traffic areas that were rutted and disturbed earlier, and to areas where backfilled trenches are located.

LATERAL EARTH PRESSURES

Design Parameters

Structures with unbalanced backfill levels on opposite sides should be designed for earth pressures at least equal to values indicated in the following table. Earth pressures will be influenced by structural design of the walls, conditions of wall restraint, methods of construction

and/or compaction and the strength of the materials being restrained. Two wall restraint conditions are shown in the diagram below. Active earth pressure is commonly used for design of free-standing cantilever retaining walls and assumes wall movement. The “at-rest” condition assumes no wall movement and is commonly used for basement walls, loading dock walls, or other walls restrained at the top. The recommended design lateral earth pressures do not include a factor of safety and do not provide for possible hydrostatic pressure on the walls (unless stated).



Lateral Earth Pressure Design Parameters				
Earth Pressure Condition [1]	**Coefficient for Backfill Type** [2]	**Surcharge Pressure p_1 (psf)** [3, 4, 5]	**Effective Fluid Pressures (psf)** [2, 4, 5]	
			Unsaturated	**Submerged**
Active (Ka)	Existing Fill - 0.33	(0.33)S	(40)H	(80)H
	Residual - 0.33	(0.33)S	(40)H	(80)H
At-Rest (Ko)	Existing Fill - 0.5	(0.5)S	(60)H	(100)H
	Residual - 0.5	(0.5)S	(60)H	(100)H
Passive (Kp)	Existing Fill – 3.0	---	(360)H	(200)H
	Residual - 3.0	---	(360)H	(200)H

1. For active earth pressure, wall must rotate about base, with top lateral movements 0.002 H to 0.004 H, where H is wall height. For passive earth pressure, wall must move horizontally to mobilize resistance.
2. Uniform, horizontal backfill, compacted to at least 95% of the ASTM D 698 maximum dry density, rendering a maximum unit weight of 120 pcf.
3. Uniform surcharge, where S is surcharge pressure.
4. Loading from heavy compaction equipment is not included.
5. No safety factor is included in these values. Passive pressure should include a safety factor for design.

Backfill placed against structures should consist of granular soils. For the granular values to be valid, the granular backfill must extend out and up from the base of the wall at an angle of at least 45 and 60 degrees from vertical for the active and passive cases, respectively.

PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

Pavement Design Parameters

Design of Asphaltic Concrete (AC) pavements are based on the procedures outlined in the National Asphalt Pavement Association (NAPA) Information Series 109 (IS-109). Design of Portland Cement Concrete (PCC) pavements are based upon American Concrete Institute (ACI) 330; Guide for Design and Construction of Concrete Parking Lots.

A subgrade CBR of 5 was used for the AC pavement designs, and a modulus of subgrade reaction of 250 pci was used for the PCC pavement designs. The values were empirically derived based upon our experience with the fine-grained subgrade soils and our understanding of the quality of the subgrade as prescribed by the **Site Preparation** conditions as outlined in **Earthwork**. A modulus of rupture of 500 psi was used for pavement concrete.

Pavement Section Thicknesses

The following table provides options for AC and PCC Sections:

Asphaltic Concrete Design			
Material	**Grading**[1]	**Recommended Minimum Pavement Section Thickness (inches)** [2]	
		Automobile Areas (Light Duty)	**Main Drives & Truck Access Areas (Heavy Duty)**
Asphalt Concrete Surface Course	SM-9.5A	1.5	1.5
Asphalt Concrete Intermediate Course	BM-25.0	3	5
Aggregate Base	ABC	6	8

1. Based on anticipated traffic loading as described in **Project Description** section.
2. We have based our recommendations on the parameters described in the **Project Description** section.

Portland Cement Concrete Design			
Layer	Specification[2]	Minimum Thickness (inches) [2]	
		Automobile Areas [1]	Main Drives & Truck Access Areas [1]
Portland Cement Concrete	4,000 psi	6	7
Aggregate Base	--	6	6

1. Based on anticipated traffic loading as described in Project Description section.
2. We have based our recommendations on the parameters described in the **Project Description** section.

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g., crack and joint sealing and patching) and global maintenance (e.g., surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install below pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.
- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.
- Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

FROST CONSIDERATIONS

The soils on this site are frost susceptible, and small amounts of water can affect the performance of the slabs on-grade, sidewalks, and pavements. Exterior slabs should be anticipated to heave during winter months. If frost action needs to be eliminated in critical areas, we recommend the use of non-frost susceptible (NFS) fill or structural slabs (for instance, structural stoops in front of building doors). Placement of NFS material in large areas may not be feasible; however, the following recommendations are provided to help reduce potential frost heave:

- Provide surface drainage away from the building and slabs, and toward the site storm drainage system.
- Install drains around the perimeter of the building, stoops, below exterior slabs and pavements, and connect them to the storm drainage system.
- Grade clayey subgrades, so groundwater potentially perched in overlying more permeable subgrades, such as sand or aggregate base, slope toward a site drainage system.
- Place NFS fill as backfill beneath slabs and pavements critical to the project.
- Place a 3 horizontal to 1 vertical (3H:1V) transition zone between NFS fill and other soils.
- Place NFS materials in critical sidewalk areas.

As an alternative to extending NFS fill to the full frost depth, consideration can be made to placing extruded polystyrene or cellular concrete under a buffer of at least 2 feet of NFS material.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and

are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Borings	Boring Depth (feet)	Planned Location
3	19 to 35	tank area
2	15 to 20	fuel island and kiosk
3	10	pavement

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±10 feet) and approximate elevations were obtained by interpolation from GoogleEarth. If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced the borings with a track-mounted rotary drill rig using continuous flight augers. Four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. We observed and recorded groundwater levels during drilling and sampling. For safety purposes, most borings were backfilled with auger cuttings after their completion. Pavements were patched with cold-mix asphalt and/or pre-mixed concrete, as appropriate. Some borings were backfilled up to 7 days after drilling for long term water readings.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

In-situ Infiltration Testing: In-situ infiltration tests are performed in the field to observe the rate at which water will permeate the soil under saturated conditions. One test boring was drilled for this purpose. The test boring was initially drilled to a depth of at least 4 feet below the planned infiltration invert elevations, and allowed to remain open for a period of approximately 24 hours to

allow any groundwater levels within the borehole to stabilize. An offset infiltration test hole was drilled at the boring locations to planned infiltration invert elevations. Four-inch diameter PVC casing was set to the bottom of the test holes. The purpose of the casing is to prevent caving of test hole sidewalls. After setting the PVC casing, the borehole was filled with water to saturate the bottom subsoils. The following day, the test hole was refilled with water and the water level in each test hole was recorded every hour for a 4-hour period. Using this procedure, the average change in the water level over the 4-hour period is considered the infiltration rate.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D422 Standard Test Method for Particle-Size Analysis of Soils

The laboratory testing program often included examination of soil samples by an engineer. Based on the material's texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

Detailed results of our laboratory testing can be found in in the **Exploration Results** section and are attached herein. Our laboratory testing program includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Location Plan
Exploration Plan

Note: All attachments are one page unless noted above.

SITE LOCATION

Harris Teeter Fuel Center Store #329 ■ Warrenton, VA 20186
March 3, 2020 ■ Terracon Project No. JD205028

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION PLAN

Harris Teeter Fuel Center Store #329 ■ Warrenton, VA 20186
March 3, 2020 ■ Terracon Project No. JD205028

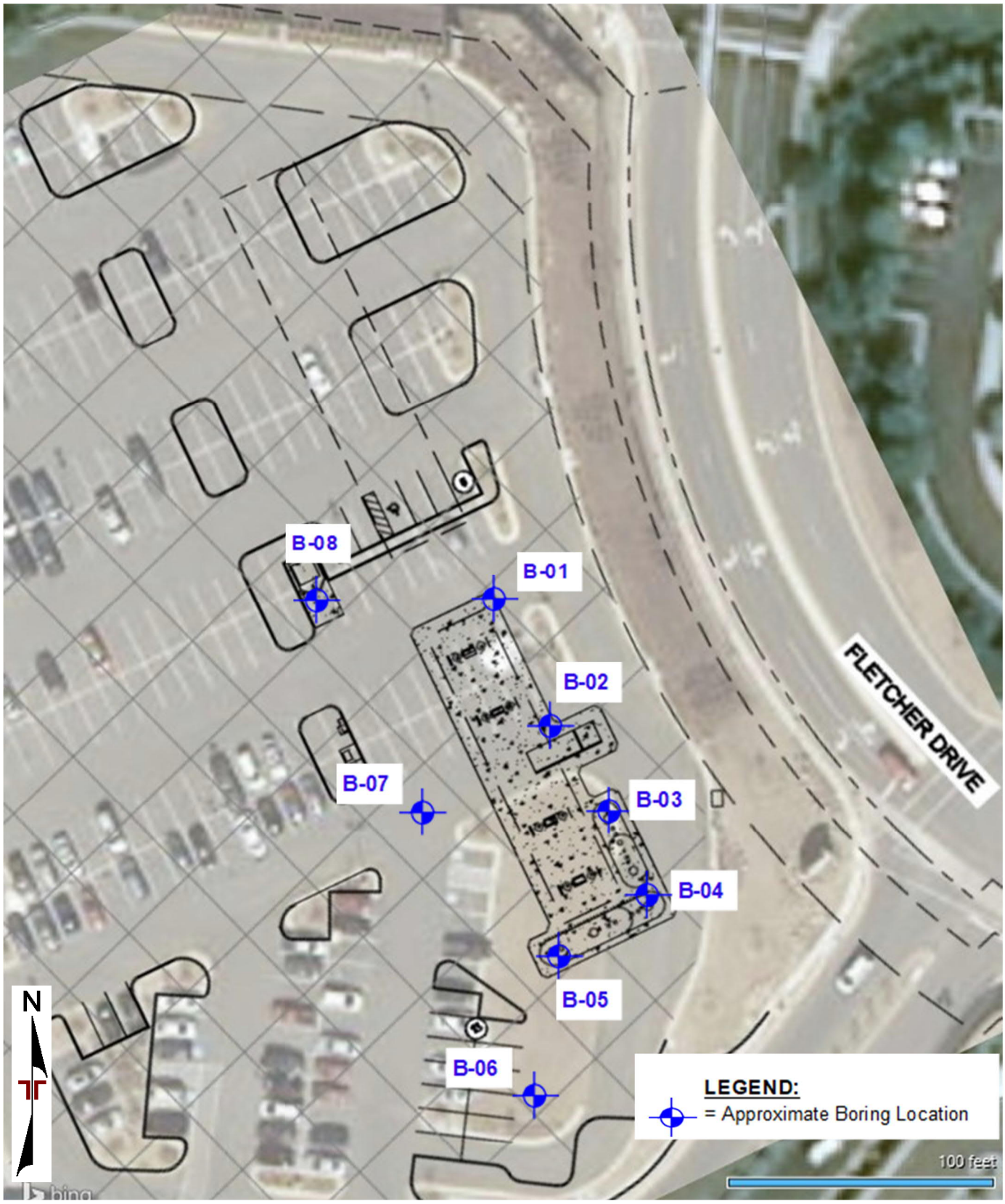


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

Contents:

Note: All attachments are one page unless noted above.

BORING LOG NO. B-1

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727414° Longitude: -77.794613°

Approximate Surface Elev.: 518 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.3	517.5+/-	**Asphalt**
0.8	517.5+/-	**Crushed stone**
1.3	517+/-	**FILL - GRAVELLY SILT (ML)**, micaceous, orange brown, moist, hard
		RESIDUAL - SANDY SILT (ML), fine, light orange brown to dark brown, moist, hard
		white gray to light orange
		light gray orange
		gray brown to red
19.4	498.5+/-	***Boring Terminated at 19.42 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (Ft.)	FIELD TEST RESULTS	PID (ppm)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
			1.67	7-8-26-29 N=34				
			1.33	13-18-18 N=36				
5			1.33	18-34-43 N=77				
			1.5	8-13-27 N=40				
10								
			1.5	11-19-23 N=42		13	33-26-7	52
15								
	Caved: 18.7 ft.		0.5	38-50/5"				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

PID readings were not performed at borings outside of the proposed tank area.

WATER LEVEL OBSERVATIONS

No free water observed

Caved: 18.7 ft.

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 Boring Completed: 02-18-2020

Drill Rig: D 50 Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-2

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727333° Longitude: -77.794573°

Approximate Surface Elev.: 518 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.3	517.5+/-	**Asphalt**
0.8	517.5+/-	**Crushed stone**
		FILL - SANDY SILT WITH GRAVEL (ML), micaceous, light orange brown, moist, very stiff
3.0	515+/-	
		RESIDUAL - SANDY SILT (ML), micaceous, fine, orange brown, moist, hard
5.0	513+/-	
		RESIDUAL - SILT (ML), micaceous, light orange brown, moist, hard to very stiff
13.5	504.5+/-	
		RESIDUAL - SANDY SILT (ML), micaceous, fine, orange brown, moist, very stiff
15.0	503+/-	
		Boring Terminated at 15 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (Ft.)	FIELD TEST RESULTS	WATER CONTENT (%)
		1.5	6-10-17-30 N=27	
		1.5	13-16-20 N=36	
5		1.5	21-22-24 N=46	14
		1.5	10-14-16 N=30	
10		1.5	5-7-15 N=22	
15				

ATTERBERG LIMITS: LL-PL-PI

PERCENT FINES

PID (ppm)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

PID readings were not performed at borings outside of the proposed tank area.

WATER LEVEL OBSERVATIONS

No free water observed

Caved: 14.5 ft.

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 Boring Completed: 02-18-2020

Drill Rig: D 50 Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-3

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727204° Longitude: -77.794492°

Approximate Surface Elev.: 518 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	RECOVERY (Ft.)	FIELD TEST RESULTS	PID (ppm)
0.2	518+/-	**Topsoil**				
		FILL - SANDY SILT (ML), micaceous, light brown, moist, hard, contains roots		1.5	13-12-28-20 N=40	0
2.5	515.5+/-					
		RESIDUAL - SANDY SILT (ML), micaceous, fine, light orange brown, moist, very stiff to hard		1.5	11-11-11 N=22	0
			5	1.5	21-27-35 N=62	0
8.5	509.5+/-					
		RESIDUAL - SILT WITH GRAVEL (ML), micaceous, fine to medium, light orange brown, moist, hard, Quartz fragments encountered		1.5	10-25-34 N=59	0
			10			
13.5	504.5+/-					
		IGM - WELL-GRADED GRAVEL WITH SILT AND SAND (GW), medium to coarse, white, moist, very dense, Quartz fragments encountered		0.83	40-50/4"	0
			15			
18.5	499.5+/-					
		IGM - SANDY SILT (ML), micaceous, fine, light orange brown, moist, hard		1.42	20-31-50/5"	0
19.9	498+/-					
		Boring Terminated at 19.92 Feet				

WATER LEVEL OBSERVATIONS: Caved: 18 ft.

SAMPLE TYPE: Split Spoon

ATTERBERG LIMITS: LL-PL-PI

PERCENT FINES

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Caved: 18 ft.

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 | Boring Completed: 02-18-2020

Drill Rig: D 50 | Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-4

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727123° Longitude: -77.794519°

Approximate Surface Elev.: 519 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.2	519+/-	**Topsoil**
		RESIDUAL - SANDY SILT (ML), micaceous, fine to medium, light brown, moist, very stiff to hard
23.5	495.5+/-	**IGM - SILT (ML)**, micaceous, fine, light brown, moist, hard
34.4	484.5+/-	***Boring Terminated at 34.42 Feet***

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (Ft.)	FIELD TEST RESULTS	PID (ppm)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		1.5	8-13-17-23 N=30	0			
		1.42	18-37-50/5"	0			
5		1.5	21-31-37 N=68	0	14		
		0.83	26-50/4"	0			
10							
		0.92	34-50/5"	0			
15							
		1.5	9-12-17 N=29	0			
20							
		0.92	26-50/5"	0	12		
25							
		0.42	50/5"	0			
30							
		0.92	31-50/5"	0			

WATER LEVEL OBSERVATIONS

▽ *At completion of drilling*

▼ *After 168 hours*

Stratification lines are approximate. In-situ, the transition may be gradual.
Temporary standpipe location

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Standpipe Installed

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 | Boring Completed: 02-18-2020

Drill Rig: D 50 | Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-5

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727038° Longitude: -77.794618°

Approximate Surface Elev.: 520 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0.2	520+/-	**Topsoil**
		RESIDUAL - SILT (ML), micaceous, light orange brown, moist, very stiff to hard
5.0	515+/-	**RESIDUAL - SILT WITH SAND (ML)**, micaceous, fine, light orange brown, moist, hard
20.0	500+/-	***Boring Terminated at 20 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (Ft.)	FIELD TEST RESULTS	PID (ppm)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
			1.83	4-8-10-18 N=18	0			
			1.5	11-17-17 N=34	0			
5			0.92	30-50/5"	1			
			1.42	39-42-50/5"	28.0			
10								
			1.5	10-19-28 N=47	0	18	41-29-12	83
15								
	▽							
			1.5	9-29-48 N=77	0			
20								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

▽ *Caved: 18.5 ft.*

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 Boring Completed: 02-18-2020

Drill Rig: D 50 Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-6

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.726931° Longitude: -77.794548°

Approximate Surface Elev.: 519 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	RECOVERY (Ft.)	FIELD TEST RESULTS
0.3	519+/-			
Topsoil				
1.5	517.5+/-		2	3-3-10-16 N=13
FILL - SILT (ML), micaceous, light orange brown, moist, stiff, contains roots				
2.5	516.5+/-		1.5	10-21-31 N=52
RESIDUAL - WELL-GRADED GRAVEL WITH SAND (GW), micaceous, fine to medium, dark red brown, moist, medium dense, Quartz fragments encountered		5	0.92	21-50/5"
RESIDUAL - SANDY SILT (ML), micaceous, fine, light orange brown, moist, hard			1.25	15-16-16 N=32
10.0	509+/-	10		
Boring Terminated at 10 Feet				

WATER LEVEL OBSERVATIONS | SAMPLE TYPE | PID (ppm) | WATER CONTENT (%) | ATTERBERG LIMITS LL-PL-PI | PERCENT FINES

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

PID readings were not performed at borings outside of the proposed tank area.

WATER LEVEL OBSERVATIONS

No free water observed

No free water observed after 168 hours

Caved: 8.7 ft.

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 | Boring Completed: 02-18-2020

Drill Rig: D 50 | Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-7

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727307° Longitude: -77.794749°

Approximate Surface Elev.: 519 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (Ft.)	FIELD TEST RESULTS	PID (ppm)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
0.4	518.5+/-	**Asphalt**									
0.8	518.5+/-	**Crushed stone**									
		FILL - SILT (ML), micaceous, light orange brown, moist, medium stiff				1.83	3-3-5-7 N=8				
3.0	516+/-										
		RESIDUAL - SILT (ML), micaceous, light orange brown, moist, very stiff				1.5	3-7-10 N=17				
5.0	514+/-		5								
		RESIDUAL - ELASTIC SILT (MH), micaceous, light orange brown, moist, very stiff				1.5	8-11-14 N=25		22		
10.0	509+/-					1.5	7-12-10 N=22				
		Boring Terminated at 10 Feet	10								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

PID readings were not performed at borings outside of the proposed tank area.

WATER LEVEL OBSERVATIONS

No free water observed

Caved: 7 ft.

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 | Boring Completed: 02-18-2020

Drill Rig: D 50 | Driller: Garrett Wilson

Project No.: JD205028

BORING LOG NO. B-8

PROJECT: Harris Teeter Fuel Center Store #329

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SITE: Fletcher Drive
Warrenton, VA

LOCATION See Exploration Plan

Latitude: 38.727429° Longitude: -77.79485°

Approximate Surface Elev.: 520 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (Ft.)	FIELD TEST RESULTS	PID (ppm)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
0.3 **Asphalt**	519.5+/-									
0.8 **Crushed stone**	519.5+/-									
FILL - SILT (ML), micaceous, light orange brown, moist, hard										
					2	13-13-18-20 N=31				
3.0	517+/-									
RESIDUAL - SANDY SILT (ML), micaceous, fine, brown orange, moist, very stiff to hard										
		5			1.5	10-11-16 N=27				
					1.5	22-26-34 N=60		16		
					1.5	13-15-21 N=36				
10.0	510+/-	10								
Boring Terminated at 10 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic Hammer

Advancement Method:
2.25" ID HSA

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were estimated using GoogleEarth

Notes:

PID readings were not performed at borings outside of the proposed tank area.

WATER LEVEL OBSERVATIONS

No free water observed

Caved: 6.5 ft.

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

Boring Started: 02-18-2020 | Boring Completed: 02-18-2020

Drill Rig: D 50 | Driller: Garrett Wilson

Project No.: JD205028

SUMMARY OF LABORATORY RESULTS

BORING ID	Depth (Ft.)	Soil Classification USCS	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	% Gravel	% Sand	% Fines
B-1	13.5 - 15	SANDY SILT(ML)	13	33	26	7	1.7	46.3	52.1
B-2	5 - 6.5		14						
B-4	5 - 6.5		14						
B-4	23.5 - 24.42		12						
B-5	13.5 - 15	SILT with SAND(ML)	18	41	29	12	0.0	17.3	82.7
B-7	5 - 6.5		22						
B-8	5 - 6.5		16						

PROJECT: Harris Teeter Fuel Center Store #329

SITE: Fletcher Drive
Warrenton, VA

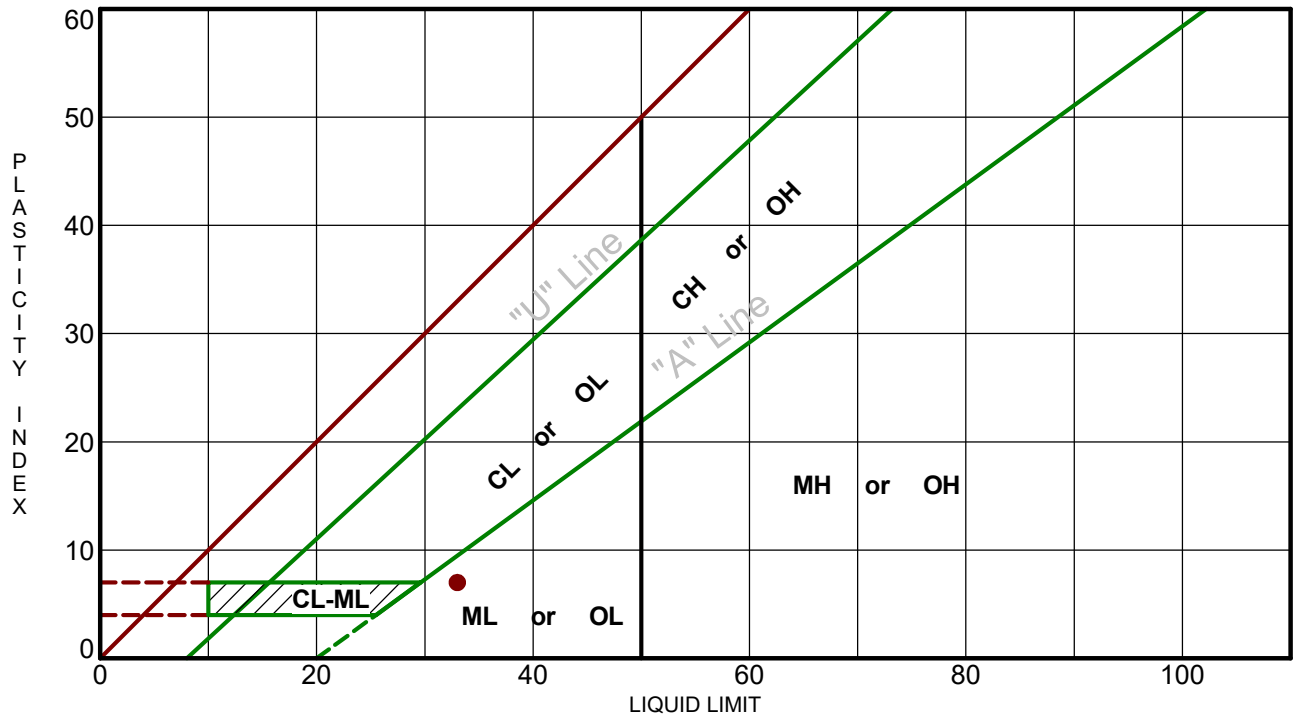
Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA
PH. 703-726-8030 FAX.

PROJECT NUMBER: JD205028

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

ATTERBERG LIMITS RESULTS

ASTM D4318



	Sample ID	LL	PL	PI	Fines	USCS	Description
●	B-1	33	26	7	52.1	ML	SANDY SILT

PROJECT: Harris Teeter Fuel Center Store #329

SITE: Fletcher Drive
Warrenton, VA

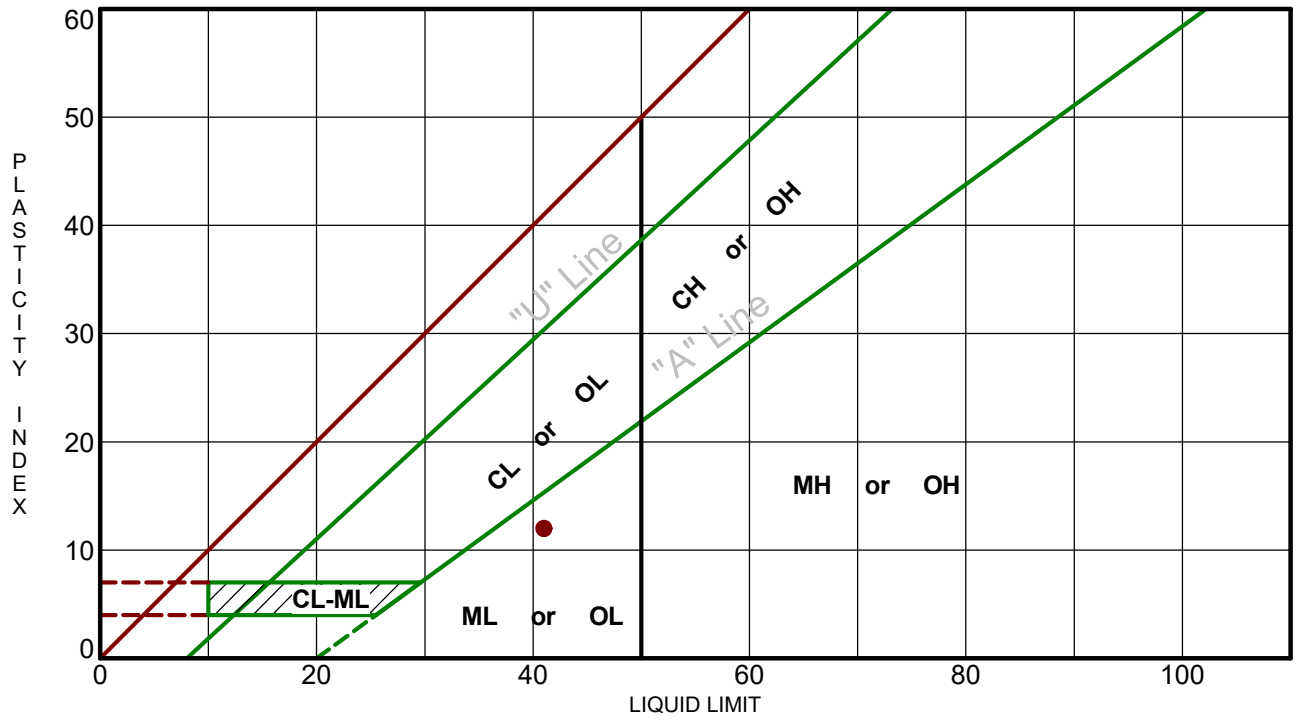
Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

PROJECT NUMBER: JD205028

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

ATTERBERG LIMITS RESULTS

ASTM D4318



Sample ID	LL	PL	PI	Fines	USCS	Description
● B-5	41	29	12	82.7	ML	SILT with SAND

PROJECT: Harris Teeter Fuel Center Store #329

SITE: Fletcher Drive
Warrenton, VA

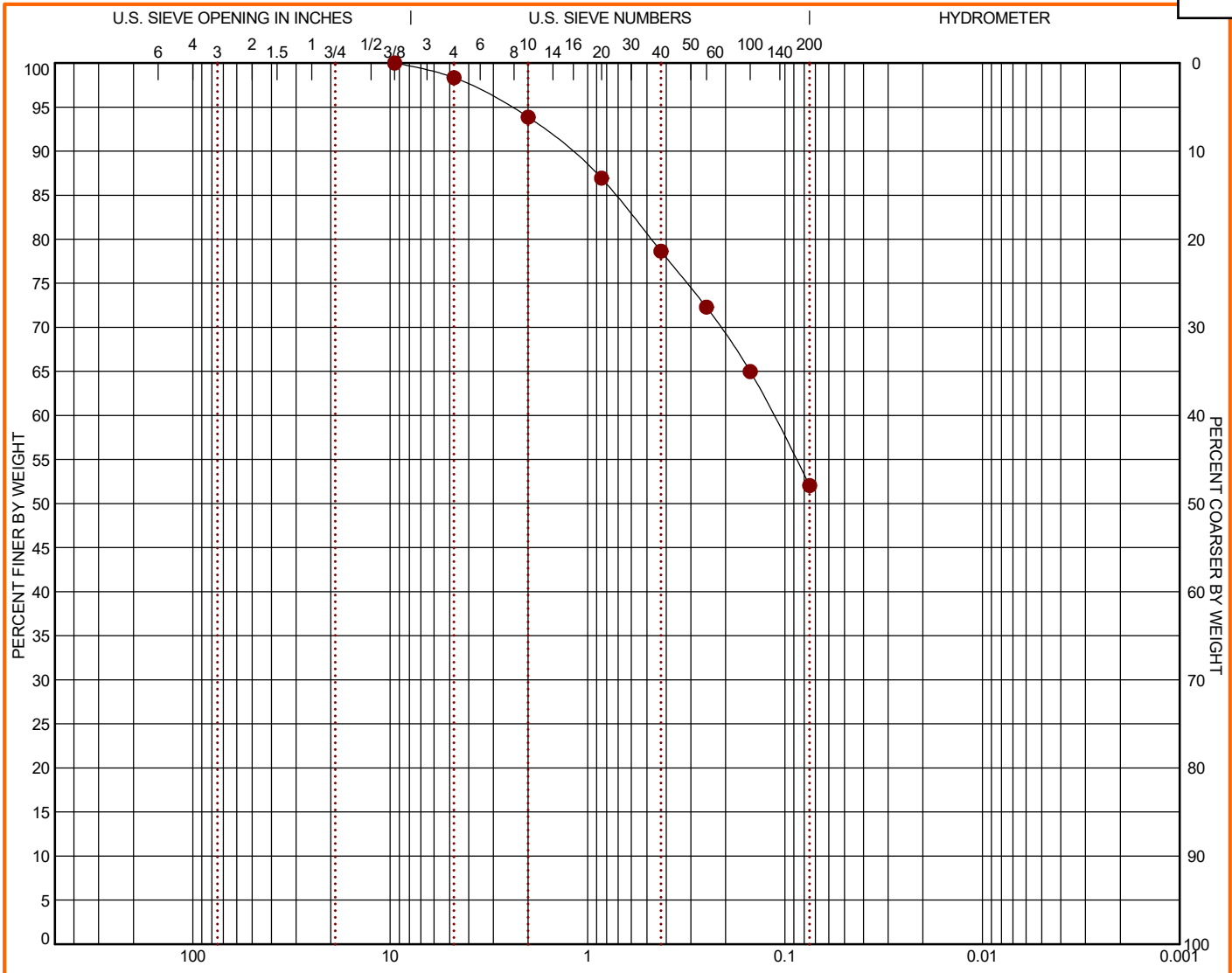
Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

PROJECT NUMBER: JD205028

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	SAMPLE ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
●	B-1	13.5 - 15	0.0	1.7	46.3		52.1		ML

GRAIN SIZE

	●		
D_{60}	0.115		
D_{30}			
D_{10}			

COEFFICIENTS

	●		
C_C			
C_U			

● Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
3/8"	100.0				
#4	98.34				
#10	93.85				
#20	86.93				
#40	78.64				
#60	72.3				
#100	64.99				
#200	52.05				

SOIL DESCRIPTION

●	SANDY SILT (ML)

REMARKS

●	

PROJECT: Harris Teeter Fuel Center Store #329

SITE: Fletcher Drive
Warrenton, VA

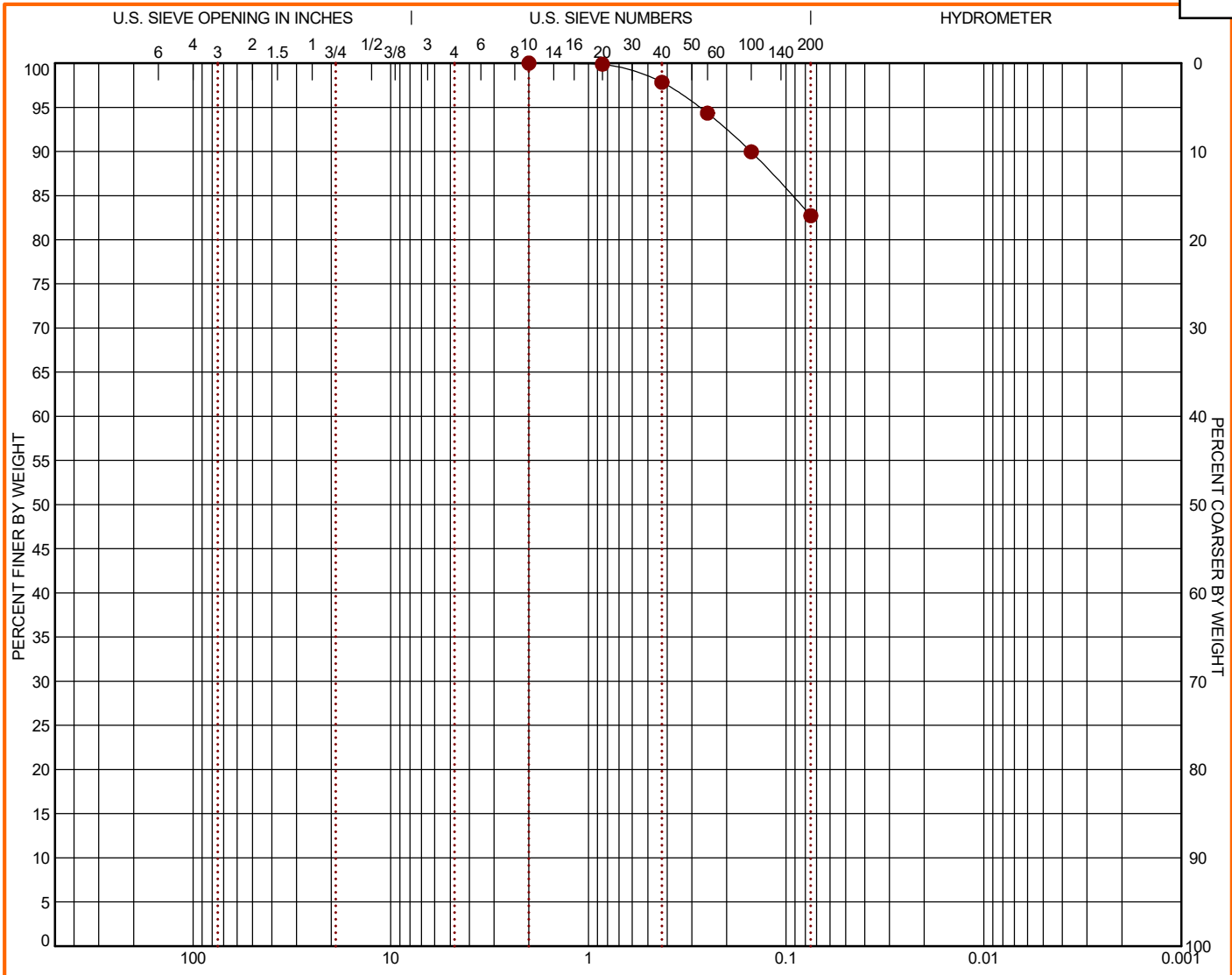
Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

PROJECT NUMBER: JD205028

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	SAMPLE ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
●	B-5	13.5 - 15	0.0	0.0	17.3		82.7		ML

GRAIN SIZE

	●		
D_{60}			
D_{30}			
D_{10}			

COEFFICIENTS

	●		
C_C			
C_U			

● Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
#10	100.0				
#20	99.88				
#40	97.83				
#60	94.33				
#100	89.95				
#200	82.72				

SOIL DESCRIPTION

●	SILT with SAND (ML)

REMARKS

●	

PROJECT: Harris Teeter Fuel Center Store #329

SITE: Fletcher Drive
Warrenton, VA

Terracon
19955 Highland Vista Dr Ste 170
Ashburn, VA

PROJECT NUMBER: JD205028

CLIENT: Kimley-Horn & Associates Inc
Charlotte, NC

SUPPORTING INFORMATION

Contents:

Note: All attachments are one page unless noted above.

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

Harris Teeter Fuel Center Store #329 ■ Warrenton, VA

Terracon Project No. JD205028

SAMPLING	WATER LEVEL	FIELD TESTS
No Recovery Standard Penetration Test	**Water Initially Encountered** **Water Level After a Specified Period of Time** **Water Level After a Specified Period of Time** **Cave In Encountered** Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	**N** Standard Penetration Test Resistance (Blows/Ft.) **(HP)** Hand Penetrometer **(T)** Torvane **(DCP)** Dynamic Cone Penetrometer **UC** Unconfined Compressive Strength **(PID)** Photo-Ionization Detector **(OVA)** Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength Qu, (tsf)**	**Standard Penetration or N-Value Blows/Ft.**
Very Loose	0 - 4	Very Soft	less than 0.25	0 - 2
Loose	5 - 10	Soft	0.25 to 0.50	3 - 4
Medium Dense	11 - 30	Medium Stiff	0.50 to 1.00	5 - 8
Dense	31 - 50	Stiff	1.00 to 2.00	9 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	16 - 30
		Hard	> 4.00	> 30

RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	Cu ≥ 4 and 1 ≤ Cc ≤ 3 [E]		GW	Well-graded gravel [F]
			Cu < 4 and/or [Cc<1 or Cc>3.0] [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F, G, H]
			Fines classify as CL or CH		GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	Cu ≥ 6 and 1 ≤ Cc ≤ 3 [E]		SW	Well-graded sand [I]
			Cu < 6 and/or [Cc<1 or Cc>3.0] [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G, H, I]
			Fines classify as CL or CH		SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A"		CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K, L, M, N]
			Liquid limit - not dried			Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K, L, M]
			PI plots below "A" line		MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K, L, M, P]
			Liquid limit - not dried			Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

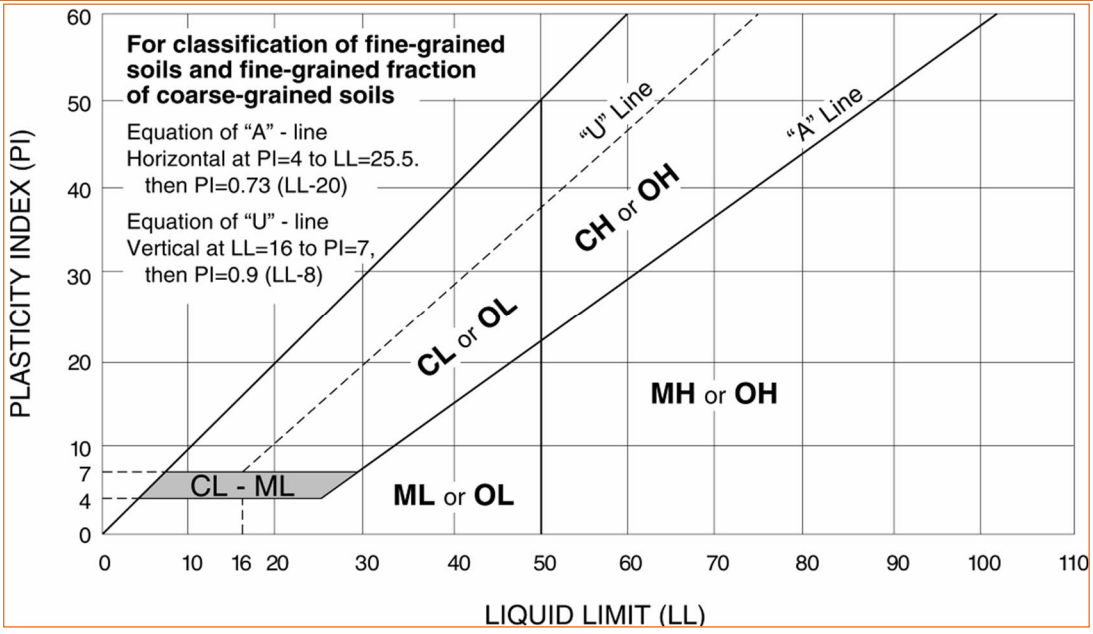
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Fauquier County, Virginia

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map

Map Scale: 1:1,610 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Fauquier County, Virginia
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 28, 2018—Jul 25, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12A	Rohrersville loam, 0 to 2 percent slopes, frequently flooded	2.5	33.3%
40C	Myersville silt loam, 7 to 15 percent slopes	0.3	3.7%
40D	Myersville silt loam, 15 to 25 percent slopes, stony	4.7	63.0%
Totals for Area of Interest		**7.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Fauquier County, Virginia

12A—Rohrersville loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 21m56
Mean annual precipitation: 34 to 46 inches
Mean annual air temperature: 43 to 66 degrees F
Frost-free period: 174 to 211 days
Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Rohrersville and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rohrersville

Setting

Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from greenstone and/or colluvium derived from greenstone

Typical profile

H1 - 0 to 4 inches: loam
H2 - 4 to 14 inches: loam
H3 - 14 to 25 inches: loam
H4 - 25 to 42 inches: silt loam
H5 - 42 to 60 inches: gravelly clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 10 to 20 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: C/D
Hydric soil rating: No

40C—Myersville silt loam, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 21m6s
Mean annual precipitation: 34 to 46 inches
Mean annual air temperature: 43 to 66 degrees F
Frost-free period: 174 to 211 days
Farmland classification: Not prime farmland

Map Unit Composition

Myersville and similar soils: 80 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myersville

Setting

Landform: Mountainsides
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from greenstone

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 43 inches: silty clay loam
H3 - 43 to 55 inches: silt loam
H4 - 55 to 71 inches: bedrock

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

40D—Myersville silt loam, 15 to 25 percent slopes, stony

Map Unit Setting

National map unit symbol: 21m6t
Mean annual precipitation: 34 to 46 inches
Mean annual air temperature: 43 to 66 degrees F
Frost-free period: 174 to 211 days
Farmland classification: Not prime farmland

Map Unit Composition

Myersville and similar soils: 80 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myersville

Setting

Landform: Mountainsides
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from greenstone

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 43 inches: silty clay loam
H3 - 43 to 55 inches: silt loam
H4 - 55 to 71 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Percent of area covered with surface fragments: 0.1 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Map—Hydrologic Soil Group

Map Scale: 1:1,610 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Fauquier County, Virginia
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 28, 2018—Jul 25, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
12A	Rohrersville loam, 0 to 2 percent slopes, frequently flooded	C/D	2.5	33.3%
40C	Myersville silt loam, 7 to 15 percent slopes	B	0.3	3.7%
40D	Myersville silt loam, 15 to 25 percent slopes, stony	B	4.7	63.0%
Totals for Area of Interest			**7.5**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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BOHLER

28 Blackwell Park Lane, Suite 201
Warrenton, VA 20186
540.349.4500

March 3, 2022
Via Electronic Mail

Town of Warrenton
21 Main Street
Warrenton, VA 20186

Attn: Denise M. Harris, AICP

RE: Professional Engineering Services
Geotech Peer Review
530 Fletcher Drive
Warrenton, VA 20186
Town of Warrenton
BE #VAB220040.00

Dear Ms. Harris:

Thank you for this opportunity to present Bohler Engineering VA, LLC's (the "Firm" or "Bohler") Contract for Professional Engineering Services to Town of Warrenton (the "Client") for the above referenced project. It was a pleasure to discuss the proposed project in Warrenton, Virginia. As we understand at this time, you are requesting a peer review of the Geotechnical Report prepared by Terracon Consultants. In preparation of this Contract, our office is currently in receipt of the "Exhibit" dated September 2, 2021, prepared by Kimley Horn; "Zoning Map Amendment for Harris Teeter Service Station" dated September 2, 2021, prepared by Kimley Horn; and the "Geotechnical and Environmental Engineering Report" dated March 3, 2020, prepared by Terracon Consultants, Inc. Collectively, these documents shall be referred to as the "Base Documents". The Client has provided the Base Documents, which have been utilized as a basis for the description of our scope of services and we assume the information presented to be accurate. The Base Documents shall be certified by the preparer(s) with written permission for its unlimited use by the Firm. It is understood and agreed by Client that since the Base Documents were not prepared by the Firm, the Firm shall not be liable for any errors or omissions resulting from (1) the use of the Base Documents, or (2) deficiencies or any inaccuracies contained in said Base Documents. Client represents and acknowledges that it desires for the Firm to rely upon and use the Base Documents rather than recreate or prepare new versions any such documents.

The Firm's scope of services, as defined within this Contract, will be to facilitate the Geotechnical Report peer review for Client review and evaluation. For clarity, we have delineated our Firm's services more specifically as outlined in the following sections (any items not specifically included in the below description are excluded):

SECTION I: OUTSIDE SERVICES (900)

A. Geotechnical Report Peer Review:

sub

Under this scope of services, the Firm will contract with ECS-Mid Atlantic, LLC ("ECS") to provide a peer review of the "Geotechnical and Environmental Engineering Report" dated March 3, 2020, prepared by Terracon Consultants, Inc. The Firm will bill for this scope of services on a lump sum basis.

SECTION II: REIMBURSABLE EXPENSES (998)

A. Reimbursable Expenses:

This scope includes anticipated reimbursable expenses that may be required during the course of this project. These expenses include, but are not limited to, postage, Federal Express, application fees, escrow fees, mileage, travel expenses, printing, plotting, etc.

Miscellaneous Reimbursable Expenses:	
Postage, Federal Express, etc.	$Cost + 15%
Printing Supplies (Binders, Dividers, etc.)	$Cost + 15%
Mileage Reimbursement*	$0.585/mile
Travel (Hotel, Airfare, Meals)	$Cost
Printing	$3.50/sheet
Computer Mylars/Color Plots	$20.00/sheet
Outside Services or Fees	$Cost + 15%
Transparencies	$0.60/each
Photo Copies	$0.10/each

* Mileage reimbursement subject to change based upon IRS standard mileage rate.

We estimate the fees for the subject project and permitting services to be as follows:

	WORKSCOPE:	**FEE**:
SECTION I -	Outside Services (900) A. Geotechnical Report Peer Review:	$1,500
SECTION II -	Reimbursable Expenses (998) A. Reimbursable Expenses:	T&M (Per Fee Schedule)

Should additional services be required, beyond what is described for in this Contract, a Contract Addendum will be coordinated between the Firm and the Client.

The pricing described in this Contract is valid and in effect for one-hundred and eighty (180) days from the date of this Contract. After one-hundred and eighty (180) days, the Firm has the right to modify and/or increase the pricing described herein. Further, if all of the scopes of Service described in this

Contract are not authorized in their entirety within ninety (90) days of the date the Client authorizes the first scope of Service, pricing for any unauthorized phases or scopes of Service are subject to the Firm's modification and/or increase.

Items not included in this Contract include but are not limited to:

- Plan Design & Revisions Pursuant to Requests by Owner, Review Board, or Permitting Entities
- Surveying Services
- Utility Pot-hole Locations
- Legal Descriptions
- Tree Inventory Survey
- Tree Removal Plan
- Preparation of Hearing Exhibits
- Wetland Delineations
- Environmentally Related Permitting
- Environmental Impact Statements
- Preparation of Geotechnical Engineering/Reports
- Structural Design/Detailing of Retaining Walls
- Utility Service Applications
- Underground Fire Line Design/Permitting
- Traffic Engineering
- DOT Highway Occupancy Permit Plans and access permits
- Off-site Roadway Improvements/Widening
- Off-site Detention
- Utility Extension Beyond the Parcel's Frontage
- Pump Station Design
- Inspection Services
- Irrigation Design
- Preparation, completion or processing of: bank or lenders consents, certifications, assignments letters or agreements
- Preparation or signature upon payment applications, certifications or similar documents
- Application Fees
- Miscellaneous Reimbursable Expenses
- Other Permits or Activities Not Specifically Identified Herein.
- Responsibility for Job-Site Safety during construction
- Responsibility for means and methods during construction
- Demolition responsibility during construction
- As-built/Punch-list Walk-Through
- Adjacent Property Owner Notifications/Mailings

Invoices for Professional Services and expenses incurred shall be generated on a monthly basis and are due and payable upon receipt. Additionally, attached to this Contract are the "Standard Terms and Conditions" of all agreements between our Firm and its clients. The attached "Standard Terms and Conditions" shall form a part of this Contract and are incorporated herein by reference.

If this Contract is acceptable, please provide an executed copy of this document to our office as your authorization to initiate Professional Services.

Thank you again for the opportunity to provide our Contract for Professional Services to be rendered to your office on this project. We are eager to continue our relationship with your organization.

If you have any questions or comments, or wish to discuss this Contract in further detail, please feel free to contact our office at your convenience.

Sincerely,

Bohler Engineering VA, LLC

John C. Wright, P.E.
Principal

By my signature below, I represent and acknowledge that I am authorized to execute this Contract on behalf of the entity or individual first named above and that, I acknowledge, agree to and accept all of the provisions, terms, conditions, and promises set forth in the within Contract and the attached Terms and Conditions (three pages) which are hereby incorporated herein and made a part of this Contract.

ACCEPTED BY:

TOWN OF WARRENTON

By: Denise Harris 3/3/2022
Denise M. Harris, AICP (date)

JCW/pw
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TERMS AND CONDITIONS

This document is incorporated in and forms a part of the Contract between **BOHLER ENGINEERING VA, LLC** (the "Firm"), and **TOWN OF WARRENTON** (the "Client"), to which these Terms and Conditions are attached:

I. **PROFESSIONAL RESPONSIBILITY** – The Firm represents that it will perform the services described in the "Contract" attached hereto (the "Professional Services"), and in a manner consistent with and limited to that level of care and skill ordinarily exercised by comparable professional firms, under similar circumstances, at or near the same location, at the time the Firm performs the Professional Services. There are no other representations to the Client, either expressed or implied. The Firm does not guarantee approval of or a specific result from the preparation of any plans and/or documents submitted for review. The Firm will complete the Professional Services within a reasonable period of time consistent with applicable professional standards, subject to external parameters and delays and elements not within the Firm's control, however, the Firm is not responsible for the timeliness of the Client obtaining applicable approvals, permits, or the like. The Firm has no duty, obligation or responsibility to inspect, observe, comment, or report on the work of other contractors, vendors or material suppliers, or on conditions, of any nature whatsoever, which exist at, in, on, about, or near the project or property which is the subject of these Terms and Conditions and the Contract. The Firm has no duty, obligation or responsibility for the work and scope of services excluded in the attached Contract which exclusion includes, but is not limited to, responsibility for job site safety. The Firm shall meet the applicable standard of care which is in effect at the time the Firm performs its Services. The Firm shall perform the Professional Services in accordance with the requirements of applicable codes, regulations, and any current written interpretation of same which have been published, enacted and are in effect as of the date of this Contract. In the event of any changes in such codes, regulations or interpretations which occur at any time after the date of this Contract or during the course of the Project and which result in a substantive change or increase of or to the Professional Services, same is not included in the scope of the Professional Services described in the Contract and if Client desires that the Firm address those changes or interpretations, the Parties shall enter into an amendment or change order to provide for reasonable additional compensation to the Firm for the time and expense of addressing such changes. The following sentence is intended to make clear that the Firm is not responsible for any cost or expense that provides betterment, upgrade, or enhancement of or to the Project. The Client shall bear all costs of any and all changes that result in betterment to the Project, and same shall not be a basis for a claim against the Firm.

II. **CLIENT RESPONSIBILITY** – Client agrees to provide access and right of entry to the subject property for Firm's personnel and any equipment or materials necessary for the Firm to complete the Professional Services. Client further agrees to assist the Firm by providing to the Firm, promptly after the Firm's request, with all information pertaining to the Project which is the subject of the Contract, any Agreement regarding the Project, if one exists and is applicable, and any other documents or materials related to an Agreement or the Project or referenced therein (collectively the "Contract Documents"), and/or these Terms and Conditions, including, but not limited to, existing plans, surveys, recorded deeds, correspondence, reports, specifications, subsurface reports, easement information, and any other related items or information, such that the Firm may perform and complete Professional Services in the most efficient fashion. The Firm is entitled to rely upon the accuracy of all Contract Documents. The Firm assumes no responsibility for errors and omissions that may or do exist in the data or related design plan that Client or Client's other consultants, contractors and professionals provided, and Client is solely responsible for same.

The Client acknowledges that the Firm has no ongoing maintenance or repair responsibilities related to the Professional Services or the Project, but rather that the Client is fully responsible for all ongoing and future maintenance and repair for any items, elements and/or features described or depicted in any plans, drawings, or specifications related to the Project. Plan notes and details, which are included on the plans that the Firm prepares, are part of the scope of Services in this Contract. The Client is fully responsible to ensure that the Client's contractors or professionals strictly follow and comply with the plan notes and details therein. In the event a conflict arises between the scope of Services described in this Contract and/or the plan notes and details, the plan notes and details take precedence with respect to the performance of the work and services described in the plan. The Firm recommends that the Client obtain and retain legal counsel to provide Client with legal and land use advice and guidance throughout the entirety of the Project. The Client authorizes the Firm to communicate with the Client's attorney, as needed. If, as part of the Firm's Services in this Contract, the Firm will provide testimony and assist in presentations at municipal meetings, note that the Firm cannot and will not provide legal representation or guidance at municipal meetings or at any other time, which must only be provided by Client's retained legal counsel. In the event legal issues are identified and conveyed to the Client, it is the Client's responsibility and/or the Client's legal counsel's responsibility to instruct the Firm as to how the Client will proceed with respect to said legal issue(s).

III. **PAYMENT TERMS** – The Firm agrees to perform the Professional Services and the Client agrees to pay the Firm for the Professional Services described in the Contract, without regard to the success or time of completion of the Project, but upon the Firm's completion of the Professional Services and invoicing Client for same. The Firm shall generate Invoices for Professional Services and expenses, monthly. Payment for Invoices is due immediately upon Client's receipt of an Invoice and, in no event, later than thirty (30) days of mailing of an Invoice (the "Due Date"). If Client fails to pay an Invoice on or before the Due Date, the Firm reserves the right, three (3) days after the Firm delivers written notice to Client of said delinquency, to: 1) immediately cease all Professional Services; and 2) to pursue any and all remedies against Client. Client shall fully indemnify and hold the Firm harmless from and against any and all damages of any nature and kind whatsoever, without limitation, that result in whole or in part, from Firm's cessation of its Professional Services as described herein. Additionally, if Client fails to meet its payment obligations to the Firm required hereunder, the Firm may, at its discretion, use or apply a Client retainer for any project to satisfy monies the Client owes to the Firm on this Project or any other project. Should Client authorize the Firm to utilize Client's credit card to pay for invoices, services and/or reimbursable expenses, Client authorizes the Firm to also charge the Client's Credit Card the Credit Card Company's/Vendor's fee, charge or surcharge for the amount charged, as long as same is permitted under applicable law.

In the event the Firm commences a legal action or pursues a claim of any kind or any collection effort against Client for an unpaid Invoice(s) or portion of same (collectively "Claim"), the Client agrees that it shall, in addition to owing the Firm for principal and interest in the amount of one percent (1%) per month commencing on the Due Date, also reimburse and be liable to the Firm for all collection costs, including but not limited to, court costs, reasonable attorneys' fees, staff time, administrative time, in-house counsel time, and any other related expenses in connection with the Firm's pursuit of a Claim (collectively "Collection Fees"). In the event the Firm possesses a Client retainer, the Firm may, at its option, apply monies paid as a retainer to the Firm's Final Invoice or to any Invoice or delinquent Invoice(s), at any time, and Client specifically acknowledges and agrees to the Firm's right to do so. Once the Firm has been paid for all Professional Services, expenses and Collection Fees, the Firm shall refund any remaining retainer to the Client, after Client's request. Billing rates for Professional Services shall be those rates that are in effect when the Firm renders the Professional Services. The Firm reserves the right to modify or increase its billing rates and reimbursable expense rates during the term of this Contract.

Client shall provide the Firm with written notice of any disputed charge(s) on or before the Due Date for an Invoice (the "Dispute Notice"). If Client fails to provide the Dispute Notice, Client agrees that it is specifically waiving all rights to dispute said Invoice and any charges contained therein. If Client delivers the Dispute Notice to the Firm on or before the Invoice's Due Date, Client must pay the invoiced amount to Firm, minus the disputed amount, by the Invoice Due Date. Client shall not withhold amounts not disputed. The Dispute Notice must set forth, in specific detail, all bases and reasons for Client disputing said Invoice. Any bases and reasons that Client fails to include in the Dispute Notice are automatically and permanently waived. The Firm and Client shall attempt, in good faith, to promptly resolve disputed Invoices. If any dispute is subsequently resolved or settled in the Firm's favor, then the Client shall pay the disputed amount previously withheld within ten (10) days of such resolution (or settlement) in Firm's favor, including interest at the rate of one percent (1%) per month commencing on the Due Date for said Invoice through the date the Client pays said Invoice and all Collection Fees. If the dispute is subsequently resolved or settled in Client's favor, the Firm shall issue a credit on Client's subsequent Invoice for the disputed amount resolved or settled in Client's favor.

IV. **INDEMNIFICATION – Client and the Firm**

A) THE FIRM TO CLIENT: The Firm hereby agrees to indemnify and hold the Client and its current and future owners, officers, directors, members, shareholders, parent corporations, subsidiaries, related entities, affiliates, and employees harmless from, against and for third party: losses, injuries, damages, claims, actions, causes of action, demands, liabilities, judgments, expenses, or the like, including reasonable attorney's fees and reasonable litigation costs (collectively "Damages"), which are directly and proximately caused by the Firm's or the Firm's employees, agents or subconsultant's negligent error(s) and/or omissions(s) in providing the Professional Services in accordance with this Contract; provided, however, that the Firm's obligation and liability hereunder shall not exceed the percentage which the Firm is found liable and responsible for said Damages and further shall not exceed the amount of insurance coverage the Firm maintains. The Firm's liability for

TERMS AND CONDITIONS

reasonable and necessary defense costs incurred by indemnified persons or parties shall be limited to the proportionate extent caused by the negligent acts, errors or omissions herein and recoverable under applicable law as a direct and proximate result of the negligence. It is agreed that Firm's liability for any claim for damages, cost of defense, Firm indemnification obligation, Firm hold harmless obligation, or expenses which the Client or any third party may or does assert against the Firm for or as related to any and all design defects, errors, omissions, breach of contract, negligence and/or professional negligence shall be limited to $50,000 or two times (2X) the total compensation received by the Firm for the specific Proposal or Work Order in question, whichever is greater. Under no circumstances shall the Firm be liable for extra costs, indirect damages, consequential damages or other consequences due to changed conditions or for costs related to the failure of the contractor or material men to install work in accordance with the plans and specifications. The limitation of liability described above to $50,000 or two times (2X) the amount of the Firm's fee for a Proposal or Work Order is a specifically bargained-for provision of this Contract and these Terms and Conditions, reflected in the Firm's fees. After Client's request, the Firm will provide confirmation to the Client of the Firm's insurance coverage regarding professional liability and commercial liability coverage. The Firm's liability for reasonable and necessary defense costs incurred by indemnified persons or parties shall be limited to the proportionate extent caused by the negligent acts, errors or omissions herein and recoverable under applicable law as a direct and proximate result of the negligence.

B) CLIENT TO THE FIRM: Client hereby agrees to indemnify and hold the Firm, and its current and future owners, officers, directors, members, shareholders, parent corporations, subsidiaries, related entities, affiliates, agents, servants, employees, consultants, and subconsultants (collectively "The Firm Parties") harmless from, against and for all Damages, deriving out of, for or in any way related to any third party claim or loss of and/or for damage to person(s) (injury or death), and/or to property including, but not limited to, the Project, and/or injuries to or death of or to any and all persons, including injury or death to The Firm Parties or third parties, or damage to the Firm's property (the foregoing indemnification language shall collectively be referred to herein as "Indemnification Protection"). The Indemnification Protection includes any injury, death or damage, as more fully described above, which is caused by or results from Client's breach and/or violation of either these Terms and Conditions, the underlying Contract, and/or the Contract Documents, and/or the Client's negligence, action(s) and/or omission(s). Client, as used in this Article IV B, includes the Client's agents, servants, employees, subcontractors, anyone or entity for whom Client is responsible and/or anyone acting by, through, on behalf of, or under the Client.

V. **OWNERSHIP OF DOCUMENTS** – All reports, field data, data, notes, plans, calculations, estimates, drawing documents and other work and items which Firm creates or prepares, either in electronic format or otherwise (collectively "Firm Materials"), are instruments of service and shall remain the Firm's property. Upon Firm's receipt of payment in full for all Professional Services and expenses related to the Firm's creation of the Firm Materials or as required hereunder, the Firm shall convey to the Client a nonexclusive license to use the Firm Materials for the sole purpose of completing the work for the Project identified in the Contract. Client agrees that it shall immediately return to the Firm, upon Firm's demand, all Firm Materials which the Firm furnishes to the Client or Client's agents, servants, employees, subcontractors, any person or entity for whom Client is responsible and/or anyone acting by, through or under Client (collectively "The Client Parties") which are not fully paid for, and that same will not be used for any purpose other than to complete the Project, other phases of the Project for which Firm prepared the Firm Materials, or any other project, whatsoever. During the time period when Firm is performing the Professional Services, the Firm will retain all pertinent records related to the Professional Services and the Firm Materials. Proprietary information and the Firm's intellectual property including, but not limited to, the Firm's layering process for Plans (collectively "Proprietary Information"), are not included within the phrase Firm Materials and shall, without exception, remain the Firm's property and the Firm shall retain all ownership rights and interests to the Proprietary Information under all circumstances, and without limitation.

The Client agrees not to transfer, send, share, copy, convey or provide the Firm Materials to any individual or entity without the Firm's prior written consent and without executing the Firm's Standard Indemnification and Hold Harmless Agreement in the Firm's favor. The Client further covenants and agrees to waive any and all claims, actions, demands and causes of action, whether legal, equitable or otherwise, of every nature and description, that the Client has, had or may have against the Firm related to or resulting in any way either from the Client's unauthorized changes to (however small) or reuse of the Firm Materials for any other project, any other phase of the current Project, or any purpose by anyone other than the Firm (collectively "Misuse").

The Client agrees, to the fullest extent permitted by law, to indemnify, defend, and hold the Firm and The Firm Parties harmless from any and all claims, damages, losses, injuries, injury to property, injury to person, lawsuits, actions, causes of action, third party action(s), and the like and for all costs and expenses, including but not limited to, court costs, reasonable attorneys' fees, collection fees, staff time, administrative time, in-house counsel time, and any other related expenses (collectively "Claims, Damages and Costs") arising from or in any way related to Client's Misuse of the Firm Materials, changes made by anyone other than the Firm to the Firm Materials, use of the Firm Materials in spite of the Client's failure to meet its payment obligations to the Firm hereunder, or from any reuse of the Firm Materials without the Firm's prior written consent. Client agrees that the Firm shall not be liable for any damage, injury to or death of persons, or damage to property of Client or any other person or entity, from any cause whatsoever, arising from or in any way relating to Client's Misuse or reuse of the Firm Materials, changes made by anyone other than the Firm to the Firm Materials, or from any reuse of the Firm Materials without the Firm's prior written consent, which requirement of a writing cannot be waived.

VI. **REVOCATION OF CERTIFICATION OR STATEMENTS** – The Firm shall have the right to revoke any certification, statements, professionally sealed documents or plans (the "Firm's Documents") either if the Firm is made aware of the unauthorized or prohibited use of same by the Client, The Client Parties or any others, or based upon Client's failure to pay Invoices by the Due Date. The Client assumes the risk of any and all damages, injuries, claims and/or actions that result from the unauthorized use of the Firm's Documents as described in this Article VI.

VII. **CLIENT'S UTILITY AND SUBSURFACE RESPONSIBILITIES OBLIGATIONS** - The location of existing utilities to be shown on plans may be developed from a combination of: the appropriate jurisdiction's "One Call System,' existing utility records, plans prepared by others, above ground examinations on site and other materials and information. Accordingly, the completeness or accuracy of the precise physical location and depth of any and all utilities are not within the scope of Services contained in the Contract. The Owner and Client shall use sufficient quality levels of subsurface utility engineering to properly determine the existence and position of underground facilities when designing complex projects. Should new construction be proposed, the Client is solely and completely responsible, in consultation with Client's other professionals, consultants and contractors, for verifying the physical location and depth of all utilities before the start of any construction. The Firm recommends that the Client engage a subsurface utility engineering company, preferably during the design phase, but no later than the bid phase for the work related to utility installation, to physically locate existing underground utilities when construction is proposed in the vicinity of or anywhere near the existing utilities. If the Client decides not to engage a subsurface utility engineering company, then the Client accepts full and sole responsibility for design, redesign, delays and/or damage from utility conflicts that may or do occur during construction and all costs related to same.

VIII. **TERMINATION** – Client may terminate the Contract if the Firm fails to substantially perform under the Contract, after five (5) business days' written notice to the Firm and an opportunity for the Firm to cure during that time period. The Client may terminate this Contract for convenience after three (3) business days' written notice to the Firm of said intention. The Firm may terminate the Contract if Client breaches the Contract or these Terms and Conditions. The Firm may terminate the Contract if the Client (a) commits a material breach or material default in the performance or observance of any of its obligations under this Contract, and (b) such breach or default continues for a period of five (5) business days after delivery by the Firm or written notice detailing such breach or default. If the Client's breach or default relates to its payment obligations under Article III, the Firm shall have the right to terminate all contracts and work with the Client subject to the same notice and cure procedures outlined in this Article VIII. The terminating party must provide the other party with three (3) business days' written notice, which Notice describes, in detail, the reasons, to the extent they exist, for the termination. In the event either party terminates the Contract for any reason, Client shall pay the Firm for all Professional Services the Firm has performed and all expenses the Firm has incurred up through and including the termination date. The effective termination date is the third business day after the date the notice of termination is delivered, as described below in Article XVI.

IX. **ASSIGNMENT** – This document is binding upon the parties, their successors, representatives, employees, agents, servants and assigns. The Client shall not assign or transfer this document or any interest herein or obligation hereunder without the Firm's prior written consent, which consent shall not be unreasonably withheld. The

TERMS AND CONDITIONS

Firm may assign or transfer this document, the attached Contract or any interest herein to any "Affiliate" of the Firm. The Firm may, without the Client's consent, subcontract any portion of the Professional Services hereunder or under the Contract.

X. **NO WAIVER** – The failure of either party to insist, in any one or more instances, on the strict performance of any provisions of the Contract or these Terms and Conditions, or the failure of either party to exercise any right, option or remedy hereby reserved and/or provided under the applicable law, shall **not** be construed as a waiver of any such provision, right, option or remedy, or as a waiver of a subsequent breach. The Firm's consent or approval of any act by the Client requiring the Firm's consent or approval shall not be construed to waive or render unnecessary the requirement for the Firm to consent or approve any subsequent, similar act by Client. No provision of this document shall be deemed to have been waived unless such waiver shall be in writing and signed by the party to be charged with waiver.

XI. **NON-SOLICITATION** – Client agrees not to solicit, recruit or hire any employee of the Firm or any of the Firm's affiliated entities (which includes any entity with "Bohler" in its name) both during the term of this Contract and for at least one (1) year after the termination or expiration of this Contract (regardless of the cause of the termination or expiration).

XII. **EXERCISE OF REMEDIES** – The parties to this document agree that the Firm's exercise of any one or more of the remedies set forth in these Terms and Conditions shall, at the Firm's option, constitute an exercise of the same remedy or remedies under any contract with Client. The parties agree that the Firm can terminate or suspend work under any contract with Client or entity with common ownership with Client, if Client violates this Contract and/or these Terms and Conditions. Further, either party's exercise of any remedy hereunder or otherwise, shall not preclude that party from exercising other remedies which it is permitted to exercise under the law. The remedial right available to either party regarding the Contract or these Terms and Conditions may be exercised simultaneously, cumulatively, or alternatively as may be necessary or appropriate to enforce such party's rights.

XIII. **CONSEQUENTIAL DAMAGES AND LIABILITY** – The Firm shall not be liable to the Client for consequential damages under any circumstances including, but not limited to, as a result of the Firm's termination of the Contract pursuant to Articles VIII and/or XII, hereunder. No principal, officer, owner, shareholder or employee of the Firm shall have personal liability for actions taken in the performance of Services under this Contract.

XIV. **SEVERABILITY AND TITLES** – The provisions of the Contract and these Terms and Conditions shall be severable, and if any provision of either shall be determined by any court of competent jurisdiction to be invalid, such determination shall not affect or invalidate the remainder of these Terms and Conditions or the Contract. The titles given to the Articles in this document are for ease of reference, *only*, and shall not be relied upon or utilized for any other purpose. Where any language in this Contract and/or these Terms or Conditions conflicts or is inconsistent with the state-specific changes, the state-specific changes shall control.

XV. **THIRD PARTIES** – Nothing contained in this document and/or the Contract shall create a contractual relationship with or cause of action in favor of any third party against the Firm, The Firm Parties, or the Client.

XVI. **NOTICES** – Whenever in this document, or the Contract, written notice or demand is required or permitted, such notice or demand shall be deemed to have been given to, delivered or served upon the party intended to receive the same if such notice is in writing addressed to that party at the address identified in the Contract, and sent or delivered either by (i) Registered or Certified Mail, return receipt requested, postage prepaid; (ii) Federal Express or such other nationally recognized commercial, overnight, receipted delivery service; or (iii) hand delivery. Legal Counsel for any party hereto shall be entitled to give any notice for such party. The date of delivery of any notice provided for herein shall be the date after the date of deposit to the overnight delivery service, or two days after the deposit if sent Certified Mail, return receipt requested, or the date of actual delivery if hand-delivered, unless said date falls on a weekend or legal holiday and then the date of delivery shall be the first non-holiday and non-weekend as outlined above. The person and place to which notice may be given may be changed from time to time by the Client or the Firm, upon written notice to the other, effective five (5) business days after delivery of such notice.

XVII. **ENTIRE AGREEMENT** – This is a complete agreement. Each party hereto acknowledges its full understanding of, and agreement with this document and, further, the parties agree and acknowledge that there are no verbal representations, promises, understandings or agreements in connection herewith, other than as contained in the Contract, that are not incorporated herein. All previous negotiations and agreements between the parties are merged into this document which, along with the Contract, fully and completely expresses the entire agreement between the parties hereto. The terms of this document may only be modified by a writing, signed by the parties hereto. The parties agree that the Contract and these Terms and Conditions have been mutually drafted and authored by both parties and that the Contract and these Terms and Conditions shall not be construed against any one party hereto.

XVIII. **FORCE MAJEURE** – The Firm shall not be responsible for its performance, delays, damages and the like hereunder and shall be excused from same for any failure or delay in the Firm's performance of its obligations hereunder arising or caused directly or indirectly by forces or events beyond its control including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, catastrophes, acts of God, interruptions, loss or malfunctions of utilities, communications or computer hardware and/or software or any other causes beyond the Firm's control.

XIX. **VENUE and GOVERNING LAW** – Any claims, actions, controversies, disputes, or the like, must be brought in the Federal or State County Court where the Firm is located, as indicated in the Contract. The parties hereto understand, agree and acknowledge the above constitutes a waiver of a right that the parties might otherwise have to bring a claim, action, etc., in any other venue, jurisdiction or location. This document shall be deemed to have been made in and shall be governed by and construed in accordance with the laws of the State where the Firm's principal place of business is located, as indicated in the Contract. Any applicable statutes of limitations shall begin to run no later than the substantial completion of the Firm's Services.

KITTELSON & ASSOCIATES
11480 COMMERCE PARK DRIVE, SUITE 450
RESTON, VA 20191
P 703.885.8970

TECHNICAL MEMORANDUM

Harris Teeter Fuel Center Traffic Impact Analysis Review – Resubmittal

Date:	March 1, 2022	Project #: 21905.013
To:	Denise Harris	
From:	Zachary Bugg, PhD, PE; and Chris Tiesler, PE	

At the request of the Town of Warrenton, Virginia, Kittelson & Associates, Inc. (Kittelson) reviewed the traffic impact analysis (TIA) for the proposed Harris Teeter Fuel Center completed by Kimley Horn (Reference 1). We also reviewed the electronic (Synchro) analysis files. All analysis inputs and assumptions were reviewed according to VDOT TOSAM and requirements (Reference 2). Our original review was submitted May 5, 2021.

A comment response letter and revised TIA report were received on February 28, 2022. This memorandum provides additional comments and discussion related to the revised submittals and comment response letter.

TRAFFIC ANALYSIS REVIEW

We have reviewed the updated TIA report and responses to comments, and we have the following remaining comments:

- The revised TIA report does not include PDF outputs or electronic analysis files. We request these be provided so that we can confirm that our prior comments on the traffic analysis assumptions (Comments #3, #5, #6, and #7) have been adequately addressed and fully review the other responses.
- Several of the responses to comments indicate “there were nominal changes to this result.” While we acknowledge the changes may be small, it is not difficult or unreasonable to update the analyses to reflect these changes and reflect what the most likely future scenarios will produce operationally. Two comments should be specifically addressed:
    - Right turn on red volumes (Comment #2) – the TOSAM encourages adjustment to field measurements when data are available. We would like to review the updated electronic files (requested above) to understand how operations might be degraded as a function of increasing the RTOR volume and allow for the comparison of relative impacts between scenarios.

- Pass-by trip assignment (Comment #9) – our suggested pass-by trip cap represents a change in five (5) trips during the AM peak hour and two (2) trips during the Saturday peak hour. Given the existing LOS E for the Fletcher Drive approach at Lee Highway during these peak hours, the impact of treating these trips as diverted trips from Lee Highway should be evaluated.

REVISED SITE PLAN REVIEW

Our original review included an attached markup of the site plan to display suggested changes in parking and circulation downstream of the new one-way entrance near the fuel station. The applicant did not revise the site plan to address this comment or provide a response to Comment #12 of our review, which discussed concerns with parking demand being higher near the south end of the site. While site circulation (Comment #11) was acknowledged via an expanded narrative in the TIA report, it has not been addressed on the site plan.

NEXT STEPS

In summary, we request the detailed PDF outputs and electronic Synchro files be provided to confirm the comments were addressed. Thank you for the opportunity to review. If you have any questions, please contact us at 571-384-2943.

REFERENCES

1. Kimley Horn. Harris Teeter Fuel Center Traffic Impact Analysis. January 2020.
2. Virginia Department of Transportation. Traffic Operations and Safety Analysis Manual (TOSAM) – Version 2.0. February 2020.

DISCLAIMER

This memorandum prepared by KITTELSON & ASSOCIATES INC. merely represents our professional, unbiased opinion with regard to the deliverable. This opinion is based solely on KITTELSON & ASSOCIATES, INC.'S evaluation of the information provided by the Town of Warrenton, and should not be considered an exhaustive review, insurance against errors or omissions in the deliverable, or advocacy of the intended project. The Town of Warrenton agrees that the purpose and intent of KITTELSON & ASSOCIATES, INC.'S evaluation of the deliverable is to reduce the risk of errors or omissions only and not to eliminate such risk. KITTELSON & ASSOCIATES, INC. offers no warranty or guarantee with regard to this review.

KITTELSON & ASSOCIATES
11480 COMMERCE PARK DRIVE, SUITE 450
RESTON, VA 20191
P 703.885.8970

TECHNICAL MEMORANDUM

Harris Teeter Fuel Center Traffic Impact Analysis Review

Date:	May 5, 2021	Project #: 21905.013
To:	Denise Harris	
From:	Zachary Bugg, PhD, PE; and Chris Tiesler, PE	

At the request of the Town of Warrenton, Virginia, Kittelson & Associates, Inc. (Kittelson) reviewed the traffic impact analysis (TIA) for the proposed Harris Teeter Fuel Center completed by Kimley Horn (Reference 1). We also reviewed the electronic (Synchro) analysis files. All analysis inputs and assumptions were reviewed according to VDOT TOSAM and requirements (Reference 2).

FINDINGS AND RECOMMENDATIONS

At the time the TIA was prepared, the latest version of the VDOT TOSAM had not yet been adopted. We reviewed the analysis files with this consideration, with the purpose of identifying any errors or assumptions which could substantially change the findings and results in the TIA. After detailed review, we generally agree with the findings and recommendations in the TIA. We identified the following errors and inconsistencies with VDOT TOSAM requirements in the TIA:

1. U-Turn volumes:
    - It appears the U-turn volumes in the model have been coded as left turns. Given the low U-turn demand and the limitations of the HCM 6th Edition methodology in Synchro, we are comfortable with this approach. We suggest updating the turning movement volumes in Figures 2-2, 3-1, and 4-4 to separate the U-turn and left-turn volumes.
2. Right turn on red volumes:
    - The HCM 6th Edition module in Synchro requires the user to input the hourly volume of right turns on red for each movement. The right turn on red volume has been left at zero for each scenario. We recommend increasing the number of right turns on red to a reasonable approximation of 10-50 vehicles per hour, or possibly more for heavy right turn movements. Similarly, the HCM 6th Edition module in Synchro does not accurately process right turn overlap movements. We recommend increasing the number of right turns on red to more accurately model right turn movements where right turn overlap signal phasing is provided, especially on eastbound Lee Highway at Fletcher Drive and on westbound Walker Road at Blackwell Road.

3. Peak hour factors:

    - The existing AM Synchro files uses the measured peak hour factors at the study intersections, while all other files use a peak hour factor of 1.0. The TOSAM requires the existing peak hour factor be used for existing conditions analysis and the higher of the existing peak hour factor or 0.92 (for urban environment) be used for future conditions. We recommend the peak hour factors be updated to match the TOSAM requirements. Peak hour factors should be calculated at each intersection based on the system peak hour.

4. Pedestrian volumes:

    - The raw traffic count data indicate pedestrians were counted on one or more approaches during the AM and PM peak hours, but no pedestrian demand was included in the Synchro models. We recommend adjusting the pedestrian demand and the number of pedestrian calls at signalized intersections in the Synchro model to reflect the raw pedestrian counts.

5. Grades:

    - We measured a rough estimate of +3% grade on the westbound Lee Highway approach to Fletcher Road, -5% on the northbound Fletcher Road approach to Lee Highway, -6% on the eastbound North Hill Drive approach to Blackwell Road, and -4% on the northbound Blackwell Road approach to North Hill Drive. We recommend these grades be coded into the Synchro model to reflect adjustments to the saturation flow rates.

6. Lane widths:

    - The default lane width of 12 feet was used systemwide in Synchro. We recommend reducing the lane width for the northbound and southbound Fletcher Road approaches at Lee Highway and the southbound Fletcher Road approach at Harris Teeter to 11 feet to match field conditions.

7. Signal timings:

    - It is unclear if existing signal timing information was coded into the Synchro models or not. If signal timing details are in fact represented in the models, this should be noted in the report. The following coordinated cycle lengths were modeled in Synchro and do not appear to align with conventional cycle lengths:
        - Lee Highway/Fletcher Road, PM Peak Hour: 161 second cycle length
        - Lee Highway/Fletcher Road, Saturday Peak Hour: 149 second cycle length
        - Blackwell Road/North Hill Drive, Saturday Peak Hour: 131 second cycle length

8. Queue lengths:

    - We recommend updating the headers in Table 5-1 to reflect the Saturday peak.

- The queue lengths provided in the summary in Table 5-1 do not reflect the HCM 6th Edition 95th-percentile queues provided by Synchro. We recommend updating the reported queue lengths to match the HCM 6th Edition Synchro output reports.

9. Trip assignment:

   - The directional distribution in Figure 4-1 indicates 17% of trips will be assigned to the northbound left turn on Blackwell Road at North Hill Drive and 16% of trips will be assigned to westbound Walker Drive at Blackwell Road, but there are a higher number of PM peak hour trips (4) assigned to westbound Walker Drive than the northbound left turn on Blackwell Road (3) in Figure 4-2. The same is true in the opposite direction. We recommend swapping the volume of trips assigned to these movements to more closely match the assumed directional distribution.
   - Assuming a 2% trip distribution to North Hill Drive west of Fletcher Drive, the trip assignment to the movements to/from the west leg of North Hill Drive/Fletcher Drive would be zero (0) trips. Unless it is desired to maintain a minimum of one trip at these movements, we recommend reassigning the single trip elsewhere within the network.
   - Some of the pass-by trips shown in Figure 4-3 have been assigned as diverted trips from Lee Highway. Due to the low existing through volumes on Fletcher Drive near the site, we recommend that all pass-by trips be assigned as diverted trips from Lee Highway. Typically pass-by trips would represent no more than 15 percent of the total through volume on Fletcher Drive. The table below identifies the existing northbound through traffic volume on Fletcher Drive and the assumed pass-by percentage associated with the northbound movement, as well as the maximum recommended northbound pass-by volume:

Time Period	NB Through Volume (vph)	NB Pass-Bys (vph)	Percent Pass-Bys Assumed	Recommended NB Pass-Bys (vph)
AM	12	7	58%	2
PM	39	6	15%	6
SAT	27	6	22%	4

The following comments are related to our review of the TIA documentation and site plan drawings:

10. Truck turning movements:

    - From the site plan it is unclear where the fuel tanks will be located and/or how fuel trucks will access the site. We recommend providing truck turning movements/path for fuel truck access.

11. On-site circulation:

    - Town staff have noted issues with existing on-site circulation as a result of the site layout, which funnels all ingress and egress traffic through the drive aisles directly in front of the strip mall, leading to concerns that adding a fuel station could exacerbate these issues. Inbound vehicles must make a 180-degree right turn to continue circulating the parking areas away from the drive aisle in front of Harris Teeter. The proposed site plan will provide a short one-way inbound drive aisle to connect the access road with the fuel center area. We recommend the TIA report be expanded to address existing issues with on-site circulation and how these will be improved with the addition of the fuel center and new one-way inbound drive aisle.

12. Parking:

    - The concept site plan notes the addition of the fuel center will result in a net loss of 66 parking spaces on-site. While the number of parking spaces provided will continue to meet the Town's minimum parking requirement, Town staff have raised concerns that existing parking demand favors the southern end of the site (nearer to the proposed fuel center) due to proximity to the single access road and the location of the strip mall. The image below was taken by Town staff during midday on a typical Thursday in March 2021 and documents the high parking demand in this area (directly in front of the optometrist / dental offices). We recommend the TIA report be expanded to address site circulation to other parking areas on the north side of the site that will become more heavily utilized after the proposed fuel center removes parking on the south side of the site. The attached site plan markup provides an alternative to improve inbound circulation to the fuel center and relocate parking to other areas of the site—this is intended to reduce underutilized parking near the fuel center and mitigate potential conflicts between the fuel center and parking areas, while retaining necessary landscaping minimums.

Thank you for the opportunity to review. If you have any questions, please contact us at 571-384-2943.

ATTACHMENT

A. Site Plan Markup

REFERENCES

1. Kimley Horn. Harris Teeter Fuel Center Traffic Impact Analysis. January 2020.
2. Virginia Department of Transportation. Traffic Operations and Safety Analysis Manual (TOSAM) – Version 2.0. February 2020.

DISCLAIMER

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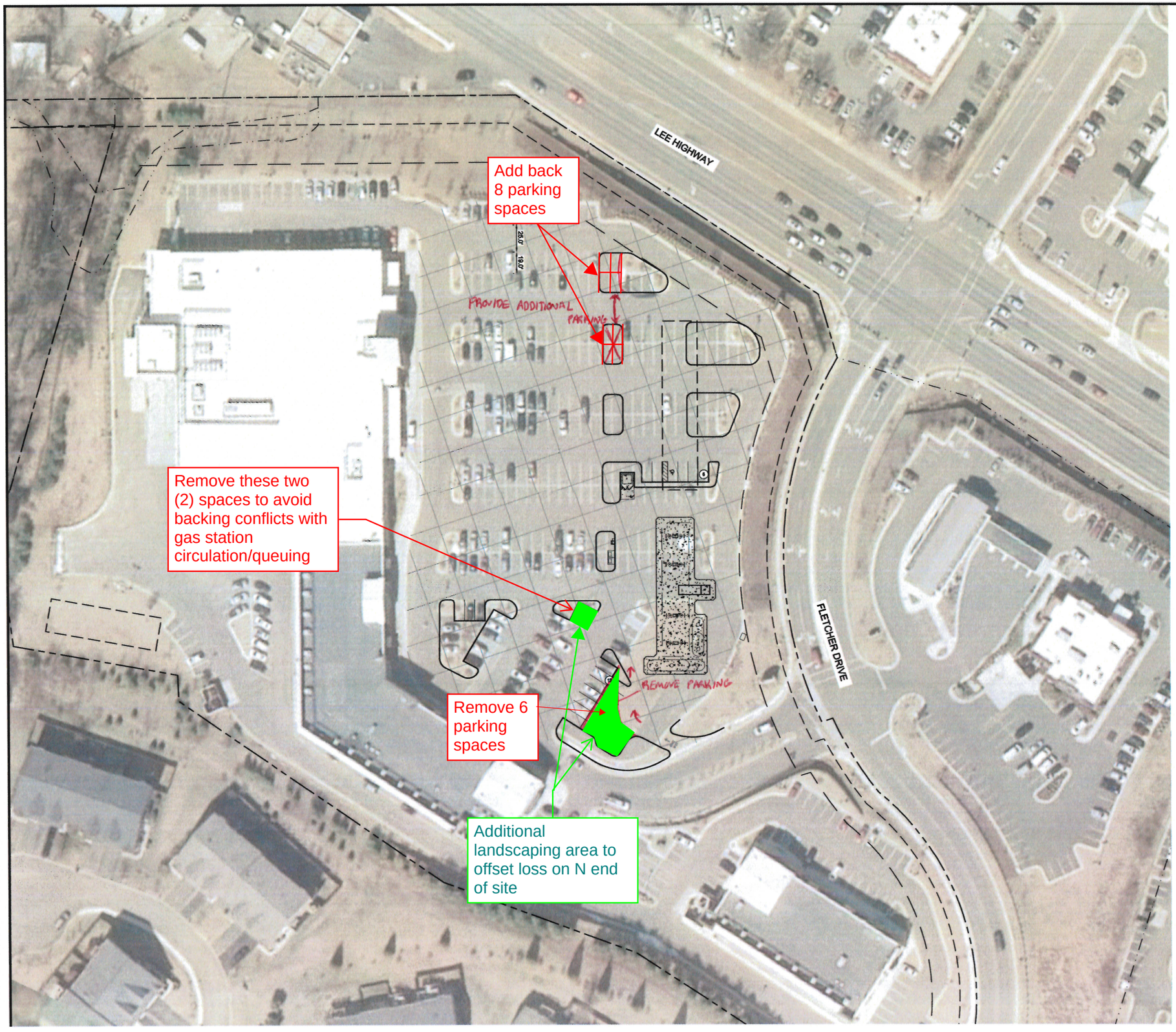
Attachment A
Site Plan Markup



ZONING
- ZONE: PUD
- USE: SHOPPING CENTER
- PARCEL ACREAGE: 11.67 ACRES

PARKING
- EXISTING PARKING SPACES WITHIN DELINEATED PARKING FIELD: 281
- EXISTING COMMERCIAL USE (HARRIS TEETER AND ADJACENT STRIP RETAIL) SF: 78,534 SF
- PROPOSED COMMERCIAL USE (HARRIS TEETERS, ADJACENT STRIP RETAIL AND HARRIS TEETER GAS STATION) SF: 81,570 SF
- PARKING REQUIREMENT PER CURRENT ZONING ORDINANCE: 1 PER 300 SF FOR FIRST 12,000 SF, 2 PER ADDITIONAL 1,000 SF
- REQUIRED PARKING: 179 SPACES
- PARKING SPACES TO BE REMOVED: 85
- PARKING SPACES PROPOSED W/GAS STATION: 19
- TOTAL PROVIDED WITHIN DELINEATED PARKING FIELD: 215
- PROPOSED PARKING RATE FOR AREA DELINEATED 2.64 SPACES PER 1,000 SF OF GFA
- INTERIOR LANDSCAPING REQUIREMENTS: 10% OF PARKING LOT
- INTERIOR LANDSCAPING PROVIDED: ±10.1%

Kimley»Horn
11400 COMMERCE PARK DRIVE,
SUITE 400
RESTON, VIRGINIA 20191
PHONE #: 703-674-1300

NO.	DATE	REVISIONS

CLIENT: HARRIS TEETER

PROJECT: HARRIS TEETER FUEL CENTER
STORE #329 - WARRENTON
FLETCHER DRIVE
WARRENTON, VIRGINIA

OVERALL CONCEPT PLAN

DESIGNED BY:	CAH
DRAWN BY:	CAH
CHECKED BY:	KB
DATE:	05/28/2019
PROJECT#:	015640126

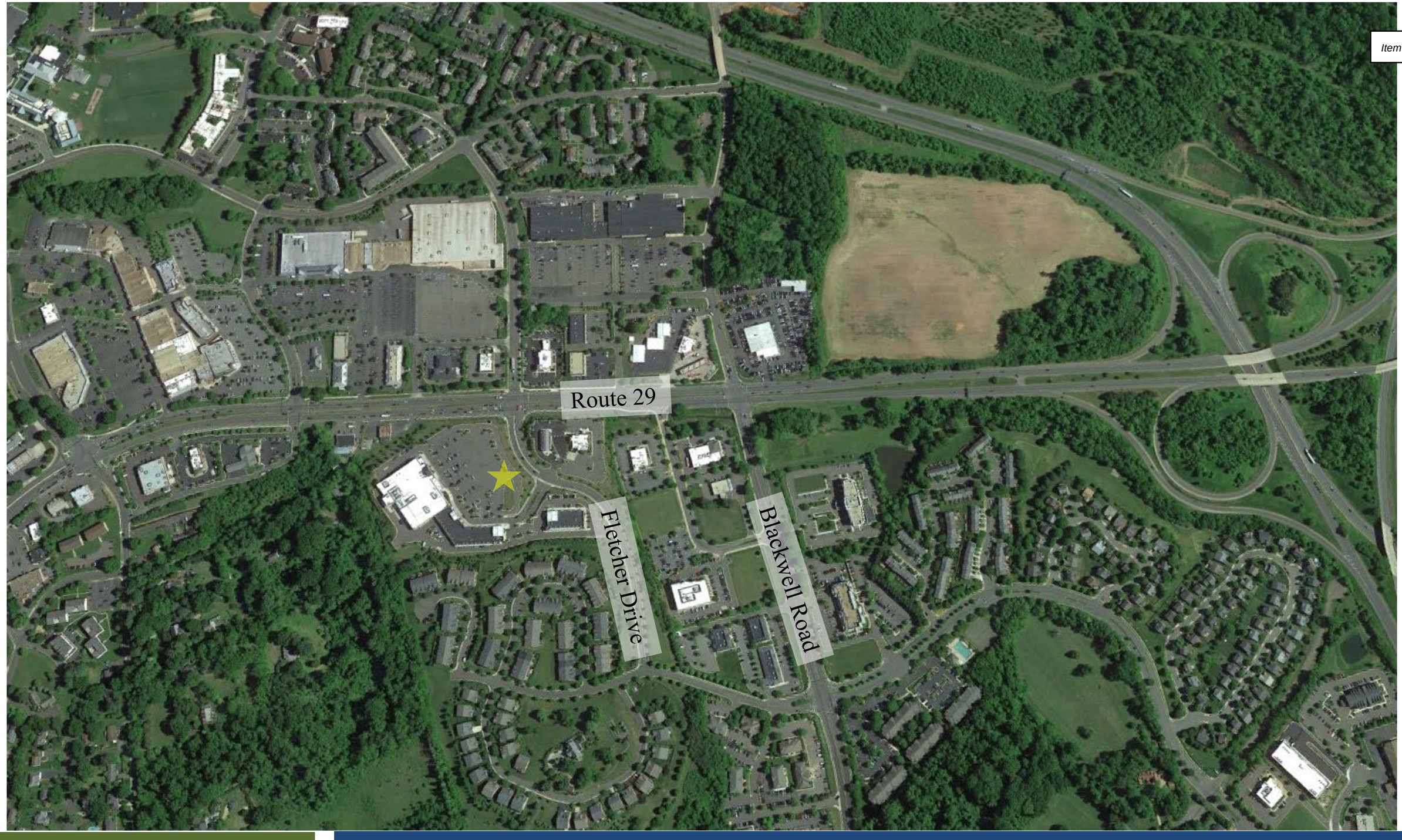
GRAPHIC SCALE IN FEET
0 20 40 80

EX-1

ZMA 2021-01/SUP2021-01
North Rock Harris Teeter Service Station

April 19, 2022

PLANNING COMMISSION WORK SESSION



PROPERTY LOCATION

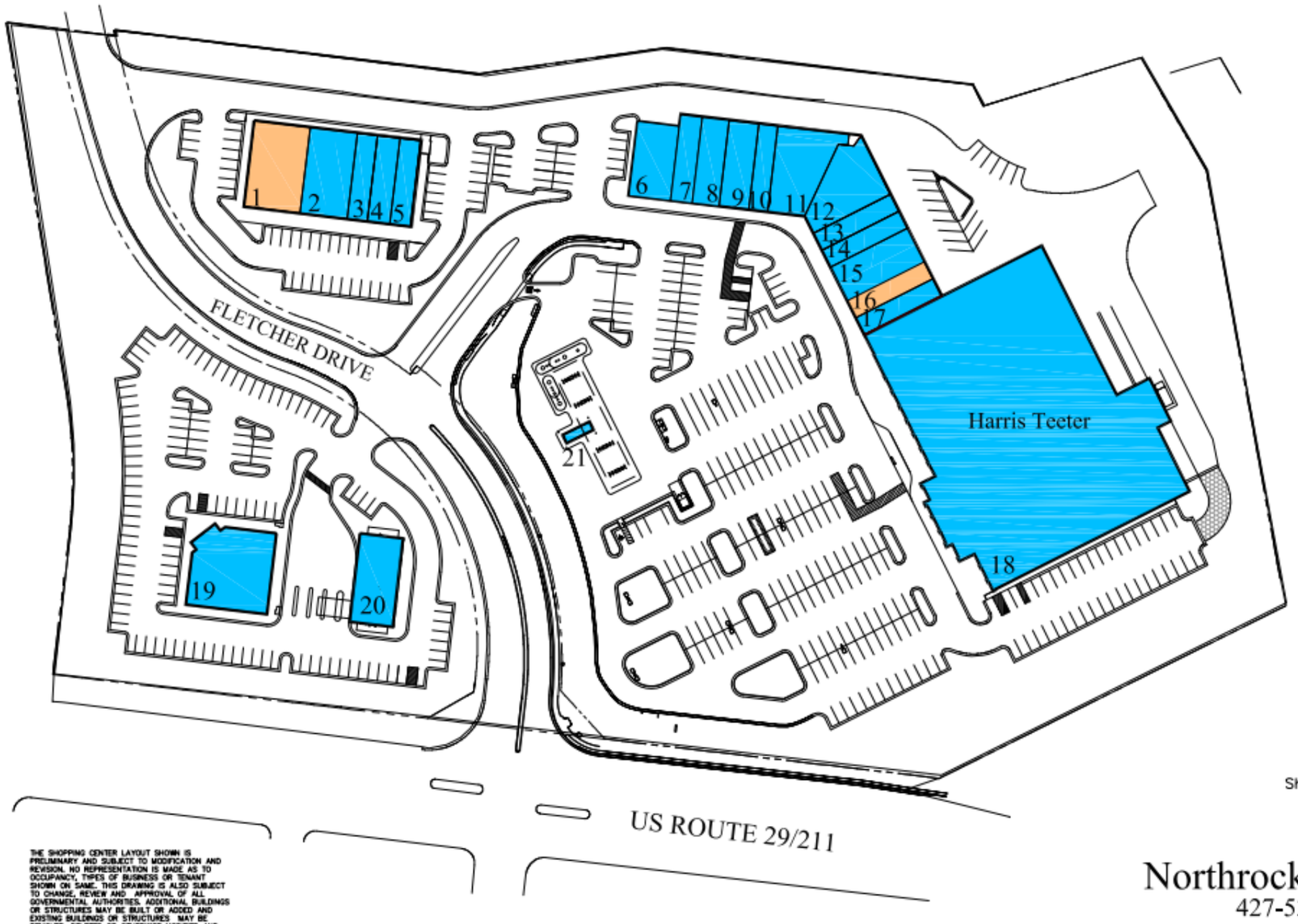
Northrock Shopping Center

SAUL CENTERS, INC.

100,432 SF

Warrenton, VA 20186

7501 Wisconsin Avenue
Suite 1500
Bethesda, Maryland
20814-6522
(301) 986-6200
www.saulcenters.com



Tenant List

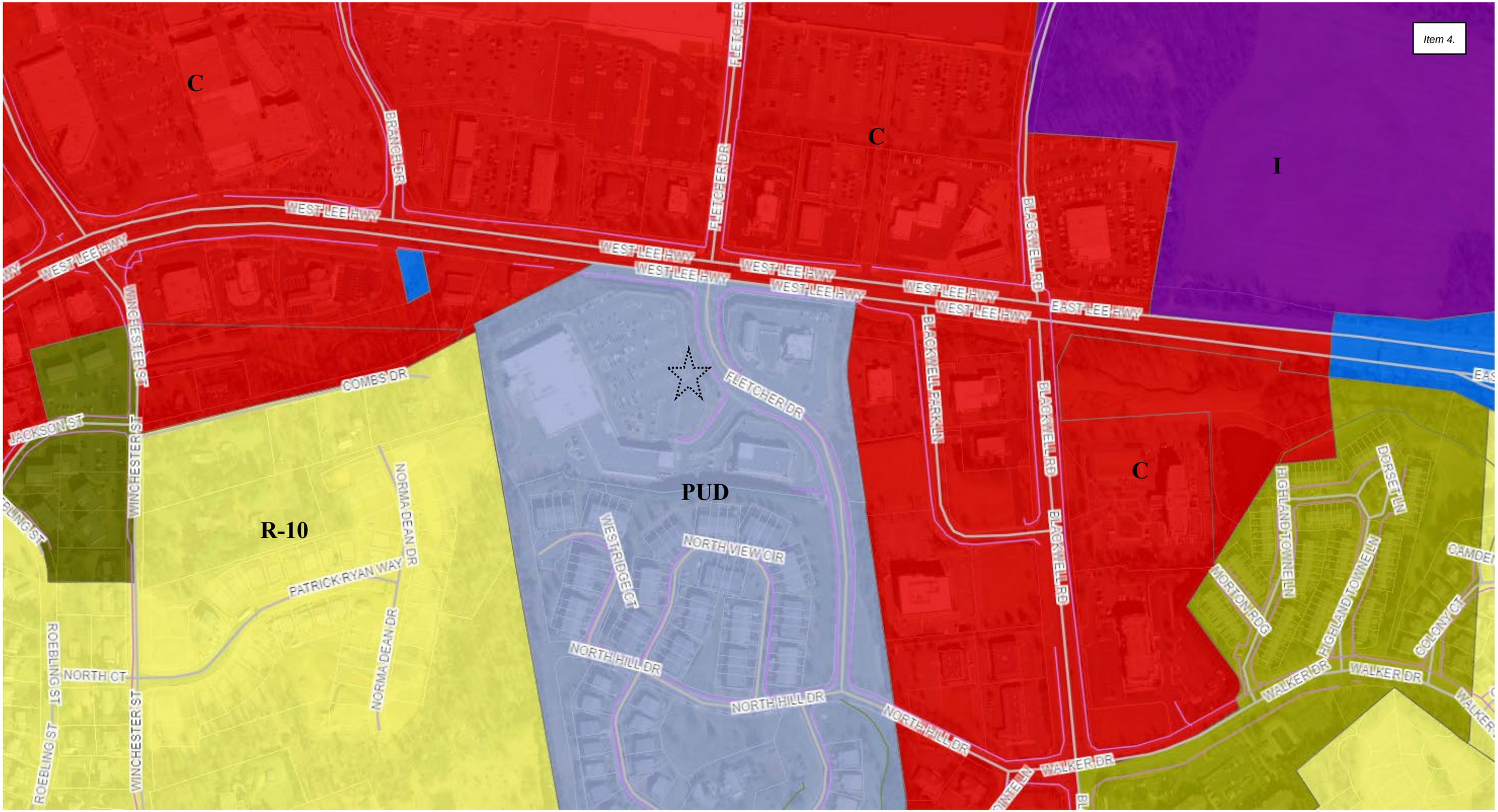
1	Available	4,200	SF
2	Novant Health	3,563	SF
3	T-Mobile	1,680	SF
4	ASAP Cleaners	1,700	SF
5	Sweet Frog	1,500	SF
6	Ledo Pizza	2,596	SF
7	Amazing Smile Dental Care	1,616	SF
8	Warrenton Eye Assocs.	2,000	SF
9	Club Pargdise Tanning Salon	2,223	SF
10	Mathnasium	1,410	SF
11	Mandarin Buffet & Sushi	3,900	SF
12	We Care Pharmacy	3,639	SF
13	Sharp Reliance Allstate Insurance	1,410	SF
14	Envy Nails & Spa	1,400	SF
15	Warrenton Jewelers	2,820	SF
16	Available	1,410	SF
17	Northrock Barbershop	1,410	SF
18	Harris Teeter	52,700	SF
	Total	91,114	SF
	Pad Sites		
19	Longhorn Steakhouse	5,695	SF
20	Capital One Bank	3,160	SF
21	Harris Teeter Gas Station	400	SF
	Total Pads	9,255	SF
	Shopping Center Total	100,432	SF

THE SHOPPING CENTER LAYOUT SHOWN IS PRELIMINARY AND SUBJECT TO MODIFICATION AND REVISION. NO REPRESENTATION IS MADE AS TO OCCUPANCY, TYPES OF BUSINESS OR TENANT SHOWN ON SAME. THIS DRAWING IS ALSO SUBJECT TO CHANGE, REVIEW AND APPROVAL OF ALL GOVERNMENTAL AUTHORITIES. ADDITIONAL BUILDINGS OR STRUCTURES MAY BE BUILT OR ADDED AND EXISTING BUILDINGS OR STRUCTURES MAY BE REMOVED, DELETED OR OTHERWISE MODIFIED AND THE LANDSCAPING AND PARKING LAYOUT IS SUBJECT TO CHANGE.

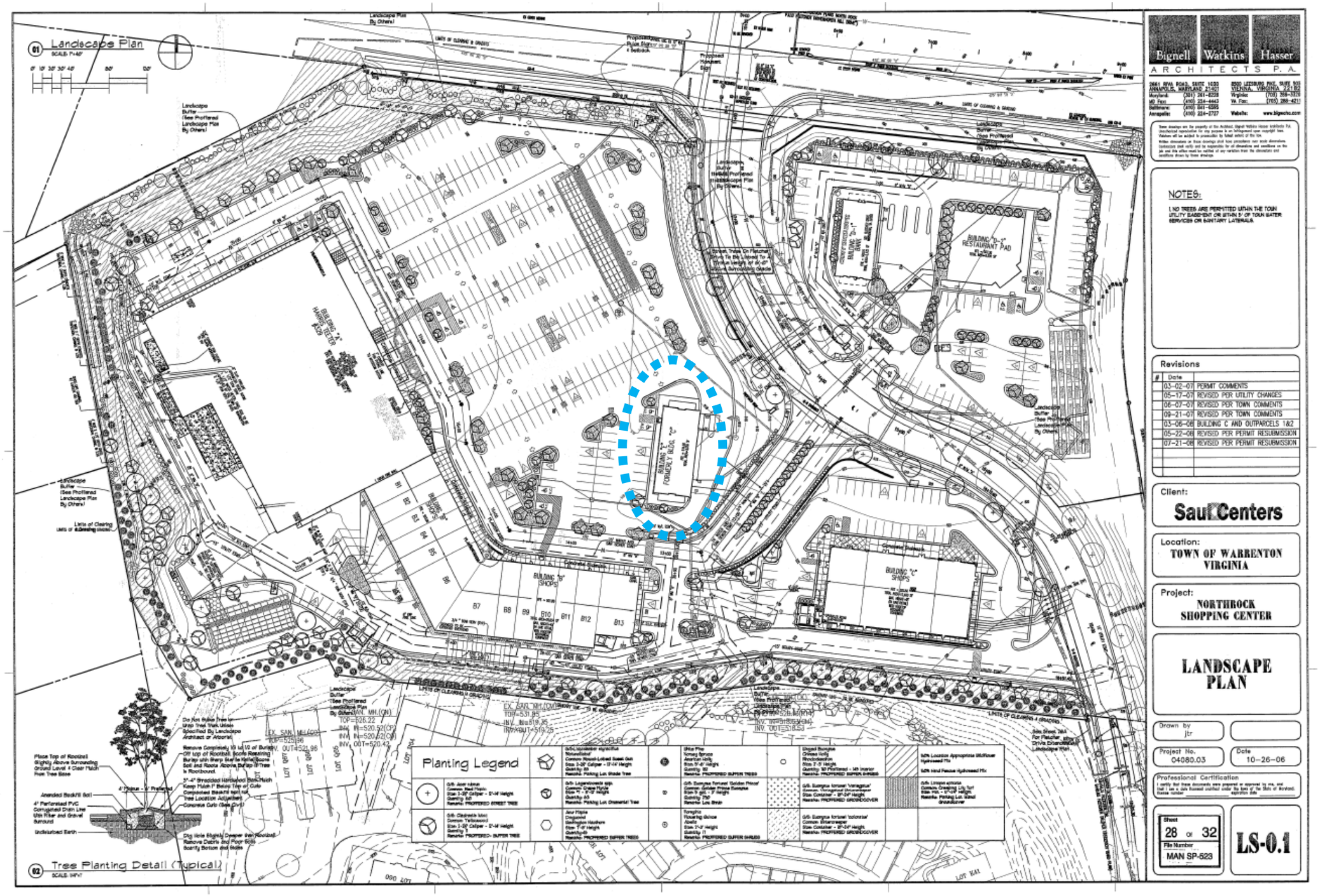
03.23.21

Northrock Shopping Center
427-530 Fletcher Dr
(intersection with U.S. Rte 29)
Warrenton, Virginia 20146

LEASE PLAN

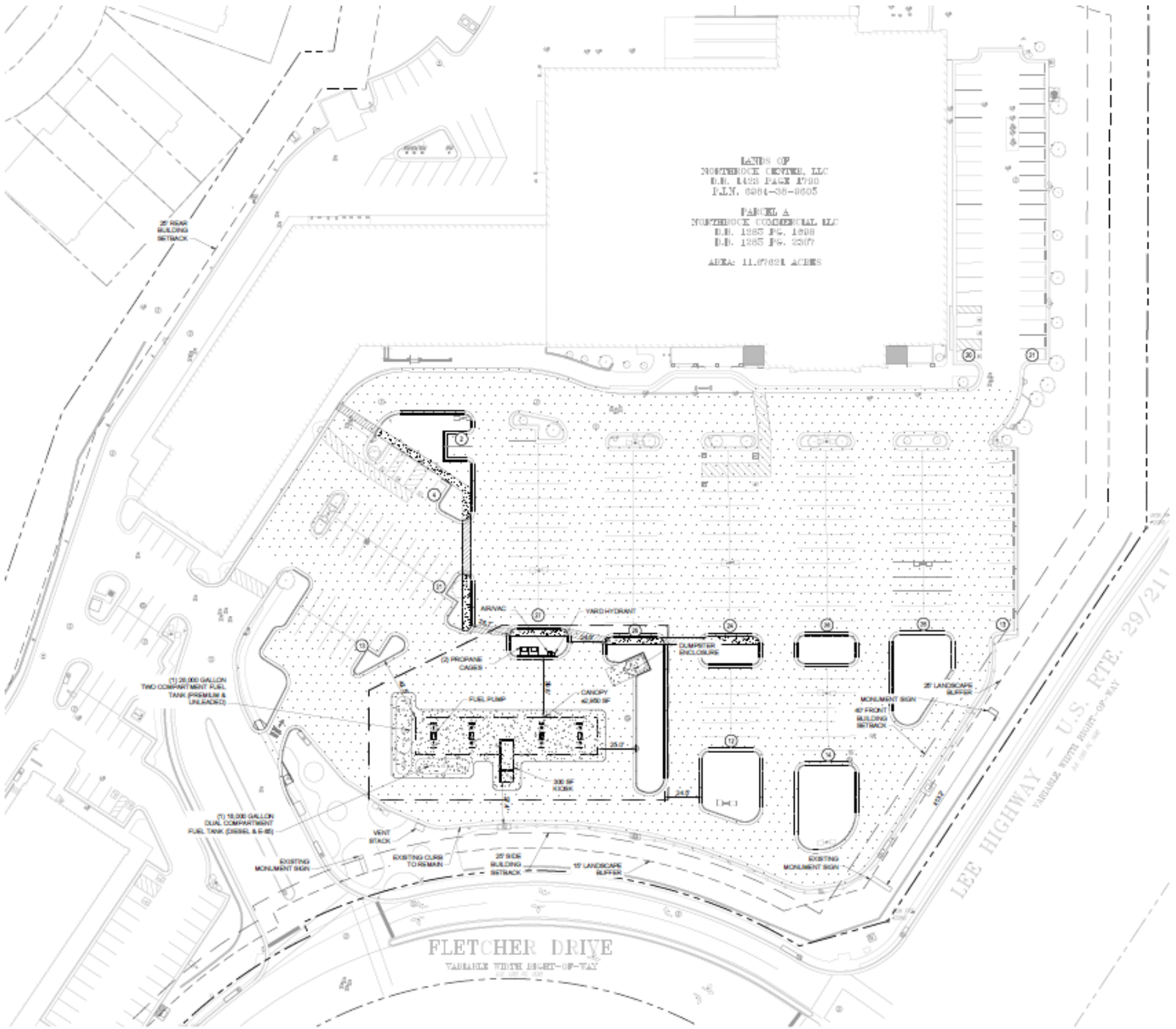

C
C
I
R-10
PUD
C
WEST LEE HWY
EAST LEE HWY
BRANCH DR
FLETCHER DR
BLACKWELL RD
WINCHESTER ST
COMBS DR
JACKSON ST
NORMA DEAN DR
PATRICK RYAN WAY
ROEBLING ST
NORTH CT
WESTRIDGE CT
NORTH VIEW CIR
NORTH HILL DR
BLACKWELL PARK LN
DORSET LN
HIGHLAND TOWNE LN
MORTON RDG
WALKER DR
COLONY CT
CAMDEN

ZONING

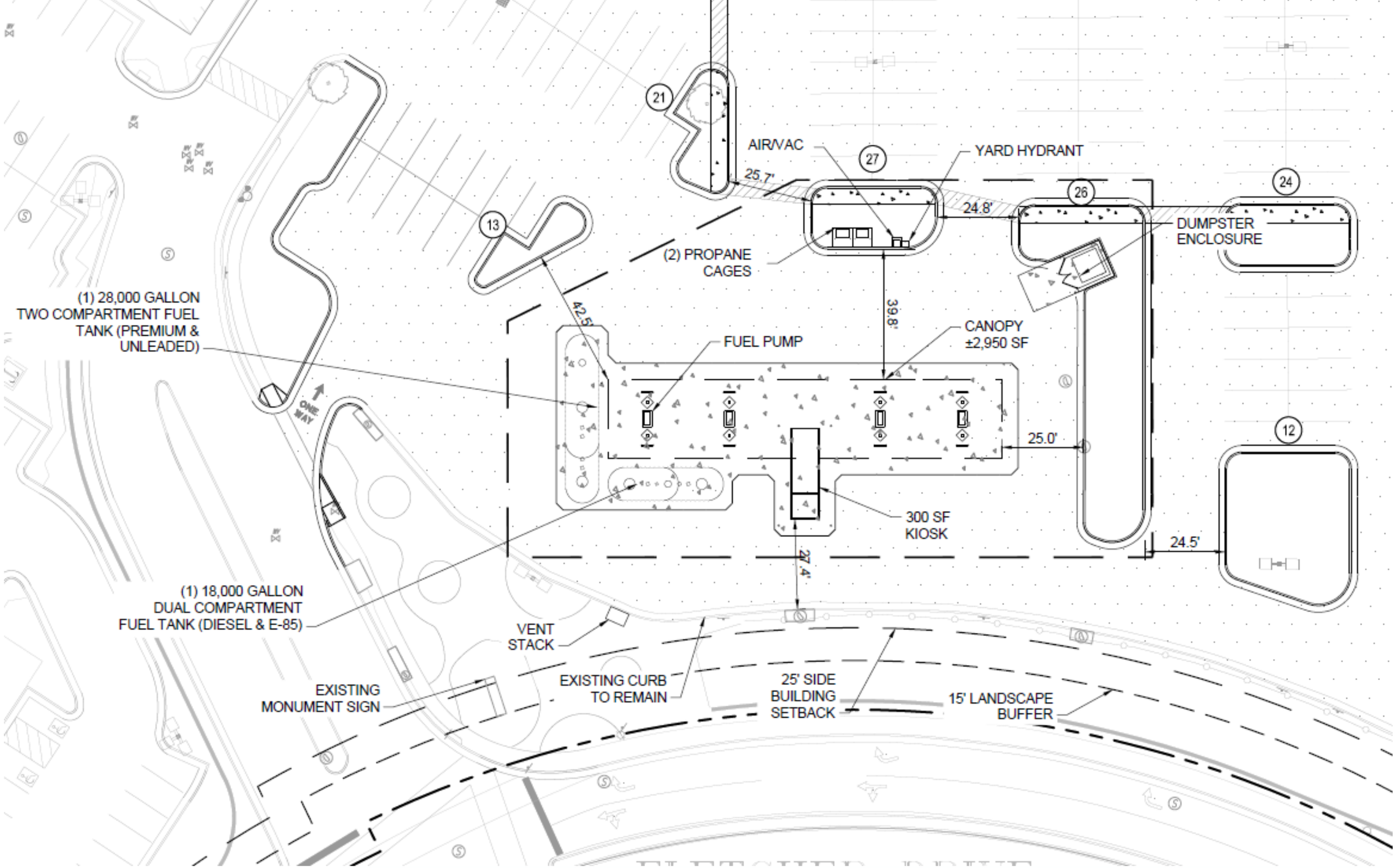


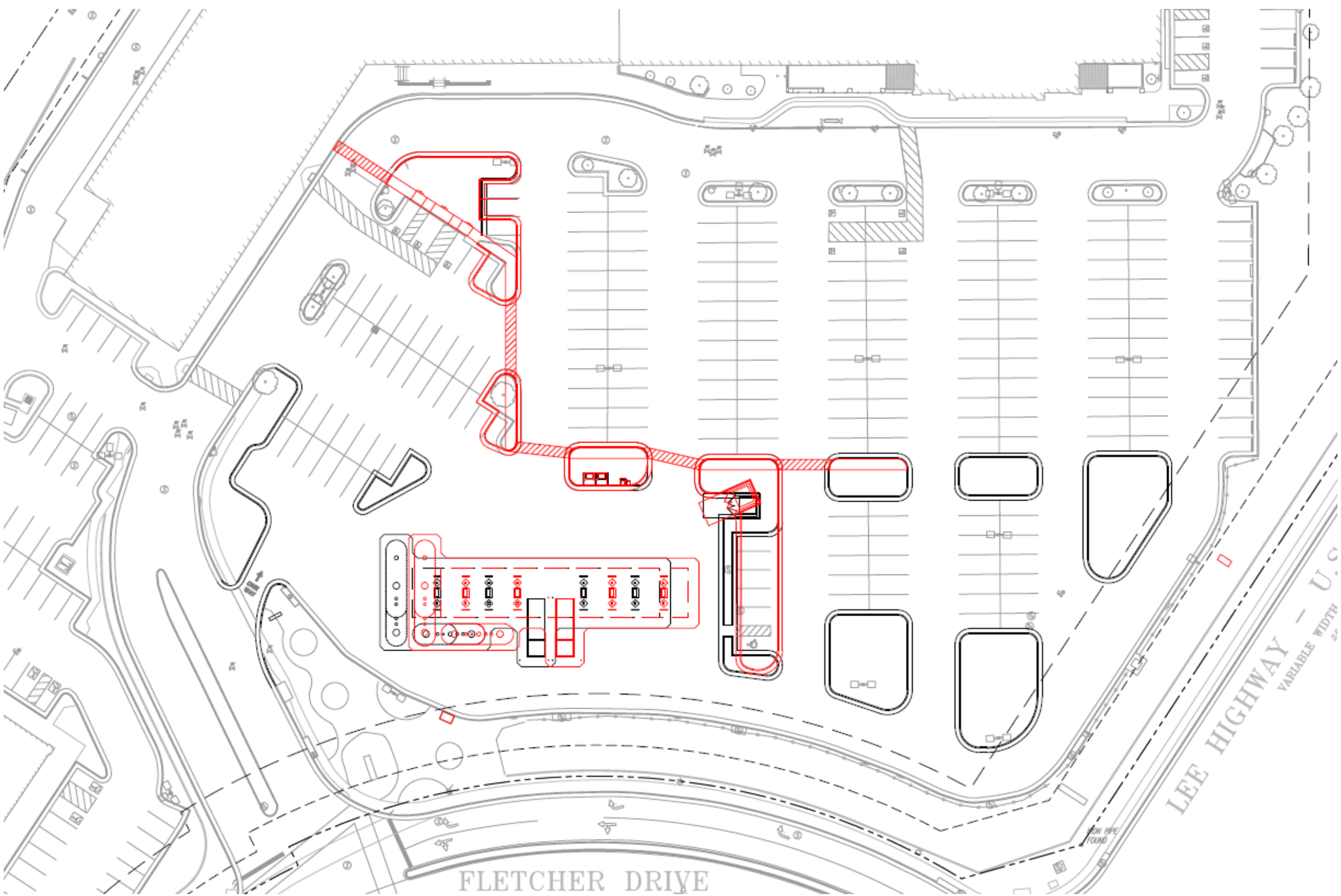
APPROVED LANDSCAPE PLAN

ILLUSTRATIVE PLAN



SPECIAL USE PERMIT PLAN


21
AIR/VAC
27
YARD HYDRANT
25.7'
24.8'
26
24
DUMPSTER
ENCLOSURE
13
(2) PROPANE
CAGES
42.5'
39.8'
(1) 28,000 GALLON
TWO COMPARTMENT FUEL
TANK (PREMIUM &
UNLEADED)
FUEL PUMP
CANOPY
±2,950 SF
ONE WAY
25.0'
12
300 SF
KIOSK
24.5'
27.4'
(1) 18,000 GALLON
DUAL COMPARTMENT
FUEL TANK (DIESEL & E-85)
VENT
STACK
EXISTING
MONUMENT SIGN
EXISTING CURB
TO REMAIN
25' SIDE
BUILDING
SETBACK
15' LANDSCAPE
BUFFER



COMPARISON EXHIBIT

ZONING MAP AMENDMENT PLAN

Source: Google Earth Pro

Kimley»Horn

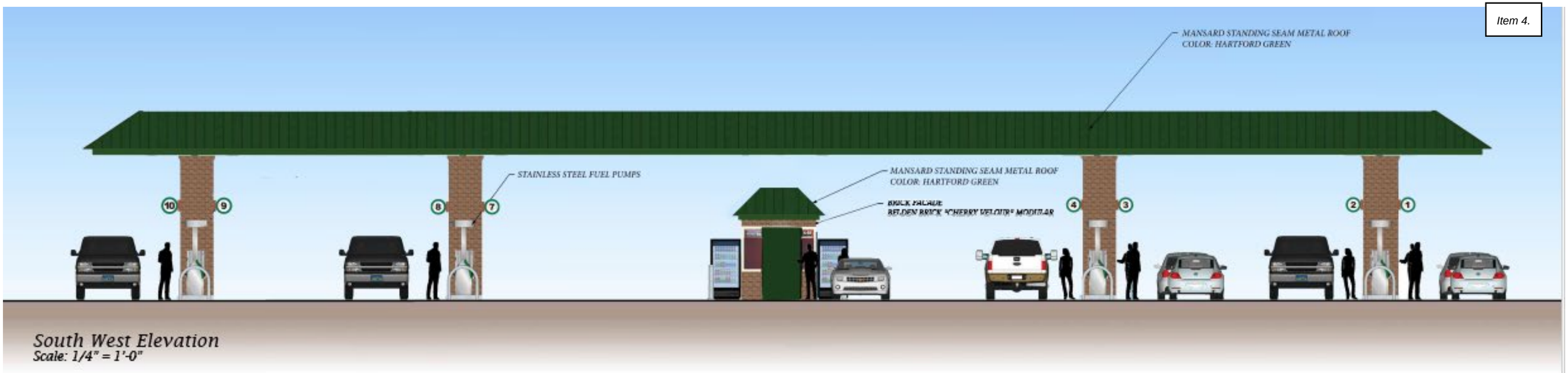
Study Area Map

Harris Teeter Fuel Center

Figure 1-1
Page 6

TRAFFIC IMPACT ANALYSIS

- Traffic Impact Analysis (TIA) was prepared by Kimley-Horn
- Traffic counts were taken in November, 2019 (pre-COVID)
- Based on the trip generation rates in the ITE Trip Generation Manual, 10th Edition, the proposal will generate:
  - 30 primary vehicle trips in the AM peak hour
  - 80 primary vehicle trips in the PM peak hour
  - 74 primary vehicle trips during the Saturday peak hour
- The gas station will have a minimal impact on the study area intersections
- The capacity analysis of the future conditions with development shows that the increase in delay at the study intersections due to the proposed gas station are negligible
- No significant queueing is anticipated
- All queues are less than the available storage length



South West Elevation
Scale: 1/4" = 1'-0"

South East Elevation
Scale: 1/4" = 1'-0"

HARRIS TEETER FUEL CENTER - WARRENTON, VIRGINIA #329

ELEVATIONS

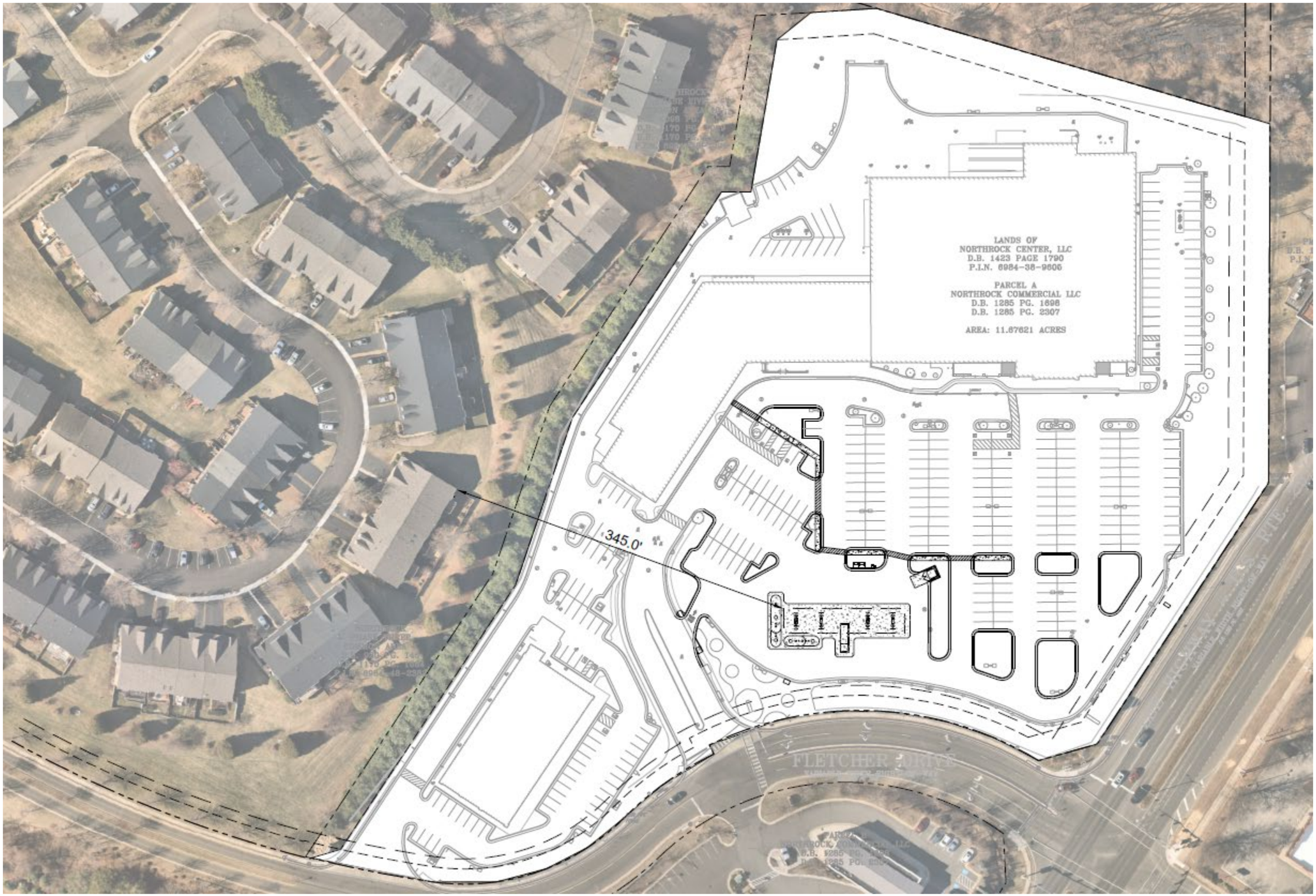
North East Elevation
Scale: 1/4" = 1'-0"

North West Elevation
Scale: 1/4" = 1'-0"

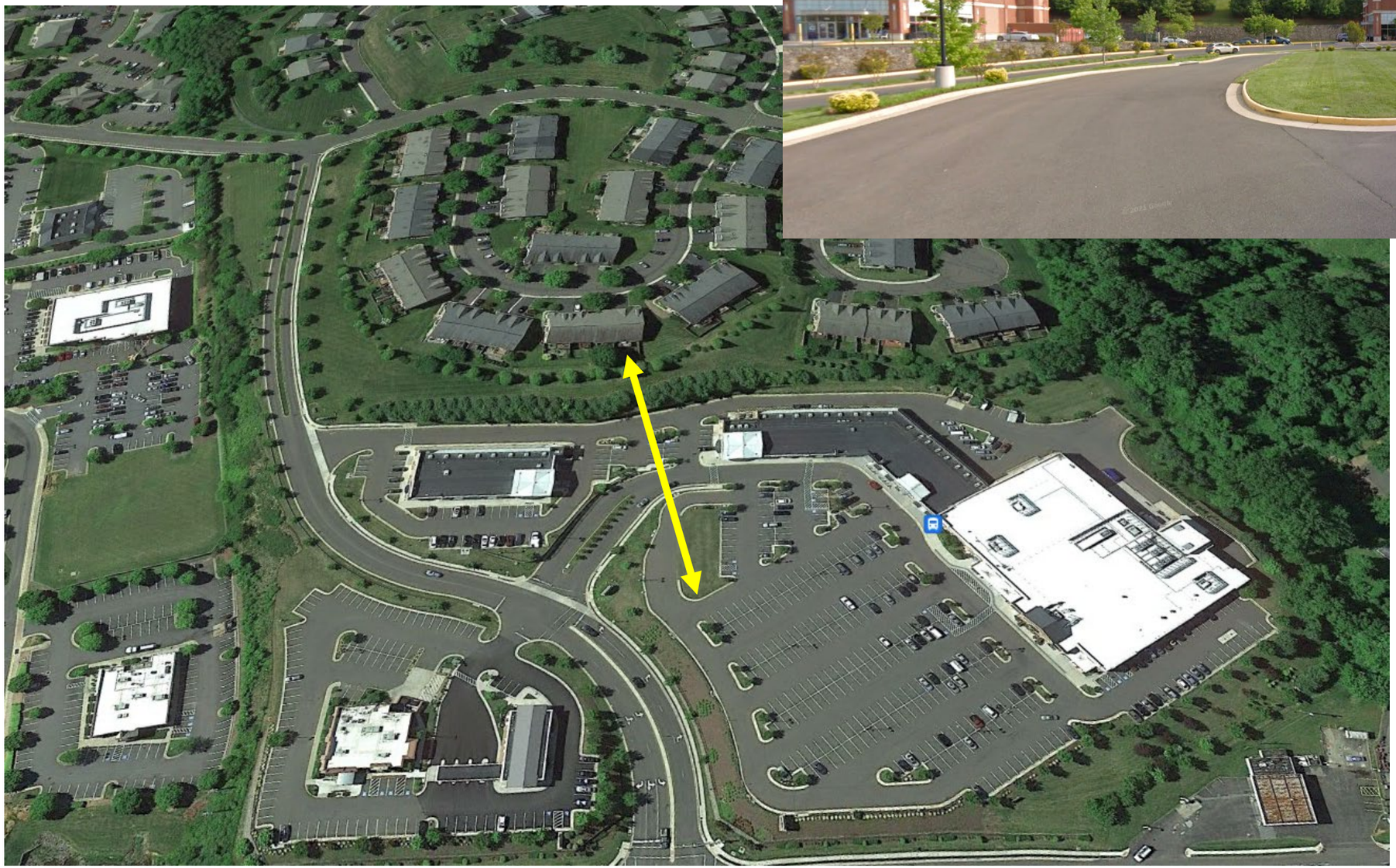
HARRIS TEETER FUEL CENTER - WARRENTON, VIRGINIA #329

CANOPY ELEVATIONS

FREESTANDING SIGN ELEVATION



DISTANCE EXHIBIT



DISTANCE AERIAL AND PHOTO

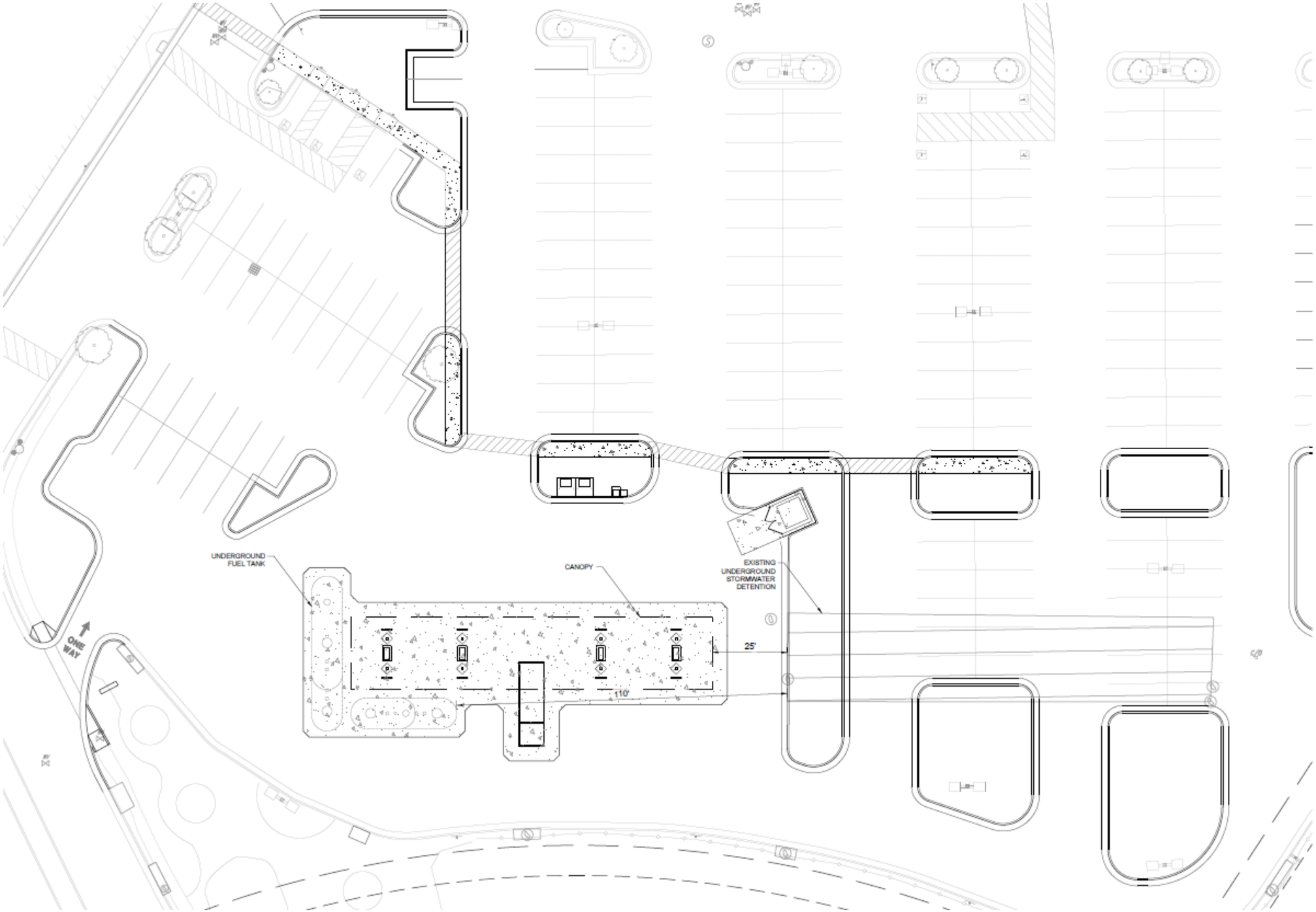
BROADLANDS LOCATION

THANK YOU

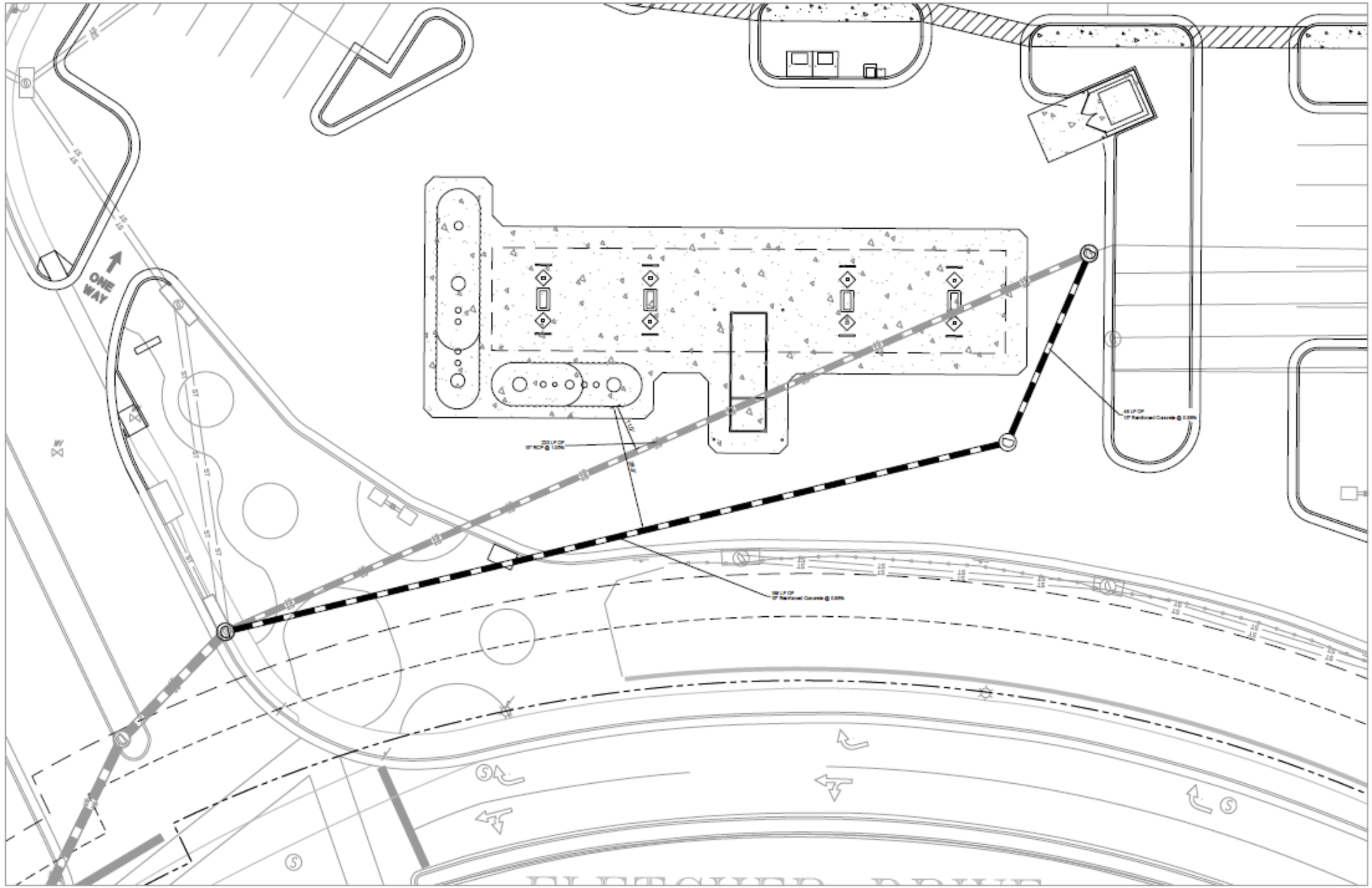
April 19, 2022

PLANNING COMMISSION WORK SESSION

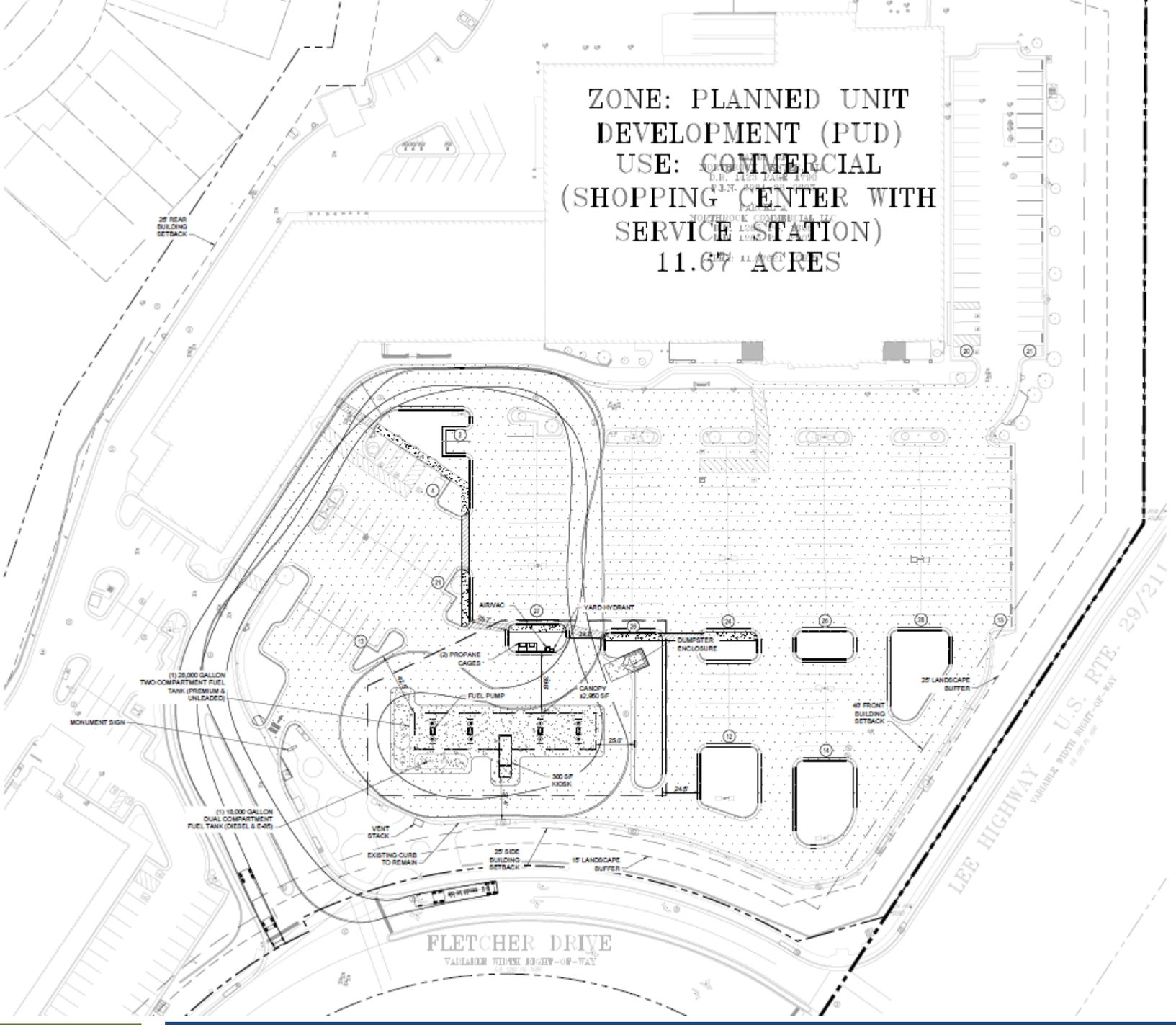
ILLUSTRATIVE PLAN



DISTANCE FROM EXISTING UNDERGROUND SWM DETENTION



PIPE RELOCATION



AUTO TURN ANALYSIS

TOWN OF WARRENTON
Department of Community Development
PO BOX 341
WARRENTON, VIRGINIA 20188
http://www.warrentonva.gov
TELEPHONE (540) 347-1101
FAX (540) 349-2414

September 20, 2022

TO: Planning Commission

FROM: Millie Latack, Planner/ Preservation Planner

RE: Special Use Permit 22-4
Oak View National Bank Drive-Thru

I. Summary:

A. Applicant/Owner: DRH Engineers PLC / Oak View National Bank

B. Representative: David Hall

C. Request: The Applicant is requesting approval for a drive-thru to be located in a by-right bank at an empty parcel on the corner of Garrett Street and Waterloo Street (6984-04-7890-000).

	Existing	Proposed Use
Parcel Site Acerage	+/- 1.2378 Acres	+/- 1.2378 Acres
SUP/site area	1.2378 SF	1.2378 SF
Parking	0 Spaces	43 Spaces
Number of Employees	N/A	26 employees
Hours of Operation	Currently Vacant	Mon-Thurs 8:30AM-4PM Fri 8:30AM-6PM Sat 9AM-12PM

D. Site Location: The site is a currently vacant lot, historically numbered 340 Waterloo Street (see maps in Attachment A), east adjacent to Waterloo Station (GPIN 6984-04-7890-000).

E. Comprehensive Plan: The site is designated Health and Wellness Mixed-Use within the Health and Wellness Character District.

F. Zoning: The site is zoned Commercial.

G. Surrounding Land Uses:

Direction	Zoning	Current Land Use
North	Residential Office	Dok Klaus Computer Care
South	Commercial	Burke Building (Virginia Horse Racing)
East	Residential Office	State Farm Insurance

Direction	Zoning	Current Land Use
		Law Offices
West	Commercial	Waterloo Station

II. Outstanding Issues:

The Applicant has noted the possibility of a future second story, but the provided elevations are single-story. An SUP amendment would be required if the elevations are to be conditioned, as proposed in the draft Conditions of Approval.

III. Overview:

This request for a Special Use Permit 22-4 to allow for a drive-thru for a new Oak View National Bank building, in accordance with Article 3-4.10.3 and Article 11-3.10 of the Town Zoning Ordinance. The bank building is allowed in the Commercial Zoning District by-right while a drive-thru is permissible by a Special Use Permit approval.

IV. Staff Recommendation:

Staff recommends the Planning Commission hold a Public Hearing and consider the draft Conditions of Approval dated September 20, 2022.

V. Suggested Motions

1. I move that the Planning Commission recommend approval to the Town Council of SUP 22-4 subject to the Conditions of Approval dated September 20, 2022.

OR

2. I move that the Planning Commission forward SUP 22-4 to the next Planning Commission Work Session.

OR

3. I move that the Planning Commission recommend denial of SUP 22-4 for the following reasons: [Insert].

OR

4. I move an alternative motion.

Attachments

A. Area Maps
B. SUP Staff Analysis
C. Draft Conditions of Approval
D. Application

Attachment A - Map

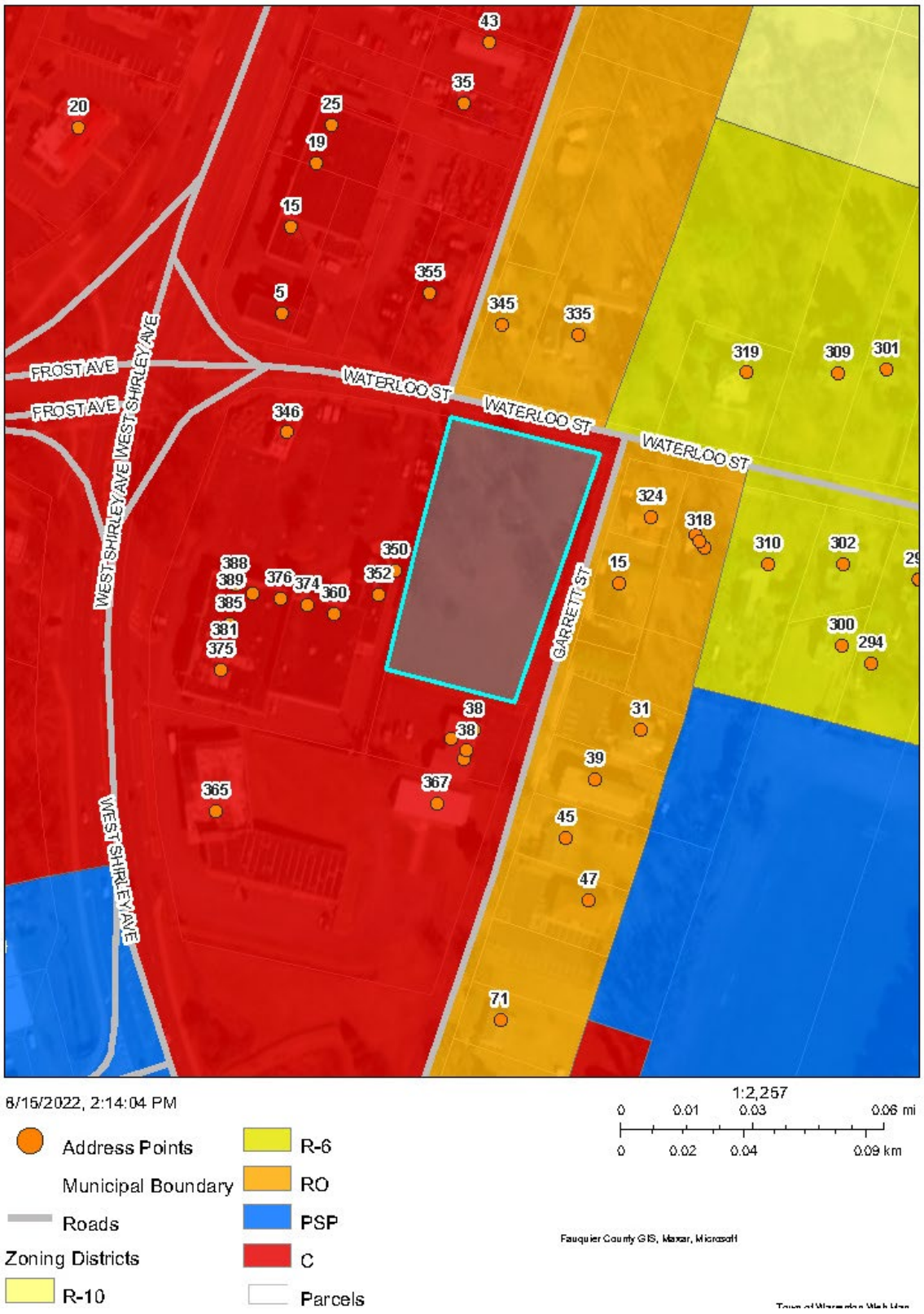
VICINITY MAP

Attachment A - Map

AERIAL MAP

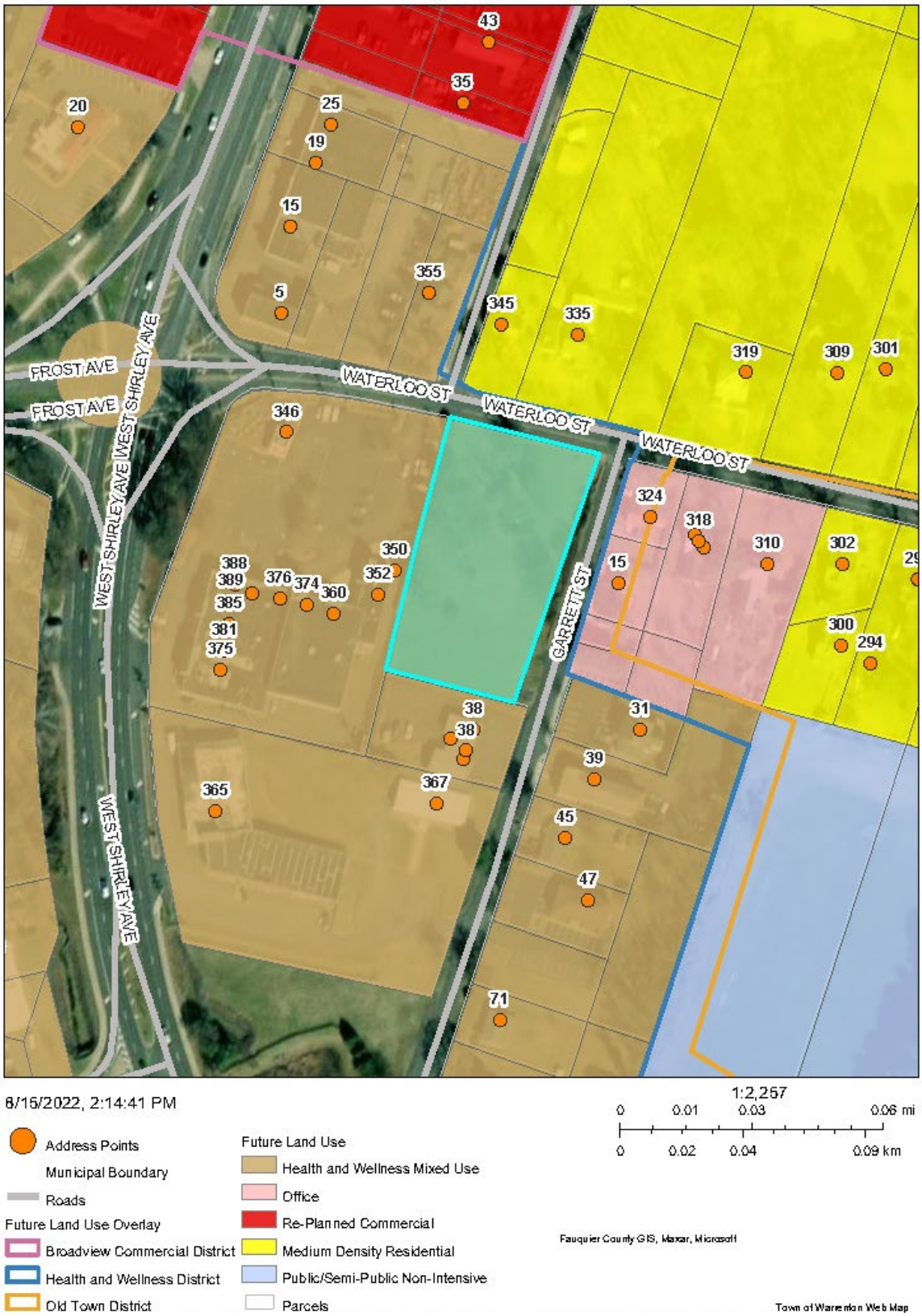
Attachment A - Map

EXISTING ZONING MAP



Attachment A - Map

FUTURE LAND USE MAP



Staff Analysis

This analysis is based on the Comprehensive Plan, Zoning Ordinance, and review comments by Town Departments. The standards/analysis tables in the sections below contain the criteria for Planning Commission and Town Council consideration of Special Use Permits, per Article 11-3.1.3.

This request for a Special Use Permit for Oak View National Bank to allow for a drive-thru, in accordance with Article 3-4.10.3 and Article 11-3.10 of the Town Zoning Ordinance.

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

Direction	Land Use	Future Land Use Map Designation	Zoning
North	Burke Building (Virginia Horse Racing)	Medium Density Residential	Residential Office
South	State Farm Insurance	Health and Wellness Mixed Use	Commercial
East	Law Offices	Office	Residential Office
West	Waterloo Station	Health and Wellness Mixed Use	Commercial

The parcel is a currently vacant site located at the corner of Waterloo Street and Garrett Street (GPIN 6984-04-7890-000). The 1.2378 acre site originally had a structure likely demolished in 2005 and has been vacant since. The immediate uses surrounding the parcel include the Burke Building, State Farm Insurance (Mon-Fri 9AM-5PM), and Waterloo Station (varying hours for several businesses ranging Sun-Sat 9AM-10:30PM).

Comprehensive Plan Future Land Use Analysis

Plan Warrenton 2040 labels this parcel in the Future Land Use Map within the Health and Wellness Character District. The Health and Wellness designation notes the district needs to, "[*create] a significant transition to Old Town District [requiring] redevelopment of the commercial properties east of the intersection, with traffic calming roadway treatments and an architectural "gateway" element as part of the redevelopment of property, signifying the entrance into a historic district.*"

Further consideration of the relationship to the character district is described in the Character District Design Guidebook as follows:
"It will maintain the consistent street frontage with a range of two to five levels with a 20-foot minimum (top of parapet) for commercial uses, along Frost, Broadview, and Shirley avenues, stepping down to one to three stories along the edge of Waterloo Road."

Standard	Analysis
Whether the proposed Special Use Permit is consistent with the Comprehensive Plan.	The proposed use falls within the future land use designation of Health & Wellness Mixed-Use as listed in the Comprehensive Plan.
The compatibility of the proposed use with other existing or proposed uses in the neighborhood, and adjacent parcels.	The proposed parcel is surrounded by commercial retail uses on the west side of the property and office space on the south and east side of the property offering compatible uses.

Staff Findings

The location of the proposed use is set within an important transition to Old Town Warrenton and notable residential neighborhoods. A consistent note in the Comprehensive Plan regarding the gateway of Waterloo Street is the importance of an appropriate transition that speaks to the character of the historic residential neighborhoods and the commercial areas from the Broadview District to the Old Town District. The proposed plan appropriately melds the architectural setting of the residential structures down Waterloo with the existing commercial in the adjoining parcels. The elevations and parcel perimeter landscape strip aid in softening the visibility of the drive-thru, blending it into the structure to create a modern commercial development with historic quality architectural details.

Zoning Analysis

The legislative intent of the Commercial District is to simultaneously encourage appropriate and timely land development while assuring suitable design by prohibiting uses that would create undue impacts on the surrounding residential areas.

Standard	Analysis
The level and impact of any noise emanating from the site, including that generated by the proposed use, in relation to the uses in the immediate area.	The Statement of Justification notes there will be minimal noise impact that is consistent with typical vehicular traffic at a slow-moving pace or stopped in the drive-thru lanes. Bank Tellers will communicate through speakers just loud enough to be effective. Hours of operation are within the hours permitted for business noises at night near residents per Town Code Section 11-19.
The proposed location, lighting and type of signs in relation to the proposed use, uses in the area, and the sign requirements of this Ordinance.	Three building and two monument signs with electronic messages boards are proposed. All are depicted in the elevations, while details for the monument signs within in the SUP Plan.

Standard	Analysis
The location and area footprint with dimensions (all drawn to scale), nature and height of existing or proposed buildings, structures, walls, and fences on the site and in the neighborhood.	An SUP plan has been provided showing the general location of the proposed structures. There is an existing stone retaining wall noted on the existing conditions. The Applicant has noted a portion of the retaining wall will be removed for the joint Waterloo entrance but would otherwise remain. An existing brick masonry wall on Garrett Street has also been noted and will be removed.
The nature and extent of existing or proposed landscaping, screening and buffering on the site and in the neighborhood.	The Applicant has stated all existing trees will require removal for construction. New landscaping is shown around the perimeter of the property on the SUP Plan.
The timing and phasing of the proposed development and the duration of the proposed use.	The applicant seeks approval for two lanes but will only implement one during development of the site. The second lane and ATM will be added if the need arises due to customer demand.
Whether the proposed Special Use Permit at the specified location will contribute to or promote the welfare or convenience of the public.	The project will add sidewalk along Garrett Street and realign the Waterloo Street entrance to the Waterloo Station Shopping Center with Sullivan Street, creating one combined entrance on Waterloo Street.
Whether, in the case of existing structures proposed to be converted to uses requiring a Special Use Permit, the structures meet all code requirements of the Town of Warrenton.	The only existing structures on the property include two retaining walls.
The location, character, and size of any outdoor storage.	No outdoor storage is proposed.
The location of any major floodplain and steep slopes.	No floodplain is located on site. There are some steeper slopes along the western side of the property line.
The location and use of any existing non-conforming uses and structures.	The parcel is considered vacant.
The location and type of any fuel and fuel storage.	There is a generator and enclosure listed on the SUP Plan adjoining the refuse enclosure. No specific fuel storage areas are noted on site.
The location and use of any anticipated accessory uses and structures.	An ATM is located within the closest drive-thru lane to the building.
The area of each proposed use.	The proposed site area is 1.2378 acres. The bank is proposed as a 7,795 square- foot facility.
The location and screening of parking and loading spaces and/or areas.	Proposed landscaping is shown around the parking spaces. One loading area is located on site. All landscaping requirements will need to be shown on the SDP.

Standard	Analysis
The location and nature of any proposed security features and provisions.	There are none noted.
Any anticipated odors which may be generated by the uses on site.	None proposed.
Refuse and service areas.	A refuse area is proposed along the back corner of the property. Screening details are not provided but appears to have a wall/fence around it.
Whether the proposed Special Use Permit will result in the preservation or destruction, loss or damage of any significant topographic or physical, natural, scenic, archaeological or historic feature.	The property has some topographical challenges along the western side of the property that has a proposed five-foot-wide landscape strip along the existing retaining wall. There are also elevation changes along Garrett Street where the existing retaining wall is located. It is not clear how the retaining walls are to be handled.
The effect of the proposed Special Use Permit on environmentally sensitive land or natural features, wildlife habitat and vegetation, water quality and air quality. The location of any major floodplain and steep slopes.	No sensitive lands are noted on the SUP. Existing vegetation will require removal for the construction of the building.
The glare or light that may be generated by the proposed use in relation to uses in the immediate area.	Lighting details other than building up lights not provided, but the application states that any lighting will meet Zoning Ordinance requirements. However, the elevation is showing building lighting with upplight fixtures that are not permitted. In addition, the proposed lighting for the signs (building and monument) will need to be at least 50 feet away from the adjacent Residential Zoning District boundaries. Illuminated signs within 300 feet of any residential district must be extinguished between the hours of 12:00 midnight and 7:00 am, except for any time during that period when the use is legally open for business.

Staff Findings

Signage, elevation treatments, and existing landscaping are not provided in complete detail. The SUP Plan and Statement of Justification note these elements will be completely vetted at time of site plan conforming to Town regulations.

The varying elevation changes on site cause concern for required retaining wall installations. Walls located along or adjacent to sidewalks would not promote the mobility of pedestrians as encouraged in the Comprehensive Plan. The parcel would not follow the transition of the commercial to residential as

appropriately, creating a visual division in the streetscape. Staff has proposed a condition to prevent any such retaining walls against the sidewalks, as details on how the elevation changes will be mitigated are to be provided at site plan.

Transportation and Circulation Analysis

The primary transportation and circulation goal for the Town of Warrenton is to *"Promote livability in the Town by integrating multi-modal, interconnected transportation solutions with land use development in each mixed-use Character District and applying traffic calming techniques that foster and protect non-vehicular street activities in established residential neighborhoods."* The Transportation and Circulation section of the Comprehensive Plan sets out policies and objectives that work to further this goal. The section includes recommendations addressing improvements for pedestrian use, new street connections, parking and sidewalks, trails, cost sharing, traffic calming techniques, safety, and signage.

Specifically, within the Health and Wellness District, the Comprehensive Plan calls for a need to continue a streetscape plan that promotes a consistent walking experience. This emphasis on walkable access is an important and consistent theme within the district to provide for alternative modes of transportation. This allows for encouraging improvement on health and living within a mixed-use community.

Standard	Analysis
The traffic expected to be generated by the proposed use, the adequacy of access roads and the vehicular and pedestrian circulation elements (on and off-site) of the proposed use, all in relation to the public's interest in pedestrian and vehicular safety, efficient traffic movement and access in case of fire or catastrophe.	The applicant notes that traffic for the site will be consistent with the traffic patterns noted on the SUP Plan and has established an agreement with the adjoining property owner to have a joint entrance to mitigate traffic concerns throughout the site. Traffic generation is noted at 783 per day with 50% (393 trips) utilizing the Waterloo Street entrance, and 50% (392 trips) utilizing the Garrett Street entrance.
Whether the proposed use will facilitate orderly and safe road development and transportation.	

Staff Findings

The Applicant has worked with the Town and VDOT in consideration of the Broadview Safety Improvements Project which will encompass the Waterloo joint entrance. The solution is a plan designed to align with the projected transportation improvements and prepare for their implementation. Alignment of the Waterloo Station joint entrance with Sullivan Street aides in creating a suitable, safer four way intersection.

The proposed improvements to transportation infrastructure are needed and align to the goals of the Comprehensive Plan. The internal circulation and pedestrian safety are factors that will be integral to site success having created inter-parcel connectivity to Waterloo Station. The SUP Plan notes Garrett Street will be widened to accommodate a sidewalk down the east side of the parcel where none currently exist. Adding and continuing sidewalks around the site perimeter with internal crosswalks will continue the safety of pedestrians.

Community Facilities and Services Analysis

Public community facilities in the Town are provided by the Town, Fauquier County, and other public

groups for the benefit of all residents. The availability and quality of these facilities, that include, schools, libraries, hospitals, parks, police and fire and rescue services, are evaluated when people are considering moving into the Town or nearby area. The provision of these facilities adds to the desirability of living in the Town. The Comprehensive Plan's primary community facilities and services goals for the Town of Warrenton are:

1. *Foster high-quality, equitable, and accessible community facilities that meet the Town's service requirements and support a high quality of life for the community.*
2. *Make responsible and strategic community facility investments that support the Town's vision for a live/work community, sustaining its fiscal well-being and economic resiliency.*
3. *Promote sustainability in all Town-owned facilities.*
4. *Reinforce the role of County community facilities into the Town fabric.*
5. *Promote livability through properly located Town services, schools, libraries, courts, and County administrative functions.*
6. *Support the connection of residential dwellings to public water and sewer.*
7. *Provide a high quality of life to capture economic benefits through diverse businesses, employers, and residences.*

Public services are essential to the community structure and quality of life, as well as to long-term economic vitality. They support existing and planned developments and contribute to the health, safety, education and general welfare of Warrenton residents.

Standard	Analysis
Whether the proposed Special Use Permit will be served adequately by essential public facilities, services and utilities.	There is an existing water and sewer system on the parcel that is outdated. The Town will serve the parcel, given the connections are updated to accommodate the new service.
The location of any existing and/or proposed adequate on and off-site infrastructure.	

Staff Findings

The varying elevation changes of the site and general height in relationship to the Waterloo Station parcel will have potential for greater stormwater runoff challenges. The Applicant has provided general solutions for this with detailed information to align with the Town's Stormwater Management Program at time of site plan.

Economic Resources Analysis

An economic goal of Plan Warrenton 2040 is to promote a diverse, equitable stable tax base while preserving the character of the community. This has been noted to be accomplished in the Health and Wellness District by, "*[promoting] the Town's Character Districts as the focal point for revitalization to allow for mixed-use and multi-family development at an appropriate scale compatible with the Town's character and existing neighborhoods. Transform aging commercial corridors to vibrant mixed-use neighborhoods.*"

Standard	Analysis
Whether the proposed Special Use Permit use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.	The proposal will utilize a parcel that is vacant creating a new economic use.
The number of employees.	Approximately 26 employees noted.
The proposed days/hours of operation.	Monday -Thursday 8:30 AM until 4:00 P.M. Friday 8:30 AM- 6:00 P.M. Saturday 9:00 A.M. - 12:00 P.M.

Staff Findings

The proposal aligns with the Comprehensive Plan goal of mixed-use, in the horizontal sense, as a transition from commercial retail stepping down to institution or banking to residential office to, finally, transition into the existing residential neighborhoods. As the parcel has been vacant for so long, the proposal improves upon the economic use with consideration to surrounding uses.

Agency Comments

The following agencies have reviewed the proposal. Individual comments attached:

Community Development
Warrenton Police Department
Public Works & Utilities

STAFF PROPOSED CONDITIONS OF APPROVAL
Owner: Oak View National Bank
Applicant: DRH Engineers PLC
Special Use Permit: SUP 22-4
Address: 340 Waterloo Street
GPIN 6984-04-7890-000 (the "Property")
Special Use Permit Area: approximately 1.2378 acre parcel
Zoning: Commercial
Date: September 20, 2022

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

1. Site Development – The property shall be developed in general conformance with these conditions and the Special Use Permit 22-4, Special Use Permit Plans for Oak View National Bank (the "Plan"), pages 1-7, prepared by DRH Engineers, PLC dated July 20, 2022.

2. Use Parameters –

   a. Special Use Permit Area – The special use permit shall apply to the identified area on the Plan consisting of approximately 1.2378 acres located on the corner of Garrett Street and Waterloo Street on the vacant property (GPIN 6984-04-7890-000).

   b. Use Limitations – The use shall be limited to a two-lane drive through facility.

3. Deliveries and Refuse – All refuse and recycling pickup is the responsibility of the applicant/owner as the Town does not supply commercial trash service. Deliveries, recycling, and refuse/ solid waste pick-up shall follow the Town Code Section 11-19(9). All refuse and recycling shall be screened.

4. Lighting – All outdoor lighting shall conform to the Zoning Ordinance and be full cut-off and designed to prevent sky glow and light trespass.

5. Signs –

   a. All signage shall be constructed in general conformance with the SUP Plans referenced in Condition 1, as shown and shall comply with any Zoning Ordinance regulations at that time.

   b. Unless otherwise permitted by the Zoning Ordinance, temporary signs, banners, balloons, streamers, garrison flags, or similar attention-getting devices shall be strictly prohibited.

6. Topography – no retaining walls shall be constructed adjacent and parallel to the sidewalk.

7. Stormwater Management – The site is to be planned and designed under the State's Runoff Reduction requirements for Stormwater Management (SWM) and in compliance with the Town of Warrenton's SWM Ordinance.

8. Transportation and Traffic –
    a. There shall be no vehicle stacking into the public right-of-way awaiting drive-through service.
    b. The property owner is responsible for maintaining all interior directional signage and wayfinding to maintain the safety of pedestrians and vehicles.
    c. The Owner shall be responsible for the installation of a high visibility crosswalk from the property's ADA compliant sidewalk across Garrett Street in coordination with the Town Public Works Department.
    d. At time of site plan, an easement shall be recorded in conformance with the Joint Entrance Agreement dated March 31, 2022.

STATEMENT OF JUSTIFICATION

Oak View National Bank
Special Use Permit
Revised 07/20/22

Applicant, Oak View National Bank, requests Special Use Permit approval for a drive-through window in connection with its development of a new banking location on its property located at the intersection of Waterloo Street and Garrett Street in the Town of Warrenton, Virginia. The property is shown as Fauquier P.I.N. 6984-04-7890-000 containing 1.2378 acres and is zoned to the C-Commercial zoning district. The preliminary proposed site plan showing the location of the new bank building with other pertinent exterior features including the location of the proposed drive-through window, two drive-through lanes, parking, landscaping, future ATM location, etc. is as shown on the proposed site plan prepared by DRH Engineers, PLC enclosed with the application materials.

The property which is the subject of this Application is bordered on the south and west by properties in the C- Commercial zoning district. The properties immediately across Waterloo Street to the north and across Garrett Street to the east of the property are zoned to the RO-Residential Office zoning district.

The proposed use of Applicant's property is consistent with the Town of Warrenton's Comprehensive Plan in that banks and other financial institutions are by right permitted uses (Section 3-4.10.2) in the C-Commercial zoning district. In fact, the only use triggering the requirement for review and issuance of a Special Use Permit is the drive-through feature of the project.

As shown on the preliminary site plan, Applicant seeks approval for two side-by-side drive-through lanes served by one drive-through window in the lane closest to the building with a deal drawer, and a pneumatic tube delivery system in the lane furthest from the bank building. Two pneumatic tubes are depicted on the plans: one to be implemented at inception, with the capacity for a second tube later as dictated by customer volume.

Applicant's proposed hours of operations for the drive-through are Monday through Thursday 8:30 to 4:00, Friday 8:30 to 6:00 and Saturday 9 a.m. to 12 noon with no operations on Sunday. Based upon its current customer flow in its existing location on Broadview Avenue plus anticipated increased flow once the drive-through is established, Applicant anticipates a volume estimate of approximately 783 vehicle trips per day.

The level and impact of noise is expected to be minor consistent with typical vehicular traffic at a very slow moving or stopped level generated as customers approach and move through the drive-through lanes. Bank tellers will communicate with drivers through a speaker

system set to levels only sufficient to allow driver customers to communicate effectively with the teller in the building.

All lighting associated with the proposed Special Permit Use will be properly situated and shielded with levels complying with the Town of Warrenton lighting requirements. No additional signs beyond those depicted in the submitted plans will be required in connection with the proposed use. As shown in the design plans, a landscaped buffer along the frontage with Garrett Street will assist in screening the drive-through use from the properties opposite Garrett Street.

Traffic generated by the proposed use will be consistent with the pattern established by the entry and exit points to the property as depicted in the DRH Engineering design plans. Applicant and the adjoining property of ABC and J, LLC (the Rankins Shopping Center property) have entered into agreement to have a joint entrance off of Waterloo Street to mitigate traffic impact by avoiding having two separate commercial entrances in close proximity to each other along the Waterloo Street frontage. There will be one entry and one exit access point at opposite corners of the properties Garrett Street frontage again to minimize traffic conflicts.

The Applicant proposes to construct and open the drive-through feature of the bank structure simultaneously with the rest of the bank building. The ATM depicted will not be installed at inception but will be implemented later if the bank's operations and customer demands dictate. The drive-through feature will not result in the destruction, loss or damage of any significant topographic or natural, scenic, architectural or historic feature on the property which is an unimproved lot.

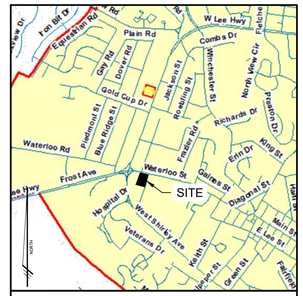
The proposed Special Use Permit activity will not be required to be served by any public facilities services and utilities other than electric service to the property. Applicant suggests that a Special Use Permit allowing it to provide drive-through banking services to its customers at this location contributes to and promotes the convenience of the public.

SPECIAL USE PERMIT PLANS

FOR

OAK VIEW NATIONAL BANK

TOWN OF WARRENTON,
VIRGINIA



VICINITY MAP 1" = 2000'

Source: Town of Warrenton GIS

DRH ENGINEERS, PLC

CIVIL - STRUCTURAL - FORENSIC

7190 Brewster Ln., Suite 100; Warrenton, Virginia 2017
540-349-7840 www.drhengineers.com

PREPARED FOR:

OAK VIEW NATIONAL BANK

4174 OLD STOCKYARD RD,
P.O. BOX 368
MARSHALL VA 20115

MAY 23, 2022
REVISED 07/20/22

SHEET INDEX

SHT. NO.	DWG. NO.	SHEET NAME
1.	T-1	COVER SHEET
2.	EC-1	EXISTING CONDITIONS & SITE DEMOLITION
3.	SUP-1	SPECIAL USE PERMIT SITE PLAN
4.	SUP-2	CONCEPTUAL LANDSCAPE PLAN
5.	SUP-3	BUILDING ELEVATIONS
6.	SUP-4	CONCEPTUAL LIGHTING PLAN
7.	SUP-5	MISC. DETAILS

DRH ENGINEERS, PLC
CIVIL - STRUCTURAL - FORENSIC
7190 Brewster Ln., Suite 100; Warrenton, Virginia 2017
540-349-7840
www.drhengineers.com

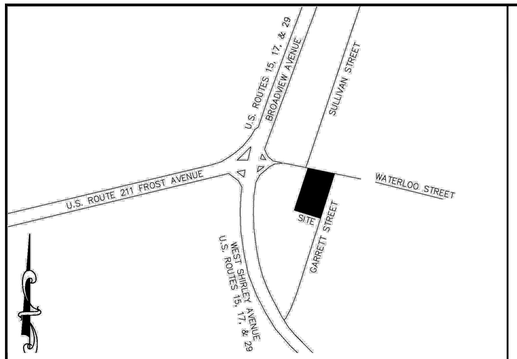
REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

COVER SHEET

SPECIAL USE PERMIT PLAN
FOR
OAKVIEW NATIONAL BANK
TOWN OF WARRENTON
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DEAN R. HALL
Lic. No.15054
07/20/22
PROFESSIONAL ENGINEER

DESIGNED BY: DRH
DRAWN BY: DRH
CHECKED BY: DRH
SCALE: AS INDICATED
DATE: 05/23/22
DRH JOB NO: 2210662.00
DRAWING NO: T-1
SHEET OF



VICINITY MAP
Scale: 1"=200'

DESCRIPTION OF PARCEL

ALL that certain lot, piece of parcel of land, with all improvements thereon and appurtenances thereunto, belonging, lying and being in the Town of Warrenton Center District, Fauquier County Virginia, known and designated as "MIDDLEBURG BANK", containing 1.23779 acres, more or less, as shown on the plat prepared by William H. Gordon Associates, Inc., Engineers – Land Planners – Landscape Architects – Surveyors, entitled "Plat Showing Street Dedication, Storm Drainage Easement and Sight Distance Easements on the Property of Middleburg Bank, Town of Warrenton Center District, Fauquier County, Virginia," dated February 14, 2006, recorded in the Clerk's Office, Circuit Court, Fauquier County, Virginia, in a Deed Book 1280, page 453, reference to which plat is made for a more particular description of the said property hereby conveyed.

BEING a portion of the same real estate conveyed to Middleburg Bank, a Virginia state chartered financial institution, by Deed from Cheryl Mills Plamer, married, and Peggy Mills Hawkins, married, dated July 12, 2004, in the Clerk's Office, Circuit Court, Fauquier County, Virginia, in Deed Book 1109, 307.

TITLE REPORT:

This survey was prepared in conjunction with title insurance File No. PT17–2102, effective March 2, 2021, issued by American Land Title Association. The property is subject to the following easements and rights of ingress and egress, designated in brackets with the corresponding number in Schedule "B", Section 2 of the above referenced commitment.

[1–3] *not survey related issues*

[4] Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
shown on survey if any

[5–8] *not survey related issues*

[9] Plat Notes, Storm Drainage Easement and Sight Distance Easements as shown on plat of survey or record in Deed Book 1280, page 453.
shown on survey.

[10] Easement(s) granted TOWN OF WARRENTON, by instrument(s) recorded in Deed Book 1280, page 453
shown on survey

[11] Easement(s) granted, VIRGINIA ELECTRIC AND POWER COMPANY, by instrument(s) recorded in Deed Book 180, page 70.
does not affect subject property

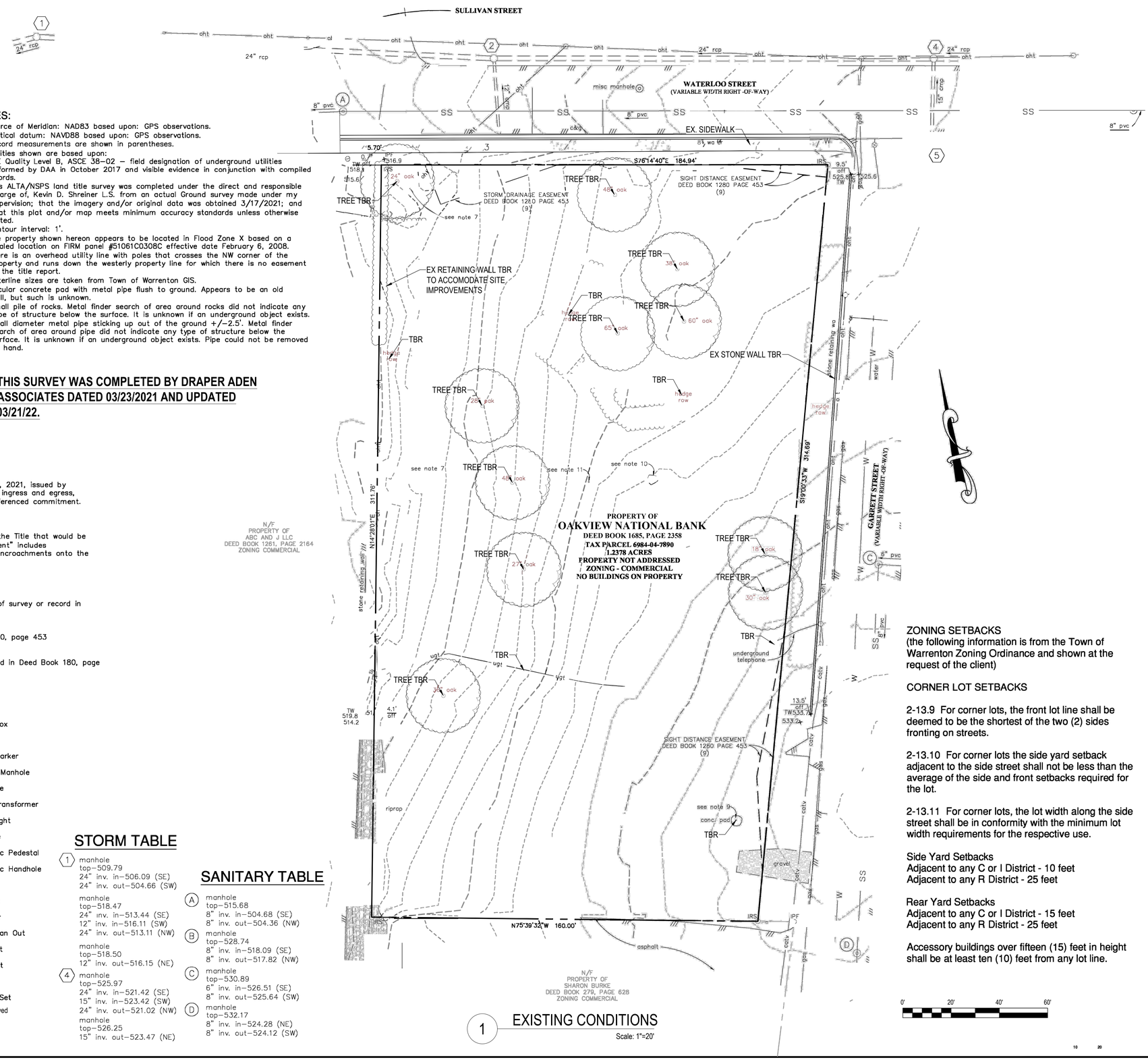
LEGEND

Property Line	Telephone Pedestal	Electric Box
Contour	Telephone Manhole	Guy Pole
Gas Line	Telephone Box	Electric Marker
Overhead Power	Fire Hydrant	Electrical Manhole
Sanitary Sewer and Manhole	Water Valve	Utility Pole
Storm Line and Manhole	Water Meter	Electric Transformer
Storm Line and Inlet	Well	Ground Light
Underground Cable TV	Benchmark	Light Pole
Underground Electric	Bollard	Fiber Optic Pedestal
Underground Telephone	Rod Found	Fiber Optic Handhole
Underground Fiber Optic	Monument Found	Gas Vent
Unknown Utility	Sign (1–post)	Gas Valve
Waterline	Sign (2–post)	Gas Meter
Asphalt	Spot Elevation	Sewer Clean Out
Building	Deciduous Tree	Wood Post
Fence (as noted)	Evergreen Tree	Metal Post
Stream	Shrub	Gravel
Treeline	Concrete	Iron Rod Set
Guy Wire	Top of Wall	To Be Removed
	Iron Pipe Found	

NOTES:

1.) Source of Meridian: NAD83 based upon: GPS observations.
2.) Vertical datum: NAVD88 based upon: GPS observations.
2.) Record measurements are shown in parentheses.
3.) Utilities shown are based upon:
SUE Quality Level B, ASCE 38–02 – field designation of underground utilities performed by DAA in October 2017 and visible evidence in conjunction with compiled records.
4.) This ALTA/NSPS land title survey was completed under the direct and responsible charge of, Kevin D. Shreiner L.S. from an actual Ground survey made under my supervision; that the imagery and/or original data was obtained 3/17/2021; and that this plat and/or map meets minimum accuracy standards unless otherwise noted.
5.) Contour interval: 1'.
6.) The property shown hereon appears to be located in Flood Zone X based on a scaled location on FIRM panel #51061C0308C effective date February 6, 2008.
7.) There is an overhead utility line with poles that crosses the NW corner of the property and runs down the westerly property line for which there is no easement in the title report.
8.) Waterline sizes are taken from Town of Warrenton GIS.
9.) Circular concrete pad with metal pipe flush to ground. Appears to be an old well, but such is unknown.
10) Small pile of rocks. Metal finder search of area around rocks did not indicate any type of structure below the surface. It is unknown if an underground object exists.
11) Small diameter metal pipe sticking up out of the ground +/–2.5'. Metal finder search of area around pipe did not indicate any type of structure below the surface. It is unknown if an underground object exists. Pipe could not be removed by hand.

THIS SURVEY WAS COMPLETED BY DRAPER ADEN ASSOCIATES DATED 03/23/2021 AND UPDATED 03/21/22.



STORM TABLE

1 manhole
top–509.79
24" inv. in–506.09 (SE)
24" inv. out–504.66 (SW)

manhole
top–518.47
24" inv. in–513.44 (SE)
12" inv. in–516.11 (SW)
24" inv. out–513.11 (NW)

manhole
top–518.50
12" inv. out–516.15 (NE)

4 manhole
top–525.97
24" inv. in–521.42 (SE)
15" inv. in–523.42 (SW)
24" inv. out–521.02 (NW)

manhole
top–526.25
15" inv. out–523.47 (NE)

SANITARY TABLE

A manhole
top–515.68
8" inv. in–504.68 (SE)
8" inv. out–504.36 (NW)

B manhole
top–528.74
8" inv. in–518.09 (SE)
8" inv. out–517.82 (NW)

C manhole
top–530.89
6" inv. in–526.51 (SE)
8" inv. out–525.64 (SW)

D manhole
top–532.17
8" inv. in–524.28 (NE)
8" inv. out–524.12 (SW)

1 EXISTING CONDITIONS
Scale: 1"=20'

ZONING SETBACKS

(the following information is from the Town of Warrenton Zoning Ordinance and shown at the request of the client)

CORNER LOT SETBACKS

2-13.9 For corner lots, the front lot line shall be deemed to be the shortest of the two (2) sides fronting on streets.

2-13.10 For corner lots the side yard setback adjacent to the side street shall not be less than the average of the side and front setbacks required for the lot.

2-13.11 For corner lots, the lot width along the side street shall be in conformity with the minimum lot width requirements for the respective use.

Side Yard Setbacks
Adjacent to any C or I District - 10 feet
Adjacent to any R District - 25 feet

Rear Yard Setbacks
Adjacent to any C or I District - 15 feet
Adjacent to any R District - 25 feet

Accessory buildings over fifteen (15) feet in height shall be at least ten (10) feet from any lot line.

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REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

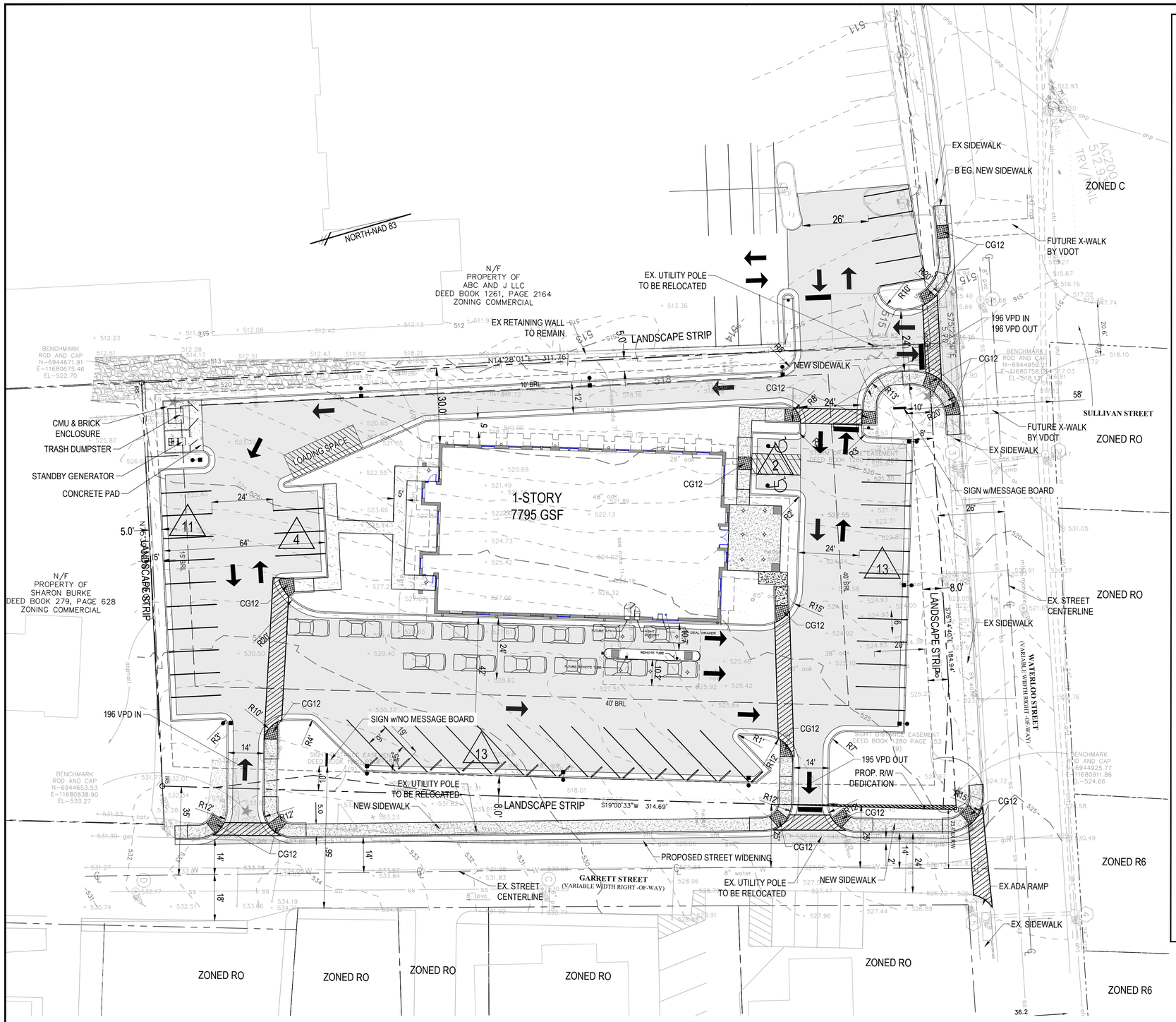
EXISTING CONDITIONS & SITE DEMOLITION

SPECIAL USE PERMIT PLAN
FOR
OAKVIEW NATIONAL BANK
TOWN OF WARRENTON
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DAVID R. HALL
Lic. No.15054
07/20/22
PROFESSIONAL ENGINEER

DESIGNED BY:	DRH
DRAWN BY:	DRH
CHECKED BY:	DRH
SCALE:	AS INDICATED
DATE:	05/23/22
DRH JOB NO:	2210662.00
DRAWING NO:	EC-1
SHEET	OF

J:\221 PROJECTS\2210662 - Oak View Nat Bank-site plan-new branch-Garrett and Waterloo Streets, Warrenton\dwg\SUP\OAK VIEW SUP PLAN REV01 072022.dwg, EC1, 9/11/2022 5:50:00 PM, AutoCAD PDF (High Quality Print).pc3



0' 20' 40' 60'

1 SITE LAYOUT PLAN
Scale: 1"=20'

PROJECT NARRATIVE:

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW BRANCH BANK WITH DRIVE THRU LANES LOCATED IN THE TOWN OF WARRENTON AT WATERLOO AND GARRETT STREETS . THE PROPERTY IS OWNED BY OAKVIEW NATIONAL BANK AS RECORDED AT DB 1685 PG 2358.

HOURS OF OPERATION:

MONDAY -THURSDAY 8:30 AM UNTIL 4:00 P.M.
FRIDAY 8:30 AM- 6:00 P.M.
SATURDAY 9:00 A.M. - 12:00 P.M.
NO ILLUMINATED SIGNS WILL BE ON BETWEEN THE HOURS OF 12 A.M. AND 7 A.M.

SITE DATA

1. THE IMPROVEMENTS SHOWN ON THESE PLANS ARE FOR THE CONSTRUCTION OF A 7795 S.F. BANK WITH TWO DRIVE-THRU LANES. THE USE OF THE PROPERTY WILL BE BY RIGHT COMMERCIAL (C), HOWEVER THE DRIVE-THRU REQUIRES A SPECIAL PERMIT PER § 3-4-10.3 OF THE TOWN OF WARRENTON ZONING ORDINANCE.
2. THE PROPOSED BUILDING WILL HOUSE APPROXIMATELY 26 EMPLOYEES.
3. THE PROPERTY IS LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF WATERLOO AND GARRET STREETS IN THE TOWN OF WARRENTON, VIRGINIA AND IS SHOWN ON ASSESSMENT PIN# 6984-04-7890-000 AND IS ZONED C (COMMERCIAL) AND CONTAINS 1.2378 ACRES
4. THE PROPERTY IS CURRENTLY OWNED BY OAKVIEW NATIONAL BANK. AS RECORDED IN DB 1685 PG 235 AMONG THE LAND RECORDS OF FAUQUIER COUNTY, VIRGINIA
5. THIS PARCEL DOES NOT LIE WITHIN ANY KNOWN 100 YEAR FLOOD HAZARD AREA.
6. THIS PROPERTY IS LOCATED IN THE CENTER MAGISTERIAL DISTRICT, TOWN OF WARRENTON ON AT THE CORNER OF WATERLOO AND GARRETT STREETS.
7. ACCESS TO THE SITE WILL BE PROVIDED BY A FULL ENTRANCE AND EXIT ONTO WATERLOO STREET AT THE NORTHWEST CORNER OF THE PROPERTY SHARED WITH THE ADJACENT SHOPPING CENTER AND LINED UP OPPOSITE SULLIVAN STREET. THERE WILL ALSO BE TWO DIRECTIONAL ENTRANCES FROM THE SITE TO GARRETT STREET (ONE INGRESS AND ONE EGRESS).
8. SEE SURVEYOR NOTES AND CERTIFICATION ON SHEET EC1 FOR SURVEY DATUM AND TITLE INFO.
9. THE CONTACT PERSON FOR THIS SITE PLAN IS:
   DAVID R. HALL, P.E.
   DRH ENGINEERS, PLC
   7190 BREWSTER LANE
   WARRENTON, VIRGINIA 20187
   PHONE: (540)349-7840
10. LOT SIZE REQUIREMENTS:
    MINIMUM LOT AREA: 6000 S.F. PROVIDED: 53,918.56 S.F.
    MINIMUM LOT WIDTH: 50 FEET PROVIDED: 150 FEET
11. SETBACK REGULATIONS:
    FRONT YARD: 40 FEET (WATERLOO & GARRETT STREETS)
    SIDE YARD: 10 FEET
    REAR YARD: 15 FEET
12. AREA REGULATIONS:
    MAXIMUM LOT COVERAGE : 85% (1.09 AC.)
    LOT COVERAGE USED: 73% (0.90 AC.; 39,321 SF.)
13. HEIGHT REGULATIONS:
    MAXIMUM ALLOWED: 45 FEET
    PROPOSED BUILDING HEIGHT: 25 FEET
11. PARKING REQUIREMENTS:
    BUILDING AREA: 7,795 S.F.
    REQ. PARKING: 1 PER 400 SF = 20
    PARKING PROVIDED: 43 INCL. 2 HANDICAPPED
    LOADING SPACE REQ.: 1 PER 1000 S.F. : 1 PROVIDED
    STACKING SPACES REQ. 12: 14 PROVIDED
12. SITE VEHICLE TRIP GENERATION PER ITE TRIP GENERATION MANUAL 11TH EDITION.
    AVERAGE TRIPS PER DAY (WEEKDAY) = 100.35 PER 1000 GFA
    TRIPS PER DAY FOR SITE = 100.35 x 7.8 = 782.73 OR 783
    50% ENTERING AND 50% EXITING WITH 50% (392) OF TRIPS AT WATERLOO STREET AND 50% (391) ON GARRETT STREET
13. ALL CONSTRUCTION WORK SHALL CONFORM TO TOWN OF WARRENTON STANDARDS.
14. ALL GRADING SHALL BE PERFORMED TO MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
15. AT TIME OF SITE PLAN, THE FOLLOWING ITEMS WILL BE INCLUDED AND/OR ADDRESSED:
    a. THE SITE IS TO BE PLANNED AND DESIGNED AS A REDEVELOPED SITE UNDER THE STATE'S RUNOFF REDUCTION REQUIREMENTS FOR STORMWATER MANAGEMENT (SWM) AND IN COMPLIANCE WITH THE TOWN OF WARRENTON'S SWM ORDINANCE.
    b. SITE DRAINAGE WILL BE COLLECTED ON SITE AND DIRECTED TO THE EXISTING INLET ON WATERLOO STREET IN FRONT OF PROPERTY. UNDERGROUND ONSITE DETENTION WILL BE PROVIDED TO MEET THE REQUIREMENTS OF MS-19 AT THE OUTLET TO THE INLET.
    c. NEW CG-12 HANDICAP SIDEWALK CURB CUTS WILL BE INSTALLED AT THE SIDEWALK CROSSING OF THE ENTRANCES AS WELL AS ON-SITE SIDEWALK ACCESS.
    d. DOMESTIC WATER SERVICE WILL BE EXTENDED FROM EX. 8" WATER MAIN ON WATERLOO STREET. METER WILL BE SET IN GRASS AREA OF RIGHT-OF-WAY.
    e. SANITARY SEWER SERVICE WILL TAP INTO THE EXISTING SEWER LINE ON WATERLOO STREET.
    f. OVERHEAD UTILITIES WILL BE RELOCATED AS REQUIRED TO ACCOMODATE THE SITE.

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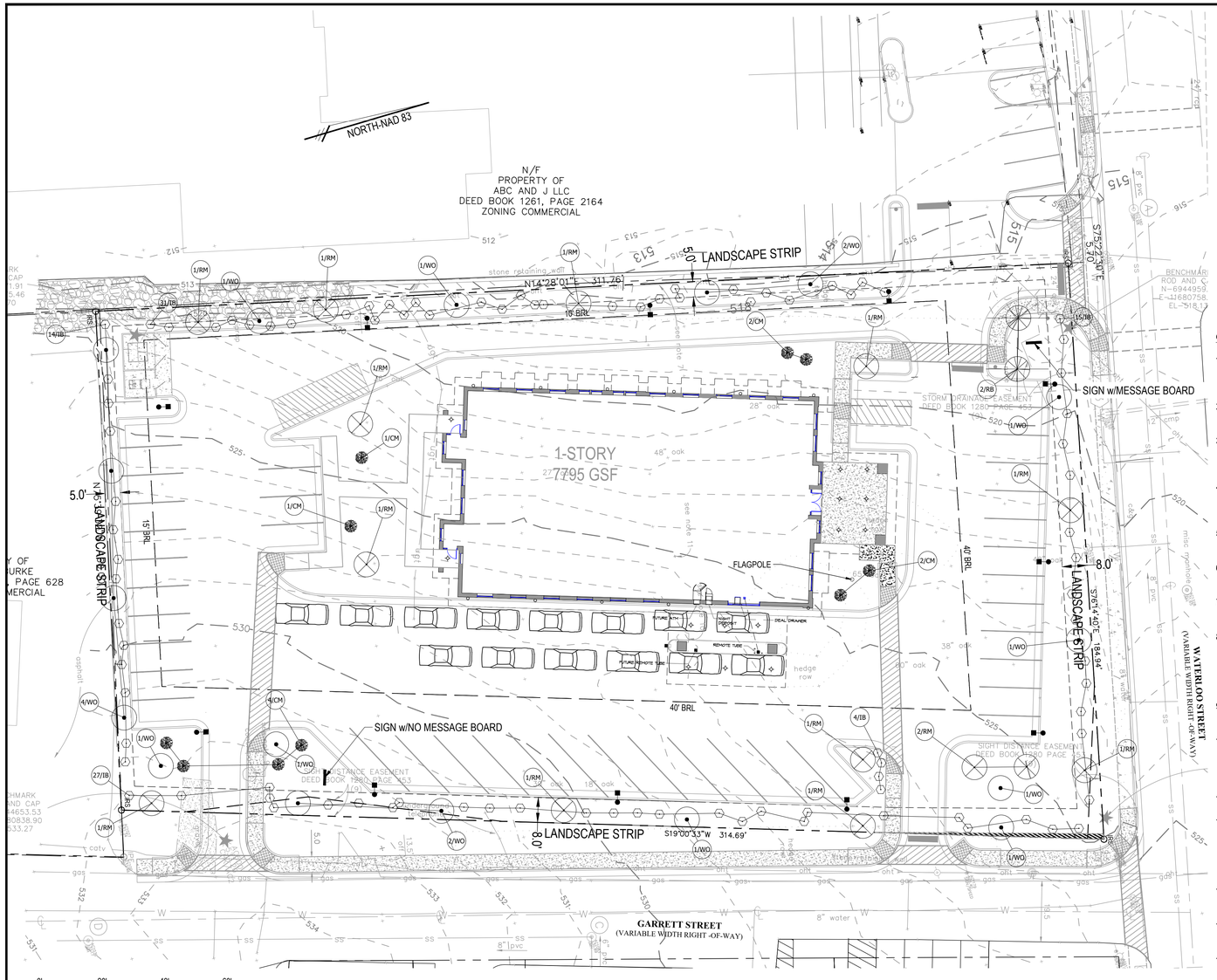
REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

SPECIAL USE PERMIT SITE PLAN

SPECIAL USE PERMIT PLAN
FOR
OAKVIEW NATIONAL BANK
TOWN OF WARRENTON
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DAVID R. HALL
Lic. No.15054
02/18/22
PROFESSIONAL ENGINEER

DESIGNED BY: DRH
DRAWN BY: DRH
CHECKED BY: DRH
SCALE: AS INDICATED
DATE: 05/23/22
DRH JOB NO: 2210662.00
DRAWING NO: SUP-1
SHEET OF



1 LANDSCAPING PLAN
Scale: 1"=20'

NOTE: ALL EXISTING TREES TBR

PLANT SCHEDULE

KEY	Quantity	Botanical Name	Common Name	Size Height	Spread	Cal.	Coverage (SF)	Detail No.#
	17	QUERCUS PHELLOS	(WO) WILLOW OAK	15'	250	3"	--	B&B
	14	ACER RUBRUM CERCIS CANADENSIS	(RM) RED MAPLE	15'	250	3"	--	B&B
	2		(RB) REDBUD	12'	200	2"	--	B&B
	10	LAGERSTROEMIA INDICA	(CM) CREPE MYRTLE	8'	150	--	--	B&B
	87	ILEX GLABRA	(IB) INKBERRY/OR EQUIV.	2'	--	--	--	1 gal

NOTE: FINAL PLANT SELECTION SUBJECT TO AVAILABILITY
(PLANT SELECTION SUBJECT TO TOWN OF WARRENTON STDS)

GENERAL PLANTING NOTES

1. ALL PLANT MATERIAL SHALL CONFORM TO THE SIZES GIVEN IN THE PLANT LIST AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE "USA STANDARD FOR NURSERY STOCK," LATEST EDITION.
2. ALL PLANTING SHALL BE IN ACCORDANCE WITH STANDARD AMERICAN ASSOCIATION OF NURSERYMEN PROCEDURES AND SPECIFICATIONS.
3. CONTRACTOR AND OWNER'S REPRESENTATIVE SHALL VERIFY THE CORRECT LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO INSTALLATION OF ANY PLANT MATERIALS.
4. ALL PLANT BEDS AND PLANTING AREAS TO BE MULCHED TO A DEPTH OF 3" SHREDDED HARDWOOD BARK UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS.
5. ALL AREAS DISTURBED BY PLANTING OPERATIONS SHALL BE FINE GRADED AND SEEDED.
6. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE BEFORE MAKING ANY SUBSTITUTIONS OR CHANGES.
7. ALL PLANT BEDS SHALL BE CONTAINED WITH A SPADED EDGE UNLESS OTHERWISE NOTED ON DRAWINGS.
8. QUANTITIES SHOWN ON PLANT LIST ARE FOR THE CONTRACTORS CONVENIENCE ONLY AND ARE NOT GUARANTEED TO BE ACCURATE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLAN AND QUANTITIES SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL APPLY.
9. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF THE TOWN OF WARRENTON LANDSCAPE ORDINANCE.
10. GENERAL CONTRACTOR IS TO PROVIDE ALL MATERIALS AND LABOR, INCLUDING PLANTS, PLANTER FILL MATERIALS, MULCHES, SOIL PREPARATION, DECORATIVE ITEMS, INSPECTION, TRANSPORTATION, WARRANTY, ETC.
11. TOPSOIL TO A DEPTH OF 4" IN ALL AREAS TO BE SEEDED OR SODDED.
12. EACH PLANTING BED AREA IS TO RECEIVE A MINIMUM OF 6" OF PREPARED SOIL CULTIVATED TO A 12" DEPTH. PREPARED SOIL SHALL BE MIXED AS FOLLOWS: 2/3 SANDY LOAM TOPSOIL FREE OF ROOTS, ROCKS, WEEDS, AND OTHER DEBRIS AND 1/3 PEAT MOSS OR APPROVED ORGANIC MULCH.
13. SOIL ADDITIVES TO BE GRANULAR FERTILIZER OF 1:2:1 RATIO. SOIL OUTSIDE RANGE OF 5.0 - 7.0 pH SHALL BE TREATED APPROPRIATELY TO CORRECT FOR HIGH ALKALINITY OR ACIDITY.
14. THE USE OF ON-SITE TOPSOIL MUST BE APPROVED IN ADVANCE BY LANDSCAPE ARCHITECT.
15. ALL BEDS TO BE TREATED WITH GRANULAR PREEMERGENT WEED CONTROL PER MANUFACTURER'S SPECIFICATIONS. LANDSCAPE FABRIC TO BE INSTALLED BENEATH MULCH IN ALL PLANTING BEDS EXCLUDING GROUND-COVER AND PERENNIAL AREAS. USE TREFLAN OR EQUAL AS APPROVED BY LANDSCAPE ARCHITECT.
16. SODDED AND SEEDED AREAS SHALL BE PROPERLY PREPARED, FINISH GRADED AND HAND ROLLED PRIOR TO SOD PLACEMENT OR SEEDING. SEEDED AREAS SHALL BE RE-SEEDED AS NECESSARY TO PROVIDE AN EVEN STAND OF GRASS.

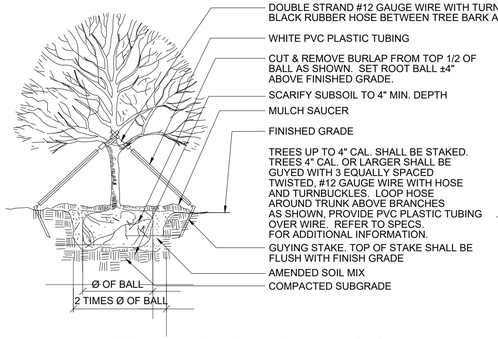
LANDSCAPING REQUIREMENTS PER Z0 8.6

1. REQ. PERIMETER LANDSCAPING - 1 TREE AND 3 SHRUBS/50' OF LENGTH
   (PER Z0 8-6.1.3 EXISTING TREES LOCATED WITHIN 10' OF PROPERTY LINE ON ADJACENT PROPERTY CAN COUNT TOWARDS THIS REQUIREMENT)
   - TREES REQUIRED ON WESTERN OR RIGHT SIDE OF PROPERTY=312'/50'= 6.24
   - TREES PROVIDED ON WESTERN OR RIGHT SIDE OF PROPERTY = 7
   - SHRUBS REQUIRED = 312'/50'x3= 18.72
   - SHRUBS PROVIDED = 31
   - TREES REQUIRED ON SOUTHERN OR REAR SIDE OF PROPERTY =160'/50' = 3.2
   - TREES PROVIDED = 4
   - SHRUBS REQ.= 160'/50'x3= 9.6
   - SHRUBS PROVIDED = 14
2. REQ. STREET TREES - 1 CANOPY TREE/50' OR TWO ORNAMENTAL TREES /50'
   - GARRETT STREET: 315 FT/50 = 7 CANOPY TREES REQ. SHRUBS PROVIDED: 27
   - WATERLOO STREET: 185FT/50 = 4 CANOPY TREES REQ. SHRUBS PROVIDED: 15
3. REQ. INTERIOR PARKING LOT LANDSCAPING 1 TREE AND 3 SHRUBS/8 PARKING SPACES.
   - 43 PARKING SPACES/8= 6 TREES AND 17 SHRUBS
   - PROVIDED 11 CANOPY 10 ORNAMENTAL TREES, AND 40 SHRUBS TBD
4. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH ORANGE SAFETY FENCE INCLUDING OFFSITE TREES.
5. ALL TREES TO BE PLANTED SHALL MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATIONS JOINTLY ADOPTED BY THE VIRGINIA NURSERYMEN'S ASSOCIATION, THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS AND THE VIRGINIA CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS. AT A MINIMUM, ALL TREES PLANTED SHALL HAVE ROOTBALLS ADEQUATE TO ENCLOSE THE ENTIRE ROOT SYSTEM, ALL TREES SHALL BE MULCHED AND STAKED, AND ALL PLANTS SHALL BE WATERED AT TIME OF INSTALLATION.

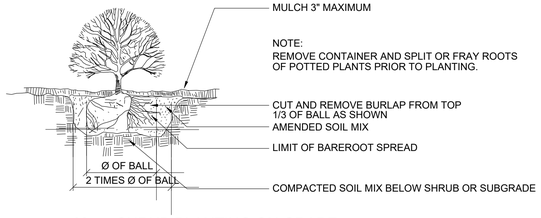
17. PROVIDE A WARRANTY ON ALL WORK FOR A MINIMUM OF ONE YEAR INCLUDING ONE CONTINUOUS GROWING SEASON. COMMENCE WARRANTY ON THE DATE IDENTIFIED IN THE CERTIFICATE OF SUBSTANTIAL COMPLETION. WARRANTY TO INCLUDE COVERAGE OF PLANTS FROM DEATH OR UNHEALTHY CONDITIONS. REPLACEMENT PLANTS SHALL BE THE SAME SIZE AND SPECIES AS SPECIFIED, PLANTED IN THE NEXT GROWING SEASON WITH A NEW WARRANTY COMMENCING WITH THE DATE OF THE REPLACEMENT.
18. MAINTAIN PLANT LIFE IMMEDIATELY AFTER PLACEMENT AND CONTINUE MAINTENANCE UNTIL TERMINATION OF WARRANTY. MAINTENANCE TO INCLUDE WEEDING, APPLICATIONS OF PESTICIDES, WATERING, TRIMMING AND PRUNING, DISEASE CONTROL, AND MAINTENANCE OF PLANT BRACING EQUIPMENT.

AREAS TO BE TOP DRESSED

A. PRIOR TO ALL SOIL PREPARATION WORK, ALL CONSTRUCTION AND PLANTING IN THE AREA SHALL HAVE BEEN COMPLETED.
B. CLEARING: PRIOR TO APPLICATION OF TOP DRESS MATERIAL, THE GROUND SURFACE SHALL BE WELL DRAINED AND CLEAR OF ALL DEBRIS OR ANY OTHER MATERIAL WHICH MAY HINDER THE PROPER APPLICATION OF SUBSEQUENT MAINTENANCE OPERATIONS.
C. PRECAUTIONS: DO NOT WORK SOIL WHILE FROZEN OR WET. DO NOT WORK SOIL IN A DUSTY CONDITION, BUT MOISTEN TO PREVENT A DUST NUISANCE.
D. AERATE ALL THE TOP DRESSED AREAS, USING A CORE REMOVING AERATOR.
E. ANY BARE AREAS LARGER THAN 1 SQ. FT. SHOULD BE RESTORED TO FINISHED GRADE WITH SCREENED COMPOSTED SEWAGE SLUDGE OR FINE GRADE TOPSOIL (SUBMIT SAMPLE FOR APPROVAL). USE EQUIPMENT AND METHODS COMMON TO SUCH WORK AND TILL SOIL TO THOROUGHLY INCORPORATE THE SCREENED COMPOSTED SLUDGE INTO EXISTING SOIL.
F. SCREENED COMPOSTED SLUDGE: UNIFORMLY APPLY SCREENED COMPOSTED SLUDGE OVER AREAS TO BE TOP DRESSED AT THE RATE OF 1.5 CUBIC YARDS PER 1000 SQ. FT. NO COMPOSTED SLUDGE SHALL BE SPREAD WHICH IS SO WET THAT IT WILL CLOD OR CAKE.
G. FERTILIZER: FOLLOWING THE AERATION PROCESS, APPLY A STARTER FERTILIZER EVENLY AT THE RATE OF 1 CY/1000 SQ. FT. INTO THE TOP 2 INCHES OF SOIL BY CROSS DISKING OR OTHER APPROPRIATE METHOD.
H. SOW SEED ONLY AFTER THE SCREENED SOIL AMENDMENT AND FERTILIZER HAVE BEEN APPLIED AND THOROUGHLY SETTLED BY RAINFALL OR WATERING. OVERSEED LAWN AREAS EVENLY AT A RATE OF 2 LBS/1000 SQ. FT. SEED WITH EQUIPMENT THAT PROVIDES A MULTI-DIRECTIONAL SEEDING PATTERN TO ENSURE PROPER SEEDING RATE AND UNIFORMITY OF SEEDING.
I. MULCHING: AFTER SEEDING, COVER BARE AREAS THAT HAVE BEEN REPAIRED WITH CLEAN WHEAT STRAW. A MINIMUM OF 50% OF THE SOIL SURFACE SHALL BE COVERED UNTIL GERMINATION HAS OCCURED.



2 DECIDUOUS TREE PLANTING ON GRADE
N.T.S.



3 SHRUB PLANTING ON GRADE
N.T.S.

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REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

CONCEPTUAL LANDSCAPE PLAN

SPECIAL USE PERMIT PLAN
FOR
OAKVIEW NATIONAL BANK
TOWN OF WARRENTON
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DAVID R. HALL
Lic. No.15054
07/20/22
PROFESSIONAL ENGINEER

DESIGNED BY: DRH
DRAWN BY: DRH
CHECKED BY: DRH
SCALE: AS INDICATED
DATE: 05/23/22
DRH JOB NO: 2210662.00
DRAWING NO: C3
SHEET OF

1 FRONT ENTRY ELEVATION
SCALE: 1/8" = 1'-0"

2 SIDE ELEVATION
SCALE: 1/8" = 1'-0"

oaklinestudio architecture + design
421 PENMAN STREET, SUITE 200 CHARLOTTE, NC 28203 704.373.1900
EDG@EGARCH.COM
OAKLINESTUDIO.COM

OAK VIEW NATIONAL BANK
WARRENTON, VA

DATE: 5-17-22
PROJECT #: 21-124-000
DRAWN BY: JMP
CADD FILE NAME:

Sheet
A-2.1

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OAK VIEW NATIONAL BANK
WARRENTON, VA

DATE: 5-17-22
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DRAWN BY: JMP
CADD FILE NAME:

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Sheet
A-2.0

NOTE: SHOWN BUILDING SIGNAGE IS ILLUSTRATIVE ONLY AND TO BE PERMITTED SEPARATELY

1 REAR ELEVATION
SCALE: 1/8" = 1'-0"

2 DRIVE-UP SIDE ELEVATION
SCALE: 1/8" = 1'-0"

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OAKLINESTUDIO.COM

OAK VIEW NATIONAL BANK
WARRENTON, VA

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Sheet
A-2.2

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540-349-7840
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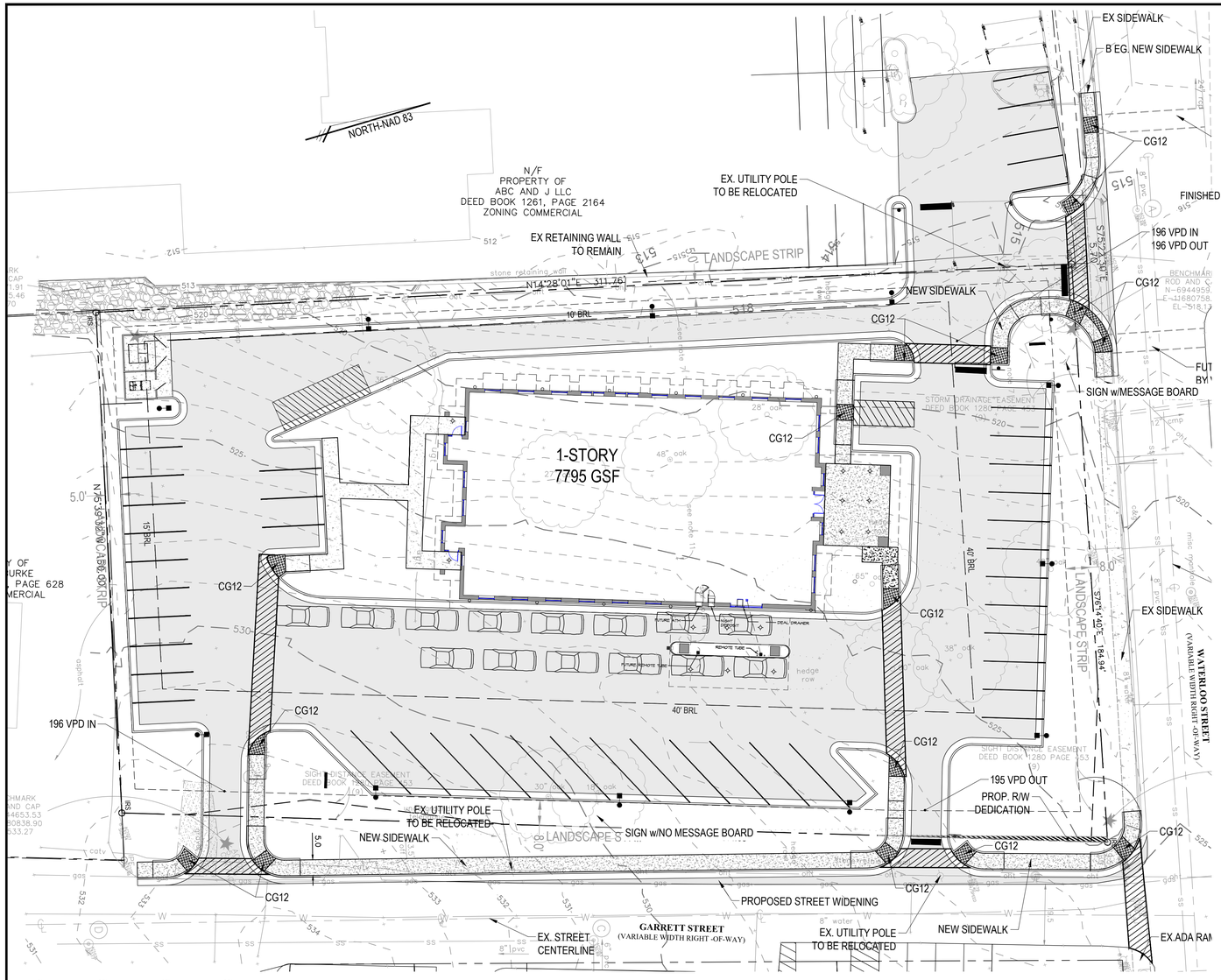
REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

BUILDING ELEVATIONS

SPECIAL USE PERMIT PLAN
FOR
OAKVIEW NATIONAL BANK
TOWN OF WARRENTON
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DAVID R. HALL
Lic. No.15054
07/20/22
PROFESSIONAL ENGINEER

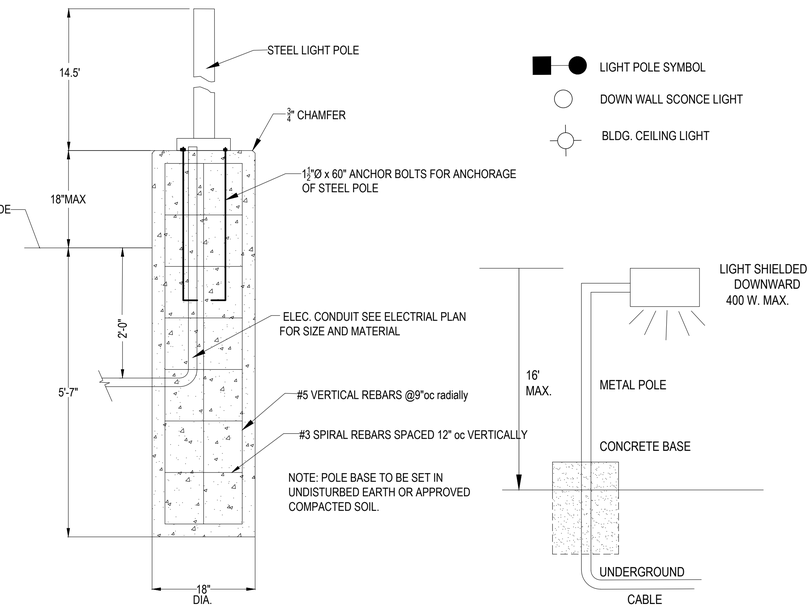
DESIGNED BY: DRH
DRAWN BY: DRH
CHECKED BY: DRH
SCALE: AS INDICATED
DATE: 05/23/22
DRH JOB NO: 2210662.00
DRAWING NO: SUP-3
SHEET OF



1 SITE LIGHTING PLAN
Scale: 1"=20'

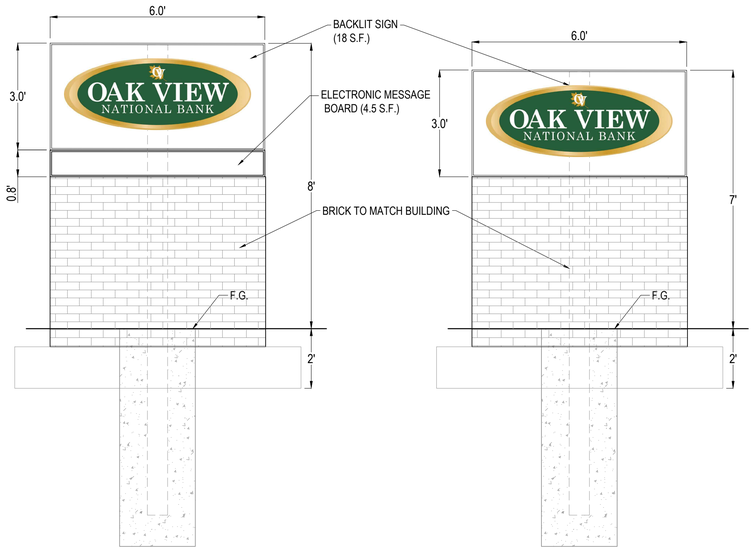
LIGHTING NOTES:

- LIGHTING SHALL BE LED OR OLED WITH A CORRELATED COLOR TEMPERATURE OF BETWEEN 2700 AND 3000 KELVIN.
- AFTER INSTALLATION A NIGHT-TIME LIGHTING STUDY WILL BE DONE TO CHECK ILLUMINATION, UNIFORMITY, AND BRIGHTNESS AND TO ENSURE THE LIGHTS ARE PROPERLY SHIELDED SO GLARE DOESN'T AFFECT TRAFFIC ON WATERLOO DR.,AND GARRETT STREET.
- LIGHTING SHALL BE OF AN UNBREAKABLE MATERIAL AND BE TAMPERPROOF TO PREVENT VANDALISM AND POCKETS OF SHADOWS.
- A PHOTOMETRIC PLAN WILL BE SUBMITTED WITH SDP



LIGHT POLE FOUNDATION DETAIL
NO SCALE

2 LIGHT DETAIL
N.T.S.



WITH MESSAGE BOARD

WITHOUT MESSAGE BOARD

3 SIGN DETAIL
SCALE: 1/2"=1'-0"

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7190 Brewster Ln., Suite 100; Warrenton, Virginia 2017
540-349-7840
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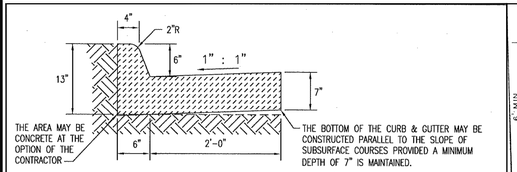
REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

CONCEPTUAL SITE LIGHTING PLAN

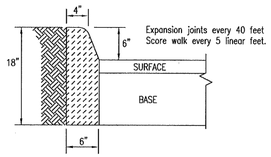
SPECIAL USE PERMIT PLAN
FOR
OAKVIEW NATIONAL BANK
TOWN OF WARRENTON
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DAVID R. HALL
Lic. No.15054
07/20/22
PROFESSIONAL ENGINEER

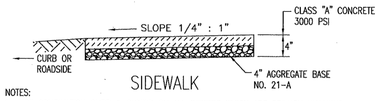
DESIGNED BY:	DRH
DRAWN BY:	DRH
CHECKED BY:	DRH
SCALE:	AS INDICATED
DATE:	05/23/22
DRH JOB NO:	221062.00
DRAWING NO:	SUP-4
SHEET	OF



COMBINATION 6" CURB & GUTTER VDOT (CG-6)



STANDARD 6" CURBING VDOT (CG-2)

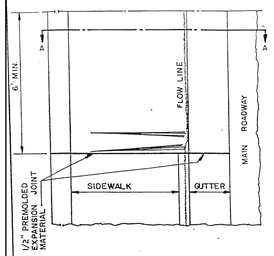


SIDEWALK

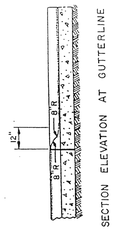
NOTES:
1. USE COMBINATION CURB & GUTTER ON ALL STREETS WHICH ARE PRIMARY HIGHWAYS.
2. ALL CURB, GUTTERS AND SIDEWALKS SHALL BE CLASS "A" CONCRETE (0.A.E).
3. WHERE THE SIDEWALK EXISTS BEHIND THE CURB WITH NO UTILITY STRIP, THE SIDEWALK WILL BE POURED DIRECTLY AGAINST THE BACK OF THE CURB WITH NO EXPANSION JOINT PRESENT.

TOWN OF WARRENTON VIRGINIA	APPROVED: 8/15/08 DIRECTOR OF PUBLIC WORKS / UTILITIES	COMBINATION CURB & GUTTER CURBING SIDEWALK	DRAWING NO: R-4

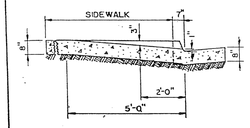
NOTE ENTRANCE SYM ABOUT ℄



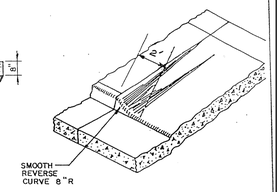
HALF PLAN



SECTION ELEVATION AT GUTTERLINE



SECTION A-A

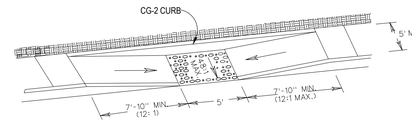


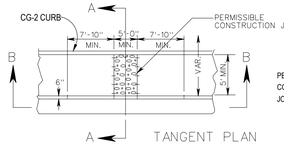
ISOMETRIC VIEW

ALL CONCRETE TO BE CLASS 'A'

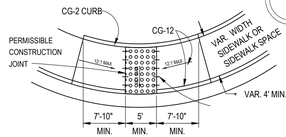
TOWN OF WARRENTON VIRGINIA	APPROVED: 1/20/05 DIRECTOR OF PUBLIC WORKS / UTILITIES	COMMERCIAL ENTRANCE STREETS WITH NO UTILITY STRIP	DRAWING NUMBER R-8

CG-12B

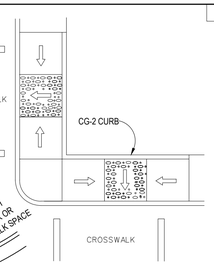




TANGENT PLAN

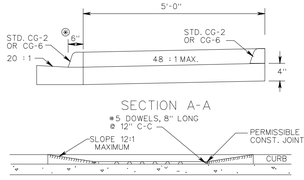


RADIAL PLAN



TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK

⊛ 7" WHERE STD. CG-3 CG-7 IS USED.



SECTION A-A

SECTION B-B

LIMITS OF EXPOSED AGGREGATE SIDEWALK

⊛ ACCESSIBLE ROUTE IS DEFINED AS A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PERSONS WITH MOBILITY IMPAIRMENTS.

NOTES :
THIS DESIGN INCORPORATES A RAMP, FLOOR AT BOTTOM OF TWO SLOPING SIDES WITH 60" X 60" MINIMUM DIMENSIONS. PLACEMENT OF DRAINAGE STRUCTURES IS CRITICAL.
CURB RAMP FLOOR TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL DETECTABLE WARNING SURFACE COVERING THE ENTIRE WIDTH OF THE RAMP FLOOR (RAMP FLOOR MAY BE PRECAST OR CAST IN PLACE). THE DETECTABLE WARNING SHALL BE PROVIDED BY AN EXPOSED AGGREGATE FINISH. RAMP SHALL NOT EXCEED A MAXIMUM SLOPE OF 12:1.
SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1½".
CURB RAMPS WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICES FOR HYDRAULIC CEMENT CONCRETE SIDEWALK AND EXPOSED AGGREGATE SIDEWALK, COMPLETE-IN-PLACE.
CURB/CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB/CURB AND GUTTER.
WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB AND CONFIGURATION.
CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSABLE ROUTE ⊛ WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES. EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. WILL ALSO AFFECT PLACEMENT.

SPECIFICATION REFERENCE	PARALLEL CURB RAMP (ACCESS FOR MOBILITY IMPAIRMENTS)	203.06
105 502 REVISED ON 7/05	VIRGINIA DEPARTMENT OF TRANSPORTATION	

ENGINEERS, PLC
CIVIL - STRUCTURAL - FORENSIC
7190 Brewster Ln., Suite 100; Warrenton, Virginia 2017
540-349-7840
www.drhengineers.com

REVISIONS
07/20/22 REVISIONS PER TOWN COMMENTS

MISCELLANEOUS SITE DETAILS

SPECIAL USE PERMIT PLAN FOR OAKVIEW NATIONAL BANK

TOWN OF WARRENTON,
FAUQUIER COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DAVID R. HALL
Lic. No.15054
07/20/22
PROFESSIONAL ENGINEER

DESIGNED BY: DRH
DRAWN BY: DRH
CHECKED BY: DRH
SCALE: AS INDICATED
DATE: 05/23/22
DRH JOB NO: 221066.00
DRAWING NO: SUP-5
SHEET OF

Prepared by:
Mark F. Hyson
The Law Office of Mark F. Hyson, PLC
86 E Lee Street
Warrenton, VA 20186
VSB No.: 48406

JOINT ENTRANCE AGREEMENT

THIS JOINT ENTRANCE AGREEMENT ("Agreement") is made as of 31ST MARCH, 2022, by and between Oak View National Bank (the "Bank") and ABC and J LLC, a Virginia limited liability company ("ABC and J").

R E C I T A L S:

R-1. Bank is the owner in fee simple of that parcel containing 1.23779 acres, located in Center Magisterial District, Town of Warrenton, Fauquier County, Virginia, being more particularly described on plat of survey dated June 9, 2006, prepared by Stanley D. Heiser, L.S., entitled "Plat Showing Street Dedication, Storm Drainage Easement and Sight Distance Easements on the Property of Middleburg Bank", which said plat is attached to and recorded with Deed of Dedication and Easement dated September 13, 2006 in the Clerk's Office of the Circuit Court of Fauquier County, Virginia ("Land Records") in Deed Book 1280 at Page 453 (the "Bank Parcel").

R-2. ABC and J is the owner in fee simple of that parcel containing 2.5461 acres, located in Center Magisterial District, Town of Warrenton, Fauquier County, Virginia, being more particularly described on plat of survey dated April 29, 1985, prepared by James H. Harris & Associates, Inc., entitled "Noland Shopping Center", which said plat is attached to and recorded with Deed recorded in the Land Records in Deed Book 490 at Page 86 (the "ABC and J Parcel").

R-3 The Bank Parcel and ABC and J Parcel are adjacent, with both fronting on Waterloo Street.

R-4 Bank intends to improve the Bank Parcel with a building for providing banking services to the public at large.

R-5 The ABC and J Parcel is improved with a shopping center.

R-6 Bank and ABC and J wish to plan and construct a joint entrance to serve both the Bank Parcel and the ABC and J Parcel.

AGREEMENT

NOW, THEREFORE, in consideration of the rights and obligations contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, on behalf of themselves and their successors and assigns, hereby agree as follows:

1. Joint Entrance. The parties agree to pursue the approval, construction, and maintenance of a joint entrance from Waterloo Street (the "Joint Entrance") providing ingress and egress to both the Bank Parcel and the ABC and J Parcel, as shown on the site plan attached hereto as Exhibit A.

2. Approval Costs. Bank, at Bank's sole expense, will cause all necessary site plans, construction plans, and applications to be prepared to secure all necessary governmental approvals for the construction and use of the Joint Entrance by the Bank Parcel and the ABC and J Parcel.

3. Execution of Applications. ABC and J agrees to promptly sign all applications, plans, and exhibits necessary to secure all governmental approvals for the construction and use of the Joint Entrance by the Bank Parcel and the ABC and J Parcel.

4. Granting of Easements. Upon securing all necessary governmental approvals for the construction and use of the Joint Entrance, the parties agree to grant and convey to the other construction, ingress, egress, and utility easements as may be reasonably necessary for the construction, maintenance and use of the Joint Entrance by the Bank Parcel and the ABC and J Parcel.

5. Construction Costs. Bank will be responsible for all construction costs for of the Joint Entrance. Bank will employ only licensed contractors to construct the Joint Entrance and will promptly pay all such contractors when due. Bank will not allow the ABC and J Parcel to be become subject to any mechanics or materialmen's lien related to the construction of the Joint Entrance.

6. Maintenance Costs. Following completion of construction of the Joint Entrance, which shall be deemed complete upon approval of the final inspection, the parties will equally share in the costs of maintenance and upkeep of the Joint Entrance, including snow removal. Bank and ABC and J will meet at least once a year, or upon the written request of either party, to determine the reasonable maintenance and upkeep to be performed.

7. Insurance. At all times, Bank and ABC and J will keep the Bank Parcel and ABC and J Parcel, respectively, covered by commercially reasonable general liability policies of insurance providing coverage for claims, actions, losses, liabilities, costs and expenses, including reasonable attorneys' fees, resulting from injury (including death) to the person or damage to or loss of property within the Joint Entrance area. Bank and ABC and J will work together in good faith to determine appropriate insurances coverages and whether to name the other as an additional named insured on each party's policy of insurance that provides coverage for the Joint Entrance area.

8. Indemnification. During the period of construction, Bank shall indemnify, defend and hold ABC and J harmless from and against any and all claims, actions, losses, liabilities, costs and expenses, including reasonable attorneys' fees, resulting from injury (including death) to the person or damage to or loss of the property of anyone arising out of or in connection with the construction of the Joint Entrance, however, in any event, Bank shall not indemnify ABC and J from its intentional misconduct or negligence.

9. Run With the Land. Unless otherwise terminated, the easements, rights and obligations set forth herein shall be for the benefit of and shall burden each party, its successors and assigns and all subsequent owners of the Bank Parcel and the ABC and J Parcel.

10. Failure to Enforce is No Waiver. The failure to enforce any requirement, restriction or standard herein contained shall not be deemed a waiver of the right to do so thereafter, or in other cases, nor of the right to enforce any other restriction.

11. Applicable Law. This Agreement shall be construed in accordance with the laws and judicial precedents in effect in the Commonwealth of Virginia.

12. Further Assurances. The parties hereto hereby agree for themselves and their successors and assigns to execute and deliver such documents in recordable form and do such further acts as may be reasonably necessary to effectuate the provisions of this Agreement.

Witness the following signatures this 31 day of March, 2022.

Oak View National Bank

_____ (Seal)
By: Michael Ewing, Chairman and CEO

ABC and J LLC

_____ (Seal)
By: Andrea Ferrero, Manager