



**WATER QUALITY IMPACT ASSESSMENT
(CBPO ARTICLE 6 WRPA SUBMISSION)
6630 HOLLAND STREET
FAIRFAX COUNTY, VIRGINIA
RPA EXCEPTION REQUEST #129-WQ-001-3**

**TNT PROJECT NO.: 1426
FOR**

MR. & MRS. BERGOGLIO

**SEPTEMBER 21, 2020
REVISED: DECEMBER 30, 2020**



September 21, 2020
Revised: December 30, 2020

Mr. & Mrs. Teseo and Cecilia Bergoglio
6630 Holland Street
McLean, VA 22101

TNT Project #: 1426

Reference: WRPA CBPO Article 6 Statement of Justification for WQIA #129-WQ-001, 6630 Holland Street, Fairfax County, Virginia
Latitude: 38° 57' 31" N, Longitude: 77° 10' 21" W

Dear Mr. and Mrs. Bergoglio:

TNT Environmental, Inc. (TNT) is pleased to present this CBPO Article 6 Statement of Justification for the Water Quality Impact Assessment (WQIA) report for the above-referenced project in general accordance with TNT Proposal Number 1854-R, dated July 30, 2018 with a revision date of August 27, 2018. The purpose of the WQIA is to ensure protection of the Resource Protection Areas consistent with the goals, objects, and requirements of Chapter 118, Article 4 of the Fairfax County Chesapeake Bay Preservation Ordinance through (1) the identification of the impacts of proposed development or redevelopment on water quality on lands within RPAs, (2) the assurance that, where development or redevelopment does take place within RPAs, that it will be located on those portions of a site in a manner that will be least disruptive to the natural functions of RPAs; and (3) the requirement of mitigation measures which will address water quality protection.

Project Site Description

The project site is approximately 0.95 acres of land located north of the intersection of Holland Street and Heather Brook Court in Fairfax County, Virginia. The project site is further identified by physical address 6630 Holland Street and Fairfax County Map #: 0212-02-0006. (*Figure 1: Project Location Map*) Based on a review of County GIS data, the project site is improved by an existing residential structure and is zoned R-1. A perennial stream and its associated Resource Protection Area (RPA) are located along the eastern property boundary. (*Figure 2: USGS Topographic Map*). The property is currently maintained as a single-family residence.

Based on several conversations (via email and telephone) with Fairfax County and the subsequent Notice of Violation received (Complaint Number 201803030, dated March 6, 2019), a WQIA is required in order to obtain permission from Fairfax County for the previously conducted activities onsite. Said activities include the installation of a patio and grill area in the rear of the existing house.

The initial WQIA for this project site was submitted and reviewed for completeness. The WQIA was reviewed as complete in a letter provided by Fairfax County dated September 10, 2020 and received by TNT on Monday, September 14, 2020. This submission represents the required information for the CBPO Article 6 submission to initiate the process for requesting Exception Review Committee approval of a remedy for the above-mentioned RPA violation. The statement of justification that addresses how the proposed development complies with the factors set forth in Article 6 is detailed below.

Water Quality Impact Assessment Components per Section 118-6-5

The proposed project meets the general performance criteria for Resource Protection Areas as outlined in Section 118-6-5 through the submission of the required documents listed in the CPRO 118-6-5(a) through (e) items. This checklist of items can be found in the application form provided with this submission. Item 118-6-5(f) is discussed below.

Water Quality Impact Assessment Components per Section 118-6-6

The proposed project meets the general performance criteria for Resource Protection Areas as outlined in Section 118-6-6 and detailed below:

- a) The requested exception to the criteria is the minimum necessary to afford relief. The parcel in question (41,500 square feet) is constrained by approximately 25,819 SF of land within the RPA. The RPA buffer encompasses approximately 62% of the property. This constraint drastically reduces the total available buildable area onsite, particularly in using the backyard space of the property. The requested exception incorporates the proposed onsite revegetation and removal of portions of the existing patio to decrease impervious surface in the RPA. The revegetation and patio removal are required for mitigation. The applicant and property have ensured that the work zone is the minimum necessary (5-foot offset from the patio) to remove portions of the patio. All other work within the RPA outside of the proposed limits of disturbance will be done by hand.

The existing primary structure, asphalt driveway, and wood deck located within the RPA was approved to be built in 2004 by Fairfax County (129-INF-004-3). The current violation is association with the general lot clearing, tree removal, and creation of impervious surface in the form of a patio, masonry grill, and fire pit on the property that occurred between 2017 and 2019. An associated RPA plan was approved with the 2004 grading plan as well (129-WRPA-001-1). Construction of the existing two-story house and deck was completed in 2006. The associated plantings and mitigation proposed for the approved 2004 RPA encroachment can be seen in the 2007 aerial photograph provided by Fairfax County JADE. The approved 2004 plans came off bond on May 18, 2007 according to Fairfax County's LDS Net. Per historic aerial imagery, vegetation removal in the RPA occurred on the property between 2007 and 2009. This vegetation removal was completed by the previous owner(s) of the property, Stuart and Regina Solomon. Stuart and Regina Solomon purchased the property in August 2006. Mr. and Mrs. Bergoglio (the applicants) purchased the property in January 2016.

Additional vegetation removal and the construction of the existing patio and grill in the RPA occurred between 2017 and 2019 associated with the Notice of Violation received by the applicants (Complaint Number 201803030, dated March 6, 2019).

The plans remove large sections of the existing patio area in order to continue the use of the patio and to satisfy the applicant's needs. Removal of the entirety of the patio is an alternative to the proposed plans; however, the applicants desire to have some use of their backyard through the use of the portion of patio to remain.

- b) Granting the requested exception will not confer upon the applicant any special privileges that are denied by this part to other property owners who are subject to its provisions and who are similarly situated.

The Applicant here is not requesting nor would receive any special privilege denied to other similarly situated property owners, who could also conduct the required analyses and, if warranted, be considered for an exception and waiver.

The Chesapeake Bay Local Department ("CBLAD") historically was the state entity issuing guidance with respect to the Chesapeake Bay Act, including the granting of special exceptions. With regard to the meaning of conferring a special privilege, CBLAD has stated:

This finding is intended to make sure that an exception request would not give the applicant something that has been denied to others in similar situations, and gets to the equity, fairness, and arbitrary and capricious aspects of any exception request and decision. For instance, a property owner requests an exception to build a pool in the RPA and neighbors have applied for and been denied a similar request. In this instance, if the exception is approved, a special privilege has been permitted for one neighbor but not the others ("Exception Guidance on the Chesapeake Bay Preservation Area Designation and Management Regulation," September 16, 2002, revised June 13, 2009 at Page 3).

The applicant is seeking to redress the existing Notice of Violation on their property.

- c) This exception request is in harmony with the purpose and intent of Chapter 118 and is not of substantial detriment to water quality. The two planter boxes are proposed which will provide water quality treatment. Per the VRRM calculations prepared by Tri-Tek Engineering, and provided in the WQIA submission, 0.12 pounds per year of phosphorus will be removed with the proposed stormwater/best management practice (BMP) strategy. The VRRM spreadsheet provided in this application shows that water quality requirements will not be met per Chapter 124; however, this application is subject to the criteria of Chapter 118 that states there needs to be a net benefit in water quality to the entire site. The pre-development load for this site is 0.54 pounds per year and the post-development load is 0.64 pounds per year. For the proposed BMP strategy post-development, 0.12 of the 0.64 pounds per year will be treated, equaling 0.52 pounds per year. This amount is less than the pre-development load of 0.54 pounds per year; therefore, there is a net benefit to water quality for the site, meeting

the criteria of Chapter 118. Additionally, a rooftop disconnect will be utilized. All down spouts on the rear of the house will dissipate into a gravel flow spreader, thus remaining as sheet flow to the RPA.

In order to improve water quality further, the applicant proposes to remove impervious surface from the RPA. The proposed conditions remove approximately 331 square feet of the patio located in the RPA. The entirety of the patio located within the Seaward 50-foot onsite will be removed and the existing fire pit located in Seaward 50-foot will be removed entirely. Overall, there is a net decrease of 331 square feet of impervious cover from the existing to proposed conditions. Additionally, approximately 100 square feet of impervious cover will be removed from the Seaward 50-foot buffer. Finally, the proposed planting, as outlined in the Water Quality Impact Assessment submission and detailed below in 118-6-9, will provide additional water quality benefit through the establishment of new vegetation which will reduce runoff.

- d) This exception request is to redress conditions or circumstances that are self-created or self-imposed. The applicant is proposing to remove some of the impervious cover and revegetate previously disturbed land within the RPA in response to a NOV. The applicant will not be adding additional impervious surfaces. The WQIA plan previously submitted represents the revegetation plan for past RPA encroachment.

It is understood by TNT and the applicant that a requirement of an exception request is that circumstances are not self-created or self-imposed; however, this WQIA and exception are being submitted in response to a NOV and the mitigation efforts are required.

- e) Reasonable and appropriate conditions are imposed, as warranted, that will prevent the allowed activity from causing a degradation of water quality. In addition to the measures to improve water quality onsite listed in section 118-6-6(c), there will be silt fence installed around the limits of disturbance during the removal of the portions of patio onsite.
- f) Details regarding the requested rooftop disconnect and gravel flow spreader have been discussed in the previously submitted WQIA and below in section 118-6-9. No other findings have been requested of the Applicant.

Water Quality Impact Assessment Components per Section 118-6-9

The exception meets the required findings listed in Section 118-6-5. With the proposed revegetation, addition of planter boxes and rooftop disconnect/gravel flow spreader, and removal of impervious cover within the RPA, the water quality benefits of the RPA plantings and increase of pervious cover will exceed the associated water quality detriments of the previous RPA encroachment. Two planter boxes will be installed to treat 0.12 pounds per year of phosphorus and control stormwater runoff, leading to an increase in water quality compared with the pre-development load onsite. Additionally, the 5,081 square feet of disturbed area associated with the violation within the RPA will be revegetated at a density of 12 overstory trees per acre (2" DBH), 24 understory trees per acre (1"

Mr. and Mrs. Bergoglio
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Page 5

DBH), and 128 shrubs per acre (1 gallon). These plantings will be installed within an approximate 5,157 square foot area of site. The proposed vegetated area will maximize water quality protection, mitigate the effects of the buffer encroachment, and is greater than the area of encroachment into the buffer area. The planting schedule was included in the WQIA submitted on July 29, 2020.

The requested Article 6 Application Form and the appropriate plat of the project site (located in Appendix IV) has been included with this submission.

TNT would like to thank you for the opportunity to provide you with this CBPO Article 6 Statement of Justification Water Quality Impact Assessment. We look forward to assisting you further with this project and other environmental concerns you may have. If you have any questions, please feel free to contact us at any time at (703) 466-5123.

Sincerely,

TNT ENVIRONMENTAL, INC.



Tara N. Wilkins, WPIT
Environmental Scientist
Tara@TNTenvironmentalinc.com



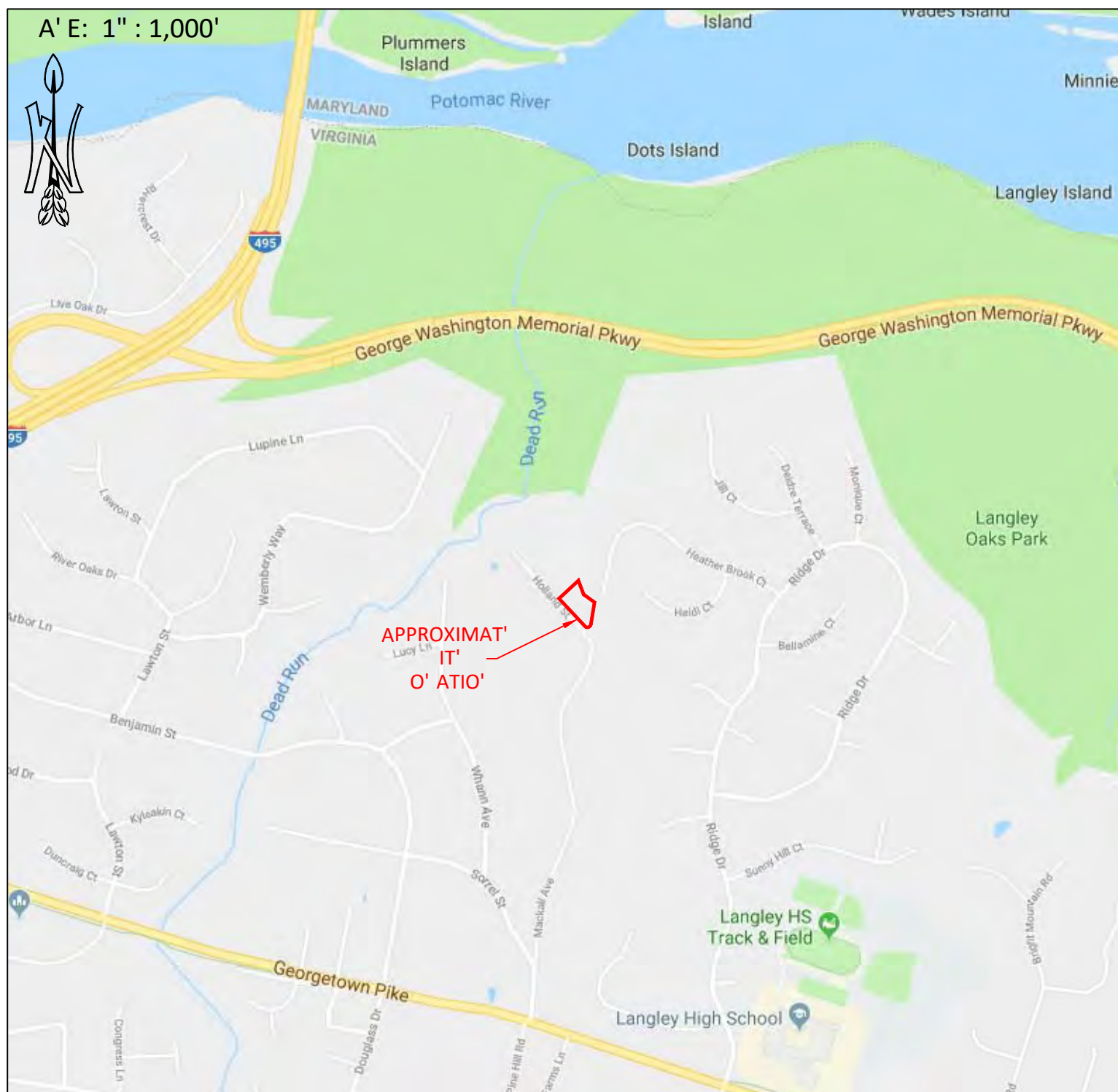
Avi M. Sareen, PWD, PWS, ISA-CA
Principal/President
Avi@TNTenvironmentalinc.com

Appendices:

- *Appendix I: Vicinity Map & USGS Topographic Map*
- *Appendix II: Notice of Violation*
- *Appendix III: Fairfax County Comments & Response Letter*
- *Appendix IV: Water Quality Impact Assessment Exhibits*

APPENDIX I

VICINITY MAP & USGS TOPOGRAPHIC MAP



WATER QUALITY IMPACT
ASSESSMENT

6630 HOUSTON AVENUE

FAIRFAX COUNTY, VA

SEPTEMBER 2020



4455 BROOKFIELD
CORPORATE CENTER
SUITE 100
CHANTLERY, VIRGINIA 20151

FIGURE 1

LOCATION MAP

SOURCE: GOOGLE MAPS

TOTAL PROJECT: 1426'



WATER QUALITY IMPACT
ASSESSMENT

6630 HONDA DRIVE

FAIRFAX COUNTY, VA

EFFECTIVE DATE 2020



ENVIRONMENTAL
RESOURCES FIELD
CORPORATE DRIVE
SUITE 100
CHANTILLY, VIRGINIA
20151

FIGURE 2

TOPOGRAPHIC MAP

SOURCE: FAIRFAX COUNTY, VA
UNIVERSITY QUAD MAP (2016)

TITLE PROJECT NO: 1426

APPENDIX II

NOTICE OF VIOLATION



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

NOTICE OF VIOLATION Of the Chesapeake Bay Preservation Ordinance

VIOLATION ISSUED TO: Teseo R. Bergoglio
Maria C. Parini
6630 Holland St
Mc Lean, VA 22101

LOCATION OF VIOLATION: 6630 Holland St, McLean, VA 22101

COMPLAINT NUMBER: 201803030

MAP REFERENCE: 0212 02 0006

I inspected the above site on 05/24/2018, and observed the following violations in a **Chesapeake Bay Preservation Area**:

1. Land disturbance in the Resource Protection Area (RPA) without an approved Water Quality Impact Assessment in violation of Fairfax County Code, Section 118-4-2 and Section 118-3-2(a) and (b). The land disturbance in the RPA consists of approximately 1,042 square feet, including the construction of an unpermitted patio and masonry grill.
2. Encroachment of an accessory structure into the RPA without an exception approval by either the Exception Review Committee or by the Board of Supervisors, when in conjunction with a rezoning or special exception approval, in violation of Fairfax County Code, Section 118-6-8.

Furthermore, Fairfax County Code, Section 118-9-1(a), provides as follows:

Any building erected or improvements constructed contrary to any provisions of this Chapter and any land disturbing activity regardless of area contrary to any of the provisions of this Chapter and any removal of vegetation in Chesapeake Bay Preservation Areas contrary to any provisions of this Chapter shall be and the same is hereby declared to be unlawful.

You are directed to correct this violation within thirty (30) days of receipt of this order, by performing the following, corrective measures:



1. Immediately cease and desist all land disturbing activity in the RPA.
2. Remove the patio and masonry grill in accordance with County policy and procedure by:

Submitting and receiving approval for a Water Quality Impact Assessment (WQIA) that restores the RPA to the requirements of Section 118-9-1(d).

Restoration of the RPA shall be in accordance with the requirements of the Chesapeake Bay Preservation Ordinance and Public Facilities Manual (PFM). In addition to the plantings required by Section 118-3-3(f) and the PFM, the Director may require for any trees impacted or illegally removed from the RPA to be replaced by other trees of the same comparable species of equal value and/or be replaced by two trees for each tree impacted or removed. The replacement trees shall be two-inch caliper trees or larger. If any fill is relocated on site outside the RPA, the WQIA shall also show the area where the fill is to be placed and demonstrate that the placement of the fill shall not adversely impact the existing drainage of the land;

OR

3. Submit and receive approval for:
 - a. An exception request to permit encroachment into the RPA in accordance with the requirements of Section 118-6-5, -6, and -8; and
 - b. A WQIA that restores the RPA to the requirements of Section 118-9-1(d).
Restoration of the RPA shall be in accordance with the requirements of the Chesapeake Bay Preservation Ordinance and PFM;

AND

4. Correct the violation in accordance with the approved WQIA.

Section 118-9-2, Criminal Violations and Penalties, states:

- (a) Violators of this Chapter shall be guilty of a Class 1 misdemeanor.
- (b) Each day any violation of this Chapter shall continue shall constitute separate offense.
- (c) In addition to any criminal penalties provided under this Article, any person who violates any provision of this Chapter may be liable to the County in a civil action for damages, or for injunctive relief. (32-03-118.)

Section 118-9-3, Civil Penalties, reads as follows:

- (a) Any person who violates any provision of this Chapter or who violates or fails, neglects, or refuses to obey any local governmental body's or official's final notice, order, rule, regulation, or variance or permit condition authorized under this Chapter shall, upon such finding by an appropriate circuit court, be assessed a civil penalty not to exceed \$5,000 for each day of violation.

Section 118-8-1, Procedures, states in relevant part as follows:

- (a) An applicant aggrieved by any decision of the Director of the Land Development Services . . . in the administration of this Chapter may, within 15 days of such decision, appeal the decision to the Board of Supervisors.

and . . .
- (c) Such appeal shall be filed with the Clerk to the Board of Supervisors and shall state with specificity the provisions of this Chapter which the applicant alleges to have been violated by the decision and the reasons therefore. A copy of the appeal shall also be delivered to the Director of the Department of Land Development Services within such 30-day period.

Failure to correct this violation may result in legal action under applicable state and county codes.

ISSUED BY: _____

Jesus Rico Arreola, Code Specialist II
12055 Government Center Parkway
Fairfax, Virginia 22035-5503
Phone: (703) 324-8463
Email: jesus.ricoarreola@fairfaxcounty.gov
Authorized agent of the Director of LDS

DATE ISSUED: 03/06/2019

Certified Mail # 7017 2400 0000 0442 5969

APPENDIX III

FAIRFAX COUNTY COMMENT LETTER & FORMAL COMMENT RESPONSE LETTER



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

September 10, 2020

Mr. and Mrs. Teseco and Cecilila Bergoglio
Care of Tara Wilkins
TNT Environmental, Inc.
13996 Parkeast Circle, Suite 101
Chantilly, VA 20151

Subject: Langlely Forest, Section 4, Lot 6; 6630 Holland Street; Dranesville District; Tax Map No: 021-2-02-0006

Reference: Resource Protection Area (RPA) Exception Request # 129-WQ-001-3

Dear Mr. and Mrs. Bergoglio:

The referenced Water Quality Impact Assessment (WQIA), dated July 29th, 2020, has been administratively reviewed for completeness in advance of the required submittal of a Resource Protection Area (RPA) exception request (WRPA) under Section 118-6-1 of the Chesapeake Bay Preservation Ordinance (CBPO), and has been found to be acceptable for inclusion in the WRPA submittal.

A CBPO Article 6 WRPA submittal is required to formally initiate the process for requesting Exception Review Committee approval of a remedy for RPA violation # 201803030, issued March 6, 2019 for performing unauthorized land disturbing activities within the RPA located on the subject property.

The application form for the required exception request can be found on the Fairfax County website at [WRPA Exception with Public Hearing](#). Please provide:

- A digital copy of the Article 6 Application Form;
- A separate digital copy of the plat which meets the requirements of ZO 9-011, paragraph 2. This shall include the following:
 - Separate existing condition and proposed condition plats.
 - The existing condition plat shall show existing contours, existing impervious areas, turf areas and forested or tree cover areas.
 - The proposed condition plat shall show proposed contours proposed land uses and impervious areas, field verified RPA, 50 feet seaward RPA, floodplain delineation and floodplain levels, proposed SWM facilities, utilities and easements, and sewage disposal system active and reserve locations.
 - Setback, building block restriction lines.



Mr. and Mrs. Bergoglio
129-WQ-001-3
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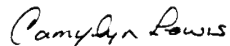
- Impervious area analysis existing versus proposed with breakdown of impervious areas within and outside RPA.
- Limits of clearing and grading, erosion and sediment control measures, tree save protection measures;
- A statement of justification which addresses how the proposed development complies with the factors set forth in CBPO 118-6-5(a) through (f) items.

The WRPA submittal is expected within 14 days of the date of this letter. You may submit your application through the online services at: <https://www.fairfaxcounty.gov/plan2build/eplans>

A copy of the acceptable WQIA exhibit is enclosed for your records.

If further assistance is desired, please contact me at 703-324-1720 or Camyllyn.Lewis@fairfaxcounty.gov.

Sincerely,



Camyllyn Lewis, P.E., CFM
Senior Engineer III (Stormwater), North Branch
Site Development and Inspections Division (SDID)
Land Development Services (LDS)

CL/tc

cc: Shannon Curtis, Chief, Watershed Assessment Branch, SPD, DPWES
Shahab Baig, Engineer V, Branch Chief, LDS
Danielle Badra, Clerk to the Chesapeake Bay Exception Review Committee (ERC)
Brandy Mueller, Chief, Environmental Compliance and Enforcement, LDS
Ricky Cook, Code Specialist II, ECE, LDS
Jesus Rico Arreola, Code Specialist II, ECE, LDS
Waiver File



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

May 7, 2020

Avi Sareen
4455 Brookfield Corporate Drive, Suite 100
Chantilly, Virginia 20151

Subject: Langley Forest, Section 4, lot 6; 6630 Holland Street; Tax Map Number: 021-2-02-0006, Dranesville District

Reference: Water Quality Impact Assessment # 129-WQ-001-2

Dear Mr. Sareen:

The referenced Water Quality Impact Assessment (WQIA) has been **disapproved**. Please review and revise the Water Quality Impact Assessment (WQIA) and address the following:

General

1. Address disruptions, reductions, or increases in the supply of water to wetlands, streams, or other surface waters shown / identified, address ground water recharge.
2. Provide the % of the site disturbed since the exception in 2004, break down the disturbance prior to the present owner's purchase, that area disturbed as a result of the violation, and that to be disturbed with the proposed remediation.
3. General location and type of all significant onsite plant material; specific location and type of all trees, shrubs, or groundcovers to be removed is shown on the plan; Page 3; Paragraph B1, clarify any plant material to be removed. Show on sheet 4.

Sheet 1

4. 118-3-2(e) Show the flow to conserved open space on the BMP exhibit, Sheet 1.

Sheet 4

5. The following information is missing from sheet 4 (ZO 9-011):
 - i. Boundaries of entire property, with bearings and distances of the perimeter property lines.
 - ii. Show all minimum yards, and the distances from existing structures to the lot line.
 - iii. Delineation of the existing centerline of all streets abutting the property, including dimensions from the existing centerline to the edge of the pavement and to the edge of the right-of-way.
 - iv. The approximate on-site and off-site areas to be served by each stormwater management facility, along with the acreage draining to each facility.



- v. A preliminary stormwater management narrative: a statement that the project is exempt for Chapter 124 and why.
- vi. Show the calculation of percent increase in impervious surface on-site and types of surfacing materials used on the plan.
- vii. Include a statement on Sheet 4 “that all selected plants are indigenous species appropriate for the riparian buffer to the extent practicable”.

Page 2

6. 118-3-2(a); The exception granted in 2004 for the construction of the house was deemed the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities. Explain why the proposed improvements are the minimum necessary and discuss any alternatives.

7. 118-3-2(c); Show the location of the proposed fire pit.

8. 118-3-2(d); Removal of impervious areas should be done with handheld equipment only.

9. 118-3-2(e); clarify the existing and proposed conditions:

With the approval of the exception in 2004 the site comprised:

Forest Open space = 0.62 ac; 27,007 sqft

Managed Turf = 0.15 ac; 6534 sqft

Impervious Cover = 0.18 ac; 7840 sqft

The proposed conditions:

Forest Open space = 0.59 ac; 25,700 sqft; reduction of 1307 sqft since 2004 exception

Managed Turf = 0.12 ac; 5227; sqft reduction 1307 sqft since 2004 exception

Impervious Cover = 0.24 ac; 10,454 sqft; increase 2614 square feet since 2004 exception

Page 3

10. Show the existing vegetation on the “Existing Conditions (2019)” exhibit.

11. Address any invasive species; address how indigenous vegetation is preserved to the maximum extent practicable. Included an invasive species management plan (e.g., type of vegetation removed, preserved and replaced, and methods proposed) if invasive species management is an objective of this application.

12. Clarify any plant material to be removed and show it on Sheet 4.

13. Measures to re-establish the understory vegetation should be proposed; seed mix may be appropriate.

Page 5

14. In the narrative for 118-4-3(b) address the following:
 - i. The condition and type of vegetation;
 - ii. Provide details of the requested exception;
 - iii. Existing topography, soils, hydrology, and geology of the site and adjacent lands;
 - iv. Impact of the proposed development to the existing topography, soils, hydrology, and geology of the site and adjacent lands;
 - v. Nature and extent of any fill material, the duration and proposed phasing of the project;
 - vi. All requisite wetland permits from other agencies;
 - vii. Type of all vegetation to be removed;
 - viii. Location, type, characteristics, and condition of RPA features;
15. In the narrative for 118-4-3(c) address the following:
 - i. Provide a detailed justification; explain the violation and provide justification for the patio and grill and any other encroachments beyond those on the 2004 exception to remain. For items to be removed explain further the encroachment required to remove the items. Address the above in this section or state where it is addressed in the WQIA.
 - ii. 118-4-3(e) The narrative should be expanded to discuss the proposed BMPs and explain how they will be effective in preventing an increase in nonpoint source pollution.
 - iii. 118-4-3(e) The narrative should address measures for hydrogeological (the distribution and movement of water) impacts.
 - iv. 118-4-3(e) The statement “It is TNTs opinion that the current property owners should not have to mitigate for the actions of the previous owners of the property” does not belong in this section. The Water Quality Impact Assessment is a statement of fact. Statements of opinion should be restricted to the statement of justification.
 - v. 118-4-3(f) Provide additional information to support the need for the extensive patio and explain why this is needed at this time and was not needed at the time the exception for the house was granted.

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16. 118-6-6(a); Reference the section 118-6-6. In addition to the history state why the requested exception is the minimum necessary to afford relief.
17. 118-4-3(g); This section should be updated to reflect the VRRM computations; the two planter boxes with sheet flow to conserved open space.
18. State the 2004 phosphorous load and the proposed 2020 phosphorous Load; demonstrate that there is a water quality benefit.

Page 8

19. 118-6-6(b) That granting the exception will not confer any special privileges denied in similar situations. Staff do not concur that the referenced properties with RPA encroachment support this finding:

The encroachments at 900 Mackall Avenue, 839 Whann Avenue; the patios and pools in the RPA are existing non-conforming uses constructed before the RPA was established.

With the exclusion of a small part of the pathway, the improvements at 836 Mackall Avenue which would require an exception are outside the RPA; as demonstrated by the field delineation on the infill lot grading plan.

20. 118-6-6 (d) The application does not contain sufficient facts to enable staff to ascertain why the exception is not based on circumstances that are self-created and self-imposed.

21. 118-6-6(f) / 118-6-9. Consider a gravel diaphragm around the patio and treating this area as sheet flow to conserved open space.

If further assistance is desired, please contact me at 703-324-1808 or
Camyllyn.Lewis@fairfaxcounty.gov.

Sincerely,



Camyllyn Lewis, PE., CFM
Senior Engineer III, North Branch
Site Development Branch (SDID)
Land Development Services (LDS)

CL/tc

cc: Shannon Curtis, Chief, Watershed Assessment Branch, Stormwater Planning Division,
Department of Public Works and Environmental Services
Shahab Baig, Chief, North Branch, SDID, LDS
Dr. Yosif Ibrahim, Senior Engineer III, North Branch, SDID, LDS
Waiver File



September 21, 2020

Ms. Camylyn Lewis
LDS-SDID North Branch
12055 Government Center Parkway, Suite 659
Fairfax, Virginia 22035-5503

TNT Project Number: 1426

Reference: Water Quality Impact Assessment (WQIA) Exception Request #129-WQ-001-1 – Response Letter, 6630 Holland Street, Fairfax County, Virginia

Dear Ms. Lewis,

On behalf of the Applicant, TNT Environmental, Inc. (TNT) would like to thank the Fairfax County Department of Land Development Services for reviewing the WQIA submitted by TNT Environmental, Inc. to Fairfax County on June 5, 2019 for the above-mentioned project and providing comments on August 19, 2019. This letter details responses to the additional comments received by TNT on May 7, 2020. Please find TNT's responses to the Article 6 specific comments below:

Page 6

16. 118-6-6(a); Reference the section 118-6-6. In addition to the history state why the requested exception is the minimum necessary to afford relief.

Response: A discussion regarding why the requested exception is the minimum necessary to afford relief has been added to Section 118-6-6(a).

Page 8

19. 118-6-6(b) That granting the exception will not confer any special privileges denied in similar situations. Staff do not concur that the referenced properties with RPA encroachment support this finding:

The encroachments at 900 Mackall Avenue, 839 Whann Avenue; the patios and pools in the RPA are existing non-conforming uses constructed before the RPA was established.

With the exclusion of a small part of the pathway, the improvements at 836 Mackall Avenue which would require an exception are outside the RPA; as demonstrated by the field delineation on the infill lot grading plan.

Response: This section has been updated to exclude any specific examples of neighboring sites.

20. 118-6-6 (d) The application does not contain sufficient facts to enable staff to ascertain why the exception is not based on circumstances that are self-created and self-imposed.

Response: The disturbance in the RPA is self-created/self-imposed. The purpose of this application to address the Notice of Violation. This wording has been added to this section.

21. 118-6-6(f) / 118-6-9. Consider a gravel diaphragm around the patio and treating this area as sheet flow to conserved open space.

Response: The rooftop disconnect and gravel flow spreader have been added as mitigation efforts. It is discussed in the previously submitted WQIA, sections 118-6-6(f) and 118-6-9.

We appreciate the opportunity to work with you on this project. TNT Environmental is submitting an updated WQIA that addresses these comments and provides the updated proposed plans for this property. If you have any questions, please feel free to contact us at any time at (703) 466-5123. Sincerely,

TNT ENVIRONMENTAL, INC.



Tara N. Wilkins, WPIT
Environmental Scientist

Tara@TNTenvironmentalinc.com



Avi M. Sareen, PWD, PWS, ISA-CA
Principal/President

Avi@TNTenvironmentalinc.com

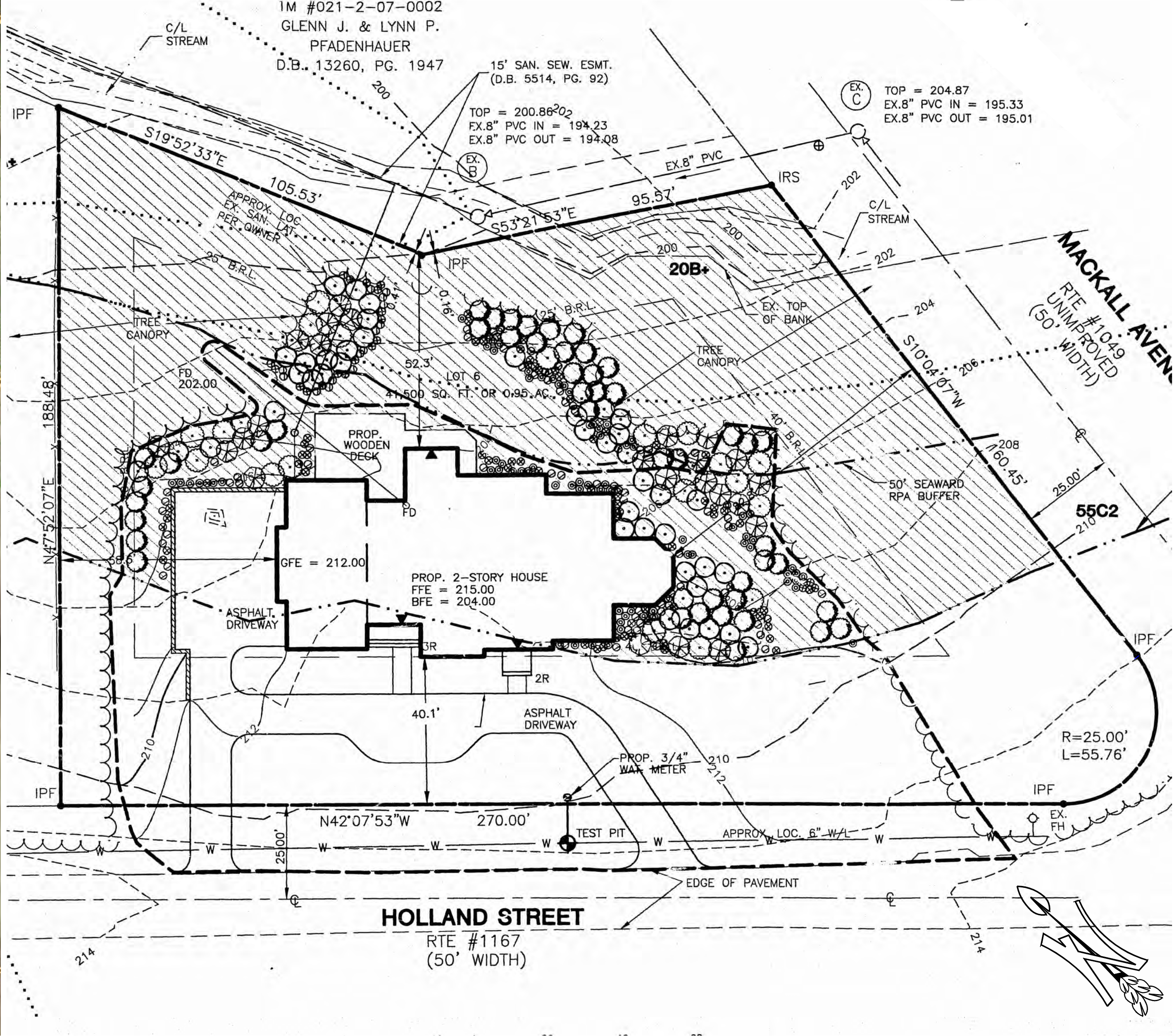
APPENDIX IV

WATER QUALITY IMPACT ASSESSMENT MAPS (PLAT)

2002 CONDI"IONS**



2004 " PPROVED CONDI" IONS**



Project Data Sheet - 6630 Holland Street

otal Lot " rea (S.F.)"	41,500"
Lot " rea within RP" (S.F.)"	25,819"
% Lot " rea within RP"	62%
Date When the Lot was Created"	2000"
Date When RP" was designated"	2003"
otal Lot Disturbed " rea " ssociated with the N.O.V. (S.F.)"	6,398"
otal Disturbed " reas within RP" " ssociated with the N.O.V. (S.F.)"	6,398"

Summary: Impervious Area Analysis Tabulation		
Description"	2002 Conditions* " (RP" Establishment)"	2004 Conditions " (" pproved Plans)"
otal Lot Impervious " rea (S.F.)"	2,450"	7,825"
otal Impervious " rea in RP" (S.F.)"	2,120"	3,842"
Impervious " rea within Seaward 50 ft RP" (S.F.)"		
Detailed Breakdown: Impervious Area Analysis Tabulation		
Primary Structure Footprint (S.F.) "	2,070"	4,252"
Primary Structure Footprint in RP" (S.F.)"	1,740"	3,303"
otal Deck (S.F.)"	380"	0"
otal Deck in RP" (S.F.)"	380"	0"
otal Paver Patio (S.F.)"	0"	0"
otal Paver Patio in RP" (S.F.)"	0"	0"
otal Driveway (S.F.)"		3,420"
otal Driveway in RP" (S.F.)"		490"
otal Wall & Walkway (S.F.)"	0"	153"
otal Wall & Walkway in RP" (S.F.)"	0"	49"

*These totals are approximate and were calculated using the 2002 aerial. There is no available 2003 aerial when the RPA was establish onsite. The driveway was not visible in the available aerial and has not been included.

2004 PL" NTING PL" N " ND "REE COVER CAL' CUL" IONS:"

KEY	
AR	
QP	
CK	
IAF	
CS	
IV	
VD	

PLANTING SCHEDULE/T" EE COVER TABULATION:

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	TYPE	PROJ. 10-YR TREE CANOPY AREA IN SF	TREE CANOPY AREA
AR	24	Acer Rubrum	Red maple	Seedling	B&B	Overstory	N/A	N/A
QP	21	Quercus palustris	Pin Oak	Seedling	B&B	Overstory	N/A	N/A
CK	45	Cornus florida	Flowering Dogwood	Seedling	B&B	Understory	N/A	N/A
IAF	45	Ilex attenuata x Foster No. 2	Foster Holly	Seedling	B&B	Understory	N/A	N/A
CS	84	Cornus stolonifera	Red Twig Dogwood	Shrub	B&B	Shrub	N/A	N/A
IV	80	Ilex verticillata	Winterberry Holly	Shrub	B&B	Shrub	N/A	N/A
VD	81	Viburnum dentatum	Arrowwood	Shrub	B&B	Shrub	N/A	N/A
TOTAL PROJECTED 10-YEAR TREE CANOPY:							N/A	

TREE COVER CALCULATIONS

SITE AREA = 41,500 SF
REQUIRED TREE COVER (20%) = 8,300 SF
EXISTING TREE COVER ON SITE (TOTAL) = 25,730 SF
EXISTING TREE COVER IN RPA = 16,940 SF
EXISTING TREE COVER REMOVED FROM RPA = 3,480 SF
TREE COVER TO REMAIN IN RPA = 13,460 SF
TREE COVER TO REMAIN (NOT IN RPA) (x 1.25) = 4,030 x (1.25) = 5,038 SF
TOTAL EXISTING TREE COVER TO REMAIN = 18,498 SF
18,498 SF > 8,300 SF
TREE COVER PROVIDED > TREE COVER REQUIRED
REVEGETATION REQUIRED = PROPOSED DISTURBED AREA IN RPA
PROPOSED DISTURBED AREA = 8806 SF = 0.225 ACRE
OVERSTORY SEEDLINGS REQUIRED = 200 PER ACRE
= 200 * 0.225 AC = 45
OVERSTORY SEEDLINGS PROVIDED = 45
UNDERSTORY SEEDLINGS REQUIRED = 400 PER ACRE
= 400 * 0.225 AC = 90
UNDERSTORY SEEDLINGS PROVIDED = 90
SHRUBS REQUIRED = 1089 PER ACRE
= 1089 * 0.225 AC = 245
SHRUBS PROVIDED = 245

PLANTING NOTES:

ALL PLANTINGS WILL COMPLY WITH THE RESOURCE PROTECTION AREA SECTION 118-3-3. PLANTING MATERIALS AND PLANTING TECHNIQUES SHALL BE AS SPECIFIED IN THE FAIRFAX COUNTY PUBLIC FACILITY MANUAL SECTIONS 12-0805, 5-12-0805, 5E)

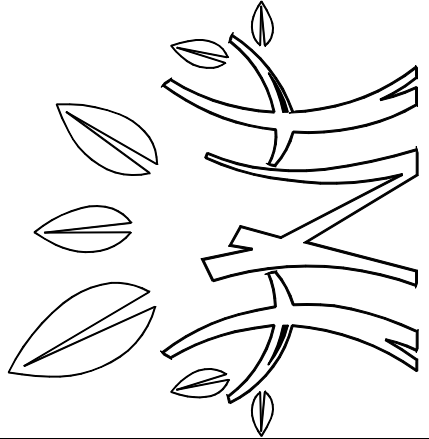
AREA OF PLANTING:

OVERSTORY SEEDLINGS PROVIDED = 45
UNDERSTORY SEEDLINGS PROVIDED = 90
SHRUBS PROVIDED = 245
TOTAL BUFFER AREA PROVIDED = 0.4985 AC

NO" ES:"

- "HE RESOURCE PRO"EC"ION " RE" SHOWN HEREON IS COUNT" " PPED FRO" HE DESIGNA"ED RP" IN 2003."
- **"HE CONDI"IONS DEPIC"ED HERE " RE B" SED ON "HE 2002 "EIR" L" " GER" CCESSSED "THROUGH" "IRF" X COUNT" "S" "I" DE" GIS " PPLIC" ION. "HE RP" W" S" ES" BUSHED ONS" E IN 2003; HOWEVER, "HERE IS NO " V" IL" BLE 2003 " ERI" L" V" IL" BLE ON "HE GIS " PPLIC" ION "O USE FOR CO" P" RISON."
- **"HE CONDI"IONS DEPIC"ED HERE " RE FRO" "HE 2004 " PPROVED" CONDI"IONS (PL" N # 129"INF"004"S) FOR "HE SI" E. "HE 2004 PL" NS SHOW "HE" PROPOSED PL" NTINGS. "HE KE", PL" NTING SCHEDULE, " ND "REE COVER" C" CUL" IONS H" VE BEEN PROVIDED ON "HIS SHEE". PER F" IRF" X COUNT" ERI" LS, "HESE CONDI"IONS RE" "INED CONS" NT" THROUGH "HE 2007 " ERI" L" I" GE."

ENVIRONMENTAL



6630 HOLLAND

STREET

FAIRFAX COUNTY

WATER QUALITY IMPACT
ASSESSMENT

REVISIONS:

DATE	COMMENTS
12/30/20	REV B - TNW

SHEET 1 OF 5

SCALE: 1" = 20'

PROJECT DATE:

7/29/20

DRAFT: CHECK:

TNW AMS

FILE NUMBER:

1426

IM #021-2-07-0002
GLENN J. & LYNN P.
PFDENHAUER
D.B., 13260, PG. 1947

LOT 6
 4,500 SQ. FT. OR 0.95 AC.

PROPOSED FEATURES:
 - PROP. 2-STORY HOUSE
 FFE = 215.00
 BFE = 204.00
 - GFE = 212.00
 - PROP. WOODEN DECK
 - ASPHALT DRIVEWAY
 - PROP. 3/4" WATER METER
 - TEST PIT

ADJACENT AREAS:
 - **MACKALL AVENUE**
 RTE #1049
 UNIMPROVED
 (50' WIDTH)
 55C2
 R=25.00'
 L=55.76'

HOLLAND STREET
 RTE #1167
 (50' WIDTH)

Other Labels:
 - C/L STREAM
 - EX. 8" PVC IN = 195.33
 - EX. 8" PVC OUT = 195.01
 - TOP = 204.87
 - 15' SAN. SEW. ESMT.
 - (D.B. 5514, PG. 92)
 - TOP = 200.86
 - EX. 8" PVC IN = 194.23
 - EX. 8" PVC OUT = 194.08
 - 105.53'
 - S19°52'33"E
 - 55°32'53"E
 - 95.57'
 - 20B+
 - TREE CANOPY
 - 25' B.R.L.
 - 40' B.R.L.
 - 50' SEAWARD RPA BUFFER
 - EDGE OF PAVEMENT
 - IPF
 - EX. FH
 - N42°07'53"W
 - 270.00'
 - 25.00'
 - 210
 - 212
 - 214

An aerial photograph of a residential property, Lot 6, outlined with a green dashed line. The lot is situated between Heather Brook Court to the north and Holland Street to the south. A large, light-colored house with a dark roof is visible on the left side of the lot. A driveway leads from the house to the street. The surrounding area is mostly wooded. A small blue dot on the eastern boundary is labeled '2003 COUNTY-MAPPED RPA'. A decorative graphic of a torch is located in the bottom left corner.

KEY	
AR	
QP	
CK	
IAF	
CS	
IV	
VD	

PLANTING SCHEDULE/TREE COVER TABULATION:								
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	TYPE	PROJ. 10-YR AREA IN SF	TREE CANOPY AREA
AR	24.	Acer Rubrum	Red maple	Seedling	B&B	Overstory	N/A	N/A
QP	21.	Quercus polustris	Pin Oak	Seedling	B&B	Overstory	N/A	N/A
CK	45.	Cornus florida	Flowering Dogwood	Seedling	B&B	Understory	N/A	N/A
IAF	45.	Ilex attenuata x Foster No. 2	Foster Holly	Seedling	B&B	Understory	N/A	N/A
CS	84.	Cornus stolonifera	Red Twig Dogwood	Shrub	B&B	Shrub	N/A	N/A
IV	80.	Ilex verticillata	Winterberry Holly	Shrub	B&B	Shrub	N/A	N/A
VD	81.	Viburnum dentatum	Arrowwood	Shrub	B&B	Shrub	N/A	N/A
TOTAL PROJECTED 10-YEAR TREE CANOPY:								N/A

TREE COVER CALCULATIONS

SITE AREA = 41,600 SF
 REQUIRED TREE COVER (20%) = 8,300 SF

EXISTING TREE COVER ON SITE (TOTAL) = 26,730 SF
 EXISTING TREE COVER IN RPA = 16,940 SF
 EXISTING TREE COVER REMOVED FROM RPA = 3,460 SF

TREE COVER TO REMAIN IN RPA = 13,460 SF
 TREE COVER TO REMAIN (NOT IN TPA) (x 1.25) = 4,030 x 1.25 = 5,038 SF
 TOTAL EXISTING TREE COVER TO REMAIN = 18,498 SF

18,498 SF > 8,300 SF
 TREE COVER PROVIDED > TREE COVER REQUIRED

REVEGETATION REQUIRED = PROPOSED DISTURBED AREA IN RPA
 PROPOSED DISTURBED AREA = 9806 SF = 0.225 ACRE

OVERSTORY SEEDLINGS REQUIRED = 200 PER ACRE
 = 200 * 0.225 AC = 45

OVERSTORY SEEDLINGS PROVIDED = 45

UNDERSTORY SEEDLINGS REQUIRED = 400 PER ACRE
 = 400 * 0.225 AC = 90

UNDERSTORY SEEDLINGS PROVIDED = 90

SHRUBS REQUIRED = 1089 PER ACRE
 = 1089 * 0.225 AC = 245

SHRUBS PROVIDED = 245

NOTES:

1. THE RESOURCE PROTECTION AREA IS COUNTY MAPPED.
2. **THE CONDITIONS DEPICTED HERE ARE FROM THE 2004 APPROVED CONDITIONS (PLAN # 129-19-004-5) FOR THE SITE. THE 2004 PLANS SHOW THE PROPOSED PLANTING, THE KEY, PLANTING SCHEDULE, AND TREE COVER CALCULATIONS HAVE BEEN PROVIDED ON THIS SHEET. PER FAIRFAX COUNTY AERIALS, THESE CONDITIONS REMAINED CONSTANT THROUGH THE 2007 AERIAL IMAGE.
3. **THE CONDITIONS DEPICTED HERE ARE BASED ON THE 2007 AERIAL IMAGERY ACCESSED THROUGH FAIRFAX COUNTY'S "JADE" GIS APPLICATION. THE PLANTINGS REQUIRED FOR THE 2004 APPROVED PLANS CAN BE SEEN PLANTED IN THIS AERIAL.

REVISIONS	
DATE	COMMENTS
SHEET 2 OF 5	
SCALE: 1" = 20'	
PROJECT DATE: 7/29/20	
DRAFT: <i>TNW</i>	CHECK: <i>AMS</i>
FILE NUMBER: 1426	

2007 CONDITIONS*



2009 CONDITIONS**



NOTES:

- 1. THE RESOURCE PROTECTION AREA IS COUNTY MAPPED.
- 2. *THE CONDITIONS DEPICTED HERE ARE BASED ON THE 2007 AEIRAL IMAGERY ACCESSED THROUGH FAIRFAX COUNTY'S "JADE" GIS APPLICATION.
- 3. **THE CONDITIONS DEPICTED HERE ARE BASED ON THE 2009 AEIRAL IMAGERY ACCESSED THROUGH FAIRFAX COUNTY'S "JADE" GIS APPLICATION. VEGETATION REMOVAL CAN BE OBSERVED BETWEEN THE 2007 AND 2009 AERIALS. THE VEGETATION REMOVAL AREA BASED ON THE DIFFERENCE BETWEEN THE 2004 PLANTING PLAN AND THE 2009 AERIAL PHOTO EQUALS APPROXIMATELY 3,444 SQUARE FEET.

LEGEND

 APPROX. VEGETATION REMOVAL AREA IN RPA



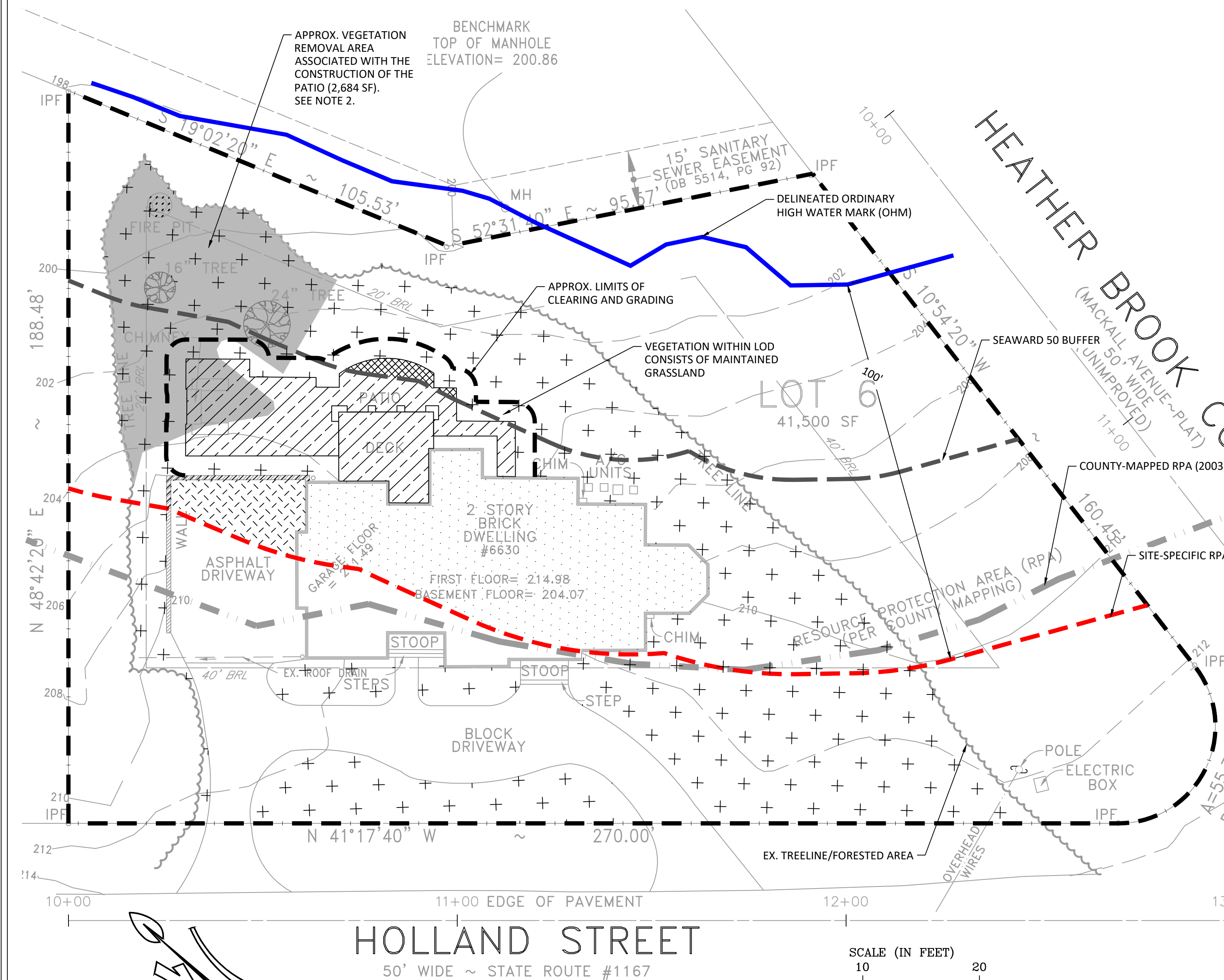
ENVIRONMENTAL
4455 Brookfield Corporate Drive, Suite 100
Chantilly, VA 20151
PH: 703-466-5123 WWW.TNTENVIRONMENTALINC.COM

6630 HOLLAND STREET
FAIRFAX COUNTY

WATER QUALITY IMPACT ASSESSMENT

REVISIONS	
DATE	COMMENTS
SHEET 3 OF 5	
SCALE: 1" = 20'	
PROJECT DATE: 7/29/20	
DRAFT: TNW	CHECK: AMS
FILE NUMBER: 1426	

EXISTING CONDITIONS (2019)

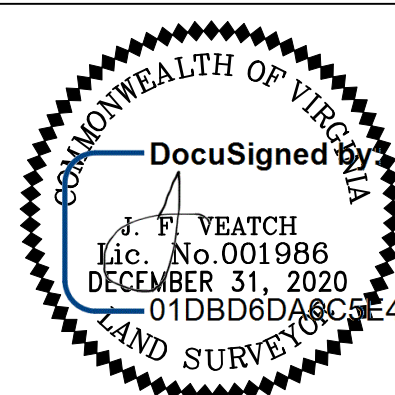


Project Data Sheet - 6630 Holland Street

Total Lot Area (S.F.)	41,500
Lot Area within RPA (S.F.)	25,819
% Lot Area within RPA	62%
Date When the Lot was Created	2000
Date When RPA was designated	2003
Total Lot Disturbed Area Associated with the N.O.V. (S.F.)	6,398
Total Disturbed Areas within RPA Associated with the N.O.V. (S.F.)	6,398

Summary: Impervious Area Analysis Tabulation						
Description	2002 Conditions* (RPA Establishment)	2004 Conditions (Approved Plans)	2019 Conditions (Existing)	Proposed Conditions	Change in Impact (2019 vs. Proposed)	Change in Impact (2002 vs. Proposed)
Total Lot Impervious Area (S.F.)	2,450	7,825	10,248	9,917	-331	7,467
Total Impervious Area in RPA (S.F.)	2,120	3,842	5,398	5,067	-331	2,947
Impervious Area within Seaward 50 ft RPA (S.F.)	-	-	100 (Portion of Patio)	0	-100	-
Detailed Breakdown: Impervious Area Analysis Tabulation						
Primary Structure Footprint (S.F.)	2,070	4,252	4,252	4,252	0	2,182
Primary Structure Footprint in RPA (S.F.)	1,740	3,303	3,303	3,303	0	1,563
Total Deck (S.F.)	380	0	475	475	0	95
Total Deck in RPA (S.F.)	380	0	475	475	0	95
Total Paver Patio (S.F.)	0	0	1,081	750	-331	750
Total Paver Patio in RPA (S.F.)	0	0	1,081	750	-331	750
Total Driveway (S.F.)	-	3,420	4,287	4,287	0	-
Total Driveway in RPA (S.F.)	-	490	490	490	0	-
Total Wall & Walkway (S.F.)	0	153	153	153	0	153
Total Wall & Walkway in RPA (S.F.)	0	49	49	49	0	49

*These totals are approximate and were calculated using the 2002 aerial. There is no available 2003 aerial when the RPA was established onsite. The driveway was not visible in the available aerial and has not been included.

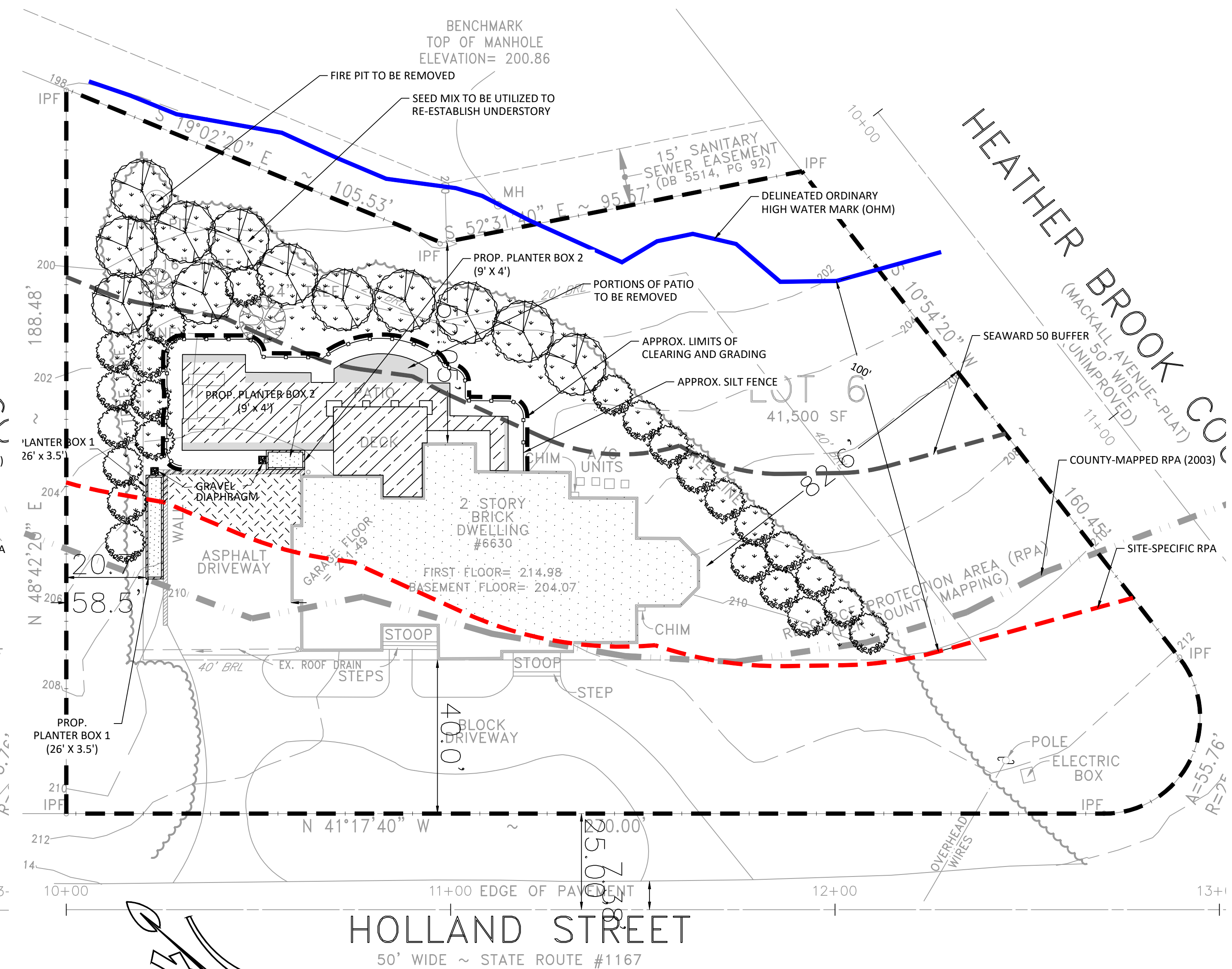


EXISTING CONDITION AND TOPOGRAPHIC CERTIFICATION







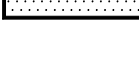




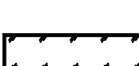
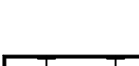
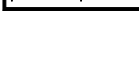

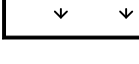
THIS EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF J.F. VEATCH, SR FROM AN ACTUAL GROUND SURVEY, MADE UNDER MY SUPERVISION; ON DECEMBER 27, 2018; AND THAT THIS PLAT MEETS THE MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED:



PROPOSED CONDITIONS & RPA REVEGETATION PLAN



LEGEND

- | | |
|---|--|
|  | STUDY AREA |
|  | SITE-SPECIFIC RESOURCE PROTECTION AREA (RPA) |
|  | COUNTY-MAPPED RPA |
|  | APPROX. LCG FOR PAST CONSTRUCTION IN RPA |
|  | VEGETATION REMOVAL AREA (PER 2019 AERIAL) |
|  | PRIMARY STRUCTURE FOOTPRINT IN RPA |
|  | DRIVEWAY IN RPA |
|  | WALL IN RPA |
|  | PATIO, GRILL, & CHIMNEY IN RPA |
|  | PATIO, GRILL, & CHIMNEY IN SEAWARD 50 |
|  | FIRE PIT IN RPA |
|  | EXISTING TURF AREA |
|  | PORTION OF PATIO TO BE REMOVED |
|  | PROPOSED SHRUB PLANTING AREA |
|  | PROPOSED OVERSTORY TREE |
|  | PROPOSED UNDERSTORY TREE |

GENERAL NOTES:

1. THE RESOURCE PROTECTION AREA IS BASED ON TMT'S FIELD DELINEATION IN 2019. EXISTING CONDITION AND TOPOGRAPHY WERE SURVEYED BY CRES ENGINEERING SERVICES (2019) AND WETLAND FLAGS WERE SURVEYED BY TRI-TEK ENGINEERING, INC. (2019).
2. VEGETATION REMOVAL APPEARS TO HAVE OCCURRED BETWEEN THE 2017 AND 2019 AERIALS ACCESSED THROUGH FAIRFAX COUNTY GIS.
3. PROPOSED RPA REVEGETATION IS BASED OFF THE LIMITS OF CLEARING AND GRADING FOR THE PATIO/GRILL CONSTRUCTION AND VEGETATION REMOVED BETWEEN 2017 AND 2019 (APPROX. 5,081 SQUARE FEET).
4. PORTIONS OF THE RPA PATIO WITHIN THE RPA AND SEAWARD 50 WILL BE REMOVED. THE PROPOSED PORTIONS TO BE REMOVED ARE SHOWN ABOVE IN GRAY. 5. SUB-CANOPY AND SHRUB LAYERS WILL BE INSTALLED BY HAND WHEREVER PRACTICABLE. SUB-CANOPY AND SHRUB LAYERS WILL BE RE-ESTABLISHED WHERE POSSIBLE BY THE PROPOSED PLANTING OPERATIONS WITHIN A CONTINUOUS MULCH BED.

RPA BUFFER ANALYSIS:

THE ONSITE RPA BUFFER IS COMPRISED OF THOSE COMPONENTS THAT ARE IDENTIFIED UNDER § 6-1704.2A THROUGH § 6-1704.2D OF THE FAIRFAX COUNTY PFM WHICH ARE SUBJECT TO RESOURCE PROTECTION AREA (RPA) BUFFER PROTECTION.

THERE ARE NO WETLANDS OR FLOODPLAINS CONTAINED WITHIN THE SITE-SPECIFIC RPA, AS SHOWN HEREON. THERE ARE NO TIDAL SHORE/TIDAL WETLANDS LOCATED ONSITE. THE SITE-SPECIFIC RESOURCE PROTECTION AREA IS BASED OFF OF THE 100' OFFSET FROM THE FIELD-DELINEATED PERENNIAL STREAM.

RPA NARRATIVE:

§ 6-1704.4 (94-06-PFM) WATER BODIES WITH PERENNIAL FLOW WERE IDENTIFIED USING THE FAIRFAX COUNTY PERENNIAL STREAM FIELD IDENTIFICATION PROTOCOL (MAY 2003).

§ 6-1704.5 WETLAND DETERMINATIONS WERE PERFORMED USING METHODS SPECIFIED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE).

§ 6-1704.6 THE RPA BOUNDARY DELINEATION STUDY HAS BEEN CONDUCTED AND VERIFIED BY A LICENSED WETLAND DELINEATOR CERTIFIED TO PRACTICE IN THE COMMONWEALTH OF VIRGINIA.

THE SURVEY WAS PROVIDED BY CRES ENGINEERING SERVICES AND TRI-TEK ENGINEERING, INC. AND IS BASED ON THE NVGD29 DATUM.

THIS RPA BOUNDARY DELINEATION HAS BEEN COMPILED IN ACCORDANCE WITH § 6-1704.8A THROUGH § 6-1704.8E.



4455 Brookfield Corporate Drive, Suite 100
Chantilly, VA 20151
PH: 703-466-5123 WWW.TNTENVIRONMEN

PH: 703-466-5123 WWW.TNTENVIRONMENTALINC.COM

6630 HOLLAND
STREET

FAIRFAX COUNTY

WATER QUALITY IMPACT ASSESSMENT

REVISIONS

DATE	COMMENTS
3/10/20	REV BY TNW
7/29/20	REV BY TNW
9/21/20	REV BY TNW
12/30/20	REV BY TNW

SHEET 4 OF 5

SCALE: 1" = 20'

DRAFT: TNW	CHECK: AMS
FILE NUMBER: 1426	

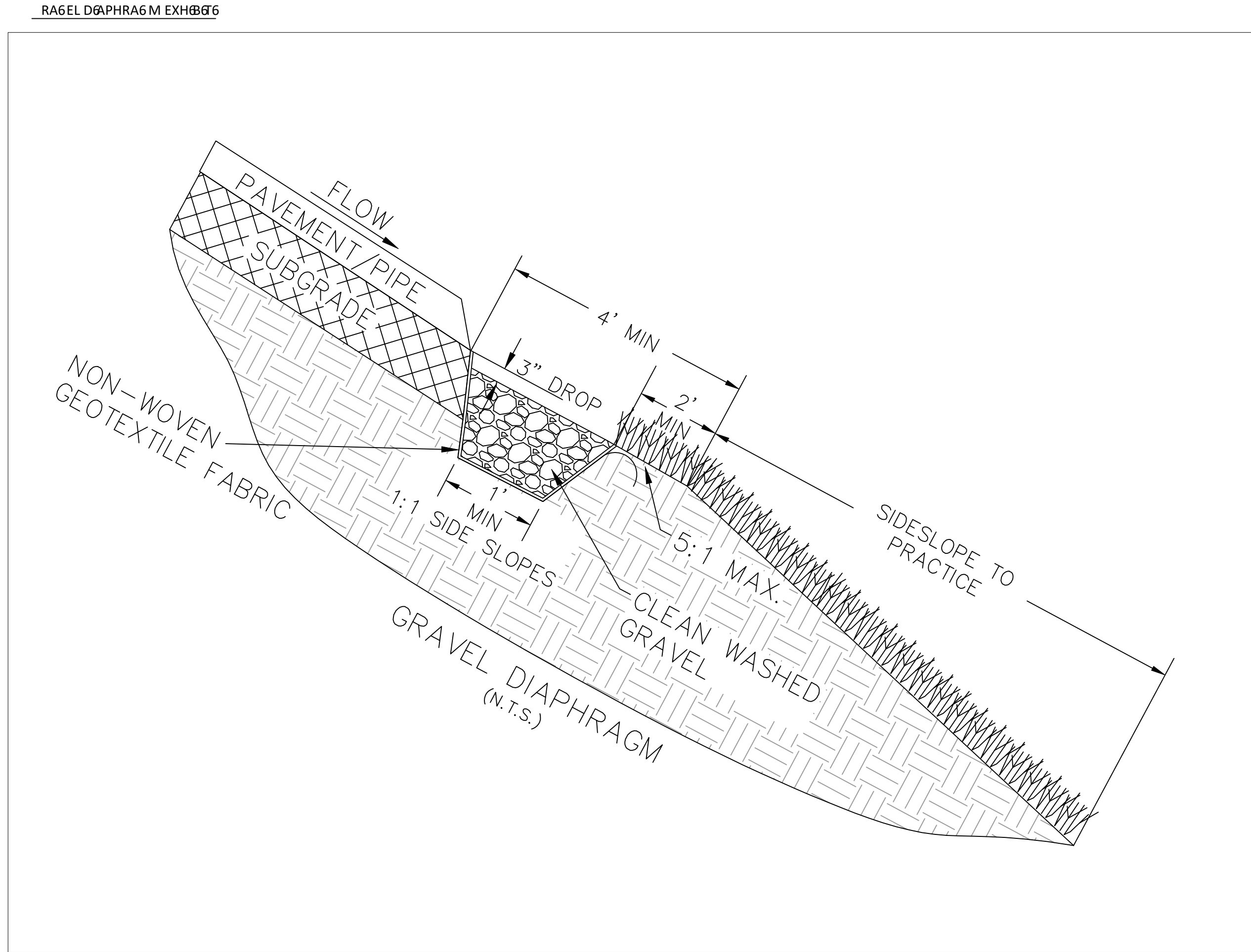
6. TREE QUALITY AND INSTALLATION
- TREES THAT ARE PLANTED SHALL BE OF THE SPECIES AND SIZE SPECIFIED ON THE APPROVED PLANS UNLESS SUBSTITUTIONS ARE APPROVED IN ACCORDANCE WITH THE PFM AND UFMD.

ALL LANDSCAPE WORK SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT AND MOST UP-TO-DATE EDITION (AT THE TIME OF CONSTRUCTION) OF THE LANDSCAPE SPECIFICATION GUIDELINES AS PRODUCED BY THE LANDSCAPE CONTRACTORS ASSOCIATION (ANS6300 ANS6 STANDARD FOR TREE, SHRUB AND OTHER WOODY PLANT INSTALLATION AND MAINTENANCE).6

-TREES AND SHRUBS SHOULD BE PLANTED ON DAY OF DELIVERY. FRESHNESS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT UNPLANTED PLANTS BY KEEPING THEM IN SHADE, WATERED AND PROTECTED WITH SOIL, MULCH OR OTHER ACCEPTABLE MATERIAL.

PLANT N6 OF NURSERY STOCK6
- F PLANT N6 N AREAS THAT HAVE BEEN PREVIOUSLY COMPACTED, THE SOIL SHALL BE6
PROPERLY PREPARED (TILLED AND AMENDED AS NEEDED BASED ON SOIL SAMPLES) TO A6
DEPTH OF 1 FOOT PRIOR TO INSTALLATION OF LANDSCAPE MATERIAL. SOIL WITHIN6
ND6 DUAL PLANT N6 HOLES SHALL NOT BE AMENDED.6

- MULCH N6. ALL TREES AND SHRUBS SHALL BE MULCHED AFTER PLANT N6, TO A MINIMUM DEPTH OF 2 NCHES, BUT NO MORE THAN 3 NCHES, WITH AN APPROPRIATE MULCH MATERIAL SUCH AS PINE BARK, PINE NEEDLES, WOOD CHIPS OR SHREDDED BARK. MULCH SHALL COVER THE ENTIRE ROOT AREA AND SAUCER; HOWEVER, MULCH SHALL NOT BE PLACED WITHIN 6 NCHES OF THE TRUNK.



2. ENGLISH OYGE REMOVE FROM TREES AND LANDSCAPE BY CUTTING ALL 6 NGS AT 6 ROUNDS LEVEL. 6 NGS SHOULD BE CUT AGAIN SEVERAL FEET UP THE TRUNK. PEEL THE CUT SECTIONS OFF BUT CAR SHOULD BE TAKEN NOT TO STRIP THE BARK OFF THE TREE. PULL 6 ROUND COVER BACK A FEW FEET FROM THE BASE OF THE TREE TO SLOW REGROWTH UP THE TREE TRUNK. REMOVE GROUND COVER BY HAND PULL N6, CUT N6 AND MULCH N6 OVER TOP, 6-AND/OR APPLY N6 A GLYPHOSATE HERBICIDE AS A 4-PERCENT SOLUTION ON 1 (PINT PER 3-6 GALLON MIX) TO LEAVES OR FRESHLY CUT LARGE STEMS, BY THOROUGHLY WETTING THEM. 6 USE A STR N6 TRIMMER TO REDUCE GROWTH LAYERS AND TO INJURE LEAVES FOR IMPROVED HERBICIDE UPTAKE. RETREATMENT MAY BE NECESSARY FOR COMPLETE ERADICATION. THE REMNANTS SHALL BE BAGGED AND REMOVED FROM THE PROJECT SITE.

4. N7AS6 E SPECIES CONTROL SHALL COMMENCE W TH E&S PHASE AND BE CONDUCTED6
UNT L THE PLANTS NOTED ABOVE ARE NO LONGER N ABUNDANCE OR UNT L BOND RELEASE,6
WH CHE6ER S LATER.6

-S TE-SPEC F C PLANT NG6AREA = 0.1 ACRES (5,148 SF)6
FOR TH S S TE, 2 LBS OF SEED M X SHOULD BE APPL ED W TH N THE SEED M X PLANT NG6AREA6