City of Fairfax, Virginia
City Council Work Session

Agenda Item # 1a

City Council Meeting 5/5/2020

TO: Honorable Mayor and Members of City Council

FROM: Robert A. Stalzer, City Manager

SUBJECT: Discussion of a request of Cooley LLP on the behalf of EYA Development LLC to discuss the proposed redevelopment of 3500 Pickett Road (DC Metro Church) into a 50-unit townhouse development.

ISSUE(S):	Work Session of City Council to discuss a proposed residential planned development on 3.69 acres.
SUMMARY:	The applicant is requesting a Comprehensive Plan Amendment from Social and Civic Network to Townhouse/Single-Family Attached Neighborhood, a Rezoning from RL Residential Low to PD-R Planned Development Residential and approval of a Master Development Plan to replace an existing 17,830 square foot church with 50 townhomes, on 3.69 acres.
FISCAL IMPACT:	A fiscal impact analysis has not been calculated at this time.
RECOMMENDATION:	Discussion and recommendation on proposed redevelopment including easement vacation for walking trail to be authorized by City Council for the City Manager to sign as a participant on the land use application.
ALTERNATIVE COURSE OF ACTION:	City Council may choose not to conduct the discussion or defer discussion to a future date.
RESPONSIBLE STAFF/POC:	Albert Frederick, Senior Planner Jason Sutphin, Community Development Division Chief Brooke Hardin, Director, Community Development & Planning
COORDINATION:	Community Development & Planning Parks and Recreation Police City Schools Public Works Fire/Code Administration City Attorney
ATTACHMENTS:	Staff Report, Statement of Support, Master Development Plan, Traffic Impact Assessment and Code Compliance Report

CITY OF FAIRFAX

Department of Community Development & Planning

Zoning Map Amendment (Z-19-00831)

WORK SESSION DATE

May 5, 2020

APPLICANT

EYA Development LLC

OWNER

Celebration Church
of Jacksonville, Inc.

AGENT

Mark C. Looney, Attorney

PARCEL DATA

Tax Map ID

- ◊ 58-1-02-021

Street Address

- ◊ 3500 Pickett Road

Zoning District

- ◊ RL, Residential Low
- ◊ Architectural Control Overlay District (ACOD)

APPLICATION SUMMARY

The intent of this work session request is to receive feedback on the proposed townhouse development from Planning Commission. The applicant is requesting a Comprehensive Plan Amendment from Social and Civic Network to Townhouse/Single-Family Attached Neighborhood, a Rezoning from RL Residential Low to PD-R Planned Development Residential and approval of a Master Development Plan. The applicant proposes to replace the existing 17,830 square foot church with 50 townhouses on 3.69 acres. The site is located on the west side of Pickett Road, north of Colonial Avenue and the Tank Farm, south of Barristers Keepe Subdivision and east of the Army Navy Country Club.

BACKGROUND INFORMATION

The subject property has an existing 17,830 square foot church that was initially constructed in 1980. The subject property is 3.69 +/- acres located on the west side of Pickett Road, north of the Colonial Avenue and the Tank Farm, south of Barristers Keepe Subdivision and east of the Army Navy Country Club. Immediately south is a parcel owned by the City. In 2014, DC Metro Church, Inc., the current occupant, received a non-residential use permit for a religious organization. Further information on adjacent properties are provided below:

Table 1: Existing Use and Surrounding Properties

Direction	Existing Land Use/Uses	Zoning	Future Land Use
Site	Institutional/Metro Church	RL Residential Low	Social and Civic Network
North	Residential Single-Detached/Single-Family Homes (Barristers Keepe)	PD-M Planned Development Mixed Use	Single-Family Detached Neighborhood
South	Open Space – Undesignated/ 100 +/- feet natural buffer; Industrial/ Citgo Petroleum Corp	RM Residential Medium IH Industrial Heavy	Green Network – Public Commercial Corridor
East	Residential Single-Detached/ Single-Family Homes (Pickett's Reserve)	PD-R Planned Development Residential	Single-Family Detached Neighborhood
West	Open Space – Recreation/ Army Navy Country Club	RM Residential Medium	Green Network - Private

The Future Land Use designation for the subject property is Social and Civic Network, and the surrounding land use designations are a combination of Single-Family Detached Neighborhood, Green Network – Public, Commercial Corridor and Green Network – Private. The subject property is zoned Residential Low. The surrounding zoning districts are a combination of RM Residential Medium, PD-M Planned Development Mixed Use, PD-R Planned Development Residential and IH Industrial Heavy. The subject property is immediately surrounded by uses that range from single-family homes to a golf course, and post office to a City owned open space to a petroleum tank farm.

The Pickett Road corridor from Main Street to Fairfax Boulevard is a mixed corridor with residential, retail, office, industrial, institutional and recreational uses. Residential development along the corridor consist of single-family homes (Barristers Keepe and Pickett's Reserve), condominiums (The Enclave and Foxcroft), and apartments under construction at Scout on the Circle. Retail development bookends the corridor with Pickett Shopping Center, Turnpike Shopping Center and Fair City Mall Shopping Center to the south; while, Scout on the Circle, a mixed-use development, is under construction and Home Depot on Old Pickett Road is located at the northern end of the corridor. The Pickett Road corridor also has heavy and light industrial uses to the south of the subject property. The Pickett Road Tank Farm was first established in 1965 and is situated on 71 acres on the west side of Pickett Road, south of the subject property. South of the tank farm and immediately north of the Fair City Mall Shopping Center is the Fairfax County Public Schools bus lot. On the east side of Pickett Road are a number of light industrial and commercial uses that include two storage facilities, auto care and services, veterinary clinic, Fairfax Ice Arena, Fairfax Gymnastics and post office. The corridor transitions from non-residential uses to single-family homes with Pickett's Reserve subdivision on the east side of Pickett Road and Barristers Keepe subdivisions to north of the subject property. The Army Navy Country Club is west of the subject property and wraps around the Barristers Keepe with property frontage along Pickett Road. The City of Fairfax Property Yard is north of this area. North of Pickett's

Reserve is the recently constructed Enclave Condominiums and a small office park that includes a private school. Thaiss Park is located to north of the Enclave Condominiums.

Proposal History

In June 2019, the initial conceptual plan depicted 60-65 units with a linear park along Pickett Road. The plan showed two access points on Pickett Road that connected with a circular private drive and an alleyway that provided rear-loaded garages to 44 units in the interior of the site. The units were designed with three to four levels. Amenities included rooftops terraces, landscaped sidewalks, backyards, park space and an open space. The fronts and sides of some units faced Pickett Road but were setback a minimum of 40 feet and up to 100 feet. The initial concept plan showed open space in a linear park (23,476 +/- sf) fronting on a promenade/fire lane access off Pickett Road and a small open space area (6,090 +/- sf) in the southwest corner of the site.

Master Development Plan Summary

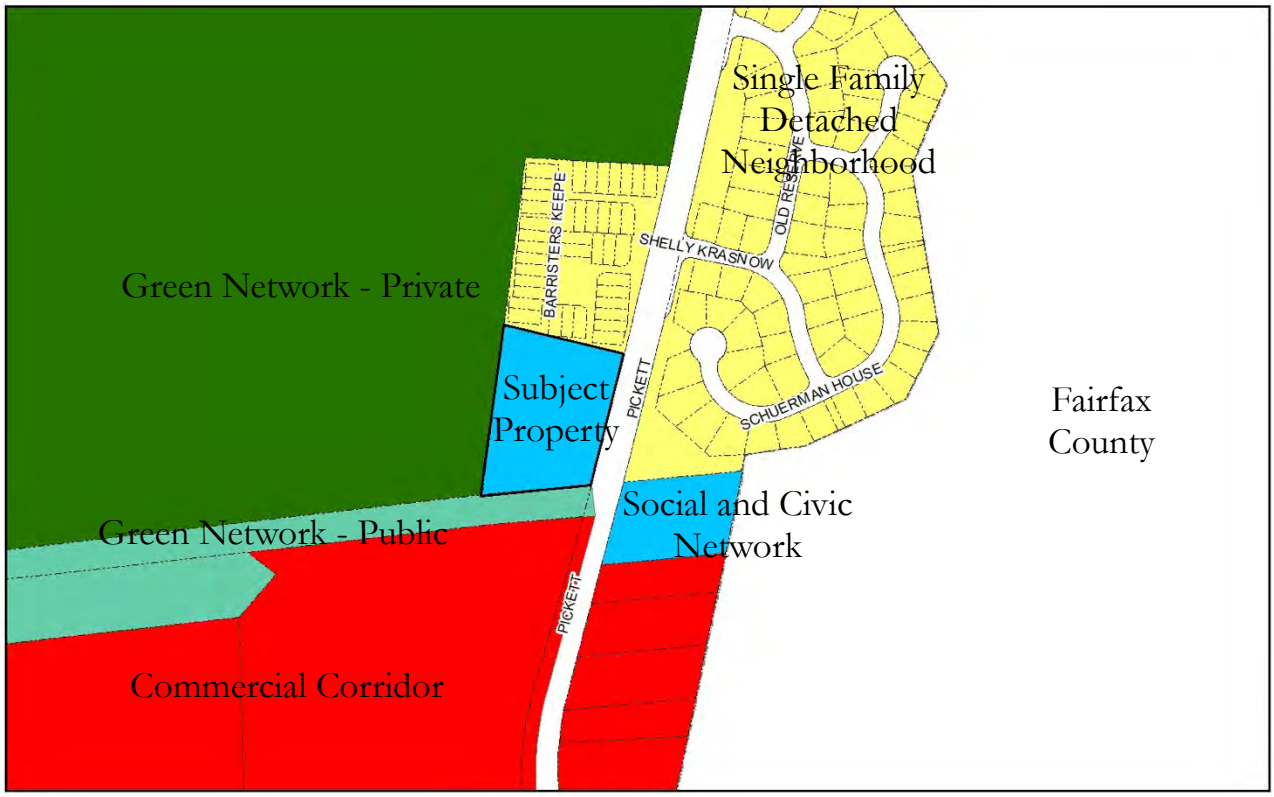
An application was filed in November 2019 to replace the existing 17,830 square foot church with 50 townhouses of varying widths of 16-feet, 20-feet and 24-feet, and a maximum height of 4-stories/45 feet, on 3.69 acres. The proposed Master Development Plan has two spaces for each unit (100 parking spaces); while providing 20 parallel parking spaces on the main interior road of the project. The project proposes a total of 120 parking spaces. The density for the proposed project is 13.5 dwelling units per acre. The distance of the nearest townhouse to Barristers Keepe ranges from 52-feet to greater than 90-feet. The townhouses along the promenade are 115-feet from Pickett Road. There is a row of townhouses along the southern property line with the closest townhouse 15-feet from Pickett Road. The Master Development Plan shows two open space areas that total 0.79 acres or 36,079 square feet (22% of the site). The applicant proposes two entrance/exit access points on Pickett Road that are separated by 260 feet from the centerlines of each entrance. The northern access point is a full access point with turning movements allowing drivers to travel to the north and south on Pickett Road. The southern access point is a right-in right out from the site.

Comprehensive Plan

Land Use: The Comprehensive Plan provides a general plan and communicates a vision for future land use and development in the City; while, the zoning ordinance provides the regulatory mechanism to ensure the new development and changes in land use are consistent with the vision. The Comprehensive Plan states "where any new development is proposed that requires a land use action not consistent with the Comprehensive Plan, the applicant should request a modification to the Comprehensive Plan as well" (Chapter 1: Introduction, City of Fairfax 2035 Comprehensive Plan, page 15).

The Comprehensive Plan and the Zoning Ordinance provide opportunities for flexibility in site design and whether or not a use is appropriate and compatible with the adjacent properties. Some consideration for appropriateness is the ability to mitigate through site design, density and height limitations, setbacks, bufferyards and landscaping. The applicant is seeking to build a townhouse community in the Pickett Road corridor, which requires a Comprehensive Plan Amendment from Social and Civic Network to Townhouse/Single-Family Attached Neighborhood. The subject site is overlaid on the Future Land Use Map from the Comprehensive Plan in Figure 2 shown on the next page.

Figure 2: Comprehensive Plan Future Land Use Map



The Townhouse/Single-Family Attached Neighborhood applies to neighborhoods that are primarily developed with townhouses and single-family attached or duplex housing.

> "Development that is adjacent to Single-Family Attached Neighborhood with the City limits, or to neighborhoods zoned primarily for single-family detached residences with adjacent jurisdictions, should have a maximum of three floors and provide landscaped setbacks for that portion of the site that is adjacent to any such neighborhood. Otherwise, a building height of up to four stories or 45 feet may be considered. Predicated on the underlying zoning district, the Townhouse/Single-Family Attached Neighborhood Place Type supports up to 12 dwelling units per acre" (Comprehensive Plan, Pg. 29).

The applicant has proposed four story townhouses (45-feet) adjacent to the Army Navy Country Club to the west and to the south adjacent to the 100 +/- feet undisturbed buffer owned by the City of Fairfax. The nearest unit to Barristers Keepe has been limited to three stories. The applicant has provided a 50-foot buffer through open space and stormwater management adjacent to Barristers Keepe to the north of the site.

Although the City is primarily built out, a variety of new housing types can be accommodated through redevelopment on a relatively limited basis to broaden the current offerings and accommodate changing demands (Comprehensive Plan, Pg. 53). Likewise, it is vital that a variety of high-quality, attractive housing choices continue to be available in the City to support differing needs and demands of residents. Housing needs and demands are reflective of the existing housing stock and fluctuating market trends, making them subject to change over time. Specific housing types are identified in the Land Use Strategies Section of the Comprehensive Plan. Current shortages could include multifamily rentals and condominiums, of which the majority of the City's stock was built in the 1960s, and townhomes, of which the City currently has a lower ratio than many surrounding communities in Fairfax County (Comprehensive Plan, pg. 54). In addition to

expanding housing choices, proactive strategies should be taken to ensure existing housing units that are affordable are preserved and that new units that are affordable added to the City's overall housing unit mix (Comprehensive Plan, pg. 54). Finally, the applicant is providing a housing type that is underrepresented in the City's existing stock of housing units (Outcome H1.1).

The applicant is proposing townhouses on 3.69 acres with a density increase of 20% yielding a density of 13.5 units per acre. The proposed development is consistent with the Comprehensive Plan Place Type of Townhouse/Single-Family Attached Neighborhood as the proposal provides for 50 townhouses with varying widths of 16-feet, 20-feet and 24-feet, and a height of 4-stories/45 feet. The applicant is proposing forty-five (45) market rate units and five (5) affordable dwelling units. A typical market rate unit is either twenty (20) feet wide or twenty-four (24) feet wide, while the affordable units are sixteen (16) feet in width. These units are mixed within the development. To this end, the proposal addresses Outcome H2.1 by adding affordable units to the City's housing stock through redevelopment of an existing site.

Rezoning: The applicant is requesting to rezone the property from RL Residential Low to PD-R Planned Development-Residential.

> §3.2.1.A The RL, Residential Low District, is established to provide areas for single-family detached residences with a minimum lot area of 20,000 square feet.
>
> §3.2.3.A The PD-R, Planned Development Residential District, is provided to encourage more flexibility for housing options within a planned development, and allowing an increased density in return for the provision of a higher quality development than may be otherwise provided; i.e., more affordable housing, recreation and open space, or other improvements addressing community needs or values.
>
> §3.8.2.B.2. Planned development district rezoning may be approved only when the applicant demonstrates to the satisfaction of the city council that a proposed planned development project would result in a greater benefit to the city than would development under general zoning district regulations.

Based on current zoning districts, the site could potentially be engineered to be developed with approximately 6-8 single-family homes. The proposal is for 50 townhouse units on 3.69 acres with a proposed density of 13.5 units per acre, which exceeds the recommendation of the Comprehensive Plan Place Type of Townhouse/Single-Family Attached Neighborhood of 12 du/acre.

Open Space: The Planned Development-Residential District requires at least 20 percent of the site designated as recreation and open space for use and enjoyment of the residents and occupants of the Planned Development. The development currently proposes two areas of open space for a total of 36,079 square feet or 22% of the property and this open space must be at 50-feet in width. Open space is programmed along Pickett Road and adjacent to Barristers Keepe to the north. The open space area next to Barristers Keepe would also function as a swale to help with drainage improvements for the site and the Barristers Keepe. These areas meet the zoning requirement that open spaces must be a minimum of 50 feet in width. The Zoning Ordinance requires at least 60% of the required open space be contiguous, however it may be bisected by a residential street which it is in this proposal. A transitional yard buffer of 10 feet is required along all site area boundaries. The applicant is seeking a modification to the transitional yard requirement along the southern and western property lines adjacent to a city parcel and the golf course. In addition to the transitional yard modification, the applicant is also requesting to vacate a 10-foot walking trail easement on the southern property line. The applicant has proposed to make a monetary contribution towards the future extension of the Daniels Run Trail.

Scale: The Townhouse/Single-Family Attached Neighborhood applies to neighborhoods that are primarily developed with townhouses and single-family attached or duplex housing. Development that is adjacent to Single-Family Attached Neighborhood within the City limits, or to neighborhoods zoned primarily for single-family detached residences within adjacent jurisdictions, should have a maximum of three floors and provide landscaped setbacks for that portion of the site that is adjacent to any such neighborhood. Otherwise, a building height of up to four stories or 45 feet may be considered. The applicant has provided a mixture of front and rear loaded townhouses with widths of 16-feet, 20-feet and 24-feet with a height of four stories/45-feet. The applicant has provided one unit adjacent to Barristers Keepe with a limited height of three stories. The distance of the nearest townhouse to Barristers Keepe ranges from 52-feet to greater than 90-feet. A row of townhouses along the southern property line is set back 15-feet from Pickett Road. The townhouses along the promenade are 115-feet from Pickett Road. The overall residential densities for other approved projects in the area as compared to the subject application is provided below:

Table 2: Density

Project	Site Area	Number of Units	Density/Acre
EYA Townhouses	**3.69**	**50**	**13.5**
Pickett's Reserve	28.56	89	3.12
Barristers Keepe	5.1	40	7.8
The Enclave Condominiums	3.7	80	22
Foxcroft Colony	16.58	312	18.8
Scout on the Circle	9.81	400	40.7*

* Project is located in an Activity Center

Circulation: The applicant proposes two entrance/exit access points on Pickett Road that are separated by 260 feet from the centerline of each entrance. The northern access point is a full access point with turning movements allowing vehicles to travel to the north and south on Pickett Road. The southern access point is a right-in right out from the site. The table below provides a summary of existing trips and proposed trips:

Table 3: Trip Generation

Land Use	ITE Code	Size	AM Peak Hour	PM Peak Hour	Daily
Religious Institution (Metro Church)*	560	17,860	13	17	170
Single-family Home (Permitted in RL)	210	8	6	8	76
Multifamily Housing (Low-Rise)	220	52	26	33	352

*Trips for the existing Metro Church were obtained from turning movement count collected at site driveways. The weekday daily trips were calculated as 10 times the PM peak hour trips.

The City's Traffic Division held a scoping meeting with the applicant's engineer to discuss the methodology and ITE data for the Traffic Impact Study (TIS). The applicant has provided a Traffic Impact Study estimating 26 AM peak hour trips, 33 PM peak hour trips and 352 daily trips upon buildout of the development. The applicant states that the change in use would generate an increase during the AM Peak Hour by 13 trips, PM Peak Hour by 16 trips and daily trips of 182.

Pedestrian Circulation: The applicant is proposing a sidewalk network throughout the site with five-foot sidewalks internal to the site. The applicant has also provided a 10-foot shared use path along Pickett Road as

recommended by the Multimodal Transportation Plan. The applicant is seeking to vacate a city easement for access to a future trail on City property on the southern property line.

Architecture: The townhouses are designed in a contemporary style using a combination of traditional and modern materials. All townhouses would be three stories with the option for a fourth story "loft" and/or roof terrace above the third story. The maximum height would be 45 feet. The units on the south and west edges of the site would be front-loaded townhouses, and the units in the center of the site would be rear loaded. The material palette would include brick for the water table and walls, with cementitious siding and paneling as an accent material. The color palette includes warm reds, browns, tans, and grays. End units with high visibility from the right-of-way and private street would have additional brick on their side elevations. Architectural features include projecting window bays, front entry stoops with suspended metal awnings, built-up cornices at the third story roofline, soldier course window and door headers, and optional second-story rear decks. The applicant will meet with Board of Architectural Review in May. The BAR will forward a recommendation for a Certificate of Appropriateness to the City Council for final action.

Public Safety: After the pre-application briefings with City Council and Planning Commission in 2019, the applicant worked with the Fire Marshal in evaluating the proximity to the tank farm and Pickett Road, and has satisfied any concerns that were raised during the briefings.

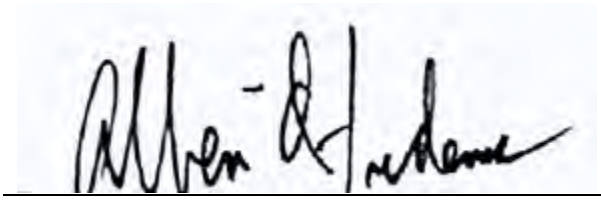
Public Works: The applicant has met with the residents in Barristers Keepe and has made a commitment to address Barristers Keepe stormwater issues within the 50-foot open space area along the northern property line.

Transportation: Staff is evaluating the site design, ingress/egress and turn movements to ensure that vehicular and pedestrian activity do not conflict with the existing traffic volumes and patterns for Pickett Road. The applicant plans to provide a 10-foot multi-use path along Picket Road that is consistent with the Multimodal Transportation Plan and a four (4) foot wide right-of-way dedication along the property's frontage for Pickett Road. Additionally, the applicant is seeking a waiver to the Subdivision Ordinance to not provide sidewalks on both sides of the internal streets.

ATTACHMENTS

A1 – Location Map
A2 – Aerial Photo
A3 – Comprehensive Plan Place Type
A4 – Current Zoning
A5 – Proposed Zoning
A6 – Statement of Support
A7 – Master Development Plan
A8 – Traffic Impact Assessment
A9 – Code Compliance Report

PREPARED BY:



Albert Frederick
Senior Planner

04/28/2020
DATE

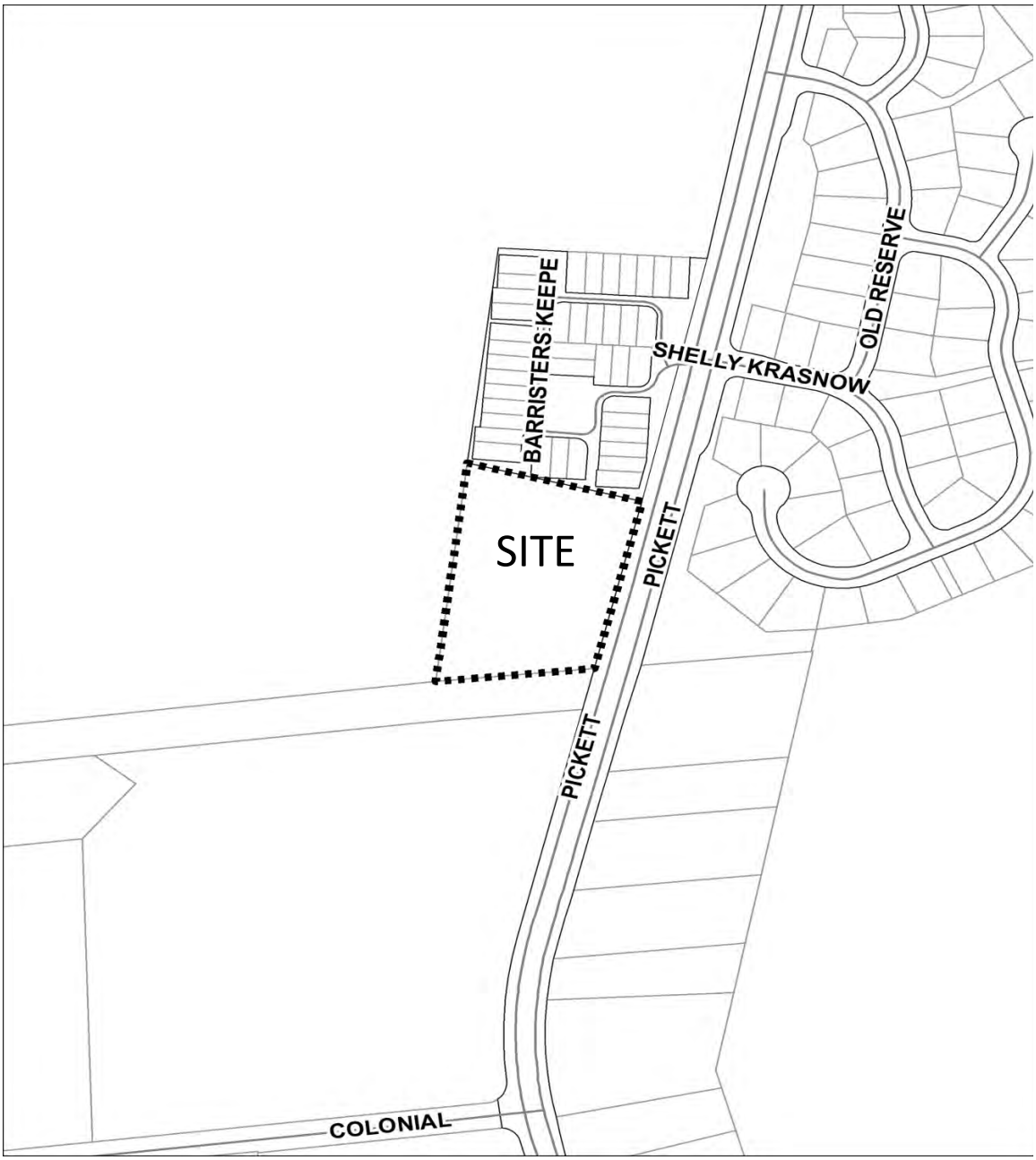
Jason D. Sutphin
Community Development Division Chief

04/28/2020
DATE

Brooke Hardin
Director, Community Development & Planning

04/28/2020
DATE

Attachment 1

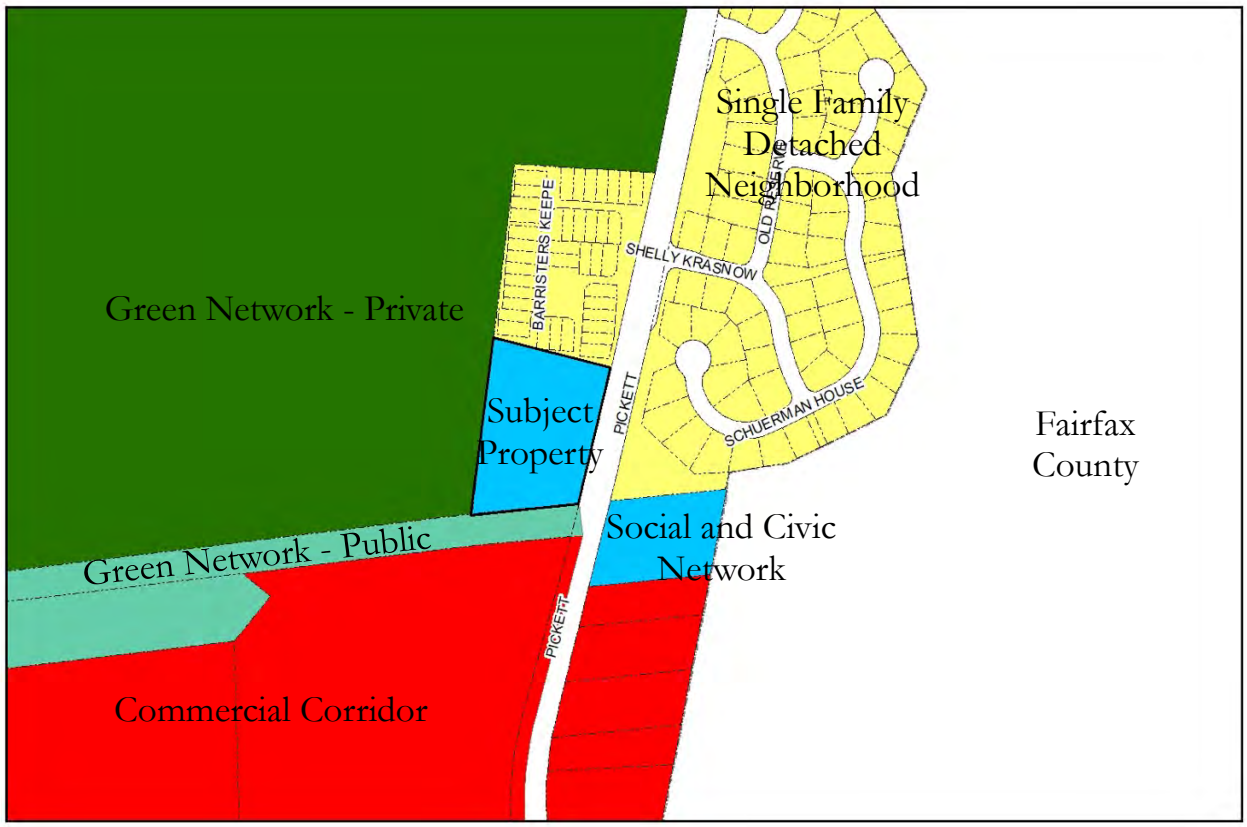


LOCATION MAP

Attachment 2

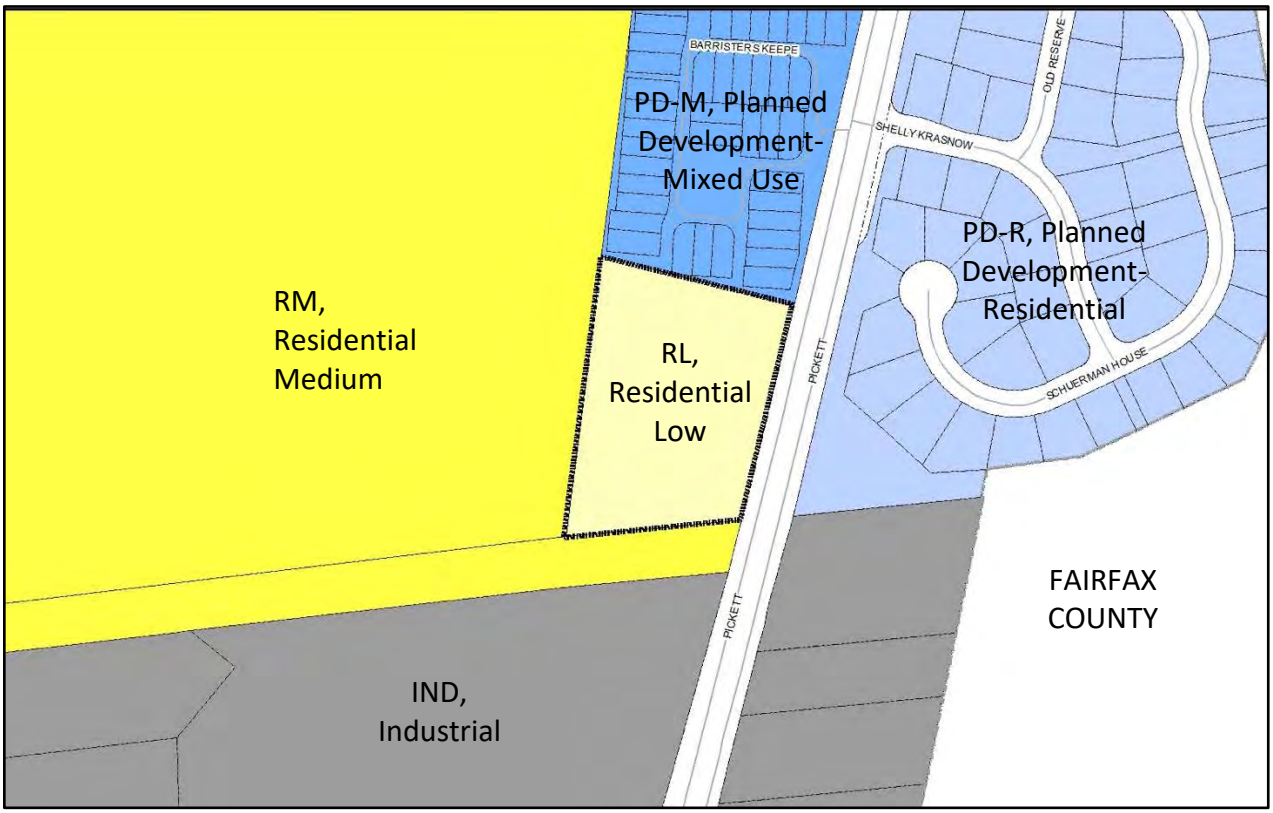
2019 AERIAL PHOTO

Attachment 3



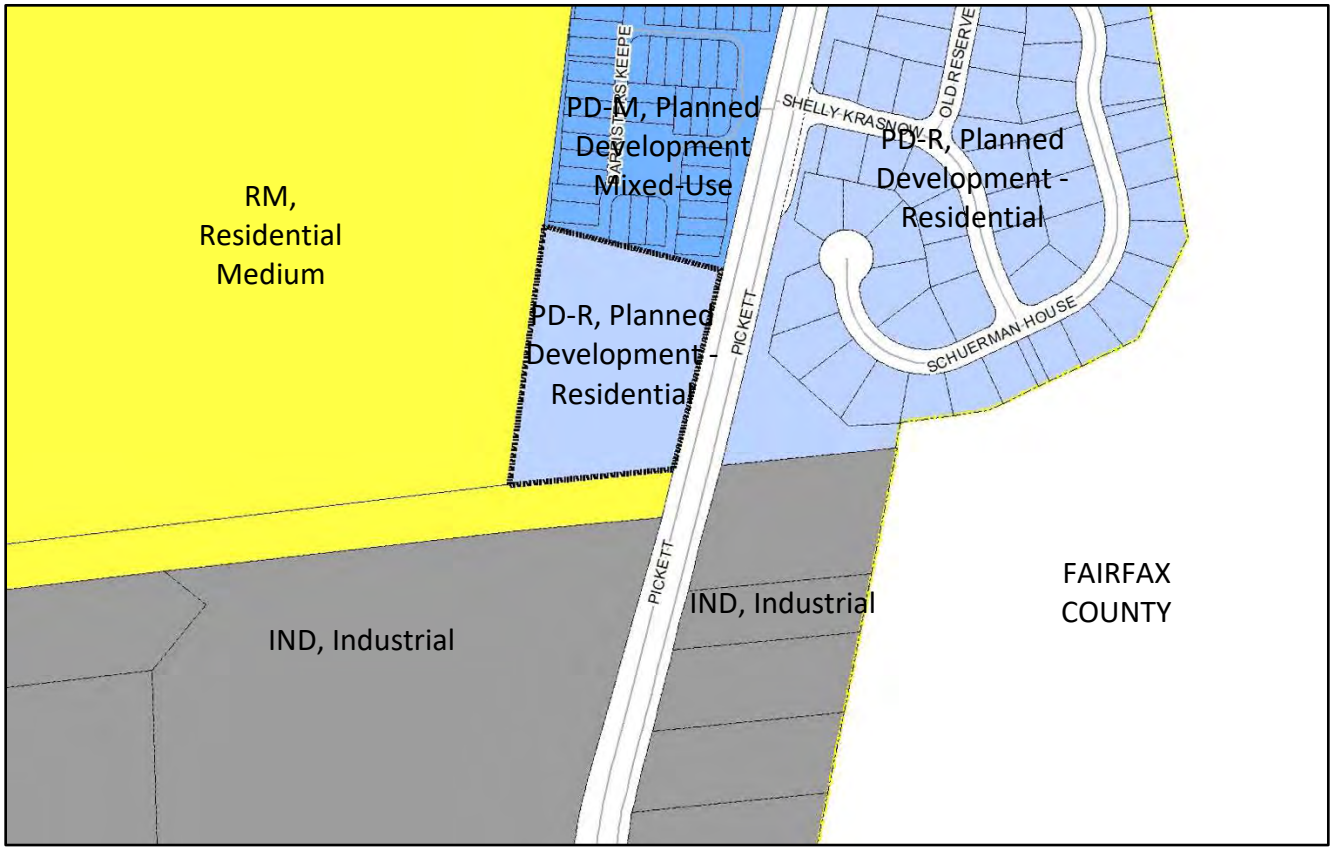
Comprehensive Plan Place Type
Social and Civic Network

Attachment 4



CURRENT ZONING
RL RESIDENTIAL LOW

Attachment 5



PROPOSED REZONING
PD-R PLANNED DEVELOPMENT - RESIDENTIAL

3500 Pickett Road

Statement of Support

November 22, 2019
Revised February 7, 2020
Revised April 20, 2020

Introduction

EYA Development LLC (the "Applicant") proposes to redevelop approximately 3.7 acres of underdeveloped land, identified as Tax Map No. 58-1-02-021 (the "Property"), located at 3500 Pickett Road, with fifty (50) townhomes thoughtfully designed to include high-quality urban design, landscaped sidewalks, and a large activated open space. In furtherance of this proposal, the Applicant is requesting the Property be rezoned from the Residential Low ("RL") zoning district to the Planned Development – Residential ("PD-R") zoning district (the "Rezoning"), concurrent with a Comprehensive Plan – Future Land Use Map Amendment to change the existing designation from Social and Civic Network to Townhouse/Single-Family Attached Neighborhood. The Comprehensive Plan (the "Plan") offers support for the Applicant's use, as detailed below.

As a specialist in infill housing, the Applicant intends to create a unique community that is context-appropriate and achieves the vision and policy objectives set by the City of Fairfax (the "City"), while being respectful and compatible with adjacent developments. To that end, the Applicant's design is oriented around a large, public open space fronting Pickett Road while also providing substantial setbacks and buffers to the residential neighborhood to the north. The design also maximizes the views of and relationship to the existing golf country club immediately to the west. Finally, the Applicant proposes to create ownership opportunities for persons whose incomes fall below the Area Median Income ("AMI") by contributing ten (10) percent of all units constructed on the Property to the City's proposed affordable housing program. The benefits of the project include:

- the introduction of high-quality townhomes to the emerging residential neighborhoods on Pickett Road;
- appropriate re-use of institutionally utilized property;
- large, usable open space in excess of City regulations;
- compatibility with the adjacent Barristers Keepe neighborhood;
- a contribution towards the future extension of the City's proposed Daniels Run trail; and
- the provision of new, affordable homeownership opportunities for City residents.

Site Description

The Property is currently zoned RL under the City of Fairfax Zoning Ordinance (the "Zoning Ordinance") and is bounded by a 100-foot wide City owned property to the south, the Army Navy Country Club to the west, a small lot residential development known as Barristers Keepe to the north, and Pickett Road to the east. The Property is developed

with a 17,830 square foot, single-story building and a large surface parking lot, which is currently used for a church and related activities. The surrounding land uses and zoning complement and support the Applicant's proposed development, with the property to the north Planned Development Mixed Use (PD-M), to the east zoned PD-R, to the south zoned Residential Medium ("RM") and to the west zoned RL.

Planned Development (Rezoning) Request

The proposed Rezoning would permit the development of a neighborhood consisting of twenty-five (25) front-loaded and twenty (25) rear-loaded townhomes (inclusive of the five (5) affordable dwelling units) (the "Proposed Development"). The units facing Pickett Road will be set back a minimum of twenty-five (25) feet and a maximum of one hundred and fifteen (115) feet. All of the units, rear or front-loaded, will be at least three stories in height with an optional fourth story loft and/or roof-top terrace that will provide outstanding views of the Army Navy golf course. The maximum building height of each unit will be forty-five feet (45'), including the roof-top terraces. Notably, the units closest to the Barristers Keepe neighborhood were originally planned to be set back twenty (20) feet from the adjoining property line. After discussion with the Barristers Keepe Homeowner Association and the City of Fairfax, the Applicant will provide a fifty (50) foot wide open space parcel along the northern Property boundary, immediately adjacent to Barristers Keepe, in order to provide a significant buffer between the existing and proposed homes.

In addition to the unique, site-specific architecture, the Applicant has designed a neighborhood filled with landscaped sidewalks, backyards, activated open spaces, and a sizeable park, which will include a landscaped promenade that will be a highly utilized amenity for neighborhood events, and will provide fire access off Pickett Road. Markedly, the proposal is providing twenty-two percent (22%) open space. In conformance with the Plan, the Applicant's proposal also includes a monetary contribution to the City for the future extension of Daniels Run Trail. In exchange for this contribution, we propose that the City extinguish the existing trail easement encumbering the Property.

Additionally, the Proposed Development's location on the Pickett Road corridor is proximate to a plethora of walkable, pedestrian-friendly and family-oriented commercial retail, service, and office uses including the Fairfax Ice Arena and several grocery stores and restaurants. This proximity will offer future residents shopping, recreation, and employment opportunities within a safe and convenient distance. In return, residents of the neighborhood will provide the businesses along Pickett Road with users and shoppers that will support and sustain these important commercial establishments.

Importantly, the unit types proposed by the Applicant are in high demand but in low supply within the City. Although the City includes a diverse mix of housing products, only fourteen (14) percent are townhomes. In addition, the Pickett Road corridor, while accommodating apartment, condominiums, and single-family homes, does not have any townhomes built, planned, or proposed. Because of the relative ease of their maintenance and upkeep, townhomes appeal to all segments of the housing market, including young professionals, families, active adults and empty nesters. The Proposed Development will bolster the townhome offerings in the City, while also providing much-

needed affordable housing.

Affordable Housing Units

As noted above, the City has not yet formally adopted an affordable housing ordinance. Nevertheless, the Applicant proposes to provide ten (10) percent of the total number of units within the Proposed Development as the first affordable dwelling units to be utilized within the City's future affordable housing program. These units will be for-sale but income restricted to persons and families making between seventy percent (70%) and eighty percent (80%) of the AMI. The Applicant continues to work with City staff to provide affordable housing that is in line with the overarching goals outlined in the City's draft affordable housing ordinance. The draft ordinance details a twenty percent (20%) bonus density that the applicant would qualify for based on the proposed percentage of affordable housing. Because this ordinance is not yet adopted, the applicant is pursuing a rezoning to the Planned Development – Residential ("PD-R") zoning district which will allow flexibility for the proposed unit density. If this ordinance was already adopted, the applicant's proposal would be in line with the Townhouse/Single-Family Detached Neighborhood (which limits development at twelve (12) dwelling units per acre) along with the applicable twenty percent (20%) bonus density. As such, the Applicant proposes fifty (50) units – including five (5) affordable dwelling units.

The Applicant is excited to work collaboratively with the City as it kicks off the affordable housing program.

Compliance with the Comprehensive Plan

The Property is designated as Social and Civic Network Place Type within the Plan and is planned for public and private schools, libraries, places of worship, post offices, and other public facilities. In light of the changing nature of these uses, however, the Plan anticipates the need to re-designate areas currently planned for Social and Civic Network Place Types with residential uses in conjunction with other uses, in order to achieve the objectives outlined in the Plan's Housing Guiding Principles. Specifically, Page 39 of the Plan states "in particular, potential alternative Place Type designations should be considered for privately-owned sites with a Social and Civil Network designation".

Page 37 of the Plan states that new developments when located in residential neighborhoods, such as this proposal, should be complementary in character of the surrounding properties, orient buildings toward the street network, and provide additional pedestrian connections. The Applicant's proposal achieves all of these objectives outlined, as the Applicant has designed a community that orients the buildings immediately adjacent to Pickett Road toward that existing street. The Proposed Development is reflective and complementary of Barristers Keepe, the residential development immediately to its north. Additionally, the proposal will provide a pedestrian connection along the Property's Pickett Road frontage as well as a monetary contribution towards the future extension of Daniels Run Trail. This monetary commitment will provide the funding necessary for the City to fill a gap within the existing trail network, as envisioned in the Plan on Page 78. As noted on Page 46 and 47 of the Plan, with relatively

little undeveloped land available in the City for new residential neighborhoods the Proposed Development will provide infill housing that complements the character of the surrounding homes and provides missing pedestrian links as envisioned within the Plan. Note that, these design elements are interwoven into many elements of the Plan and can be found within the Housing Goals (Page 56), the Neighborhood Goals (Page 54), and the Multimodal Transportation Goals (Page 76). The Applicant's proposal provides all of the aforementioned design characteristics, achieving the City's vision for future neighborhoods.

In furtherance of the Housing Goal's, specifically Action H2.1.2 on Page 56 of the Plan, the Applicant has committed to providing 10% of the total number of units constructed within the Proposed Development as affordable housing units. The Applicant will continue to work with City staff to provide affordable housing that is in line with the overarching goals outlined in the City's Draft ADU Ordinance.

Accordingly, the Applicant seeks approval of a Comprehensive Plan – Future Land Use Map Amendment to change the Social and Civic Network Place Type designation to Townhouse/Single Family Attached Neighborhood Place Type to permit the Proposed Development. This proposal is consistent with the Plan's objectives and compatible with the surrounding land uses.

Transportation

The Property is currently served by two access points to Pickett Road: with one full-movement access point to the north of the site, and one right-in/right-out access point to the south of the site. The Applicant, as part of the Rezoning, proposes to shift the southern right-in/right-out access point approximately ninety-five (95) feet south of its existing location to accommodate on-site circulation and setbacks from adjacent properties. The northern full-movement access point will remain at its existing location. The Proposed Development is anticipated to generate approximately 13 new trips during a typical weekday morning peak hour, 16 new trips during afternoon peak hour, and 182 new daily trips. As such it will have a negligible impact on the existing transportation network.

Tank Farm Analysis

The Applicant has chosen to work with Jensen Hughes, a leader in safety, security and risk-based engineering, to study the proposed infill re-developments proximity to the TransMontaigne tank farm facility. Jensen Hughes has prepared a code compliance review which demonstrates that there is significant separation distance between the tank farm and proposed development which substantially exceeds code regulations.

Conclusion

The proposed infill re-development is consistent with significant City objectives outlined in the Plan and provides residential units that will increase housing diversity and affordability within a convenient and safe distance from existing shopping, dining, and employment opportunities. The Rezoning converts underutilized RL land and allows it to

be redeveloped in a complementary manner to the existing residential uses along Pickett Road. The Proposed Development will provide a well-blended neighborhood of high-quality townhomes and will provide the first units to the City as a part of their affordable housing program. The Applicant respectfully requests the City's support of this infill townhome residential development that will help alleviate the dearth of townhome units and increase housing affordability in the City.

Approval Considerations
(Pursuant to Section 6.6.8 of the Zoning Ordinance)

A. Substantial conformance with the Comprehensive Plan;

The Property is designated as Social and Civic Network Place Type within the Comprehensive Plan and is planned for public and private schools, libraries, places of worship, post offices, and other public facilities. In light of the changing nature of these uses, the Comprehensive Plan anticipates the need to re-designate areas currently planned for Social and Civic Network Place Types with residential uses in conjunction with other uses, in order to achieve the objectives outlined in the Comprehensive Plan's Housing Guiding Principles. Specifically, Page 39 of the Comprehensive Plan states "in particular, potential alternative Place Type designations should be considered for privately-owned sites with a Social and Civil Network designation".

Page 37 of the Comprehensive Plan states that new developments when located in residential neighborhoods, such as this proposal, should be complementary in character of the surrounding properties, orient buildings toward the street network, and provide additional pedestrian connections. The Applicant's proposal achieves all of these objectives outlined:

A) The Applicant has designed a community that orients the buildings immediately adjacent to Pickett Road toward that existing street while still maintaining a significant setback for noise protection.

B) The Proposed Development is reflective and complementary of Barristers Keepe, the residential development immediately to its north. Barristers Keepe is composed of detached single-family houses on small lots with little separation between each house. Building a slightly higher density townhome development, just to the south of Barristers Keepe, as Pickett Road begins to transition into a more commercial street, is a natural and complementary progression of the existing adjacent uses. Particularly, a community that will provide five (5) ADUs which are not required within Townhouse/Single-Family Attached Neighborhoods presently.

C) As discussed with staff on January 29, 2020, the Applicant will provide a ten (10) foot wide shared use path that will narrow to a width of six (6) feet along the Pickett Road Property frontage, as it meanders around the existing overhead utility poles located within the Pickett Road right-of-way.

Additionally, as noted on Pages 46 and 47 of the Comprehensive Plan, with relatively little undeveloped land available in the City for new residential neighborhoods, the Proposed Development will provide infill housing that complements the character of the surrounding homes and provides missing pedestrian links as envisioned within the Comprehensive Plan. Note that, these

design elements are interwoven into many elements of the Comprehensive Plan and can be found within the Housing Goals (Page 56), the Neighborhood Goals (Page 54), and the Multimodal Transportation Goals (Page 76). The Applicant's proposal provides all of the aforementioned design characteristics, achieving the City's vision for future neighborhoods.

In furtherance of the Housing Goals, specifically Action H2.1.2 on Page 56 of the Comprehensive Plan, the Applicant has committed to provide ten percent (10%) of the total number of single-family attached units constructed within the Proposed Development as affordable housing units. The five (5) ADUs have been increased from fourteen feet (14') to sixteen feet (16') in width, as noted in the requested modification of Section 3.9.6. The Applicant will continue to work with City staff to provide affordable housing that is in line with the overarching goals outlined in the City's Draft ADU Ordinance.

B. Any greater benefits the proposed planned development provides to the city than would a development carried out in accordance with the general zoning district regulations;

As the Applicant crafted the attached submission materials, they paid particular attention to the layout of Barristers Keepe to ensure compatibility, as well as taking cues from surrounding uses, development patterns, and market demand to create a high quality and fitting product for the site. As with their work in neighboring jurisdictions, the Applicant has proposed unique and high-quality architecture that is compatible with the adjacent uses and serves as a graceful transition between the multi-family, industrial, and single-family communities along Pickett Road.

Beyond the traditional zoning regulations, the Applicant has committed to a cash contribution to the City for the future extension of the Daniels Run Trail. Also, as outlined on Sheet L-05, the Applicant's proposal goes above the required twenty percent (20%) open space and provides twenty-two percent (22%) shared open space to effectively serve the community and provide a sufficient buffer to adjacent users.

Additionally, the Applicant has created a detailed stormwater management plan to address potential runoff to the Barristers Keepe community. As detailed on Sheet C-17, this submission vastly reduces the current stormwater runoff by decreasing the impervious surfaces and eliminating potential runoff towards Barristers Keepe using a swale and retaining wall along the Property's northern edge.

Further, as outlined above in response to Comment A2, the Applicant is proposing to provide ten percent (10%) of the total number of units within the Proposed Development as for-sale ADUs. These will be the first for-sale ADUs within the City's affordable housing program. The Applicant continues to work with City staff to provide affordable housing that is in line with the overarching goals outlined in the Draft ADU Ordinance. The Applicant has extensive experience building

affordable housing in neighboring jurisdictions and is excited to offer the first for-sale ADU'S within the City. The Applicant continues to work with City staff to provide affordable housing that is in line with the overarching goals outlined in the City's Draft ADU Ordinance.

As a result of the proposed rezoning, the Applicant is seeking to provide the City with distinct high-quality architecture, a monetary contribution for the future extension of the Daniels Run Trail, stormwater management and open space above the required regulations, and five (5) ADUs. These unique benefits would not be financially possible if the project was restricted to the lower density allowed under the current RL zoning district.

C. Suitability of the subject property for the development and uses permitted by the general zoning district regulations versus the proposed district;

The Property's current and proposed zoning districts *both* permit residential uses. The proposed PD-R district would permit single-family attached residential units while the current zoning permits single-family detached residential units. Importantly, the proposed zoning district would provide unit types that are in high demand but in low supply within the City. Although the City includes a diverse mix of housing products, only fourteen percent (14%) are single-family attached residential units. In addition, the Pickett Road corridor, while accommodating apartment, condominiums, and single-family detached homes, does not have any single-family attached homes built, planned, or proposed. Because of the relative ease of their maintenance and upkeep, single-family attached units appeal to all segments of the housing market, including young professionals, families, active adults and empty nesters. The proposed rezoning would bolster the single-family attached offerings in the City. Additionally, as noted on Pages 46 and 47 of the Comprehensive Plan, with relatively little undeveloped land available in the City for new residential neighborhoods, this application will provide infill housing that complements the character of the surrounding homes and provides missing pedestrian links as envisioned within the Comprehensive Plan. Note that, these design elements are interwoven into many elements of the Comprehensive Plan and can be found within the Housing Goals (Page 56), the Neighborhood Goals (Page 54), and the Multimodal Transportation Goals (Page 76). The Applicant's proposal provides all the aforementioned design characteristics, achieving the City's vision for future neighborhoods.

D. Adequacy of existing or proposed public facilities such as public transportation facilities, public safety facilities, public school facilities, and public parks;

The Property is currently served by two access points to Pickett Road: one full-movement access point along the northern portion of the site, and one right-in/right-out access point along the southern portion of the site. The Applicant, as part of the rezoning, proposes to shift the southern right-in/right-out access point

approximately ninety-five (95) feet south of its existing location to accommodate on-site circulation and setbacks from adjacent properties. The northern full-movement access point will remain at its existing location. Additionally, as requested by staff, the Applicant has committed to provide a four (4) foot wide right-of-way dedication along the Property's Pickett Road frontage.

The Proposed Development is anticipated to generate approximately thirteen (13) new trips during a typical weekday morning peak hour, sixteen (16) new trips during afternoon peak hour, and one hundred and eighty-two (182) new daily trips. As such it will have a negligible impact on the existing public facilities.

In conformance with the Comprehensive Plan, the Applicant has made a commitment to provide the City with a financial contribution towards the future extension of Daniels Run Trail.

E. Adequacy of existing and proposed public utility infrastructure;

The Proposed Development will be served by the following existing utilities:

- Sewer: an existing eight (8) inch sewer line running through Barristers Keepe
- Water: a twelve (12) inch water pipe running along Pickett
- Gas: an existing gas line running along Pickett
- Dry Utilities: existing lines running along Pickett

The Applicant has confirmed with City staff that there is adequate domestic water, sewer, and gas service for the Proposed Development.

F. Consistency of the applicable requirements of this chapter, including the general provisions of Section 3.8.2;

The application materials such as the Master Development Plan and Statement of Support provided for the proposed planned development appropriately address the provisions of Section 3.8.2, such as site development standards, dimensional standards, special use standards, and open space.

G. Compatibility of the proposed development with adjacent community;

The Applicant has thoroughly considered the surrounding uses when preparing the proposed application. Pickett Road has long been a mixed-use corridor, with industrial, religious, retail, office, and residential uses. Based on the Applicant's analysis of the site and its uses, we believe it is well-suited for high-quality, architecturally distinct townhomes based on the following rationale:

- The Pickett Road corridor has been redeveloping to include a mix of residential uses, including Barristers Keepe to the immediate north, newer single-family

homes across the street, and the Enclave, a new condominium project to the north.

- The Pickett Road corridor has active retail and light industrial uses, like Fairfax Ice Arena, that are complementary to townhomes. Having additional residents will support the viability of retail uses, while the retail makes the residential uses more attractive and viable.

- Single-family attached units fit well on the site and are compatible with all adjacent uses. Barristers Keepe, the residential development immediately to its north, is composed of detached single-family houses on small lots with little separation between each house. Building a slightly denser townhome community to the south serves as a graceful transition between the single-family community and retail uses further south.

H. Consistency with the general purpose of the planned development districts in Section 3.8.1 and the stated purposes of Section 3.2.3;

The flexibility of the planned development district will create a more livable, affordable and sustainable community along the Pickett Road corridor. This application will provide infill redevelopment consistent with significant City objections outlined in the Comprehensive Plan and provides residential units that will increase housing diversity and affordability within a convenient and safe distance from existing shopping, dining, and employment opportunities. The rezoning converts underutilized RL land and allows it to be redeveloped in a complementary manner to the existing residential uses along Pickett Road. The Proposed Development will provide a well-blended neighborhood of high-quality townhomes and will provide the City with the first for-sale single-family attached affordable housing units. This infill single-family attached residential development will help alleviate the dearth of townhome units and increase housing affordability in the City.

I. Compatibility of each component of the overall development with all other components of the proposed planned development.

The application proposes a single-component project of residential uses. Therefore, compatibility of multiple components within an overall development is not applicable to this planned development.

J. The quality of design intended for each component of the project and the ability of the overall master development plan to ensure a unified, cohesive environment at full build-out;

As a specialist in infill housing, the Applicant intends to create a unique community that is context-appropriate and achieves the vision and policy objectives set by the City, while being respectful and compatible with adjacent developments. To that

end, the development is thoughtfully designed to include site-specific, high-quality architecture, landscaped sidewalks, and a large activated open space along Pickett Road.

K. Self-sufficiency requirements of each phase of the overall project of Section 3.8.2.H;

Due to the infill nature of the development, the Applicant is not proposing to phase the proposed development.

L. The effectiveness with which the proposed planned development protects and preserves the ecological sensitive areas within the development; and

The Property is developed with a 17,830-square-foot, single-story building and a large surface parking lot. The development of this existing building removed all ecologically sensitive areas on site. However, the Applicant as depicted on Sheet C-03, will preserve 7,281 square feet of existing mature vegetation located on the Property. A large portion of the preserved mature vegetation is located along the northern Property line adjacent to Barristers Keepe. The Applicant has worked diligently, at the request of Barristers Keepe, to preserve as many of the existing mature vegetation along this northern boundary. Therefore, the Applicant has proposed to pull back the "Limits of Clearing and Grading" along the northern Property line, as depicted on Sheet C-06, so that the mature existing vegetation may be preserved.

M. The extent to which the residential component of the proposed planned development promotes the creation and preservation of affordable housing suitable for supporting the current and future needs of the City.

In furtherance of the Housing Goals, specifically Action H2.1.2 on Page 56 of the Comprehensive Plan, the Applicant has committed to provide ten percent (10%) of the total number of single-family attached units constructed within the proposed development as for-sale affordable dwelling units. Although the City has not formally adopted an affordable housing ordinance, the Applicant continues to work with City staff to provide affordable housing that in line with the overarching goals outlined in the City's Draft ADU Ordinance. As noted above, the Applicant has increased the proposed ADUs from fourteen feet (14') to sixteen feet (16') in width and has requested a modification of Section 3.9.6 to reduce the width of Affordable Dwelling Units (the "ADUs") to sixteen feet (16'). These five (5) ADUs will be the first for-sale units within the City's affordable housing program. The applicant has extensive experience building affordable housing in neighboring jurisdictions and is excited to offer the first for-sale affordable dwelling units within the City.

Requested Zoning Ordinance, Subdivision Ordinance, and PFM Waivers and Modifications

The Applicant is seeking approval of the following modifications:

1) Modification of Section 3.5.1.C.2:

Modification. The Applicant seeks to provide the same front yard setback dimensionally for more than two abutting dwelling units.

Justification. Although the front yard setback may be the same dimensionally for more than two abutting dwelling units, the architectural elevations for each individual unit will include design treatments that provide dimensional differentiation for the front yards. Such features include projected or recessed entryways, projected windows, and many other material and design treatments, such that the units will be distinct. The Applicant has implemented this design element in various projects throughout the region and feels that creating variation in building depth through architectural details creates a higher quality effect than front setback variation.

2) Modification of Section 3.6.1:

Modification. The Applicant seeks to modify the maximum permitted height to forty-five (45) feet.

Justification. In order to appeal to all segments of the housing market, including young professionals, families, active adults and empty nesters the units within the community have been thoughtfully designed to provide high-quality urban designs, which include an optional fourth story loft and/or roof-top terrace. The integration of outdoor living spaces, such as a roof-top terrace, throughout the community will provide residents with an additional outdoor amenity space, albeit private, that will supplement the publicly accessible open spaces and amenities located throughout the community.

In order to provide this supplemental outdoor amenity space, all of the units, rear or front-loaded, will be at least three stories in height with an optional fourth story loft and/or roof-top terrace. The maximum building height of each unit will be forty-five feet (45'), including the roof-top terraces, except for the northern most front-load single-family attached unit, which will be limited to three (3) stories.

Note that, the Property is only bordered along the northern Property line by an existing Single-Family Detached Neighborhood. Since the Proposed Development does not contemplate any single-family attached units immediately adjacent to the northern Property line which is adjacent to an existing Single-Family Detached Neighborhood we believe the modification as requested is appropriate and contemplated within the Comprehensive Plan, as noted on Page 29.

3) Modification of Section 4.4.4.A1 of the Zoning Ordinance and Section 2.3.1A of the Subdivision Ordinance:

Modification. The Applicant seeks to provide sidewalks along one side of all local streets throughout the community.

Justification. Although a "sidewalk" by definition is not proposed on both sides of the local streets, the driveway aprons located parallel to the proposed sidewalk locations will act for all intents and purposes as a sidewalk. The proposed sidewalk locations throughout the community, focus the pedestrian circulation along the fronts of the rear-loaded units and away from driveway aprons. This careful design will provide a continuous pedestrian network focused along the internal roads thereby creating a looped pedestrian network to the sizeable park (including the landscaped promenade) and the activated open spaces throughout the community.

4) Modification of Section 4.5.5.C.2.(b)(1):

Modification. The Applicant is seeking to modify the transition yard requirements along all four of the property's boundaries outlined in more detail below.

Justification. The Applicant is seeking to waive the requirement for a TY2 Transitional Yard (the "Transitional Yard") along the southern property line given the property is immediately adjacent to an undeveloped and densely wooded ninety-four (94) foot wide swath of existing trees owned by the City.

Along the northern most property line adjacent to Barristers Keepe, the Applicant is proposing to modify the Transitional Yard to allow for a six (6) foot metal fence to act as the barrier on top of the proposed retaining wall and to allow the existing mature vegetation to remain as the Transitional Yard. If required to plant the Transition Yard, the Applicant would be removing a large portion of the existing mature vegetation along this boundary in order to install a smaller and less significant buffer than what exists today.

Along the Property's eastern boundary, the Applicant will provide the quantity and types of landscaping required within the Transitional Yard, however due to utility conflicts the Applicant is seeks to modify the location of the Transition Yard by shifting the plantings slightly inward toward the open space area along Pickett Road. Additionally, the Applicant seeks to waive the barrier requirement along this important frontage in order to create a warm and inviting "front door" and focal point for the community.

The Applicant proposes to provide an enhanced buffer along the western boundary of the site to provide more supplemental shrubs than required, however, due to site and grading challenges the Applicant seeks to modify the width of the Transitional Yard to seven and a half (7.5) feet and to allow for the a 42" guardrail/fence to act as the barrier on top of the retaining wall along the western Property line. The property immediately to the west is the Army Navy golf course and the enhanced buffer will provide a natural and aesthetically pleasing buffer than would otherwise be provided with the required Transition Yard.

5) Modification of Section 4.5.6.B:

Modification. The Applicant is seeking to modify the street tree spacing, quantity, and planting area widths along the internal private streets and to waive the requirement along the alley and Pickett Road.

Justification. The Applicant is seeking to modify the street tree requirements in select areas along the internal private streets, as the required street tree spacing, quantity, and planting area widths cannot be consistently met due to driveway apron locations, on-street parallel parking, and various proposed utilities. Additionally, the Applicant is seeking to waive the street tree requirements along Pickett Road and the rear-load alley way. Provided the urban-design of the rear-loaded townhomes, the rear of the units are predominately imperious surfaces which are not-conducive to a suitable planting area width to support a large street tree. The Pickett Road frontage is encumbered by existing overhead utility easements, which prohibit the planting of landscape beneath the lines.

6) Modification of Section 4.5.6.B:

Modification. The Applicant is seeking to modify the street tree spacing, quantity, and planting area widths along the internal private streets and to waive the requirement along the alley and Pickett Road.

Justification. The Applicant is seeking to modify the street tree requirements in select areas along the internal private streets, as the required street tree spacing, quantity, and planting area widths cannot be consistently met due to driveway apron locations, on-street parallel parking, and various proposed utilities. Additionally, the Applicant is seeking to waive the street tree requirements along Pickett Road and the rear-load alley way. Provided the urban-design of the rear-loaded townhomes, the rear of the units are predominately imperious surfaces which are not-conducive to a suitable planting area width to support a large street tree. The Pickett Road frontage is encumbered by existing overhead utility easements, which prohibit the planting of landscape beneath the lines.

7) Modification of Section 2.7.3.1 of the PFM and Section 2.2.7 of the Subdivision Ordinance

Modification. The Applicant seeks to provide nine (9) foot wide driveways to service the single-car garage townhomes constructed throughout the community.

Justification. The implementation of nine (9) foot wide driveways for units with a single-car width tandem parked garage will greatly reduce the amount of impervious areas throughout the site, while providing an appropriately designed driveway that will accommodate a single-vehicle within the driveway.

8) Modification of Section 401.01

Modification. The Applicant seeks to provide a blend of twenty-four (24) foot wide interior private streets, exclusive parking, and thirty (30) foot wide interior private streets, inclusive of on-street parallel parking, throughout the community.

Justification. Designing a community that provides interior streets in conformance with the Fire Marshal's minimum fire lane width allows the Applicant to maximize on-lot (2.9 spaces/per unit) and on-street parallel parking while reducing the amount of imperious area on site.

9) Modification of Section 2.4.1 of the PFM

Modification. The Applicant seeks to provide a road radius that is less than one hundred and seventy-five (175) feet.

Justification. By providing a reduced road radius, vehicular traffic will flow seamlessly through smoother road curves throughout the community rather than navigating a perpendicular t-stub out. Additionally, the reduced radius provides the Applicant with the ability to retain the existing mature vegetation that would otherwise be removed to accommodate a larger road radius.

10) Modification of Section 2.10 of the PFM

Modification. The Applicant seeks to provide a ten (10) foot radius at the property line for the alley.

Justification. The implementation of a ten (10) foot radius permits innovation within the community design while achieving auto turn requirements. Such innovation includes the ability to provide additional permeable areas with additional landscaping and a unified streetscape than would otherwise be permitted.

11) Modification of Section 403.03 of the PFM

Modification. The Applicant seeks to provide rolled curbs instead of a curb cuts for driveways throughout the community.

Justification. Although the Public Facilities Manual does not include a design standard for rolled curb, it is a common practice and actively being used throughout the City. Therefore, the Applicant seeks to implement a rolled curb design reflective and complementary of those found throughout the City. Providing a rolled curb throughout the community will create a visually seamless streetscape that is not cluttered by protruding standard curb sections. Additionally, it facilitates a safer walking environment for pedestrians by eliminating standard curb sections that inadvertently become tripping hazards.

12) Modification of Section 2.3.3A and Section 2.3.4A1 of the Subdivision Ordinance

Modification. The Applicant seeks to waive the requirement to connect to the existing sidewalk within Barristers Keepe.

Justification. At the request of Barristers Keepe, the only subdivision immediately adjacent to the development, the Applicant's as part of their Master Development Plan created a detailed stormwater management plan to address potential runoff to the Barristers Keepe community. As detailed on Sheet C-17, this proposal vastly reduces the current stormwater runoff by decreasing the impervious surfaces and eliminating potential runoff towards Barristers Keepe using a swale and retaining wall along the Property's northern edge. These proposed improvements impede the Applicant's ability to connect the subdivisions by sidewalk internally. However, the proposed development will provide a trail along its Pickett Road frontage which will connect to the sidewalk within the public right-of-way along Barristers Keepe, thereby connecting these adjacent subdivisions.

13) Modification of Section 2.2.2 of the PFM

Modification. The Applicant seeks to waive the turn lanes into the site as shown on the Master Development Plan.

Justification. Property is currently served by two access points to Pickett Road: one full-movement access point along the northern portion of the site, and one right-in/right-out access point along the southern portion of the site. The Applicant, as part of the rezoning, proposes to shift the southern right-in/right-out access point approximately ninety-five (95) feet south of its existing location to accommodate on-site circulation and setbacks from adjacent properties. The northern full-movement access point will remain at its existing location.

The Proposed Development is anticipated to generate approximately thirteen (13) new trips during a typical weekday morning peak hour, sixteen (16) new trips during afternoon peak hour, and one hundred and eighty-two (182) new daily trips. As such it will have a negligible impact on the existing public facilities.

14) Modification of Section 2.4.2.3 of the PFM and Section 2.4.2B, Section 2.4.2C, and Section 5.3 of the Subdivision Ordinance

Modification. Pursuant to Section 3.8.2.E3 of the Zoning Ordinance, the Applicant seeks to provide intersections with arterial streets less than six-hundred (600) feet apart and block lengths less than 250' and no more than 800' to those shown on the Master Development Plan.

Justification. The Applicant has proposed to shift the southern right-in/right-out access point approximately ninety-five (95) feet south of its existing location to accommodate on-site circulation and setbacks from adjacent properties. The northern full-movement access point will remain at its existing location. As proposed, the block and intersection distances improve bringing the Property closer into compliance with

these provisions however, provided the infill nature of this redevelopment a modification remains necessary.

15) Modification of Section 2.2.2B, Section 2.2.2C, and Section 2.2.2F1 of the Subdivision Ordinance

Modification. The Applicant seeks to provide privately maintained roadways throughout the community.

Justification. Provided the infill nature of this redevelopment project, the Applicant is unable to provide interparcel access to the adjacent properties. Such properties are developed with uses that are not conducive to vehicularly interparcel connectively, such as the Army Navy Country Club, Barristers Keepe, or the City's property. However, the Applicant worked diligently to orient the community in such a way that would provide the least amount of dead-ends given the inability to create the Subdivision Ordinances desired connections.

Additionally, provide the urban-design of the community, the Applicant has proposed to provide private streets that will be maintained by the HOA in perpetuality, which is common practice within the industry for single-family attached communities.

16) Modification of Future Section 3.9.6 of the Zoning Ordinance

Modification. The Applicant seeks to reduce the width of affordable dwelling units to sixteen (16) feet.

Justification. The Applicant is aware that the City has not formally adopted an affordable housing ordinance. However, in furtherance of the Housing Goals, specifically Action H2.1.2 on Page 56 of the Comprehensive Plan, the Applicant has committed to provide ten percent (10%) of the total number of single-family attached units constructed within the Proposed Development as ADUs.

As discussed with staff, the Applicant has maintained the five (5) affordable dwelling units and at the direction of staff has increased the width of the affordable dwelling units from fourteen feet (14') to sixteen feet (16') and has requested a modification of Section 3.9.6 to reduce the width of the ADUs to sixteen feet (16'). However, as discussed on a call with staff on January 30, 2020, the mandate that the ADUs be constructed at the same or comparable size as the market rate units is different than those of neighboring jurisdictions and may be difficult to implement.

For example, in Section 2-802(5)(D) of the Fairfax County Zoning Ordinance, it states that ADUs "shall be of the same dwelling unit type as the market rate units constructed on site." Fairfax County does not mandate that ADUs be constructed at the same or comparable size as the market rate units, only of the same unit type. Section 2-802(5)(D) is attached as Exhibit A.

Instead, the County has developed a “Schedule of ADU Prototypes and Cost Allowances” for ADUs that detail the minimum and maximum sizes of ADUs by unit type. This is done in recognition that ADUs need to be smaller than the market rate units for cost reasons, but not so small that they are unlivable. It also ensures the cost of constructing the ADU is reasonable in relation to the maximum sales price a developer may charge for the ADU, which is governed by the purchaser’s ability to pay and not by the cost to construct. That’s how the program meets the mandate that the developer not suffer an “economic loss” when providing ADUs. The “Schedule of ADU Prototypes and Cost Allowances” is attached as Exhibit B.

In addition to the ADU prototypes, Fairfax County also developed “Minimum Specifications” for ADUs to address bedroom sizes, fixtures, etc. These standards were updated in 2018 and also are attached as Exhibit C. While there is verbiage about ADUs being “comparable” to the market units, the language makes clear comparability is limited to the “primary functional components,” and not floor areas, layouts, and width which can be unique for each project, provided they meet the minimum prototype sizes of the above “Schedule.”

From an ordinance perspective, insisting that ADUs in the City be similar/identical in size to a market rate unit puts the City at odds with the manner in which Fairfax County administers its ADU program. It also creates potential hardships to providing ADUs by increasing construction costs without a corresponding ability to pass those added costs on to the purchaser. And the larger unit sizes are more land-consumptive, leaving less land area available to make up the added costs through bonus density. While it may be possible for the City Council to grant relief from this standard, the uncertainty as whether it would be granted on a case-by-case basis makes it difficult for property owners to project their overall development costs and move forward with implementing the Draft ADU Ordinance as written.

The Applicant strongly supports ADU programs and wants to include units in its proposed development, but the uncertainty created by the size expectations merits further discussion. The Applicant will continue to work with City staff to provide affordable housing that is in line with the overarching goals outlined in the City’s Draft ADU Ordinance.

PART 8 2-800 AFFORDABLE DWELLING UNIT PROGRAM

2-801 Purpose and Intent

The Affordable Dwelling Unit Program is established to assist in the provision of affordable housing for persons of low and moderate income. The program is designed to promote a full range of housing choices and to require the construction and continued existence of dwelling units affordable to households whose income is seventy (70) percent or less of the median income for the Washington Standard Metropolitan Statistical Area. An affordable dwelling unit shall mean the rental and/or for sale dwelling unit for which the rental and/or sales price is controlled pursuant to the provisions of this Part. For all affordable dwelling unit developments, where the dwelling unit type for the affordable dwelling unit is different from that of the market rate units, the affordable dwelling units should be integrated within the developments to the extent feasible, based on building and development design. In developments where the affordable dwelling units are provided in a dwelling unit type which is the same as the market rate dwelling units, the affordable dwelling units should be dispersed among the market rate dwelling units.

2-802 Applicability

1. The requirements of the Affordable Dwelling Unit Program shall apply to any site or portion thereof at one location which is the subject of an application for rezoning or special exception or site plan or subdivision plat submission which yields, as submitted by the applicant, fifty (50) or more dwelling units at an equivalent density greater than one unit per acre and which is located within an approved sewer service area, except as may be exempt under the provisions of Sect. 803 below. For purposes of this Ordinance, "site or portion thereof at one location" shall include all adjacent undeveloped land of the property owner and/or applicant, the property lines of which are contiguous or nearly contiguous at any point, or the property lines of which are separated only by a public or private street, road, highway or utility right-of-way or other public or private right-of-way at any point, or separated only by other land of the owner and/or applicant, which separating land is not subject to the requirements of this Part.

   Sites or portions thereof at one location shall include all land under common ownership and/or control by the owner and/or applicant, including, but not limited to, land owned and/or controlled by separate partnerships, land trusts, or corporations in which the owner and/or applicant (to include members of the owner and/or applicant's immediate family) is a partner, beneficiary, or is an owner of one (1) percent or more of the stock, and other such forms of business entities. Immediate family members shall include the owner and/or applicant's spouse, children and parents. However, in instances in which a lending institution, such as a pension fund, bank, savings and loan, insurance company or similar entity, has acquired, or acquires an equity interest by virtue of its agreement to provide financing, such equity interest shall not be considered in making determinations of applicability.

2. At the time of application for rezoning or special exception and at the time of site plan or subdivision plat submission, the owner and/or applicant shall submit an affidavit which shall include:

A. The names of the owners of each parcel of the sites or portions thereof, as such terms are defined in Par. 1 above.

B. The Fairfax County Property Identification Map Number, parcel size and zoning district classification for each parcel which is part of the site or portion thereof.

3. An owner and/or applicant shall not avoid the requirements of this Part by submitting piecemeal applications for rezoning or special exception or piecemeal site plan or subdivision plat submissions for less than fifty (50) dwelling units at any one time. However, an owner and/or applicant may submit a site plan or subdivision plat for less than fifty (50) dwelling units if the owner and/or applicant agrees in writing that the next application or submission for the site or portion thereof shall meet the requirements of this Part when the total number of dwelling units has reached fifty (50) or more. This written statement shall be recorded among the Fairfax County land records and shall be indexed in the names of all owners of the site or portion thereof, as such terms are defined in Par. 1 above.

4. The County shall process site plans or subdivision plats proposing the development or construction of affordable dwelling units within 280 days from the receipt thereof, provided that such plans and plats substantially comply with all ordinance requirements when submitted. The calculation of the review period shall include only that time the plans or plats are in for County review, and shall not include such time as may be required for revisions or modifications in order to comply with ordinance requirements.

5. Affordable dwelling units may be provided, at the developer's option, in any residential development in the R-2 through R-30 and P Districts which is not required to provide affordable dwelling units pursuant to the provisions of this Part. Such development shall be subject to the applicable zoning district regulations for affordable dwelling unit developments and shall be in accordance with the following:

A. For single family detached and single family attached dwelling unit developments, there may be a potential density bonus of up to twenty (20) percent, provided that not less than twelve and one-half (12.5) percent of the total number of dwelling units are provided as affordable dwelling units, subject to the provisions of this Part.

B. For multiple family dwelling unit structures that do not have an elevator, or have an elevator and are three (3) stories or less in height, there may be a potential density bonus for the development consisting of such structures of up to ten (10) percent, provided that not less than six and one-quarter (6.25) percent of the total number of dwelling units are provided as affordable dwelling units, or a potential density bonus for the development consisting of such structures from greater than ten (10) percent up to twenty (20) percent, provided that not less than twelve and one-half (12.5) percent of the total number of dwelling units are provided as affordable dwelling units, subject to the provisions of this Part.

.

C. For multiple family dwelling unit structures that have an elevator and are four (4) stories or more in height, there may be a potential density bonus for the development consisting of such structures of up to seventeen (17) percent, provided that not less than six and one-quarter (6.25) percent of the total number

of dwelling units are provided as affordable dwelling units, subject to the provisions of this Part for multiple family dwelling developments with fifty (50) percent or less of the required parking provided in parking structures. For such multiple family developments with more than fifty (50) percent of the required parking provided in parking structures, there may be a potential density bonus of up to seventeen (17) percent, provided that not less than five (5) percent of the total number of dwelling units are provided as affordable dwelling units, subject to the provisions of this Part.

D. The affordable dwelling units shall be of the same dwelling unit type as the market rate units constructed on the site.

E. The Affordable Dwelling Unit Advisory Board shall have no authority to modify the percentage of affordable dwelling units required under this provision, nor to allow the construction of affordable dwelling units which are of a different dwelling unit type from the market rate units on the site.

6. For independent living facilities approved by special exception or as part of a rezoning, affordable dwelling units are required in accordance with Sect. 9-306 and the administration of such units is subject to the provisions of this Part, except where specifically excluded.

2-803 Developments Exempt From the Affordable Dwelling Unit Program

Notwithstanding the provisions of Sect. 802 above, the requirements of this Part shall not apply to the following:

1. Any multiple family dwelling unit structure which is constructed of Building Construction Types 1, 2, 3 or 4, as specified in the Virginia Uniform Statewide Building Code (VUSBC).

2. Special exception applications or rezoning applications or amendments thereto approved before July 31, 1990 or rezoning applications or amendments thereto approved before January 31, 2004 for elevator multiple family dwelling unit structures that are four (4) stories or more in height and constructed of Building Construction Type 5 (combustible) as specified in the Virginia Uniform Statewide Building Code (VUSBC), which either:

   A. Include a proffered or approved generalized, conceptual, final development plan or development plan, or special exception plat which contains a lot layout; or

   B. Include a proffered or approved total maximum number of dwelling units or FAR; or

   C. Include a proffered or approved unit yield per acre less than the number of units per acre otherwise permitted by the applicable zoning district regulations; or

   D. Fully satisfy the provisions of Sect. 816 below.

3. Proffered condition amendment, development plan amendment, and special exception amendment applications filed after July 31, 1990 which deal exclusively with issues of

Exhibit B

Fairfax County Affordable Dwelling Unit (ADU) Program Schedule of ADU Prototypes and Cost Allowances
Effective: September 2018

UNIT DESCRIPTIONS (1)			SIZES (2)			UNIT COSTS						
Type	Bedrooms	Baths	Min. Sq. Ft.	Base Sq. Ft.	Max. Sq. Ft.	Base Sq. Ft. Rate (3)	Base Unit Cost	Site Development Cost (4) (9)	Water & Sewer Cost (9)	Total At Base Level	Unfinished Space (5) Sq. Ft. Cost	Adjustments
Single Family Detached	0-1	1	480	600	1000	**$113.17**	**$67,902**	**$19,934**	**$12,250**	**$100,086**	**$18.15**	**8)**
Single Family Detached	2	1	725	1000	1150	**$83.03**	**$83,026**	**$19,934**	**$12,250**	**$115,209**	**$18.15**	**8)**
Single Family Detached	3	1.5	925	1100	1250	**$89.19**	**$98,109**	**$19,934**	**$12,250**	**$130,293**	**$18.15**	**8)**
Single Family Detached	4	2	1200	1250	1400	**$97.49**	**$121,867**	**$19,934**	**$12,250**	**$154,051**	**$18.15**	**8)**
Single Family Detached	5	2	1300	1350	1500	**$87.38**	**$117,959**	**$19,934**	**$12,250**	**$150,143**	**$18.15**	**8)**
Single Family Attached (a)	0-1	1	480	600	1000	**$108.61**	**$65,168**	**$17,782**	**$10,630**	**$93,581**	**$17.02**	**6),8)**
Single Family Attached (a)	2	1	725	1000	1150	**$79.67**	**$79,665**	**$17,782**	**$10,630**	**$108,078**	**$17.02**	**6),8)**
Single Family Attached (a)	3	1.5	925	1100	1250	**$81.15**	**$89,267**	**$17,782**	**$10,630**	**$117,680**	**$17.02**	**6),8)**
Single Family Attached (a)	4	2	1200	1250	1400	**$81.43**	**$101,788**	**$17,782**	**$10,630**	**$130,201**	**$17.02**	**6),8)**
Single Family Attached (a)	5	2	1300	1350	1500	**$81.15**	**$109,544**	**$17,782**	**$10,630**	**$137,957**	**$17.02**	**6),8)**
MultiFamily (b)	0-1	1	300	600	900	**$95.31**	**$57,184**	**$13,056**	**7)**	**7)**	**NA**	**6),8)**
MultiFamily (b)	2	1	725	900	1000	**$73.09**	**$65,781**	**$13,056**	**7)**	**7)**	**NA**	**6),8)**
MultiFamily (b)	3	1.5	925	1050	1150	**$72.03**	**$75,628**	**$13,056**	**7)**	**7)**	**NA**	**6),8)**
MultiFamily (b)	4	2	1200	1200	1300	**$69.48**	**$83,371**	**$13,056**	**7)**	**7)**	**NA**	**6),8)**
MultiFamily (b)	5	2	1300	1325	1400	**$64.07**	**$84,897**	**$13,056**	**7)**	**7)**	**NA**	**6),8)**

Notes:

1) Unit types as per Fairfax County Zoning Ordinance definitions.

2) The minimum bedroom size is ninety (90) square feet. However, at least one bedroom must be 100 sq. ft. minimum. For 3 bedroom units and above at least 2 bedrooms must have a minimum of 100 sq.ft.

3) Base Unit Cost will be adjusted upward or downward based on the actual square footage of space built using the following adjustment factors:
a) Increase above base: Use 50% of square foot cost from base to maximum. Finished space costs apply only up to the maximum floor area allowed.
b) Decrease below base: Use 75% of square foot cost from base to minimum. Units below minimum floor area are not permitted.
Unit cost does not include sprinkler system (Actual cost will be allowed when required). Finished space over the maximum can be priced as unfinished space.

4) Site development cost includes on site common area costs such as earthwork, landscaping, amenities, public access and utilities. Proffers and offsite costs are not included as they are part of the land development basis. Special fees paid to a government entity and costs associated with a proffer will be allowed as extras if required to accommodate the ADUs.

5) Unfinished space is not included in maximum allowable size. Unfinished space generally consists of a full or partial basement, garage space or unfinished ground floor space. The cost of unfinished space can be added to base cost and is allowed for actual square footage of unfinished space multiplied by the rate shown.

6) Great House Adjustment: A credit of five (5) percent of total development costs (unit cost, site development cost, fees, plus other adjustments for end units, extra baths, unfinished space cost) can be added to the total for attached and multi-family ADUs. For ADUs developed in the duplex configuration a ten (10) percent credit will be allowed. Duplex and multiplex ADUs will be priced at rates shown above for attached ADUs. To qualify for a Great House credit ADUs must conform to the design guidelines in the addendum entitled ADU Price Adjustments.

7) Water and Sewer Fees: Actual costs will be allowed for multi-family development. Total is dependent upon water and sewer fees for multi-family unit type.

8) See Attachment 1

9) Items will be reviewed as part of a comprehensive review and analysis of Affordable Dwelling Unit Pricing

ADU MINIMUM SPECIFICATIONS

1. All ADUs must meet the requirements of the Virginia Uniform Building Code and Zoning Ordinance of Fairfax County, as amended, for the ADU program.

2. The minimum bedroom size for all ADUs is ninety (90) square feet. All single family ADUs shall have a master bedroom of at least one hundred (100) square feet. Second bedrooms in all single family ADUs, with three or more bedrooms, shall also be at least one hundred (100) square feet. All bedroom sizes are exclusive of closets, which must be provided with each bedroom.

3. All ADUs must have a minimum sized frost-free refrigerator of 12 cubic feet for 0-1 bedroom units, 14 cubic feet for 2 bedroom units, 15 cubic feet for 3 bedroom units, and 18 for 4 or more bedroom units. Ranges shall be 30 inches wide, minimum, and include range hoods. Ovens in all ADUs shall be, at a minimum, continuous clean.

4. All ADUs must have a garbage disposal and dishwasher.

5. Plumbing, mechanical, and electrical rough-in will be required for a washer and dryer (if washers and dryers are not placed in the common area). All ADUs must be pre-wired for telephone and cable service. All systems must pass applicable testing, as per County code.

   Plumbing rough-in is defined as the completion of all parts of the plumbing system which can be complete prior to installation of fixtures, appliances and equipment, including drainage, water supply, vent piping, supports and backboards. All piping is to be tied in and capped after wall or floor penetration, and all exhaust ductwork is installed. Electrical rough-in includes wiring from the service panel to the location served such as a junction box or outlet, as per County code.

6. Mechanical systems shall be sized and a duct rough-in provided to accommodate a finished basement where applicable.

Current Language

7. A Builder Landscaping Package will be required for single family lots. In addition to the Code required seeded lawn, the Builder Landscaping Package will consist of 3-4 foundation plantings, 18" to 24" in height, of azaleas, hollies, or their equal, a 36" conical evergreen, or a 6' to 8' ornamental tree, including mulched beds. A proffered lot landscaping standard will constitute the Builder Landscaping Package, if applicable.

Proposed Language

A Builder Landscaping Package including the lawn will be required for all ADUs and should be consistent with market rate lots proportionally.

Current Language

8. Hose bibs on the front and rear of single family ADUs are required.

Proposed Language

Hose bibs will be required for all ADUs and the number of bibs and location should be consistent with market rate units.

Current Language

9. Multiple-family ADUs shall be comparable to non-ADUs in the project with the same number of bedrooms, in terms of standard features and amenities, with the exception of luxury amenities, (e.g. fireplace, jacuzzi, balcony, patio, garage, security or other monitoring systems, ceiling fans, etc.). Comparability means the same, or equal, in terms of standard finishes, floor treatments, fixtures, appliances, heating and cooling, plumbing and electrical. Floor areas and layouts for multiple family ADUs may be unique for the project, but finished floor areas and number of bathrooms must meet or exceed the standards in the above Schedule of Prototype Sizes.

Proposed Language

All ADUs shall be comparable to market rate units in the project. Comparability means the same, or equal, in terms of primary functional components such as heating, cooling, plumbing, electrical, structural components, and exterior appearance. The ADU standard features, floor treatments, fixtures and appliances shall be reviewed by staff to ensure it meets minimum industry standards.

Floor areas and layouts for all ADUs may be unique for the project, but finished floor areas and number of bathrooms must meet or exceed the standards in the ADU Program Schedule of ADU Prototypes and Cost Allowances.

Current Language

10. All ADUs must include a central HVAC system. Gas as a primary heat source must be provided for single family ADUs in developments where it is the standard for all other units. Electric resistance is not allowed as a primary heat source.

Proposed Language

All ADUs must include a central HVAC system. Gas as a primary heat source must be provided for all ADUs in developments where it is the standard for the market rate units.

SETBACKS ARE MEASURED TO THE OUTER BUILDING VERTICAL FACADE. ARCHITECTURAL ELEMENTS SUCH AS BAY WINDOWS, COVERED BALCONIES, CANOPIES, PORCHES, CHIMNEYS, EAVES, HVAC UNITS, ETC. MAY PROJECT INTO YARDS.

WAIVERS AND MODIFICATION REQUESTS

1) A MODIFICATION HAS BEEN REQUESTED OF SECTION 3.5.1.C.2 OF THE ZONING ORDINANCE THAT REQUIRES THAT NO MORE THAN ONE OF ANY THREE TO FIVE, ABUTTING DWELLING UNITS HAVE THE SAME FRONT YARD SETBACK.
2) A MODIFICATION HAS BEEN REQUESTED OF SECTION 4.4.4.A.1 OF THE ZONING ORDINANCE AND SECTION 2.3.1A OF THE SUBDIVISION ORDINANCE AS THE APPLICANT PROPOSES TO PROVIDE SIDEWALKS ON A SINGLE SIDE OF THE PRIVATE STREETS AND NONE ALONG THE PRIVATE ALLEYWAYS, AS DEPICTED ON SHEET C-13.
3) A MODIFICATION HAS BEEN REQUESTED OF SECTION 3.6.1 TO ALLOW MAXIMUM BUILDING HEIGHTS OF 45-FEET (4-STORIES).
4) A MODIFICATION HAS BEEN REQUESTED OF SECTION 4.5.6.B OF THE ZONING ORDINANCE FOR THE STREET TREES. IN SELECT AREAS ALONG THE PRIVATE STREETS, A MODIFICATION HAS BEEN REQUESTED AS THE REQUIRED STREET TREE SPACING, QUANTITY, AND PLANTING AREA WIDTH CANNOT BE CONSISTENTLY MET DUE DRIVEWAY APRON LOCATIONS, ON-STREET PARALLEL PARKING, AND VARIOUS PROPOSED UTILITIES. ALONG PICKETT ROAD, THE EXISTING OVERHEAD UTILITY LINES PROHIBIT PLANTINGS WITHIN THE EXISTING EASEMENTS. ALONG THE PRIVATE ALLEY, A MODIFICATION HAS BEEN REQUESTED NOT TO PROVIDE ANY STREET TREES.
5) A MODIFICATION HAS BEEN REQUESTED OF SECTION 4.5.5.C.2.(B)(1), FOR TRANSITIONAL YARD SCREENING AND BARRIER REQUIREMENTS FOR TY2.
   - *SOUTHERN BOUNDARY*: A MODIFICATION HAS BEEN REQUESTED TO ALLOW FOR A 42" GAURDRAIL/METAL FENCE AS A BARRIER AND TO MODIFIY THE TRANSITIONAL YARD (TY2) REQUIREMENT FROM 0-7.5' AS SHOWN. THE PROPERTY IMMEDIATELY ADJACENT TO THE SOUTHERN BOUNDARY IS OWNED BY THE CITY OF FAIRFAX AND REMAINS UNDEVELOPED AND DENSELY WOODED WITH A 106 FOOT WIDE SWATCH OF EXISTING MATURE VEGETATION.
   - *NORTHERN BOUNDARY*: A MODIFICATION HAS BEEN REQUESTED TO ALLOW FOR A 6' METAL FENCE TO ACT AS THE BARRIER ON TOP OF THE RETAINING WALL AND A MODIFICATION TO MAINTAIN THE EXISTING MATURE VEGETATION ALONG THIS BOUNDARY TODAY.
   - *WESTERN BOUNDARY*: A MODIFICATION HAS BEEN REQUESTED TO ALLOW FOR A 42" GUARDRAIL/FENCE TO ACT AS THE BARRIER ON TOP OF THE RETAINING WALL ALONG THE GOLF COURSE AND A MODIFICATION OF THE TRANSITIONAL YARD (TY2) TO ALLOW A WIDTH OF 7.5' WITHOUT MODIFICATION TO THE REQUIRED PLANTINGS AND SUPPLEMENTAL SHRUB PLANTINGS.
   - *EASTERN BOUNDARY*: A WAIVER OF THE BARRIER AND A MODIFICATION OF THE LOCATION OF THE PLANT MATERIAL THAT NEEDS TO BE SET BACK DUE TO THE UTILITY EASEMENTS. THE SOUTHERN PORTION WILL TAPER DOWN ADJACENT TO THE UNIT AS SHOWN.
6) SUPPORT FOR A WAIVER HAS BEEN REQUESTED OF SECTION 2.2.2 OF THE PUBLIC FACILITIES MANUAL (THE "PFM") FOR TURN LANES INTO THE SITE AS SHOWN ON THE MASTER DEVELOPMENT PLAN.
7) SUPPORT FOR A WAIVER HAS BEEN REQUESTED OF SECTION 2.4.1 OF THE PFM TO ALLOW FOR THE ROAD RADIUS LESS THAN 175'.
8) SUPPORT FOR A WAIVER HAS BEEN REQUESTED OF SECTION 2.4.2.3 OF THE PFM FOR INTERSECTIONS WITH ARTERIAL STREETS TO BE LESS THAT 600' APART.
9) SUPPORT FOR A WAIVER HAS BEEN REQUESTED OF SECTION 2.7.3.1 OF THE PFM AND SECTION 2.2.7 OF THE SUBDIVISION ORDINANCE, TO ALLOW A DRIVEWAY WIDTH LESS THAN 12' TO 9' TO ACCOMMODATE THE TANDEM PARKED GARAGES THAT PROVIDE A SINGLE CAR WIDTH GARAGE DOOR.
10) SUPPORT FOR A WAIVER HAS BEEN REQUESTED FOR SECTION 2.10 OF THE PFM TO ALLOW A 10' RADIUS AT THE PROPERTY LINE FOR AN ALLEY.
11) SUPPORT FOR A WAIVER HAS BEEN REQUESTED FOR SECTION 401.01 TO ALLOW STREETS LESS THAN 30' TO 24', FACE OF CURB TO FACE OF CURB, WITH NO PARKING.
12) SUPPORT FOR A WAIVER HAS BEEN REQUESTED FOR SECTION 403.03 OF THE PFM TO ALLOW FOR A ROLLED CURB INSTEAD OF CURB CUTS FOR DRIVEWAYS.
13) SUPPORT FOR A WAIVER OF SECTION 2.2.2B OF THE SUBDIVISION ORDINANCE TO ALLOW FOR THE STREETS TO BE PRIVATELY MAINTAINED.
14) SUPPORT FOR A WAIVER OF SECTION 2.2.2C OF THE SUBDIVISION ORDINANCE, WHERE ALL STREETS SHALL BE EXTENDED TO ABUTTING PROPERTY LINES.
15) SUPPORT FOR A WAIVER OF SECTION 2.2.2F1 OF THE SUBDIVISION ORDINANCE, WHERE DEAD-END STREET CAN BE USED.
16) SUPPORT FOR A MODIFICATION OF SECTION 2.3.3A AND SECTION 2.3.4A1 OF THE SUBDIVISION ORDINANCE, WHERE SIDEWALKS WILL CONNECT TO ADJACENT SUBDIVISIONS.
17) SUPPORT FOR A MODIFICATION OF SECTION 2.4.2B AND SECTION 2.4.2C, AND SECTION 5.3 OF THE SUBDIVISION ORDINANCE, OF THE BLOCK LENGTH AS ALLOWED PER SECTION 3.8.2.E.3 OF THE ZONING ORDINANCE FOR LESS THAN 250' AND OVER 800' BLOCKS TO THAT SHOWN ON THE PLAN.
18) MODIFICATION OF THE FUTURE SECTION 3.9.6 TO REDUCE THE WIDTH OF AFFORDABLE DWELLING UNITS (ADU'S) TO SIXTEEN FEET (16').

3500 PICKETT ROAD

MASTER DEVELOPMENT PLAN

VICINITY MAP 1' = 2000"

CITY OF FAIRFAX, VIRGINIA

NOVEMBER 22, 2019
FEBRUARY 7, 2020
APRIL 10, 2020

Sheet List Table

Sheet Number	Sheet Title
CIVIL	
C-01	COVER SHEET
C-02	EXISTING CONDITIONS PLAN
C-03	EXISTING VEGETATION MAP
C-03A	TREE SURVEY
C-03B	TREE SURVEY INVENTORY
C-03C	TREE SURVEY INVENTORY
C-04	CONTEXT MAP
C-05	TABULATIONS AND NOTES
C-06	MASTER DEVELOPMENT PLAN
C-07	ROAD EXHIBIT
C-08	FUNCTIONAL UTILITY AND GRADING
C-08A	OPEN SPACE SWALE EXHIBIT
C-08B	SWALE SECTIONS
C-9	SIGHT DISTANCE RIGHT- NORTHERN ENTRANCE
C-10	SIGHT DISTANCE LEFT - SOUTHERN ENTRANCE
C-11	SIGHT DISTANCE LEFT - SOUTHERN ENTRANCE
C-12	FIRE ACCESS PLAN
C-13	PEDESTRIAN AND TRAFFIC CIRCULATION
C-14	STREET SECTIONS
C-14A	SITE SECTIONS
C-15	EXISTING SWM MAP AND NARRATIVE
C-16	PROPOSED SWM MAP AND NARRATIVE
C-17	SWM COMPUTATIONS AND DETAILS
C-18	EXISTING SWM PLAN
C-19	EXISTING SWM COMPS
C-20	AUTOTURN EXHIBIT
C-21	TOWNHOME AUTOTURN
C-22	SITE LIGHTING AND PHOTOMETRICS
ARCHITECTURE	
A-1	ARCHITECTURAL ELEVATIONS
A-2	TOWNHOME DETAILS
A-3	ARCHITECTURAL SECTIONS
LANDSCAPE	
L-01	OVERALL SITE ILLUSTRATIVE
L-02	LANDSCAPE PLAN
L-03	LANDSCAPE TABULATION AND DETAILS
L-04	PROPOSED TRANSITIONAL SCREENING YARDS
L-05	OPEN SPACE PLAN
L-06	OPEN SPACE ENLARGEMENT
L-06A	HARDSCAPE DETAILS AND PRODUCT INFORMATION

TAX MAP NO.
#58-1-02-021

APPLICANT
EYA DEVELOPMENT LLC
4800 HAMPTON LANE SUITE 300
BETHESDA, MD
ATTN: WYNDHAM ROBERTSON
301(634-8649)

OWNER
CELEBRATION CHURCH OF JACKSONVILLE, INC
3500 PICKET ROAD
CITY OF FAIRFAX, VA

ATTORNEY
COOLEY, LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8652

ENGINEER
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE, SUITE 200
TYSONS, VIRGINIA 22102
ATTN: JOHN AMATETTI, PE
(703) 442-7800

LANDSCAPE ARCHITECT
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VIRGINIA 22310
ATTN: JOE PLUMPE
(703)719-6500

VIKA NUMBER VV7583C
SHEET C-01

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C COVER.dwg USER: Richardson DATE: April 14, 2020 TIME: 7:33:44 AM

NOTES:

1. THE SUBJECT PROPERTY IS IDENTIFIED ON FAIRFAX CITY TAX MAP AS TAX MAP #58-1-02-021 AND IS ZONED RL.
2. THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP (FIRM) NUMBER 5155240003D, COMMUNITY PANEL 515524 00030 D, FOR FAIRFAX CITY, VIRGINIA DATED JUNE 2, 2006. ZONE "X" IS NOT IDENTIFIED AS A SPECIAL FLOOD HAZARD ZONE AREA.
3. THE HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 (VCS 83).
4. THE VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).
5. THE HORIZONTAL AND VERTICAL DATUMS SHOWN HEREON ARE BASED ON A GPS SURVEY PERVORMED BY VIKA VIRGINIA, LLC ON FEBRUARY 26, 2013. THE ELEVATION CONVERSION OF THE VERTICAL DATUM FROM THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) TO (NGVD29), A DIFFERENCE OF +0.77', WAS CALCULATED USING ARMY CORPS OF ENGINEERS' CORPSCON 6.0.1 CONVERSION TOOL.
6. CONTOUR INTERVAL SHOWN HEREON IS 2'-0".
7. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON A FIELD RUN SURVEY BY VIKA VIRGINIA, LLC.
8. THE RECORD DESCRIPTION CONTAINED HEREON AND ALL OTHER INFORMATION SHOWN HEREON IS CORRECT.
9. TITLE COMMITMENT PROVIDED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO. U190001.3VAF-VU WITH AN EFFECTIVE DATE OF 9/17/2019 (Version No. 2) HAS BEEN INCORPORATED INTO THIS SURVEY. ALL KNOWN, PLOTTABLE EASEMENTS OF RECORD ARE SHOWN HEREON.
10. THERE IS NO OBSERVED EVIDENCE OF WETLANDS FIELD DELINEATION ON THE SUBJECT PROPERTY.
11. THERE IS NO OBSERVED EVIDENCE OF CEMETERIES OR BURIAL GROUNDS ON THE SUBJECT PROPERTY.
12. THIS SURVEY IS NOT INTENDED FOR DESIGN OR CONSTRUCTION PURPOSES, INCLUDING THE INSTALLATION OF FENCES OR CONSTRUCTION OF OTHER IMPROVEMENTS. UTILITY LINES MAY NOT BE SHOWN AS ACTUAL WIDTHS AND SIZES.
13. THIS SURVEY HAS BEEN PREPARED TO DEPICT THE LOCATIONS OF ENCUMBRANCES AFFECTING THE PROPERTY THAT HAS BEEN IDENTIFIED IN THE TITLE COMMITMENT REFERENCED HEREON, FURNISHED TO VIKA VIRGINIA, LLC FOR THIS SITE OR TO LIST ANY ENCUMBRANCES THAT ARE NOT LOCATABLE. AS SUCH, IF THERE ARE ENCUMBRANCES AFFECTING THE PROPERTY THAT WERE NOT IDENTIFIED IN THE REFERENCED TITLE REPORT, THEY MAY NOT BE SHOWN ON THIS SURVEY. FOR EXAMPLE, CERTAIN HIGHWAYS HAVE "LIMITED ACCESS LINES" THAT HAVE BEEN ESTABLISHED BY HIGHWAY PLANS THAT ARE OFTEN NOT RECORDED IN THE LAND RECORDS OF THAT JURISDICTION.

AREA TABULATION:

160,933 SQUARE FEET OR 3.69451 ACRES

PARKING TABULATION:

STANDARD STRIPED PARKING SPACES	215
HANDICAP STRIPED PARKING SPACES	7
TOTAL STRIPED PARKING SPACES ON SITE	222

* PARKING SPACES SHOWN HEREON ARE BASED ON FIELD LOCATIONS AND VISUAL INSPECTION. VIKA VIRGINIA, LLC DOES NOT CERTIFY THAT SPACES ARE STRIPED IN ACCORDANCE WITH REQUIRED JURISDICTIONAL STANDARDS.

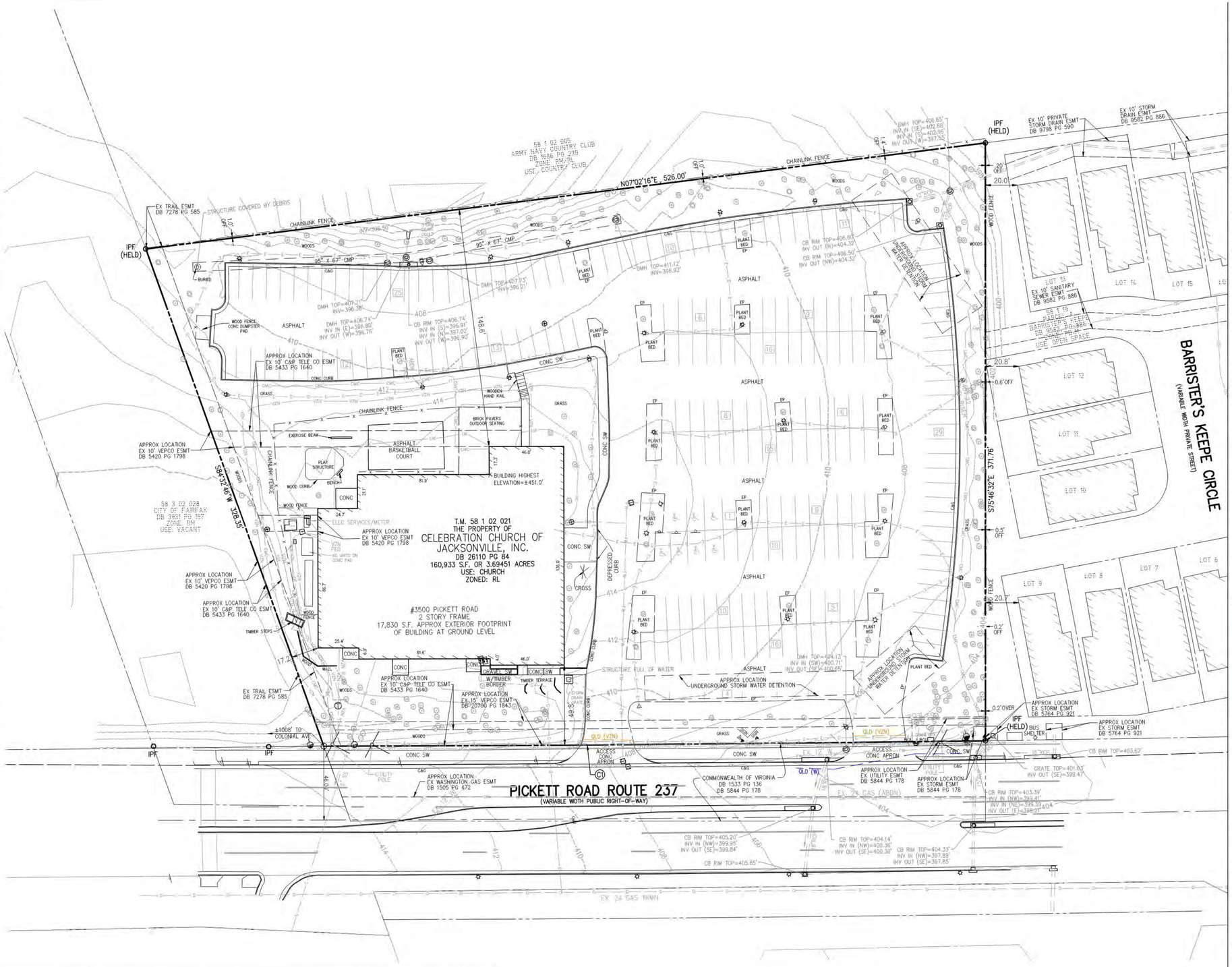
CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD BRG	CHORD
C1	411.31'	34331.47'	000°41'11"	205.66'	S13°46'35"W	411.31'

LEGAL DESCRIPTION:

BEING ALL OF THE PROPERTY ACQUIRED BY CELEBRATION CHURCH OF JACKSONVILLE, INC. AS RECORDED IN DEED BOOK 26110 AT PAGE 84 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING FOR THE SAME AT AN IRON PIPE FOUND (HELD) LYING ON THE WESTERLY RIGHT-OF-WAY LINE OF PICKETT ROAD, ROUTE 237 (VARIABLE WIDTH PUBLIC RIGHT-OF-WAY), SAID IRON PIPE FOUND (HELD) MARKING THE SOUTHEASTERLY CORNER OF PARCEL A, BARRISTER'S KEEPE AS RECORDED IN DEED BOOK 9582 AT PAGE 886 AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA THENCE; RUNNING WITH THE WESTERLY RIGHT-OF-WAY LINE OF SAID PICKETT ROAD

1. 411.31 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 34,331.47 FEET AND A CHORD BEARING AND DISTANCE OF SOUTH 13°46'35" WEST, 411.31 FEET TO A POINT BEING THE NORTHEASTERLY CORNER OF THE PROPERTY OF CITY OF FAIRFAX, VIRGINIA AS RECORDED IN DEED BOOK 3931 AT PAGE 197 AMONG AFORESAID LAND RECORDS; THENCE LEAVING THE AFORESAID WESTERLY RIGHT OF WAY LINE OF PICKETT ROAD, ROUTE 237 AND RUNNING WITH SAID PROPERTY OF CITY OF FAIRFAX, VIRGINIA
2. SOUTH 84°32'46" WEST, 328.35 FEET TO AN IRON PIPE FOUND (HELD) MARKING A SOUTHEASTERLY CORNER OF THE PROPERTY OF ARMY NAVY COUNTRY CLUB AS RECORDED IN DEED BOOK 1686 AT PAGE 239 AMONG AFORESAID LAND RECORDS; THENCE LEAVING THE AFORESAID PROPERTY OF CITY OF FAIRFAX (DB 3931 PG 197) AND RUNNING WITH THE SAID PROPERTY OF ARMY NAVY COUNTRY CLUB
3. NORTH 07°02'16" EAST, 526.00 FEET TO AN IRON PIPE FOUND (HELD) MARKING THE SOUTHWESTERLY CORNER OF THE AFORESAID PARCEL A, BARRISTER'S KEEPE (DB 9582 PG 886); THENCE LEAVING THE AFORESAID PROPERTY OF ARMY NAVY COUNTRY CLUB (DB 1686 PG 239) AND RUNNING WITH SAID PARCEL A
4. SOUTH 75°46'32" EAST, 371.76 FEET TO THE POINT OF BEGINNING CONTAINING 160,933 SQUARE FEET OR 3.69451 ACRES OF LAND, MORE OR LESS.



LEGEND:

- BUILDING LINE
- CABLE TV CONDUIT
- ELECTRICAL CONDUIT
- EDGE OF PAVEMENT
- FENCE LINE
- NATURAL GAS CONDUIT
- OVERHEAD WIRES
- TELECOM CONDUIT
- PROPERTY LINES
- PUBLIC UTILITIES EASEMENTS
- SANITARY SEWER CONDUIT
- STORM DRAIN CONDUIT
- WATER CONDUIT

- ELECTRICAL MANHOLE
- ELECTRICAL JUNCTION BOX
- GUY POLE
- LIGHT POLE
- GROUND LIGHT
- UTILITY POLE
- PHONE MANHOLE
- PHONE PEDESTAL
- CABLE TELEVISION PEDESTAL
- GAS VALVE
- GAS MANHOLE
- GAS MARKER
- TRAFFIC CONTROL BOX
- TRAFFIC SIGNAL POLE

- STORM DRAIN MANHOLE
- CATCH BASIN RIM
- INLETS
- CURB INLET
- SANITARY MANHOLE
- SANITARY CLEANOUT
- WATER METER
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- IRRIGATION CONTROL VALVE

- TREE
- HANDICAP
- PARKING METER
- HVAC UNIT
- UKNOWN UTILITY MANHOLE
- BOLLARD
- COLUMN
- CENTERLINE
- SOIL BORING
- TEST PIT

- SIGN POST
- WOOD POST
- IRON PIPE FOUND
- REBAR FOUND
- PKNAIL FOUND
- DRILL HOLE FOUND
- BENCHMARK

CONC	CONCRETE
C&G	CURB AND GUTTER
TRANS	ELECTRICAL TRANSFORMER
ASPH	ASPHALT
ESMT	EASEMENT
BLDG	BUILDING
RCP	REINFORCED CONCRETE PIPE
CMP	CORRIGATED METAL PIPE
R/W	RIGHT-OF-WAY
HDR	HANDICAP RAMP
DB	DEED BOOK
PG	PAGE
BRL	BUILDING RESTRICTION LINE

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
LISA M. GOODWIN
Lic. No. 3364
04/10/2020
LAND SURVEYOR

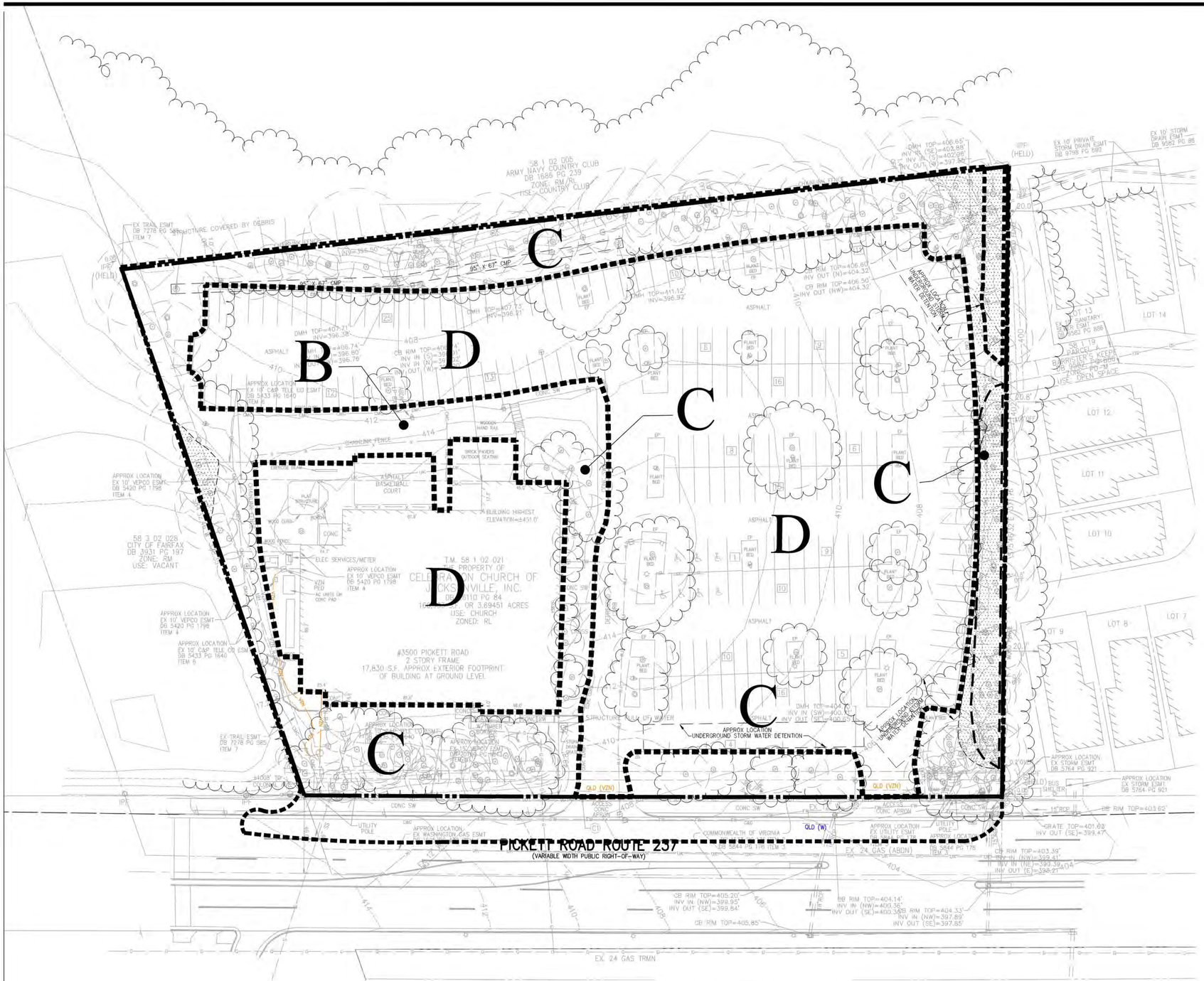
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

EXISTING CONDITIONS PLAN

DRAWN BY:	RMC
DESIGNED BY:	LMG
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	1" = 30'
VIKA JOB NO.	VV7583C
SHEET NO.	C-02

FILE: Q:\Projects\7583\7583C\CADD\SURVEY\BASE DRAWINGS\7583c-sv.dwg USER: Goodwin DATE: April 8, 2020 TIME: 1:38:51 PM

LAYOUT: C-02 EXISTING CONDITIONS PLAN, Plotted By: Goodwin



LEGEND

VEGETATION COVER TYPE

APPROXIMATE EXISTING TREE LINE

PRE-DEVELOPED AREA OF EXISTING CANOPY = ± 56,777 SF

POST-DEVELOPMENT AREA OF EXISTING TOTAL CANOPY TO BE PRESERVED = ±7,281 SF

LIMITS OF CLEARING AND GRADING

NOTE
FOR NEW LANDSCAPE PLAN / LANDSCAPE TABULATIONS, SEE SHEETS L-02, L-03

EVM NARRATIVE

±33% OF THE SUBJECT SITE IS DEVELOPED AS A MAINTAINED TURF/GRASS AND LANDSCAPE AREAS. THE BALANCE OF THE SITE (67%) IS DEVELOPED AS A PARKING LOT, PLAYGROUND AND BUILDING STRUCTURE. THERE IS A SMALL AREA OF EXISTING WOODS ALONG THE NORTHERN PROPERTY LINE TO WILL BE PRESERVED. MOST OF THE VEGETATION IS PLANTED LANDSCAPE MATERIAL.

THE PRIMARY ON-SITE SPECIES IDENTIFIED AND THE OVERALL GENERAL HEALTH AND CONDITION OF THE EXISTING PLANT MATERIAL IS REPORTED ON THIS SHEET.

EXISTING VEGETATION COVER TYPES

C TREE SPECIES

Acer rubrum - Red Maple
Ailanthus altissima - Tree of Heaven
Cornus florida - Flowering Dogwood
Juniperus virginiana - Eastern Redcedar
Ilex opaca - American Holly
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Yellow Poplar
Nyssa sylvatica - Blackgum
Pinus strobus - Eastern White Pine
Platanus occidentalis - American Sycamore
Prunus serotina - Black Cherry
Quercus alba - White Oak
Quercus palustris - Pin Oak
Ulmus americana - American Elm

B TREE SPECIES

Turf grass - Cleared and Maintained

COVER TYPE SUMMARY TABLE

EVM INDEX	COVER TYPE	SUCCESSIONAL STAGE	AREA	COVER CONDITION	PRIMARY SPECIES	COMMENTS
B	TURF	N/A	±3,699 SF (.09 AC)	N/A	N/A	
C	DEVELOPED LANDSCAPE	N/A	±56,777 SF (1.30 AC)	N/A	N/A	DEVELOPED AREA. CLEARED AND MAINTAINED TURF/GRASS AND LANDSCAPE AREA.
D	DEVELOPED	N/A	±107,915 SF (2.48 AC)	N/A	N/A	DEVELOPED AREA. PARKING LOT, PLAYGROUND AND BUILDING STRUCTURE;
		TOTAL AREA	±160,993 SF (3.69 AC)			

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

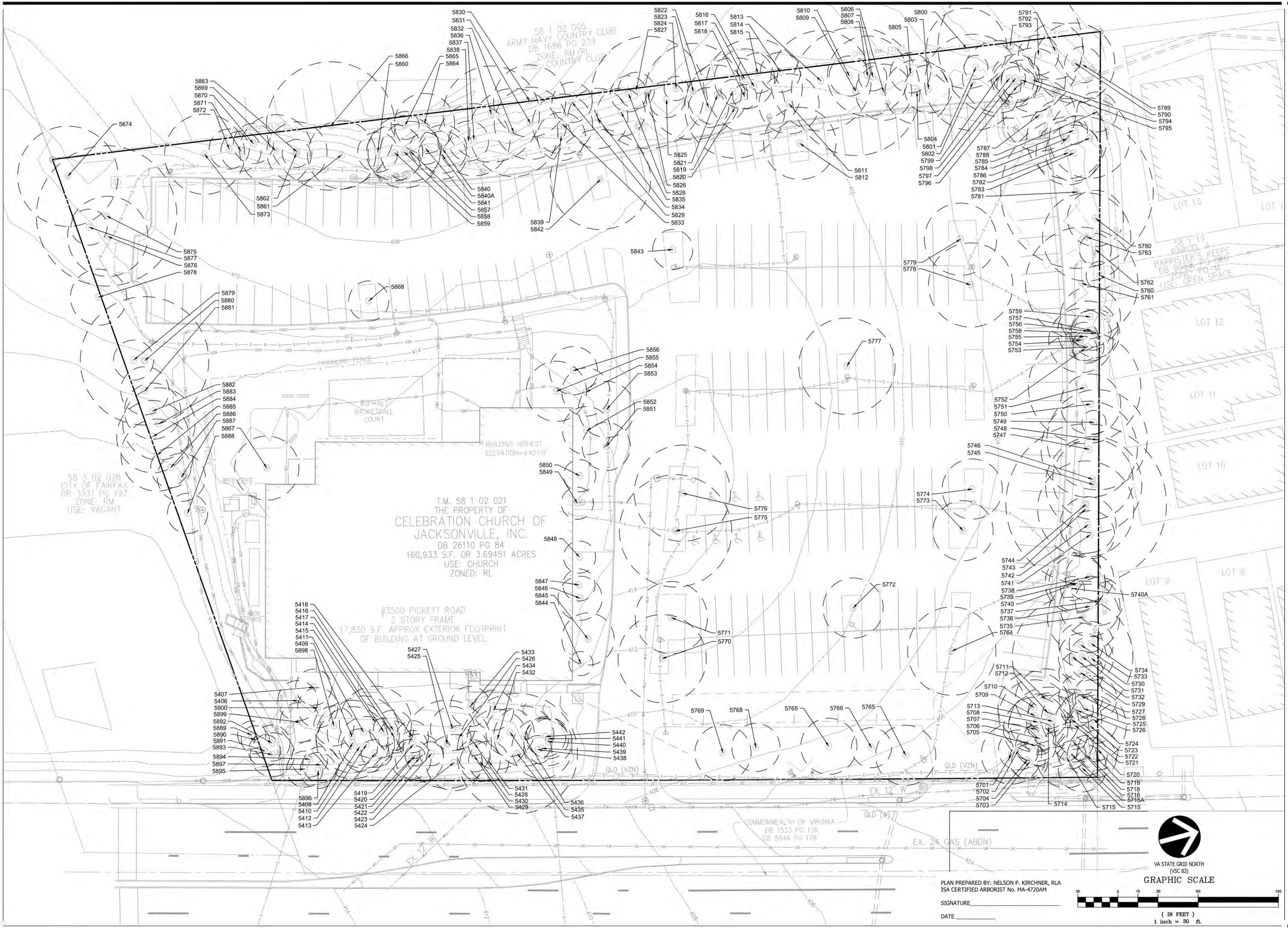
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

EXISTING VEGETATION MAP

DRAWN BY:
DESIGNED BY: PR
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. C-03

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C EXISTING VEGETATIONS.dwg USER: Richardson DATE: April 10, 2020 TIME: 8:39:25 AM

LAYOUT: C-03 EXISTING VEGETATIONS MAP, Plotted By: Richardson



PLAN PREPARED BY: NELSON P. KIRCHNER, RLA
ISA CERTIFIED ARBORIST No. MA-4720AM

SIGNATURE _____

DATE _____

VA STATE GRID NORTH
(VSC 83)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
1ST SUBMISSION	11/22/2019

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
PETER L. RINEK
Lic. No. 388
02/07/2020
LANDSCAPE ARCHITECT

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

TREE SURVEY

DRAWN BY:	PNN
DESIGNED BY:	NPK
DATE ISSUED:	JANUARY 20, 2020
DWG. SCALE:	1"=20'-0"
VIKA JOB NO.	VV7583C
SHEET NO.	C-03A

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C TREE SURVEY.dwg USER: Richardson DATE: Apr, 14 2020 TIME: 08:05 am

LAYOUT: C-03A TREE SURVEY, Plotted By: Richardson

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5406	Cornus florida, Flowering Dogwood	9	0.56	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM STEMS (INCLUDED).
5407	Cornus florida, Flowering Dogwood	6	55.00	NO SEVERE BIOTIC ISSUES OBSERVED. PRUNES HVE COMPARTMENTILIZED.
5408	Quercus rubra, Red Oak	14	0.56	NO APPARENT BIOTIC ISSUES OBSERVED. UTILITY PRUNED. DEADWOOD.
5409	Quercus rubra, Red Oak	8, 8	0.56	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM STEMS AT~2.5VF. DEADWOOD.
5410	Fagus grandifolia, American Beech	9	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5411	Quercus rubra, Red Oak	14	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. SLIGHT DEADWOOD.
5412	Quercus rubra, Red Oak	9	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5413	Quercus rubra, Red Oak	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5414	Pinus virginiana, Virginia Pine	6	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5415	Pinus virginiana, Virginia Pine	10	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5416	Pinus virginiana, Virginia Pine	8	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5417	Quercus rubra, Red Oak	5, 4	0.60	NO APPARENT BIOTIC ISSUES OBSERVED. CODOM AT ROOT CROWN.
5418	Pinus virginiana, Virginia Pine	5	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5419	Pinus virginiana, Virginia Pine	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5420	Pinus virginiana, Virginia Pine	9	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5421	Pinus virginiana, Virginia Pine	5	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. LOW CANOPY RATIO.
5422	Pinus virginiana, Virginia Pine	9	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5423	Pinus virginiana, Virginia Pine	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5424	Pinus virginiana, Virginia Pine	8	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING.
5425	Quercus rubra, Red Oak	22	0.64	NO APPARENT BIOTIC ISSUES OBSERVED.
5426	Pinus virginiana, Virginia Pine	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5427	Pinus virginiana, Virginia Pine	9	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5428	Pinus virginiana, Virginia Pine	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5429	Pinus virginiana, Virginia Pine	8	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5430	Pinus virginiana, Virginia Pine	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5431	Pinus virginiana, Virginia Pine	6	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5432	Pinus virginiana, Virginia Pine	4, 7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5433	Cornus florida, Flowering Dogwood	6	0.55	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING. DEADWOOD.
5434	Cornus florida, Flowering Dogwood	7	0.55	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM AT ROOT CROWN (3-STEM).
5435	Pinus virginiana, Virginia Pine	9	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5436	Pinus virginiana, Virginia Pine	10	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5437	Quercus alba, White Oak	23	0.65	NO APPARENT BIOTIC ISSUES OBSERVED. MATURE TREE.

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5438	Pinus virginiana, Virginia Pine	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5439	Quercus rubra, Red Oak	7, 6, 3	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5440	Pinus virginiana, Virginia Pine	9	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5441	Pinus virginiana, Virginia Pine	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5442	Pinus virginiana, Virginia Pine	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5701	Acer rubrum, Red Maple	7	0.45	UTILITY PRUNED.
5702	Quercus prinus, Chestnut Oak	7	0.53	UTILITY PRUNED.
5703	Quercus rubra, Red Oak	7	0.52	UTILITY PRUNED.
5704	Carya tomentosa, Mockernut Hickory	5	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5705	Quercus prinus, Chestnut Oak	8	0.56	NO APPARENT BIOTIC ISSUES OBSERVED.
5706	Fagus grandifolia, American Beech	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5707	Quercus alba, White Oak	12	0.56	NO APPARENT BIOTIC ISSUES OBSERVED.
5708	Acer rubrum, Red Maple	6	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5709	Liriodendron tulipifera, Yellow Poplar	13	0.59	NO APPARENT BIOTIC ISSUES OBSERVED.
5710	Liriodendron tulipifera, Yellow Poplar	13	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5711	Fagus grandifolia, American Beech	13	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5712	Liriodendron tulipifera, Yellow Poplar	10	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5713	Liriodendron tulipifera, Yellow Poplar	13	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
5714	Liriodendron tulipifera, Yellow Poplar	15	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
5715	Quercus rubra, Red Oak	11	0.53	UTILITY PRUNED.
5715A	Carya tomentosa, Mockernut Hickory	6	0.55	NO APPARENT BIOTIC ISSUES OBSERVED. UTILITY PRUNED.
5716	Carya tomentosa, Mockernut Hickory	8	0.55	NO APPARENT BIOTIC ISSUES OBSERVED.
5717	Populus alba, White Poplar	8	0.50	NO APPARENT BIOTIC ISSUES OBSERVED.
5718	Populus alba, White Poplar	7	0.53	NO APPARENT BIOTIC ISSUES OBSERVED.
5719	Populus alba, White Poplar	8	0.50	NO APPARENT BIOTIC ISSUES OBSERVED.
5720	Populus alba, White Poplar	7	0.52	NO APPARENT BIOTIC ISSUES OBSERVED.
5721	Pinus virginiana, Virginia Pine	14	0.58	NO APPARENT BIOTIC ISSUES. ASYMETRIC CANOPY.
*5722	Pinus virginiana, Virginia Pine	14	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5723	Liriodendron tulipifera, Yellow Poplar	13	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
5724	Carya tomentosa, Mockernut Hickory	8	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
*5725	Fagus grandifolia, American Beech	7	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
*5726	Carya tomentosa, Mockernut Hickory	8	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5727	Fagus grandifolia, American Beech	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5728	Pinus virginiana, Virginia Pine	11	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. LOW CANOPY RATIO.
*5729	Pinus virginiana, Virginia Pine	11	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. LOW CANOPY RATIO.
*5730	Carya tomentosa, Mockernut Hickory	8	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
*5731	Pinus virginiana, Virginia Pine	12	0.52	NO APPARENT BIOTIC ISSUES OBSERVED. ARCHED TRUNK STEM.
*5732	Fagus grandifolia, American Beech	17	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
*5733	Pinus virginiana, Virginia Pine	11	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. LOW CANOPY RATIO.
*5734	Liriodendron tulipifera, Yellow Poplar	9	0.25	TREE IN DECLINE.
*5735	Pinus virginiana, Virginia Pine	18	0.10	SEVERE VERTICLE TRUNK STEM CRACK. REMOVE THIS TREE.
*5736	Carya tomentosa, Mockernut Hickory	12	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
5737	Liriodendron tulipifera, Yellow Poplar	12	0.60	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
*5738	Acer rubrum, Red Maple	6	0.53	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
*5739	Pinus virginiana, Virginia Pine	12	0.53	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
*5740	Quercus prinus, Chestnut Oak	8	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5740A	Ilex opaca, American Holly	5	0.50	NO APPARENT BIOTIC ISSUES OBSERVED.
*5741	Fagus grandifolia, American Beech	7	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
*5742	Quercus prinus, Chestnut Oak	8	0.56	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
*5743	Carya tomentosa, Mockernut Hickory	14	0.56	NO SEVERE BIOTIC ISSUES OBSERVED. TRUNK CANKERS. TOPPED.
*5744	Liriodendron tulipifera, Yellow Poplar	24, 13	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
*5745	Quercus alba, White Oak	14	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5746	Quercus alba, White Oak	13	0.56	NO APPARENT BIOTIC ISSUES OBSERVED. DEADWOOD IN CANOPY.
*5747	Carya tomentosa, Mockernut Hickory	14	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5748	Pinus virginiana, Virginia Pine	14	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5749	Acer rubrum, Red Maple	6	0.40	NO APPARENT BIOTIC ISSUES OBSERVED. STORM DAMAGE. TOPPED.
*5750	Prunus serotina, Black Pine	8		NO APPARENT BIOTIC ISSUES OBSERVED. TWISTY TRUNK STEM.
*5751	Quercus alba, White Oak	19	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5752	Carya tomentosa, Mockernut Hickory	6	0.48	TREE SHOWS STRESS & DECLINE.
*5753	Liriodendron tulipifera, Yellow Poplar	8	0 -0.05	DECLINE, NECROSIS.
*5754	Liriodendron tulipifera, Yellow Poplar	13	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
*5755	Carya tomentosa, Mockernut Hickory	5	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
*5756	Platanus occidentalis, American Sycamore	12	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
*5757	Carya tomentosa, Mockernut Hickory	6	0.55	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5758	Populus alba, White Poplar	7	0.52	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
*5759	Populus alba, White Poplar	8	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5760	Carya tomentosa, Mockernut Hickory	7	0.56	NO APPARENT BIOTIC ISSUES OBSERVED.
5761	Fagus grandifolia, American Beech	17	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5762	Quercus prinus, Chestnut Oak	5	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5763	Liriodendron tulipifera, Yellow Poplar	19	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5764	Quercus rubra, Red Oak	11	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5765	Acer rubrum, Red Maple	10	0.50	TREE SHOWS EARLY EVIDENCE OF DECLINE.
5766	Acer rubrum, Red Maple	9	0 - 0.05	TREE IN DECLINE. NECROTIC W/ FUNGUS.
5767	Acer rubrum, Red Maple	10	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
5768	Acer rubrum, Red Maple	12	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
5769	Quercus rubra, Red Oak	10	0.50	UPPER CANOPY SHOWS DEADWOOD & DECLINE.
5770	Acer saccharinum, Silver Maple	9, 6, 9, 7, 8 (22)	0.55	NO SEVERE BIOTIC ISSUES OBSERVED. 5-CODOM STEMS (EXCLUDED).
5771	Quercus rubra, Red Oak	13	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5772	Quercus rubra, Red Oak	12	0.52	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING. DEADWOOD.
5773	Quercus rubra, Red Oak	12	0.50	NO SEVERE BIOTIC ISSUES OBSERVED. TOPPED. DEADWOOD.
5774	Liriodendron tulipifera, Yellow Poplar	10	0.57	NO SEVERE BIOTIC ISSUES OBSERVED. SLIGHT CAVITY AT ROOT CROWN.
5775	Quercus rubra, Red Oak	18	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5776	Quercus rubra, Red Oak	14	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5777	Quercus rubra, Red Oak	14	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5778	Acer saccharinum, Silver Maple	21	0.47	NO APPARENT BIOTIC ISSUES OBSERVED.
5779	Quercus rubra, Red Oak	11	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5780	Liriodendron tulipifera, Yellow Poplar	13	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. TWISTY TRUNK STEM. LOW/MODERATE CANOPY RATIO.
*5781	Acer rubrum, Red Maple	7, 5, 11, 11, 13, 15	0.48	NO APPARENT BIOTIC ISSUES OBSERVED. LOE UNION ANGLE (INCLUDED).
*5782	Liriodendron tulipifera, Yellow Poplar	13	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
*5783	Liriodendron tulipifera, Yellow Poplar	11	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5784	Liriodendron tulipifera, Yellow Poplar	20	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
*5785	Carya tomentosa, Mockernut Hickory	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
*5786	Populus alba, White Poplar	20	0.54	NO SEVERE BIOTIC ISSUES OBSERVED. TWISTY TRUNK STEM. DEADWOOD.
5787	Ilex opaca, American Holly	4, 5, 9	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
*5788	Liriodendron tulipifera, Yellow Poplar	10	0.54	NO APPARENT BIOTIC ISSUES OBSERVED. LOW CANOPY RATIO.
*5789	Paulownia tomentosa, Royal Paulownia	5	0.40	NO SEVERE BIOTIC ISSUES OBSERVED. POOR SCAFFOLD BRANCHING. LOW CANOPY RATIO.
*5790	Populus alba, White Poplar	18	0.40	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/POOR STRUCTURE. DEADWOOD.
5791	Liriodendron tulipifera, Yellow Poplar	14	0.59	NO APPARENT BIOTIC ISSUES OBSERVED.
5792	Liriodendron tulipifera, Yellow Poplar	7	0.52	NO APPARENT BIOTIC ISSUES OBSERVED. LOW CANOPY RATIO. FAIR/POOR SCAFFOLD BRAANCHING.
5793	Quercus rubra, Red Oak	36	0.64	NO APPARENT BIOTIC ISSUES OBSERVED.
5794	Liriodendron tulipifera, Yellow Poplar	14	0.64	NO APPARENT BIOTIC ISSUES OBSERVED.
5795	Liriodendron tulipifera, Yellow Poplar	10	0.53	NO APPARENT BIOTIC ISSUES OBSERVED. POOR SCAFFOLD BRANCHING.
5796	Ilex opaca, American Holly	9	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5797	Liriodendron tulipifera, Yellow Poplar	11	0.50	NO SEVERE BIOTIC ISSUES OBSERVED. POOR STRUCTURE.

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5798	Liriodendron tulipifera, Yellow Poplar	7	0.54	NO APPARENT BIOTIC ISSUES OBSERVED. FAIR/POOR STRUCTURE. LOW CANOPY RATIO.
5799	Liriodendron tulipifera, Yellow Poplar	16	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
5800	Quercus alba, White Oak	15	0.59	NO SEVERE BIOTIC ISSUES OBSERVED. DEADWOOD IN CANOPY.
5801	Liriodendron tulipifera, Yellow Poplar	6	0.00	NECROTIC
5802	Fagus grandifolia, American Beech	18	0.64	NO APPARENT BIOTIC ISSUES OBSERVED. INVASIVES.
5803	Prunus serotina, Black Pine	9	0.55	NO APPARENT BIOTIC ISSUES OBSERVED.
5804	Liriodendron tulipifera, Yellow Poplar	12	0.64	NO APPARENT BIOTIC ISSUES OBSERVED.
5805	Quercus prinus, Chestnut Oak	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5806	Liriodendron tulipifera, Yellow Poplar	11	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5807	Quercus prinus, Chestnut Oak	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED.
5808	Quercus rubra, Red Oak	17	0.53	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING. DEADWOOD.
5809	Quercus rubra, Red Oak	29	0.55	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING. DEADWOOD.
5810	Fagus grandifolia, American Beech	7	0.59	NO APPARENT BIOTIC ISSUES OBSERVED.
5811	Fagus grandifolia, American Beech	9	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5812	Acer rubrum, Red Maple	12	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5813	Fagus grandifolia, American Beech	7, 7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5814	Ilex opaca, American Holly	5	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5815	Fagus grandifolia, American Beech	7	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5816	Quercus rubra, Red Oak	24	0.60	NO APPARENT BIOTIC ISSUES OBSERVED. SLIGHT DEADWOOD.
5817	Quercus rubra, Red Oak	15	0.53	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING.
5818	Quercus rubra, Red Oak	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5819	Quercus rubra, Red Oak	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5820	Quercus rubra, Red Oak	23	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5821	Quercus rubra, Red Oak	15	0.55	NO SEVERE BIOTIC ISSUES OBSERVED. CANOPY STORM DAMAGE.
5822	Quercus rubra, Red Oak	8	0.43	NO SEVERE BIOTIC ISSUES OBSERVED. TOPPED.
5823	Quercus alba, White Oak	19	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5824	Quercus rubra, Red Oak	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5825	Quercus rubra, Red Oak	5	0.55	NO APPARENT BIOTIC ISSUES OBSERVED. FAIR/GOOD SCAFFOLD BRANCHING.
5826	Quercus alba, White Oak	9, 19	0.53	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5827	Quercus alba, White Oak	5	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5828	Quercus alba, White Oak	5	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.

* = TREE TO BE PRESERVED
(ALL OTHERS TO BE REMOVED)

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
1ST SUBMISSION	11/22/2019

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
PETER L. RINEK
Lic. No. 388
02/07/2020
LANDSCAPE ARCHITECT

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

TREE SURVEY INVENTORY

DRAWN BY:	PNN
DESIGNED BY:	NPK
DATE ISSUED:	JANUARY 20, 2020
DWG. SCALE:	1"=20'-0"
VIKA JOB NO.	VV7583C
SHEET NO.	C-03B

FILE: Q:\Projects\7583\7583C\CADD\PLANNING DRAWINGS\7583C TREE SURVEY INVENTORY.dwg USER: Richardson DATE: Apr, 14 2020 TIME: 08:05 am

LAYOUT: C-03B TREE SURVEY INVENTORY, Plotted By: Richardson

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5829	Acer rubrum, Red Maple	6, 10	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5830	Fagus grandifolia, American Beech	10	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5831	Liriodendron tulipifera, Yellow Poplar	10	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5832	Liriodendron tulipifera, Yellow Poplar	14	0.50	NO SEVERE BIOTIC ISSUES OBSERVED. INVASIVE POISON IVY.
5833	Liriodendron tulipifera, Yellow Poplar	13	0.63	NO APPARENT BIOTIC ISSUES OBSERVED.
5834	Liriodendron tulipifera, Yellow Poplar	11	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5835	Liriodendron tulipifera, Yellow Poplar	8	0.64	NO APPARENT BIOTIC ISSUES OBSERVED.
5836	Acer rubrum, Red Maple	12, 12, 7	0.56	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM (3-STEMS).
5837	Liriodendron tulipifera, Yellow Poplar	11	0.50	NO SEVERE BIOTIC ISSUES OBSERVED. INVASIVE POISON IVY FROMGRADE TO CANOPY.
5838	Liriodendron tulipifera, Yellow Poplar	9	0.58	NO APPARENT BIOTIC ISSUES OBSERVED.
5839	Liriodendron tulipifera, Yellow Poplar	12	0.50	NO SEVERE BIOTIC ISSUES OBSERVED. INVASIVE ENGLISH IVY FROM GRADE TO CANOPY.
5840	Liriodendron tulipifera, Yellow Poplar	12, 12	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5840A	Liriodendron tulipifera, Yellow Poplar	12	0.40	SEVERE INVASIVE ENGLISH IVY & POISON IVY FROM GRADE TO UPPER CANOPY.
5841	Carya tomentosa, Mockernut Hickory	8	0.42	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/POOR CANOPY RATIO & SCAFFOLD BRANCHING.
5842	Acer saccharinum, Silver Maple	9, 9, 9	0.52	CODOM AT ROOT CROWN (INCLUDED). OPEN CAVITY.
5843	Quercus rubra, Red Oak	9	0.55	NO SEVERE BIOTIC ISSUES OBSERVED.
5844	Ilex opaca, American Holly	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5845	Ilex opaca, American Holly	13	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5846	Ilex opaca, American Holly	5, 6 (11)	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. CODOM AT 1 VF.
5847	Ilex opaca, American Holly	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5848	Ilex opaca, American Holly	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5849	Ilex opaca, American Holly	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5850	Ilex opaca, American Holly	6	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5851	Quercus rubra, Red Oak	10	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5852	Quercus rubra, Red Oak	10	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5853	Quercus rubra, Red Oak	8	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5854	Ilex opaca, American Holly	9	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5855	Ilex opaca, American Holly	14	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5856	Ilex opaca, American Holly	8	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5857	Liriodendron tulipifera, Yellow Poplar	10	0.56	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5858	Liriodendron tulipifera, Yellow Poplar	16	0.54	NO SEVER BIOTIC ISSUES OBSERVED. STORM DAMAGED TOPPED.
5859	Liriodendron tulipifera, Yellow Poplar	10	0.52	NO SEVER BIOTIC ISSUES OBSERVED. FAIR/GOOD STRUCTURE. ASYMETRIC CANOPY.

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5860	Liriodendron tulipifera, Yellow Poplar	9	0.57	NO APPARENT BIOTIC ISSUES OBSERVED.
5861	Liriodendron tulipifera, Yellow Poplar	8	0.53	NO SEVERE BIOTIC ISSUES OBSERVED. FAIR/GOOD STRUCTURE. ASYMETRIC CANOPY.
5862	Liriodendron tulipifera, Yellow Poplar	7	0.53	NO APPARENT BIOTIC ISSUES OBSERVED. FAIR/POOR SCAFFOLD BRANCHING & CANOPY RATIO.
5863	Liriodendron tulipifera, Yellow Poplar	13	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ~10° LEAN.
5864	Carya tomentosa, Mockernut Hickory	11	0.52	NO SEVERE BIOTIC ISSUES OBSERVED. FRIR/POOR CANOPY RATIO. STORM DAMAGE.
5865	Quercus rubra, Red Oak	7	0.54	NO APPARENT BIOTIC ISSUES OBSERVED. FAIR/POOR SCAFFOLD BRANCHING & CANOPY RATIO.
5866	Acer rubrum, Red Maple	9, 11, 12, 12	0.55	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM (4-STEMS). STORM DAMAGE.
5867	Acer rubrum, Red Maple	15	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5868	Acer rubrum, Red Maple	8	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. CODOM STEMS AT ~2.0 VF.
5869	Liriodendron tulipifera, Yellow Poplar	12	0.53	NO APPARENT BIOTIC ISSUES OBSERVED.
5870	Acer rubrum, Red Maple	6, 8	0.15	TREE IN DECLINE W/ DEADWOOD.
5871	Liriodendron tulipifera, Yellow Poplar	8	0.54	NO APPARENT BIOTIC ISSUES OBSERVED. FAIR/POOR STRUCTURE.
5872	Liriodendron tulipifera, Yellow Poplar	9	0.54	NO SEVERE BIOTIC ISSUES OBSERVED. TRUNK STEM W/ VERTICLE SEAM.
5873	Liriodendron tulipifera, Yellow Poplar	13	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5874	Quercus rubra, Red Oak	20	0.60	NO APPARENT BIOTIC ISSUES OBSERVED. MATURE TREE.
5875	Quercus alba, White Oak	23	0.63	NO APPARENT BIOTIC ISSUES OBSERVED. MATURE TREE.
5876	Quercus alba, White Oak	15	0.58	NO APPARENT BIOTIC ISSUES OBSERVED. TWISTY UPPER TRUNK STEM. OPEN CAVITY AT ROOT CROWN.
5877	Fagus grandifolia, American Beech	6	0.65	NO APPARENT BIOTIC ISSUES OBSERVED.
5878	Fagus grandifolia, American Beech	8	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5879	Quercus alba, White Oak	10	0.40	NO SEVER BIOTIC ISSUES OBSERVED. FAIR/POOR SCAFFOLD BRANCHING. DEADWOOD.
5880	Quercus rubra, Red Oak	31	0.68	NO APPARENT BIOTIC ISSUES OBSERVED.
5881	Quercus alba, White Oak	9	0.57	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5882	Quercus rubra, Red Oak	8	0.52	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY. TWISTY TRUNK STEM.
5883	Quercus alba, White Oak	8	0.57	NO APPARENT BIOTIC ISSUES OBSERVED. TWISTY TRUNK STEM.
5884	Fagus grandifolia, American Beech	8	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5885	Fagus grandifolia, American Beech	7	0.62	NO APPARENT BIOTIC ISSUES OBSERVED.
5886	Quercus rubra, Red Oak	5	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5887	Pinus virginiana, Virginia Pine	6	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. TWISTY CANOPY.
5888	Quercus rubra, Red Oak	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED. CODOM TRUNK STEMS AT ~3VF.
5889	Pinus virginiana, Virginia Pine	7	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5890	Pinus virginiana, Virginia Pine	5	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.

3500 PICKETT ROAD				January 29, 2020
TREE NO.	**Species**	**Size (dbh In)**	**Condition**	**Observations**
5891	Pinus virginiana, Virginia Pine	8	0.59	NO APPARENT BIOTIC ISSUES OBSERVED. ASYMETRIC CANOPY.
5892	Quercus rubra, Red Oak	6	0.58	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM (3-STEMS).
5893	Pinus virginiana, Virginia Pine	7	0.57	NO APPARENT BIOTIC ISSUES OBSERVED. UTILITY PRUNED.
5894	Pinus virginiana, Virginia Pine	6	0.56	NO APPARENT BIOTIC ISSUES OBSERVED. TOPPED.
5895	Pinus virginiana, Virginia Pine	5	0.57	NO APPARENT BIOTIC ISSUES OBSERVED. UTILITY PRUNED.
5896	Pinus virginiana, Virginia Pine	5	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5897	Pinus virginiana, Virginia Pine	5	0.56	NO APPARENT BIOTIC ISSUES OBSERVED. TOPPED.
5898	Cornus florida, Flowering Dogwood	7	0.25	TREE SHOWS STRESS & DECLINE.
5899	Cornus florida, Flowering Dogwood	8	0.60	NO APPARENT BIOTIC ISSUES OBSERVED.
5900	Cornus florida, Flowering Dogwood	3, 4, 4, 4	0.52	NO SEVERE BIOTIC ISSUES OBSERVED. CODOM (4-STEMS: INCLUDED & EXCLUDED. TREE W/ EXPOSED ROOT ZONES.

CRZ =Critical Root Zone (1 foot of radius per inch of tree diameter). CRZ for trees with multiple stems are calculated based on the diameter of a tree with the basal area equal to the sum of the basal areas for all stems measured.

Conditions Ratings are provided as percentages and are based on methods outlined in the "Guide for Plant Appraisal", 9th edition, published by the International Socielty of Arboriculture.

\\VA-PROJECTS2.vika.com\projects\Projects\7583\7583C\DATA\Landscape & Trees\[EX TREE INVENTORY.xlsx]Sheet1

* = TREE TO BE PRESERVED
(ALL OTHERS TO BE REMOVED)

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS

REVISIONS	DATE
1ST SUBMISSION	11/22/2019

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
PETER L. RINEK
Lic. No. 388
02/07/2020
LANDSCAPE ARCHITECT

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

TREE SURVEY INVENTORY

DRAWN BY:	PNN
DESIGNED BY:	NPK
DATE ISSUED:	JANUARY 20, 2020
DWG. SCALE:	1"=20'-0"
VIKA JOB NO.	VV7583C
SHEET NO.	C-03C

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C TREE SURVEY INVENTORY.dwg USER:Richardson DATE: Apr, 14 2020 TIME: 08:05 am

LAYOUT: C-03C TREE SURVEY INVENTORY, Plotted By: Richardson

GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)
1 inch = 500 ft.

VA STATE
GRID NORTH
(VSC 83)

LAYOUT: C-04 CONTEXT MAP, Plotted By: Richardson

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

CONTEXT MAP

DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-04

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C CONTEXT MAP.dwg USER: Richardson DATE: February 7, 2020 TIME: 12:02:20 PM

ENTITLEMENT NOTES

1. THE SUBJECT PROPERTY IS IDENTIFIED ON THE CITY OF FAIRFAX, VIRGINIA TAX MAP AS #58-1-02-021 AND IS ZONED RL. THE PURPOSE OF THIS APPLICATION IS TO REZONE THE PROPERTY FROM RL, TO PD-R, AND TO DEVELOP THE PROPERTY AS SHOWN ON THIS APPLICATION.
2. THE PROPERTY SHOWN HEREIN IS RECORDED IN DEED BOOK 26110 AT PAGE 84 AMONG THE LAND RECORDS OF FAIRFAX COUNTY
3. THE PROPERTY IS LOCATED IN ZONE "X" (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN) AS SHOWN ON FLOOD INSURANCE RATE MAP(FIRM) COMMUNITY PANEL NUMBER 5155524 00030 D, FOR FAIRFAX COUNTY, VIRGINIA DATED JUNE 2, 2006.
4. THE BOUNDARY INFORMATION WAS PREPARED BY VIKA VIRGINIA, LLC. SEE EXISTING CONDITION SOURCE NOTES ON SHEET C-02.
5. THE HORIZONTAL DATUM IS BASED ON A FIELD RUN TRAVERSE PERFORMED BY VIKA, INC.
6. THE TOPOGRAPHY SHOWN HEREON WAS FIELD VERIFIED BY VIKA VIRGINIA, LLC. THE VERTICAL DATUM IS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) AND GIS TOPOGRAPHY. THE CONTOUR INTERVAL IS TWO (2) FEET. SEE EXISTING CONDITION SOURCE NOTES ON SHEET C-02.
7. THERE ARE NO AREAS OF ENCROACHMENTS INTO MAJOR FLOODPLAINS OR RESOURCE PROTECTION AREAS (RPA) ON THIS SITE. THIS SITE IS IN A RESOURCE MANAGEMENT AREA (RMA). SEE EXISTING CONDITION SOURCE NOTES ON SHEET C-02.
8. STORM WATER MANAGEMENT AND BMP FACILITIES FOR THE PROPOSED DEVELOPMENT WILL BE PROVIDED ON SITE IN SEVERAL LOCATIONS AS SHOWN ON THE STORMWATER MANAGEMENT SHEETS.
9. PUBLIC WATER AND SANITARY SEWER ARE AVAILABLE AND WILL BE EXTENDED TO SERVE THE DEVELOPMENT.
10. THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH OF TWENTY FIVE (25) FEET OR MORE. THERE ARE NO MAJOR UNDERGROUND UTILITY EASEMENTS LOCATED ON THIS SITE.
11. TO THE BEST OF OUR KNOWLEDGE, NO GRAVE SITES OR STRUCTURES MARKING A BURIAL SITE ARE PRESENT ON THE SUBJECT SITE.
12. THE PROPOSED DEVELOPMENT ON THE SUBJECT PROPERTY WILL NOT POSE ANY ADVERSE EFFECT ON ADJACENT OR NEIGHBORING PROPERTIES.
13. THERE ARE NO EXISTING RESIDENTIAL STRUCTURES ON THE SUBJECT APPLICATION.
14. THE DEVELOPMENT PROPOSED WITH THIS APPLICATION CONFORMS TO THE PROVISIONS OF ALL APPLICABLE STANDARDS WITH THE EXCEPTION OF WAIVERS AND MODIFICATIONS REQUESTED ON SHEET C-01.
15. DEVELOPMENT WILL COMMENCE UPON COMPLETION OF ALL REQUIRED CITY OF FAIRFAX. PLAN PROCESSING AND APPROVALS. ADDITIONALLY, THE TIMING AND SEQUENCE OF THE DEVELOPMENT REMAINS SUBJECT TO CHANGE DUE TO PROPERTY/REAL ESTATE MARKET CONDITIONS.
16. ANY HAZARDOUS OR TOXIC SUBSTANCES--AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS, PARTS 116.4, 302.4 AND 355; ALL HAZARDOUS WASTE--AS SET FORTH IN VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280; TO BE GENERATED, UTILIZED, STORED, TREATED AND/OR DISPOSED OF ON SITE WILL BE HANDLED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. THE APPLICANT IS NOT AWARE OF ANY EXISTING OR PROPOSED UNDERGROUND STORAGE TANKS OR CONTAINERS.
17. SIGNAGE WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF THE ZONING ORDINANCE.
18. ALL PRIVATE STREETS SHALL BE DESIGNED TO MEET ZONING ORDINANCE, SUBDIVISION ORDINANCE AND PFM CRITERIA UNLESS MODIFIED. THE DESIGN SPEED SHALL BE DETERMINED WITH THE SITE PLAN. PRIVATE STREETS SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER(S) OR A COMMON OWNERS ASSOCIATION.
19. THE MASTER DEVELOPMENT PLAN SHOWS THE PROPOSED SUBDIVISION ALTHOUGH THE SUBJECT PROPERTY MAY BE SUBDIVIDED IN THE FUTURE FOR AS BUILT ERRORS ETC. FOR THE PURPOSE OF SALE, JOINT VENTURE, OR PHASING. ANY PROPOSED SUBDIVISION SHOWN ON THIS APPLICATION MAY BE MODIFIED ADMINISTRATIVELY BY THE CITY OF FAIRFAX.
20. BUILDING FOOTPRINTS, GARAGES AND ROADS SHOWN HEREON MAY BE ALTERED, MOVED AND INCREASED OR DECREASED IN SIZE OR QUANTITY WITH FUTURE MASTER DEVELOPMENT AMENDMENTS WITHOUT THE NEED TO AMEND THE MASTER DEVELOPMENT PLAN PROVIDED THAT THE MINIMUM AND MAXIMUM DEVELOPMENT TABULATIONS SHOWN HEREON ARE MAINTAINED.
21. ACCESSORY FEATURES AND USES AS IDENTIFIED MAY BE PROVIDED WITHOUT REQUIRING MODIFICATION OF THE MASTER DEVELOPMENT PLAN. THESE FEATURES AND USES MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

    A. CORNICES, CANOPIES, AWNINGS, EAVES AND OTHER SIMILAR FEATURES.
    B. OPEN FIRE BALCONIES, FIRE ESCAPES, UNCOVERED STAIRS AND STOOPS.
    C. AIR CONDITIONERS, HEAT PUMPS, COMPRESSORS, EMERGENCY GENERATORS, TRANSFORMERS AND OTHER SIMILAR UTILITY EQUIPMENT.
    D. BAY WINDOWS, ORIELS AND CHIMNEYS.
    E. ACCESSIBILITY IMPROVEMENTS AND LAY-BY PARKING SPACE IN FRONT OF THE PROPOSED BUILDINGS.
    F. OUTDOOR DECKS/PATIOS NOT OVER THREE (3) FEET IN HEIGHT ABOVE THE FINISHED GRADE.
    G. ACCESSORY STRUCTURES
    H. FLAG POLES
    I. FENCES
    J. DECORATIVE WALLS FOR LANDSCAPING NOT OVER THREE (3) FEET IN HEIGHT ABOVE THE FINISHED GRADE.
22. FINAL ENGINEERED SITE PLAN(S) AND ARCHITECTURAL DESIGN(S) ARE SUBJECT TO THE MINOR MODIFICATIONS SO LONG AS THE CHANGES ARE DEEMED TO BE IN SUBSTANTIAL CONFORMANCE WITH THE SUBJECT PLAN AS DETERMINED BY THE ZONING ADMINISTRATOR.
23. THE EXACT LOCATION, SHAPE AND SIZE OF THE PROPOSED BUILDING(S), PARKING STRUCTURE(S) AND/OR ROADS SHOWN ON THIS APPLICATION ARE SUBJECT TO ADJUSTMENT AND REFINEMENT WITH FINAL ENGINEERED SITE PLAN(S).
24. FINAL LIMITS OF CLEARING AND GRADING SHALL BE DETERMINED AT TIME OF FINAL ENGINEERED SITE PLAN(S). LIMITS OF CLEARING AND GRADING MAY NOT NECESSARILY INCLUDE WORK WITHIN THE RIGHT-OF-WAY, IF SEPARATE PUBLIC IMPROVEMENT(PI) PLAN(S) HAVE BEEN SUBMITTED. RETAINING WALL LOCATIONS AND HEIGHT LIMITS SHALL BE DETERMINED AT ENGINEERED SITE PLAN(S).
25. LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH THE Z.O. UNLESS MODIFIED OR WAIVED. LANDSCAPED OPEN SPACE AREAS SHOWN HEREON MAY BE MODIFIED AND FURTHER REFINED, IN CONFORMANCE WITH ASSOCIATED COMMITMENTS, AT THE TIME OF FINAL ENGINEERED SITE PLAN(S). THE QUANTITIES, LEVEL OF QUALITY AND GENERAL CHARACTER WILL REMAIN CONSISTENT WITH THAT SHOWN HEREON AND AS SET FORTH IN THE COMMITMENTS.
26. THE NUMBER OF PARKING SPACES PROVIDED HEREON WILL BE ADJUSTED AT FINAL ENGINEERED SITE PLAN(S) BASED ON THE ACTUAL AMOUNT OF UNITS PROVIDED. THE APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF PARKING SPACES AT THE TIME OF FINAL ENGINEERED SITE PLAN(S) PROVIDED THE QUANTITY OF SPACES IS IN ACCORDANCE WITH THE Z.O.
27. THE GRADING AND UTILITIES SHOWN HEREON MAY BE REFINED AT TIME OF FINAL ENGINEERED SITE PLAN(S).
28. THE LOCATION AND TYPE OF SIDEWALK AND TRAILS SHOWN HEREON MAY BE REFINED AT TIME OF FINAL ENGINEERED SITE PLAN(S) SUBJECT TO THE CITY OF FAIRFAX, VDOT AND/OR FCDOT APPROVAL.
29. ELECTRICAL TRANSFORMER, VAULT AND SWITCH LOCATIONS AND DESIGNS MAY BE REFINED AT TIME OF FINAL ENGINEERED SITE PLAN(S).
30. WE RESERVE THE RIGHT TO ADD ADDITIONAL RETAINING WALLS UP TO 5' IN HEIGHT AS NEEDED AT FINAL SITE / SUBDIVISION PLAN.
31. EXISTING TRAIL EASEMENT ON SITE AT SOUTHERN BOUNDARY TO BE VACATED. SEE SHEET C-13.

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

TABULATIONS AND NOTES

DRAWN BY:	RYM/PLR
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-05

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C NOTES.dwg USER: Richardson DATE: April 14, 2020 TIME: 7:38:49 AM

LEGEND

- EXISTING TREES
- PRIVACY FENCE (OPTIONAL)
- RETAINING WALL
- PROPERTY LINE
- FIRE TRUCK ACCESS
- LIMITS OF CLEARING AND GRADING (EXCEPT FOR HAND GRADING AREA ON NORTHERN PROPERTY LINE AS SHOWN. TREES TO BE PRESERVED) SEE SHEET C-14A.

DEVELOPMENT TABULATIONS OVERALL

SITE AREA	**160,993 SF OR 3.694 AC.**
EXISING ZONE	**RL**
PROPOSED ZONE	**PD-R "Comprehensive Plan Amendment from Social and Civil Network to Townhouse/ Single-Family Attached Neighborhood"**
PROPOSED UNITS	**50 TOWNHOUSES**
DENSITY (50/3.960 AC)	**13.53 DU/AC.**
UNIT (SEE SHEET A-2)	**TYPE A - 16' X 38' REAR LOAD TYPE B - 20' X 38' REAR LOAD TYPE C - 24' X 40' FRONT LOAD**
LOT AREA	**TYPE A - INTERIOR 768 SF TYPE B - INTERIOR 960 SF; 1,104 SF TYPE C - INTERIOR 1704 SF; 1,917 SF**
PROPOSED YARDS (FT.)	
FRONT	**3' - 16'**
SIDE (STREET)	**3' - 6.5'**
SIDE (INTERIOR)	**0'**
REAR	**5'-15'**
LOT WIDTH (FT)	
INTERIOR LOTS	**16' - 20'**
CORNER LOTS	**24' - 30.5'**
HEIGHT, MAXIMUM	**45'**
BUILDING COVERAGE	**24%**
LOT COVERAGE	**47%**

RECREATION & OPEN SPACE (REFER TO SHEET L-05)

PARKING TABULATIONS

TOWNHOMES:	**50 UNITS**		
PARKING REQUIRED	**2 / UNIT**	**(50 x 2)**	**= 100 SPACES**
PARKING PROVIDED (SEE SHEET A-2)			
GARAGE PARKING			
TYPE A 24' X 40'	**2 IN GARAGE/2 DRIVEWAY**	**(25 x 2)**	**= 50 SPACES**
TYPE B 20' X 38'	**2 IN GARAGE**	**(20 x 2)**	**= 40 SPACES**
TYPE C 16' X 38'	**2 IN GARAGE(TANDEM)**	**(5 x 2)**	**= 10 SPACES**
TOTAL GARAGE PARKING			**100 SPACES**
STREET PARKING			**20 SPACES**
DRIVEWAY PARKING			**25 SPACES**
TOTAL PARKING PROVIDED:			**145 SPACES 2.9 SP/UNIT**

YARD DIMENSIONS

TOWNHOUSE	Front (Min.)	Rear (Min.)	Side (Min.)
TYPE A	16'	15'	3' end
TYPE B	3'	5'	3' end
TYPE C	3'	5'	0

*UNLESS NOTED ON PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD

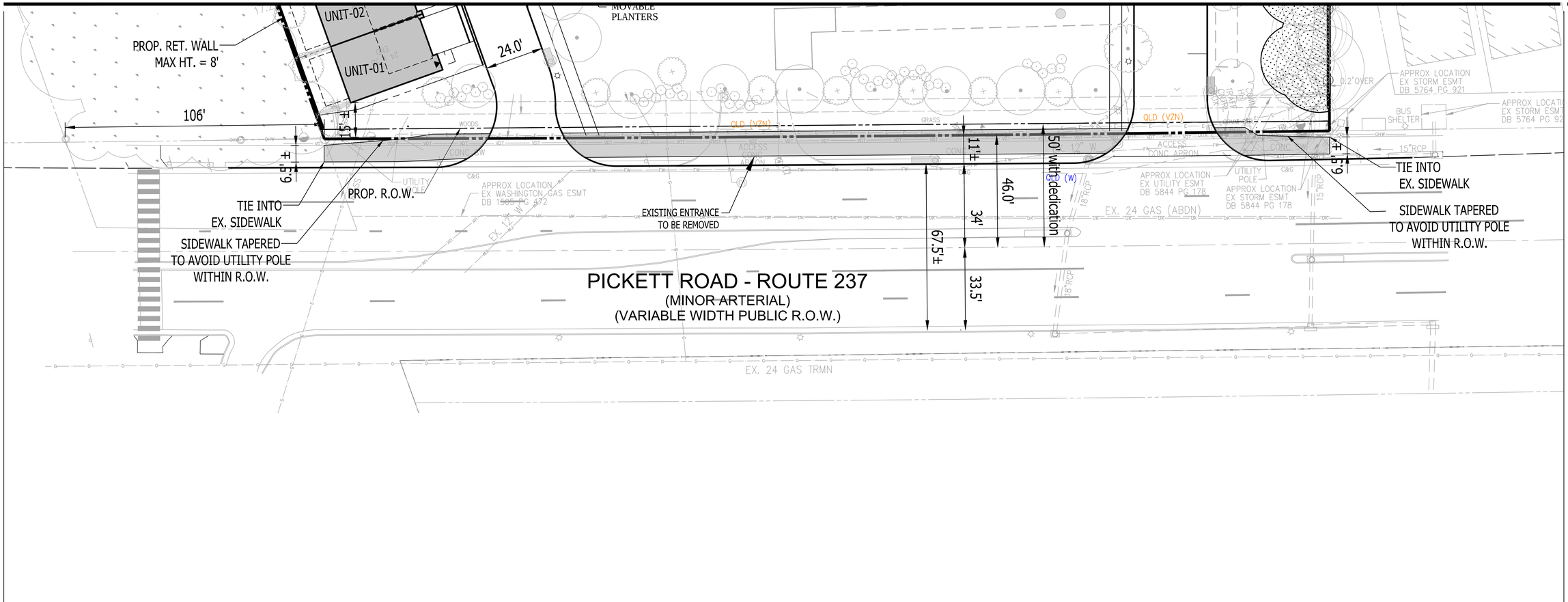
CITY OF FAIRFAX, VIRGINIA

MASTER DEVELOPMENT PLAN

DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-06

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C REZONING PLAN.dwg USER: rinek DATE: April 14, 2020 TIME: 3:28:12 PM

LAYOUT: C-06 MASTER DEVELOPMENT PLAN, Plotted By: rinek



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

VA STATE
GRID NORTH
(VSC 83)

LAYOUT: C-07 ROAD EXHIBIT, Plotted By: rinek

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

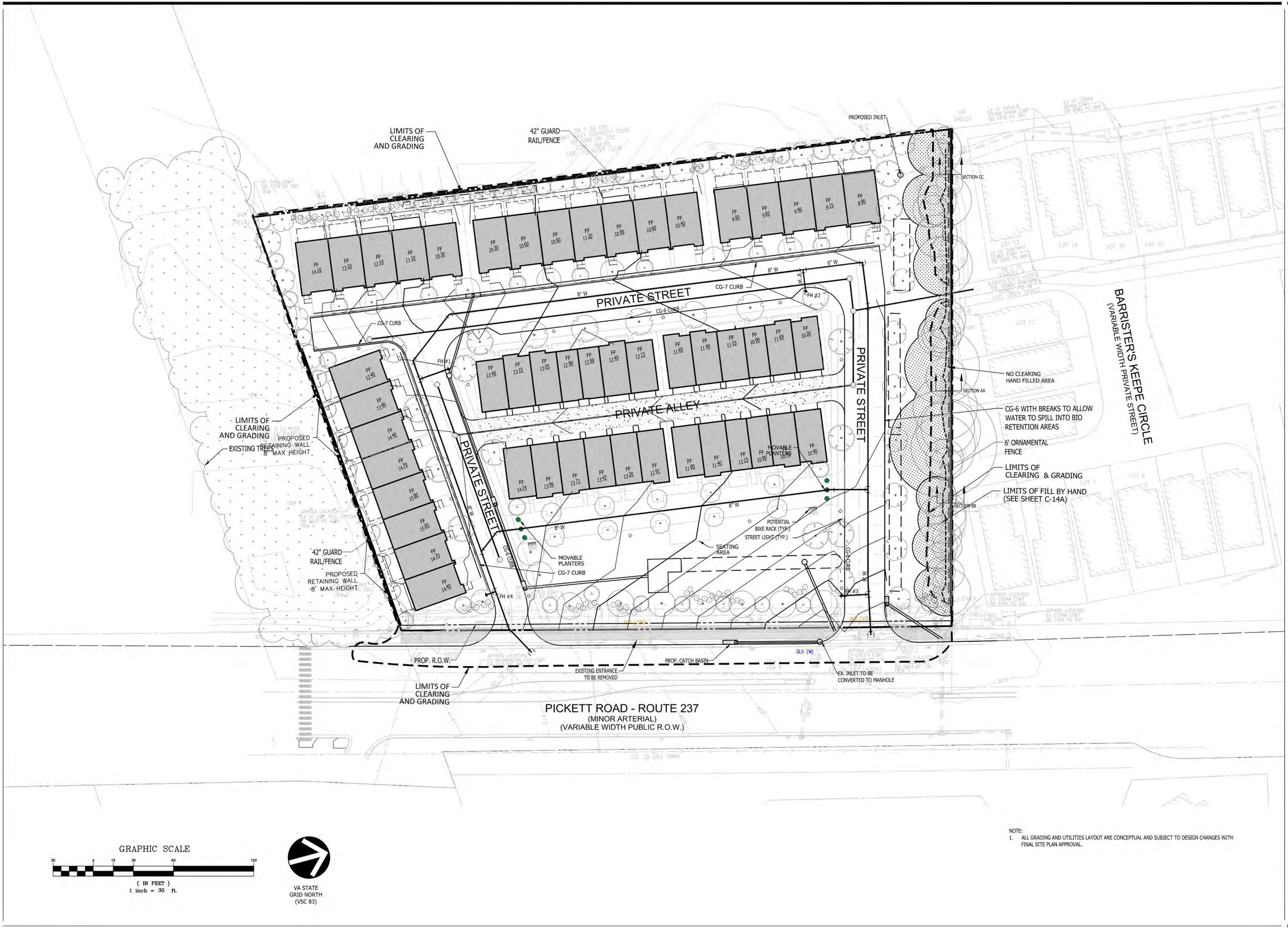
3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

ROAD EXHIBIT

DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-07

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C ROAD EXHIBIT.dwg USER: rinek DATE: April 15, 2020 TIME: 11:07:24 AM



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

NOTE:

1. ALL GRADING AND UTILITIES LAYOUT ARE CONCEPTUAL AND SUBJECT TO DESIGN CHANGES WITH FINAL SITE PLAN APPROVAL.

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD

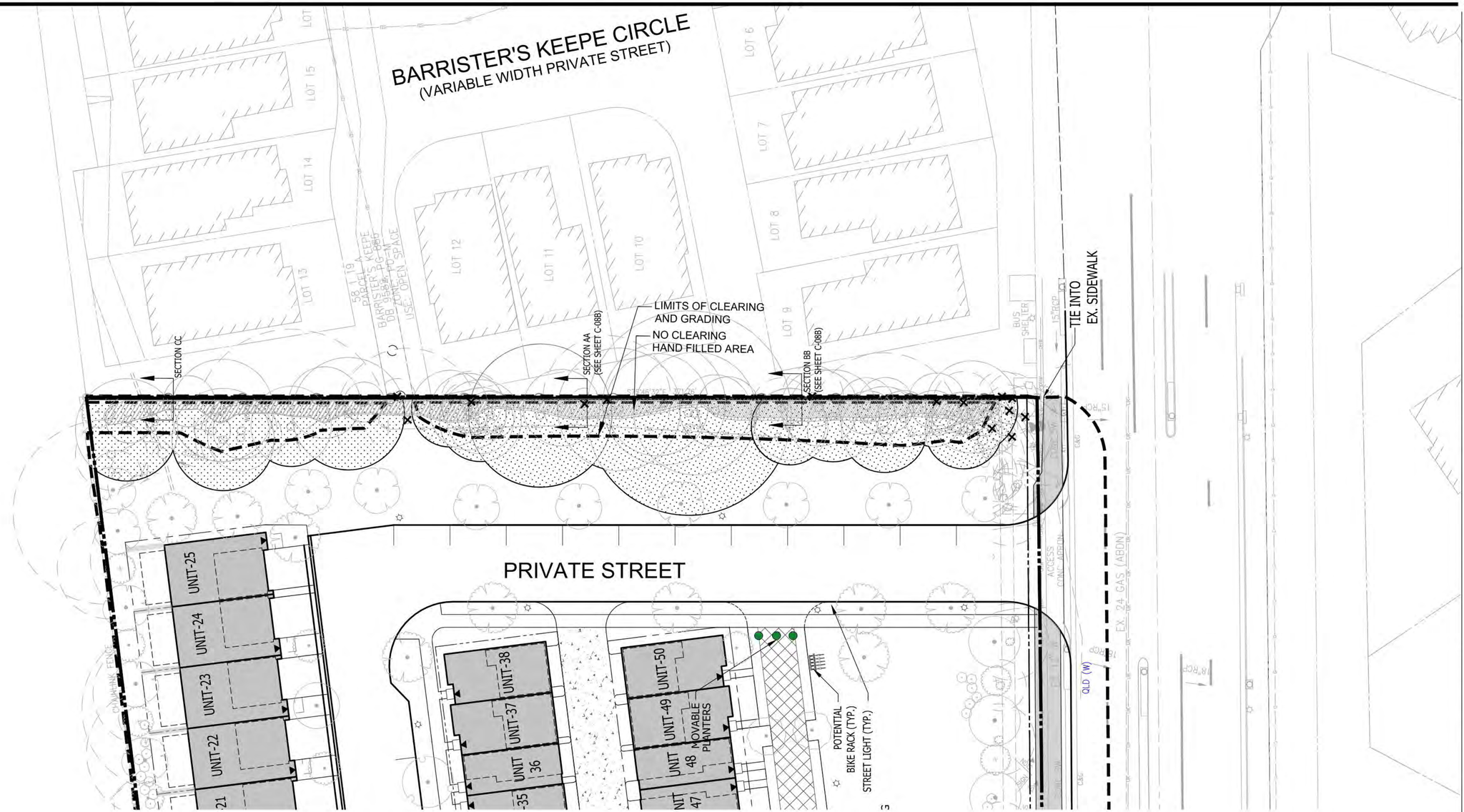
CITY OF FAIRFAX, VIRGINIA

FUNCTIONAL UTILITY AND GRADING

DRAWN BY:	
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-08

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C FUNCTIONAL UTILITY & GRADING.dwg USER: Richardson DATE: April 7, 2020 TIME: 9:51:00 AM

LAYOUT: C-09 FUNCTIONAL UTILITY AND GRADING, Plotted By: Richardson



LEGEND

NO CLEARING - HAND FILLED AREA

TREE TO BE REMOVED

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

VA STATE
GRID NORTH
(VSC 83)

LAYOUT: C-08A OPEN SPACE SWALE EXHIBIT, Plotted By: Richardson

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD

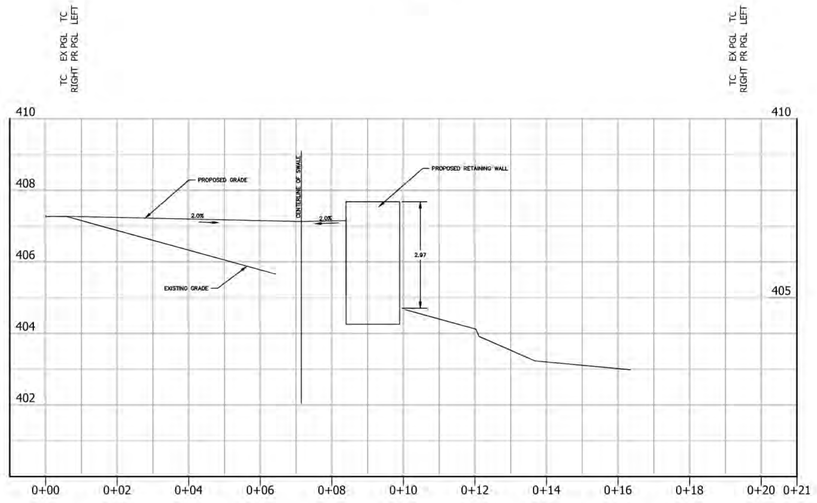
CITY OF FAIRFAX, VIRGINIA

OPEN SPACE SWALE EXHIBIT

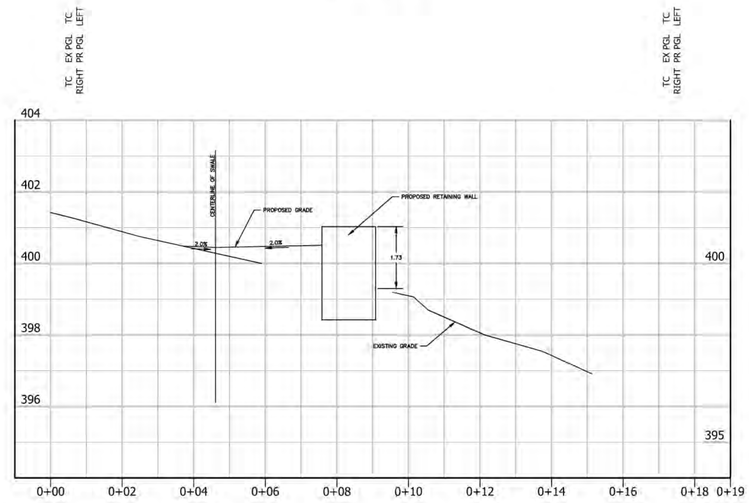
DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-08A

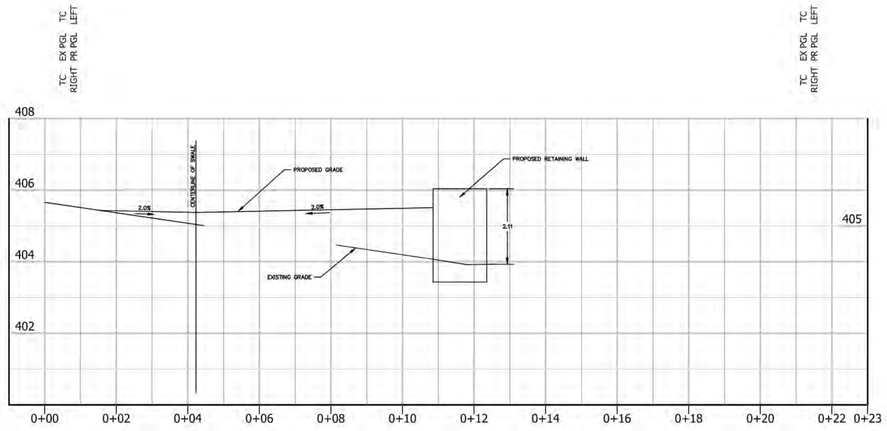
FILE: O:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SWALE EXHIBIT.dwg USER: rinek DATE: April 8, 2020 TIME: 10:41:51 AM

SECTION AA



SECTION CC





GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

VA STATE
GRID NORTH
(VSC 83)

NOTE:
1. ALL GRADING AND UTILITIES LAYOUT ARE CONCEPTUAL AND SUBJECT TO DESIGN CHANGES WITH FINAL SITE PLAN APPROVAL.

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD

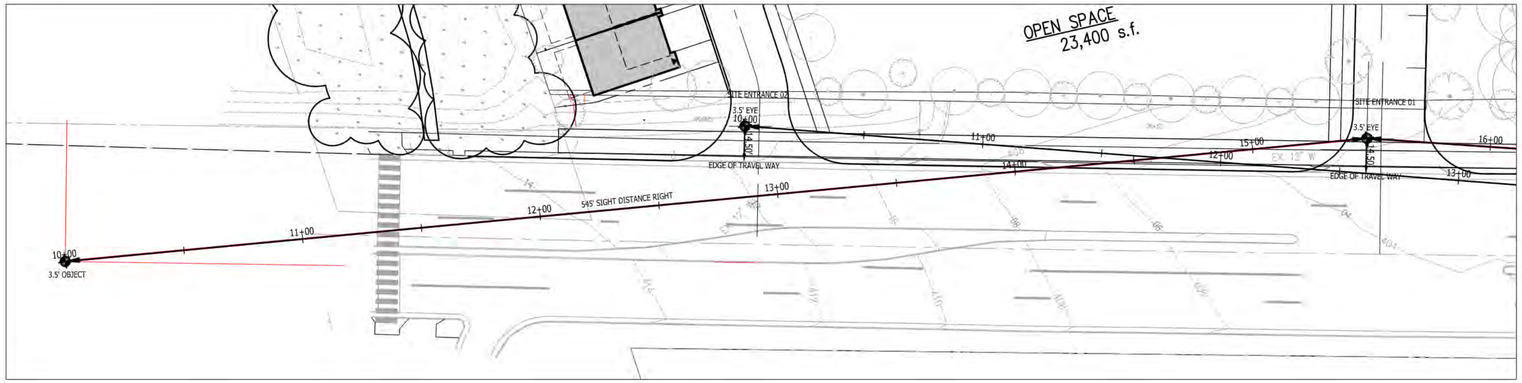
CITY OF FAIRFAX, VIRGINIA

SWALE SECTIONS

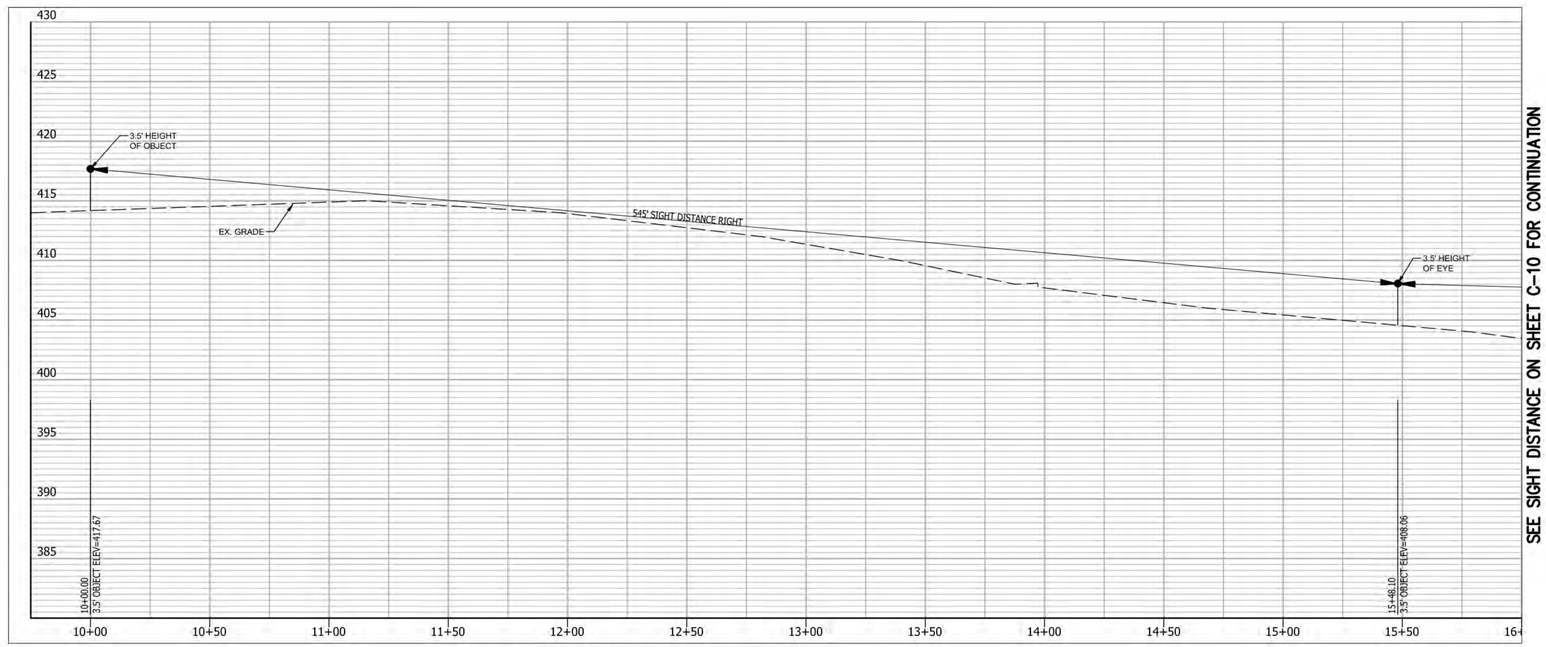
DRAWN BY:	
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-08B

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C FUNCTIONAL UTILITY & GRADING.dwg USER: Richardson DATE: April 7, 2020 TIME: 9:51:00 AM

LAYOUT: SWALE SECTIONS, Plotted By: Richardson



PICKETT ROAD
(DESIGN SPEED = 40 MPH)
(POSTED SPEED = 35 MPH)



545' SIGHT DISTANCE RIGHT – NORTHERN ENTRANCE
(PER 40 MPH DESIGN SPEED)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VA STATE
GRID NORTH
(VSC 83)

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT B. COCHRAN
Lic. No. 2012
LAND SURVEYOR

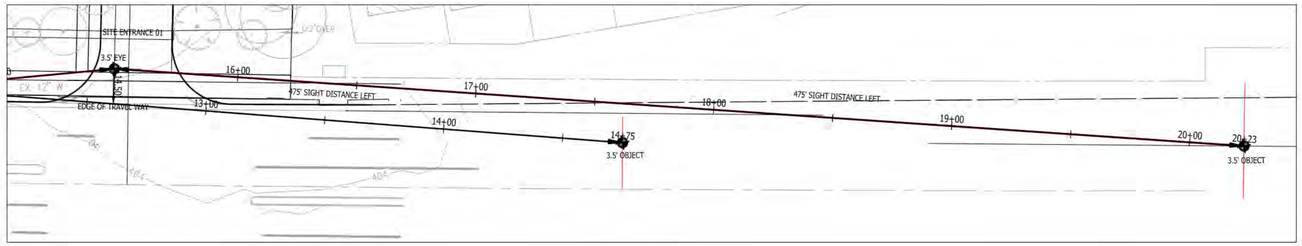
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

SIGHT DISTANCE RIGHT- NORTHERN ENTRANCE

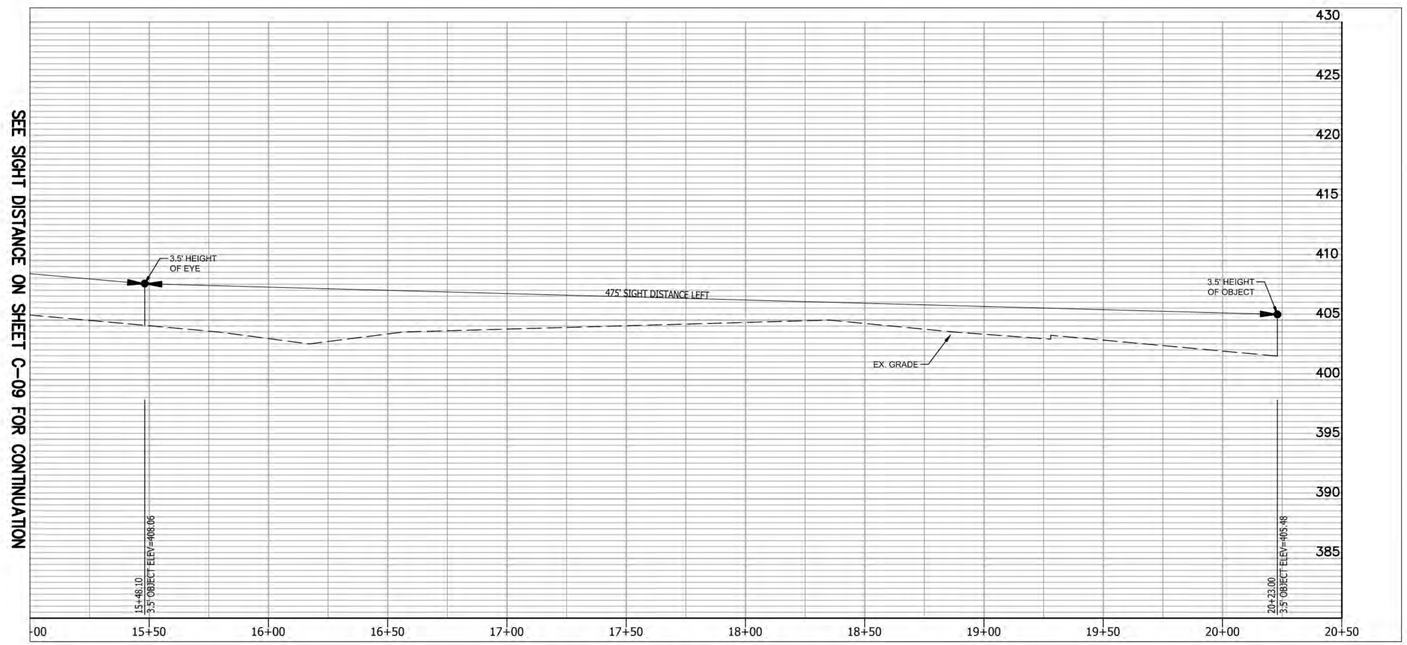
DRAWN BY:	CR
DESIGNED BY:	PR
DATE ISSUED:	JANUARY 23, 2020
DWG.	
SCALE:	
VIKA JOB NO.	VV7583C
SHEET NO.	C-9

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SIGHT DISTANCE PROFILES.dwg USER: Richardson DATE: April 6, 2020 TIME: 2:54:24 PM

LAYOUT: C-9 SIGHT DISTANCE RIGHT- NORTHERN ENTRANCE, Plotted By: Richardson



PICKETT ROAD
(DESIGN SPEED = 40 MPH)
(POSTED SPEED = 35 MPH)



475' SIGHT DISTANCE LEFT – SOUTHERN ENTRANCE
(PER 40 MPH DESIGN SPEED)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VA STATE
GRID NORTH
(VSC 83)

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT B. COCHRAN
Lic. No. 2012
LAND SURVEYOR

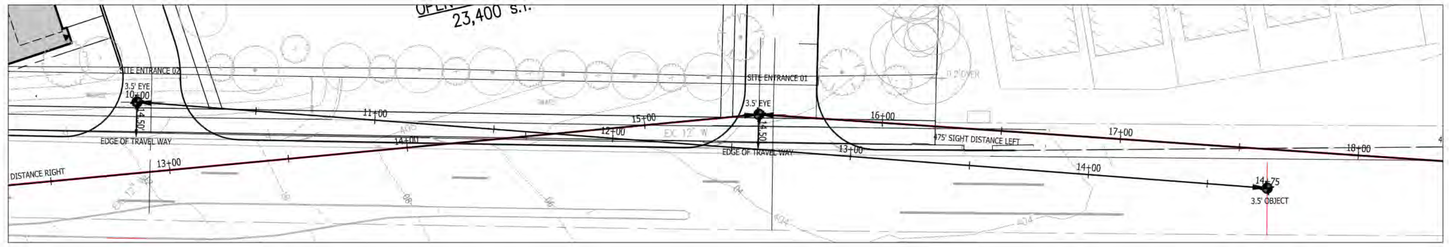
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

SIGHT DISTANCE LEFT - SOUTHERN ENTRANCE

DRAWN BY:	CR
DESIGNED BY:	PR
DATE ISSUED:	JANUARY 23, 2020
DWG. SCALE:	
VIKA JOB NO.	VV7583C
SHEET NO.	C-10

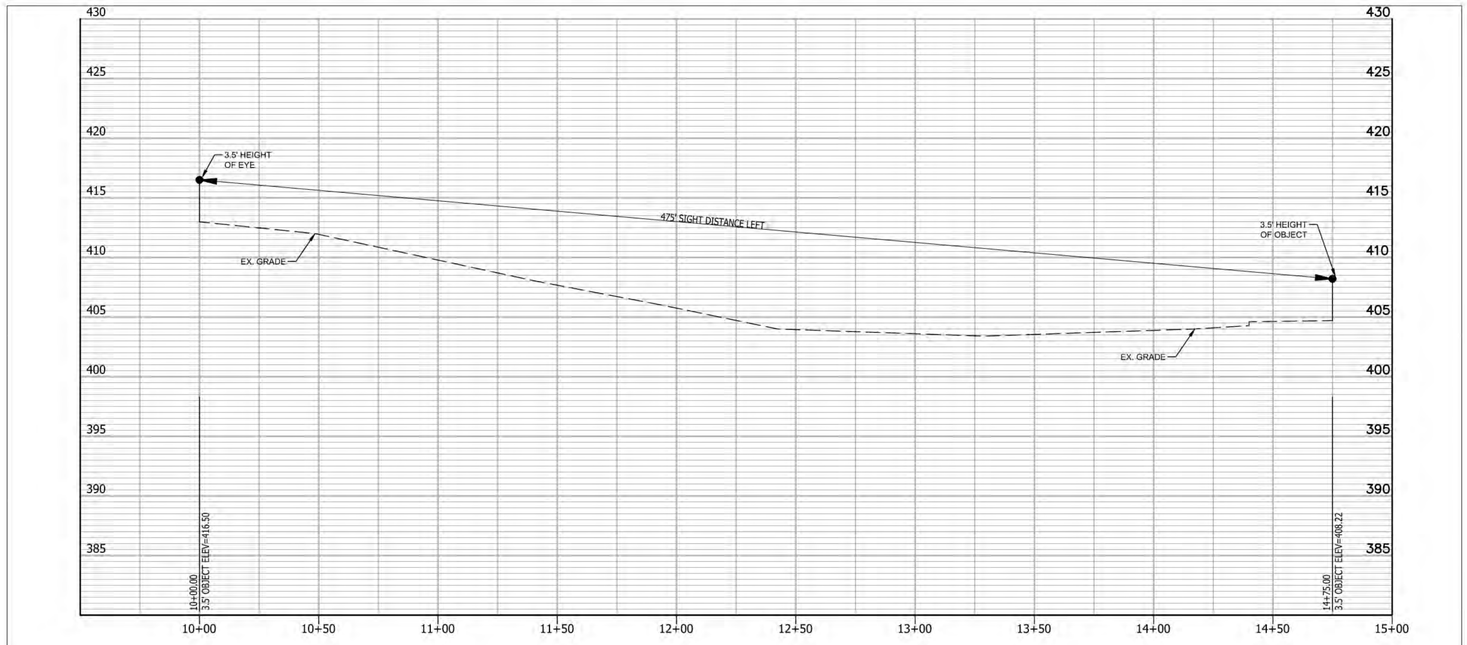
FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SIGHT DISTANCE PROFILES.dwg USER: Richardson DATE: April 6, 2020 TIME: 2:54:24 PM

LAYOUT: C-10 SIGHT DISTANCE LEFT - SOUTHERN ENTRANCE, Plotted By: Richardson



PICKETT ROAD

(DESIGN SPEED = 40 MPH)
(POSTED SPEED = 35 MPH)



475' SIGHT DISTANCE LEFT – SOUTHERN ENTRANCE

(PER 40 MPH DESIGN SPEED)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE
GRID NORTH
(VSC 83)

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT B. COCHRAN
Lic. No. 2012
LAND SURVEYOR

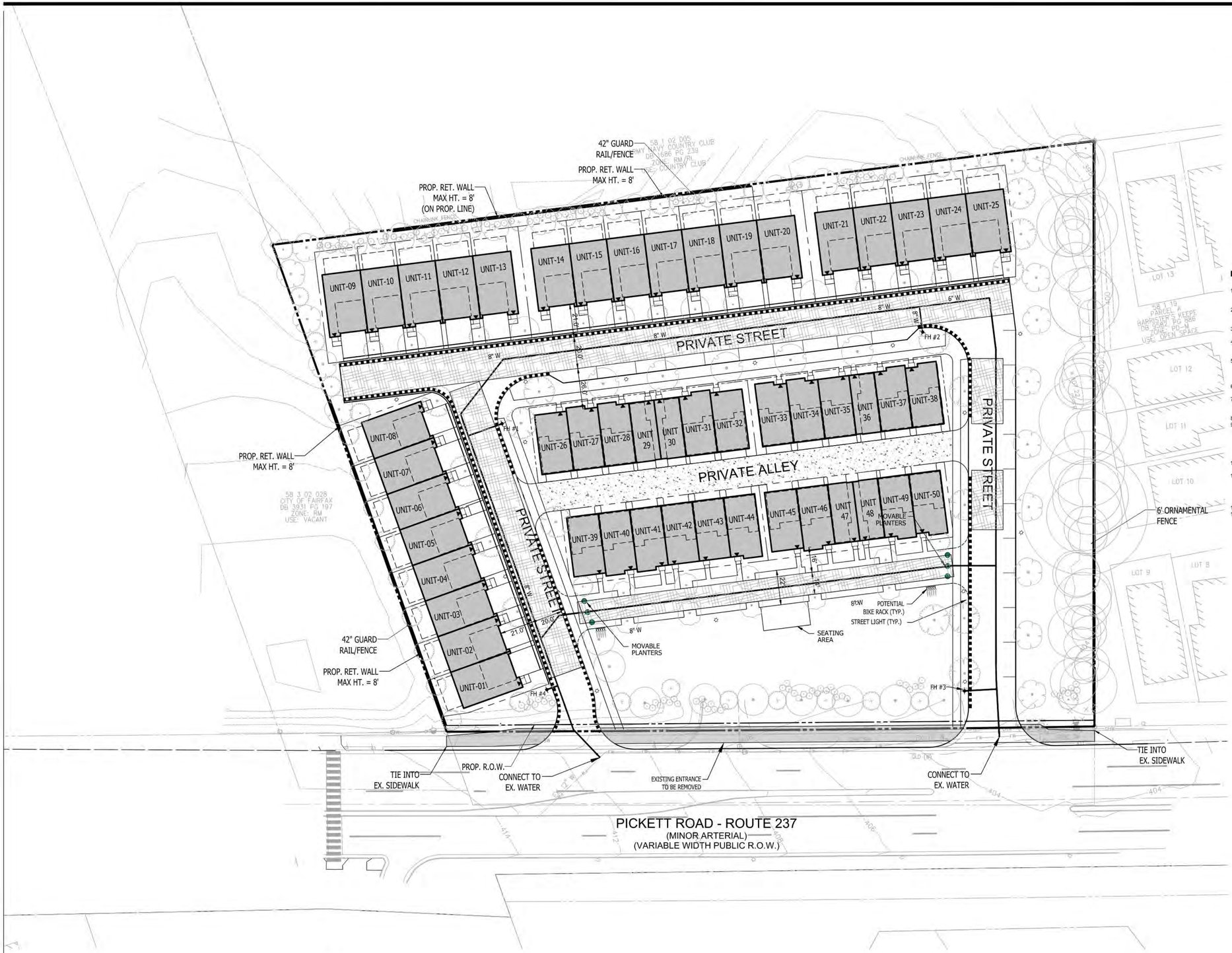
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

SIGHT DISTANCE LEFT - SOUTHERN ENTRANCE

DRAWN BY: CR
DESIGNED BY: PR
DATE ISSUED: JANUARY 23, 2020
DWG.
SCALE:
VIKA JOB NO. VV7583C
SHEET NO. C-11

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SIGHT DISTANCE PROFILES.dwg USER: Richardson DATE: April 6, 2020 TIME: 2:54:24 PM

LAYOUT: C-11 SIGHT DISTANCE LEFT - SOUTHERN ENTRANCE, Plotted By: Richardson



LEGEND:

- EMERGENCY VEHICLE ACCESS PATH (TO BE PAINTED AND SIGNED)
- AERIAL FIRE APPARATUS ACCESS AREA (6% SLOPE OR LESS)
- PROPOSED BUILDING LESS THAN 60' IN HEIGHT (ACCESS TO WITHIN 100' OF MAIN ENTRANCE)
- PROPOSED WATER LINE
- PROPOSED FIRE DEPARTMENT CONNECTION (FDC)
- PROPOSED FIRE HYDRANT
- PROPOSED STREET TREE

FIRE ACCESS SHEET REQUIREMENTS

1. ALL ROADS PROPOSED BY THE PROJECT, AS WELL AS ADJOINING ROADS; THE CLASSIFICATIONS OF THE ROADS (I.E. ARTERIAL, COLLECTOR, ETC.) SHOULD BE NOTED. (PROVIDED)
2. LOCATION AND DIMENSIONS OF ALL FIRE ACCESS LANES AND TURNAROUNDS; VEHICLE ACCESS TO THE REAR OF BUILDINGS, INCLUDING INTERIOR COURTYARDS FOR STICK-BUILD, DONUT-SHAPED BUILDINGS, NEEDS TO BE SHOWN. (TO BE PROVIDED AT SITE PLAN)
3. ARROW DIAGRAMS INDICATING WHERE EMERGENCY VEHICLES CAN ACCESS BUILDINGS. (TO BE PROVIDED AT SITE PLAN)
4. DIMENSIONS OF THE DISTANCE BETWEEN THE PORTIONS OF THE ROADWAY THAT ARE ACCESSIBLE TO FIRE TRUCKS AND THE FAÇADES OF THE BUILDINGS. THE TARGET DISTANCE IS BETWEEN 15 AND 30 FEET SEPARATION. (PROVIDED)
5. IMPROVEMENTS PLANNED FOR THE AREA BETWEEN THE PORTIONS OF THE ROADWAY THAT ARE ACCESSIBLE TO FIRE TRUCKS AND THE FACADES OF THE BUILDINGS, INCLUDING PARKING LANES, GARAGE PODIUMS, LANDSCAPED AREAS, STEEP SLOPES, SIDEWALKS, PLAZAS, YARDS, OUTDOOR SEATING AREAS, STEPS, PLANTERS, SCULPTURES, ETC. (PROVIDED)
6. CLEAR IDENTIFICATION OF BUILDING FOOTPRINTS, CANTILEVERED EXTENSIONS, PENTHOUSES, BALCONIES, PATIOS, ETC. (PROVIDED)
7. HEIGHTS OF THE PROPOSED BUILDINGS; FOR BUILDINGS WITH MULTIPLE HEIGHTS DUE TO STEP BACKS, THE HEIGHT AND NUMBER OF STORIES OF EACH BUILDING SEGMENT SHOULD BE CLEARLY NOTED. (PROVIDED)
8. LOCATION OF OVERHEAD UTILITY LINES. (PROVIDED)
9. IDENTIFICATION OF CONSTRUCTION TYPE FOR EACH BUILDING; FOR MULTIPLE BUILDINGS LOCATED ON A SINGLE GARAGE PODIUM, THE CONSTRUCTION TYPE FOR EACH BUILDING MUST BE IDENTIFIED - THE GARAGE PODIUM CAN BE IDENTIFIED AS A BLOCK, WITH EACH BUILDING IDENTIFIED SEPARATELY. EACH PORTION OF STRUCTURE WITH A DIFFERENT CONSTRUCTION TYPE IS CONSIDERED A SEPARATE BUILDING. STRUCTURES THAT ARE SEPARATED BY A FIRE WALL ARE ALSO CONSIDERED SEPARATE BUILDINGS. (PROVIDED)
10. TYPE OF BUILDING SKIN MATERIAL (COMBUSTIBLE/NON-COMBUSTIBLE), TYPE OF SPRINKLERS (TYPE NFPA 13; IF 13R PLEASE EXPLAIN), AND ROOF TYPE (CLASS A PREFERRED). (PROVIDED)
11. LOCATION OF PROPOSED BUILDING ENTRANCES, BOTH PEDESTRIAN AND VEHICULAR; ACCESS DOORS AND ELEVATORS, INCLUDING MEDEVAC ELEVATORS, SHOULD BE SHOWN ON THE FDP. ALSO, ANY INTERIOR ROUTES AVAILABLE FOR EMERGENCY VEHICLE USE, SUCH AS SUITABLY SIZED DRIVEWAYS THROUGH PARKING GARAGES AND COURTYARDS, SHOULD BE DELINEATED (PROVIDED)
12. LOADING AREAS AND WHETHER THEY ARE ACCESSIBLE TO EMERGENCY VEHICLES. (PROVIDED)
13. ACCESS TO ACTIVE COURTYARDS (ESPECIALLY WITH POOLS, TENNIS COURTS, ETC.) NEEDS TO BE SHOWN - HOW WILL THE MEDICAL STAFF GET THERE, WITH THEIR EQUIPMENT, QUICKLY (PROVIDED).

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD

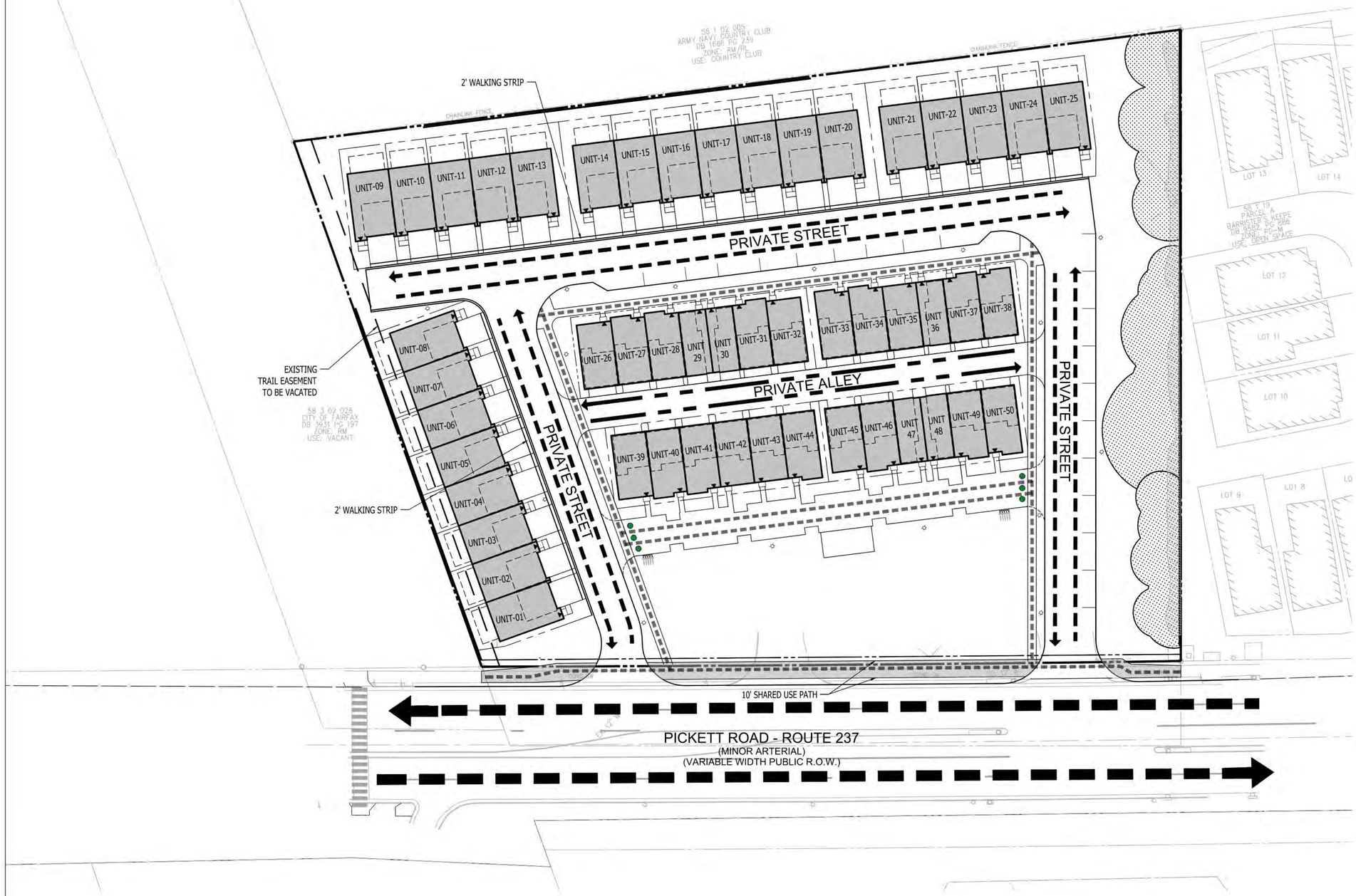
CITY OF FAIRFAX, VIRGINIA

FIRE ACCESS PLAN

DRAWN BY:	PR
DESIGNED BY:	
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-12

FILE: O:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C FIRE ACCESS.dwg USER: Richardson DATE: April 9, 2020 TIME: 3:31:49 PM

LAYOUT: C-10 FIRE ACCESS PLAN, Plotted By: Richardson



VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

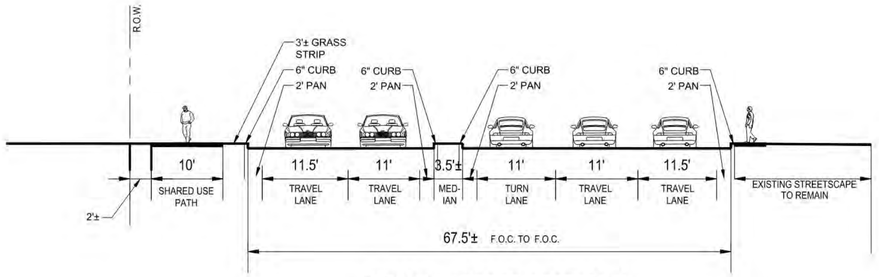
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

PEDESTRIAN AND TRAFFIC CIRCULATION

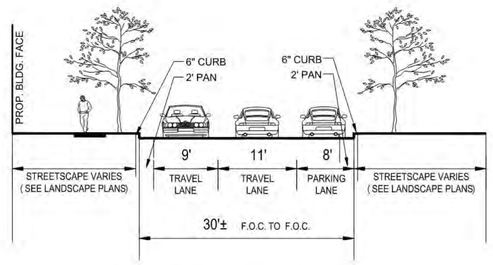
DRAWN BY:	
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-13

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C TRAFFIC.dwg USER: rinek DATE: April 8, 2020 TIME: 10:43:16 AM

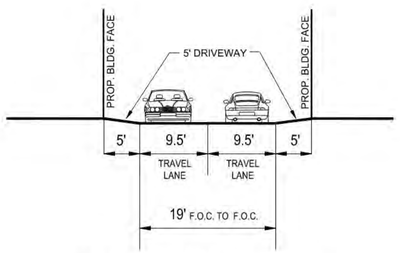
LAYOUT: C-13 PEDESTRIAN AND TRAFFIC CIRCULATION, Plotted By: Richardson



TYPICAL STREET SECTION A
SCALE: 1' = 10'



TYPICAL STREET SECTION B
SCALE: 1' = 10'



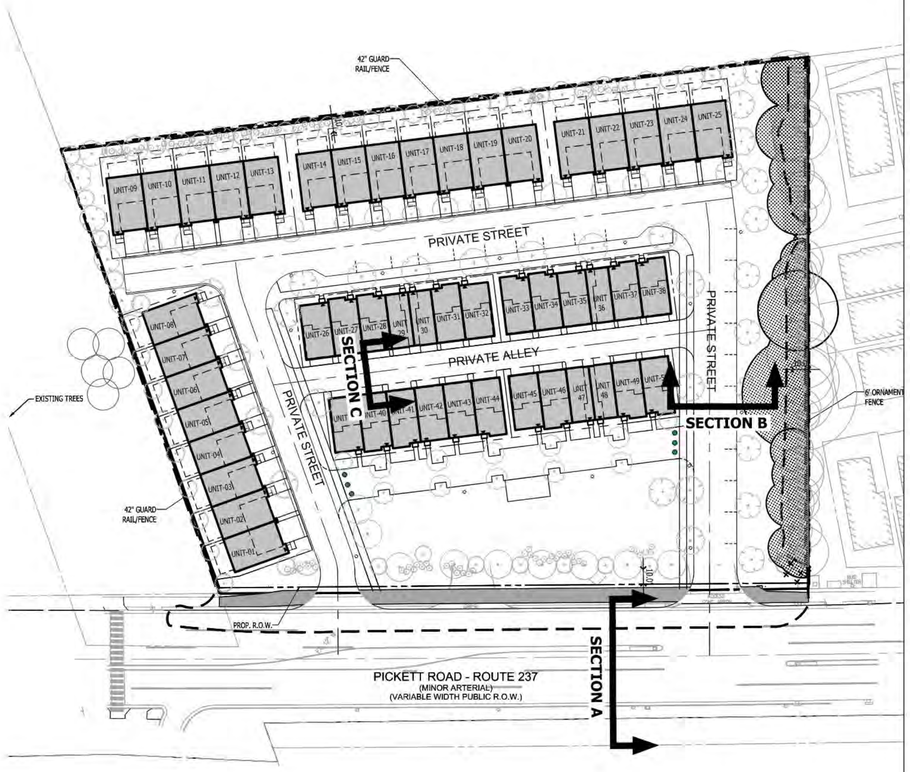
TYPICAL ALLEY SECTION C
SCALE: 1' = 10'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)



VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD

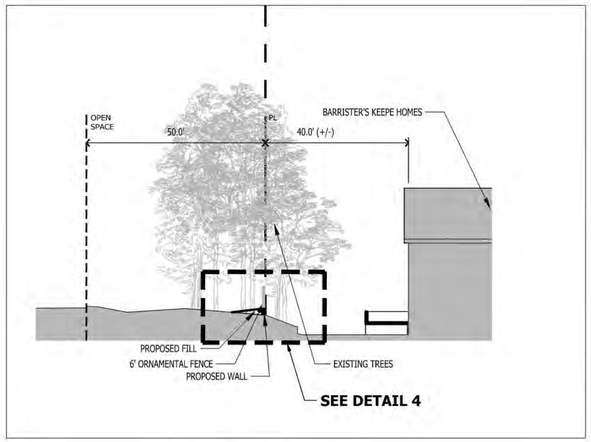
CITY OF FAIRFAX, VIRGINIA

STREET SECTIONS

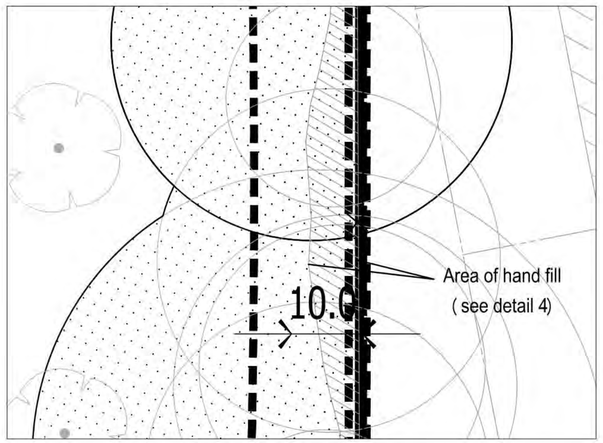
DRAWN BY:
DESIGNED BY: PR
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. C-14

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SECTIONS.dwg USER: rinek DATE: April 9, 2020 TIME: 2:08:48 PM

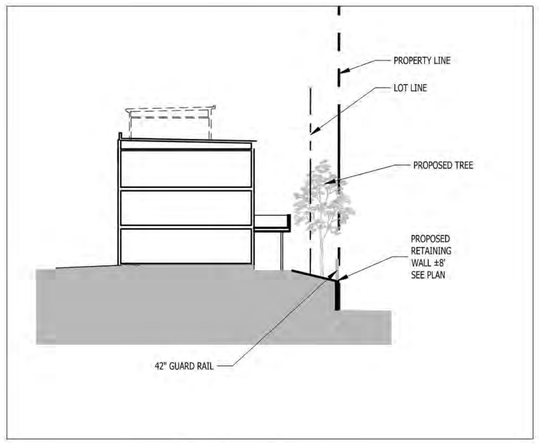
LAYOUT: C-14 STREET SECTIONS, Plotted By: Richardson



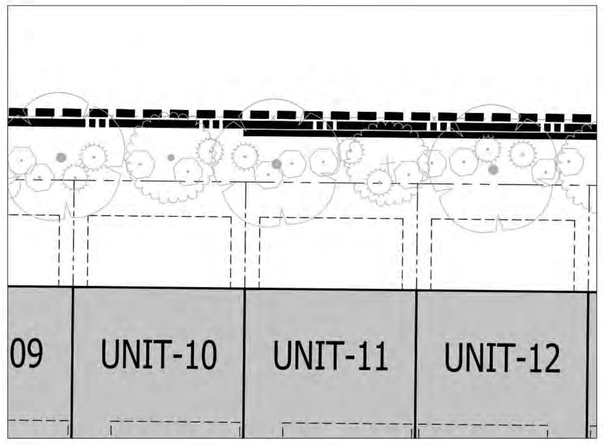
Section A
SCALE: 1" = 20'



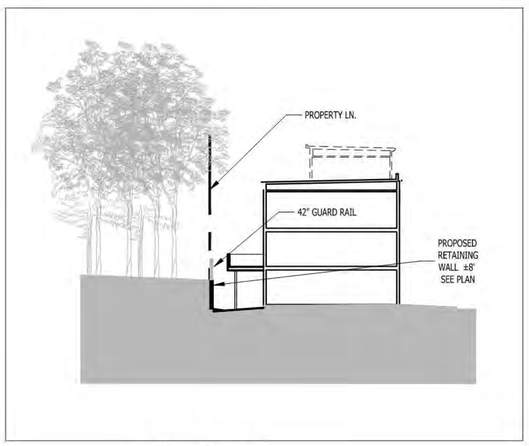
Detail 1
SCALE: 1" = 10'



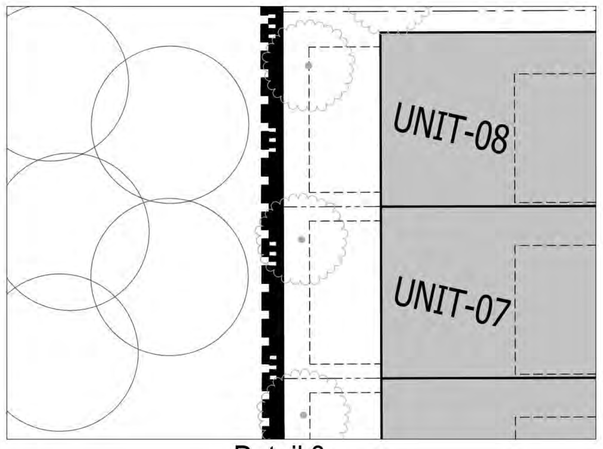
Section B
SCALE: 1" = 20'



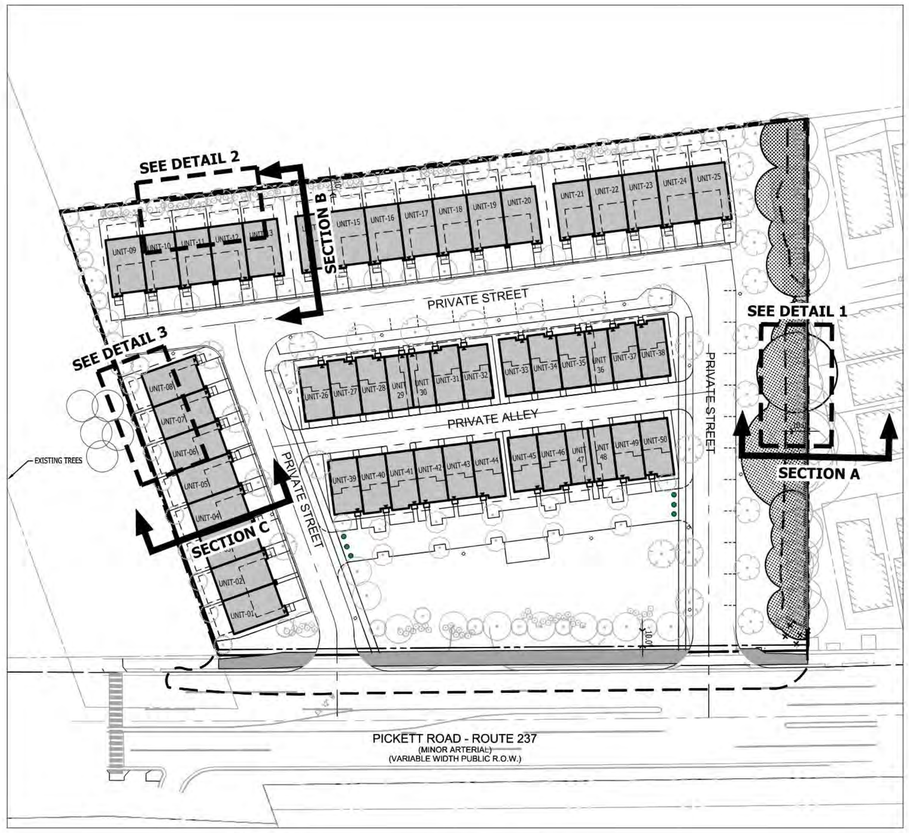
Detail 2
SCALE: 1" = 10'



Section C
SCALE: 1" = 20'

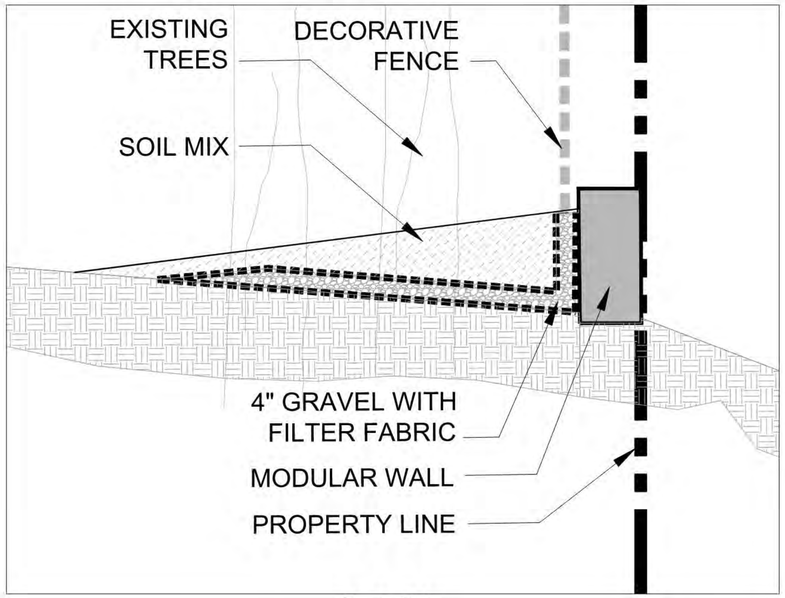


Detail 3
SCALE: 1" = 10'



VA STATE GRID NORTH (VSC 83)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.



Detail 4
NO SCALE

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

SITE SECTIONS

DRAWN BY:	PR
DESIGNED BY:	
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-14A

FILE: O:\Projects\75831\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SECTIONS.dwg USER: rineck DATE: April 9, 2020 TIME: 2:08:48 PM

LAYOUT: C-14A STREET SECTIONS, Plotted By: Richardson

DISTURBED AREA PRE-DEVELOPMENT LAND USE TOTALS (USED FOR VRRM)			
LAND USE TYPE:	AREA (ACRES)	SOIL TYPE	CN
EXISTING MANAGED TURF	1.38	95 (D)	80
EXISTING IMPERVIOUS AREA	2.94	95 (D)	98

EXISTING MANAGED TURF

EXISTING IMPERVIOUS AREA

EXISTING CONDITIONS NARRATIVE

THE SUBJECT 3.69 ACRE SITE WAS PREVIOUSLY DEVELOPED IN APRIL OF 1988 AND CONSISTS OF AN EXISTING CHURCH AND ASPHALT SURFACE PARKING LOT. THE AMOUNT OF EXISTING IMPERVIOUSNESS IS APPROXIMATELY 2.94 ACRES, WITH SOME EXISTING ON-SITE AND OFF-SITE STORMWATER MANAGEMENT (DETENTION ONLY) FACILITIES TREATING THE SITE.

PRIOR TO RE-DEVELOPMENT IN 1988, FOUR (4) EXISTING BELOW GRADE "GABION" STONE DETENTION PITS PROVIDED DETENTION FOR THE EXISTING SITE. WITH THE 1988 RE-DEVELOPMENT, DONE WITH THE 'CHURCH OF THE APOSTLES' SITE PLAN DATED APRIL 1988, PIT #1 WAS REMOVED AND REPLACED WITH A CMP DETENTION FACILITY AT THE SOUTHWEST CORNER OF THE SITE.

IN THE CURRENT EXISTING CONDITIONS, FOUR DETENTION FACILITIES REMAIN: CMP DETENTION PIPE, PIT #2, PIT #3AB, AND PIT #3CD. PER THE PREVIOUS SITE PLANS EACH OF THE FOLLOWING FACILITIES RECEIVES THE FOLLOWING:

FACILITY NAME	AREAS	ACRES	10-YEAR Q
CMP DET. PIPE	1A	1.37	4.85
PIT 2	2A	0.82	4.20
PIT 3AB	3C	0.21	1.06
PIT 3CD	3B, 3F	.54	1.85

AS SHOWN ON SHEET C-18 OF THIS PLAN, THE PREVIOUS SITE PLAN USED THESE FOUR FACILITIES TO PRODUCE A PEAK RELEASE RATE LESS THAN THE PRE-DEVELOPED (C=.30) SITE. THE CALCULATED 10-YEAR MAXIMUM ALLOWABLE RELEASE RATE FOR THE SITE IS CALCULATED BELOW:

PRE-DEVELOPED

SITE = 3.69 ACRES
C = 0.30
I = 6.77 IN/HR
Q = CIA = 7.49 CFS MAX ALLOWABLE RELEASE RATE

TO FURTHER ANALYZE THIS MAXIMUM ALLOWABLE 10-YEAR RELEASE, THE EXISTING OUTFLOWS FROM EACH FACILITY AND THE UNDETAINED RUNOFF WERE CALCULATED.

FACILITY NAME	10-YEAR OUTFLOW	ASSOCIATED OUTFALL
CMP DET. PIPE	0.96 CFS*	1
PIT 2	1.18 CFS*	2
PIT 3AB	0.78 CFS*	3
PIT 3CD	1.18 CFS*	3
UNDETAINED ON-SITE	3.31 CFS*	--
TOTAL	7.41 CFS	--

*PER EXISTING PLAN, SEE SHEET C-18 OF THIS PLAN.

THE INFORMATION PROVIDED ABOVE ESTABLISHES A MAXIMUM 10-YEAR ALLOWABLE RELEASE RATE FOR EACH OF THE THREE OUTFALLS AS THE UNDETAINED RUNOFF. THESE PEAK FLOWS SHALL BE USED FOR PFM DETENTION COMPUTATIONS.

IT SHOULD BE NOTED THAT NONE OF THE EXISTING FACILITIES PROVIDE WATER QUALITY TREATMENT.

NORTH (VCS 83)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

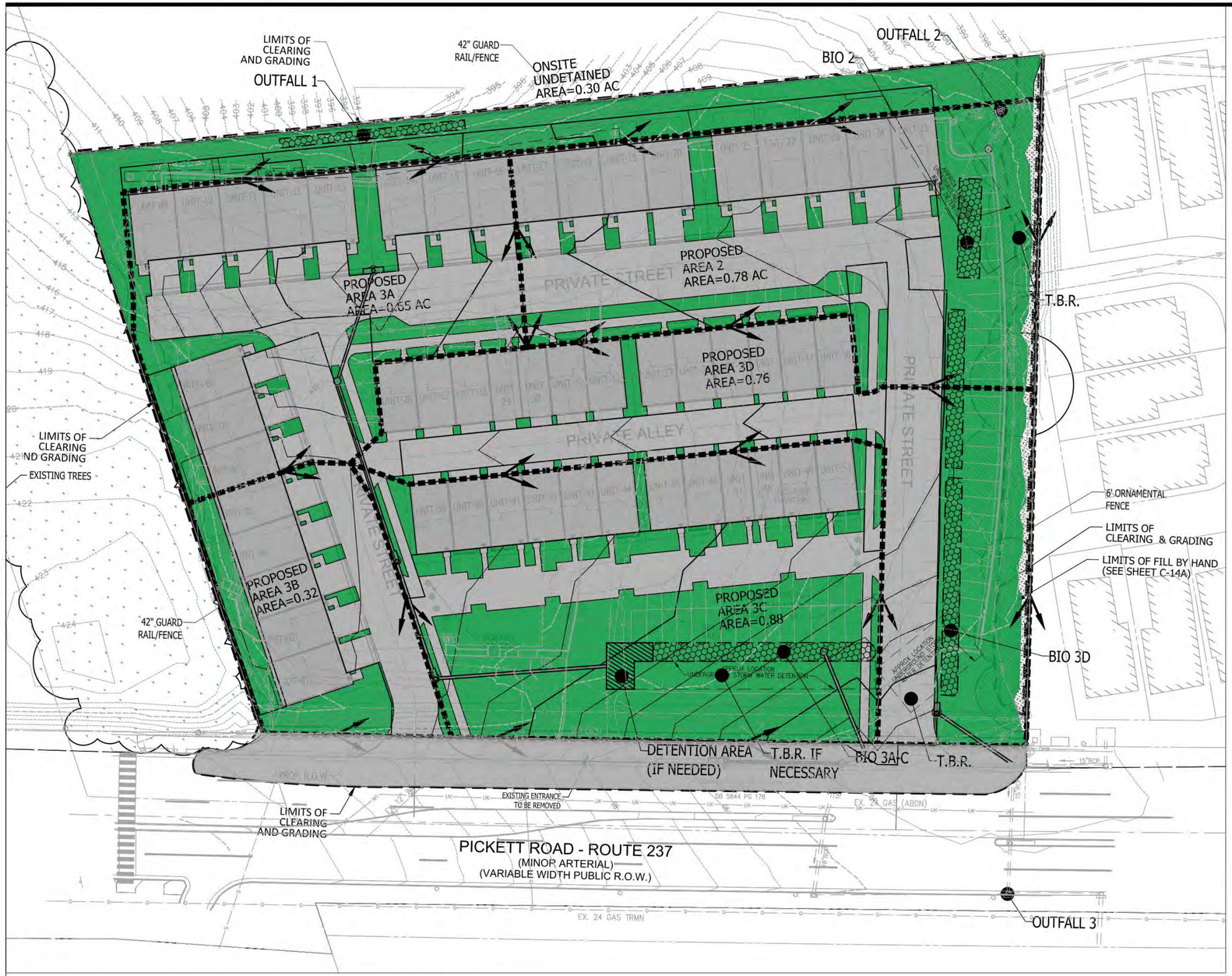
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

EXISTING SWM MAP AND NARRATIVE

DRAWN BY: DCZ
DESIGNED BY: KMO
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: 1"=30'
VIKA JOB NO. VV7583C
SHEET NO. C-15



DISTURBED AREA POST-DEVELOPMENT LAND USE TOTALS (USED FOR VRRM)			
LAND USE TYPE:	AREA (ACRES)	SOIL TYPE	CN
PROPOSED MANAGED TURF	1.51	95 (D)	80
PROPOSED IMPERVIOUS AREA	2.45	95 (D)	98

PROPOSED MANAGED TURF

PROPOSED IMPERVIOUS AREA

PROPOSED STORMWATER FACILITY

NORTH (VCS 83)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED CONDITIONS NARRATIVE:
THE PROPOSED DEVELOPMENT WILL CONSIST OF A TOWNHOUSE DEVELOPMENT WITH PRIVATE ROADS AND OPEN SPACE AREAS. THE PROPOSED IMPERVIOUSNESS ASSOCIATED WITH THE IMPROVEMENTS IS 2.45 ACRES WHICH IS LESS THAN THE EXISTING TOTAL OF 2.94 ACRES.

WATER QUALITY (VRRM):
TO MEET THE STATE VRRM PHOSPHORUS REDUCTION REQUIREMENT FOR REDEVELOPMENT, RUNOFF REDUCING PRACTICES HAVE BEEN PROPOSED ALONG WITH THE REDUCTION IN IMPERVIOUS AREA. THE PROPOSED FACILITIES CONSIST OF THREE LEVEL 1 BIO-RETENTION BASINS. THE BIO-RETENTION BASINS WILL TREAT A COMBINED TOTAL OF 0.90 ACRES OF IMPERVIOUS AREA AND 0.30 ACRES OF PERVIOUS AREA. THESE FACILITIES ARE LOCATED NEAR THE EXISTING DETENTION PITS (2, 3AB, AND 3CD). SIZING SPREADSHEETS AND DETAILS ARE PROVIDED ON SHEET C-13. VRRM SUMMARY TABLE SHOWING WATER QUALITY COMPLIANCE IS PROVIDED ON SHEET C-13.

WATER QUANTITY (PFM DETENTION):
PER THE FAIRFAX CITY PFM, THE POSTDEVELOPED 10-YEAR PEAK RELEASE RATE MUST BE LESS THAN OR EQUAL TO THE PREDEVELOPED 10-YEAR RELEASE RATE. THE TRUE 'PREDEVELOPED' 10-YEAR PEAK RELEASE RATE FOR THE ENTIRE SITE IS 7.49 CFS. THIS EXISTING RELEASE RATE HAS BEEN FURTHER BROKEN DOWN INTO THREE INDIVIDUAL OUTFALLS. IN ORDER TO MEET THE INDIVIDUAL MAXIMUM ALLOWABLE RELEASE RATES AT OUTFALLS 1, 2 AND 3, STORMWATER MANAGEMENT FACILITIES WILL BE PROVIDED FOR EACH OUTFALL. THE LEVEL 1 BIO-RETENTION BASIN PROVIDED AT OUTFALL 2 WILL TREAT/DETAIN THE RUNOFF TO OUTFALL 2 TO AN EXTENT NECESSARY TO SATISFY THE PFM DETENTION REQUIREMENTS. THE LEVEL 1 BIO-RETENTION BASINS (3A-C, AND 3D) PROVIDED AT OUTFALL 3 WILL TREAT/DETAIN THE RUNOFF TO OUTFALL 3 TO AN EXTENT NECESSARY TO SATISFY THE PFM DETENTION REQUIREMENTS. ADDITIONAL ROUTING, DETENTION, AND INFILTRATION COMPUTATIONS WILL BE PROVIDED AT TIME OF FINAL SITE PLAN. THE FINAL LOCATION(S), CONFIGURATION, AND SIZING OF THE PROPOSED FACILITIES MAY BE ADJUSTED AT FINAL SITE PLAN.

OUTFALL NARRATIVE:
THE SUBJECT PROPERTY IS IDENTIFIED ON THE FAIRFAX CITY TAX ASSESSMENT MAP 058-1-02-0021 AND IS LOCATED IN THE CITY OF FAIRFAX. THE SUBJECT PROPERTY IS BORDERED BY THE EXISTING BARRISTERS KEEPE NEIGHBORHOOD TO THE NORTH, AN EXISTING PETROLEUM PROCESSING FACILITY TO THE SOUTH, PICKETT ROAD TO THE EAST, AND AN EXISTING GOLF COURSE TO THE WEST. THE EXISTING CONDITIONS INCLUDE AN EXISTING CHURCH AND A PARKING LOT. THE EXISTING CONDITIONS ARE ASSUMED TO BE 1.38 ACRES MANAGED TURF AND 2.94 ACRES EXISTING IMPERVIOUS. THERE ARE THREE OUTFALLS FROM THE SITE, LABELED AS OUTFALLS #1, #2, AND #3 ON THE ADJACENT MAP. THROUGH A COMBINATION OF OVERLAND RUNOFF AND MAN-MADE STORMWATER CONVEYANCE SYSTEMS, THESE THREE POINTS CONVERGE WITHIN THE ACCOTINK CREEK WHICH IS AN EXISTING FLOOD PLAIN. A DETAILED DESCRIPTION OF THE THREE OUTFALLS IS PROVIDED BELOW:

OUTFALL #1:
UN-DETAINED MANAGED TURF SHEET FLOWS AWAY FROM THE SITE ON TO THE EXISTING GOLF COURSE. FROM THERE, THE RUNOFF CONTINUES TO SHEET FLOW UNTIL IT REACHES THE ACCOTINK CREEK. THE PROPOSED DRAINAGE DIVIDES MIMIC THE EXISTING DRAINAGE PATTERN.

OUTFALL #2:
RUNOFF IS COLLECTED AND ROUTED TO PROPOSED BIO-RETENTION PIT #2, IT IS THEN CONVEYED TO AN EXISTING STORM PIPE THAT RUNS OFF SITE TO THE NORTH. IT TRAVELS THROUGH BARRISTERS KEEPE TO THEIR DETENTION FACILITY WITHIN AN EASEMENT ON ANCC PROPERTY, THEN OUTFALLS INTO THE ACCOTINK CREEK. THE PROPOSED DRAINAGE DIVIDES MIMIC THE EXISTING DRAINAGE PATTERN.

OUTFALL #3:
RUNOFF IS COLLECTED AND CONVEYED TO PROPOSED BIO-RETENTION PITS #3A-C AND #3D. IT IS THEN PIPED INTO THE EXISTING STORM DRAIN SYSTEM SERVICING PICKETT ROAD, AND THEN OUTFALLS TO THE ACCOTINK CREEK. THE PROPOSED DRAINAGE DIVIDES MIMIC THE EXISTING DRAINAGE PATTERN.

PLEASE NOTE THAT AT SITE PLAN IT IS ANTICIPATED THAT THE EXTENT OF THE ADEQUATE OUTFALL REVIEW SHALL BE DOWN STREAM WHERE THE CONTRIBUTING DRAINAGE AREA FROM THE SITE SHALL MEET A COMPARISON AREA THAT REPRESENTS A CONFLUENCE POINT OF AT LEAST 90% OR MORE PER CITY CODE SECTION 124-4-4(C)(6)D.

IT IS ASSUMED THAT ANY STORM DRAIN PIPES OR CONVEYANCE SYSTEMS INTO WHICH THE RUNOFF WILL BE CONVEYED HAVE SUFFICIENT CAPACITY AND ARE THEREFORE ADEQUATE. AT SITE PLAN CHANNEL PROTECTION AND FLOOD PROTECTION REQUIREMENTS SHALL BE ADDRESSED PER APPLICABLE CITY CODE SECTION 124-4-4.

SUMMARY/CONCLUSION:
IT IS THE OPINION OF VIKA VIRGINIA THAT THIS PROJECT WILL HAVE NO ADVERSE EFFECT NOR CAUSE FLOODING OF ANY DOWN STREAM PROPERTY OR STRUCTURE AND THAT THE OUTFALL IS ADEQUATE.

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

PROPOSED SWM MAP AND NARRATIVE

DRAWN BY:	DCZ
DESIGNED BY:	KMO
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	1"=30'
VIKA JOB NO.	VV7583C
SHEET NO.	C-16

VRRM SUMMARY SHEET

Site Summary

Project Title: NA
Date: 43864

Total Rainfall (in):	43
Total Disturbed Acreage:	3.96

Site Land Cover Summary

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	1.38	1.38	35
Impervious Cover (acres)	0.00	0.00	0.00	2.58	2.58	65
					3.96	100

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	1.51	1.51	38
Impervious Cover (acres)	0.00	0.00	0.00	2.45	2.45	62
					3.96	100

Site Tv and Land Cover Nutrient Loads

	Final Post-Development (Post-ReDevelopment & New Impervious)	Post-ReDevelopment	Post-Development (New Impervious)	Adjusted Pre-ReDevelopment
Site Rv	0.68	0.68	--	0.71
Treatment Volume (ft³)	9,819	9,819	--	10,149
TP Load (lb/yr)	6.17	6.17	--	6.38

Pre-ReDevelopment TP Load per acre (lb/acre/yr)	Final Post-Development TP Load per acre (lb/acre/yr)	Post-ReDevelopment TP Load per acre (lb/acre/yr)
1.61	1.56	1.56

Total TP Load Reduction Required (lb/yr)	1.07	1.07	0

	Final Post-Development Load (Post-ReDevelopment & New Impervious)	Pre-ReDevelopment
TN Load (lb/yr)	44.13	45.62

Site Compliance Summary

Maximum % Reduction Required Below Pre-ReDevelopment Load	20%

Total Runoff Volume Reduction (ft³)	1,350
Total TP Load Reduction Achieved (lb/yr)	1.17
Total TN Load Reduction Achieved (lb/yr)	9.70
Remaining Post Development TP Load (lb/yr)	5.00
Remaining TP Load Reduction (lb/yr) Required	0.00

** TARGET TP REDUCTION EXCEEDED BY 0.1 LB/YEAR **

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	1.51	0.00	0.00	0.00	0.00	1.51
Impervious Cover (acres)	2.45	0.00	0.00	0.00	0.00	2.45
Total Area (acres)	3.96	0.00	0.00	0.00	0.00	3.96

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Reduced (lb/yr)	1.17	0.00	0.00	0.00	0.00	1.17
TN Load Reduced (lb/yr)	9.70	0.00	0.00	0.00	0.00	9.70

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	1.51	1.51	38
Impervious Cover (acres)	0.00	0.00	0.00	2.45	2.45	62
					3.96	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	0.5	1.25	4,764.38	0.00	2.99	1.64	1.35	

Total Impervious Cover Treated (acres)	0.90
Total Turf Area Treated (acres)	0.30
Total TP Load Reduction Achieved in D.A. (lb/yr)	1.17
Total TN Load Reduction Achieved in D.A. (lb/yr)	9.70

Runoff Volume and CN Calculations

	1-year storm	2-year storm	10-year storm
Target Rainfall Event (in)	2.62	3.17	4.87

Drainage Areas	RV & CN	Drainage Area A	Drainage Area B	Drainage Area C	Drainage Area D	Drainage Area E
CN		91	0	0	0	0
RR (ft²)		1,350	0	0	0	0
1-year return period	RV wo RR (ws-in)	1.72	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	1.63	0.00	0.00	0.00	0.00
	CN adjusted	90	0	0	0	0
2-year return period	RV wo RR (ws-in)	2.23	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	2.14	0.00	0.00	0.00	0.00
	CN adjusted	90	0	0	0	0
10-year return period	RV wo RR (ws-in)	3.86	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	3.76	0.00	0.00	0.00	0.00
	CN adjusted	90	0	0	0	0

BIO-RETENTION SIZING

BIORETENTION *BASIN* #2 COMPUTATIONS

Impervious DA to Bioretention=	0.42 acres
Pervious DA to Bioretention=	0.16 acres
Rv=	0.37
1" Water Quality Volume=	772 ft³
Minimum Required Surface Area=	406 ft²
Provided Surface Area=	625 ft²
Void Ratio of Ponding (6")=	1
Void Ratio of Soil Media=	0.25
Void Ratio of 12" Stone Sump=	0.4
Design Depth of Media Filter=	4.0 ft
Storage Depth of Bioretention Filter=	1.90 ft
Provided Storage Volume=	1187.5 ft³

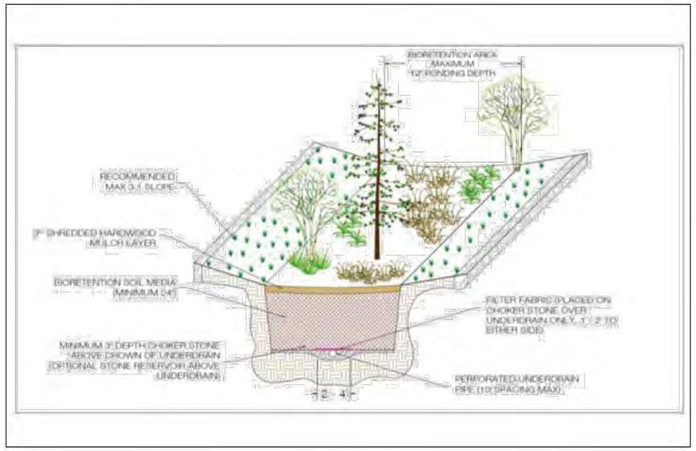
BIORETENTION *BASIN* #3A-C COMPUTATIONS

Impervious DA to Bioretention=	0.42 acres
Pervious DA to Bioretention=	0.16 acres
Rv=	0.37
1" Water Quality Volume=	772 ft³
Minimum Required Surface Area=	406 ft²
Provided Surface Area=	1178 ft²
Void Ratio of Ponding (6")=	1
Void Ratio of Soil Media=	0.25
Void Ratio of 12" Stone Sump=	0.4
Design Depth of Media Filter=	4.0 ft
Storage Depth of Bioretention Filter=	1.90 ft
Provided Storage Volume=	2238.2 ft³

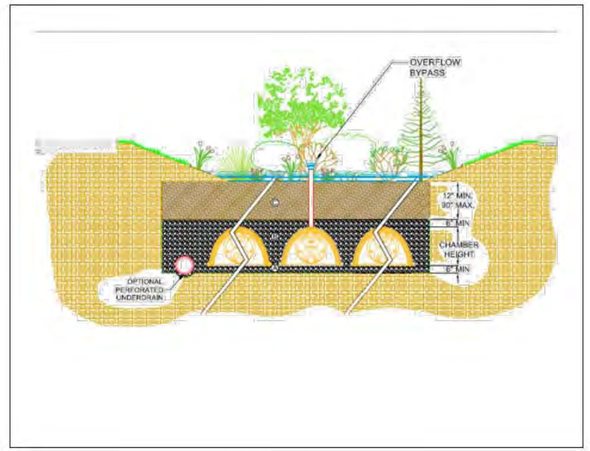
BIORETENTION *BASIN* #3D COMPUTATIONS

Impervious DA to Bioretention=	0.42 acres
Pervious DA to Bioretention=	0.16 acres
Rv=	0.76
1" Water Quality Volume=	1600 ft³
Minimum Required Surface Area=	842 ft²
Provided Surface Area=	1125 ft²
Void Ratio of Ponding (6")=	1
Void Ratio of Soil Media=	0.25
Void Ratio of 12" Stone Sump=	0.4
Design Depth of Media Filter=	4.0 ft
Storage Depth of Bioretention Filter=	1.90 ft
Provided Storage Volume=	2138 ft³

TYPICAL DETAILS



TYPICAL LEVEL 1
BIO-RETENTION BASIN



TYPICAL UNDERGROUND
DETENTION CHAMBER

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

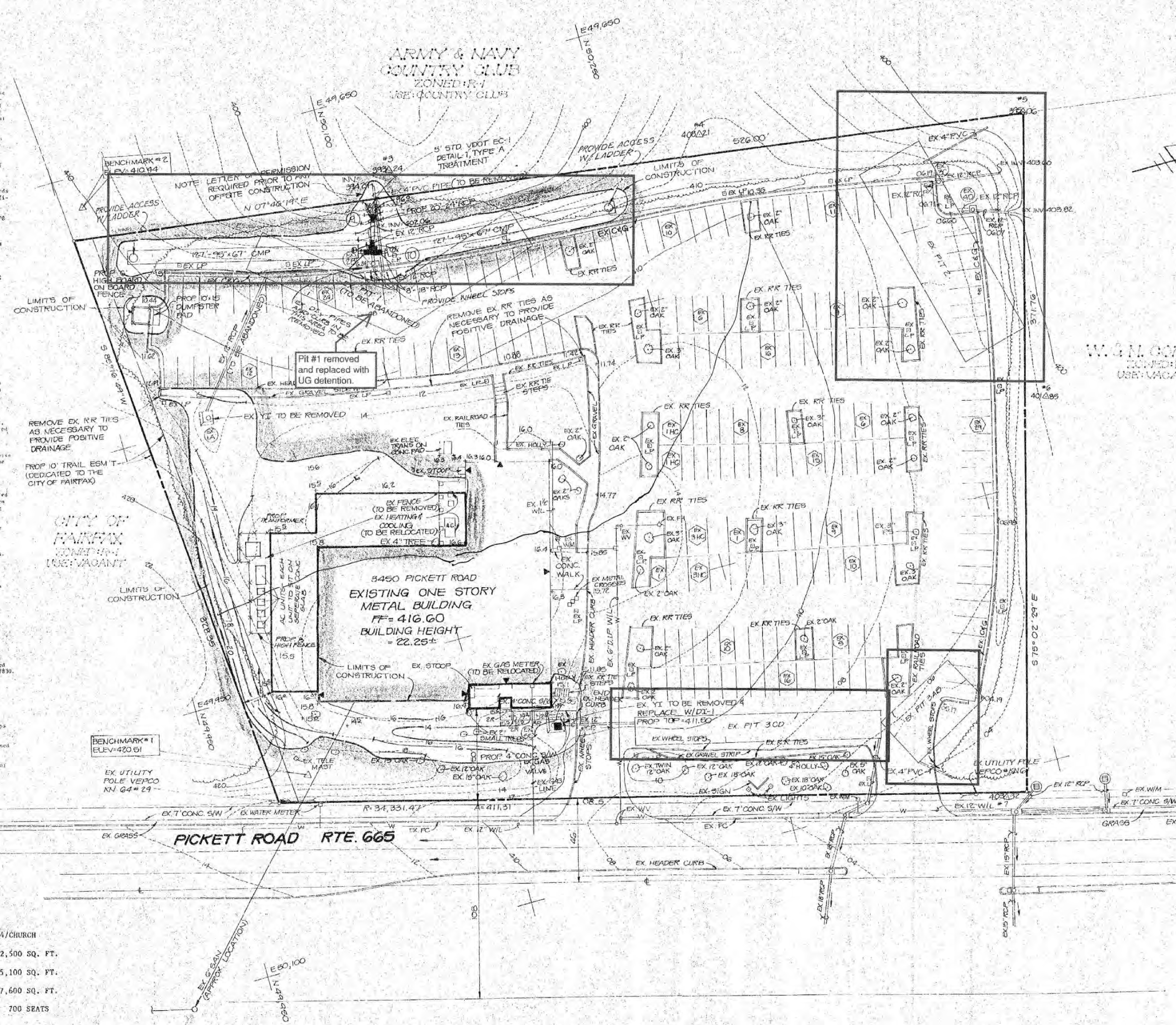
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

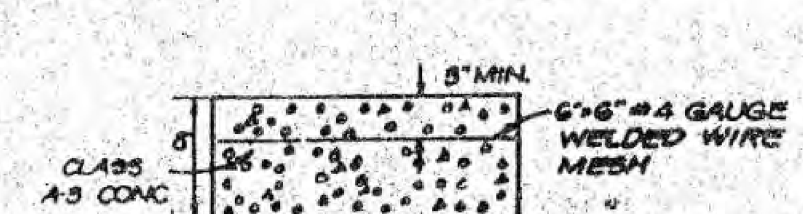
SWM COMPUTATIONS AND DETAILS

DRAWN BY:	DCZ
DESIGNED BY:	KMO
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	N/A
VIKA JOB NO.	VV7583C
SHEET NO.	C-17

GENERAL NOTES

1. C.B.R. Test is required for actual determination of required sub-base thickness prior to construction. Depth of sub-base is based on sub-grade C.B.R. value of 10. Where C.B.R. value is less than 10, 1" of sub-base or base material shall be added for each point below 10 for on site and off site and shall be reviewed by Inspections for special design.
2. The contractor shall provide adequate means for parking construction equipment and provide employee parking on site.
3. Contractors will notify the Public Works Department (Facilities Inspector at 385-7828 or 385-7830) for all work done on site and off site one day prior to starting. Inspections of all work shall be required.
4. All construction shall conform to the latest City of Fairfax standards and the Virginia Department of Highways & Transportation 1986 specifications except as shown or altered by these plans.
5. Facilities inspector will need a four (4) hour notice prior to making inspections.
6. It shall be the contractor's responsibility to perform the work in such a manner to prevent the washing of any topsoil, silt, or debris onto adjacent properties.
7. The permittee shall provide adequate means of cleaning trucks and/or other equipment of mud prior to entering the City rights-of-way. It is the permittee's responsibility to clean streets and alley dust and to take whatever measures necessary to insure that the road is maintained in a clean and dust-free condition at all times.
8. All curb and gutter shown on plans and not in profiles shall be on straight tangent grades. The contractor shall round all vertical breaks with smooth spline curbes.
9. All base and sub-base material shall be compacted to 95% of theoretical maximum density as determined by A.A.S.H.O. T-99 method A within plus or minus 20% of optimum moisture for the full width of any dedicated right-of-way and all townhouse, commercial and industrial parking lots, private streets, parking bays, curb and gutter and sidewalks and parking lots. To include storm sewer, sanitary sewer and water.
10. Plans and specifications must conform to the requirements set forth in the City of Fairfax Code as amended and in the Public Facilities Manual.
11. All underground utilities within the street right-of-way shall be installed to the required distance beyond the right-of-way line prior to the installation of any sub-base material, curb and gutter, or sidewalk. Areas of placement on all utilities are to be submitted to the City of Fairfax for approval prior to placement.
12. Storm sewer and culvert pipe shall be reinforced concrete pipe to conform to the current A.A.S.H.T.O. designation M170, unless otherwise designated on the plans. Class II pipe will be permitted beyond the limits of street rights-of-way. Class III pipe will be required within the limits of the rights-of-way.
13. All sidewalks, curb and gutters, driveways, streets, storm pipes, water lines, sanitary sewer, endwalls, and rip-raps will be inspected by the City. All work in the City streets will be performed between the hours of 9:00 a.m. and 3:30 p.m. Contact Mr. Ron Shillingburg at 385-7828 for inspections.
14. Traffic signs found to be in the way at construction sites shall be removed or relocated only by personnel in the Sign and Signal Division of the City of Fairfax's Public Works Department at the contractor's specific request. Any contractor found responsible for moving City property without permission will receive a summons. All street markings will be done by the City of Fairfax.
15. Compaction test may be performed by the contractor. Subgrade for curb and gutter and sidewalk will be every 50', sub-base will be alternated every 25'. Driveways are required (2) tests on subgrade and sub-base. Copy of results is required prior to placing any type of material. All structures require (2) tests on subgrade and sub-base.
16. Compaction tests for roadways are performed by City only, unless approved by City of Fairfax Inspector.
17. All erosion siltation control to be installed prior to starting project, to conform to the current Virginia Erosion and Sediment Control.
18. Inspections on all buildings, plumbing and electrical, are performed by the building inspectors. Contact Office of Inspections at 385-7830.
19. Pre-construction meeting will be required at least three (3) days prior to starting. Contact Ron Shillingburg at 385-7878.
20. All pavement placed on City right-of-way must have a mix design approved prior to placing material.
21. Provide proper distance from back of sidewalk to building for stoops and steps, etc.
22. All roofs, paved areas, yards, courts and courtyards shall be drained into a separate storm sewer, or a combined sewer system.
23. No portion of this building shall be occupied until a certificate of occupancy has been obtained.

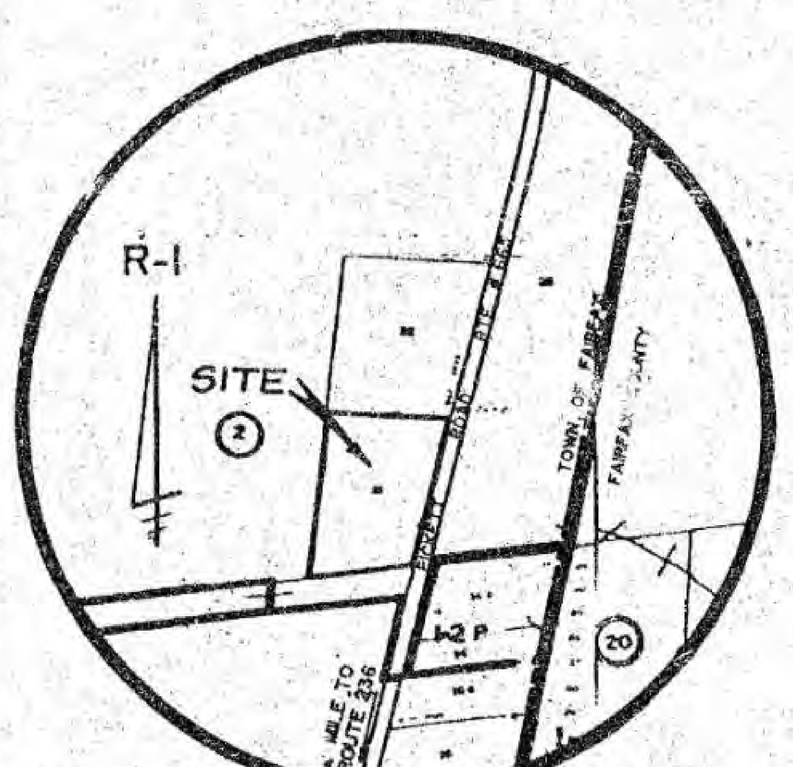




CONCRETE DUMPSTER PAD TYPICAL SECTION (NOT TO SCALE)

AREA TABULATION

EXISTING USE GROUP:	A4/CHURCH
EXISTING BUILDING AREA:	12,500 SQ. FT.
PROPOSED ADDITION:	5,100 SQ. FT.
TOTAL BUILDING AREA:	17,600 SQ. FT.
EXISTING SEATING CAPACITY:	700 SEATS
PARKING REQUIREMENTS:	
TOTAL SPACES REQUIRED:	700 SEATS/4 = 175 SPACES
TOTAL HANDICAPPED PARKING REQUIRED:	3 SPACES
EXISTING REGULAR SPACES PROVIDED:	211 SPACES
EXISTING HANDICAP SPACES PROVIDED:	8 SPACES
TOTAL EXISTING SPACES PROVIDED:	219 SPACES
SET BACKS: FRONT:	50'
SIDE:	15'
REAR:	25'
OPEN SPACE REQUIRED:	NONE



VICINITY MAP
SCALE : 1" = 500'

GENERAL NOTES

1. THE PROPERTY DELINEATED ON THIS PLAN IS LOCATED ON ASSESSMENT MAP 58-1((2)) PARCEL 21 AND IS ZONED R-1.
2. THE BOUNDARY INFORMATION SHOWN ON THIS PLAN IS FROM EXISTING RECORDS.
3. NO TITLE REPORT FURNISHED.
4. TOTAL SITE AREA = 3.6945 AC.
5. ALL STORM DRAINAGE APPURTANCES ON SITE ARE TO BE PRIVATELY OWNED AND MAINTAINED.
6. SILTATION AND EROSION CONTROL METHODS WILL BE IN ACCORDANCE WITH THE VIRGINIA STATE EROSION AND SEDIMENT CONTROL HANDBOOK.
7. SOILS INFORMATION FOR THIS SITE IS NOT AVAILABLE.
8. PROVISIONS FOR STORM DETENTION FOR THIS SITE ARE EXISTING AND WERE DESIGNED BY OTHERS. ADDITIONAL DETENTION HAS BEEN REQUIRED FOR THIS SUBMISSION AND HAS BEEN DESIGNED BY LBA LIMITED.

CITY OF FAIRFAX
SITE PLAN APPROVED
BOND POSTED
Director of Public Services
Date 6/27/88

ALL CONSTRUCTION SHALL CONFORM TO CITY OF FAIRFAX AND/OR VDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.

THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.

ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST U.S. DEPT. OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS.

SP-563

OWNER/DEVELOPER
CHURCH OF THE APOSTLE
3500 PICKETT ROAD
FAIRFAX, VIRGINIA 22031
TELEPHONE: (703) 591-1974

REVISIONS	SITE PLAN	APRIL 1988
	CHURCH OF THE APOSTLES	SCALE: 1" = 30'
	CITY OF FAIRFAX, VIRGINIA	DRAWN: CPH
		DESIGN: KAF
		CHECK: CAB

88-0008 C# 5696 SHEET 1 OF 3

COMMONWEALTH OF VIRGINIA WILLIAM B. PUTNAM PROFESSIONAL ENGINEER

STREET DIVISION

LBA LIMITED
engineering | surveying | planning | landscape architecture
4085 UNIVERSITY DRIVE / FAIRFAX, VIRGINIA 22030-3463 / TELEPHONE (703) 591-1900

REVISION	
DATE	DESCRIPTION

FOR INFORMATION ONLY

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

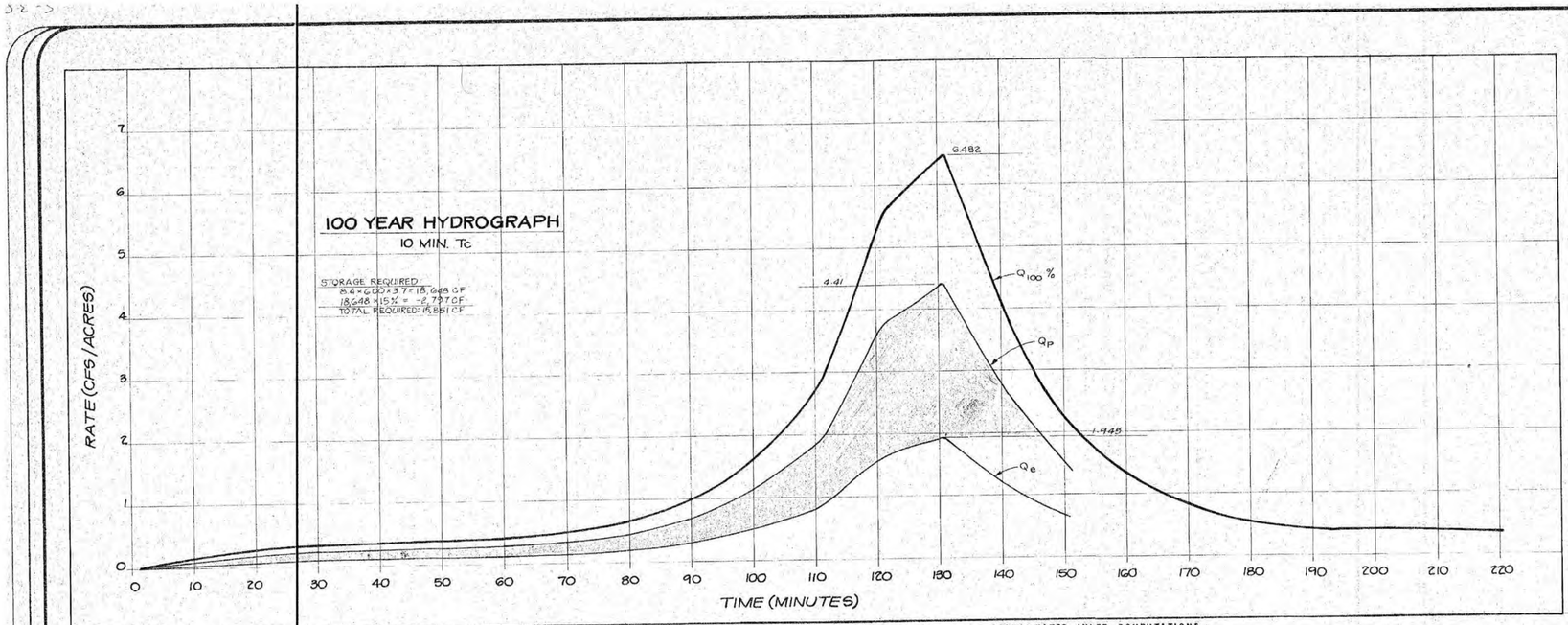
PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

EXISTING SWM PLAN

DRAWN BY:	DCZ
DESIGNED BY:	KMO
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	N/A
VIKA JOB NO.	VV7583C
SHEET NO.	C-18

LAYOUT: C-18 EXISTING SWM PLAN, Plotted By: Richardson



10 MIN. Tc					
DURATION (MIN)	$Q_{100\%}$ CFS/AC	C_P	Q_P CFS/AC	C_e	Q_e CFS/AC
11	0.183	0.68	0.12	0.80	0.065
21	0.311		0.21		0.093
31	0.859		0.24		0.108
41	0.392		0.27		0.118
51	0.416		0.28		0.125
61	0.448		0.30		0.134
71	0.524		0.36		0.157
81	0.677		0.46		0.203
91	1.036		0.70		0.311
101	1.705		1.16		0.512
111	2.756		1.87		0.827
121	5.557		3.78		1.667
131	6.482		4.41		1.945
141	3.900		2.65		1.170
151	2.104		1.43		0.631
161	1.314		0.89		0.394
171	0.812		0.55		0.244
181	0.582		0.40		0.175
191	0.476		0.32		0.143
201	0.428		0.29		0.128
211	0.409		0.28		0.122
221	0.376		0.26		0.113

REVISION	
DATE	DESCRIPTION

STORM WATER MANAGEMENT SUMMARY

SITE AREA:
TOTAL SITE AREA : 3.6945 ACRES

PREDEVELOPMENT:
Tc = 10 MINUTES
C = 0.30
I10 = 8.3
Q = CIA
Q100 = (0.30)(8.3)(3.7) = 9.2 CFS - MAXIMUM ALLOWABLE RELEASE

POSTDEVELOPMENT
Tc = 10 MINUTES
C = 0.65
I100 = 8.3

COMPOSITE "C":
$\frac{(1.36)(0.30)+(3.33)(0.90)}{3.69} = 0.679$
C = 0.68

Q = CIA
Q100 = (0.68)(8.3)(3.7) = 20.9 CFS

ONSITE AREAS BYPASSING DETENTION FACILITY: 0.68 ACRES
Q100 = (0.72)(8.3)(0.68) = 4.1 CFS

RELEASE FROM EXISTING DETENTION PITS:
PIT 2 = 91.35 CFS *
PIT 3AB = 90.9 CFS *
PIT 3CD = 91.35 CFS *
TOTAL = 93.6 CFS
*INFORMATION TAKEN FROM COMPUTATIONS BY RBC OF VIRGINIA, INC. DATED JULY, 1979.

MAXIMUM ALLOWABLE RELEASE: 9.2 CFS
RELEASE FROM EXISTING PITS: - 3.6 CFS
5.6 CFS
BYPASS AREA: 4.1 CFS
ALLOWABLE RELEASE FROM PROPOSED DETENTION FACILITY: 1.5 CFS

ORIFICE COMPUTATIONS:
$Q = CA\sqrt{2gh}$ C = 0.60
g = 32.2

4" DIAMETER ORIFICE:
$A = \frac{\pi (2)^2}{(12)^2} = 0.087$
Q = (0.6)(0.087)$\sqrt{(64.4)(6.89)}$ = 1.1 CFS ACTUAL RELEASE FROM PROPOSED DETENTION FACILITY

1.1 CFS < 1.5 CFS

ALL CONSTRUCTION SHALL CONFORM TO CITY OF FAIRFAX AND/OR VDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.

THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.

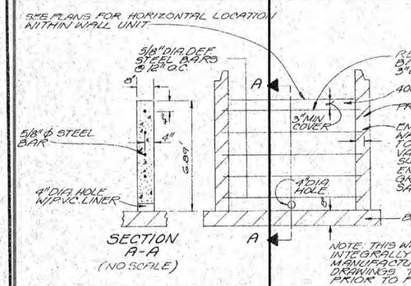
ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST U.S. DEPT. OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS.

* BASED ON ULTIMATE DEVELOPMENT STORM WATER INLET COMPUTATIONS

INLET NO.	TYPE	LENGTH LIN. FT.	STATION	LENGTH PROJECT DRAINED FT.	DRAINAGE AREA ACRES	COEF.	CA	ΣCA	i/10 IN/HR	RUN OFF Q CFS	CARRY OVER Q_c CFS	GUTTER FLOW Q_s CFS	LONG GUTTER SLOPE FT./FT.	SPREAD T FT.	DEPTH AT CURB FT.	Q_s/L_s CFS/FT.	LA FT.	L/L_s	$s/_y$	Q/Q_s	INTERCEPTED CFS	CARRY OVER CFS	n	Q/L	H/h	H	SPREAD AT LOW POINT FT.	REMARKS
			NORTH		0.66	*0.78	0.51	0.51	7.27	3.7	—	3.7	0.025	4.7	0.35	0.37												
10	DI-3C	10		—																	9.5 *	—	0.46	0.95	1.6	0.74	8.72	X-SLOPE = 0.061
			SOUTH		1.02	*0.78	0.80	0.80	7.27	5.8	—	5.8	0.028	5.2	0.40	0.58												

* BASED ON ULTIMATE DEVELOPMENT STORM SEWER DESIGN COMPUTATIONS

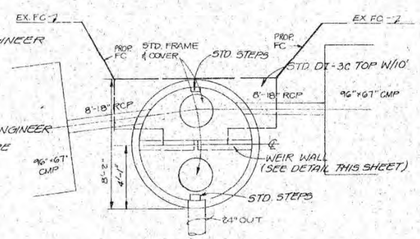
FROM	TO	TYPE STR.	AREA DRAIN "A" ACRES	RUN-OFF COEF. "C"	C A INCREMENT	C A ACCUMULATED	TIME OF CONCENTRATION "T"	TIME OF CONCENTRATION TO PIPE	TIME OF CONCENTRATION IN PIPE	TIME OF CONCENTRATION ACCUM. TIME	R/NOFF (C.F.S.) INC. "Q"	R/NOFF (C.F.S.) ACCUM. "Q"	DESIGN PIPE DIA.	DESIGN SLOPE (%)	DESIGN "n"	DESIGN MAX. "Q"	DESIGN VEL. FT./SEC.	PROFILE LENGTH OF RUN	PROFILE FALL (FEET)	PROFILE INV. UPPER	PROFILE INV. LOWER	PROFILE LOSSES	STATION	TOP ELEVATION
10		DI-3C	1.68	*0.78	1.31						10.1									396.06			0+50	406.50
						1.31	7.7	5	—	5		10.1	24	0.30	0.013	12.4	4.3	20'	0.06					
	9	ES-1																			396.00		0+30	—

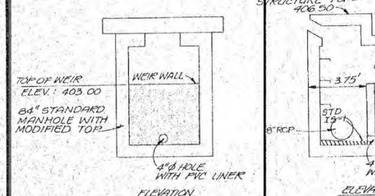


DETAIL WEIR WALL

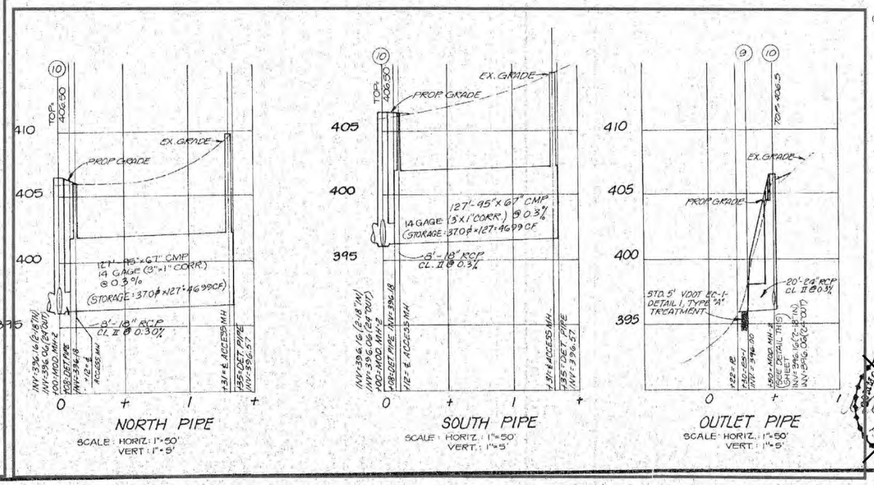
NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWING TO ENGINEER PRIOR TO CONSTRUCTION OF THIS STRUCTURE.

GENERAL NOTE:
1. ITEMS MAY BE PRECAST OR CAST IN PLACE.
2. THE WEIR WALL MAY BE PRECAST INTEGRALLY WITH THE WALL UNIT.
3. ALL PRECAST FLAT TOPS SHALL BE CONSTRUCTED TO SUPPORT APPLIED H-20 LOADING AND THE DESIGN SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER.
4. THIS STRUCTURE IS A MODIFIED VDOT MH2 FOR ALL SPECIFICATIONS AND DIMENSIONS NOT SHOWN REFERENCE VDOT ROAD AND BRIDGE STANDARDS (104.20).
5. STD. VDOT IS-1 SHALL BE PROVIDED.





DETAIL STR. ⑩ MODIFIED MH-2 WITH DI-3C TOP
(NO SCALE)



FOR INFORMATION ONLY

REVISIONS	STORM SEWER PROFILES, DETAILS AND STORM WATER MANAGEMENT	APRIL 1988
	CHURCH OF THE APOSTLES	SCALE: AS SHOWN
	CITY OF FAIRFAX, VIRGINIA	DRAWN: CPL
		DESIGN: CAB
		CHECK: JFS

J# 88-00080# 5696 SHEET 3 OF 3

S-380

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

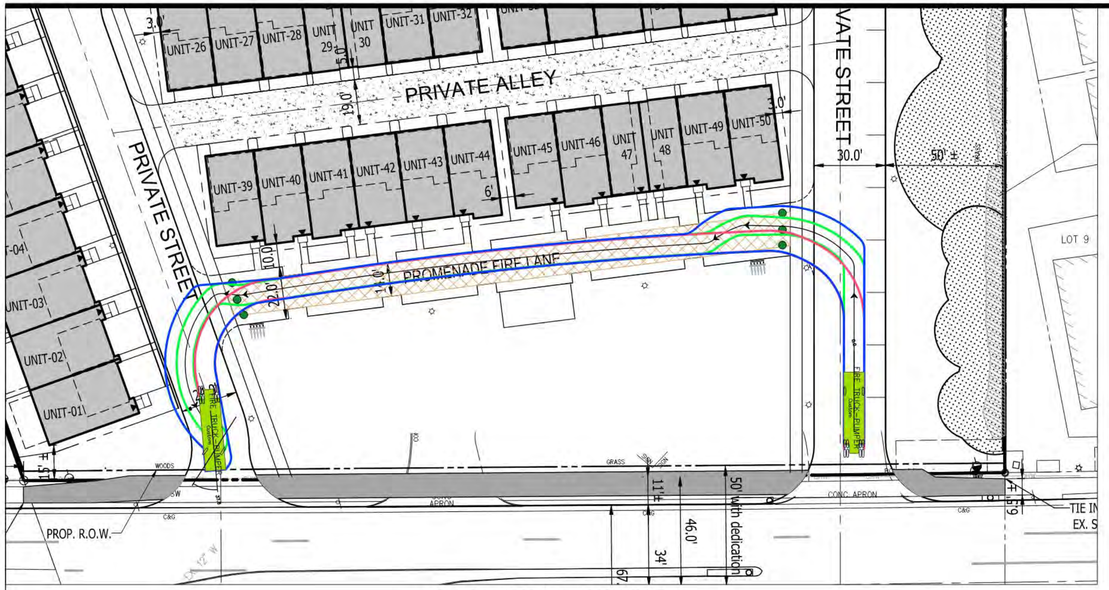
EXISTING SWM COMPS

DRAWN BY:	DCZ
DESIGNED BY:	KMO
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	N/A
VIKA JOB NO.	VV7583C
SHEET NO.	C-19

engineering | surveying | planning | landscape architecture

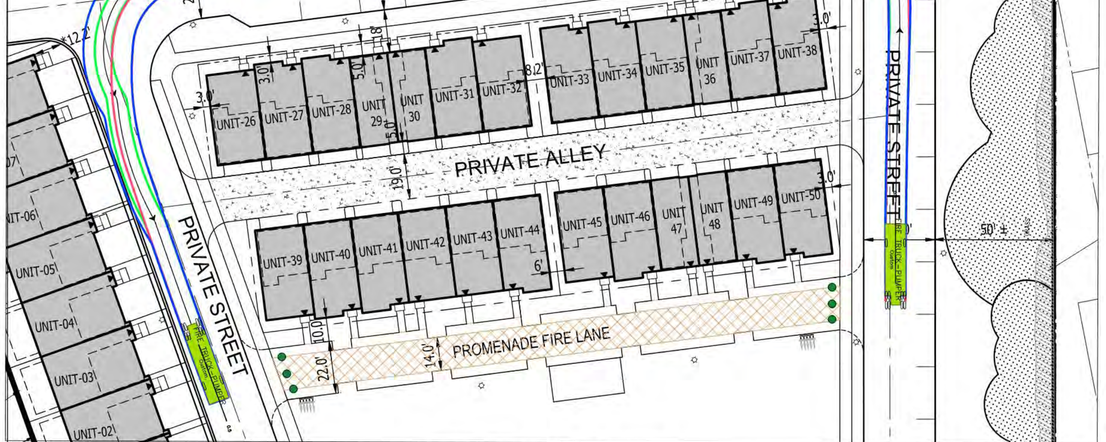
4285 UNIVERSITY DRIVE · FAIRFAX, VIRGINIA 22030-3463 · TELEPHONE (703) 591-1900

LAYOUT: C-19 EXISTING SWM COMPS, Plotted By: Richardson

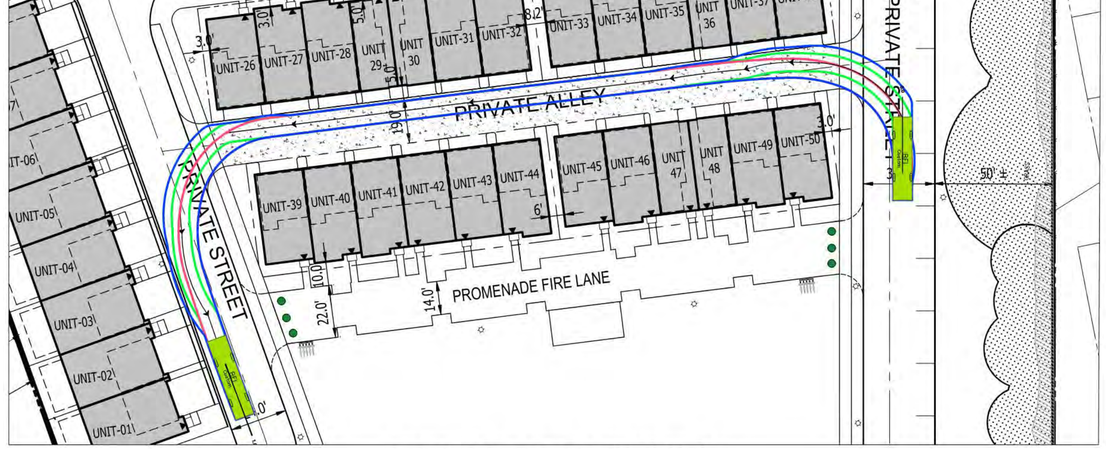


FIRE TRUCK - PUMPER

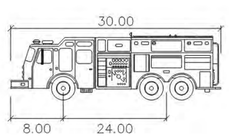
FRONT LOAD - TRASH TRUCK



FIRE TRUCK - PUMPER

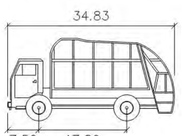


FRONT LOAD - TRASH TRUCK



FIRE TRUCK–PUMPER

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8



BFI

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 25.7

LEGEND

- FRONT TIRES
- REAR TIRES
- VEHICLE BODY

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

LAYOUT: C-20 AUTOTURN EXHIBIT, Plotted By: Richardson

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

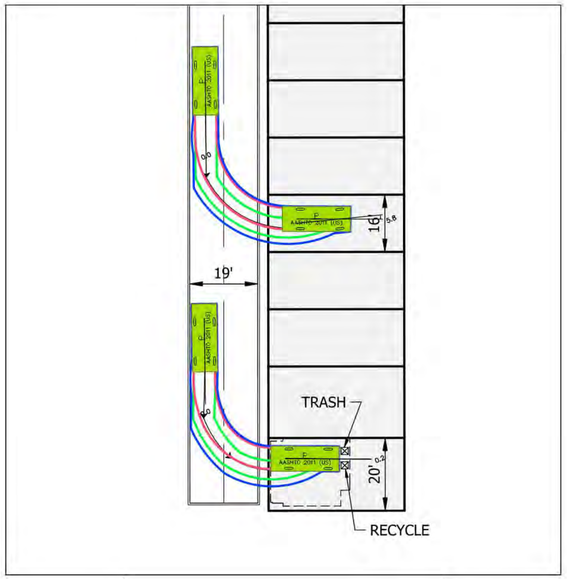
3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

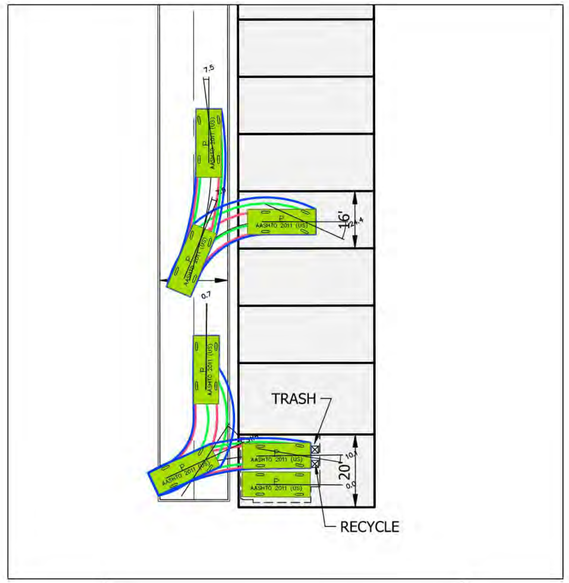
AUTOTURN EXHIBIT

DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-20

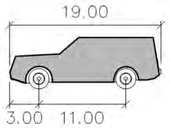
FILE: O:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C AUTOTURN EXHIBIT.dwg USER: rinek DATE: April 10, 2020 TIME: 7:08:02 AM



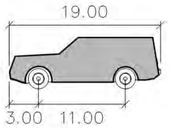
LARGE VEHICLE/SUV
PULLING IN (16' & 20' UNIT)



LARGE VEHICLE/SUV PULLING
OUT (16' & 20' UNIT)



GRAPHIC SHOWN MEETS SUV
LENGTH DIMENSIONS



P

	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6

LEGEND

FRONT TIRES
REAR TIRES
VEHICLE BODY

P

	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6

LEGEND

FRONT TIRES
REAR TIRES
VEHICLE BODY

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE
GRID NORTH
(VSC 83)

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

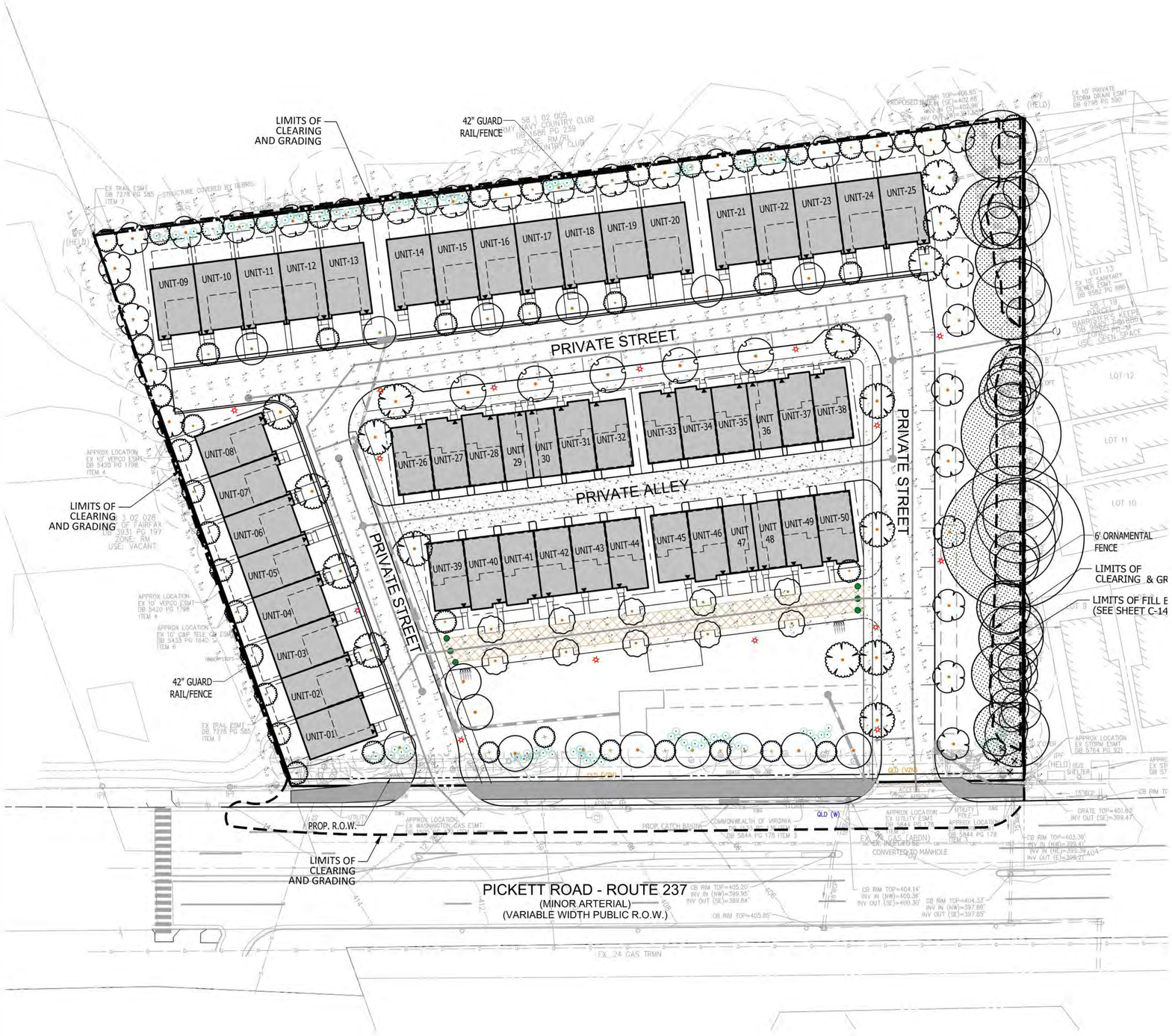
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

TOWNHOME AUTOTURN

DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-21

FILE: O:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C AUTOTURN EXHIBIT.dwg USER: rinek DATE: April 10, 2020 TIME: 7:08:02 AM



GRAPHIC SCALE

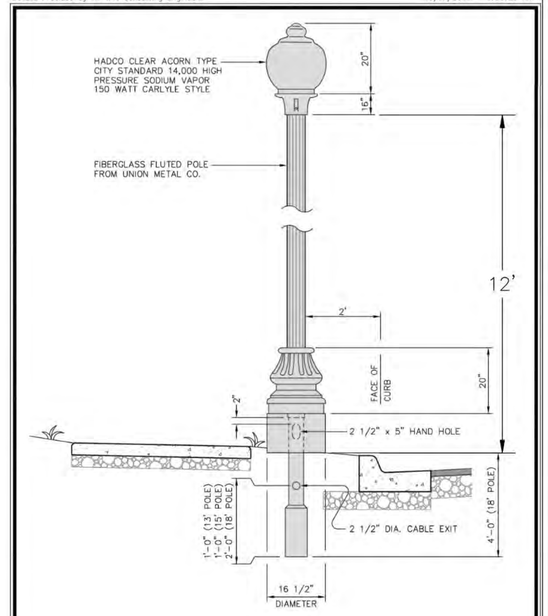
30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

Details Provided by APPIAN Consulting Engineers — 10/17/2005 – 9:39:23 AM



Department of Public Works
10455 Armstrong Street
Fairfax, VA 22030-3630

CITY of FAIRFAX
USE WITH THE FAIRFAX STANDARD SPECIFICATIONS ONLY

Voice (703) 246-6330
FAX (703) 591-5727
www.fairfaxva.gov

STREET LIGHTS
ACORN STYLE

SCALE: Not To Scale
DETAIL #: 407.02
REVISION DATE: July, 2005
SHEET #: 1 of 1

PICKETT ROAD LIGHT FIXTURE
CITY OF FAIRFAX STANDARD OR EQUAL

MetroScape LED Post-Top Comfort (MPTR)
by PHILIPS LUMEC **OR EQUAL**

INTERNAL STREET LIGHT FIXTURE

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

SITE LIGHTING AND PHOTOMETRICS

DRAWN BY:	
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	C-22

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C SITE LIGHTING AND PHOTOMETRICS.dwg USER: Richardson DATE: April 14, 2020 TIME: 8:03:11 AM

LAYOUT: C-22 SITE LIGHTING AND PHOTOMETRICS, Plotted By: Richardson

B

TYPICAL BUILDING ELEVATIONS (UNIT A)

Scale: 1/8" = 1'-0"

FRONT LOAD ELEVATIONS

A

TYPICAL BUILDING ELEVATIONS (UNIT B & C)

Scale: 1/8" = 1'-0"

REAR LOAD ELEVATIONS

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

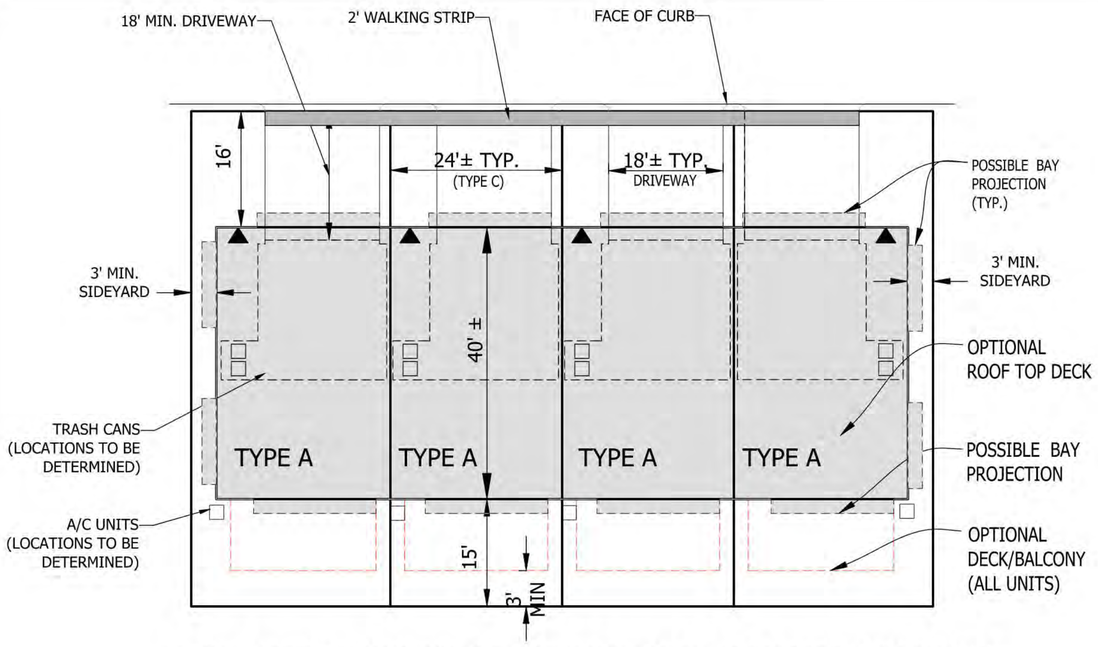
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

ARCHITECTURAL ELEVATIONS

DRAWN BY:	
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	A-1

FILE: Q:\Projects\7583\7583C\CADD\PLANNING DRAWINGS\7583C ARCH ELEV.dwg USER: Richardson DATE: February 7, 2020 TIME: 3:44:39 PM

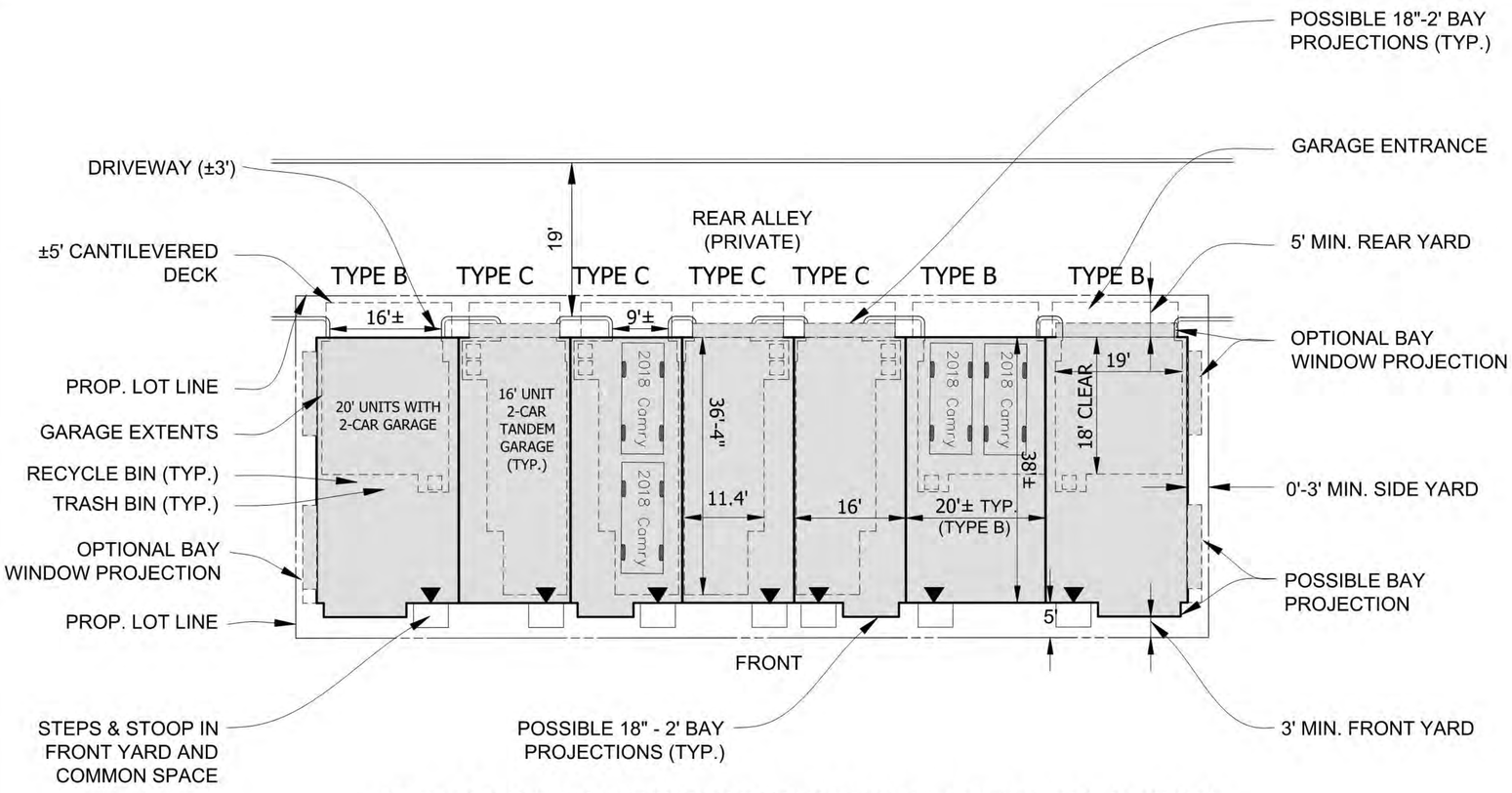
LAYOUT: A-1 ARCHITECTURAL ELEVATIONS, Plotted By: Richardson



TYPE A UNIT (2 PARKING SPACES IN GARAGE + 2 SPACES IN DRIVEWAY)

TYPICAL FRONT-LOAD TOWNHOUSE

NOTES:
1. FINAL LOT WIDTH AND DEPTHS SUBJECT TO CHANGE WITH FINAL ENGINEERING PLANS AND PLATS.
2. SETBACKS ARE MEASURED TO THE OUTER VERTICAL FACADES AND DO NOT INCLUDE ANY ARCHITECTURAL ELEMENTS SUCH AS BAY WINDOWS, COVERED BALCONIES, PORCHES, CHIMNEYS, EAVES, ETC.
3. GARAGE LAYOUT TO BE DETERMINED AT BUILDING PERMIT.
4. STOOPS, AIR CONDITIONERS AND HEAT PUMPS MAY EXTEND INTO SIDE YARDS TO WITHIN 1' OF PROPERTY LINE.
5. BAY WINDOWS AND CHIMNEYS MAY EXTEND TO WITHIN 2' OF ANY SIDE PROPERTY LINE.
6. GARAGE DOOR WILL BE INSET 2' TO ALLOW FOR AN 18' DRIWEWAY.



TYPE B & C UNITS (2 PARKING SPACES IN GARAGE, NO DRIVEWAY PARKING)

TYPICAL REAR-LOAD TOWNHOUSE

NOTES:
1. FINAL LOT WIDTH SUBJECT TO CHANGE WITH FINAL ENGINEERING PLANS AND PLATS.
2. SETBACKS ARE MEASURED TO THE OUTER VERTICAL FACADES AND DO NOT INCLUDE ANY ARCHITECTURAL ELEMENTS SUCH AS BAY WINDOWS, COVERED BALCONIES, PORCHES, CHIMNEYS, EAVES, ETC.
3. GARAGE LAYOUT TO BE DETERMINED AT BUILDING PERMIT.
4. ROOFTOP DECKS MAYBE ADDED.
5. STOOPS, AIR CONDITIONERS AND HEAT PUMPS MAY EXTEND INTO SIDE YARDS TO WITHIN 1' OF PROPERTY LINE.
6. AIR CONDITIONERS AND HEAT PUMPS MAY EXTEND INTO REAR YARDS TO THE PROPERTY LINE.
7. BAY WINDOWS AND CHIMNEYS MAY EXTEND TO WITHIN 2' OF ANY SIDE PROPERTY LINE AND 1' OF ANY REAR PROPERTY LINE.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD

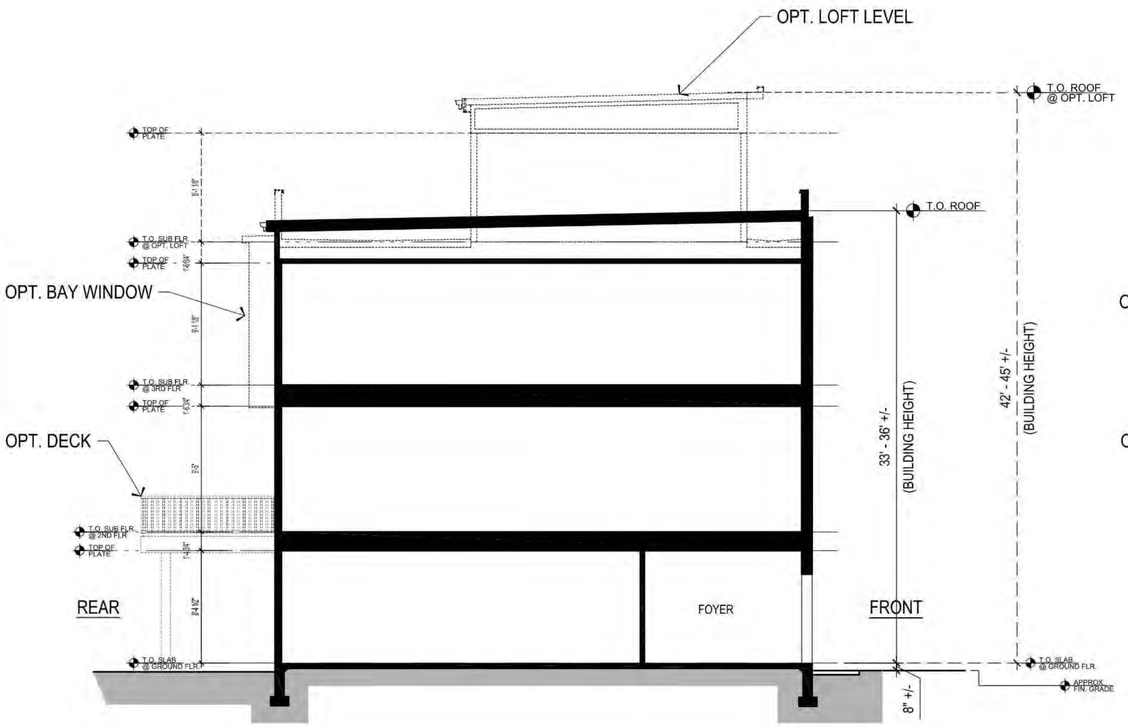
CITY OF FAIRFAX, VIRGINIA

TOWNHOME DETAILS

DRAWN BY:
DESIGNED BY:
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: 1" = 10'
VIKA JOB NO. VV7583C
SHEET NO. A-2

LAYOUT: A-2 ARCHITECTURAL SECTIONS, Plotted By: Richardson

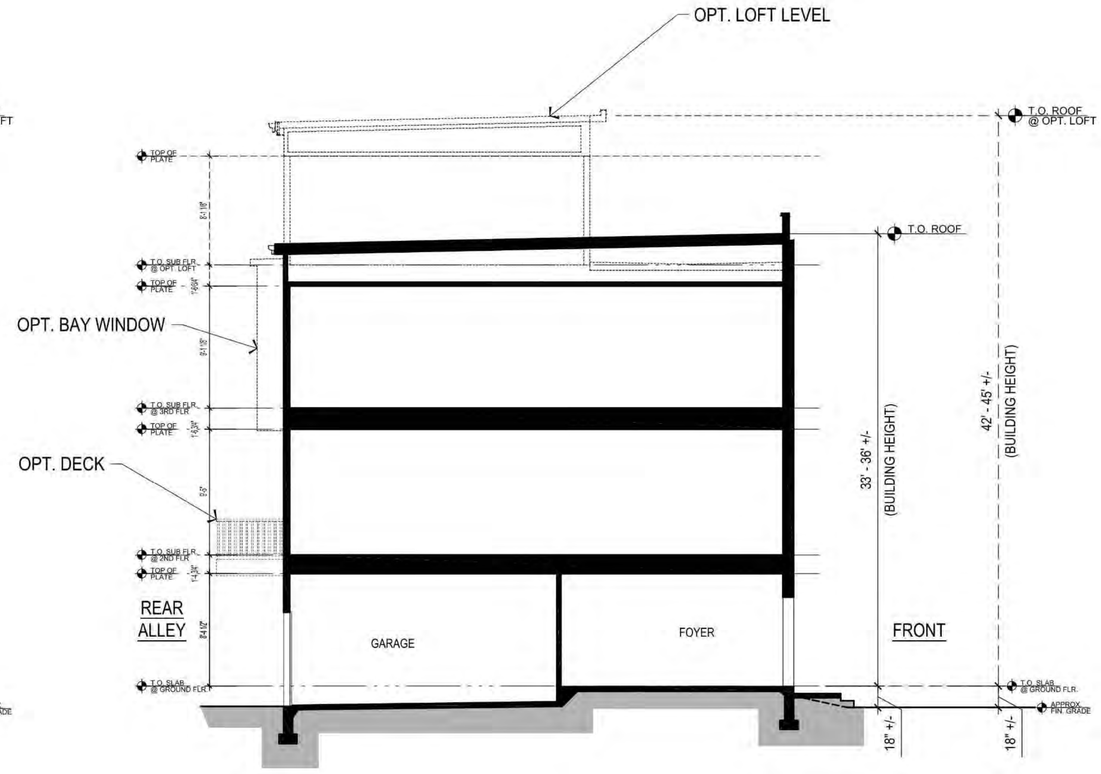
FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C TOWNHOME DETAILS.dwg USER: rinek DATE: April 9, 2020 TIME: 2:40:46 PM



B TYPICAL BUILDING SECTION (UNIT A)

Scale: 3/16" = 1'-0"

FRONT LOAD UNITS



A TYPICAL BUILDING SECTION (UNIT B & C)

Scale: 3/16" = 1'-0"

REAR LOAD UNITS

LAYOUT: A-3, Plotted By: Richardson

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

ARCHITECTURAL SECTIONS

DRAWN BY:
DESIGNED BY:
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. A-3

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C ARCH SECTIONS.dwg USER: Masangkay DATE: February 7, 2020 TIME: 12:01:54 PM

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE
GRID NORTH
(VSC 83)

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD

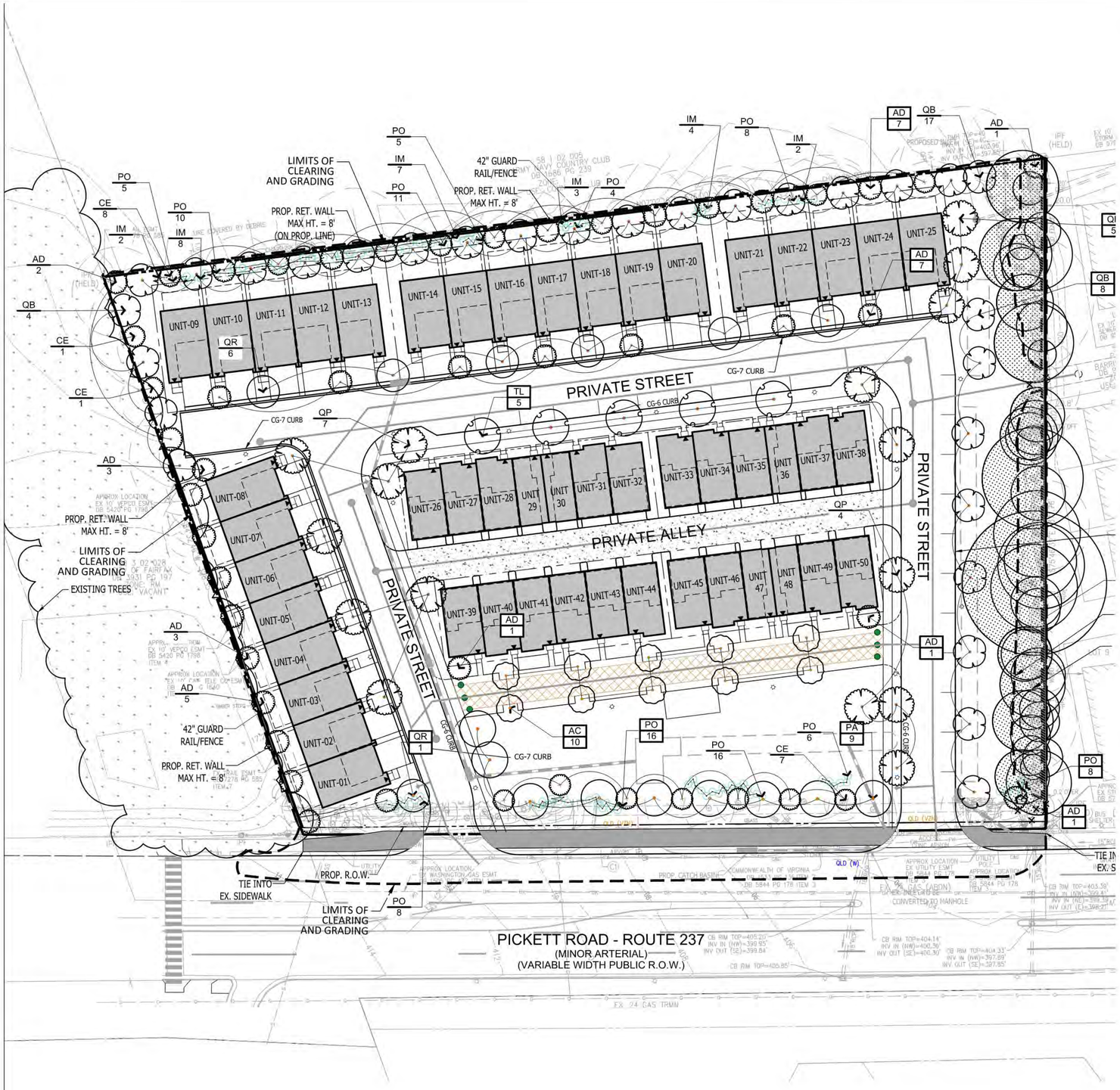
CITY OF FAIRFAX, VIRGINIA

OVERALL SITE ILLUSTRATIVE

DRAWN BY:
DESIGNED BY: PR
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. L-01

FILE: Q:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C OVERALL SITE.dwg USER: rinek DATE: April 10, 2020 TIME: 11:22:15 AM

LAYOUT: L-01 OVERALL ILLUSTRATIVE SITE, Plotted By: Richardson



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

LEGEND

CANOPY TREES

UNDERSORY TREES

SHRUBS

EXISTING TREES

* TRANSITIONAL YARDS- SEE L-03 AND C-01 FOR MORE DETAIL

PLANT SCHEDULE

CANOPY TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	AC	ACER RUBRUM `COLUMNARE'	COLUMNAR RED MAPLE	3" CAL.	B&B
	PA	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	3" CAL.	B&B
	QB	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL.	B&B
	QP	QUERCUS PHELLOS	WILLOW OAK	3" CAL.	B&B
	QR	QUERCUS RUBRA	RED OAK	3" CAL.	B&B
	TL	TILIA AMERICANA	AMERICAN LINDEN	3" CAL.	B&B
UNDERSTORY TREES	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**
	AD	AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	3" CAL.	B&B
	CE	CERCIS CANADENSIS	EASTERN REDBUD MULTI-TRUNK	3" CAL.	B&B
SHRUBS	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**
	IM	ILEX X MESERVEAE	MESERVE HOLLY	---	
	PO	PRUNUS LAUROCERASUS `OTTO LUYKEN'	OTTO LUYKEN LAUREL	---	

CATEGORY II DECIDUOUS TREES

CODE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	10 YR CANOPY CREDIT	SUB-TOTAL 10 YR TREE CANOPY CREDIT
AM	31	AMELANCHIER ARBOREA	DOWNEY SERVICEBERRY	3" CAL.	B&B	125	3,875
CE	16	CERCIS CANADENSIS	EASTERN RED BUD	3" CAL.	B&B	125	2,000
	31						5,875

CATEGORY IV DECIDUOUS TREES

PA	9	PLATANUS X ACERFOLIA	LONDON PLANE TREE	3" CAL.	B&B	250	2,250
QB	29	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL.	B&B	250	7,250
QP	16	QUERCUS PHELLOS	WILLOW OAK	3" CAL.	B&B	250	4,000
QR	7	QUERCUS RUBRA	RED OAK	3" CAL.	B&B	250	1,750
TL	5	TILIA AMERICANA	AMERICAN LINDEN	3" CAL.	B&B	250	1,250
	66						16,500

CATEGORY I DECIDUOUS TREES

AC	10	ACER RUBRUM `COLUMNARE'	COLUMNAR RED MAPLE	3" CAL.	B&B	75	750
	10						750

							PROVIDED CANOPY
	107						23,125
							EXISTING CANOPY
							9,467

TOTAL 10 YR TREE CREDIT PROVIDED **32,592.00** SF.
TOTAL 10 YR TREE CREDIT REQUIRED **32,199.00** SF.

SITE AREA	160, 993 SF (3.694 AC)
ZONE PD-R 10 YR TREE CANOPY REQUIREMENT	20%
EXISTING TREE CANOPY	9,467 SF
10 YR TREE CANOPY REQUIRED	32,199 SF
TOTAL TREE CANOPY PROVIDED	32,342 SF

VIKA

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LANDSCAPE ARCHITECT AND SURVEYOR

3500 PICKETT ROAD

CITY OF FAIRFAX, VIRGINIA

LANDSCAPE PLAN

DRAWN BY:
DESIGNED BY: PR
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. L-02

FILE: Q:\Projects\V7583\C3ADD\PLANNING\PLANNING DRAWINGS\7583C LANDSCAPE PLAN.dwg USER: rinek DATE: April 9, 2020 TIME: 3:34:46 PM

LAYOUT: L-01 LANDSCAPE PLAN, Plotted By: Richardson

PLANTING NOTES

I. General

1. Landscape Specifications: Landscape specifications shall be as outlined below. Any item or procedure not mentioned below shall be as specified in the Landscape specification guidelines published by the Landscape Contractors Association (latest edition).
2. Plant Materials: The Landscape Contractor shall furnish and install and/or dig, ball, burlap, and transplant plant materials called for on the drawings and/or listed in the plant schedule. The City reserves the right to inspect plant material at the nursery source, before off-loading at the project site, when in storage or prior to installation.
3. Plant Names: Plant names used in the plant schedule shall be identified in accordance with Hortus Third, by L.H. Bailey, 1976.
4. Plant Standards: Plant materials shall be equal to or better than the requirements of the "American Standard for Nursery Stock" (ANSI Z60.1 latest edition), as published by the American Association of Nurseryman (hereinafter referred to as AAN standards). Plants shall be typical of their species and variety, shall have a normal habit of growth, and shall be first quality, sound, vigorous, well branched, and with healthy, well-furnished root systems. They shall be free of disease, insect pests, and mechanical injuries.
   (A) Plants shall be nursery grown and shall have been grown under the same climatic conditions as the location of the subject project for at least two years before planting. Neither heeled-in plant, nor plants from cold storage will be accepted.
   (B) Collected plants or transplanted trees when specified by the landscape architect may be used, provided that locations and soil conditions will permit proper balling.
5. Materials for Planting:
   (A) Stakes for guying trees shall be sound oak or other approved hardwood. Three stakes spread 120-degrees apart shall be used when detailed. Notch stakes for wire. See details. Trees located between sidewalk and curb shall have two stakes.
   (B) Tree Guys: Provide wire ties and guys of 2-strand, twisted, pliable galvanized steel wire not lighter than 12-gauge with zinc coated turnbuckles. Provide w-ply garden hose not less than 0.5-inch hose size, cut to lengths to protect tree trunks from damage by wires. Provide 14-gauge wire for trees less than 12-ft. height. Wire for guy may be twisted when a turnbuckle is not specified by the landscape architect. Use of tree ties in lieu of wire is acceptable.
   (C) Mulching: Mulch shall consist of double shredded hardwood mulch.
6. Planting Schedule: A professional horticulturist/nurseryman shall be consulted to determine the proper time, based on plant species and weather conditions, to move and install plant materials to minimize stress to the plant. Planting of deciduous material may be continued during the winter months provided there is no frost on the ground and frost-free soil planting mixtures are used.

Department of Public Works, 10455 Armstrong Street, Fairfax, VA 22030-3630 — CITY of FAIRFAX — USE WITH THE FAIRFAX STANDARD SPECIFICATIONS ONLY — Voice (703) 385-7810, FAX (703) 591-5727, www.fairfaxva.gov

PLANTING NOTES DETAIL | SCALE: Not To Scale | DETAIL #: 8.08 | REVISION DATE: December 2016 | SHEET #: 1 of 3

II. Planting Execution

1. Excavation of Plant Pits
   (A) Circular Pits, with vertical sides shall be excavated for all plants. In heavy soils, slope the sides outward. The diameter of the holes shall be 18-inches greater than the diameter of the ball for trees, or 1.5 times the diameter of shrubs and container grown material.
   (B) The depth of pits shall allow for one-eighth of the tree root ball or container depth to be above existing grade.
   (C) Obstructions encountered in excavated or planted areas shall be removed or plants relocated as approved.
   (D) Plants shall be planted plumb, at slightly above grade as in the nursery (in relation to finished grade); tamp topsoil under and around base of ball to fill all voids. Remove all burlap, ropes, plastic or synthetic twine or film, and wires from sides and tops of balls, but do not remove burlap from under ball. Thoroughly water when hole is two-thirds full of topsoil. Mix soil amendments thoroughly with soil mixture. Backfill pit halfway and tamp as pit is filled. Do not over compact remainder of backfill. After watering, 3" of mulch shall be applied over a 3" earth berm to create a shallow watering basin around the tree.
   (E) Shrubs shall be planted in conformance with deciduous shrub planting Detail 8.05.

III. Staking and Guying

1. Each tree or evergreen shall be immediately staked or guyed after planting.
   (A) Deciduous trees 2-2.5" caliper or larger and all evergreen trees shall be staked and guyed with three 2" x 2" x 6' hardwood stakes per tree, spread 120-degrees apart. Hardwood stakes shall be driven no less than 10-inches below subgrade and outside the root ball. A double strand of 12-gauge galvanized wire shall be twisted and threaded through 0.5-inch garden hose to protect the tree trunk and secured to the hardwood stake. Notch stakes for wire.
   (B) The 12-gauge galvanized wire shall be placed at a 45-degree angle from the tree to the stake. See Detail 8.04.

IV. Plant Pruning, Edging, and Mulching

1. Pruning shall be by experienced landscape personnel. Remove broken or damaged branches and roots. Cut back and thin deciduous material to retain two-thirds of the initial branches. Cut back evergreens to give compact uniform appearance. Damaged or pruned tree leaders shall be cause for rejection. Do not cut leaders.
2. If foliage is present on deciduous plant material, they shall be sprayed with an anti-desiccant, which slows down the transpiration process, through reducing the danger of dehydration.
3. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit.
4. After cultivation, plant material shall be mulched with a three-inch layer of double shredded mulch over the entire area of the bed or saucer.

Department of Public Works, 10455 Armstrong Street, Fairfax, VA 22030-3630 — CITY of FAIRFAX — USE WITH THE FAIRFAX STANDARD SPECIFICATIONS ONLY — Voice (703) 385-7810, FAX (703) 591-5727, www.fairfaxva.gov

PLANTING NOTES DETAIL | SCALE: Not To Scale | DETAIL #: 8.08 | REVISION DATE: December 2016 | SHEET #: 2 of 3

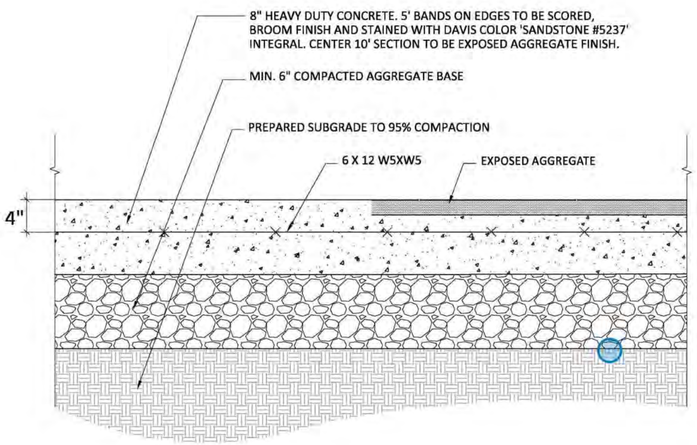
II. Warranty:

Plant material shall have a one-year warranty commencing on the date of initial acceptance. Plant material shall be alive and in satisfactory condition at the end of the warranty period. Plant material will be considered dead if 25% or more of the material is found to be dead. Trees with a leader that has died will be considered dead. Trees with 25% or more crown found to be dead will also be considered dead.

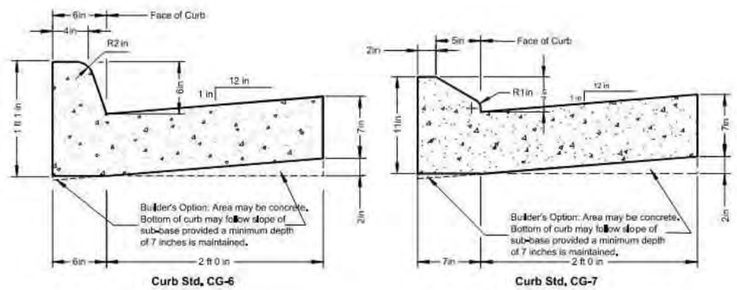
(A) Dead plants shall be replaced in the next planting period or as approved.
(B) Replacements shall be of same type and size of specie originally specified or as approved.
(C) The warranty shall be for a one-time only replacement.
(D) Contractor will not be responsible for vandalism or losses due to abnormal weather conditions.

Department of Public Works, 10455 Armstrong Street, Fairfax, VA 22030-3630 — CITY of FAIRFAX — USE WITH THE FAIRFAX STANDARD SPECIFICATIONS ONLY — Voice (703) 385-7810, FAX (703) 591-5727, www.fairfaxva.gov

PLANTING NOTES DETAIL | SCALE: Not To Scale | DETAIL #: 8.08 | REVISION DATE: December 2016 | SHEET #: 3 of 3

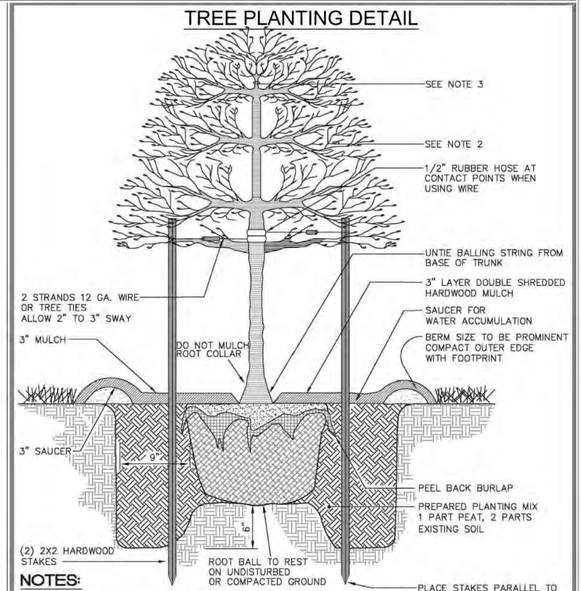


1 PROMENADE/FIRE LANE DETAIL SECTION
NOT TO SCALE



PROPOSED CURB DETAILS

TREE PLANTING DETAIL



NOTES:

1. See Detail 8.08 for Planting Notes.
2. Prune only to remove dead or damaged branches. Raising branches is to be performed when approved to provide clearances for pedestrians.
3. Never prune the leader.
4. Remove non-decomposing material from root ball.
5. Remove stakes and wire at end of warranty period or at end of one growing season as approved.

Department of Public Works, 10455 Armstrong Street, Fairfax, VA 22030-3630 — CITY of FAIRFAX — USE WITH THE FAIRFAX STANDARD SPECIFICATIONS ONLY — Voice (703) 385-7810, FAX (703) 591-5727, www.fairfaxva.gov

SINGLE-STEM TREE PLANTING UPRIGHT STAKING DETAIL | SCALE: Not To Scale | DETAIL #: 8.01 | REVISION DATE: December 2016 | SHEET #: 1 of 1

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
AND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

LANDSCAPE TABULATION AND DETAILS

DRAWN BY:
DESIGNED BY: PR
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. L-03

FILE: Q:\Projects\75831\75583C\CADD\PLANNING\PLANNING DRAWINGS\75583C LSC TABULATION AND DETAILS.dwg USER: Richardson DATE: April 14, 2020 TIME: 7:50:59 AM

LAYOUT: L-03 LANDSCAPE TABULATION AND DETAILS, Plotted By: Richardson

LEGEND

- CANOPY TREES
- TREE PRESERVE
- UNDERSORY TREES
- SHRUBS

TRANSITIONAL YARD & FENCE REQUIREMENTS

Lot Line Length (Feet)	Transitional Yard Required	Transitional Yard Width Required (Feet)	Proposed Transitional Yard Width (Feet)	Required Fence (Feet)	Proposed Fence (feet)	Minimum Canopy Required (3 every 100')	Minimum Understory Required (3 every 100')	Minimum Shrubs Required (per 100')	Canopy Provided	Understory Provided	Evergreen Povided	Shrubs Povided	Jusification
371.76	TY2	10	North - 10'	6' (WR)	North - 6' Metal	11	11	-	(WR)	(WR)			A large swath of existing vegetation along the northern boundary will be preserved
328.35	TY2	10	South - 0-7.5'	6'(WR)	South - 42" Railing	10	10	-	4(WR)	4(WR)			106' of densly wooded property to the south, owned by the City of Fairfax.
242	TY2	10	East - 10'	6(WR)	East - None	8	8	-	**9**	**8**		54	A small portion tapers down to zero although the full required amount of plant is provided.
526	TY2	10	West - 0-7.5'	6(WR)	West - 42" Railing	16	16	-	17(WR)	17(WR)		92	A reduction in the width to 7.5' although the full plantings of a TY2 is provided.

WAIVER REQUEST (WR)

TRANSITIONAL YARDS- SEE C-01
FOR MODIFICATION REQUEST

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VA STATE GRID NORTH (VSC 83)

LAYOUT: L-04 TRANSITIONAL SCREENING YARDS, Plotted By: Richardson

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

PROPOSED TRANSITIONAL SCREENING YARDS

DRAWN BY: —
DESIGNED BY: PR
DATE ISSUED: NOVEMBER 22, 2019
DWG. SCALE: AS SHOWN
VIKA JOB NO. VV7583C
SHEET NO. L-04

FILE: Q:\Projects\VV7583\CADD\PLANNING\PLANNING DRAWINGS\VV7583C LANDSCAPE PLAN.dwg USER: rinek DATE: April 9, 2020 TIME: 3:34:46 PM

LEGEND

OPEN SPACE
TO BE A MIX OF INFORMAL ACTIVE AND PASSIVE AREAS, AS WELL AS MORE FORMAL DEVELOPED RECREATIONAL AREAS.

NOTE:
THE DRAWINGS AND IMAGES SHOWN HEREON ARE INTENDED TO REPRESENT TYPICAL LANDSCAPE ARCHITECTURAL CONCEPTS THAT PORTRAY THE GENERAL APPEARANCE AND CHARACTER FOR THE PROJECT. THE APPLICANT RESERVES THE OPTION TO MODIFY THE PLAN PER FINAL SITE DESIGN, PROVIDED OVERALL QUALITY AND DESIGN INTENT ARE MAINTAINED.
THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION.

OPEN SPACE CALCULATION:

REQUIRED OPEN SPACE:
160,993 SF (3.694 AC.) X 20% = 32,199 SF (0.74 AC.)
TOTAL OPEN SPACE PROVIDED = 36,079 SF. (0.83 AC.)
OR 22%

VA STATE GRID NORTH (VSC 83)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VIKA
ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2020
RESUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
4/10/20
ROBERT R. COCHRAN
Lic. No. 2012
LAND SURVEYOR

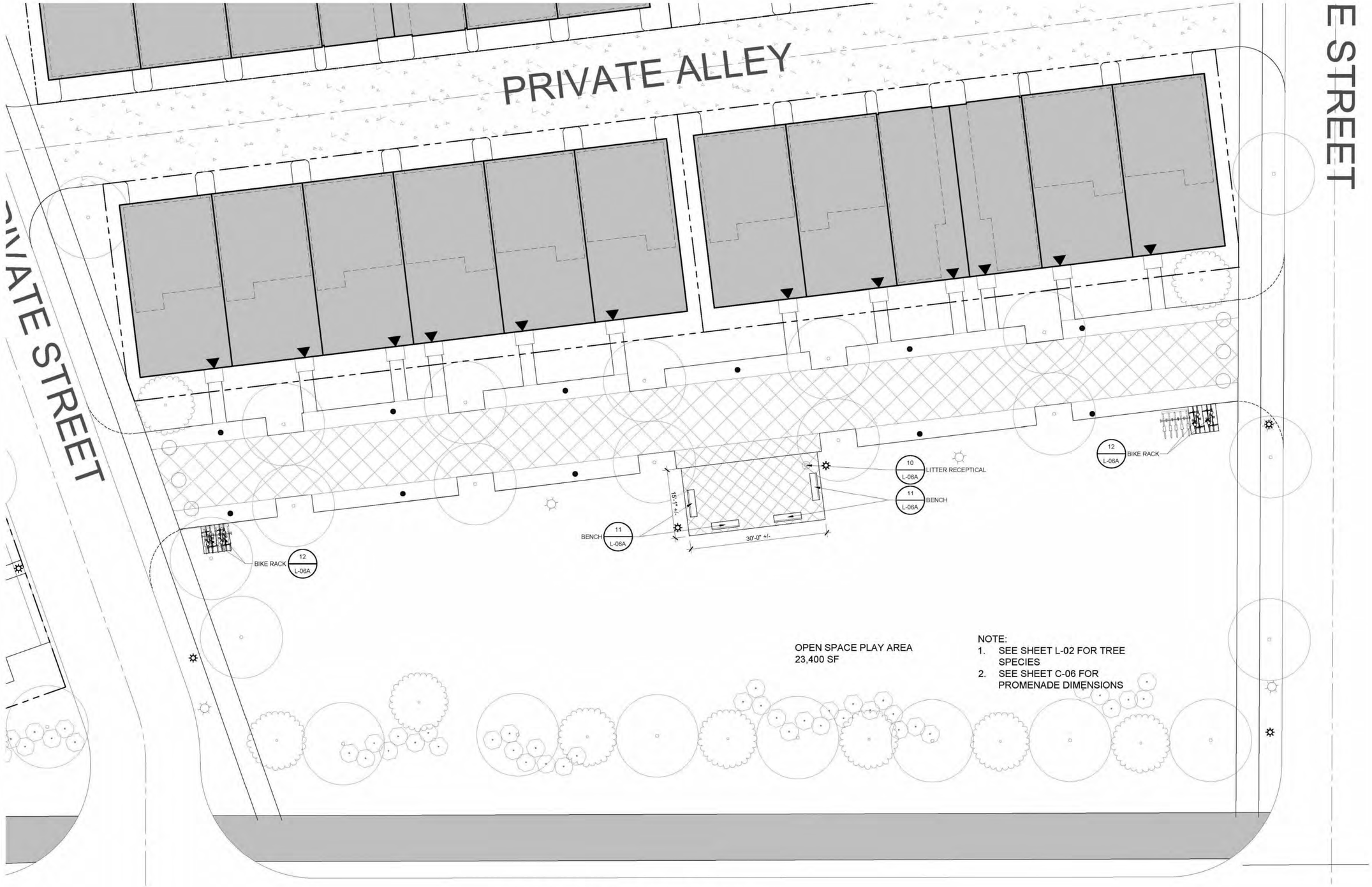
3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

OPEN SPACE PLAN

DRAWN BY:	RYM
DESIGNED BY:	PR
DATE ISSUED:	NOVEMBER 22, 2019
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	L-05

LAYOUT: L-05 OPEN SPACE PLAN, Plotted By: Richardson

FILE: O:\Projects\7583\7583C\CADD\PLANNING\PLANNING DRAWINGS\7583C OPEN SP.dwg USER: Richardson DATE: April 10, 2020 TIME: 9:19:40 AM



ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2019
3RD SUBMISSION	04/10/2020

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH J. PLUMPE
Lic.No.000802
02.06.20
LANDSCAPE ARCHITECT

3500 PICKETT ROAD

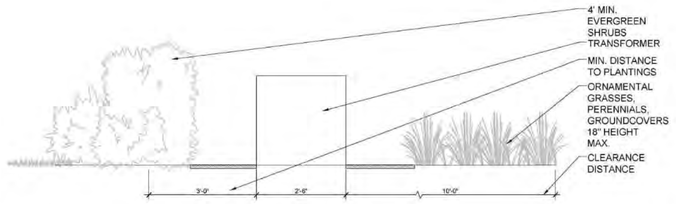
CITY OF FAIRFAX, VIRGINIA

OPEN SPACE ENLARGEMENT

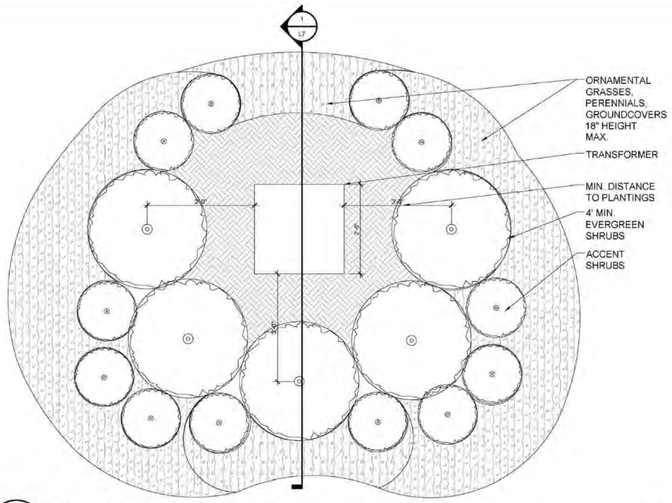
DRAWN BY:	B.C.
DESIGNED BY:	D. DOVE
DATE ISSUED:	JANUARY 20, 2020
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	L-06

P:\2019\19088 Pickett EYA\6.0 CAD Files\CURRENT PHASE\L-06 OPEN SPACE ENLARGEMENT.dwg

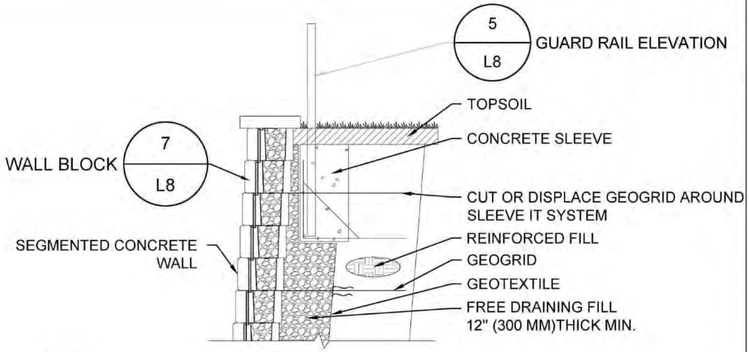
LAYOUT: L-06 OPEN SPACE ENLARGEMENT, Plotted By: ybhang



1 L-06A **TRANSFORMER SCREEN SECTION** SECTION
Scale: 1/2" = 1'-0"

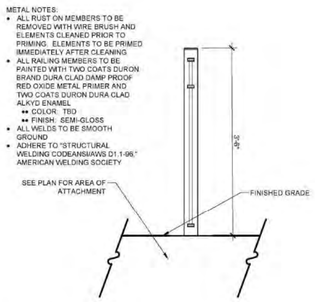


2 L-06A **TRANSFORMER SCREEN PLAN** PLAN
Scale: 1/2" = 1'-0"

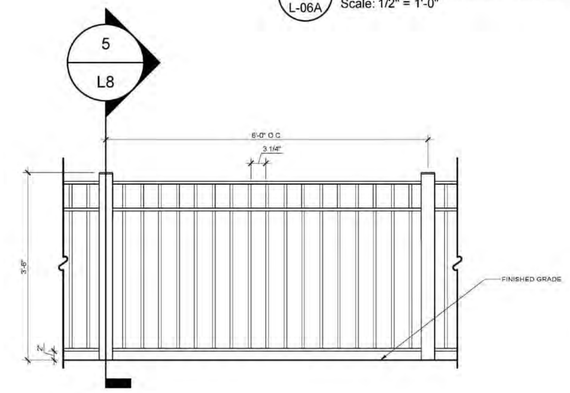


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

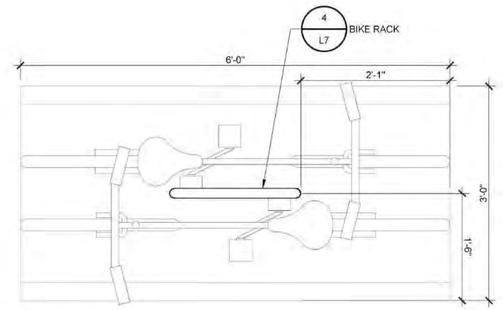
3 L-06A **RETAINING WALL WITH GUARD RAIL** SECTION
Scale: 3/4" = 1'-0"



4 L-06A **GUARD RAIL SECTION** SECTION
Scale: 3/4" = 1'-0"



5 L-06A **GUARD RAIL ELEVATION** ELEVATION
Scale: 3/4" = 1'-0"



9 L-06A **BIKE RACK LAYOUT** SECTION
Scale: 1" = 1'-0"

MODEL:	LAKESIDE LITTER - GRASS TOP OPEN LITTER RECEPTICAL OR APPROVED EQUAL
MODEM:	
SIZE:	21" X 36" X 35 GAL
COLOR:	TBD
QUANTITY:	PER PLAN
COMPANY:	LANDSCAPE FORMS 7800 E/ MICHIGAN AVE. KALAMAZOO, MI 49048 (P) 800.430.6209
NOTES:	1)INSTALL PER MANUFACTURER'S RECOMMENDATIONS 2)CONTRACTOR TO VERIFY QUANTITIES

10 L-06A **LITTER RECEPTICAL** PROD. INFO.
Scale: NTS

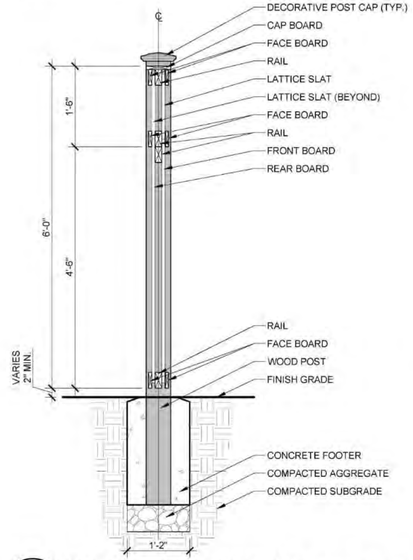
MODEL:	NEOLIVIANO BENCH 69" BACKED OR APPROVED EQUAL
SIZE:	27" X 69" X 31"
COLOR:	TBD
QUANTITY:	PER PLAN
COMPANY:	LANDSCAPE FORMS 7800 E/ MICHIGAN AVE. KALAMAZOO, MI 49048 (P) 800.430.6209
NOTES:	1)INSTALL PER MANUFACTURER'S RECOMMENDATIONS 2)CONTRACTOR TO VERIFY QUANTITIES

11 L-06A **BENCH** PROD. INFO.
Scale: NTS

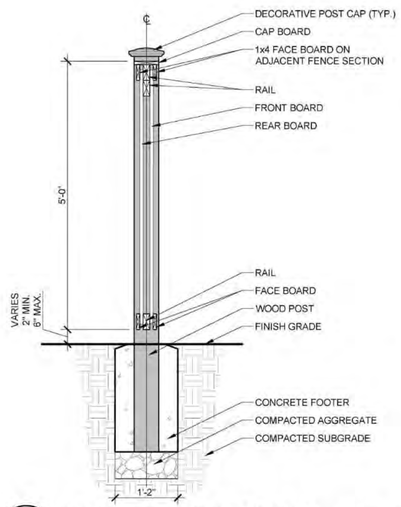
MODEL #:	BRWS-101 OR APPROVED EQUAL
DESCRIPTION:	SINGLE WIDE LOOP BIKE RACK CONSTRUCTED OF 2 ⅜" OD SCHEDULE 40 TUBULAR STEEL PIPE
COLOR/FINISH:	TBD
QUANTITY:	PER PLAN
COMPANY:	VICTOR STANLEY P.O. DRAWER 330 DUNKIRK, MD 20754 www.victorstanley.com
CONTACT:	CLAIRE COOLIDGE P: 301.855.8300 F: 410.257.7579

NOTES:
1) INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND GOVERNING MUNICIPAL REQUIREMENTS.
2) CONTRACTOR TO VERIFY QUANTITIES.

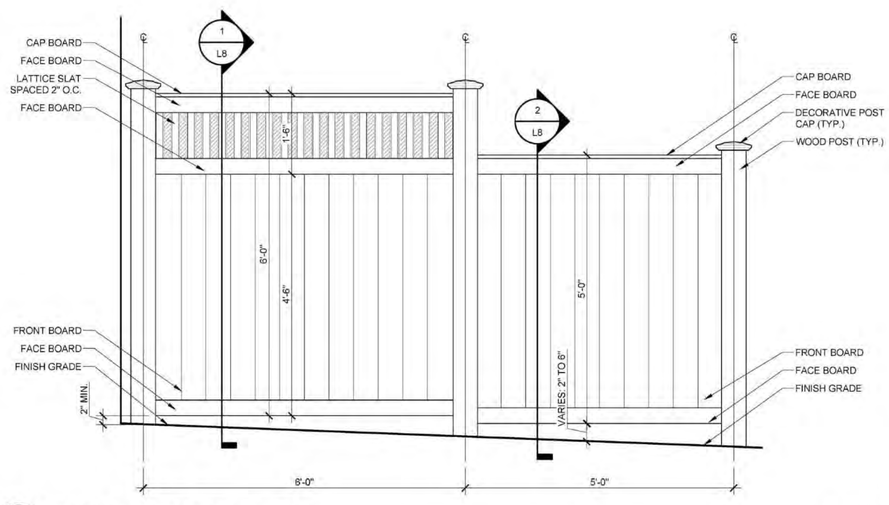
12 L-06A **BIKE RACK** PROD. INFO.
Scale: NTS



6 L-06A **SCREEN FENCE SECTION A** SECTION
Scale: 3/4" = 1'-0"



7 L-06A **SCREEN FENCE SECTION B** SECTION
Scale: 3/4" = 1'-0"



8 L-06A **SCREEN FENCE ELEVATION** SECTION
Scale: 3/4" = 1'-0"

ENGINEERING SURVEYING/GEOMATICS
LANDSCAPE ARCHITECTURE PLANNING
VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE SUITE 200
TYSONS, VIRGINIA 22102
PHONE: (703) 442-7800
FAX: (703) 761-2787
TYSONS, VA. GERMANTOWN, MD.

DEVELOPER
EYA DEVELOPMENT LLC
4800 HAMPTON LANE
SUITE 300
BETHESDA, MD 20814
301-634-8614

LAND USE ATTORNEY:
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190-5656
ATTN: MARK LOONEY
(703) 456-8039

LANDSCAPE ARCHITECT:
STUDIO 39
6416 GROVEDALE DRIVE
ALEXANDRIA, VA 22310
ATTN: JOE PLUMPE
(703) 719-6500

REVISIONS	DATE
2ND SUBMISSION	02/07/2019
3RD SUBMISSION	04/10/2020

PROFESSIONAL SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH J. PLUMPE
Lic.No.000802
02.06.20
LANDSCAPE ARCHITECT

3500 PICKETT ROAD
CITY OF FAIRFAX, VIRGINIA

HARDSCAPE DETAILS AND PRODUCT INFORMATION

DRAWN BY:	B.C.
DESIGNED BY:	D. DOVE
DATE ISSUED:	JANUARY 20, 2020
DWG. SCALE:	AS SHOWN
VIKA JOB NO.	VV7583C
SHEET NO.	L-06A

GOROVE / SLADE

15125 Washington Street
Suite 212
Haymarket, VA 20169
571.248.0992

TECHNICAL MEMORANDUM

To:	Curt McCullough	City of Fairfax
	Wendy Block Sanford	City of Fairfax
CC:	Kristen Hook	EYA, LLC
	Wyndham Robertson	EYA, LLC
	Mark Looney	Cooley LLP
From:	Geeta Kharche	
	Chad Baird	
	Niraja Chandrapu, P.E., PTOE	
Date:	November 15, 2019	
Subject:	**3500 Pickett Road Redevelopment – Traffic Impact Assessment**	

Introduction

This memorandum presents an assessment of the traffic impacts and roadway improvements associated with the redevelopment of the existing Metro Church site located in the City of Fairfax, Virginia. The site is planned to be redeveloped into 52 townhomes with one full access and one partial (right-in/right-out) access along Pickett Road (Rte. 237).

Project Description

The project site is located at 3500 Pickett Road in the City of Fairfax, Virginia. The site is currently occupied by the Metro Church. The Applicant proposes to redevelop the site with 52 townhomes, which are anticipated to be complete by 2022.

The site is situated on one parcel of land, totaling approximately 3.718 acres, and is currently zoned Residential Low (RL). The parcel can be identified on the City of Fairfax GIS with the following PIN#: 58-1-02-021.

The Metro Church site is currently served by two access points with one full-movement access point to the north of the site, and one right-in/right-out access point to the south of the property along Pickett Road (Rte. 237). With the proposed redevelopment of the site, the northern full-movement access is proposed to be shifted approximately 50-feet south of its existing location. Similarly, the southern right-in/right-out access is also proposed to be shifted approximately 150-feet south of its existing location to accommodate on site circulation and set-backs from adjacent properties. A site location map for the proposed development is included on Figure 1.

Figure 1: Site Location Map and Study Intersections

Existing Transportation Network

Existing Roadway Network

Pickett Road (Rte. 237) is a four-lane divided roadway between Main Street (Rte. 236) and Arlington Boulevard (Rte. 50). The roadway consists of left and right turn lanes and marked crosswalks at major intersections. Within the study area, the posted speed limit for the roadway is 35 mph. The City recognizes it as a Boulevard corresponding to its VDOT classification as a minor arterial. Based on VDOT's published historical data from 2018, Pickett Road carried approximately 26,000 vehicles per day between Colonial Avenue and Arlington Boulevard.

During the rezoning process for "The Enclave Condominium" development located at 9493 Silver King Court, a digital radar sign along northbound Pickett Road was proffered with the development. The installation of the sign was discussed to address speeding traffic along Pickett Road especially with the heavy truck traffic generated by the CITGO site. The sign does not currently exist, and its location and installation remain to be finalized subject to an approval by the City's Public Works department.

Existing Pedestrian Facilities

Concrete sidewalks are generally present along Pickett Road. As shown on Figure 2, such sidewalks are located on both sides of the roadway. Marked crosswalks are present at the signalized intersection of Pickett Road and Shelly Krasnow Lane/Barristers Keep Court. Marked crosswalks are also present along residential streets such as Shelly Krasnow Lane. Mid-block crosswalks are also present at certain locations along Pickett Road. For example, a marked crosswalk currently connects the west and east frontage of Pickett Road in front of the U.S. Post Office facility, located just south of the site.

It should be noted that, the mid-block crosswalk located across from the U.S. Post Office facility essentially serves the customers of the post office who park in the church parking lot and walk to-and-from the post office (the Post Office currently has a parking agreement with the Church). With the proposed redevelopment of the Metro Church site, the pedestrian traffic is anticipated to be negligible. As such, the mid-block crosswalk may or may not be needed in the future.

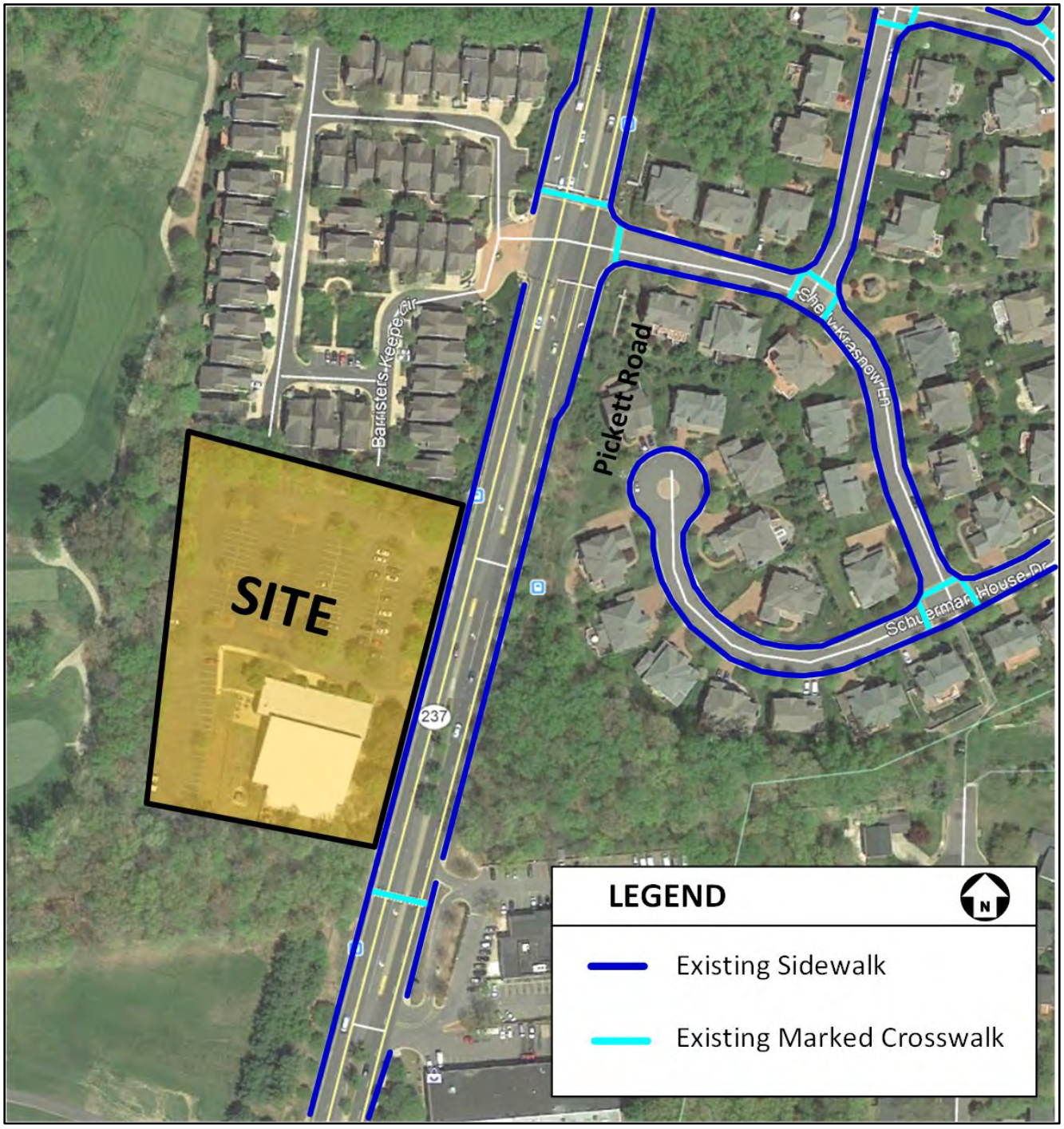


Figure 2: Existing Pedestrian Facilities in the Vicinity of the Site

Existing Public Transit Facilities

The subject site is served by the City of Fairfax's City University Energysaver (CUE) Bus "Green 1" and "Green 2" routes. The two routes provide service between Vienna/Fairfax-GMU Metrorail Station and George Mason University. The route travels north-south along Pickett Road (Rte. 237) with two northbound and 2 southbound bus stops. There is a bus shelter approximately 100' north of the relocated north site entrance for the southbound route. A bus shelter for the northbound route is located approximately 700' from the relocated north site entrance. Two other bus stops – one for each direction (without shelters) are located approximately 170' south of the relocated right-in/right-out entrance along Pickett Road (Rte. 237).

The bus stops also serve WMATA's metrobus route 29N which provides connection between the Vienna/Fairfax-GMU Metrorail Station and King Street- Old Town Station in Alexandria, VA.

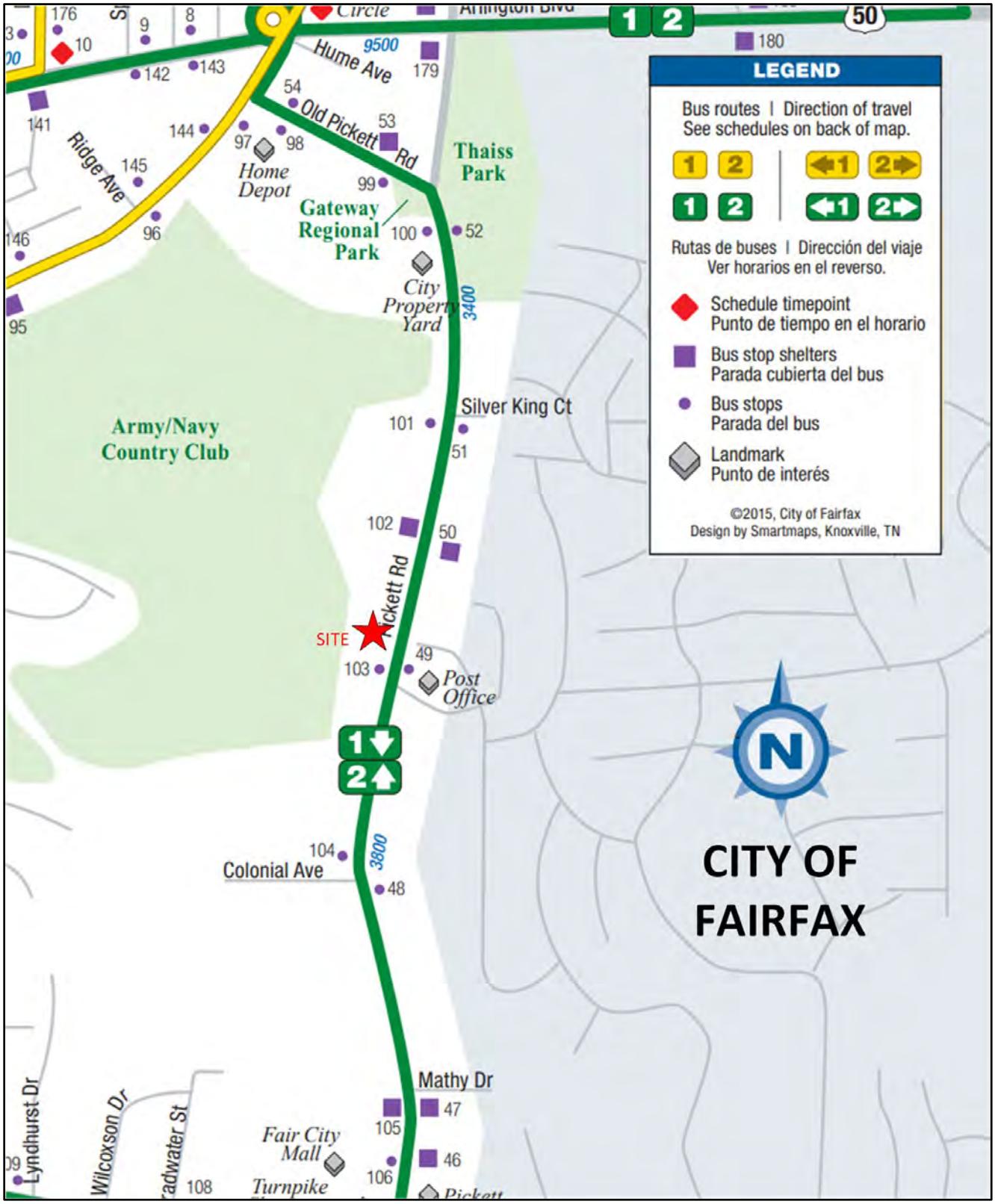


Figure 3: CUE Bus Routes along Pickett Road

Existing (2019) Conditions Traffic Volumes

Turning movement counts at the existing church entrances were conducted on October 16, 2019 between the hours of 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM. The raw traffic count data is included in Appendix A. The volumes were balanced between the two intersections. The existing (2019) conditions traffic volumes at the study intersection are illustrated on Figure 4 below.

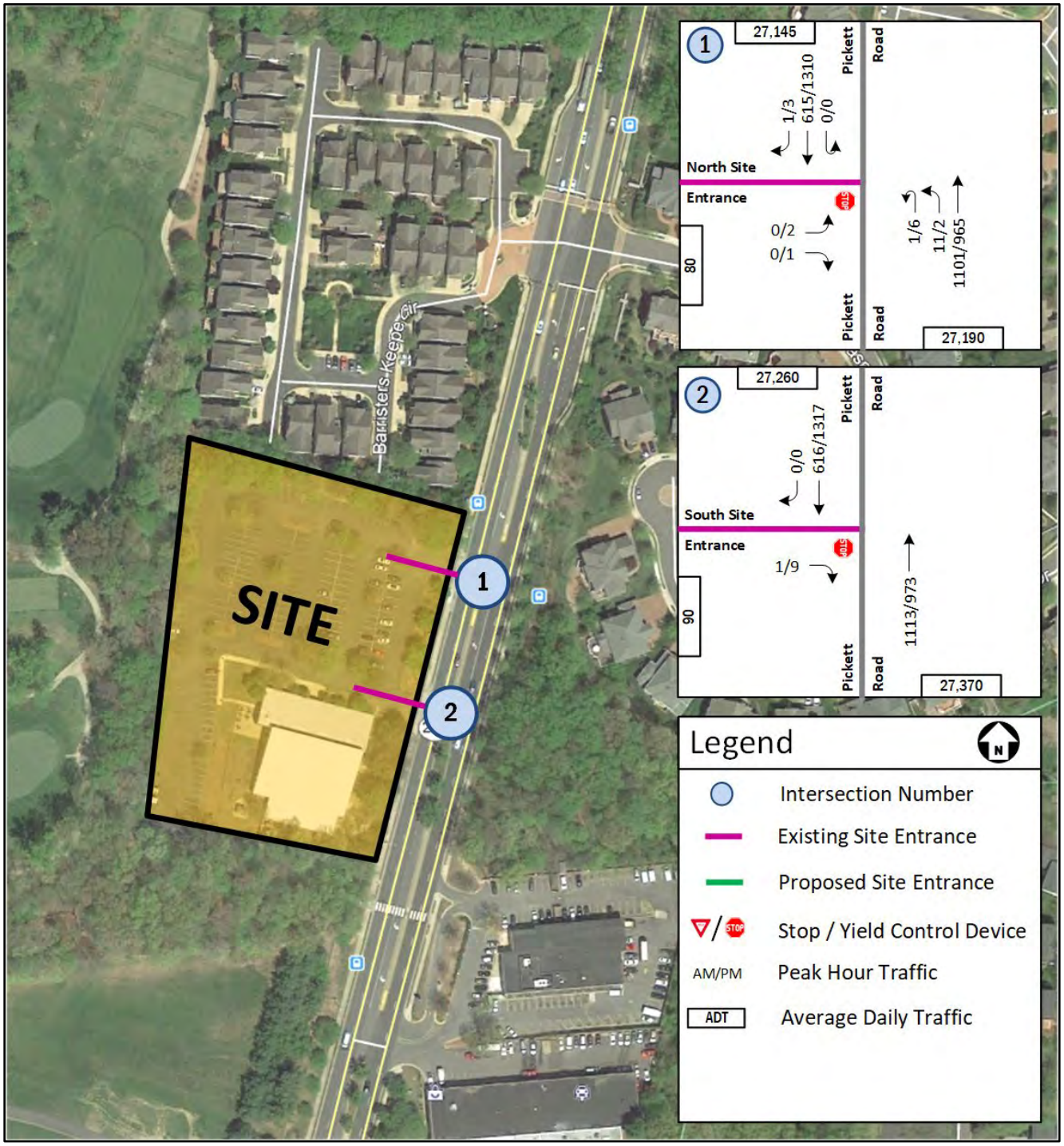


Figure 4: Existing (2019) Conditions Traffic Volumes

Future Conditions Without Development (2022)

As mentioned previously, the proposed development is anticipated to be developed by 2022. A growth rate of 1.0% (compounded annually) was applied to the existing (2019) conditions through traffic volumes along Pickett Road to account for regional growth for the three years between 2019 and 2022. The growth volumes are shown on Figure 5 below. The existing (2019) conditions traffic volumes and the growth volumes were combined to derive the future conditions without development (2022) traffic volumes and are shown on Figure 6.

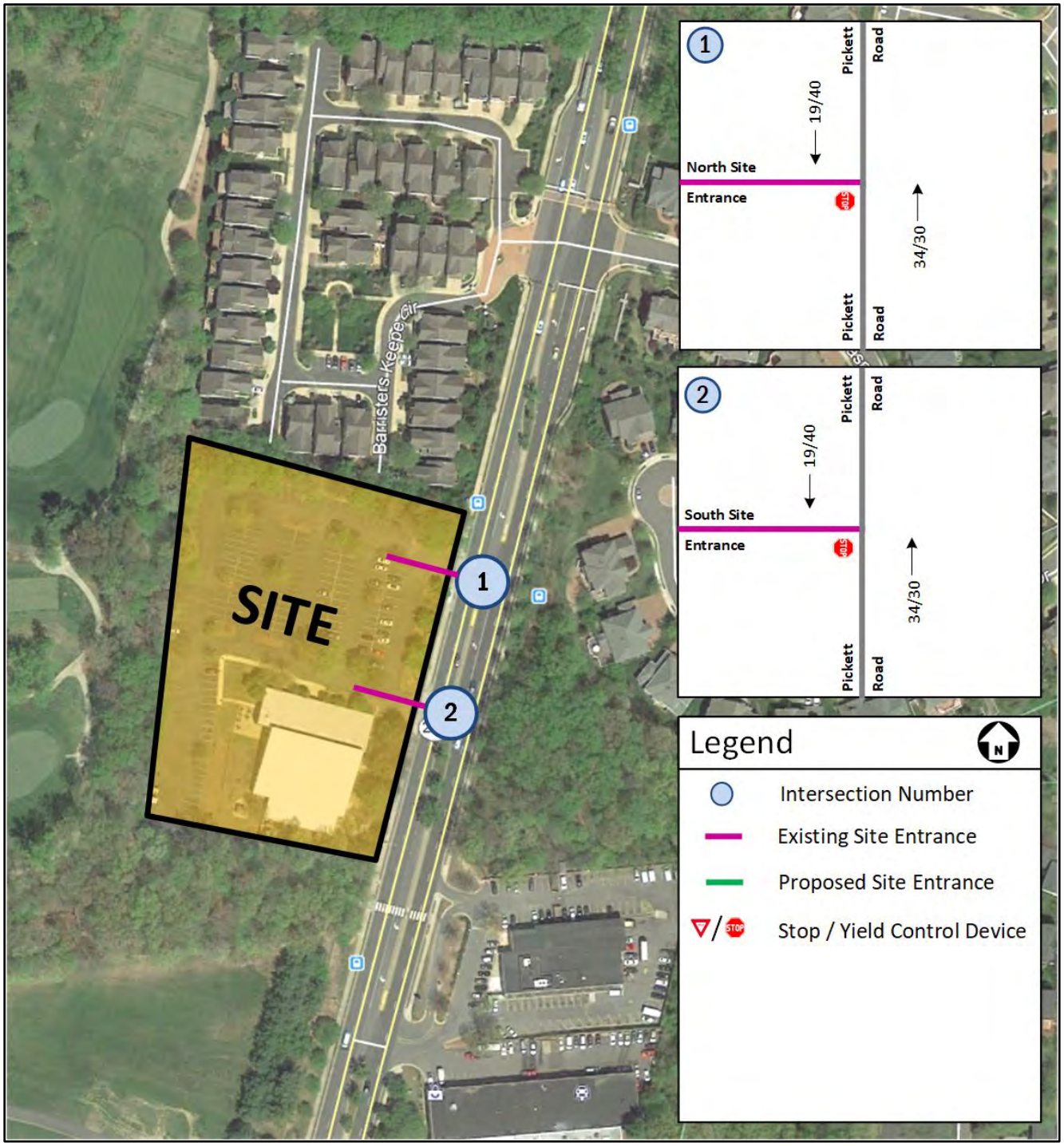


Figure 5: 2022 Growth Volumes

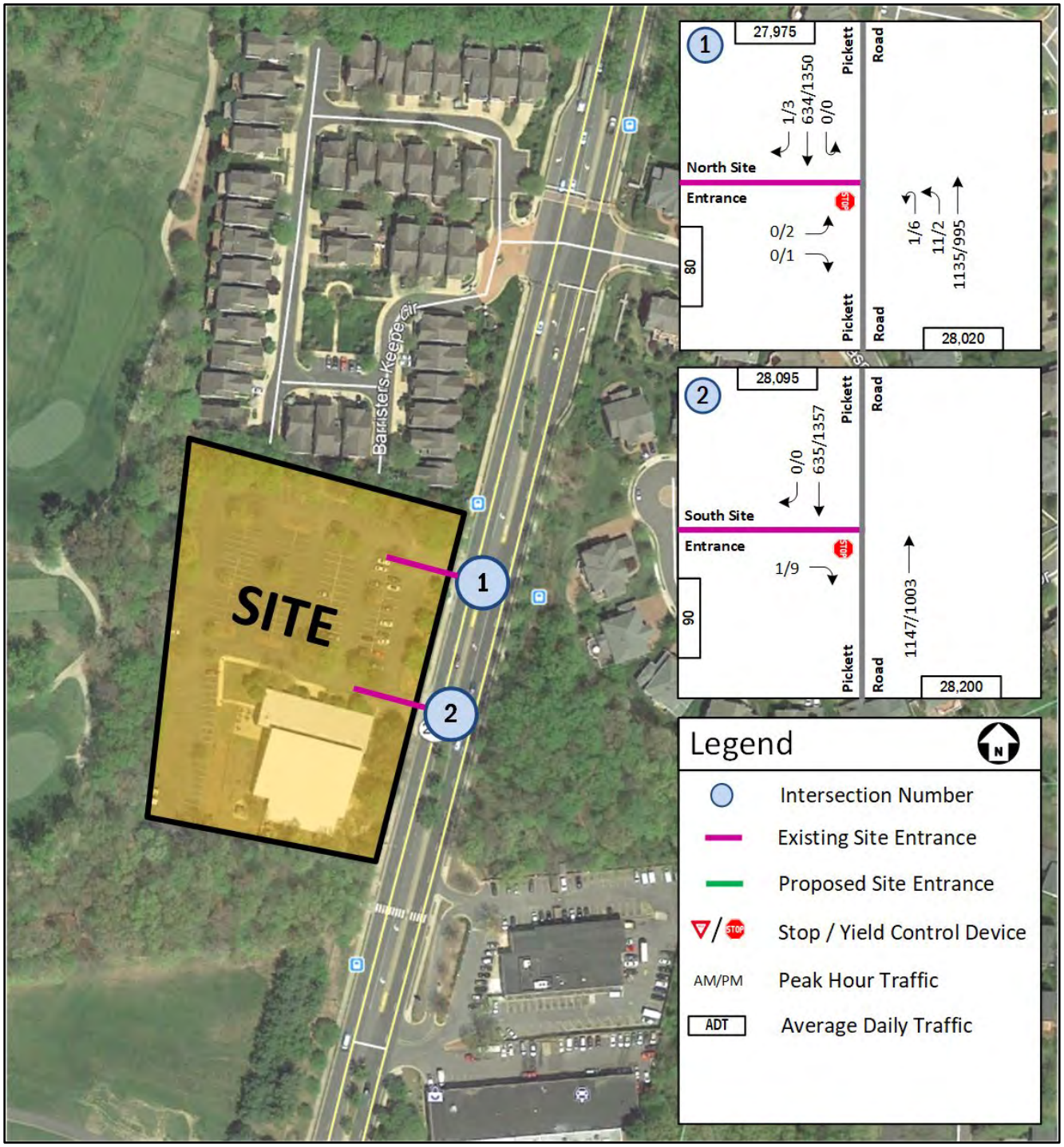


Figure 6: Future Conditions (2022) without Development Traffic Volumes

Future Conditions with Development (2022)

Trips generated by the proposed residential development were derived based on the methodology outlined in the Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 10th Edition publication. Table 1 below shows a comparison of the trips generated by the existing Metro Church and the trips anticipated to be generated by the proposed residential development.

Table 1: Trip Generation Comparison

Land Use	ITE Code	Size	------ Weekday ------						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Existing Use									
Metro Church (Traffic Counts at Site Driveways)*			12	1	13	5	12	17	170
Proposed Use									
Multifamily Housing (Low-Rise)	220	**52** DU	6	20	26	21	12	33	352
New External Trips (Proposed Trips - Existing Trips)			**-6**	**19**	**13**	**16**	**0**	**16**	**182**

* Trips for the existing Metro Church were obtained from turning movement counts collected at site driveways. The weekday daily trips were calculated as 10 times the PM peak hour trips.

Based on the table above, the proposed residential development is anticipated to generate approximately 13 new external trips during a typical weekday morning peak hour, 16 new trips during afternoon peak hour and 182 new external daily trips on a typical weekday.

Since the site is currently occupied, the existing trips at the site access locations were first removed from the roadway network, before the trips generated by the proposed development were added to the network. The existing trips removed are shown on Figure 7.

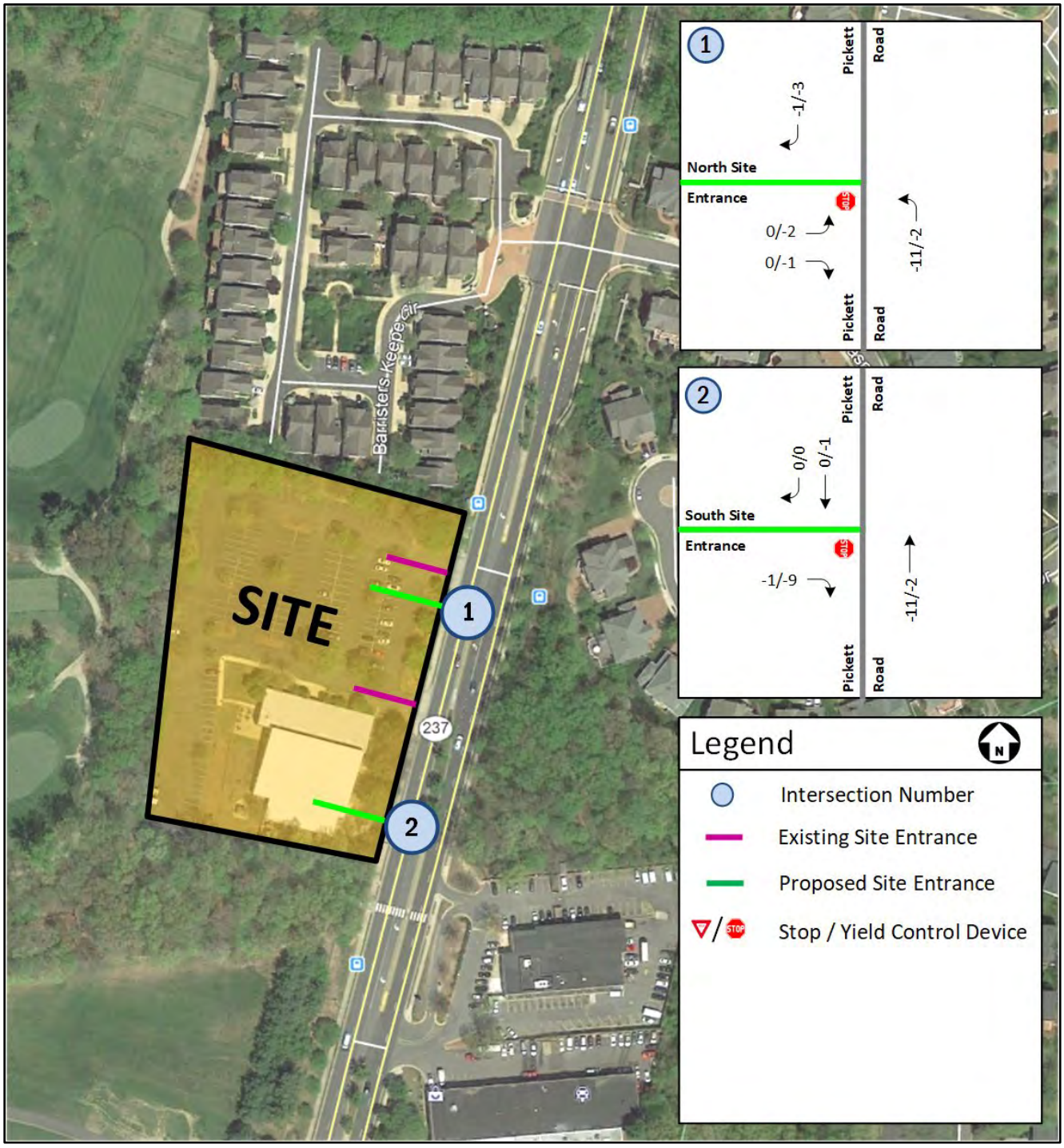


Figure 7: Removal of Existing Church Trips from Site Driveways

It was assumed that approximately 50% of the site generated trips would travel to and from the north, with the remaining 50% from the south along Pickett Road (Rte. 237). This distribution was utilized to assign site generated trips to the roadway network for the proposed site. The site generated trips at the study intersections are shown on Figure 8.

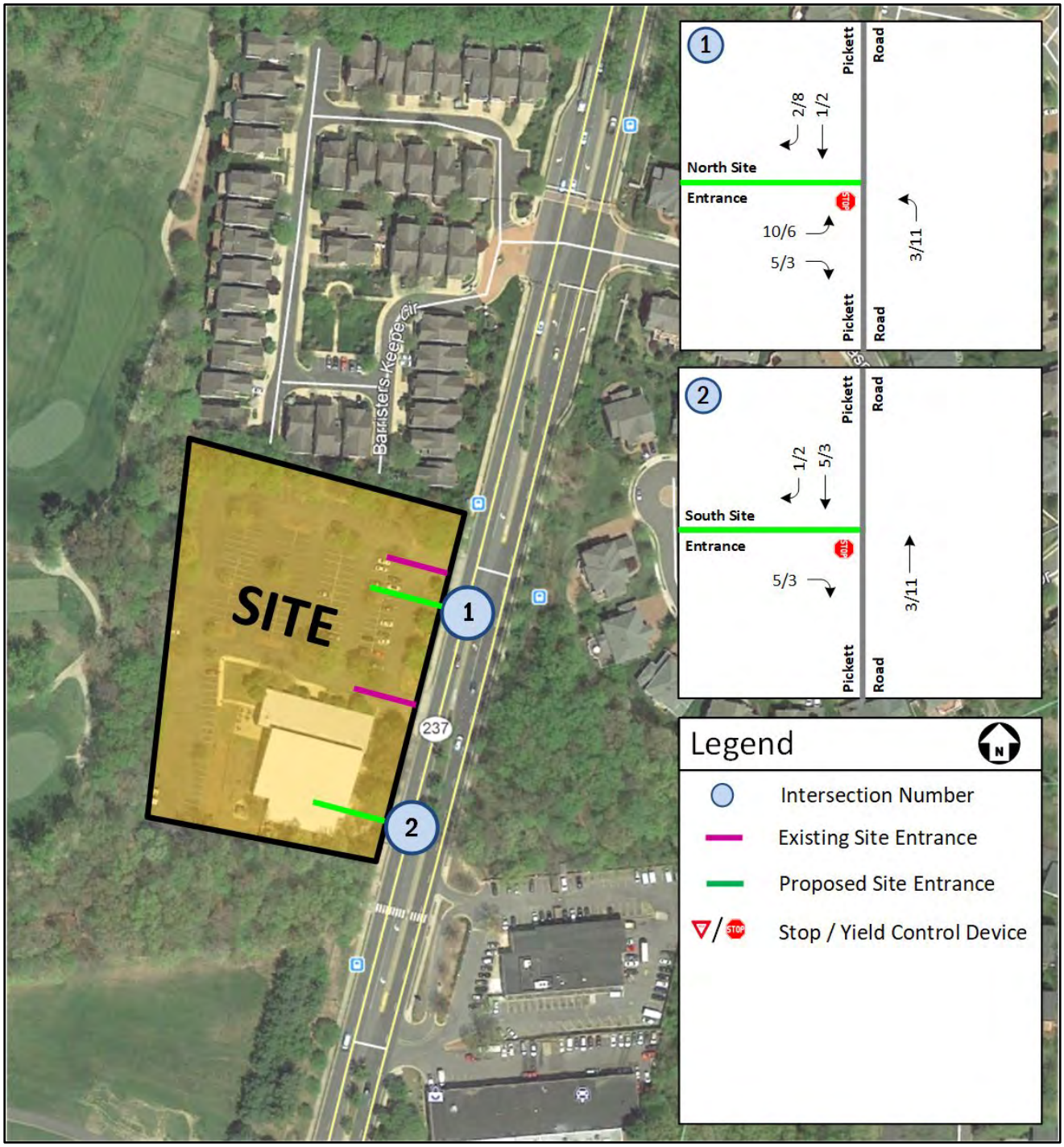


Figure 8: Site Generated Trips

The future conditions without development (2022) traffic volumes, the removal of trips generated by the existing church and trips generated by the proposed residential development were combined to obtain the future conditions with development (2022) traffic volumes at the study intersection and are illustrated graphically on Figure 9.

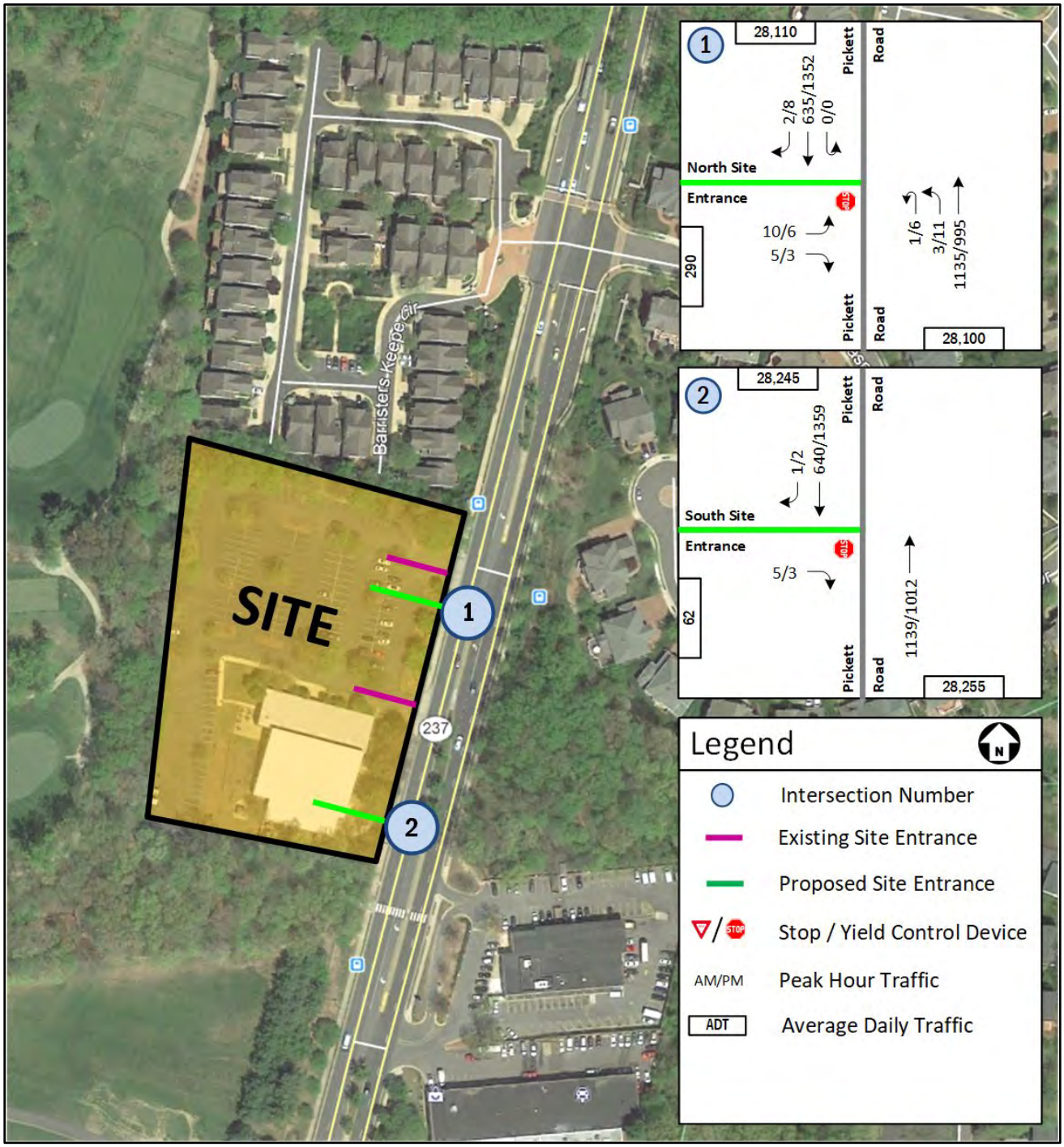


Figure 9: Future with Development (2022) Traffic Volumes

Existing, Future without, and Future with Development (2022) - Capacity Analysis

Capacity analysis was conducted at the study intersections for the weekday morning and afternoon peak hours for the following scenarios:

- Existing (2019) conditions (Includes traffic generated by the existing Church)
- Future conditions without development (2022) (Includes traffic generated by the existing Church and increase in traffic due to regional growth)
- Future conditions with development (2022) (Includes existing (2019) traffic, increase in traffic due to regional growth, removal of traffic generated by the existing Church and the trips generated by the proposed development)

Synchro, version 10 was used to analyze the study intersections based on the Highway Capacity Manual (HCM) methodology. The peak hour factors, by intersection were obtained from the 2019 traffic count data collected at the study intersections. The heavy vehicle percentages were also determined from the existing traffic counts. The results of the intersection capacity and queuing analyses are presented in Table 2 for the existing (2019) conditions, in Table 3 for future conditions without development (2022) and in Table 4 for the future conditions with development (2022) and are expressed in level of service (LOS), delay (seconds per vehicle) and 95th percentile queues expressed in feet. The detailed capacity analysis worksheets are included in Appendix B.

Table 2: Existing (2019) Conditions Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.) [1]	AM Peak Hour			PM Peak Hour		
			LOS (s/veh)	Delay (s/veh)	95th % Queue (ft.)	LOS (s/veh)	Delay (s/veh)	95th % Queue (ft.)
1	**Pickett Road and North Site Entrance (full-movement access)**							
	Eastbound Approach		***A***	***0***		***F***	***51.3***	
	Eastbound Left/Right [2]		A	0	0	F	51.3	3
	Northbound Approach							
	Northbound Left/U-turn	155	A	9.1	0	C	21.8	3
	Southbound Approach							
	Southbound U-turn	120	A	0	0	A	0	0
2	**Pickett Road and South Entrance (Right-in/Right-out access)**							
	Eastbound Approach		***B***	***10.3***		***B***	***14.5***	
	Eastbound Right		B	10.3	0	B	14.5	3

Notes:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] The delay and LOS associated with the eastbound left/right movement during the afternoon peak hour is primarily caused by the exiting left turning vehicles that have to wait to find gaps simultaneously along northbound and southbound Pickett Road (Rte. 237) to enter the intersection.

Table 3: Future Conditions without Development (2022) Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.) [1]	AM Peak Hour			PM Peak Hour		
			LOS (s/veh)	Delay (s/veh)	95th % Queue (ft.)	LOS (s/veh)	Delay (s/veh)	95th % Queue (ft.)
1	**Pickett Road and North Site Entrance (full-movement access)**							
	Eastbound Approach		***A***	***0***		***F***	***55.8***	
	Eastbound Left/Right [2]		A	0	0	F	55.8	3
	Northbound Approach							
	Northbound Left/U-turn	155	A	9.2	0	C	23	3
	Southbound Approach							
	Southbound U-turn	120	A	0	0	A	0	0
2	**Pickett Road and South Entrance (Right-in/Right-out access)**							
	Eastbound Approach		***B***	***10.4***		***B***	***14.8***	
	Eastbound Right		B	10.4	0	B	14.8	3

Notes:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] The delay and LOS associated with the eastbound left/right movement during the afternoon peak hour is primarily caused by the exiting left turning vehicles that have to wait to find gaps simultaneously along northbound and southbound Pickett Road (Rte. 237) to enter the intersection.

Table 4: Future Conditions with Development (2022) Capacity Analysis Results

No.	Intersection (Movement)	Effective Storage Length (ft.) [1]	AM Peak Hour			PM Peak Hour		
			LOS (s/veh)	Delay (s/veh)	95th % Queue (ft.)	LOS (s/veh)	Delay (s/veh)	95th % Queue (ft.)
1	**Pickett Road and North Site Entrance (full-movement access)**							
	Eastbound Approach		***C***	***23.4***		***F***	***64.4***	
	Eastbound Left/Right [2]		C	23.4	5	F	64.4	10
	Northbound Approach							
	Northbound Left/U-turn	155	A	9.6	0	C	18.1	5
	Southbound Approach							
	Southbound U-turn	120	A	0	0	A	0	0
2	**Pickett Road and South Entrance (Right-in/Right-out access)**							
	Eastbound Approach		***B***	***10.5***		***B***	***14.6***	
	Eastbound Right		B	10.5	0	B	14.6	0

Notes:

[1] Effective storage length is based on the storage length plus one-half of the taper length per TOSAM guidelines.

[2] The delay and LOS associated with the eastbound left/right movement during the afternoon peak hour is primarily caused by the exiting left turning vehicles that have to wait to find gaps simultaneously along northbound and southbound Pickett Road (Rte. 237) to enter the intersection.

The north site entrance currently consists of a northbound turn lane with a storage length of approximately 100’ and a taper of approximately 70’. Similarly, a southbound left turn lane with a storage length of approximately 100’ and taper length of approximately 50’ also currently exists at the intersection. The 95th percentile queue results for the north site entrance under the future conditions with development (2022) indicate that the northbound left turning queues and queueing due to

southbound U-turns at the north site access would be shorter than one standard car length, and would continue to be accommodated within the available storage lengths with no spillbacks to the adjacent intersections. Similarly, there are, no significant queueing anticipated for the eastbound left/right movement at the north site entrance.

Of note, a Church typically experiences its heaviest traffic during its Sunday service times. With the proposed residential development replacing the Church, it is anticipated that the Sunday traffic at the site entrance locations would be reduced significantly.

Turn-Lane Warrant Assessment

Left and right turn lane warrants are based on VDOT's Road Design Manual (RDM), Appendix F. The future with development (2022) conditions traffic volumes, illustrated on Figure 9, were evaluated to determine the need for a left and right turn lane at the proposed full-movement entrance and the right-in/right-out entrance along Pickett Road.

Left Turn Lane Warrant

Warrants for left-turn storage lanes on four-lane roadways at unsignalized intersections are based on Figure 3-3 in Appendix F of VDOT's RDM. The figure provides a graphical representation for determining the necessity of a left turn lane by comparing the advancing volumes of a given approach and the respective opposing volumes.

Table 5 below summarizes the volumes utilized in the evaluation of left turn warrants for the morning and afternoon peak hours at the north site entrance. Figure 10 below represents Figure 3-3 per VDOT's Appendix F with respect to a northbound left turn lane at the north site entrance location for the morning and afternoon peak hours.

Table 5: Future with Development Volumes for Left Turn Assessment

Study Period	Left Turning Volumes (VPH)	Advancing Volume (VPH)	Opposing Volumes (VPH)
North Site (Full-movement) Entrance – Intersection 1			
TF AM 2022	4	1139	637
TF PM 2022	17	1012	1360

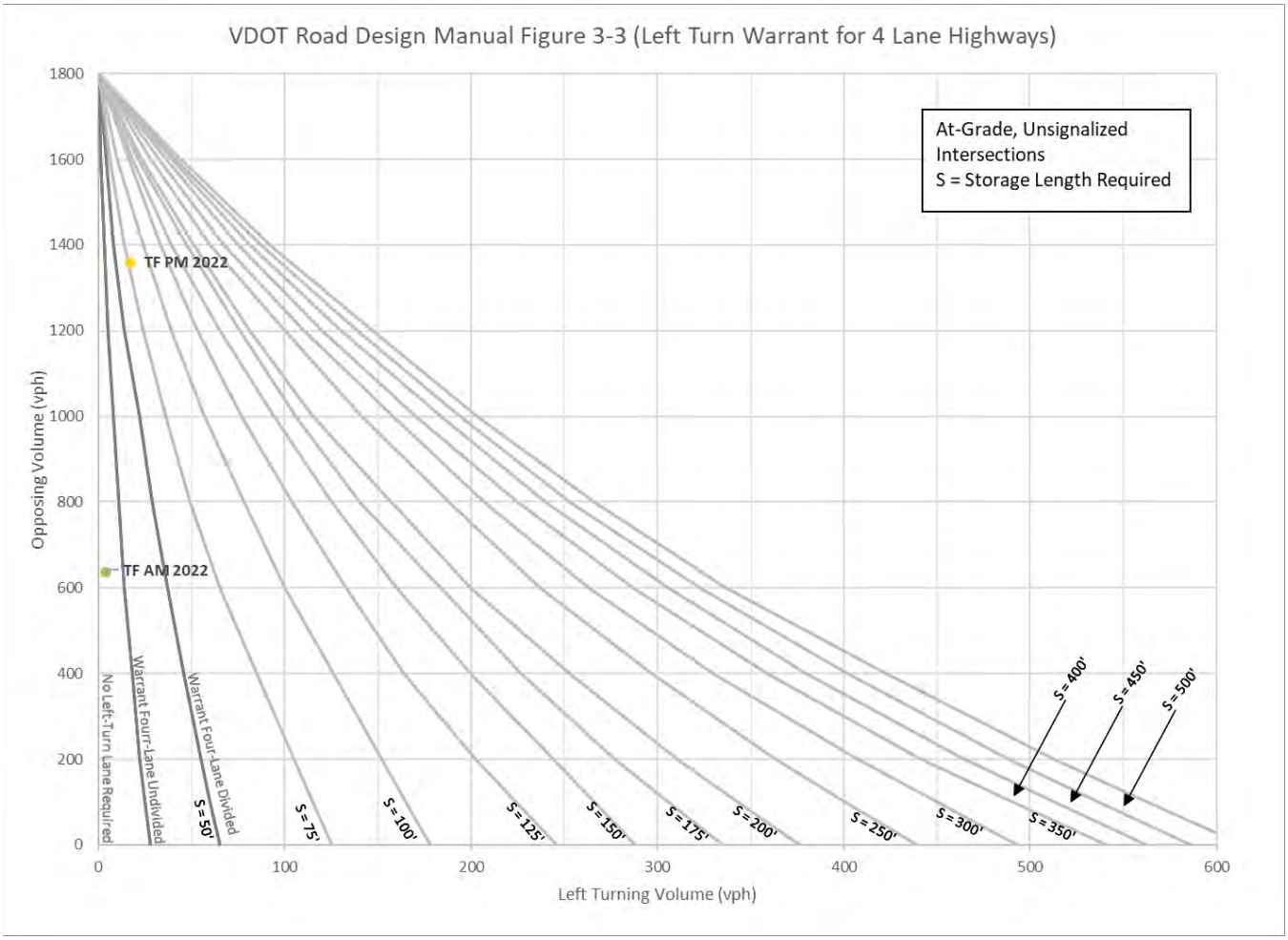


Figure 10: Northbound Left Turn Lane Assessment for the Morning Peak Hour at Proposed North Site Entrance

As can be seen from Figure 10, a left turn lane along Pickett Road and turning into the north site entrance would be warranted during the afternoon peak hour only. Such a turn lane would require a minimum storage length of 75'. Based on VDOT's RDM Appendix F Table 3-1, a taper length with a minimum of 100' would also be required. Thus, an effective storage length (measured as storage plus one half taper) of approximately 125' would be required at this location. A left turn lane with approximately 100' storage length and 70' taper currently exists at this location. Thus, an effective storage length of approximately 135' is currently available for vehicles to stack at this location which is 10' over the required effective storage length by VDOT. With the relocation of the site entrance (50' feet south of existing north site entrance), the storage length and the taper length would be maintained. Therefore, no change is proposed to the storage and taper lengths of this left turn lane (other than what is proposed) with the subject redevelopment. A shorter taper than the VDOT standard for turn lanes is not uncommon along Pickett Road. As such, no change is proposed to the existing northbound left turn lane with the redevelopment. However, a design waiver may be required to be submitted to VDOT in support of maintaining the short taper.

A southbound left turn lane with approximately 100' storage length and 50' taper currently exists along Pickett Road at the intersection. With no site access to a development located west of Pickett Road, this lane is currently utilized as a dedicated u-turn lane or as an emergency vehicle staging location. With no u-turns permitted at the signalized intersection of Pickett

Road and Shelly Krasnow Lane/Barristers Keep Court, the median break at the location allows for southbound U-turns, especially for emergency and law enforcement services. The southbound bay is planned to be extended by 50' to accommodate approximately 150' of storage length, providing an effective storage length of 175'.

Right Turn Lane Warrant

Warrants for right-turn storage lanes on four-lane roadway at intersections are based on Figure 3-27 in Appendix F of VDOT's RDM. This figure provides a graphical representation for determining the necessity of a right turn lane by comparing the total volumes of a given approach with their respective right turn volumes. Table 6 below represents RDM Appendix F Figure 3-26 with respect to southbound right turn movements at each of the two proposed site entrances along Pickett Road (Rte. 237).

Table 6: Future with Development Volumes for Right Turn Assessment

Study Scenario	Approach Volume	Right Turn Volume
North Site (Full-movement) Entrance – Intersection 1		
TF AM 2022	637	2
TF PM 2022	1360	8
North Site (RIRO) Entrance – Intersection 2		
TF AM 2022	641	1
TF PM 2022	1361	2

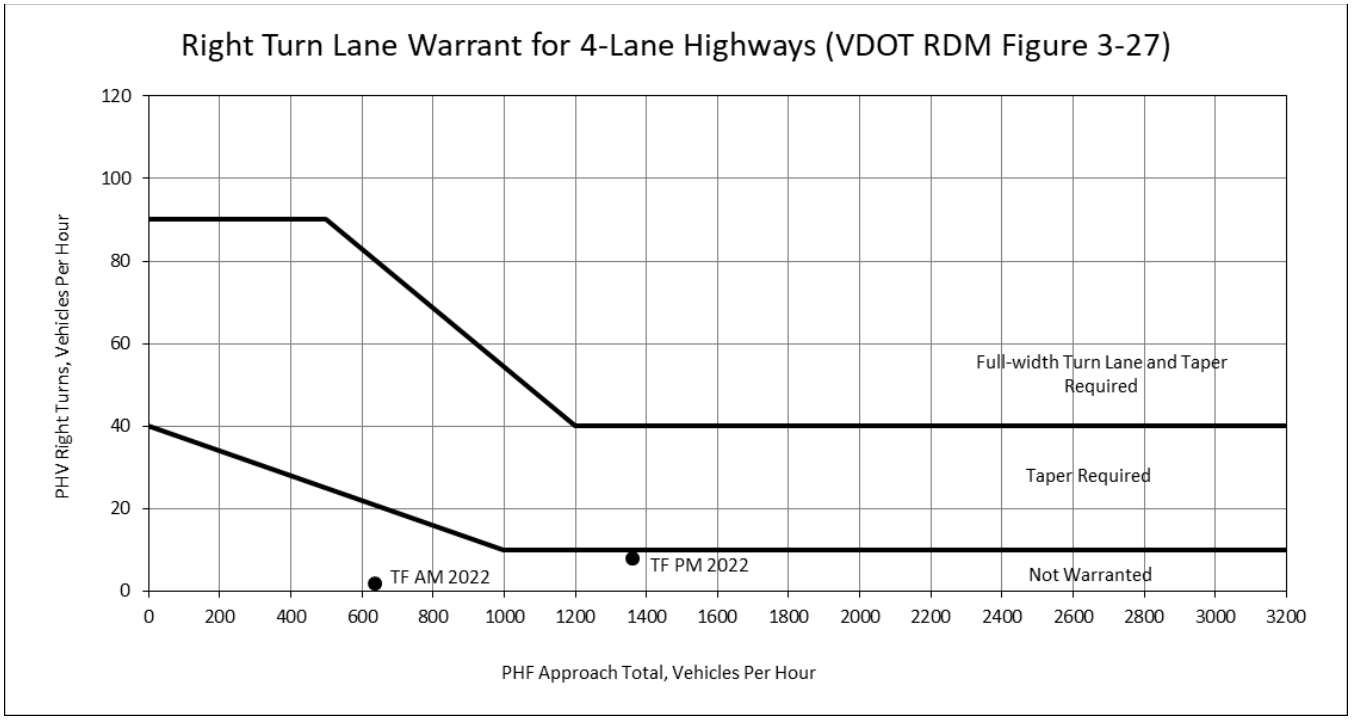


Figure 11: Southbound Right Turn Lane Assessment for Proposed North Site Entrance

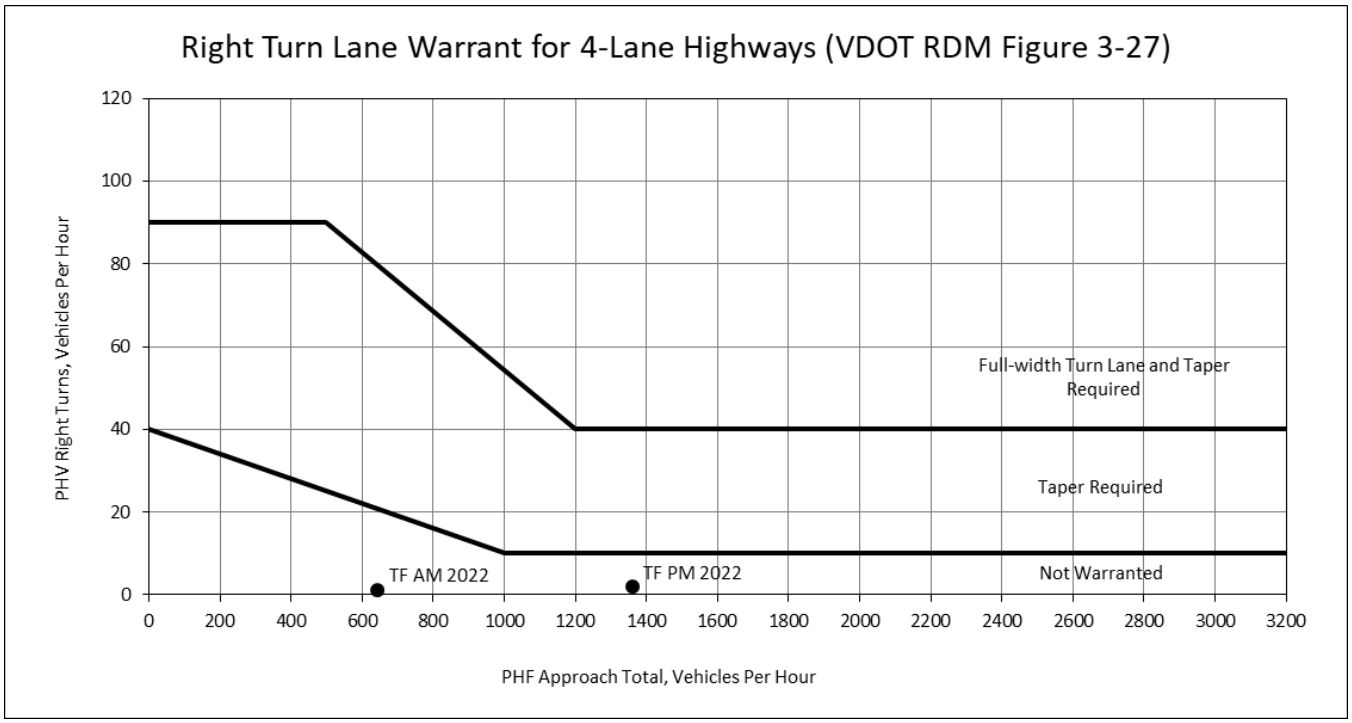


Figure 12: Southbound Right Turn Lane Assessment for Proposed South Site Entrance

As can be seen from Figure 11 and Figure 12 above, a southbound right turn lane along Pickett Road would not be warranted at either of the proposed the site entrance locations, from a volume stand-point.

Intersection Spacing Assessment (Based on VDOT's Access Management Guidelines)

As mentioned previously, Pickett Road (Rte. 237) is classified as a minor arterial between Main Street (Rte. 236) and Arlington boulevard (Rte. 50) and has a posted speed limit of 35 mph in the vicinity of the subject site.

The guidelines for intersection spacings are specified in VDOT's Roadway Design Manual (RDM), Appendix F, Table 2-2, and are based on a roadway's speed limits and functional classification. Table 7 below summarizes the VDOT intersection spacing criteria per Table 2-2 of VDOT's Appendix F that would be required along Pickett Road. Figure 13 represents the existing (2019) conditions intersection spacings graphically.

Table 7: VDOT RDM Intersection Spacing Requirements Along Pickett Road

Roadway in Study Area	Route Number	Highway Functional Class	Legal Speed Limit (mph)	Minimum Centerline to Centerline Spacing (Feet)			
				Signalized Intersection to other Signalized Intersection	Unsignalized Intersection & Full Median Crossover to Signalized or Unsignalized Intersection & Full Median Crossover	Spacing From Full Access Entrance or Directional Median to Other Full Access Entrance and Any Intersection or Median Crossover	Partial Access One or Two Way Entrance to Any Type of Entrance, Intersection, or Median Crossover
Pickett Road	**237**	Minor Arterial	35	1050	660	470	250

Figure 13: Existing (2019) Conditions Intersection Spacing with respect to Existing Site Entrance Locations

As can be seen from Figure 13 above, minimum intersection spacing requirements are not currently met between the two site access locations along Pickett Road (Rte. 237). Similarly, the spacing is also not currently met with respect to the signalized intersection of Pickett Road and Shelly Krasnow Lane/Barristers Keep Court. However, the intersection spacing is met with respect to the north site access and the full-median break at the U.S. Post Office facility entrance.

As has been mentioned previously, the existing site entrances are planned to be shifted with the proposed redevelopment. The north site access is proposed to be shifted approximately 50’ south from its existing location. Similarly, the south site entrance is proposed to be shifted by approximately 150’ south of its existing location. Figure 14 below graphically illustrates the change in intersection spacing under the future conditions with development (2022).

Figure 14: Proposed Intersection Spacing under Future Conditions with Development (2022)

As can be seen from Figure 14 above, with the proposed relocation of the site access, the separation between the two site entrance location would increase by approximately 100', and would meet VDOT's minimum spacing criteria under the future conditions with development (2022).

The spacing between the north site entrance and the signalized intersection of Pickett Road and Shelly Krasnow Lane/Barristers Keep Court would increase by 50' with the proposed relocation but would continue to fall short of meeting VDOT's spacing criteria. As such, an Access Management Exception (AME) may be required to be submitted to VDOT for the north site entrance location. However, even with the relocation of the entrances, the intersection spacing between the two full-median crossovers (north site entrance and U.S. Post Office entrance) would continue to be satisfied. Table 8 below provides a summary of the intersection spacings with respect to the site entrance locations under the existing (2019) and future with development (2022) conditions.

Table 8: Summary of Intersection Spacing at Site Entrance Locations

Intersection	Type of Traffic Control	Adjacent Intersection	Type of Traffic Control	Posted Speed (mph)	Measured Distance (ft.)	Required Distance (ft.)	Met the Standard (Yes/No)
Existing (2019) Conditions							
North Site (Full-movement) Entrance	Stop-Control	**Towards North**					
		Pickett Road and Shelly Krasnow Lane/Barristers Keep Court	Signal Control	35	400	470	No
		Towards South					
		South Site (RIRO) Entrance	Stop Control (RIRO) Entrance	35	167	250	No
		U.S. Post Office (Full-movement) Entrance	Stop Control (Full-access)	35	580	470	Yes
South Site (RIRO) Entrance	Stop-Control	**Towards North**					
		North Site (Full-movement) Entrance	Stop Control (Full-access)	35	167	250	No
Future with Development (2022) Conditions							
North Site (Full-movement) Entrance	Stop-Control	**Towards North**					
		Pickett Road and Shelly Krasnow Lane/Barristers Keep Court	Signal Control	35	450	470	No
		Towards South					
		South Site (RIRO) Entrance	Stop Control (RIRO) Entrance	35	267	250	Yes
		U.S. Post Office (Full-movement) Entrance	Stop Control (Full-access)	35	530	470	Yes
South Site (RIRO) Entrance	Stop-Control	**Towards North**					
		North Site (Full-movement) Entrance	Stop Control (Full-access)	35	267	250	Yes

Intersection Sight Distance

The VDOT Road Design Manual (RDM) includes requirements for intersection sight distance in Appendix F. For a roadway with a design speed of 35 mph, the required sight distance to the left (in order to turn right) is 415 feet, while the required sight distance to the right (in order to turn left) is 480 feet. The Road Design Manual permits the use of the legal speed if the design speed is unavailable. Sight distance profile exhibits for each site entrance have been included in Appendix C.

Based on the sight distance profiles (included in the appendix), the sight distance to the right (SDR) - turning left from the north site entrance - would be adequate. Similarly, the required intersection sight distance triangle for the sight distance to the left (SDL) - turning right from the north site entrance -would be adequate. However, to provide a clear sight distance the existing vegetation may be required to be trimmed in a manner to not obstruct the view of the drivers exiting the entrance.

Similarly, drivers turning right from the south site entrance would have clear sight distance provided no vegetation or other obstacles are placed along the property's frontage surrounding the site entrance locations.

Conclusion

The proposed redevelopment of the Metro Church site at 3500 Pickett Road in the City Of Fairfax is planned to consist of approximately 52 townhomes. The development is anticipated to generate approximately 13 new trips during a typical weekday morning peak hour, 16 new trips during afternoon peak hour and 182 new daily trips on a typical weekday.

This traffic impact assessment supports the following conclusions:

- Typically, a Church experiences its heaviest traffic during its Sunday service times. With the proposed residential development, the Sunday traffic is anticipated to reduce significantly.
- Based on the 95th percentile queue results for the future conditions with development (2022) at the north site entrance, the northbound and southbound queues are anticipated to be accommodated within the available storage bays, causing no queue spillbacks along Pickett Road (Rte. 237).
- No significant queueing is anticipated due to the exiting traffic at either of the proposed site entrance locations.
- With the proposed redevelopment, the northbound left turn lane at the north site entrance is proposed to be modified and this turn lane would maintain the same effective storage length as existing which is approximately 135'. It should be noted that VDOT requires an effective storage length of 125'. Thus, the northbound left turn lane would continue to be 10' over the required effective storage length.
- The southbound left turn lane at the north site entrance is proposed to be extended by approximately 50', increasing the effective storage length to 175'.
- Southbound right turn lanes are not warranted at either of the proposed site entrance locations from a volume-standpoint. Based on the capacity analysis results, with no queuing issues at the site entrances, such a right turn lane would also not be warranted from a capacity stand-point.
- With the proposed shift in site access locations, an AME may be required to be submitted to VDOT for the spacing between the relocated north site entrance and the signalized intersection of Pickett Road and Shelly Krasnow Lane/Barristers Keep Court.
- Based on the proposed site entrance locations, the north site entrance would have the required 480' of sight distance to the right. Each of the site entrance locations would also have the required 415' of sight distance to the left. However, the existing vegetation may have to be trimmed to provide a clear line of sight without obstruction. Similarly, placement of any vegetation along the site's Pickett Road frontage would have to be in a manner as to not obstruct exiting drivers view at the south site entrance.

TECHNICAL APPENDIX

TABLE OF CONTENTS

Appendix A: 2019 Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pickett Rd & Metro Church Entrance N
City: Fairfax
Control: No Control

Project ID: 19-11135-001
Date: 10/16/2019

Total

NS/EW Streets:	Pickett Rd				Pickett Rd				Metro Church Entrance N				Metro Church Entrance N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	84	0	0	0	51	0	0	0	0	1	0	0	0	0	0	137
6:15 AM	1	88	0	0	0	45	0	1	0	0	0	0	0	0	0	0	135
6:30 AM	0	140	0	0	0	63	0	0	0	0	0	0	0	0	0	0	203
6:45 AM	1	161	0	0	0	82	1	0	0	0	0	0	0	0	0	0	245
7:00 AM	0	221	0	0	0	91	0	1	0	0	0	0	0	0	0	0	313
7:15 AM	2	275	0	0	0	118	1	0	0	0	0	0	0	0	0	0	396
7:30 AM	5	295	0	0	0	145	1	0	0	0	0	0	0	0	0	0	446
7:45 AM	9	289	0	0	0	160	1	0	0	0	0	0	0	0	0	0	459
8:00 AM	1	287	0	1	0	122	0	0	0	0	0	0	0	0	0	0	411
8:15 AM	0	255	0	0	0	148	0	0	0	0	0	0	0	0	0	0	403
8:30 AM	1	270	0	0	0	181	0	0	0	0	0	0	0	0	0	0	452
8:45 AM	1	251	0	0	0	198	0	0	0	0	0	0	0	0	0	0	450
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	2616	0	1	0	1404	4	2	0	0	1	0	0	0	0	0	4050
APPROACH %'s :	0.83%	99.13%	0.00%	0.04%	0.00%	99.57%	0.28%	0.14%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	11	1101	0	1	0	611	1	0	0	0	0	0	0	0	0	0	1725
PEAK HR FACTOR :	0.306	0.952	0.000	0.250	0.000	0.844	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.940
	0.934				0.845												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	205	0	1	0	313	0	0	0	0	0	0	0	0	0	0	520
4:15 PM	1	267	0	1	0	261	0	0	1	0	0	0	0	0	0	0	531
4:30 PM	2	267	0	3	0	326	0	1	0	0	1	0	0	0	0	0	600
4:45 PM	0	237	0	1	0	314	0	0	1	0	1	0	0	0	0	0	554
5:00 PM	1	246	0	2	0	313	0	0	0	0	0	0	0	0	0	0	562
5:15 PM	0	229	0	3	0	332	1	0	0	0	0	0	0	0	0	0	565
5:30 PM	1	253	0	0	0	348	2	0	1	0	0	0	0	0	0	0	605
5:45 PM	2	235	0	0	0	301	0	0	1	0	1	0	0	0	0	0	540
6:00 PM	1	234	0	2	0	307	1	0	0	0	0	0	0	0	0	0	545
6:15 PM	0	209	0	3	0	297	0	0	0	0	0	0	0	0	0	0	509
6:30 PM	0	258	0	1	0	264	0	0	0	0	0	0	0	0	0	0	523
6:45 PM	1	195	0	1	0	263	0	0	0	0	0	0	0	0	0	0	460
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	2835	0	18	0	3639	4	1	4	0	3	0	0	0	0	0	6514
APPROACH %'s :	0.35%	99.02%	0.00%	0.63%	0.00%	99.86%	0.11%	0.03%	57.14%	0.00%	42.86%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	2	965	0	6	0	1307	3	0	2	0	1	0	0	0	0	0	2286
PEAK HR FACTOR :	0.500	0.954	0.000	0.500	0.000	0.939	0.375	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.945
	0.958				0.936				0.375								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pickett Rd & Metro Church Entrance N
City: Fairfax
Control: No Control

Project ID: 19-11135-001
Date: 10/16/2019

HT

NS/EW Streets:	Pickett Rd				Pickett Rd				Metro Church Entrance N				Metro Church Entrance N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	14	0	0	0	1	0	0	0	0	1	0	0	0	0	0	17
6:15 AM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	18
6:30 AM	0	10	0	0	0	8	0	0	0	0	0	0	0	0	0	0	18
6:45 AM	0	8	0	0	0	9	0	0	0	0	0	0	0	0	0	0	17
7:00 AM	0	18	0	0	0	13	0	0	0	0	0	0	0	0	0	0	31
7:15 AM	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	22
7:30 AM	1	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	23
7:45 AM	0	15	0	0	0	14	0	0	0	0	0	0	0	0	0	0	29
8:00 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
8:15 AM	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0	0	15
8:30 AM	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0	0	20
8:45 AM	0	11	0	0	0	18	0	0	0	0	0	0	0	0	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	132	0	0	0	117	0	0	0	0	1	0	0	0	0	0	252
APPROACH %'s :	1.49%	98.51%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	42	0	0	0	35	0	0	0	0	0	0	0	0	0	0	77
PEAK HR FACTOR :	0.000	0.700	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.664
		0.700				0.625											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	20
4:15 PM	0	8	0	0	0	10	0	0	0	0	0	0	0	0	0	0	18
4:30 PM	0	5	0	0	0	9	0	0	0	0	0	0	0	0	0	0	14
4:45 PM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10
5:00 PM	0	5	0	0	0	10	0	0	0	0	0	0	0	0	0	0	15
5:15 PM	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	0	11
5:45 PM	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	9
6:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
6:15 PM	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	12
6:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
6:45 PM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	57	0	0	0	82	0	0	0	0	0	0	0	0	0	0	139
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	14	0	0	0	29	0	0	0	0	0	0	0	0	0	0	43
PEAK HR FACTOR :	0.00	0.700	0.000	0.000	0.000	0.725	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.717
		0.700				0.725											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pickett Rd & Metro Church Entrance S
City: Fairfax
Control: No Control

Project ID: 19-11135-002
Date: 10/16/2019

Total

NS/EW Streets:	Pickett Rd				Pickett Rd				Metro Church Entrance S				Metro Church Entrance S				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	87	0	0	0	51	0	0	0	0	0	0	0	0	0	0	138
6:15 AM	0	88	0	0	0	47	0	0	0	0	0	0	0	0	0	0	135
6:30 AM	0	143	0	0	0	58	0	0	0	0	0	0	0	0	0	0	201
6:45 AM	0	162	0	0	0	85	0	0	0	0	0	0	0	0	0	0	247
7:00 AM	0	219	0	0	0	90	0	0	0	0	0	0	0	0	0	0	309
7:15 AM	0	273	0	0	0	119	0	0	0	0	0	0	0	0	0	0	392
7:30 AM	0	303	0	0	0	141	0	0	0	0	0	0	0	0	0	0	444
7:45 AM	0	297	0	0	0	160	0	0	0	0	0	0	0	0	0	0	457
8:00 AM	0	291	0	0	0	128	0	0	0	0	0	0	0	0	0	0	419
8:15 AM	0	252	0	0	0	148	0	0	0	0	0	0	0	0	0	0	400
8:30 AM	0	272	0	0	0	180	0	0	0	0	1	0	0	0	0	0	453
8:45 AM	0	248	0	0	0	192	0	0	0	0	1	0	0	0	0	0	441
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2635	0	0	0	1399	0	0	0	0	2	0	0	0	0	0	4036
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	1112	0	0	0	616	0	0	0	0	1	0	0	0	0	0	1729
PEAK HR FACTOR :	0.000	0.936	0.000	0.000	0.000	0.856	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.946
		0.936				0.856					0.250						

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	214	0	0	0	305	0	0	0	0	4	0	0	0	0	0	523
4:15 PM	0	265	0	0	0	268	0	0	0	0	0	0	0	0	0	0	533
4:30 PM	0	276	0	0	0	325	0	0	0	0	5	0	0	0	0	0	606
4:45 PM	0	232	0	0	0	321	0	0	0	0	1	0	0	0	0	0	554
5:00 PM	0	253	0	0	0	312	0	0	0	0	3	0	0	0	0	0	568
5:15 PM	0	229	0	0	0	337	0	0	0	0	1	0	0	0	0	0	567
5:30 PM	0	258	0	0	0	347	0	0	0	0	4	0	0	0	0	0	609
5:45 PM	0	234	0	0	0	303	0	0	0	0	3	0	0	0	0	0	540
6:00 PM	0	231	0	0	0	307	0	0	0	0	3	0	0	0	0	0	541
6:15 PM	0	218	0	0	0	297	0	0	0	0	2	0	0	0	0	0	517
6:30 PM	0	255	0	0	0	274	0	0	0	0	2	0	0	0	0	0	531
6:45 PM	0	193	0	0	0	262	0	0	0	0	3	0	0	0	0	0	458
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2858	0	0	0	3658	0	0	0	0	31	0	0	0	0	0	6547
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	972	0	0	0	1317	0	0	0	0	9	0	0	0	0	0	2298
PEAK HR FACTOR :	0.000	0.942	0.000	0.000	0.000	0.949	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.943
		0.942				0.949					0.563						

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pickett Rd & Metro Church Entrance S
City: Fairfax
Control: No Control

Project ID: 19-11135-002
Date: 10/16/2019

HT

NS/EW Streets:	Pickett Rd				Pickett Rd				Metro Church Entrance S				Metro Church Entrance S				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	15	0	0	0	2	0	0	0	0	0	0	0	0	0	0	17
6:15 AM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	18
6:30 AM	0	10	0	0	0	8	0	0	0	0	0	0	0	0	0	0	18
6:45 AM	0	8	0	0	0	9	0	0	0	0	0	0	0	0	0	0	17
7:00 AM	0	18	0	0	0	13	0	0	0	0	0	0	0	0	0	0	31
7:15 AM	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	22
7:30 AM	0	12	0	0	0	11	0	0	0	0	0	0	0	0	0	0	23
7:45 AM	0	15	0	0	0	13	0	0	0	0	0	0	0	0	0	0	28
8:00 AM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	14
8:15 AM	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0	0	15
8:30 AM	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0	0	20
8:45 AM	0	11	0	0	0	18	0	0	0	0	0	0	0	0	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	134	0	0	0	118	0	0	0	0	0	0	0	0	0	0	252
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	42	0	0	0	35	0	0	0	0	0	0	0	0	0	0	77
PEAK HR FACTOR :	0.000	0.700	0.000	0.000	0.000	0.673	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.688
		0.700				0.673											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	20
4:15 PM	0	8	0	0	0	10	0	0	0	0	0	0	0	0	0	0	18
4:30 PM	0	5	0	0	0	10	0	0	0	0	0	0	0	0	0	0	15
4:45 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9
5:00 PM	0	5	0	0	0	9	0	0	0	0	0	0	0	0	0	0	14
5:15 PM	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
5:30 PM	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	0	11
5:45 PM	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	9
6:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
6:15 PM	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	12
6:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
6:45 PM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	57	0	0	0	82	0	0	0	0	0	0	0	0	0	0	139
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	14	0	0	0	28	0	0	0	0	0	0	0	0	0	0	42
PEAK HR FACTOR :	0.00	0.700	0.000	0.000	0.000	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
		0.700				0.778											

Appendix B: Capacity Analysis Worksheets

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	0	0	1	11	1101	0	615	1
Future Vol, veh/h	0	0	1	11	1101	0	615	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	135	-	125	-	-
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	4	0	6	0
Mvmt Flow	0	0	1	12	1171	0	654	1

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1267	328	655	655	0	1171	-	0
Stage 1	655	-	-	-	-	-	-	-
Stage 2	612	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	163	674	559	942	-	262	-	-
Stage 1	484	-	-	-	-	-	-	-
Stage 2	509	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	161	674	891	891	-	262	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-	-	-
Stage 1	477	-	-	-	-	-	-	-
Stage 2	509	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	891	-	-	262	-	-
HCM Lane V/C Ratio	0.014	-	-	-	-	-
HCM Control Delay (s)	9.1	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	1113	616	0
Future Vol, veh/h	0	1	0	1113	616	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	1	0	1172	648	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	324	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	678	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	678	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	678	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	10.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	2	1	6	2	965	0	1310	3
Future Vol, veh/h	2	1	6	2	965	0	1310	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	135	-	125	-	-
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	4	0	6	0
Mvmt Flow	2	1	6	2	1027	0	1394	3

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1926	699	1397	1397	0	1027	-	0
Stage 1	1396	-	-	-	-	-	-	-
Stage 2	530	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	60	387	188	496	-	324	-	-
Stage 1	198	-	-	-	-	-	-	-
Stage 2	560	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	58	387	223	223	-	324	-	-
Mov Cap-2 Maneuver	58	-	-	-	-	-	-	-
Stage 1	190	-	-	-	-	-	-	-
Stage 2	560	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	51.3	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	223	-	81	324	-	-
HCM Lane V/C Ratio	0.038	-	0.039	-	-	-
HCM Control Delay (s)	21.8	-	51.3	0	-	-
HCM Lane LOS	C	-	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	973	1317	0
Future Vol, veh/h	0	9	0	973	1317	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	9	0	1024	1386	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	693	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	390	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	390	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	390	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	14.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	0	0	1	11	1135	0	634	1
Future Vol, veh/h	0	0	1	11	1135	0	634	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	155	-	120	-	-
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	4	0	6	0
Mvmt Flow	0	0	1	12	1207	0	674	1

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1305	338	676	675	0	1207	-	0
Stage 1	675	-	-	-	-	-	-	-
Stage 2	630	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	154	664	542	926	-	249	-	-
Stage 1	473	-	-	-	-	-	-	-
Stage 2	498	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	152	664	874	874	-	249	-	-
Mov Cap-2 Maneuver	152	-	-	-	-	-	-	-
Stage 1	466	-	-	-	-	-	-	-
Stage 2	498	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	874	-	-	249	-	-
HCM Lane V/C Ratio	0.015	-	-	-	-	-
HCM Control Delay (s)	9.2	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	1147	635	0
Future Vol, veh/h	0	1	0	1147	635	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	1	0	1207	668	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	334	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	668	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	668	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	668	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	10.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	2	1	6	2	995	0	1350	3
Future Vol, veh/h	2	1	6	2	995	0	1350	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	135	-	125	-	-
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	4	0	6	0
Mvmt Flow	2	1	6	2	1059	0	1436	3

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1984	720	1439	1439	0	1059	-	0
Stage 1	1438	-	-	-	-	-	-	-
Stage 2	546	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	55	375	176	478	-	310	-	-
Stage 1	188	-	-	-	-	-	-	-
Stage 2	550	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	53	375	209	209	-	310	-	-
Mov Cap-2 Maneuver	53	-	-	-	-	-	-	-
Stage 1	180	-	-	-	-	-	-	-
Stage 2	550	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	55.8	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	209	-	74	310	-	-
HCM Lane V/C Ratio	0.041	-	0.043	-	-	-
HCM Control Delay (s)	23	-	55.8	0	-	-
HCM Lane LOS	C	-	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	1003	1357	0
Future Vol, veh/h	0	9	0	1003	1357	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	9	0	1056	1428	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	714	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	378	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	378	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	378	-	-
HCM Lane V/C Ratio	-	0.025	-	-
HCM Control Delay (s)	-	14.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	10	5	1	3	1135	0	635	2
Future Vol, veh/h	10	5	1	3	1135	0	635	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	135	-	175	-	-
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	4	0	6	0
Mvmt Flow	11	5	1	3	1207	0	676	2

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1289	339	678	678	0	1207	-	0
Stage 1	677	-	-	-	-	-	-	-
Stage 2	612	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	158	663	541	923	-	249	-	-
Stage 1	472	-	-	-	-	-	-	-
Stage 2	509	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	157	663	782	782	-	249	-	-
Mov Cap-2 Maneuver	157	-	-	-	-	-	-	-
Stage 1	470	-	-	-	-	-	-	-
Stage 2	509	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	782	-	211	249	-	-
HCM Lane V/C Ratio	0.005	-	0.076	-	-	-
HCM Control Delay (s)	9.6	-	23.5	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	1139	640	1
Future Vol, veh/h	0	5	0	1139	640	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	5	0	1199	674	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	338	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	664	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	664	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	664	-	-
HCM Lane V/C Ratio	-	0.008	-	-
HCM Control Delay (s)	-	10.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	6	3	6	11	995	0	1352	8
Future Vol, veh/h	6	3	6	11	995	0	1352	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	135	-	175	-	-
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	4	0	6	0
Mvmt Flow	6	3	6	12	1059	0	1438	9

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	2009	724	1447	1447	0	1059	-	0
Stage 1	1443	-	-	-	-	-	-	-
Stage 2	566	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	53	373	174	474	-	310	-	-
Stage 1	187	-	-	-	-	-	-	-
Stage 2	537	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	50	373	294	294	-	310	-	-
Mov Cap-2 Maneuver	50	-	-	-	-	-	-	-
Stage 1	176	-	-	-	-	-	-	-
Stage 2	537	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	64.4	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	294	-	70	310	-	-
HCM Lane V/C Ratio	0.062	-	0.137	-	-	-
HCM Control Delay (s)	18.1	-	64.4	0	-	-
HCM Lane LOS	C	-	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	0

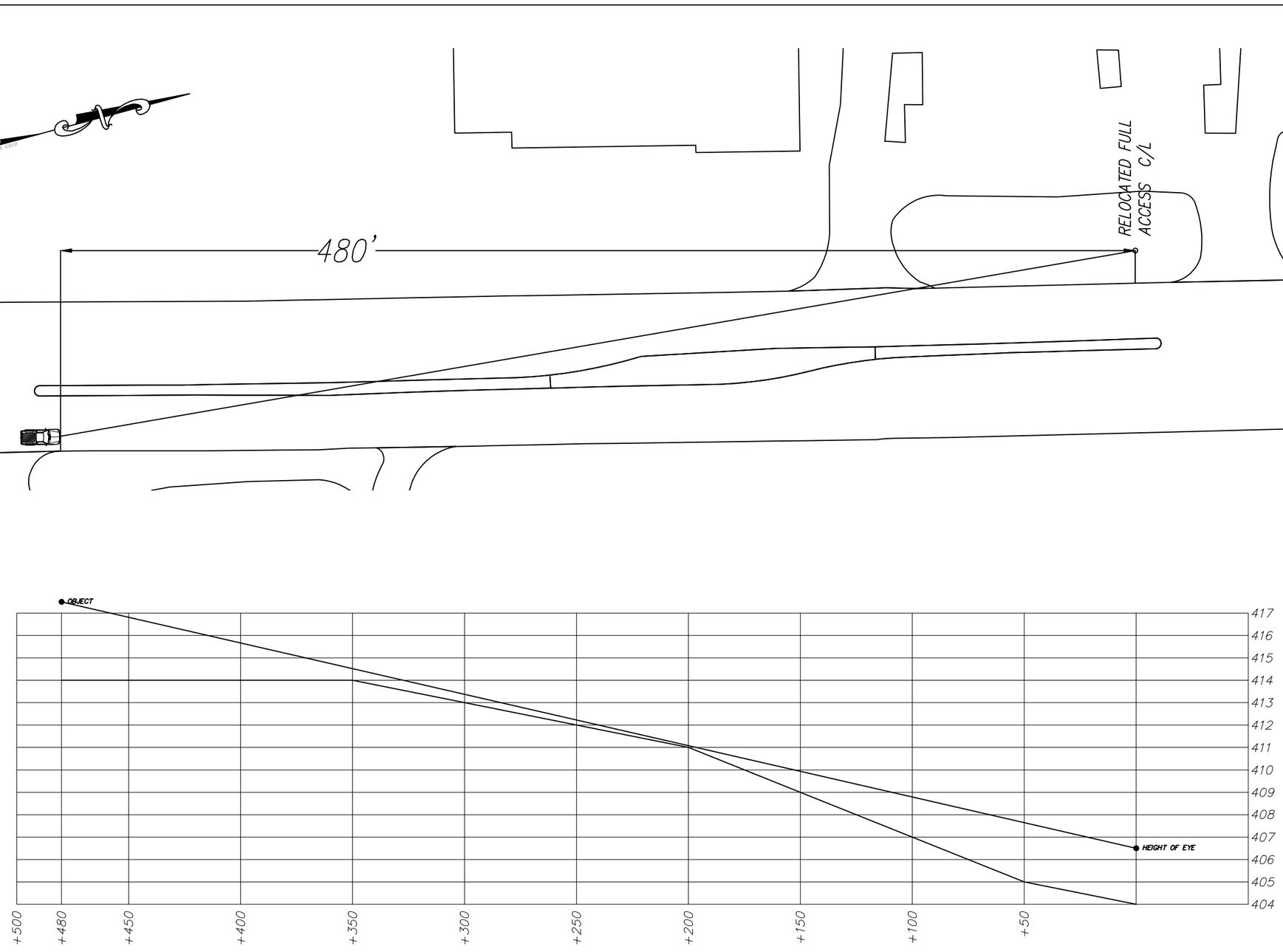
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1012	1359	2
Future Vol, veh/h	0	3	0	1012	1359	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	3	0	1065	1431	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	717	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	377	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	377	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	377	-	-
HCM Lane V/C Ratio	-	0.008	-	-
HCM Control Delay (s)	-	14.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Appendix C: Sight Distance Profile Exhibits



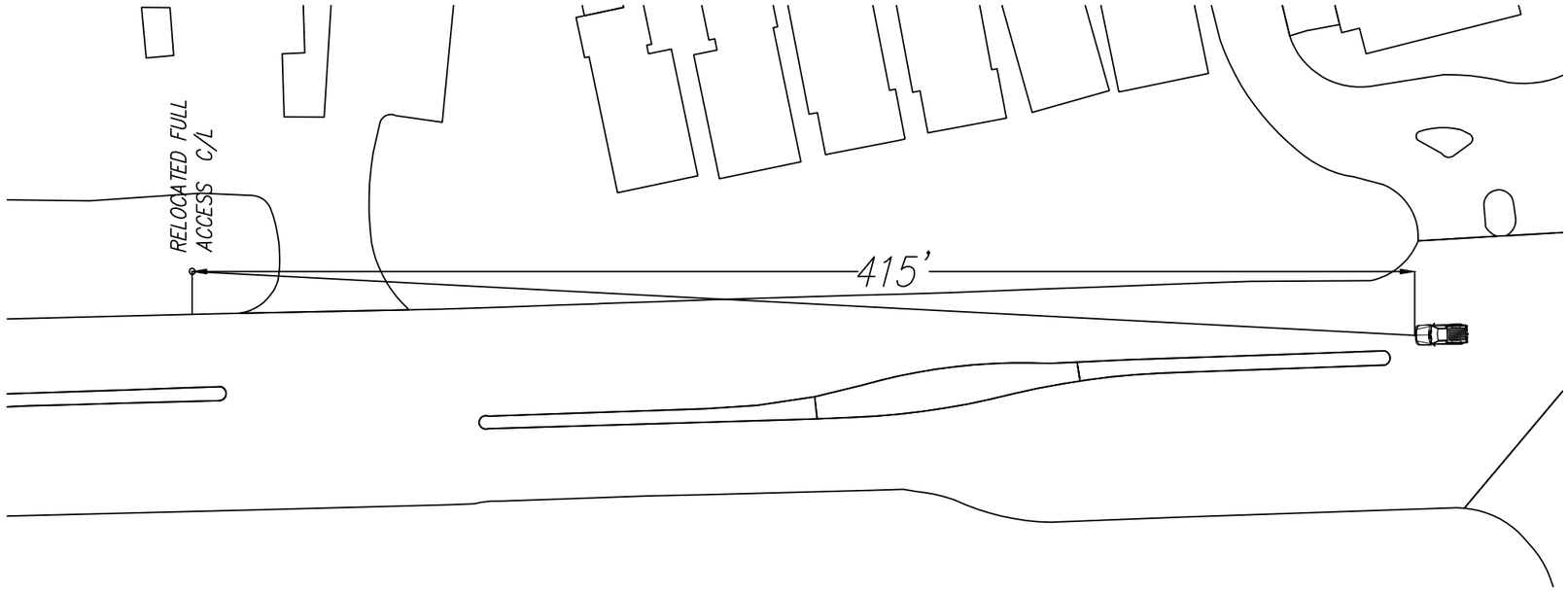
GRADE INFORMATION VIA
GOOGLE EARTH

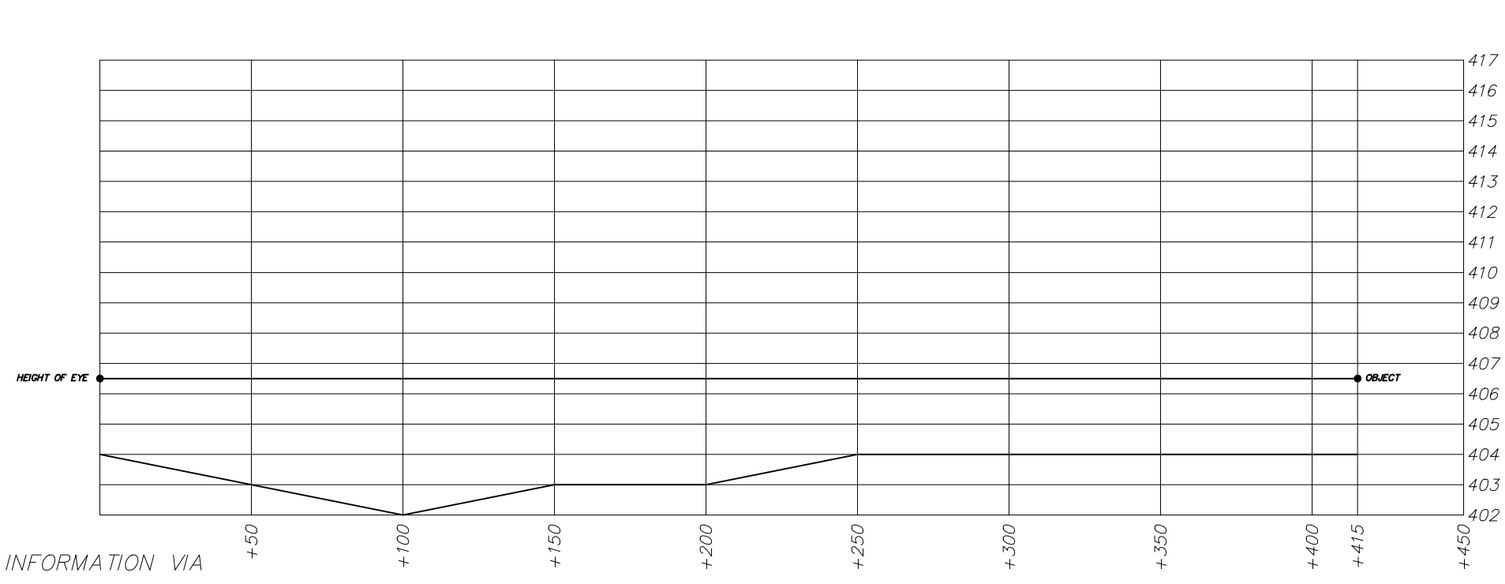
[SCALE: 1"=50']

GOROVE / SLADE
Transportation Planners and Engineers

3500 Pickett Road

Relocated Full Access - Sight Distance Right





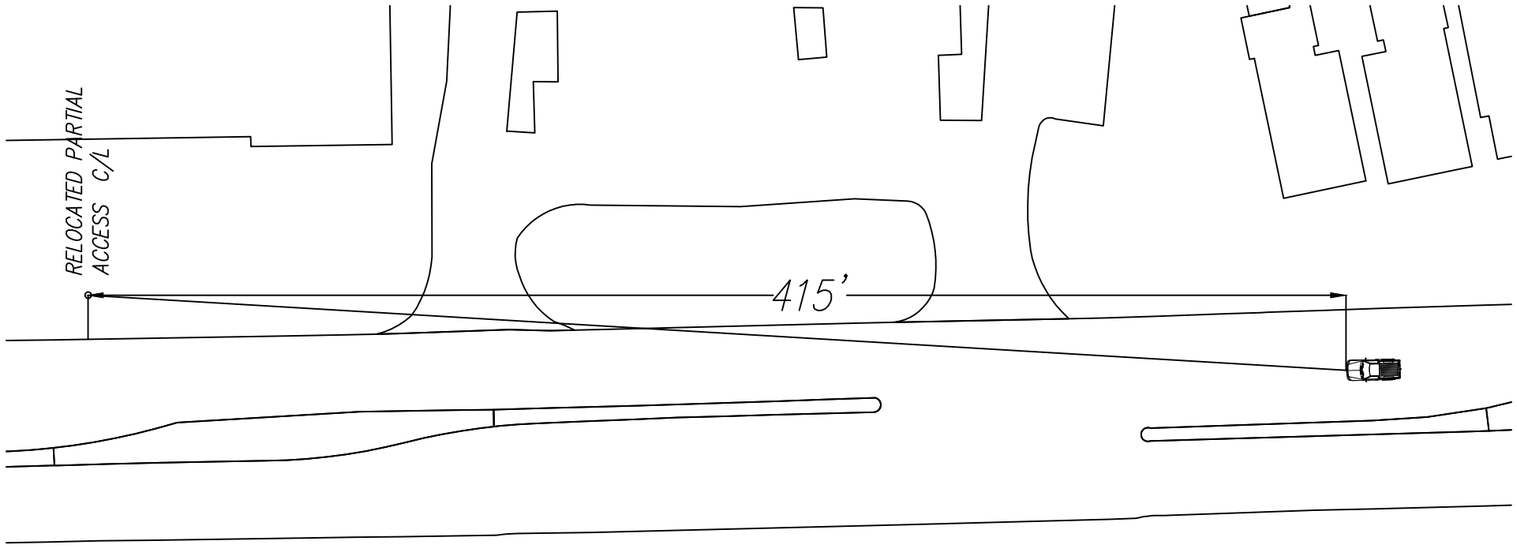
GRADE INFORMATION VIA GOOGLE EARTH

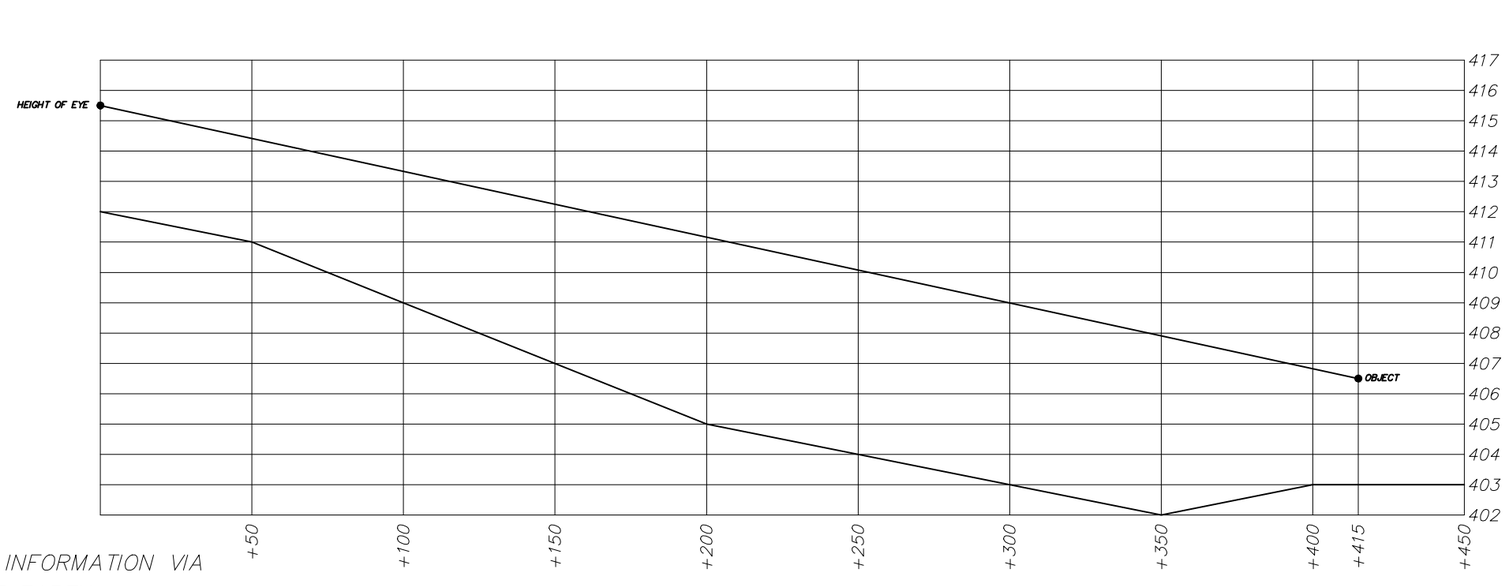
[SCALE: 1"=50']

GOROVE / SLADE
Transportation Planners and Engineers

3500 Pickett Road

Relocated Full Access - Sight Distance Left





GRADE INFORMATION VIA GOOGLE EARTH

[SCALE: 1"=50']

GOROVE / SLADE
Transportation Planners and Engineers

3500 Pickett Road

Relocated Partial Access - Sight Distance Left

JENSEN HUGHES

Advancing the Science of Safety

November 13, 2019

Brooke Hardin
City of Fairfax
Department of Community Development & Planning

RE: 3500 Pickett Road
Code Compliance Review

Dear Mr. Hardin:

On behalf of EYA Development, LLC, we are submitting the enclosed code compliance review as an independent third party charged with evaluating the compliance of the proposed new development at 3500 Pickett Road through a due diligence assessment. In particular, we focused our review on assessing the risk posed to the proposed development by the adjacent TransMontaigne tank farm facility. To summarize our conclusions:

> The TransMontaigne tank farm facility was examined for compliance of the location of the storage tanks and the loading/unloading operations with respect to the nearest property line and the proposed of the residential project at 3500 Pickett Road.
>
> The code compliance analysis was based on the locally adopted Virginia SFPC and USBC codes, which are amended by the City of Fairfax and include by reference the IFC and NFPA 30.
>
> According to information included in the NFPA Handbook as commentary, the location provisions included in NFPA 30 are “intended to ensure that tanks are located such that they will not jeopardize structures on the property of others”. In the context of Virginia SFPC, the IFC and NFPA 30, the location of the storage tanks and the loading/unloading operations were determined to exceed the minimum distance requirement with respect to the nearest property line that can be built upon, relative to the proposed residential project. The separation distances provided include a significant safety factor when compared to the minimum code requirements. Thus, the proposed location of the residential project was observed to be compliant with the applicable code requirements set forth in the Virginia SFPC, USBC, IFC 2015 and NFPA 30 with respect to location of fuel storage tanks and loading / unloading areas.

We have also attached the tables from our report that demonstrate the significance of the separation distance between the tank farm and proposed development when compared to code regulations.

We are happy to present our findings in greater detail, or otherwise clarify, as requested.

Sincerely,

Jensen Hughes

Eric M. Roeder, PE, PSP
Senior Fire Protection Engineer
Arlington Office Manager

4601 North Fairfax Drive | Suite 1200
Arlington, VA 22203 USA
O:+1 703-348-8398
F: +1 703-276-2889

jensenhughes.com

Table 1 - Summary of Code Compliance Analysis of Location of fuel storage tanks

Minimum Distance from property line to storage tank, required per IFC and NFPA 30	Actual Distance from Tank Farm property line to nearest storage tank (T-111)	Actual distance from storage tank T-111 to proposed residential project
124 ft	192 ft	560 ft

Table 2 - Summary of Code Compliance Analysis of Location of fuel loading / unloading area

Minimum Distance from property line to loading / unloading area, required per IFC and NFPA 30	**Actual Distance from nearest property line to loading/ unloading area**	**Actual distance from loading /unloading area to proposed residential project**
25 ft	411 ft	630 ft

CODE COMPLIANCE REVIEW FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT 3500 PICKETT ROAD

PREPARED FOR

Kristen Hook
Senior Development Analyst
EYA Development, LLC
4800 Hampden Lane, Suite 300
Bethesda, MD 20814

Project #: 1EMR19027
Date: 10/21/2019

JENSEN HUGHES
Advancing the Science of Safety

Eric R. Roeder, PE, PSP
4601 N Fairfax Drive, Suite 1200
Arlington, VA 22203

eroeder@jensenhughes.com
+1 703-348-8398

Table of Contents

Page

EXECUTIVE SUMMARY

EYA Development, LLC intends to build a new residential housing project, to be located in 3500 Pickett Road, Fairfax VA. The new residential project will be located in proximity to the neighboring TransMontaigne tank farm. Since the tank farm is used to store and handle liquid fuels, EYA Development, LLC wishes to execute a due diligence assessment of the risks posed in order to support the permitting process with the Authority Having Jurisdiction in the City of Fairfax, VA.

This report documents a Code Compliance review, focused on the sections of the applicable codes that cover location of storage tanks (such as the tanks located in the TransMontaigne tank farm facility) and truck loading area with respect to property lines that can be built upon and important buildings. The compliance review of the tank farm was examined both with respect to locally adopted state codes applicable to the jurisdiction in the City of Fairfax, including the Virginia Statewide Fire Prevention Code (SFPC) and the Virginia Uniform Statewide Building Code (VUSBC), including City of Fairfax amendments dated 9/17/2013, as well as international codes such as the International Fire Code (IFC), the International Building Code (IBC) and NFPA 30 “Flammable and Combustible Liquids Code”.

The Code Compliance review concludes that the location of the storage tanks and the loading/unloading operations meet the minimum distance requirements with respect to property lines, and therefore the proposed location for the proposed residential project is compliant with the Virginia SFPC, USBC, IFC, IBC and the NFPA 30.

1.0 Background

EYA Development, LLC intends to build a new residential housing project, to be located at 3500 Pickett Rd, Fairfax VA. The TransMontaigne tank farm which is known to store and handle flammable liquid fuels is located in proximity to the proposed residential housing development. Due to the proximity of this residential development to the neighboring TransMontaigne tank farm, the Authority Having Jurisdiction (AHJ) has expressed concerns about permitting the development.

1.1 OVERVIEW OF PROJECT SITE

The TransMontaigne tank farm facility is located at 3790 Pickett Rd., in Fairfax VA. Figure 1 below shows the location of the tank farm relative to the proposed residential housing project.

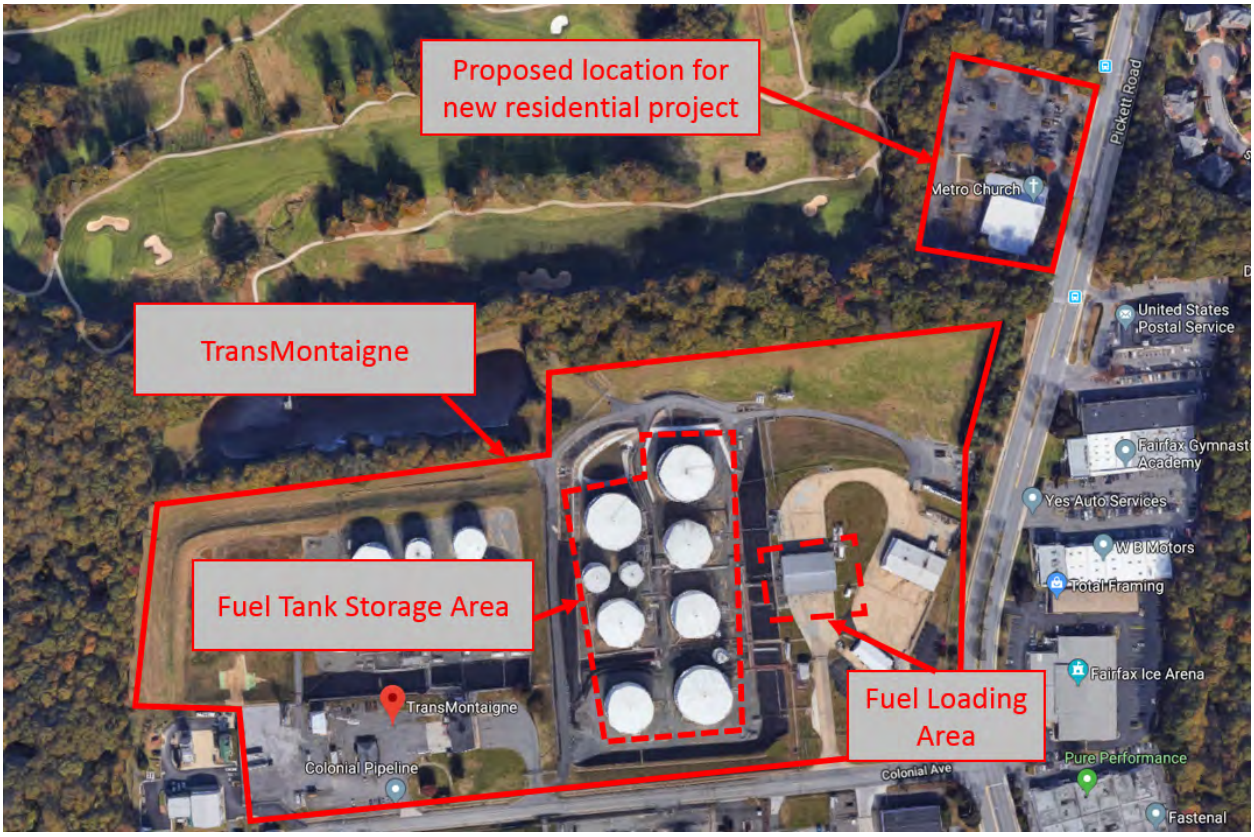


Figure 1 – Aerial view of Project site

The TransMontaigne tank farm has a storage capacity of 513,000 barrels (bbls) and is known to store gasoline, ethanol and diesel in a total of 17 atmospheric storage tanks of different sizes. One of the largest fuel storage tanks in the facility, denoted as Tank T-111, is located closest to the proposed residential project, therefore the Code Compliance review will be focused on this tank. Tank T-111 is a vertical cone roof tank with an internal floating roof, with total storage capacity of 81,665 bbls (approx. 3.4 million gallons). The approximate external diameter of the tank T-111 is 124 ft (as measured with Google earth).

The fuels are supplied to the facility by pipeline and trucks. The facility includes a truck loading / unloading area with three truck spots.

The TransMontaigne facility is separated from the proposed residential project by a patch of land of width 100 ft, owned by the City of Fairfax.

2.0 Scope and Objective

The scope of this report is to perform a Code Compliance Review, which will include requirements applicable to location of hydrocarbon storage tanks in relation to the proposed residential project on 3500 Pickett Road, Fairfax, VA. This includes identification of requirements set forth in the Virginia Statewide Fire Prevention Code (SFPC) and the Virginia Uniform Statewide Building Code (VUSBC), including City of Fairfax amendments dated 9/17/2013, as well as international codes such as the International Fire Code (IFC), the International Building Code (IBC) and NFPA 30 “Flammable and Combustible Liquids Code”.

The objective of this report is to document the Code Compliance review to determine whether the separation distance between the tank farm facility and the proposed residential project is compliant with the requirements outlined in the applicable codes mentioned above. It is expected that the findings from this report will provide a basis for further discussion with the Authority Having Jurisdiction to support the permitting process of the proposed residential project.

3.0 Approach and Analysis

The approach followed for the Code Compliance Review was structured as follows:

- **Identification of Applicable Codes** – This section outlines the codes and standards applicable to storage and handling of flammable and combustible liquids in the City of Fairfax, VA.
- **Identification of Code Requirements** – Within the codes and standards identified as applicable for this project, this section identifies the specific sections of the code that determine minimum spacing requirements or location of storage or handling operations of flammable and combustible liquids with respect to property lines or important buildings.
- **Analysis of site-specific conditions with respect to Code Requirements** – This section provides an analysis of current and proposed site conditions with respect to the specific code requirements identified in the previous section.

The analysis described above is presented in the following subsections.

3.1 IDENTIFICATION OF APPLICABLE CODES

As mentioned previously, the project is planned to be built in the City of Fairfax, in Virginia. Within the City of Fairfax, the Office of the Fire Marshal enforces the Virginia Statewide Fire Prevention Code (SFPC). The City of Fairfax issued a number of amendments to the SFPC in September of 2013.

The Virginia Statewide Fire Prevention Code, simply referred to as the Fire Prevention Code, is a state regulation promulgated by the Virginia Board of Housing and Community Development (BHCD) in cooperation with the Virginia Fire Services Board (VFSB), both Governor-appointed boards. The purpose of the Virginia SFPC is to establish statewide standards to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures and the unsafe storage handling, and use of substances, materials and devices, including fireworks, explosives and blasting agents, wherever located.

The provisions of the SFPC are based on a nationally recognized model code published by the International Code Council, Inc (ICC) and fire protection and prevention standards published by the National Fire Protection Association (NFPA). Such code and standards are made part of the SFPC through a regulatory process known as incorporation by reference. The SFPC also contains administrative provisions governing the use of the model code and standards and establishing requirements for the enforcement of the code by the local and state enforcing agencies.

The 2015 edition of the International Fire Code (IFC) is incorporated by reference into the 2015 edition of the Virginia SFPC. For the purposes of assessing the adequate location of the storage tanks relative to the proposed residential project, the applicable chapter in both the SFPC and the IFC is Chapter 57 “Flammable and Combustible Liquids”. Chapter 57 of the IFC describes requirements intended, in part, to protect people and property in the event of accidental fires involving flammable and combustible liquids. In addition, several sections included in the Chapter 57 of the IFC refer to the 2012 edition of NFPA 30 “Flammable and Combustible Liquids Code”, which are discussed in the following subsections of this report.

3.2 IDENTIFICATION OF CODE REQUIREMENTS

The TransMontaigne tank farm includes two main operations that are covered in the codes identified in the previous subsection:

- Fuel storage in atmospheric storage tanks
- Fuel loading and unloading in tank cars (loading and unloading area)

The specific code requirements that determine the location of these areas with respect to property lines are discussed in the following subsections.

3.2.1 Code requirements related to location of atmospheric fuel storage tanks

The VUSBC section 414.6 states that the outdoor storage, dispensing and use of hazardous materials shall be in accordance with the IFC. The IFC 2015 requires that storage of any flammable and combustible liquids in above-ground tanks comply with sections 5704.2.9.6.1 through 5704.2.9.6.3. With respect to location of atmospheric storage tanks storing Class I or II liquids, IFC §5704.2.9.6.1.1 indicates that such tanks must be located in accordance with Table 22.4.1.1(a) of NFPA 30.[1] An excerpt of Table 22.4.1.1(a) from NPFA 30 is shown in Table 1 below.

Table 1 - NFPA 30 Table 22.4.1.1 (a), referenced by IFC 5704.2.9.6

Table 22.4.1.1(a) Location of Aboveground Storage Tanks Storing Stable Liquids — Internal Pressure Not to Exceed a Gauge Pressure of 2.5 psi (17 kPa)

Type of Tank	Protection	Minimum Distance (ft)	
		From Property Line That Is or Can Be Built Upon, Including the Opposite Side of a Public Way[a]	From Nearest Side of Any Public Way or from Nearest Important Building on the Same Property[a]
Floating roof	Protection for exposures[b]	½ × diameter of tank	⅙ × diameter of tank
	None	Diameter of tank but need not exceed 175 ft	⅙ × diameter of tank
Vertical with weak roof-to-shell seam	Approved foam or inerting system[c] on tanks not exceeding 150 ft in diameter[d]	½ × diameter of tank	⅙ × diameter of tank
	Protection for exposures[b]	Diameter of tank	⅓ × diameter of tank
	None	2 × diameter of tank but need not exceed 350 ft	⅓ × diameter of tank
Horizontal and vertical tanks with emergency relief venting to limit pressures to 2.5 psi (gauge pressure of 17 kPa)	Approved inerting system[b] on the tank or approved foam system on vertical tanks	½ × value in Table 22.4.1.1(b)	½ × value in Table 22.4.1.1(b)
	Protection for exposures[b]	Value in Table 22.4.1.1(b)	Value in Table 22.4.1.1(b)
	None	2 × value in Table 22.4.1.1(b)	Value in Table 22.4.1.1(b)
Protected aboveground tank	None	½ × value in Table 22.4.1.1(b)	½ × value in Table 22.4.1.1(b)

[1] It is worth noting that, for "protected tanks", the exception (3) in IFC §5704.2.9.6.1.1 allows for reduction in distances to property lines by referring to Table 22.1.1.1(b); however, since it is not known whether the tanks in the TransMontaigne are installed with such additional protection features, it was assumed that the more restrictive distances from NFPA 30 Table 22.4.1.1(a) apply.

Table 22.4.1.1(a) provides minimum distance to a property line "*that is or can be built upon*" for different types of tanks. The first category consists of tanks with floating roofs, either open-top or internal. As mentioned previously, Tank T-111 is a vertical cone roof tank with an internal floating roof; therefore, the first category of "floating roof" tank type applies to this analysis.

The second category is "*Protection*", and the column includes the term "*protection for exposures*", which should not be confused with fire suppression systems and equipment used to fight a tank fire. The definition of "*Protection for exposures*" is presented in NFPA 30 §3.3.46 as "Fire protection for structures on property adjacent to liquid storage that is provided by (1) a public fire department or (2) a private fire brigade maintained on the property adjacent to the liquid storage, either of which is capable of providing cooling water streams to protect the property adjacent to the liquid storage." In the context of this analysis, protection for exposures refers to fire protection provided for adjacent property (such as the proposed residential project), not for the property on which the flammable or combustible liquid is located. For the purposes of this analysis, and to provide a conservative estimate of the separation distance required between the tank T-111 and the neighboring sites beyond the property line, it may be assumed that no protection is provided on the proposed residential project.[2]

The third column of Table 22.4.1.1(a) includes the "minimum distance from property line that is or can be built upon, including the opposite side of a public way". According to the NFPA 30 Handbook, this distance refers to a basic premise of the spacing requirements, meaning that the tank should not threaten adjacent facilities on the other side of the property line. The separation distances apply regardless of whether a structure is present on the adjacent property or the land is vacant, and future construction on the adjacent property must be anticipated. For the purposes of this analysis, the minimum distance obtained from Table 22.1.1.1(a) would correspond to the "diameter of the tank, but not exceeding 175 ft". Considering that the tank diameter (as measured from a Satellite view obtained from Google Earth, as shown in Figure 2) is 124 ft, the minimum distance from the tank shell to the nearest property line that can be built upon must be also **124 ft**.

[2] It is important to note that this analysis seeks to establish whether additional "protection" is warranted based on these code requirements. This code analysis is only establishing the "bounding" or "worst case" conditions that would satisfy the code requirements. If the "bounding" conditions are satisfied, then all other "less conservative" assumptions would also satisfy the requirements set by the applicable codes. Compliance will be assessed in future sections of the report.

Figure 2 – Aerial view of Tank T-111, showing the tank diameter is approximately 124 ft.

3.2.2 Code requirements related to location of fuel loading / unloading area

VSFPC 2015 requires that the location of bulk transfer operations (loading and unloading from tank cars and vehicles) comply with Section 5706.5.1.1; stating that tank vehicle and tank car transfer facilities must be separated from buildings and property lines by distance of **25 ft** for Class I liquids and 15 ft for Class II and III liquids measured from the nearest position of any loading or unloading valve. Buildings for pumps or shelters for personnel shall be considered part of the transfer facility.

The above requirement is also in accordance with NFPA 30 §28.4.1 which requires that loading and unloading facilities for flammable and combustible liquids be separated from aboveground tanks, warehouses, or the nearest line of adjoining property that can be built upon by a distance of at least **25 ft** for Class I flammable liquids, and at least 15 ft for Class II combustible liquids.

3.3 ANALYSIS OF SITE-SPECIFIC CONDITIONS WITH RESPECT TO CODE REQUIREMENTS

This subsection provides an analysis of current and proposed site conditions with respect to the specific code requirements identified in the previous subsection.

3.3.1 Code Compliance Analysis of Location of Atmospheric Fuel Storage Tanks

As previously stated, the closest tank to the residential project property line is tank T-111, which has a diameter of approximately 124 ft. and volumetric storage capacity of 81,665 bbls (3,429,930 gallons). Considering that the TransMontaigne facility is known to store different types of fuels, including gasoline,

ethanol and diesel, a conservative case would be to assume that the tank T-111 is used to store Class IB flammable liquids (defined as a liquid that has a flash point below 73°F and a boiling point at or above 100°F). Based on Table 22.4.1.1(a) of NFPA 30, it was previously determined that the minimum distance to the property line that is or can be built upon is 124 ft (the diameter of the tank T-111).

Figure 3 shows an aerial view of the project site, showing actual distance between Tank T-111 and the property line as approximately 192 ft.

Figure 3 - Aerial view of the project site, showing actual distance between Tank T-111 and the property line is approx. 192 ft

Considering that the actual distance between the tank and the property line (192 ft) is greater than the minimum distance required by the applicable codes (124 ft), it can be determined that the proposed location of the proposed residential building meets the requirements set forth by the amended Virginia SFPC, IFC and NFPA 30 with regard to location of aboveground storage tanks to property lines. In

addition, it is worth mentioning that the approximate separation distance between the tank T-111 and the proposed location for the new residential project is approximately 560 ft. The results of the Code Compliance Analysis of Location of fuel storage tanks is summarized in Table 2 below.

Table 2 - Summary of Code Compliance Analysis of Location of fuel storage tanks

Minimum Distance from property line to storage tank, required per IFC and NFPA 30	Actual Distance from Tank Farm property line to nearest storage tank (T-111)	Actual distance from storage tank T-111 to proposed residential project
124 ft	192 ft	560 ft

3.3.2 Code Compliance Analysis of Location of Fuel Loading / Unloading Area

As previously stated, both IFC and NFPA 30 state that the minimum distance between bulk fuel transfer operations must be 25 ft for Class IB liquids and 15 ft for Class II liquids. Considering that the TransMontaigne facility is known to handle different types of fuels, including gasoline, ethanol and diesel, a conservative case would be to assume that the minimum distance should be based on Class IB liquids, which would be 25 ft.

Figure 4 shows an aerial view of the project site, showing actual distance between Tank T-111 and the nearest property line closest to the proposed residential project is as approximately 411 ft.

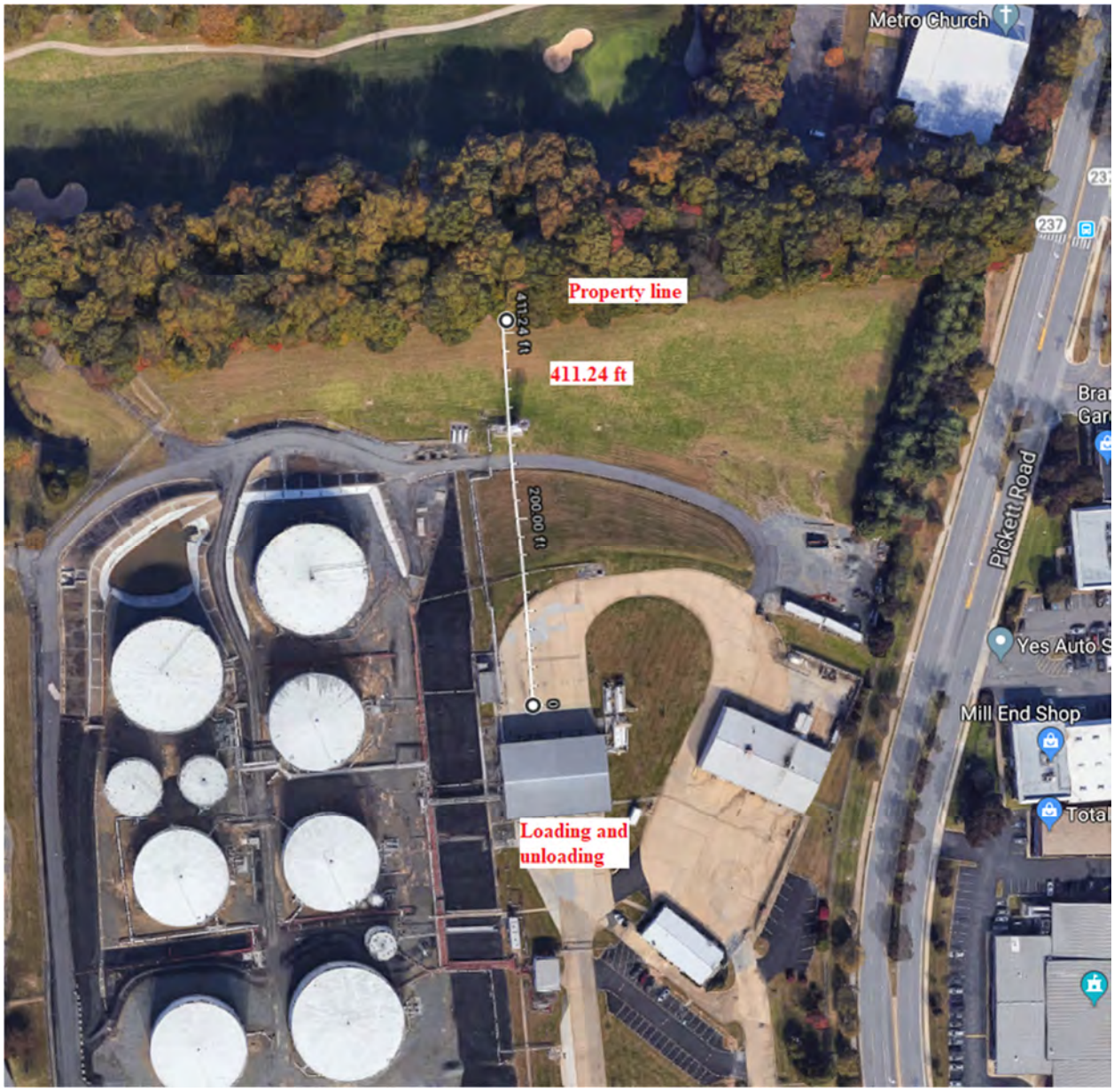


Figure 4 - Aerial view of the project site, showing actual distance between fuel loading / unloading area and the property line is approx. 411 ft

Considering that the actual distance between the loading / unloading area and the property line (411 ft) is greater than the minimum distance required by the applicable codes (25 ft), it can be determined that the proposed location of the proposed residential building meets the requirements set forth by the Virginia SFPC, IFC and NFPA 30 with regard to location of bulk loading and unloading facilities to property lines. Thus, the minimum distance requirement in this case exceeds the requirements set forth by the VSFPC. In addition, it is worth mentioning that the approximate separation distance between the truck loading / unloading area and the proposed location for the new residential project is approximately 630 ft. The

results of the Code Compliance Analysis of Location of fuel loading / unloading area is summarized in Table 3 below.

Table 3 - Summary of Code Compliance Analysis of Location of fuel loading / unloading area

Minimum Distance from property line to loading / unloading area, required per IFC and NFPA 30	Actual Distance from nearest property line to loading/ unloading area	Actual distance from loading /unloading area to proposed residential project
25 ft	411 ft	630 ft

4.0 Summary and Conclusions

The TransMontaigne tank farm facility was examined for compliance of the location of the storage tanks and the loading/unloading operations with respect to the nearest property line and the proposed of the residential project at 3500 Pickett Road.

The code compliance analysis was based on the locally adopted Virginia SFPC and USBC codes, which are amended by the City of Fairfax and include by reference the IFC and NFPA 30.

According to information included in the NFPA Handbook as commentary, the location provisions included in NFPA 30 are “intended to ensure that tanks are located such that they will not jeopardize structures on the property of others”. In the context of Virginia SFPC, the IFC and NFPA 30, the location of the storage tanks and the loading/unloading operations were determined to exceed the minimum distance requirement with respect to the nearest property line that can be built upon, relative to the proposed residential project. The separation distances provided include a significant safety factor when compared to the minimum code requirements. Thus, the proposed location of the residential project was observed to be compliant with the applicable code requirements set forth in the Virginia SFPC, USBC, IFC 2015 and NFPA 30 with respect to location of fuel storage tanks and loading / unloading areas.

5.0 References

1. USBC 2015, Virginia Construction Code Part I of the Virginia Uniform Statewide Building Code.
2. SFPC 2015, Virginia Statewide Fire Prevention Code.
3. IBC 2015, International Building Code, International Code Council Inc.
4. IFC 2015, International Fire Code, International Code Council Inc.
5. NFPA 30, Flammable and Combustible Liquids Code, 2012 Edition.