



APPLICATION ACCEPTED: July 2, 2013
PLANNING COMMISSION: January 9, 2014
BOARD OF SUPERVISORS: May 13, 2014 @ 4:00 p.m.

County of Fairfax, Virginia

April 16, 2014

STAFF REPORT ADDENDUM

APPLICATION SE 2013-MV-011

Concurrent with:
Resource Protection Area Encroachment Exception #5203-WRPA-010-2 &
Water Quality Impact Assessment #5203-WQ-019-2

MOUNT VERNON DISTRICT

APPLICANTS: Kimberly B. & Kelly P. Campbell

ZONING: R-E: Residential Estate District
(0.5 Dwellings Units/Acre)

PARCEL: 122-2 ((2)) 7

LOCATION: 11727 River Drive

SITE ACREAGE: 1.56 acres

PLAN MAP: Residential, 0.1 – 0.2 dwelling units/acre (du/ac)

SPECIAL EXCEPTION CATEGORY: Category 6 – Uses in a Floodplain

PROPOSAL: To retroactively permit the placement of fill in a floodplain and to permit additional fill

STAFF RECOMMENDATIONS:

Staff recommends approval of SE 2013-MV-011, subject to the proposed development conditions contained in Appendix 1.

Staff recommends approval of Resource Protection Area Encroachment Exception #5203-WRPA-010-2 and Water Quality Impact Assessment #5203-WQ-019-2, subject to the proposed development conditions contained in Appendix 2.

Megan Duca

It should be noted that it is not the intent of the staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

The approval of this special exception does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.

O:\mbrad9\SE\SE 2013-MV-011 Campbell\Staff Report\Addendum\00_Staff Report Addendum Cover.docx



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

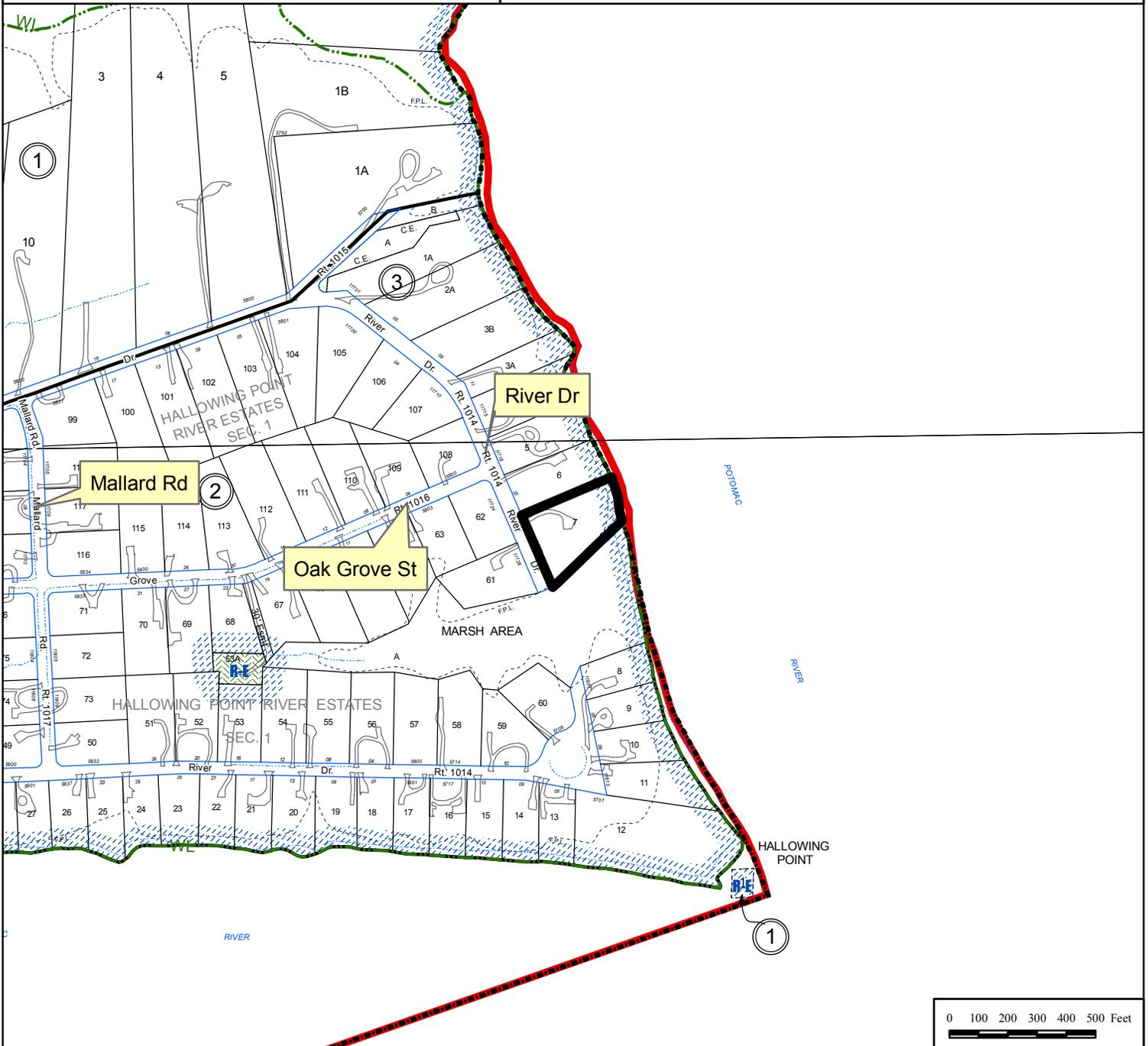
Special Exception

SE 2013-MV-011

Applicant: KIMBERLY B. & KELLY P. CAMPBELL
Accepted: 07/02/2013
Proposed: USES IN A FLOODPLAIN
Area: 1.56 AC OF LAND; DISTRICT - MOUNT VERNON

Zoning Dist Sect: 02-0904
Art 9 Group and Use: 6-2
Located: 11727 RIVER DRIVE, MASON NECK, VA 22079

Zoning: R- E
Plan Area: 4,
Overlay Dist:
Map Ref Num: 122-2- /02/ /0007



LEGALITY OF LOT CERTIFICATION (LTI 02-10)

I HEREBY CERTIFY THAT ALL APPROPRIATE COUNTY APPROVALS WERE OBTAINED IN ACCORDANCE WITH THE PROCESS REQUIRED BY THE SUBDIVISION ORDINANCE IN EFFECT AT THE TIME OF THE CREATION OF LOT 7. THE LOT WAS CREATED AS PART OF THE HALLOWING POINT RIVER ESTATES SUBDIVISION - SECTION ONE, APPROVED BY FAIRFAX COUNTY ON 07-07-1948 AND RECORDED IN DEED BOOK 646, AT PAGE 224 IN FAIRFAX COUNTY LAND RECORDS.

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

SIGNATURE _____
 OWNER/DEVELOPER HAROLD A. LOGAN, AGENT FOR OWNER(S)
 NAME TITLE

INFORMATION REGARDING ACTIVITIES IN THE RESOURCE PROTECTION AREA

| ACTIVITY | YES/NO |
|---|--------------------|
| CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW) | YES |
| REDEVELOPMENT PRINCIPAL STRUCTURE | NO |
| REDEVELOPMENT ACCESSORY STRUCTURE | NO |
| PUBLIC ROADS | NO |
| PRIVATE ROADS | NO |
| DRIVEWAYS | NO |
| STORMWATER OUTFALL | NO |
| OTHER (INDICATE TYPE): | PATIO, WALLS, WALK |

SHEET INDEX

- COVER SHEET
- PRE SPECIAL EXCEPTION CONDITIONS PLAN
- APPROVED SPECIAL EXCEPTION PLAN
- EXISTING CONDITIONS
- SPECIAL EXCEPTION PLAN
- NOTES & DETAILS
- TREE PRESERVATION PLAN
- REVIEW INFORMATION

GENERAL NOTES

- NO TITLE REPORT FURNISHED.
- TOTAL DISTURBED AREA : 0.20 ACRES.
TOTAL AMOUNT OF EXISTING FILL IN FLOOD PLAIN IS 2309 CUBIC YARDS.
TOTAL AMOUNT OF PROPOSED FILL TO BE PLACED IN FLOODPLAIN IS 75 CUBIC YARDS.
- SURFACED AREA OF FRONT YARD: N/A
- BOUNDARY & TOPOGRAPHIC SURVEY BY BOWMAN CONSULTING.
- ALL EXISTING ABOVE GROUND UTILITIES ARE TO ADJUSTED, RELOCATED OR REMOVED AS NECESSARY. LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF HAROLD A. LOGAN ASSOC., P.C.
- THERE ARE NO KNOWN GRAVE OBJECTS OR BURIAL SITES ON THIS PROPERTY.
- THERE ARE NO KNOWN MAJOR UTILITY EASEMENTS ON THIS PROPERTY.

REQUIRED INFORMATION

| | |
|--|--|
| DESCRIPTION OF PROPOSED WORK | DETACHED GARAGE ADDITION, PATIO, WALLS, WALKS, ECT |
| TAX MAP NUMBER | 122-2 ((2)) 7 |
| ZONING DISTRICT | RE |
| MINIMUM YARD REQUIREMENTS (SETBACKS) | FY: 50', SY: 20', RY: 25' |
| TOTAL LOT AREA (SQUARE FEET) | 68,133 SF. |
| SERVED BY (INDICATE PUBLIC WATER OR INDIVIDUAL WELL) | PUBLIC WATER |
| SERVED BY (INDICATE PUBLIC SEWER OR INDIVIDUAL WASTEWATER MANAGEMENT SYSTEM) | INDIVIDUAL WASTE WATER MANAGEMENT SYSTEM |
| WATER QUALITY WAIVER INFO, IF APPLICABLE | PROVIDED ON SHEET NO.: 3 |
| TREE CONSERVATION PLAN | PROVIDED ON SHEET NO.: 7 |

SPECIAL EXCEPTION PLAN HALLOWING POINT RIVER ESTATES

LOT 7 - SECTION ONE

SE 2013 - MV - 011

**MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA**

OWNER INFORMATION

KIMBERLY B CAMPBELL & KELLY P CAMPBELL
 11727 RIVER DRIVE
 MASONNECK, VA. 22079

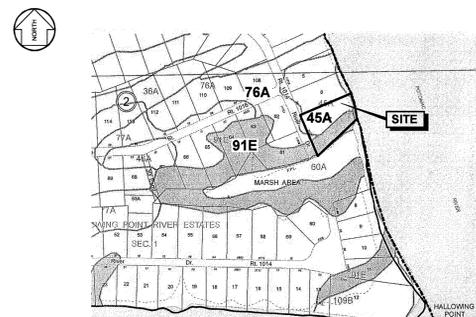
PROFESSIONAL SEAL



DATE : 12-31-2012
 REV. 12-13-2013
 REV. 12-18-2013
 REV. 02-28-2014

SOILS MAP DATA

SCALE : 1" = 500'



IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS?
 YES NO

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE COUNTY ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

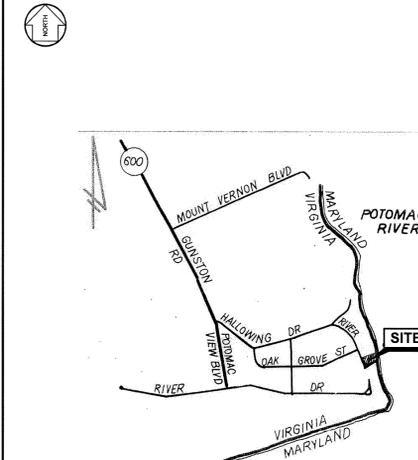
TOPOGRAPHIC MAP

SCALE : 1" = 500'



VICINITY MAP

SCALE : 1" = 2,000'



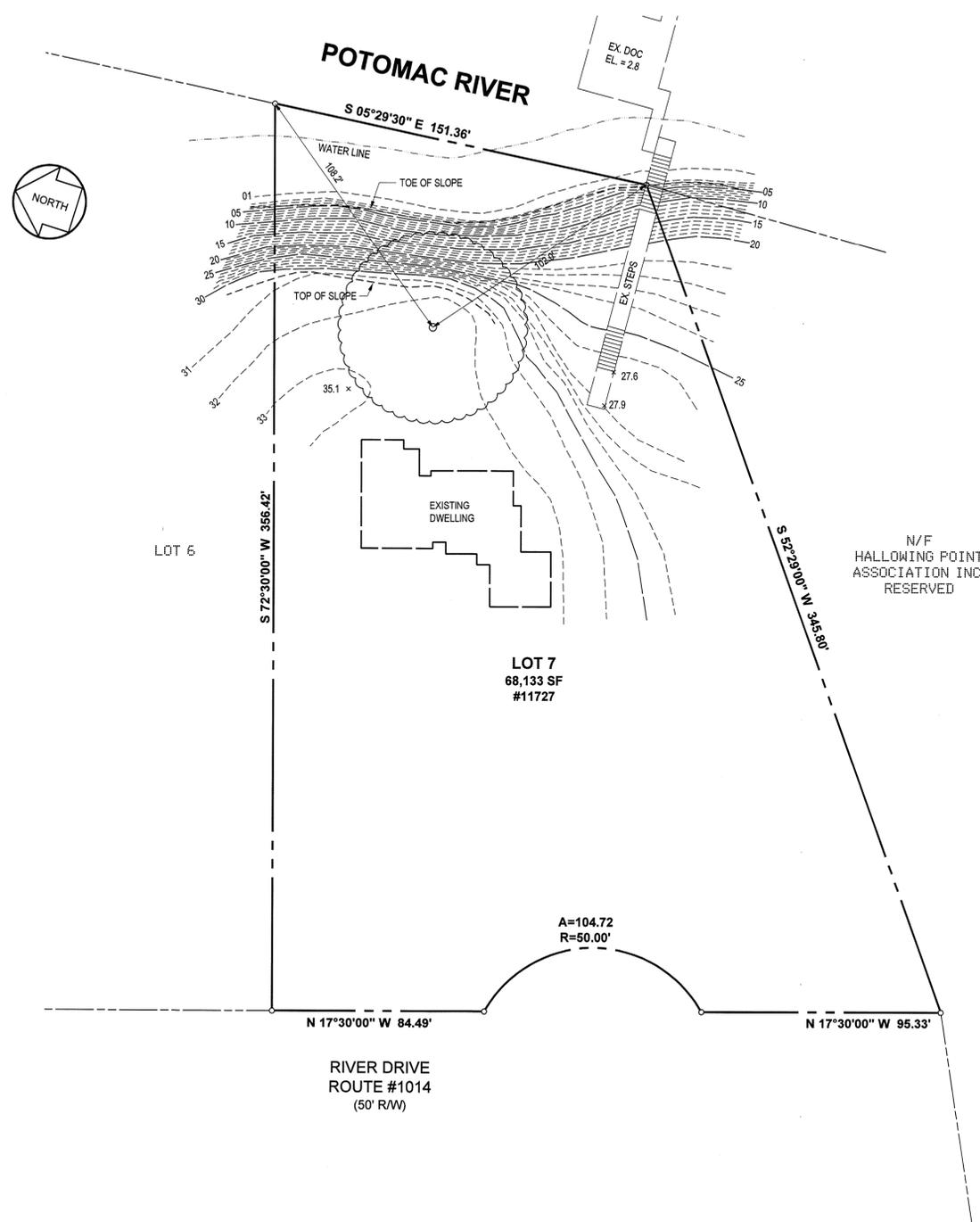
COUNTY NUMBER

PLAN REVIEWER

SELECTED PROPERTIES AND RATINGS OF NRCS MAPPED SOILS IN FAIRFAX COUNTY

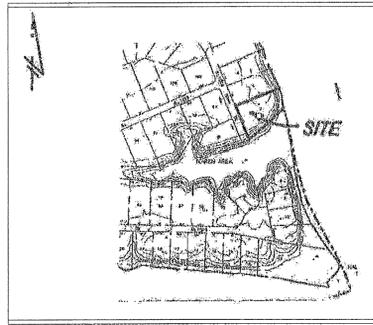
| SOIL NUMBER | SOIL NAME* | EQUIVALENT OLD SOIL PROBLEM CLASS* | NEW SOIL PROBLEM CLASS* | SOIL HYDROLOGIC GROUP | SOIL EROSION FACTORS* | | | SUBSOIL PERMEABILITY RATE* (INCH / HOUR) | HIGH WATER TABLE* AVERAGE DEPTH (FT) | HARD BEDROCK* | SOIL DRAINAGE* | SUITABILITY FOR SEPTIC DRAINFIELDS* | SUITABILITY FOR INFILTRATION TRENCHES* | EROSION POTENTIAL* | FOUNDATION SUPPORT** | OTHER NOTES** |
|-------------|------------------------------|------------------------------------|-------------------------|-----------------------|-----------------------|------------|---------------------|--|--------------------------------------|---------------|----------------|-------------------------------------|--|--------------------|----------------------|---------------|
| | | | | | SURFACE K | CRITICAL K | T (TON / ACRE-YEAR) | | | | | | | | | |
| 45 | GRIST MILL MATAPEAKE COMPLEX | C | IVB | D | 0.49 | 0.49 | 4 | 0.06 TO 2.0 | 2.0 TO >6 | > 20 | GOOD | GOOD | GOOD | LOW | GOOD | |
| 76 | MATAPEAKE SILT LOAM | C | I | B | 0.49 | 0.49 | 4 | 0.2 TO 2.0 | > 6 | > 200 | GOOD | GOOD | GOOD | MEDIUM | GOOD | |
| 91 | SASSAFRAS MARUMSCO COMPLEX* | A | III | C | 0.32 | 0.32 | 5 | 0.06 TO 2.0 | 1 TO > 6 | > 50 | POOR - P.C.S | POOR - P.U.C.S | POOR - P.C.U | HIGH | POOR - U.P.C.B | US |

HAROLD A. LOGAN ASSOCIATES P.C.
 LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN
 9114 INDUSTRY DRIVE
 MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132



SCALE: 1" = 30'
 DATE: 12-31-2012
 DESIGNED: HAL
 DRAFTED: MB/NA
 REVISIONS: 12-13-13
 12-18-2013
 02-28-2014

| | |
|--|--------------------------|
| HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE | |
| MOUNT VERNON DISTRICT | FAIRFAX COUNTY, VIRGINIA |
| PRE - SPECIAL EXCEPTION CONDITION PLAN | |
| HAROLD A. LOGAN ASSOCIATES P.C. LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN 9114 INDUSTRY DRIVE MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132 | |
| SHEET 2 OF 8 | RP 1820 |



TOPO MAP
1"=500'

TREE COVER TABULATION

GROSS SITE AREA = 68,133 SF
 PERCENTAGE OF TREE COVER REQUIRED = 20%
 TREE COVER REQUIRED = 13,626 SF
 CREDIT FOR TREES PRESERVED = 1.25x 7400 SF = 9,250 SF
 1.00x 15,000 SF = 15,000 SF (RPA)

TREE COVER PROVIDED = 24,250 SF

VEGETATION TABLE

| AREA DESCRIPTION | VEG. TYPE | AREA (AC.) |
|------------------|--------------------------|------------|
| EX. YARD | TURF AND SCATTERED TREES | 1.17 ACRES |
| EX. BANK | SCRUB SHRUBS | 0.31 ACRES |
| EX. SHORELINE | UNVEGETATED | 0.08 ACRES |

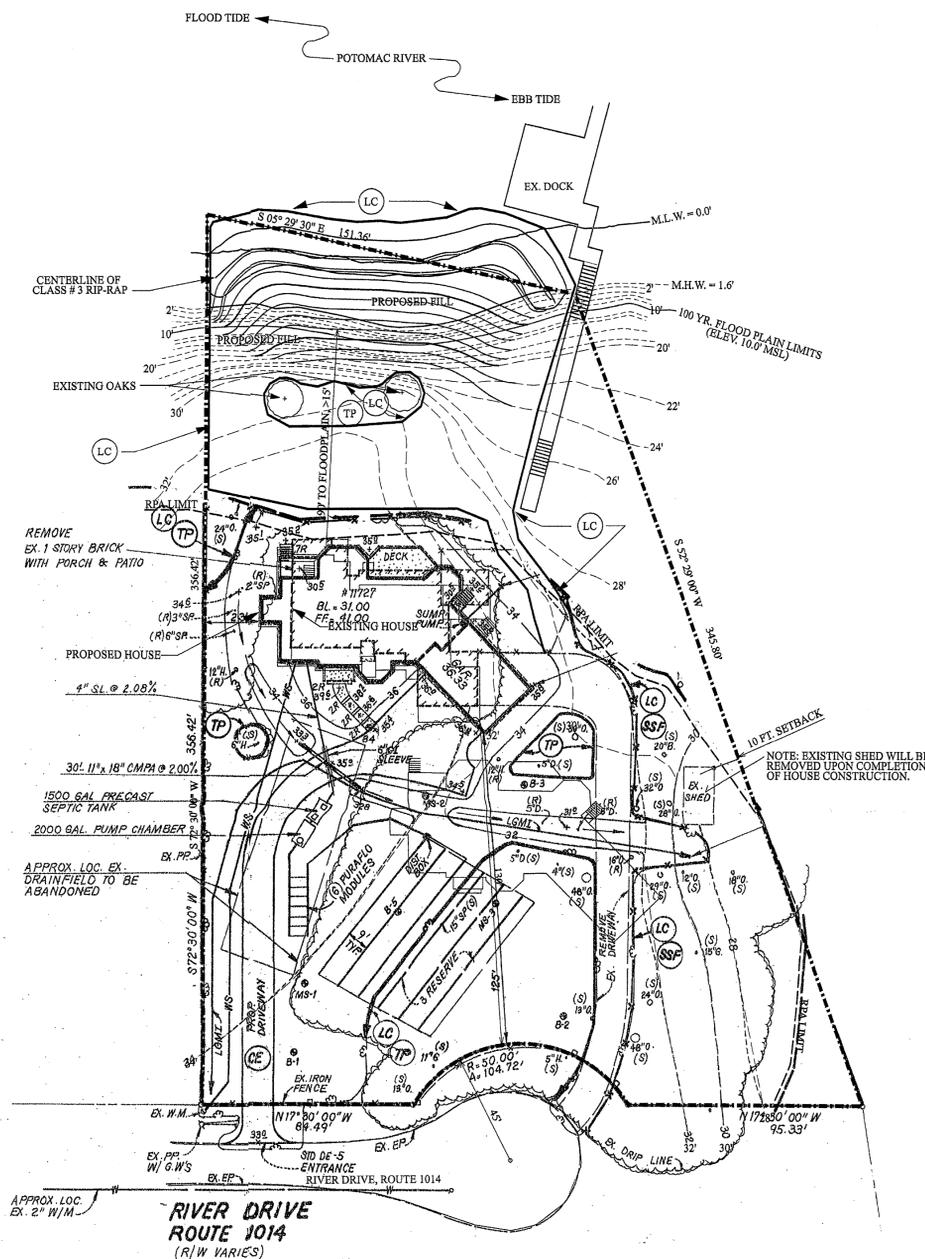
GENERAL NOTES

- TAX MAP REFERENCE: 122-2-(2)-7
- NO TITLE REPORT FURNISHED.
- PROPERTY IS SERVED BY PUBLIC WATER AND PRIVATE SEPTIC FIELD.
- TOTAL DISTURBED AREA FOR SHORELINE PROJECT = 0.17 AC.
- WATERSHED: HIGH POINT.
- SURFACED AREA OF FRONT YARD: N/A.
- BOUNDARY AND TOPOGRAPHIC SURVEY BY OTHERS.
- PLANIMETRICS AND OTHER BASE MAP AND NOTES TAKEN FROM APPROVED GRADING PLAN (# 005203-INF-06-1) BY HAROLD A. LOGAN ASSOCIATES, INC.
- MAXIMUM BUILDING HEIGHT <3'.
- 100-YR FLOODPLAIN DETERMINED FROM FEMA FIRM FOR TIDAL POTOMAC RIVER.
- REAL LIMITS AS PER FAIRFAX COUNTY AND DELINEATED ON BASE MAP INFORMATION BY HAROLD A. LOGAN ASSOC., INC.
- NO TRAILS ARE REQUIRED, AS PER FAIRFAX CO. COMPREHENSIVE PLAN.
- NO KNOWN GRAVE SITES ARE LOCATED ON THE PROPERTY.
- PROPOSED FILL NOT TO EXCEED SLOPE OF TO 2:1.
- NO UTILITY EASEMENTS WITHIN THE PROPOSED WORK AREA.
- PROPOSED FILL IN DESIGNATED 100-YR FLOODPLAIN (ELEVATION 10.0' MSL) = 1100 CY.
- SHORELINE STABILIZATION INFORMATION PROVIDED BY MJCL, INC. AS PER APPROVAL WETLAND PERMIT FIGURES AND PLAN.
- FAIRFAX COUNTY HEALTH DEPARTMENT APPROVAL DATED 3-24-04 FOR APPROVAL GRADING PLAN (005203-INF-06-1).

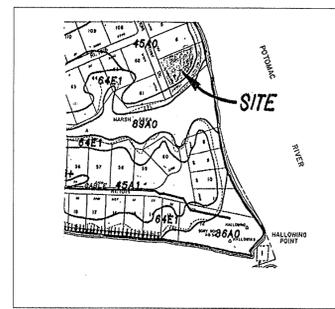
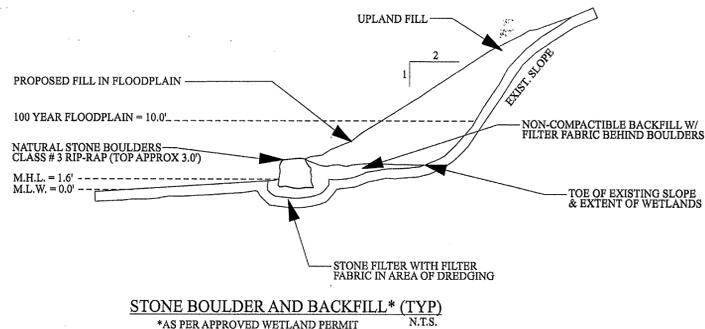
I hereby certify that, to the best of my knowledge and belief, all County approvals were in accordance to the Subdivision Ordinance in effect at the time of the creation of this lot. The lot was created as a part of the HALLOWING POINT RIVER ESTATES subdivision approved on JULY 1998 and recorded in Deed Book 646... of Page 824 in the Fairfax County Land Records.

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

SIGNATURE: *[Signature]*
 OWNER/DEVELOPER: *[Signature]*



RIVER DRIVE
ROUTE 1014
(R/W VARIES)

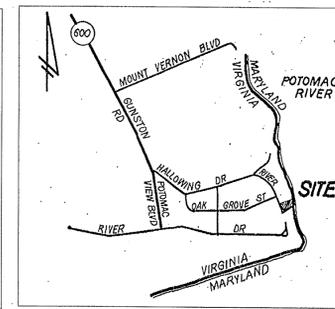


SOILS MAP
1"=500'

SOIL MAP/DATA

| SOIL # | SERIES | FOUNDATION SUPPORT | SUBSURFACE DRAINAGE | SLOPE STABILITY | ERODIBILITY | GEOTECHNICAL REPORT REQ'D | PROBLEM CLASS |
|--------|--------------------|---------------------|---------------------|-----------------|-------------|---------------------------|---------------|
| 45A0 | MARLENG | GOOD | FAIR | GOOD | MODERATE | NO | C |
| 64E1 | SUE AND CLAYEY SEC | MARGINAL U, B, C, P | MARGINAL C, P | POOR U, C, P | SEVERE | YES | A |
| 69A0 | MARSHY (TIDAL) | POOR F, B, W | POOR F, W | GOOD | SLIGHT | YES | A |

NOTE: ALL PROPOSED CONSTRUCTION IS WITHIN SOIL TYPE 45A0



VICINITY MAP
1"=2000'

LEGEND

- EP = EDGE OF PAVEMENT
- SL = SANITARY LATERAL
- WM = WATER METER
- WS = WATER SERVICE
- (R) = TO BE REMOVED
- (S) = TO BE SAVED
- (CE) = TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- (LC) = LIMITS OF CLEARING, GRADING AND/OR CONSTRUCTION
- (SF) = TEMPORARY SILT FENCE
- (TP) = TEMPORARY TREE PROTECTION

OWNER

KIMBERLY B. CAMPBELL
 KELLY B. CAMPBELL
 1157 RIVER DRIVE
 LORTON VA 22019

ZONING: RE

MINIMUM SETBACKS
 FRONT = 30'
 SIDE = 20'
 REAR = 25'

DEVELOPER

MONTICELLO HOMES
 7829 MANOR HOUSE DRIVE
 FAIRFAX STATION, VA 22039
 TEL. 703-425-0001
 FAX. 703-425-0476

FLOODPLAIN STATEMENTS:

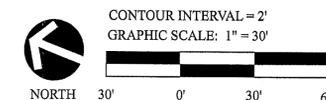
- PROPOSED SHORELINE STABILIZATION PROJECT ADDRESSES EROSION PROBLEM ALONG EASTERN PROPERTY BOUNDARY, AS PER PLAN FAIRFAX COUNTY LOCAL WETLAND BOARD PERMIT # WB-01-W-007.
- CORPS, VMRC AND DEQ PERMITS OBTAINED FOR SHORELINE PROJECT.
- NO HABITABLE STRUCTURES WITHIN FLOODPLAIN AND VERTICAL SEPARATION OF OVER 20 FEET EXISTS BETWEEN HOUSE FF. ELEVATION AND 100-YEAR FLOODPLAIN.

STORMWATER MANAGEMENT STATEMENT:

THIS PROJECT DOES NOT REQUIRE A SITE PLAN PURSUANT TO SECTION 17 OF THE FAIRFAX COUNTY ZONING ORDINANCE, DOES NOT REQUIRE SUBDIVISION APPROVAL PURSUANT TO SECTION 101 OF THE FAIRFAX COUNTY CODE, AND DOES NOT RESULT IN A IMPERVIOUS AREA OF MORE THAN 18% (6987 SF >18%); THEREFORE PER SECTION 118-3-2(1) OF THE FAIRFAX COUNTY CODE, NO BMP IS REQUIRED.

IMPERVIOUS ACREAGE ANALYSIS
(ENGINEER'S USE)

| | DEVELOPMENT LEVEL | | IMPERVIOUS ACREAGE COMPUTATIONS | |
|------------------------------|-------------------|------|---------------------------------|-----------------------|
| | PRE | POST | PRE | POST |
| SITE AREA IN ACRES | A | A | 1.56 | 1.56 |
| COMPOSITE RATIONAL C FACTOR | C1 | C2 | 0.35 | 0.36 |
| FRACTIONAL IMPERVIOUSNESS | I1 | I2 | 0.150 | 0.162 |
| TOTAL IMPERVIOUSNESS ACRES | Ax1 | Ax2 | 0.23 | 0.2527 |
| INCREASE IN IMPERVIOUS ACRES | (Ax2) - (Ax1) | | 0.0227 | ACRES = 1.5% INCREASE |



ANGLER Environmental
 Aquatic Resource Specialists
 12801 Randolph Ridge Ln.
 Manassas, Va. 20109
 ph: (703) 393-4844
 fac: (703) 393-2934

APPLICANT: KELLY AND KIM CAMPBELL
 PROJECT: CAMPBELL - HALLOWING POINT RIVER ESTATES - LOT 7 - SECTION ONE - SHORELINE PROTECTION
 SPECIAL EXCEPTION
 PLAT SE2004-MV-038
 FAIRFAX COUNTY, VIRGINIA

PROJECT MANAGER: LG
 DESIGNED: LG
 DRAWN: KG, DM
 JOB NUMBER: 1450
 DESIGN FILE: 1450-SPEX.DGN
 DATE: 11/12/04
 REVISIONS: DM, 02/22/05

SHEET 1



SCALE: 1" = 30'
 DATE: 12-31-2012
 DESIGNED: HAL
 DRAFTED: MB/NA
 REVISIONS: 12-13-13
 12-18-2013
 02-28-2014

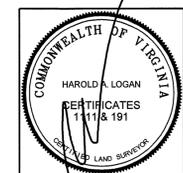
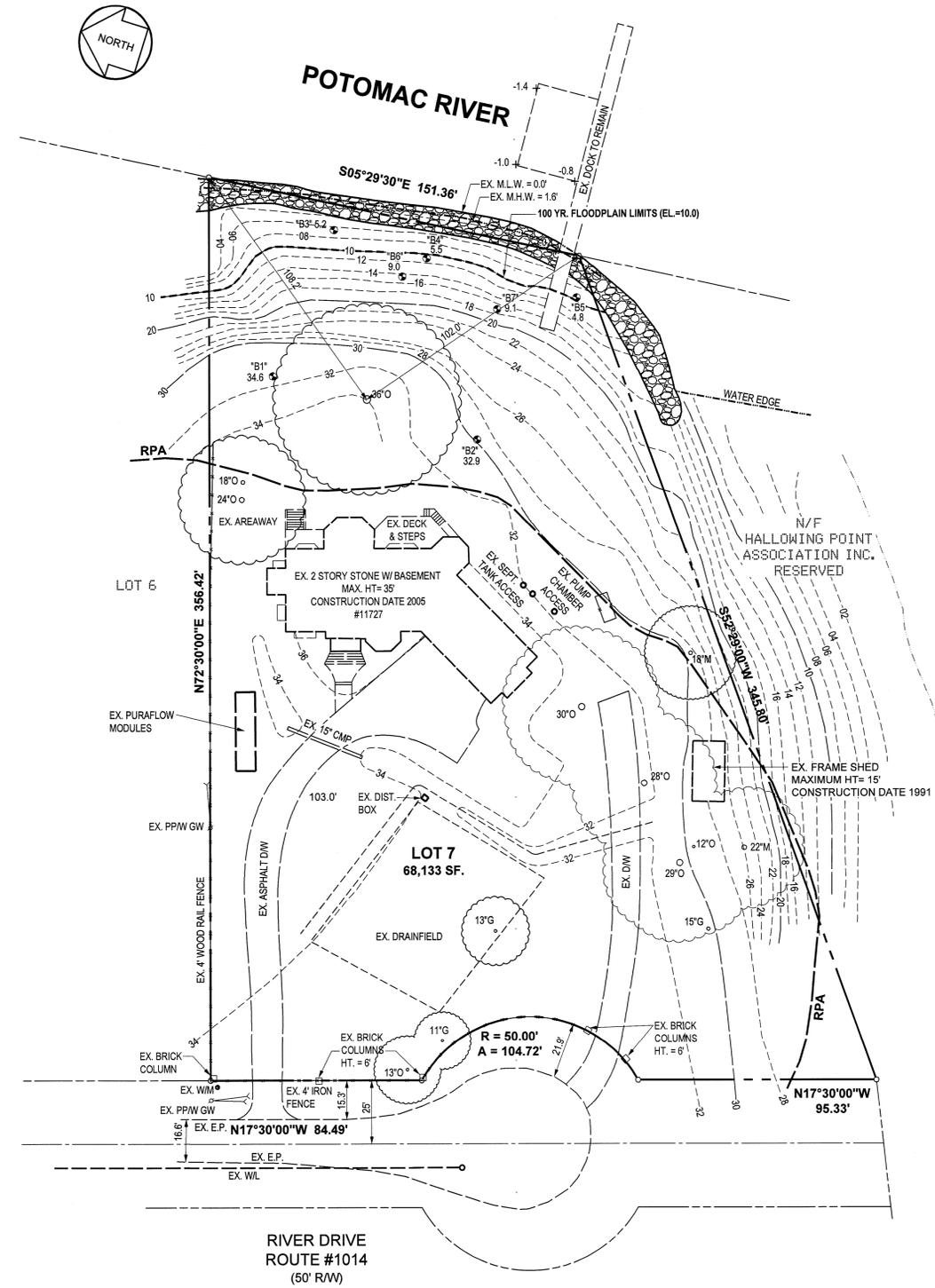
HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE
 MOUNT VERNON DISTRICT FAIRFAX COUNTY, VIRGINIA
 APPROVED SPECIAL EXCEPTION PLAN
HAROLD A. LOGAN ASSOCIATES P.C.
 LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN
 9114 INDUSTRY DRIVE
 MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132

SHEET 3 OF 8
 RP 1820

LEGEND

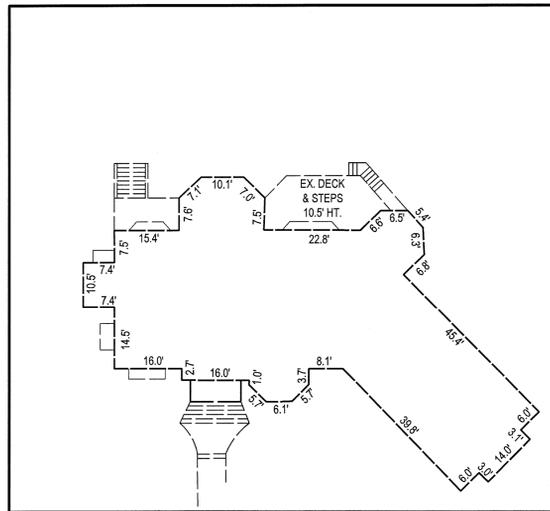
- C & G = CURB & GUTTER
- CLF = CHAIN LINK FENCE
- D/W = DRIVEWAY
- DS = DOWNSPOUT
- EP = EDGE OF PAVEMENT
- FH = FIRE HYDRANT
- IPF = IRON PIPE FOUND
- PP = POWER POLE
- PP W/ GW = POWER POLE WITH GUY WIRE
- (R) = TO BE REMOVED
- (S) = TO BE SAVED
- SL = SANITARY LATERAL
- WF = WOOD FENCE
- WM = WATER METER
- WS = WATER SERVICE

- EXISTING TREE
- G = GUM
- M = MAPLE
- O = OAK

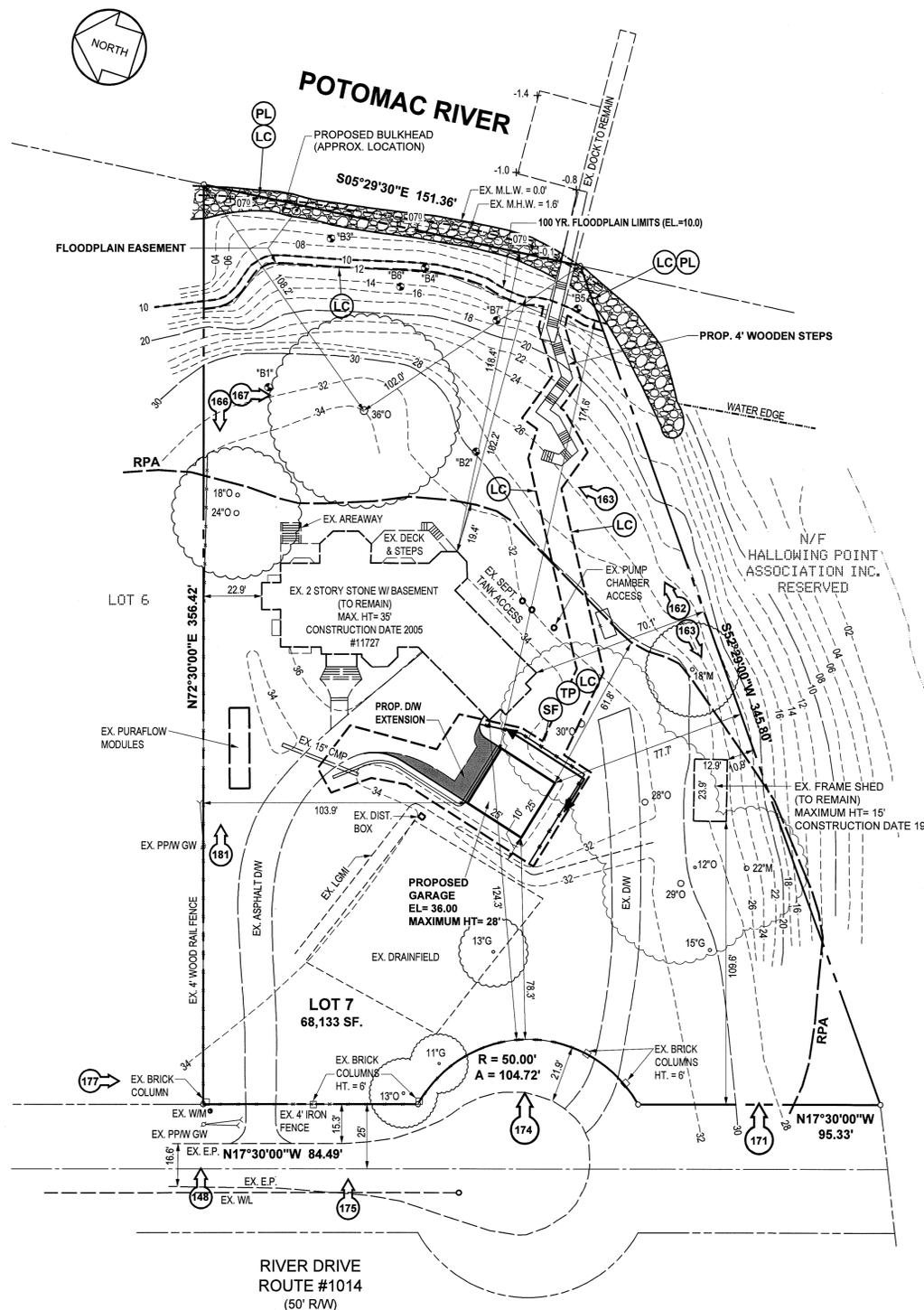


SCALE: 1" = 30'
 DATE: 12-31-2012
 DESIGNED: HAL
 DRAFTED: MB/NA
 REVISIONS: 12-13-13
 12-18-2013
 02-28-2014

| | |
|--|----------------------------|
| HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE MOUNT VERNON DISTRICT FAIRFAX COUNTY, VIRGINIA | |
| EXISTING CONDITIONS | |
| HAROLD A. LOGAN ASSOCIATES P.C. LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN 9114 INDUSTRY DRIVE MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132 | SHEET 4 OF 8 RP 1820 |



HOUSE DIMENSION DETAIL
SCALE: 1" = 20'



RIVER DRIVE
ROUTE #1014
(50' R/W)

NOTE:
ALL EXISTING STRUCTURES TO REMAIN
UNLESS OTHERWISE NOTED

THE HORIZONTAL AND VERTICAL LOCATION OF UNDERGROUND ELECTRICAL, GAS, CABLE TV, AND TELEPHONE UTILITIES SHOWN ON THESE PLANS ARE TAKEN FROM AVAILABLE INFORMATION. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF SAID UTILITIES PRIOR TO BEGINNING EXCAVATION IN THE VICINITY THEREOF.

4-0402 INSPECTION

ALL CONSTRUCTION INVOLVING PROBLEM SOILS MUST BE PERFORMED UNDER THE FULL-TIME INSPECTION OF THE GEOTECHNICAL ENGINEER, AND THE GEOTECHNICAL ENGINEER SHALL FURNISH A WRITTEN OPINION TO THE COUNTY AS TO WHETHER OR NOT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS, AND HIS RECOMMENDATIONS FOR WORK IN THE ISSUANCE OF RESIDENTIAL OR NONRESIDENTIAL USE PERMITS.

THIS PLAN AND THE DEVELOPMENT PROPOSED HEREON COMPLIES WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ACT DUE TO THE FOLLOWING:
LAND DISTURBING ACTIVITIES HAVE BEEN LIMITED TO THE EXTENT POSSIBLE, AND ALL EROSION AND SEDIMENT CONTROLS WILL BE INSTALLED AS REQUIRED.

LEGEND

- CE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- SF TEMPORARY SILT FENCE
- LC LIMITS OF CLEARING, GRADING AND / OR DISTURBANCE
- TP TEMPORARY TREE PROTECTION

- C & G = CURB & GUTTER
- CLF = CHAIN LINK FENCE
- D/W = DRIVEWAY
- DS = DOWNSPOUT
- EP = EDGE OF PAVEMENT
- FH = FIRE HYDRANT
- IPF = IRON PIPE FOUND
- PP = POWER POLE
- PP W/ GW = POWER POLE WITH GUY WIRE
- (R) = TO BE REMOVED
- (S) = TO BE SAVED
- SL = SANITARY LATERAL
- WF = WOOD FENCE
- WM = WATER METER
- WS = WATER SERVICE

- EXISTING TREE
- G = GUM
- M = MAPLE
- O = OAK

000 DENOTES LOCATION OF PHOTOGRAPHER AND DIRECTION PHOTO WAS TAKEN

IMPERVIOUS SURFACE CALCULATIONS:

PRE-DEVELOPMENT:

| | |
|-----------|----------|
| DWELLING | 3611 SF |
| DRIVEWAY | 3430 SF |
| SHED | 299 SF |
| LANDSCAPE | 60483 SF |
| TOTAL | 68133 SF |

$[(0.1756)(0.9) + (1.3885)(0.3)]/1.56 = C\text{-FACTOR} = 0.37$
 $Q10 = (0.37)(1.56)(7.27) = 4.20 \text{ CFS}$

POST DEVELOPMENT:

| | |
|-----------|----------|
| DWELLING | 3611 SF |
| DRIVEWAY | 3983 SF |
| GARAGE | 600 SF |
| TERRACE | 1132 SF |
| WALKS | 350 SF |
| WALLS | 450 SF |
| LANDSCAPE | 58007 SF |
| TOTAL | 68133 SF |

$[(0.2325)(0.9) + (1.3317)(0.3)]/1.56 = C\text{-FACTOR} = 0.39$
 $Q10 = (0.39)(1.56)(7.27) = 4.42 \text{ CFS}$

RUNOFF CALCULATIONS:
POST-DEVELOPMENT RUNOFF INCREASE:
4.42 - 4.20 = 0.22 CFS

DURING CONSTRUCTION RUNOFF
(0.6)(0.2)(7.27) = 0.87 CFS (ALL REQUIRED SILT CONTROLS INSTALLED)

IMPERVIOUS SURFACE = 10126/68133 = 14.9%

THERE ARE RPA'S AS INDICATED ON THIS SITE.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS PLAN AND THE DEVELOPMENT PROPOSED HEREON CONFORMS TO ALL REQUIREMENTS OF THE CHESAPEAKE BAY PRESERVATION ORDINANCE (FAIRFAX COUNTY CODE SECTION 118) ADOPTED BY THE FAIRFAX COUNTY BOARD OF SUPERVISORS ON JULY 7, 2003 AND EFFECTIVE NOVEMBER 18, 2003.

RPA Boundary Location Certification
(The following certification statement is to be placed on the plan, signed, and sealed by the licensed professional submitting the plan.)

RPA Boundary Location Certification

The lot depicted on this infill lot grading plan includes an RPA. The locations of all RPA features have been verified in the field.

Checklist of RPA features which are present:

- | | | |
|-------------------------------------|-------------------------------------|---|
| YES | NO | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (1) A tidal wetland, |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) A tidal shore, |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) A water body with perennial flow, |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (4) A nontidal wetland connected by surface flow and contiguous to a tidal wetland or water body with perennial flow, |
| (5) A buffer area as follows: | | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | (i) Any land within a major floodplain, |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | (ii) Any land within 100 feet of a feature listed in (1) through (4). |

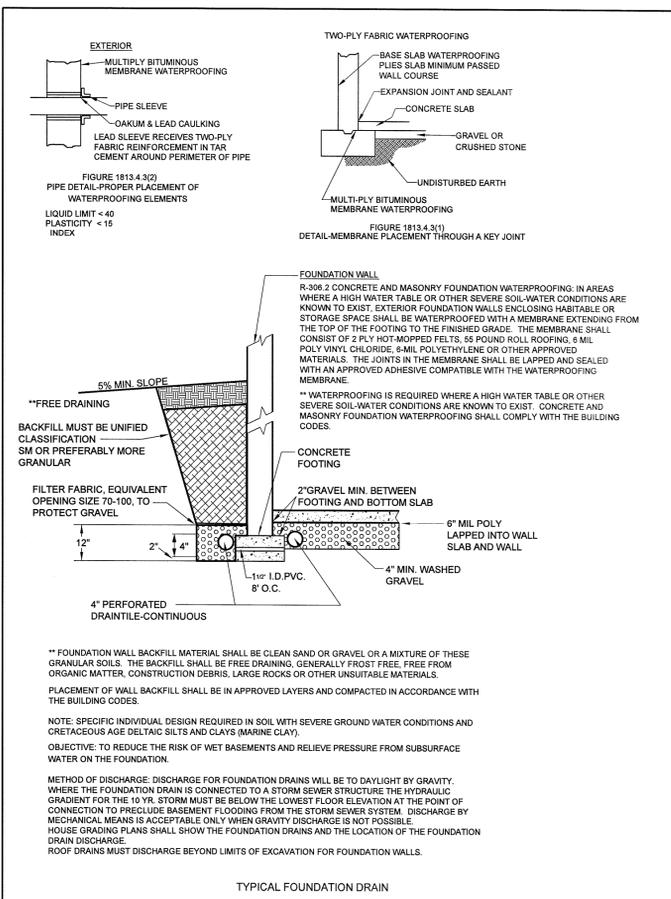
Supporting Documents:

- Jurisdictional determination or verification letter from the U.S. Army Corps of Engineers for all Waters of the U.S.

I hereby certify that:

Each of the individual features listed above, which together comprise the RPA, have been reviewed and the locations of the features and final RPA boundary shown on the plan are in conformance with the requirements of the Chesapeake Bay Preservation Ordinance.

Signature: Harold A. Logan Date: 9/26/2011
Name: Harold A. Logan Virginia license number: CERTIFIED LAND SURVEYOR #1111



SCALE: 1" = 30'
DATE: 12-31-2012
DESIGNED: HAL
DRAFTED: MB/NA
REVISIONS: 12-13-13
12-18-2013
02-28-2014

HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE
MOUNT VERNON DISTRICT FAIRFAX COUNTY, VIRGINIA
SPECIAL EXCEPTION PLAN

HAROLD A. LOGAN ASSOCIATES P.C.
LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN
9114 INDUSTRY DRIVE
MANASSAS PARK, VA. 20111 (703) 330-1888 FAX 690-8132

SHEET 5 OF 8
RP 1820

**EROSION AND SEDIMENT CONTROL NARRATIVE
(CONSTRUCTION SEQUENCE)**

1. INSTALL CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES IN THEIR LOCATIONS AS SHOWN ON PLAN.
3. CLEAR SITE.
4. CONSTRUCT GARAGE.
5. PERMANENTLY STABILIZE DISTURBED AREAS PER VIRGINIA EROSION AND SEDIMENT CONTROL STANDARD AND SPEC. 3.32.
6. REMOVE E&S CONTROLS WITH THE SITE INSPECTORS PERMISSION.

LAND CONSERVATION NOTES

1. NO DISTURBED AREA WILL REMAIN DENUDE FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ANY ONE TIME.
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILL.
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
7. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, IS TO BE MULCHED WITH HAY OR STRAW MULCH AT THE RATE OF TWO TONS PER ACRE AND OVER-SEEDED NO LATER THAN MARCH 15TH.
8. AT THE COMPLETION OF CONSTRUCTION PROJECTS AND PRIOR TO THE RELEASE OF THE BOND, ALL TEMPORARY SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED AND ALL DISTURBED AREAS SHALL BE STABILIZED.

MAINTENANCE PROGRAM:

1. THE SITE SUPERINTENDENT, OR HIS/HER REPRESENTATIVE, SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (i.e. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS, SPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
2. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEANED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR HAULING AWAY IF NOT SUITABLE FOR FILL.

THE EROSION AND SEDIMENT CONTROLS SHOWN ON THIS PLAN HAVE BEEN DESIGNED IN ACCORDANCE WITH FAIRFAX COUNTY PUBLIC FACILITIES MANUAL CHAPTER 11, AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK 1992, THIRD ADDITION.

FAIRFAX COUNTY PRIORITY RATING FORM FOR EROSION & SEDIMENT CONTROL

HALLOWING POINT RIVER ESTATES
PROJECT NAME: LOT 7- SECTION ONE PROJECT NUMBER:
TAX MAP: 122-2 (2)7 EVALUATOR: MARK CRAIN DATE: 12-28-2012

| <p>A. Percentage of Denuded Area to Total Site Area</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>>60% [] 5</td></tr> <tr><td>31 to 60% [] 3</td></tr> <tr><td>10 to 30% [X] 1</td></tr> </table> <p>If the denuded area is greater than 10 acres, the project is initially rated a high priority.</p> | Rating | >60% [] 5 | 31 to 60% [] 3 | 10 to 30% [X] 1 | <p>F. Distance Between the Site Outfall and any Downstream, Wet Pond, Wetland, Parkland or other Land Deemed Environmentally Sensitive by the Director.</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>< 2,500-feet [X] 5</td></tr> <tr><td>2,500 to 5,000-feet [] 3</td></tr> <tr><td>> 5,000-feet [] 0</td></tr> </table> | Rating | < 2,500-feet [X] 5 | 2,500 to 5,000-feet [] 3 | > 5,000-feet [] 0 |
|--|--------|-----------------|----------------------|--|---|----------------------------------|--|---------------------------|---------------------|
| Rating | | | | | | | | | |
| >60% [] 5 | | | | | | | | | |
| 31 to 60% [] 3 | | | | | | | | | |
| 10 to 30% [X] 1 | | | | | | | | | |
| Rating | | | | | | | | | |
| < 2,500-feet [X] 5 | | | | | | | | | |
| 2,500 to 5,000-feet [] 3 | | | | | | | | | |
| > 5,000-feet [] 0 | | | | | | | | | |
| <p>B. Watercourse Crossing</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>Yes [] 0</td></tr> <tr><td>No [X] 5</td></tr> </table> <p>*If yes, project is initially rated a high priority.</p> | Rating | Yes [] 0 | No [X] 5 | <p>G. Critical Slopes Within 50-feet of Adjacent Property</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>If Yes to any of the above [X] 5</td></tr> <tr><td>Not Applicable if critical slope is > 50-feet from adjacent property [] 0</td></tr> </table> | Rating | If Yes to any of the above [X] 5 | Not Applicable if critical slope is > 50-feet from adjacent property [] 0 | | |
| Rating | | | | | | | | | |
| Yes [] 0 | | | | | | | | | |
| No [X] 5 | | | | | | | | | |
| Rating | | | | | | | | | |
| If Yes to any of the above [X] 5 | | | | | | | | | |
| Not Applicable if critical slope is > 50-feet from adjacent property [] 0 | | | | | | | | | |
| <p>C. Distance of Denuded Area to Downstream Adjacent Property</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>< 50-feet [X] 5</td></tr> <tr><td>50 to 150-feet [] 3</td></tr> <tr><td>> 150-feet [] 0</td></tr> </table> | Rating | < 50-feet [X] 5 | 50 to 150-feet [] 3 | > 150-feet [] 0 | <p>H. Soil Erodibility (Based on Physiographic Setting)</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>Triassic Basin [X] 5</td></tr> <tr><td>Piedmont Upland [] 3</td></tr> <tr><td>Coastal Plain [] 1</td></tr> </table> | Rating | Triassic Basin [X] 5 | Piedmont Upland [] 3 | Coastal Plain [] 1 |
| Rating | | | | | | | | | |
| < 50-feet [X] 5 | | | | | | | | | |
| 50 to 150-feet [] 3 | | | | | | | | | |
| > 150-feet [] 0 | | | | | | | | | |
| Rating | | | | | | | | | |
| Triassic Basin [X] 5 | | | | | | | | | |
| Piedmont Upland [] 3 | | | | | | | | | |
| Coastal Plain [] 1 | | | | | | | | | |
| <p>D. Distance of Any Portion of the Denuded Area to a Natural Watercourse</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>< 50-feet [X] 5</td></tr> <tr><td>50 to 150-feet [] 3</td></tr> <tr><td>> 150-feet [] 0</td></tr> </table> | Rating | < 50-feet [X] 5 | 50 to 150-feet [] 3 | > 150-feet [] 0 | <p>E. *Minimum Vegetative Buffer (Trees, Shrubs, Grasses and other Plants)</p> <table border="1"> <tr><th>Rating</th></tr> <tr><td>< 50-feet [X] 0</td></tr> <tr><td>50 to 150-feet [] -3</td></tr> <tr><td>> 150-feet [] -5</td></tr> </table> <p>*Vegetation in Resource Protection Areas are not to be included as vegetative buffers for this application.</p> | Rating | < 50-feet [X] 0 | 50 to 150-feet [] -3 | > 150-feet [] -5 |
| Rating | | | | | | | | | |
| < 50-feet [X] 5 | | | | | | | | | |
| 50 to 150-feet [] 3 | | | | | | | | | |
| > 150-feet [] 0 | | | | | | | | | |
| Rating | | | | | | | | | |
| < 50-feet [X] 0 | | | | | | | | | |
| 50 to 150-feet [] -3 | | | | | | | | | |
| > 150-feet [] -5 | | | | | | | | | |

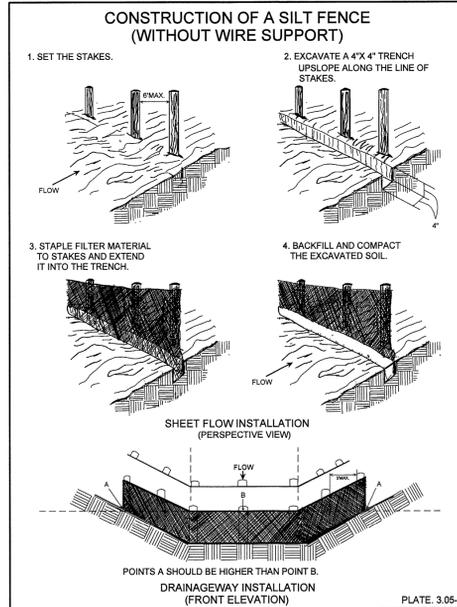
OVERALL RATING **PRIORITY** (Mark with an "X")

| | | |
|---------------------------|--------|-----|
| If > 22 | High | [X] |
| If > 14 and <= or = to 22 | Medium | [] |
| If <= or = to 14 | Low | [] |

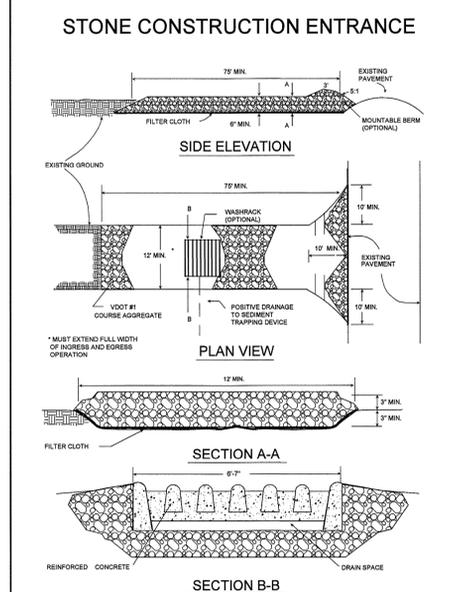
PROJECT PRIORITY LEVEL: HIGH

Reserved for Fairfax County use

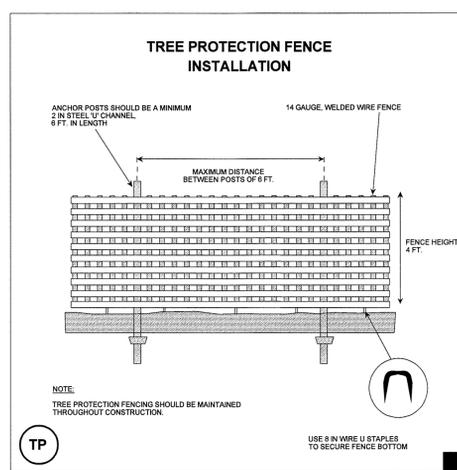
APPROVED BY _____ DATE _____
Plan Reviewer



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, VA. DSWC Sherwood and Wiyat



SOURCE: ADAPTED FROM 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC



**TABLE 3.32-D
SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA**

| Minimum Care Lawn | Total Lbs. Per Acre |
|--|---------------------|
| - Commercial or Residential | 175-200 lbs. |
| - Kentucky 31 or Turf-Type Tall Fescue | 95-100% |
| - Improved Perennial Ryegrass | 0-5% |
| - Kentucky Bluegrass | 0-5% |
| High-Maintenance Lawn | 200-250 lbs. |
| - Kentucky 31 or Turf-Type Tall Fescue | 100% |
| General Slope (3:1 or less) | |
| - Kentucky 31 Fescue | 128 lbs. |
| - Red Top Grass | 2 lbs. |
| - Seasonal Nurse Crop * | 20 lbs. |
| | 150 lbs. |
| Low-Maintenance Slope (Steeper than 3:1) | |
| - Kentucky 31 Fescue | 108 lbs. |
| - Red Top Grass | 2 lbs. |
| - Seasonal Nurse Crop * | 20 lbs. |
| - Crownvetch ** | 20 lbs. |
| | 150 lbs. |

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February 16th through April Annual Rye
May 1st through August 15th Foxtail Millet
August 16th through October Annual Rye
November through February 15th Winter Rye

** Substitute Sericea lespedeza for Crownvetch east of Farmville, Va. (May through September use hulled Sericea, all other periods, use unhulled Sericea). If Flatpea is used in lieu of Crownvetch, increase rate to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

**TABLE 3.35-A
ORGANIC MULCH MATERIALS AND APPLICATION RATES**

| MULCHES: | RATES: | | NOTES: |
|-----------------------------|--|------------------|---|
| | Per Acre | Per 1000 sq. ft. | |
| Straw or Hay | 1 1/2 - 2 tons (Minimum 2 tons for winter cover) | 70 - 90 lbs. | Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand. |
| Fiber Mulch | Minimum 1500 lbs. | 35 lbs. | Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry. |
| Corn Stalks | 4 - 6 tons | 185 - 275 lbs. | Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand. |
| Wood Chips | 4 - 6 tons | 185 - 275 lbs. | Free of coarse matter. Air-dried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand. |
| Bark Chips or Shredded Bark | 50 - 70 cu. yds. | 1-2 cu. yds. | Free of coarse matter. Air-dried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand. |

* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.

OUTFALL NARRATIVE

GENERAL
THERE ARE NO ONSITE STORMWATER MANAGEMENT FACILITIES PLANNED FOR THIS SITE. THERE ARE NO CONCENTRATED FLOWS LEAVING THIS SITE. ALL OVERLAND FLOW IS IN THE FORM OF SHEET FLOW BY THE TIME DITCH SECTION ALONG RIVER DRIVE OR THE POTOMAC RIVER IS REACHED.

DRAINAGE AREA
THE TOTAL DRAINAGE FOR THIS SITE IS 1.5 ACRES.

OUTFALL DISCHARGE AMOUNT
PEAK 10-YEAR RELEASES FROM THESE AREAS TOTALS 4.42 CFS AT THE 10-YEAR STORM. PRE-DEVELOPMENT RUNOFF IS 4.20 CFS (10-YEAR). POST-DEVELOPMENT RUNOFF INCREASES THIS FIGURE BY 0.22 CFS.

CHANNEL CROSS SECTION
THERE ARE NO CHANNEL CROSS SECTIONS TO INVESTIGATE ON THE PROPOSED SITE. ALL FLOW IS SHEET FLOW.

LIMITS OF STUDY
THE LIMITS OF STUDY ARE DEPICTED ON THE TOPO/DRAINAGE DIVIDE MAP.

CHANNEL PERMISSIBLE VELOCITY
THE MAXIMUM ALLOWABLE VELOCITY FOR A GRASS-LINED DITCH IS 4.0 FPS, HOWEVER THERE ARE NO CHANNELS TO CONCENTRATE FLOWS.

CHANNEL CAPACITY
THERE ARE NO CHANNELS. ALL RUNOFF FLOW IS OVERLAND IN NON-CONCENTRATED FORM.

CHANNEL VELOCITY
NA.

EASEMENT REQUIREMENTS
NO EASEMENTS ARE REQUIRED SINCE THE DOWNSTREAM REACHES ARE ADEQUATE AND NO CHANNEL IMPROVEMENTS ARE PROPOSED.

DOWNSTREAM IMPACTS
NO CULVERTS OR BRIDGES ARE PRESENT THROUGH THE ENTIRE LIMITS OF STUDY.

FINAL OPINION
POST-DEVELOPMENT RUNOFF IS ONLY marginally increased over existing flow. THE EXISTING SYSTEM HAS SUFFICIENT CAPACITY TO HANDLE THE PROPOSED DEVELOPMENT. THE RUNOFF VELOCITIES ARE NOT EROSION-NO DELTERIOUS DOWNSTREAM EFFECTS WILL BE REALIZED. IN MY PROFESSIONAL OPINION THE OUTFALL IS ADEQUATE AND NO ADVERSE DOWNSTREAM EFFECTS DUE TO PROPOSED DEVELOPMENT WILL OCCUR.

PRE-DEVELOPMENT SITE CONDITIONS NARRATIVE

PROJECT DESCRIPTION
THIS PROJECT PROPOSED HEREON INVOLVES A PATIO ADDITION AND THE NEW CONSTRUCTION OF A DETACHED GARAGE TO A SINGLE-FAMILY DWELLING AND ASSOCIATED IMPROVEMENTS ON 1.56 ACRES IN THE MT VERNON DISTRICT. A TOTAL OF 0.20 ACRES WILL BE DISTURBED OVER THE COURSE OF THIS PROJECT. THE PROJECT IS LOCATED IN THE HIGH POINT WATERSHED.

EXISTING SITE CONDITIONS
THE SITE CURRENTLY FLOWS FROM THE WEST TO THE EAST AND INTO THE POTOMAC RIVER. THERE IS A NATURAL HIGH POINT ON THE SITE ALONG RIVER DRIVE. TO THE EXTENT POSSIBLE THE EXISTING MAN MADE AND NATURAL DRAINAGE PATTERNS HAVE BEEN HONORED ACROSS THE PROPERTY. THE HIGH POINT IS ALONG RIVER DRIVE AT AN ELEVATION OF APPROXIMATELY 34.0 SLOPING TOWARDS THE REAR OF THE PROPERTY LEAVING THE SITE AT THE POTOMAC RIVER. THE SITE FEATURES SHEET FLOW.

ADJACENT AREAS
THERE IS AN RPA LOCATED ONSITE AS SHOWN. SUPER SILT FENCE AND TREE PROTECTION WILL BE UTILIZED ONSITE IN ORDER TO MINIMIZE IMPACTS TO THE RPA. THE RPA WILL BE ENCROACHED UPON BY THE PROPOSED DEVELOPMENT. A WQIA WILL BE PROVIDED IN ORDER TO DETAIL THE MITIGATION OF THE DISTURBANCE IN THE RPA.

OFF-SITE AREAS
OFF-SITE AREAS ARE TO BE DISTURBED DUE TO THIS PROJECT AS SHOWN. NO BORROW SITES ARE TO BE UTILIZED AND ANY WASTE OF SURPLUS IS TO BE DISPOSED OF VIA PROPER PROCEDURES.

CRITICAL AREAS
THERE ARE RPAs ON AND SURROUNDING THIS SITE.

SOILS
THIS SITE FEATURES GRIST MILL MATAPEAKE (45A), HONGA PEAT (60A), MATAPEAKE SILT LOAM (76A) AND SASSAFRAS/MARUMISCO COMPLEX (91E) TYPE SOILS. PLEASE SEE GEOTECHNICAL REPORT HEREON FOR FURTHER INFORMATION.

EROSION AND SEDIMENT CONTROLS
SUPER SILT FENCE IS BEING EMPLOYED ON THE DOWNSTREAM SIDE OF THE SITE AND ONLY AS MUCH LAND WILL BE CLEARED AS NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS.

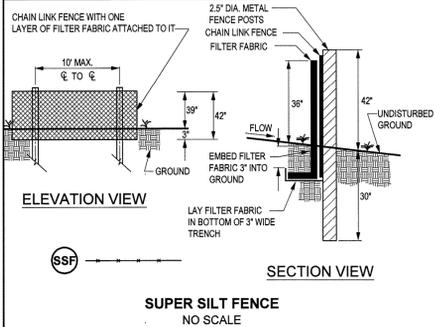
PERMANENT SITE STABILIZATION:
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH AN APPROPRIATE GROUND COVER ACCORDING TO SPEC. 3.32D VESC THAT DICTATES 175-200 LBS/ACRE OF SEED FOR THE PIEDMONT AREA. THE SEED SHALL INCLUDE 95-100% TURF-TYPE TALL FESCUE, 0-5% IMPROVED PERENNIAL RYEGRASS AND 0-5% KENTUCKY BLUEGRASS. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES THAT HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN THE SEEDING OPERATION. IN ALL SEEDING OPERATION, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

MAINTENANCE:
IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF THE SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
2. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.
3. TREE PROTECTION WILL BE INSPECTED AND REPLACED IF REMOVED FOR ANY REASON.
4. CONSTRUCTION ENTRANCE AND WASH RACK WILL BE INSPECTED TO ENSURE PROPER OPERATION AND ANY MAINTENANCE REQUIRED WILL BE PERFORMED IMMEDIATELY.

STOCKPILE AREA (IF REQUIRED)
SURPLUS SOIL FROM THE CONSTRUCTION PROPOSED HEREON SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO SEDIMENT DAMAGE SHALL RESULT. STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH MS#2. THE SIDE SLOPES OF THE STOCKPILES SHALL NOT EXCEED 2:1. PERIMETER CONTROLS MUST BE PLACED AROUND THE STOCKPILE IMMEDIATELY. SEEDING OF STOCKPILES SHALL BE COMPLETED WITH 7 DAYS OF THE FORMATION OF THE STOCKPILE IN ACCORDANCE WITH ST. & SPEC 3.31. TEMPORARY SEEDING IF IT IS TO REMAIN DORMANT FOR LONGER THAN 30 DAYS.

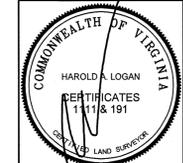
FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



**SUPER SILT FENCE
NO SCALE**

FENCING
CHAIN LINK FENCE SHALL BE 39\"/>

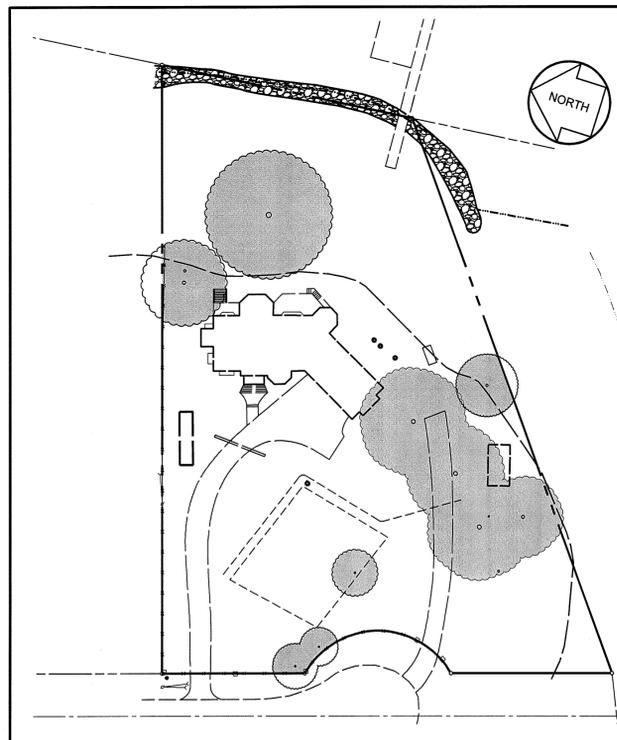
| | | | |
|----------------------|-------------------------|-----------|----------|
| REF. SEC. 11-0110.3J | SUPER SILT FENCE | PLATE NO. | STD. NO. |
| REV. 1-00 | NO SCALE | 11-11 | |



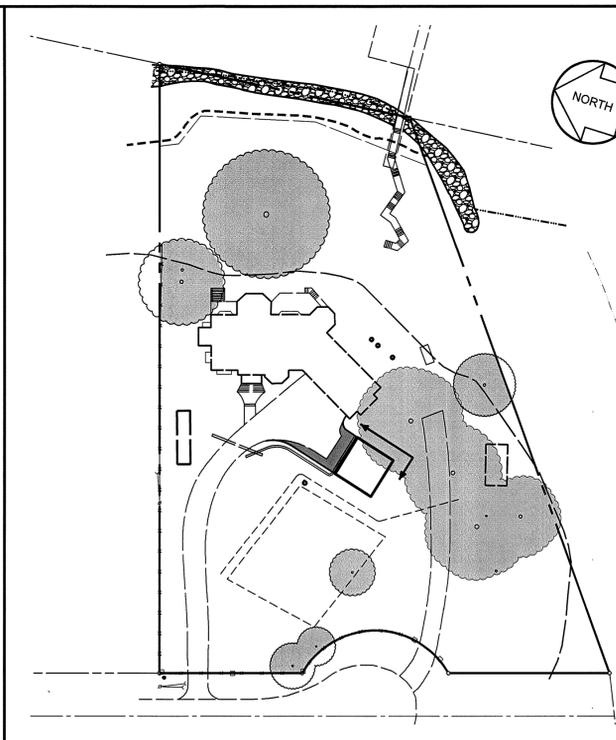
SCALE : N/A
DATE : 12-31-2012
DESIGNED : HAL
DRAFTED : MB/ NA
REVISIONS: 12-13-13
12-18-2013
02-28-2014

HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE
MOUNT VERNON DISTRICT FAIRFAX COUNTY, VIRGINIA

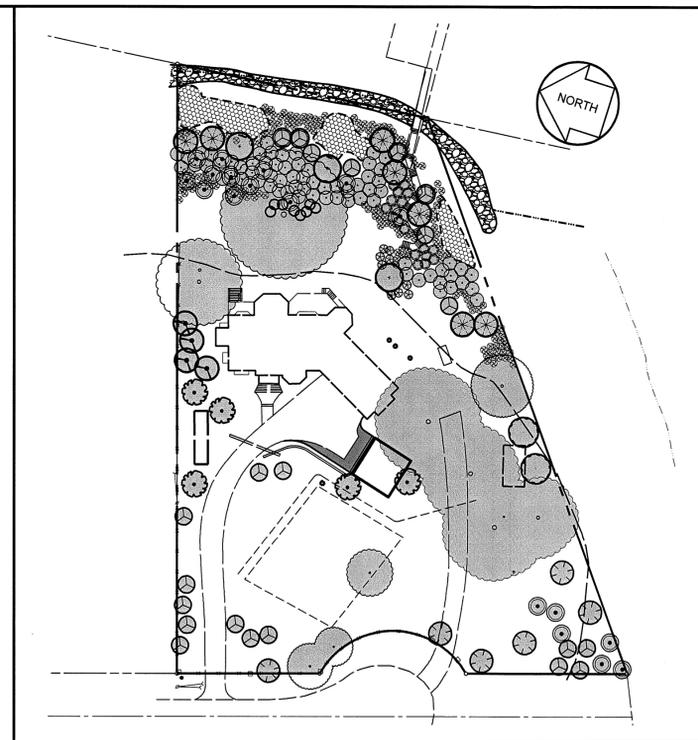
| | | |
|--|--|-------------------------|
| NOTES & DETAILS | | SHEET 6 OF 8 |
| <p>HAROLD A. LOGAN ASSOCIATES P.C. LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN 9114 INDUSTRY DRIVE MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132</p> | | |



EXISTING VEGETATION MAP
SCALE: 1" = 50'



TREE PRESERVATION PLAN
SCALE: 1" = 50'



POST DEVELOPMENT PLAN / TREE CANOPY COVER
SCALE: 1" = 50'

11727 RIVER DRIVE TREE PRESERVATION/CONSERVATION NARRATIVE

1. ALL WORK PERFORMED SHALL MEET OR EXCEED INDUSTRY STANDARDS. IN THE EVENT CULTURAL TREATMENTS PRESCRIBED ARE NOT COVERED BY AN EXISTING STANDARD, ALL WORK SHALL MEET OR EXCEED STANDARDS APPROVED BY THE FAIRFAX COUNTY URBAN FORESTER. INDUSTRY STANDARDS SHALL MEAN THOSE MOST RECENTLY PUBLISHED BY INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AND/OR TREE CARE INDUSTRY ASSOCIATION (TCIA).
2. PRIOR TO ANY CONSTRUCTION ACTIVITY, ALL INDIVIDUAL TREES AND GROUPS OF TREES SHOWN TO BE PRESERVED ON THE TREE PRESERVATION PLAN SHALL BE PROTECTED BY FENCING A MINIMUM OF FOUR FEET IN HEIGHT, PLACED AT THE LIMITS OF CLEARING AND GRADING, OR AS DETERMINED DURING THE PRE-CONSTRUCTION MEETING. TREE PROTECTION FENCING SHOULD BE 14 GAUGE STEEL WOVEN WIRE "FARM FENCE", ON 6 FOOT STEEL POSTS DRIVEN INTO THE GROUND 18 INCHES AND PLACED NOT MORE THAN 10 FEET APART; OR SUPER SILT FENCE; OR CHAINLINK FENCE. THE TREE PROTECTION FENCING SHALL BE MADE CLEARLY VISIBLE TO ALL CONSTRUCTION PERSONNEL WITH SIGNS POSTED ON IT STATING IN SPANISH AND ENGLISH THAT IT IS A TREE PRESERVATION AREA AND NO ENTRY IS PERMITTED. THE FENCING SHALL BE INSTALLED PRIOR TO ANY WORK BEING CONDUCTED ON THE SITE, INCLUDING THE DEMOLITION OF ANY EXISTING STRUCTURES OR FENCES, UNLESS AUTHORIZED BY THE FAIRFAX COUNTY URBAN FORESTER.
3. ALL CONSTRUCTION ACTIVITY BEYOND THE LIMITS OF CLEARING AND GRADING SHOWN ON THE SITE PLAN AND THE TREE PRESERVATION PLAN SHALL BE PROHIBITED UNLESS PREVIOUSLY APPROVED BY THE FAIRFAX COUNTY URBAN FORESTER.
4. THE ENGINEER, ARCHITECT, OR SITE SUPERINTENDENT SHALL FLAG THE LIMITS OF CLEARING AND GRADING PRIOR TO THE PRECONSTRUCTION MEETING.
5. THE SITE SUPERINTENDENT, FAIRFAX COUNTY URBAN FORESTER, AND PROJECT ARBORIST SHALL WALK THE LIMITS OF CLEARING AND GRADING TO DISCUSS TREE ISSUES AND THE IMPORTANCE OF NOT VIOLATING THE LIMITS OF CLEARING AND GRADING. TREES TO BE REMOVED FROM WITHIN TREE SAVE AREAS AND PORTIONS OF THE LIMITS OF CLEARING AND GRADING TO BE ROOT PRUNED SHALL BE CONFIRMED AT THIS TIME. ANY TREE PRESERVATION ACTIVITIES SUCH AS CROWN PRUNING, VERTICAL MULCHING SHALL BE DISCUSSED AT THIS TIME AS WELL.
6. CLEARING OPERATIONS: TREES TO BE REMOVED SHALL BE FELLED IN SUCH A MANNER AS TO PRESERVE THE TREES THAT ARE TO REMAIN. TREES DIRECTLY ADJACENT TO BUT WITHIN THE LIMITS OF CLEARING AND GRADING SHALL BE FELLED BY HAND, WITH A CHAIN SAW, AND THE STUMPS SHALL REMAIN IN PLACE. IF, DUE TO SITE CONSTRAINTS, THE STUMPS MUST BE REMOVED, THIS SHALL BE DONE ONLY AFTER ROOT PRUNING ALONG THE LIMITS OF CLEARING AND GRADING HAS OCCURRED, AND SHALL BE DONE IN A MANNER THAT DOES NOT INJURE TREES TO BE PRESERVED.
7. OFF-SITE AND JOINTLY OWNED TREES SHOULD RECEIVE SPECIAL ATTENTION; DISCUSS THE PROJECT WITH OWNERS OF SUCH TREES BEFORE STARTING WORK.
8. THE TREE CARE CONTRACTOR SHALL PERFORM TREE REMOVALS AS SPECIFIED. TREES WITHIN THE TREE PRESERVATION AREAS, WHICH ARE INDIVIDUALLY IDENTIFIED BY THE PROJECT ARBORIST AND/OR THE FAIRFAX COUNTY URBAN FORESTER TO BE REMOVED, SHALL BE FELLED BY HAND WITH A CHAIN SAW AND THE STUMPS SHALL REMAIN IN PLACE. SUCH TREES SHALL BE FELLED IN A MANNER THAT DOES NOT INJURE TREES TO BE PRESERVED. TREES TO BE REMOVED FROM THE TREE PRESERVATION AREA SHALL BE DROPPED INTO THE AREA TO BE CLEARED, OR PIECED DOWN. THESE TREES SHALL BE MOVED INTO THE AREA TO BE CLEARED WITHOUT INJURING REMAINING VEGETATION. DEAD TREES SHALL BE REMOVED FROM TREE PRESERVATION AREAS ONLY IF THEY POSE A HAZARD. TRUNKS OF DEAD TREES SHALL REMAIN IN TREE PRESERVATION AREAS UNLESS THEY POSE A HAZARD. STUMPS SHALL REMAIN IN THE TREE PRESERVATION AREAS UNLESS OTHERWISE STATED IN THE TREE PRESERVATION PLAN.
9. AFTER TREES ARE REMOVED FROM THE TREE PRESERVATION AREAS, EROSION CONTROL SYSTEM AND TREE PRESERVATION FENCING SHALL BE PUT IN PLACE BEFORE BEGINNING THE ACTUAL CLEARING/GRADING PROCESS.

10. SILT FENCE OR SUPER SILT FENCE, IF REQUIRED, MAY BE INSTALLED IN THE ROOT PRUNING TRENCH. IF SUPER SILT FENCE IS USED, IT MAY SERVE AS TREE PRESERVATION FENCING. OTHER TYPES OF TREE PRESERVATION FENCING SHALL BE PLACED BETWEEN THE AREA TO BE CLEARED AND THE ROOT PRUNING TRENCH.
11. THE TREE CARE CONTRACTOR SHALL PRUNE TREES AS SPECIFIED IN THE TREE PRESERVATION PLAN. ALL WORK SHALL MEET OR EXCEED INDUSTRY STANDARDS, AND AN INTERNATIONAL SOCIETY OF ARBORICULTURE CERTIFIED ARBORIST SHALL BE ON SITE WHILE TREE CARE OPERATIONS ARE TAKING PLACE.
12. SHOULD ENTRY INTO A TREE SAVE AREA BE NECESSARY, THE SITE SUPERINTENDENT SHALL CONTACT THE PROJECT ARBORIST AND/OR THE FAIRFAX COUNTY URBAN FORESTER. FIRST, MEASURES PRESCRIBED BY THE PROJECT ARBORIST AND/OR THE FAIRFAX COUNTY URBAN FORESTER TO MINIMIZE OR MITIGATE DAMAGE RESULTING FROM ENTRY SHALL BE TAKEN.
13. AT BOND RELEASE, THE SITE SHALL BE REVIEWED TO DETERMINE THE NEED FOR FURTHER TREE CARE OR REMOVAL.



TYPICAL SIGNAGE FOR TREE PRESERVATION AREA
N.T.S.
EVM ONLY - NOT FOR TREE PRESERVATION PURPOSES

| COVER TYPE | PRIMARY SPECIES | UNDERSTORY SPECIES | COMMENTS | SUCCESSIONAL STAGE | CONDITION | AREA |
|-------------------------|------------------|------------------------|----------|--------------------|-----------|------------|
| 2: UPLAND FOREST | Oak/Poplar | NA | NA | Sub-climax | Good | 0.38 ACRES |
| 5: DEVELOPED | NA | Dwelling and Hardscape | NA | NA | N/A | 0.18 ACRES |
| 6: MAINTAINED GRASSLAND | Domestic Grasses | NA | NA | NA | Good | 1.00 ACRES |

INSIDE RPA BUFFER PLANTING

| | Botanical Name | Common Name | Quantity | Caliper | Height | Tree Cover Credit (sq. ft.) | Remarks |
|---|------------------------|------------------|----------|---------|---------|--|-------------------|
| ● | Quercus palustris | Pin Oak | 3 | 2" | NA | 600 square feet total (10 year) | B & B |
| ● | Betula nigra | River Birch | 4 | 2" | N/A | 600 square feet total (10 year) | B & B |
| ● | Amelanchier canadensis | Serviceberry | 4 | 1" | N/A | 300 square feet total (10 year) | B & B |
| ● | Cercis canadensis | Redbud | 12 | 1" | N/A | 900 square feet total (10 year) | |
| ● | Aronia arbutifolia | Red Chokeberry | 158 | N/A | 18"-24" | Shrubs and ground covers to be taken from Chesapeake Bay Preservation Ordinance list of types suitable for this use. | To cover 13786 sf |
| ● | Viburnum | Shasta Viburnum | 70 | N/A | 18"-24" | | |
| ● | Azalea | Poukanensis | 8 | N/A | 18"-24" | | |
| ● | | D. Valley White | 9 | N/A | 18"-24" | | |
| ● | Cornus sericea | Red Twig Dogwood | 18 | N/A | 18"-24" | | |
| ● | Micanthus | | 85 | N/A | n/a | | |

OUTSIDE RPA BUFFER PLANTING

| | Botanical Name | Common Name | Quantity | Caliper | Height | Tree Cover Credit (sq. ft.) | Remarks |
|---|------------------------|----------------|----------|---------|--------|----------------------------------|---------|
| ● | Acer rubrum | Red Maple | 5 | 2" | N/A | 1000 square feet total (10 year) | B & B |
| ● | Quercus alba | White Oak | 2 | 2" | N/A | 400 square feet total (10 year) | B & B |
| ● | Nyssa Sylvatica | Black Gum | 6 | 2" | N/A | 900 square feet total (10 year) | B & B |
| ● | Ilex opaca | American Holly | 4 | 1" | N/A | 300 square feet total (10 year) | B & B |
| ● | Amelanchier canadensis | Serviceberry | 14 | 1" | N/A | 1050 square feet total (10 year) | B & B |
| ● | Cercis canadensis | Redbud | 6 | 1" | N/A | 450 square feet total (10 year) | |



SCALE: N/A
DATE: 12-31-2012
DESIGNED: HAL
DRAFTED: MB/NA
REVISIONS: 12-13-13
12-18-2013
02-28-2014

HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE

MOUNT VERNON DISTRICT FAIRFAX COUNTY, VIRGINIA

TREE PRESERVATION PLAN

HAROLD A. LOGAN ASSOCIATES P.C.
LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN
9114 INDUSTRY DRIVE
MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132

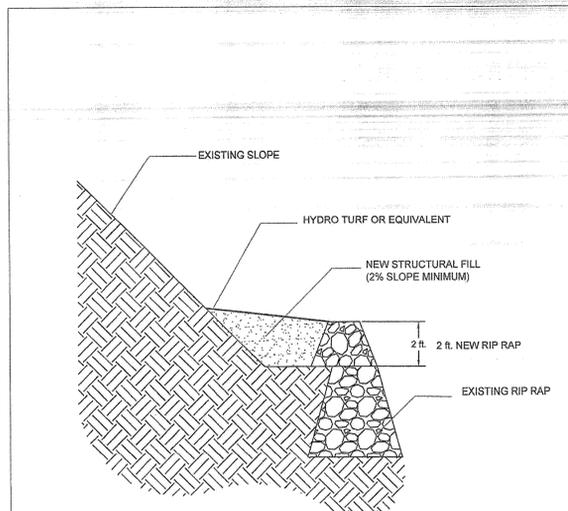
SHEET 7 OF 8
RP 1820

Table 12.3 Tree Preservation Target Calculations and Statement

| | | |
|---|--|-----------|
| A | Pre-development area of existing tree canopy (from Existing Vegetation Map) = | 14,064 SF |
| B | Percentage of gross site area covered by existing tree canopy = | 20.6% |
| C | Percentage of 10-year tree canopy required for site (see Table 12.4) = | 30% |
| D | Percentage of the 10-year tree canopy requirement that should be met through tree preservation = | 6.2% |
| E | Proposed percentage of canopy requirement that will be met through tree preservation = | 100% |
| F | Has the Tree Preservation Target minimum been met? Provide Yes or No | Yes |
| G | If No for line F, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0508.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met. Provide sheet number where deviation request is located. | |
| H | If step G requires a narrative, it shall be prepared in accordance with § 12-0508.4 | |
| I | Place this information prior to the 10-year tree Canopy Calculations as per instructions in Table 12.10. | |

Table 12.10 10-year Tree Canopy Calculation Worksheet

| Step | Totals | Reference |
|--|---|--|
| A. Tree Preservation Target and Statement | | |
| A1 | Place the Tree Preservation Target calculations and statement here preceding the 10-year tree canopy calculations | see § 12-0508.2 for list of required elements and worksheet |
| B. Tree Canopy Requirement | | |
| B1 | Identify gross site area = | 68,133 SF § 12-0511.1A |
| B2 | Subtract area dedicated to parks, road frontage, and | § 12-0511.1B |
| B3 | Subtract area of exemptions = | 4,200 SF § 12-0511.1C(1) through § 12-0511.1C(6) |
| B4 | Adjusted gross site area (B1 - B2) = | 63,933 SF |
| B5 | Identify site's zoning and/or use | RE |
| B6 | Percentage of 10-year tree canopy required = | 30% § 12-0510.1 and Table 12.4 |
| B7 | Area of 10-year tree canopy required (B4 x B6) = | 19,180 SF |
| B8 | Modification of 10-year Tree Canopy Requirements requested? | NO Yes or No |
| B9 | If B8 is yes, then list plan sheet where modification request is located | Sheet number |
| C. Tree Preservation | | |
| C1 | Tree Preservation Target Area = | 4,224 SF |
| C2 | Total canopy area meeting standards of § 12-0400 = | 9,995 SF |
| C3 | C2 x 1.25 = | 12,494 SF § 12-0510.3B |
| C4 | Total canopy area provided by unique or valuable forest or woodland communities | |
| C5 | C4 x 1.5 = | § 12-0510.3B(1) |
| C6 | Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees = | |
| C7 | C6 x 1.5 to 3.0 = | § 12-0510.3B(2) |
| C8 | Canopy area of trees within Resource Protection Areas and 100-year floodplains = | 4,069 |
| C9 | C8 x 1.0 = | 4,069 § 12-0510.3C(1) |
| C10 | Total of C3, C5, C7 and C9 = | 16,563 SF If area of C10 is less than B7 then remainder of requirement must be met through tree planting - go to D |
| D. Tree Planting | | |
| D1 | Area of canopy to be met through tree planting (B7-C10) = | 6,500 |
| D2 | Area of canopy planted for air quality benefits = | |
| D3 | x 1.5 = | § 12-0510.4B(1) |
| D4 | Area of canopy planted for energy conservation = | |
| D5 | x 1.5 = | § 12-0510.4B(2) |
| D6 | Area of canopy planted for water quality benefits = | |
| D7 | x 1.25 = | § 12-0510.4B(3) |
| D8 | Area of canopy planted for wildlife benefits = | |
| D9 | x 1.5 = | § 12-0510.4B(4) |
| D10 | Area of canopy provided by native trees = | |
| D11 | x 1.5 = | § 12-0510.4B(5) |
| D12 | Area of canopy provided by improved cultivars and varieties = | |
| D13 | x 1.25 = | § 12-0510.4B(6) |
| D14 | Area of canopy provided through tree seedlings = | |
| D15 | x 1.0 = | § 12-0510.4D(1) |
| D16 | Area of canopy provided through native shrubs | |
| D17 | x 1.0 = | § 12-0510.4D(1) |
| D18 | Percentage of D14 represented by D15 = | Must not exceed 33% of D14 |
| D19 | Total of canopy area provided through tree planting = | 6,500 |
| D20 | Is an off-site planting relief requested? | NO Yes or No |
| D21 | Tree Bank or Tree Fund? | NO § 12-0512 |
| D22 | Canopy area requested to be provided through off-site banking or tree fund. | N/A |
| D23 | Amount to be deposited into the Tree Preservation and Planting Fund | N/A |
| E. Total of 10-year Tree Canopy Provided | | |
| E1 | Total of canopy area provided through tree preservation (C10) = | 16,563 SF |
| E2 | Total of canopy area provided through tree planting (D17) = | 6,500 SF |
| E3 | Total of canopy area provided through off-site mechanism (D19) = | |
| E4 | Total of 10-year Tree Canopy Provided = (E1+E2+E3) | 23,063 SF Total of E1 through E3. Area should meet or exceed area required by B7 |

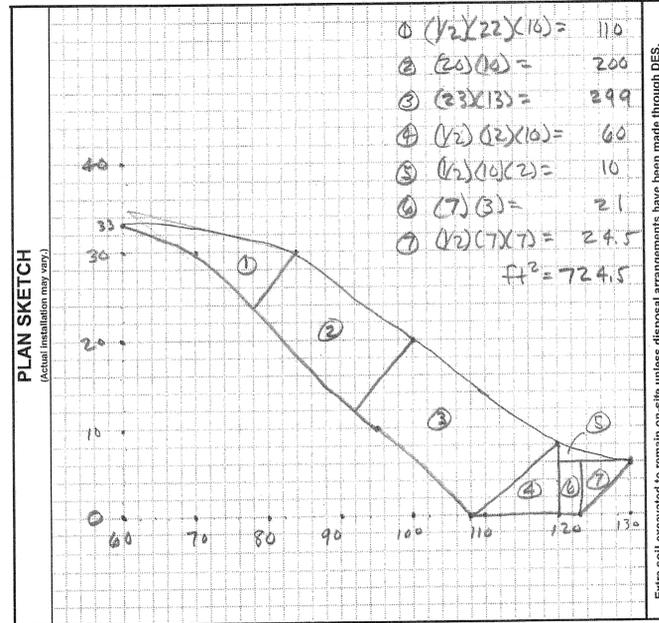


New Rip Rap Volume = $2' \times 3' \times 200' = 1200 \text{ ft}^3 = 45 \text{ yd}^3$
 New Structural Fill Volume = $2' \times 5' \times 200' = 2000 \text{ ft}^3 = 75 \text{ yd}^3$

SHORELINE REVETMENT DRAWING

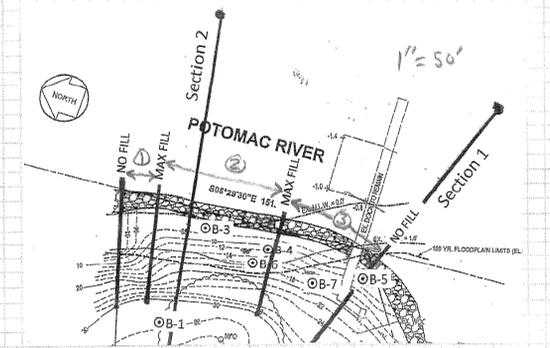
11727 RIVER DRIVE, LORTON, VA 22079

11727 River Drive – Fill Volume Analysis



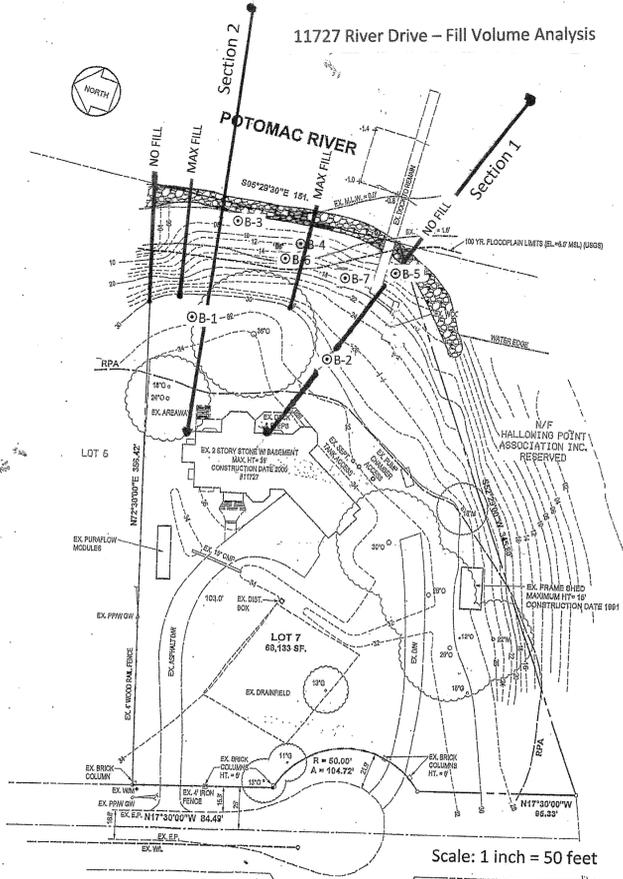
Drainage & Erosion SOLUTIONS LLC
 CONSULTING & CONTRACTING SERVICES
 2339 Archdale Road, Reston, VA 20191
 (703) 391-0040 (703) 991-0421 fax
 www.DrainageAndErosion.com
 info@DrainageAndErosion.com
 VA Class 'B' Lic. No.: 2705 092015
 MHIC Lic. No. 123227
 Fed. Tax ID No.: 57-1147748
 Date Prepared: _____
 Proposal Submitted To: _____ Phone/Fax: _____
 Street Address: _____ E-mail: _____
 City, State and Zip Code: _____ Location: _____

11727 River Drive – Fill Volume Analysis



$1 \quad (22')(724.5')(1/2) = 7969.5$
 $2 \quad (74')(724.5) = 53613$
 $3 \quad (58')(724.5')(1/2) = 21,010.5$
 $\text{Total} = 82,593 \text{ ft}^3 \div 27 = 3059 \text{ yd}^3$

Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



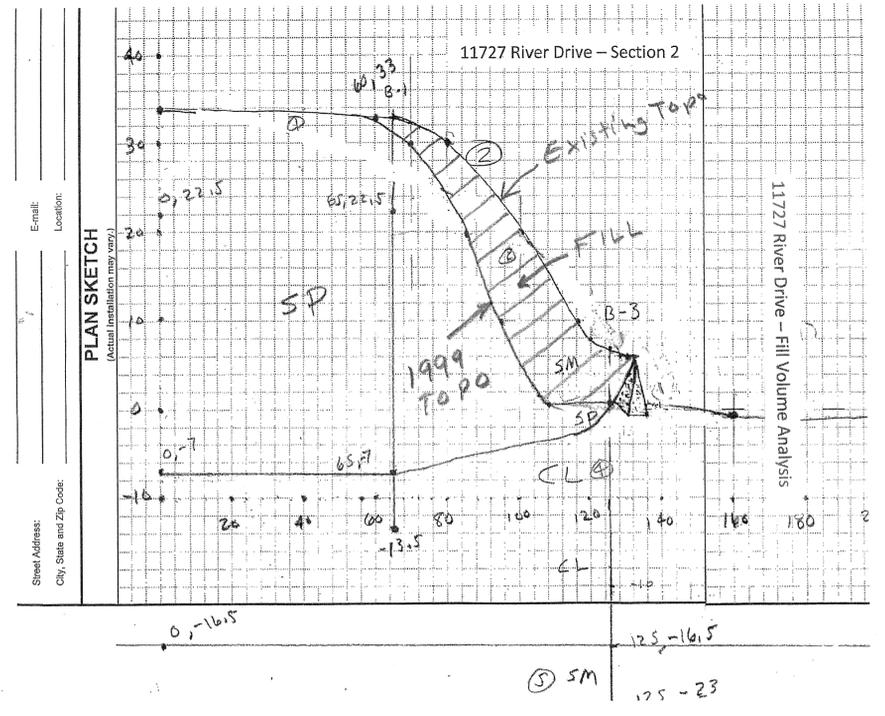
Scale: 1 inch = 50 feet

Drainage & Erosion SOLUTIONS LLC
 CONSULTING & CONTRACTING SERVICES
 2339 Archdale Road, Reston, VA 20191
 (703) 391-0040 (703) 991-0421 fax
 www.DrainageAndErosion.com
 info@DrainageAndErosion.com
 VA Class 'B' Lic. No.: 2705 092015
 MHIC Lic. No. 123227
 Fed. Tax ID No.: 57-1147748
 Date Prepared: _____
 Proposal Submitted To: _____ Phone/Fax: _____
 Street Address: _____ E-mail: _____
 City, State and Zip Code: _____ Location: 11727 River Drive

11727 River Drive – Fill Volume Analysis

Rip-Rap Volumes
 Campbell Property
 $(154' \text{ long}) \times (63 \text{ ft}^2) = 9702 \text{ ft}^2 \approx 360 \text{ yd}^3$
 H/A Property - tapers to 0 to south
 $(70' \text{ long}) \times (63 \text{ ft}^2) \times (1/2) = 2205 \text{ ft}^3 = 82 \text{ yd}^3$

Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



SCALE: N/A
 DATE: 12-31-2012
 DESIGNED: HAL
 DRAFTED: MB/NA
 REVISIONS: 12-13-13
 12-18-2013
 02-28-2014
HALLOWING POINT RIVER ESTATES LOT 7 SECTION ONE
 MOUNT VERNON DISTRICT FAIRFAX COUNTY, VIRGINIA
REVETMENT INFORMATION
HAROLD A. LOGAN ASSOCIATES P.C.
 LAND SURVEYING - SITE PLANNING - SUBDIVISION DESIGN
 9114 INDUSTRY DRIVE
 MANASSAS PARK, VA. 20111 (703) 330-1988 FAX 690-8132
SHEET 8 OF 8
RP 1820

REASON FOR ADDENDUM

The initial staff report for SE 2013-MV-011 was published on December 26, 2013. The applicants requested the approval of a Special Exception (SE) to allow the deposition of fill material in a floodplain to remain and to allow for additional fill to be placed in the floodplain. The applicants constructed a shoreline revetment on the subject property involving the placement of fill soils and 154 linear feet of rip rap adjacent to the Potomac River in an attempt to stabilize the shoreline and adjacent slope. An additional 70 linear feet of rip rap was also placed on the adjacent property. In total, the applicants have placed approximately 2,309 cubic yards of fill within the floodplain. The placement of fill soils and rip rap was completed without proper approval of a grading plan or valid Special Exception. In addition to the rip rap and fill that was already placed on the property, the applicants intend to add an additional 45 cubic yards of rip rap and 75 cubic yards of fill behind the rip rap for a total of 2,384 cubic yards of fill within the floodplain.

At the time of the initial staff report, the applicants intended to add safety walls, steps, a ground-level porous paver patio, walk, and a deck in areas located within the Resource Protection Area (RPA) but outside of the floodplain. The proposed features within the RPA would require approval of an RPA Encroachment Exception (WRPA) and Water Quality Impact Assessment (WQIA) by the Board of Supervisors.

Staff recommended denial of the Special Exception application in the initial staff report. Staff recognized that the approval of a Special Exception was a necessary step in clearing the existing violation on the property and adhering to the applicants' Agreed Final Order. However, staff concluded that the application did not satisfy all applicable Zoning Ordinance provisions, including the General Special Exception Standards and the Use Limitations for Uses in a Floodplain, because the applicants did not demonstrate to the satisfaction of the Department of Public Works and Environmental Services (DPWES) and the Geotechnical Review Board (GRB) that the slope would be stable. Staff noted that although the applicants could resolve this issue by providing for slope stabilization measures, the applicants were not proposing any such measures to address this comment.

The Planning Commission held a public hearing on this application at their meeting on January 9, 2014. The Planning Commission recommended denial of the Special Exception on a vote of eight in favor, none opposed, and four abstentions. The Planning Commission did not issue a recommendation on the WRPA or WQIA because that staff report was not yet available due to delays in the submission. Subsequent to the Planning Commission hearing, DPWES issued a staff report recommending denial of the WRPA and WQIA. DPWES staff found that the required findings listed in Sections 118-6-6 and 118-6-9 of the Chesapeake Bay Preservation Ordinance (CBPO) had not been satisfied with these applications. Staff believed the proposed improvements were not the minimum necessary to afford relief and that the disturbance into the 2003 RPA in the rear yard of a house that was built in 2005 would not be in harmony with the

purpose and intent of the Chesapeake Bay Preservation Ordinance (CBPO). Further, staff concluded that the request was based upon conditions or circumstances that were self-created. Subsequent to the Planning Commission public hearing and prior to the Board of Supervisors public hearing, the applicants revised the plans and geotechnical report to address the concerns raised by staff. The changes to the SE Plat, WRPA/WQIA, and Geotechnical Report section of this staff report addendum outlines the extent of the revisions made since the publication of the initial staff report.

A reduced copy of the revised SE Plat is included in the front of this report. The revised proposed development conditions, WRPA/WQIA report and proposed conditions, and affidavit are included in Appendix 1 – 3, respectively.

CHANGES TO THE SPECIAL EXCEPTION (SE) PLAT, WRPA/WQIA, AND GEOTECHNICAL REPORT

The applicants submitted a revised SE Plat dated February 28, 2014, a revised RPA Encroachment Application and associated Water Quality Impact Assessment dated February 26, 2014, and a revised Geotechnical Report dated March 3, 2014. The revised submissions include two significant changes. First, the applicants previously proposed to construct safety walls, wooden steps, a ground-level porous paver patio, walk, and a deck in areas located within the RPA. The applicants are now only proposing to construct the wooden steps within the RPA and have removed the other features from the plan. The applicants are still proposing to construct a detached garage with an extended driveway; however, this is located outside of the RPA and floodplain. Secondly, the applicants resubmitted a Geotechnical Report to address the slope stability issues raised in the initial staff report. Staff's analysis of the amended WRPA/WQIA and Geotechnical Report is summarized below.

ANALYSIS

RPA Encroachment Exception and Water Quality Impact Assessment (Appendix 2)

Subsequent to the Planning Commission hearing, DPWES issued a staff report recommending denial of the WRPA and WQIA. DPWES staff concluded that the required findings in the CBPO had not been satisfied with these applications, the proposed improvements were not the minimum necessary to afford relief, and the request was based on conditions or circumstances that were self-created. As described above, the applicants have since resubmitted the WRPA and WQIA to DPWES. The applicants removed the previously proposed walls, patio, walk, and deck and are now seeking approval of the rip rap revetment, fill, and wooden steps. In addition, the applicants revised the plans to demonstrate how they will satisfy the planting requirements outlined in the CBPO.

Staff from DPWES reviewed the revised plans and is now recommending approval of the WRPA and WQIA applications, subject to development conditions. The DPWES staff report and proposed development conditions are contained in Appendix 2 of this staff report addendum. As described in the staff report, DPWES staff finds that the wooden walk will not increase impervious area within the RPA and is not of substantial detriment to water quality. In addition, the application proposes to stabilize and reseed the disturbed area within and outside of the RPA and to establish 13,786 square feet of buffer area through the planting of trees, shrubs, and groundcover, which improves water quality. The proposed development conditions would require the applicants to preserve indigenous vegetation to the maximum extent possible, establish a vegetated buffer of at least 13,786 square feet in area in the disturbed areas within and outside of the RPA, and utilize adequate erosion and sediment control measures for the duration of the land disturbing activity in the RPA to ensure that the construction activity does not degrade water quality.

Geotechnical Analysis (Appendix 4)

Early in the review process, staff requested that the applicants submit a geotechnical report to DPWES to determine whether the slope that was created at the rear of the property was stable. The applicants submitted the geotechnical report to DPWES, which was forwarded to the GRB. As described in the initial staff report, DPWES issued a letter to the applicants stating that the submitted report was disapproved because the applicants were not meeting the minimum recommended Factor of Safety (FS) across the site. Factor of Safety can be described as the ratio of the forces stabilizing the slope over the forces that destabilize the slope, and is calculated by geometrically modeling the slope's soils, groundwater conditions, surface loads, and various other criteria and calculating the forces in a slope stability analysis. Due to the many variables and unknowns involved in a slope stability analysis, a Factor of Safety of at least 1.25 is recommended for long-term slope stability. The applicants' previously submitted geotechnical report showed that the area of the slope generally between the dock and the existing deck to the rear of the dwelling had a FS of 1.1, which was not considered sufficiently stable. According to DPWES, the standard of 1.25 has been enforced in the County since the 1990s by both the GRB and County reviewers. Although it is not currently contained within the PFM, it is considered sound engineering practice and a PFM Amendment is currently being considered to formalize this standard within the PFM. This issue remained outstanding in the initial staff report and resulted in staff recommending denial of the SE application. Staff determined that the applicants must either demonstrate that the slope is currently stable to the satisfaction of DPWES and the GRB or perform measures to stabilize the slope.

Subsequent to the publication of the initial staff report and the Planning Commission public hearing, the applicants submitted a revised geotechnical report to DPWES. The resubmitted report states that a 1.26 Factor of Safety will be achieved by driving a series of Slope Reinforcement Technology (SRTTM) plate piles to depths beyond the failure plane established by the global stability analysis, which would exceed the 1.25

Factor of Safety recommended by DPWES and the GRB. This method of slope stabilization involves driving vertical rigid steel reinforcements into the slope at certain uniformly spaced intervals to stabilize and reinforce the slope. The applicant's revised geotechnical report was reviewed by DPWES and the GRB. As stated in the letter contained in Appendix 4 of this addendum, DPWES finds that the revised geotechnical report is acceptable. As a result, the applicants have resolved the slope stability issue that was discussed in the initial staff report. The letter from DPWES notes that the final grading plan will be required to show the approximate horizontal extents of the proposed SRT piles and additional rip-rap being recommended along portions of the slope for slope stabilization. In addition, a note requiring a building permit for the SRT piles should be placed on that plan and the final structural design of the SRT piles will be reviewed during the building permit application.

Use Limitations for Uses in a Floodplain (Sect. 2-905) and General Special Exception Standards (Sect. 9-006)

Staff concluded in the initial staff report that the application did not satisfy all of the General Special Exception Standards and the Use Limitations for Uses in a Floodplain because the applicants did not demonstrate to the satisfaction of the DPWES and the GRB that the slope would be stable. Specifically, staff found that as a result of not achieving a stable slope the application did not satisfy Standard 7 of Sect. 2-905 or General Special Exception Standards 1 and 3. Standard 7 of Sect. 2-905 states that the applicants must demonstrate that there are no other feasible options available to achieve the proposed use, the proposal is the least disruptive option to the floodplain, and the proposal meets the environmental goals and objectives of the adopted Comprehensive Plan for the subject property. Standards 1 and 3 of the General Special Exception Standards state that the proposed use shall be in harmony with the adopted Comprehensive Plan and be harmonious with and not adversely affect the use or development of neighboring properties in accordance with the applicable Zoning District regulations and the adopted Comprehensive Plan. Because the applicants have now demonstrated that a stable slope will be achieved, staff believes that the application now satisfies these standards.

SUMMARY OF CHANGES TO THE PROPOSED DEVELOPMENT CONDITIONS

As a result of the revised submissions, staff modified the proposed development conditions from the initial staff report. Staff removed the reference to the deck and patio in development condition 3 because the applicants are no longer proposing these features. Staff also revised previous development condition 5, which required the submission of the WRPA/WQIA, because the applicants have submitted the WRPA/WQIA to be heard by the Board of Supervisors concurrently with the SE application. Because the applicants resubmitted an acceptable Soils Report subsequent to the publication of the initial conditions, staff revised condition 6 to state that the applicants shall incorporate engineering practices to address slope stabilization issues as recommend by the GRB and DPWES prior to grading plan approval. The condition

further states that the applicants shall achieve a Factor of Safety of no less than 1.25 for the entire area of the slope, as determined by DPWES in consultation with the GRB. This will ensure that the applicants still achieve this Factor of Safety in the event that the applicants modify an element of their slope stability measures to the extent that the approval of a new Soils Report is required. Finally, staff deleted previous development condition 13. This condition required the applicants to construct the previously proposed wall using construction techniques that would provide the least amount of disturbance to the root zone of a nearby tree. This condition is no longer applicable because the applicants are no longer proposing to construct the safety walls.

In addition to modifying and deleting some of the conditions contained in the initial staff report, staff also added two additional development conditions. First, proposed condition 15 states that the limits of clearing and grading shall be strictly observed and enforced and that all existing vegetation shown as to be preserved on the SE Plat shall be preserved. The condition further states that any disturbance of the RPA not shown on the approved SE Plat will be considered a violation of the CBPO. In addition, staff added a development condition to ensure that if the application is approved, future purchasers of the property are aware of the Special Exception that has been approved on the property.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

Staff recommended denial of the Special Exception in the initial staff report. In the initial report, staff concluded that the application did not satisfy all applicable Zoning Ordinance provisions because the applicants did not demonstrate to the satisfaction of DPWES and the GRB that the slope would be stable. Staff from DPWES also recommended denial of the associated WRPA and WQIA applications in the initial report for these applications because staff concluded that the required findings in the CBPO had not been satisfied. Since the publication of the initial staff report, the applicants have revised the plans and are no longer proposing to construct the walls, patio, walk, and deck in the RPA. As a result of these changes, staff finds that the WRPA and WQIA applications now meet the required findings in the CBPO. In addition, the applicants have provided a revised Soils Report that demonstrates that the applicants will provide for a stable slope that meets the Factor of Safety recommended by DPWES and the GRB. Therefore, staff finds that the applicants have resolved the slope stability issue that resulted in staff's recommendation of denial in the initial staff report. Staff now finds that the application satisfies the applicable Zoning Ordinance Provisions and is in harmony with the land use recommendations of the Comprehensive Plan.

Staff Recommendations

Staff recommends approval of SE 2013-MV-011, subject to the proposed development conditions contained in Appendix 1.

Staff recommends approval of Resource Protection Area Encroachment Exception #5203 WRPA-010-2 and Water Quality Impact Assessment #5203-WQ-019-2, subject to the proposed development conditions contained in Appendix 2.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

APPENDICES

1. Proposed Development Conditions
2. Staff Report for #5203-WRPA-010-2 and #5203-WQ-019-2
3. Revised Affidavit
4. Geotechnical Analysis

PROPOSED DEVELOPMENT CONDITIONS**SE 2013-MV-011****April 16, 2014**

If it is the intent of the Board of Supervisors to approve SE 2013-MV-011, located at 11727 River Drive, Tax Map 122-2 ((2)) 7, for uses in a floodplain pursuant to Sect. 2-904 and 9-606 of the Fairfax County Zoning Ordinance, staff recommends that the Board condition the approval by requiring conformance with the following development conditions:

1. This Special Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception is granted only for the purpose(s), structure(s) and/or use(s) indicated on the Special Exception Plat approved with the application, as qualified by these development conditions. Notwithstanding the structures and uses indicated on the Special Exception Plat, the applicants may disturb land, demolish existing structures, and/or construct improvements outside of the 100-year floodplain and Resource Protection Area (RPA) without submitting a Special Exception (SE) application as long as the applicants comply with all applicable local, state and federal ordinances. However, the applicants may not allow any new structures or impervious areas to extend into the RPA without submitting and obtaining the approval of a Special Exception Amendment and an RPA Exception.
3. This Special Exception is subject to the provisions of Article 17, Site Plans as may be determined by the Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this Special Exception shall be in substantial conformance with the approved Special Exception Plat entitled "Special Exception Plan Hallowing Point River Estates Lot 7 – Section One" prepared by Harold A. Logan Associates P.C., which is dated December 31, 2012, as revised through February 28, 2014, and these conditions. Minor modifications to the approved Special Exception Amendment may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
4. Prior to the approval of a grading plan, site plan, or minor site plan, a Hold Harmless agreement shall be executed with Fairfax County for any adverse effects resulting from the location of the site within a floodplain area.
5. Notwithstanding the landscaping shown on the Special Exception Plat, the location and species of the proposed plantings shall be subject to the review and approval of the Urban Forest Management Division (UFMD). Landscaping in the RPA shall be installed within 90 days of the SE approval unless the

UFMD determines a later planting date is necessary to ensure the health of the landscaping.

6. The applicants shall incorporate appropriate engineering practices to address slope stabilization issues as recommended by the Geotechnical Review Board (GRB) and DPWES. The applicants shall achieve a factor of safety of not less than 1.25 for the entire area of the slope, as determined by DPWES in consultation with the GRB.
7. Within 60 days of approval of the SE, the applicants shall submit a grading plan to DPWES. The applicants shall obtain grading plan approval within 180 days of approval of the SE.
8. Within 60 days of approval of the SE, the applicants shall obtain all required permits for the existing dock.
9. Prior to grading plan, site plan, or minor site plan approval, the applicants shall demonstrate to UFMD that all landscaping shall be planted within a sufficiently stable slope. The applicants shall incorporate stabilization measures to support the long-term maturity of any new landscaping, subject to the review and approval of UFMD.
10. The applicants must demonstrate to DPWES that all necessary federal, state, and county approvals have been obtained prior to any additional land disturbing activity.
11. Prior to grading plan approval, the applicants shall delineate the limits of the 100-year floodplain and record a floodplain easement, subject to review and approval by DPWES.
12. Concurrent with the first submission of any grading plan, site plan, or minor site plan, the applicants shall submit an additional copy of the plan to the Fairfax County FEMA Floodplain Administrator (Stormwater Planning Division) to determine whether the base flood elevation or limits of the floodplain in any Special Flood Hazard Area (SFHA) depicted on the County's Flood Insurance Rate Map (FIRM) would be altered as a result of any new construction, substantial improvements, or other development shown on the plan, including fill. If the County FEMA Floodplain Administrator determines that the base flood elevation or limits of the floodplain would be altered, the applicants shall submit technical or scientific data to FEMA for a Letter of Map Revision. If the projected increase in the base flood elevation is greater than one foot, the applicants shall also obtain approval of a Conditional Letter of Map Revision from the Federal Insurance Administrator prior to the approval of any construction. If the applicants are required to submit either a Letter of Map Revision and/or Conditional Letter of Map Revision as outlined above, the applicants shall submit a copy of the approval letter from FEMA to the Department of Planning and Zoning (DPZ).

13. The final location of the detached garage shall be subject to review and approval by the Fairfax County Health Department at the time of grading plan review.
14. Within 60 days of approval of the Special Exception the applicants shall provide all necessary information to DPWES in order to determine if the disturbance to the adjacent Hallowing Point Association property (HOA property) requires the approval of a WRPA, WQIA, SE, grading plan or other plans or permits. If it is determined that additional permits are needed for the grading on the HOA property, then the applicants shall work with the HOA to submit the proper applications within 90 days of such determination.
15. The limits of clearing and grading shown on the Plat shall be strictly observed and enforced and all existing vegetation shown as to be preserved on the SE Plat shall be preserved. Any encroachment into, and/or disturbance of, the RPA not shown on the approved Plat will be considered a violation of the Chesapeake Bay Preservation Ordinance (CBPO) and is subject to the penalties of the CBPO Article 9.
16. Within 30 days of the Special Exception's approval, the applicant shall submit an agreement or suitable documents to the County Attorney's office for review and approval. The agreement or suitable documents shall be recorded prior to grading plan approval. The agreement shall notify future owners of Tax Map 122-2 ((2)) 7 that the land is subject to an approved Special Exception (SE 2013-MV-011).

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by that Board.

This approval, contingent on the above noted conditions, shall not relieve the applicants from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicants shall be themselves responsible for obtaining the required Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this special exception shall automatically expire, without notice, twelve (12) months after the date of approval unless, at a minimum, the use has been established or construction has commenced and been diligently prosecuted as evidenced by the issuance of an approval for a grading plan, site plan, or minor site plan concurrent with a water quality impact assessment. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special exception. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.



County of Fairfax, Virginia

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

March 5, 2014

DEPARTMENT OF PUBLIC WORKS & ENVIRONMENTAL SERVICES

SITE REVIEW AND INSPECTION DIVISION

STAFF REPORT

RESOURCE PROTECTION AREA ENCROACHMENT EXCEPTION #5203-WRPA-010-2 & WATER QUALITY IMPACT ASSESSMENT #5203-WQ-019-2

In conjunction with Rezoning Application # SE 2013-MV-011

APPLICANTS: Kimberly B. & Kelly P. Campbell

ZONING: R-E: Residential Estate District
(0.5 Dwellings Units/Acre)

PARCEL: 122-2 ((2)) 7

LOCATION: 11727 River Drive

SITE ACREAGE: 1.56 acres

PLAN MAP: Residential, 0.1 – 0.2 dwelling units/acre (du/ac)

PROPOSAL: Exception to allow encroachment into the 1993 RPA for installation of a rip-rap bulkhead along a deteriorating shoreline located on the Potomac River within established RPA as indicated on the plan as well as underground geotechnical stabilization and wooden walks.



Mark D. Crain
ENCROACHMENT EXCEPTION #5203-WRPA-010-2 &
WATER QUALITY IMPACT ASSESSMENT #5203-WQ-019-2

**SITE AREA OF PROPOSED
DEVELOPMENT:**

1.56 acres

**ENCROACHMENT AREA
REQUESTED:**

0.31 acres

PUBLIC HEARING:

General RPA Encroachment Requests under CBPO Section 118-6-9 associated with a Rezoning Application (RZ) require approval by the Board of Supervisors through a public hearing held conjunction with the public hearing for the RZ per procedures of CBPO Section 118-6-3(d).

DESCRIPTION:

The applicant proposes installation of a rip-rap bulkhead along a deteriorating shoreline located on the Potomac River within established RPA as indicated on the plan as well as underground geotechnical stabilization and wooden walks..

BACKGROUND:

The property is located in Hallowing Point River Estates Lot 7 section 1. The property address is 11727 River Drive Lorton VA, 22079. The lot has an existing single family house that was built in 2005. Please be noted that the house was built in 2005 after the establishment of 2003 RPA.

DOCUMENTS AND

In addition to Rezoning Application # SE 2013-MV-011, following information is part of this application:

CORRESPONDENCE:

1. RPA Encroachment Exception Application and RPA Encroachment Exception Justification Statement dated February 26, 2014.
2. Water Quality Impact Assessment signed dated February 26, 2014.

Mark D. Crain
ENCROACHMENT EXCEPTION #5203-WRPA-010-2 &
WATER QUALITY IMPACT ASSESSMENT #5203-WQ-019-2

The grade between the house and the dock is very steep approx. 60% and wooden walk will increase safety to the pedestrians.

- e) Reasonable and appropriate conditions are imposed, as warranted, that will prevent the allowed activity from causing a degradation of water quality.*

The proposed Development Conditions are included in Attachment A that will prevent the allowed activity from causing a degradation of water quality.

- f) General RPA Encroachment Exception requests pursuant to CBPO 118-6-9 are subject to the additional finding that the water quality benefits resulting from the proposed facility or improvement exceed the associated water quality detriments.*

The application proposes to stabilize, and reseed the disturbed area within and outside of the RPA. Furthermore, the applicant intends to establish 13,786 square feet of buffer area by planting 7 overstory trees, 16 under story trees, and 348 shrubs and groundcovers, which improves water quality

STAFF RECOMMENDATION: Staff recommends approval of RPA Exception (#5203-WRPA-010-2) and Water Quality Impact Assessment (#5203-WQ-019-2). If it is the intent of the Board of Supervisors to approve RPA Exception (#5203-WRPA-010-2) and Water Quality Impact Assessment (#5203-WQ-019-2), staff recommends that the approval be subject to the Development Conditions contained in that the approval be subject to the Development Conditions listed in Appendix A dated 3/5/2014.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions, relieve the applicant from compliance with the provisions of any other applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of the staff; it does not reflect the position of the Board of Supervisors. For further information, contact the Site Development and Inspections Division, Office of Land Development

Mark D. Crain
ENCROACHMENT EXCEPTION #5203-WRPA-010-2 &
WATER QUALITY IMPACT ASSESSMENT #5203-WQ-019-2

Services, Department of Public Works and Environmental
Services, 12055 Govern-ment Center Parkway, Suite 535,
Fairfax, Virginia 22035-5505, 703-324-1720.

03/05/2014

PROPOSED DEVELOPMENT CONDITIONS

RPA Exception (#5203-WRPA-010-2) and Water Quality Impact Assessment (#5203-WQ-019-2).

If it is the intent of the Board of Supervisors to approve RPA Exception (#5203-WRPA-010-2) and Water Quality Impact Assessment (#5203-WQ-019-2) for the property located at Tax Map 122-2 ((2)) 7 to allow encroachment in the RPA pursuant to Section 118-6-9 of the Fairfax County Chesapeake Bay Preservation Ordinance (CBPO), staff recommends the following development conditions:

1. This RPA Encroachment Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This RPA Encroachment Exception is granted only for the purposes, structures or uses indicated on the plat approved with the application, as qualified by these development conditions.
3. Any plan submitted pursuant to this RPA Exception shall be in substantial conformance with the Hallowing point River Estates lot 7 Section 1 prepared by Harold A. Logan Associates P.C. dated 02/28/2014.
4. In order that the land disturbed within the RPA can be considered to be the minimum necessary to afford relief for the proposed construction, indigenous vegetation shall be preserved to the maximum extent possible, the limits of clearing and grading must be clearly shown on any development plan, and adequate access and areas for stockpiles must be included. Any development plan will be subject to approval by the Department of Public Works and Environmental Services (DPWES). The limits of clearing and grading must be strictly observed and enforced. Any encroachment into, and/or disturbance of, the RPA not shown on the approved plan will be considered a violation of the CBPO and is subject to the penalties of CBPO Article 9.
5. In order that the project is in harmony with the purpose and intent of the CBPO, does not have a substantial detriment to water quality, and meets the additional performance criteria for RPAs, vegetated buffer area(s) shall be established in the disturbed areas

within and outside of the RPA on the property and shall be of a total area of at least 13,786 square feet (0.32 acre). The size, species, density and locations shall be consistent with the planting requirements of CBPO Section 118-3-3(f), or a vegetation plan that is equally effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff, as determined by the Department of Public Works and Environmental Services (DPWES). The vegetation shall be randomly placed to achieve a relatively even spacing throughout the buffer. Notwithstanding any statements on the Plat and in the Water Quality Impact Assessment (WQIA), the size, species, density, and locations of the trees, shrubs, and groundcover will be subject to approval of the Director of the DPWES. In the absence of sufficient area required for the vegetative buffer within the RPA, the applicant may choose to place some buffer outside the RPA.

6. In order that the proposed construction activity does not degrade water quality, adequate erosion and sediment control measures, including, but not limited to, a super-silt fence shall be employed during construction within the RPA, and shall remain in place, and be properly maintained, for the duration of the land disturbing activity within the RPA until such time that the disturbed area is completely stabilized.

This approval, contingent on the above noted conditions, does not relieve the applicant from compliance with the provisions of any applicable Federal, State, or County ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the approval of any required plans and permits through established procedures, and this RPA Exception shall not be valid until this has been accomplished.

SPECIAL EXCEPTION AFFIDAVIT

DATE: 1/27/2014
(enter date affidavit is notarized)

I, Mark D. Crain, do hereby state that I am an
(enter name of applicant or authorized agent)

121736 a

(check one) applicant
 applicant's authorized agent listed in Par. 1(a) below

in Application No.(s): SE 2013-MV-011
(enter County-assigned application number(s), e.g. SE 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,* and, if any of the foregoing is a **TRUSTEE**,** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(NOTE: All relationships to the application listed above in **BOLD** print are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

| NAME (enter first name, middle initial, and last name) | ADDRESS (enter number, street, city, state, and zip code) | RELATIONSHIP(S) (enter applicable relationships listed in BOLD above) |
|---|--|---|
| Kimberly B. Campbell Kelly P. Campbell | 11727 River Drive Lorton, VA 22079 11727 River Drive Lorton, VA 22079 | Applicant/Title Owner Applicant/Title Owner |
| Harold A. Logan Associates, PC | 9114 Industry Drive Manassas Park, VA 20111 | Agent and Attorney-in-Fact for Kimberly B. and Kelly P. Campbell |
| Harold A. Logan | 9114 Industry Drive Manassas Park, VA 20111 | Agent and Attorney-in-Fact for Kimberly B. and Kelly P. Campbell |
| Mark D. Crain | 9114 Industry Drive Manassas Park, VA 20111 | Agent and Attorney-in-Fact for Kimberly B. and Kelly P. Campbell |
| Compton & Duling, LC | 12701 Marblestone Drive #350 Prince William, VA 22192 | Agent and Attorney-in-Fact for Kimberly B. and Kelly P. Campbell |
| Jason E. Hickman, Esq. | 12701 Marblestone Drive #350 Prince William, VA 22192 | Agent and Attorney-in-Fact for Kimberly B. and Kelly P. Campbell |
| MJCI, Inc. Mark J. Cross | 10381 Main Street, 3rd Floor, Fairfax, VA 22030 10381 Main Street, 3rd Floor, Fairfax, VA 22030 | Agent Agent |
| Soil & Structure Consulting, Inc. Kenneth G. Fraine | 1889 Preston White Drive #104 Reston, VA 20191 1889 Preston White Drive #104 Reston, VA 20191 | Agent Agent |

(check if applicable) There are more relationships to be listed and Par. 1(a) is continued on a "Special Exception Attachment to Par. 1(a)" form.

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

** List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

• Added since the printing of the 12/26/13 Staff Report.

SPECIAL EXCEPTION AFFIDAVIT

121736a

DATE: 1/27/2014
(enter date affidavit is notarized)

for Application No. (s): SE 2013-MV-011
(enter County-assigned application number(s))

1(b). The following constitutes a listing*** of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(NOTE: Include **SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS** herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code) Harold A. Logan Associates, PC 9114 Industry Drive Manassas Park, VA 20111

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)

Harold A. Logan

(check if applicable) There is more corporation information and Par. 1(b) is continued on a "Special Exception Affidavit Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Special Exception Attachment to Par. 1(b)

DATE: 1/27/2014

121736a

(enter date affidavit is notarized)

for Application No. (s): SE 2013-MV-011

(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Compton & Duling, LC 12701 Marblestone Drive #350 Prince William, VA 22192

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Jason E. Hickman
Geary H. Rogers
Thomas D. Duling
Maryse C. Allen

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

MJCI, Inc. 10381 Main Street, 3rd Floor, Fairfax, VA 22030

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Mark J. Cross
Kimberly F. Cross

(check if applicable)



There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

Special Exception Attachment to Par. 1(b)

121736a

DATE: 1/27/2014

(enter date affidavit is notarized)

for Application No. (s): SE 2013-MV-011

(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Soil & Structure, Inc. 1889 Preston White Drive #104 Reston, VA 20191

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Kenneth G. Fraine
Amol Fulumbarkar

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

• Added since the printing of the 12/26/13 Staff Report.

SPECIAL EXCEPTION AFFIDAVIT

DATE: 1/27/2014
(enter date affidavit is notarized)

121736 a

for Application No. (s): SE 2013-MV-011
(enter County-assigned application number(s))

1(c). The following constitutes a listing*** of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, and number, street, city, state, and zip code)

(check if applicable) [] The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

(check if applicable) [] There is more partnership information and Par. 1(c) is continued on a "Special Exception Affidavit Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

SPECIAL EXCEPTION AFFIDAVIT

DATE: 1/27/2014
(enter date affidavit is notarized)

121736a

for Application No. (s): SE 2013-MV-011
(enter County-assigned application number(s))

1(d). One of the following boxes **must** be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable) There are more interests to be listed and Par. 2 is continued on a "Special Exception Attachment to Par. 2" form.

SPECIAL EXCEPTION AFFIDAVIT

121736a

DATE: 1/27/2014
(enter date affidavit is notarized)

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on line below.)

NONE

NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) There are more disclosures to be listed and Par. 3 is continued on a "Special Exception Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

(check one) Mark D. Crain Applicant Applicant's Authorized Agent

Mark D. Crain (Agent and Attorney-in-Fact
(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 27th day of January 20 14, in the State/Comm. of Virginia, County/City of Manassas.

Andrea P. Madden
Notary Public

My commission expires: 9-30-2016





County of Fairfax, Virginia

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

APR 01 2014

Kenneth Fraine, P.E.
Soil & Structure Consulting, Inc.
1889 Preston White Drive, Suite 104
Reston, Virginia 20191

Reference: Geotechnical Report for Hallowing Point River Estates Lot 7 (aka 11727 River Drive), Project #5203-SR-009-6, Tax Map #112-2 ((2)) 0007, Mount Vernon District, Type: Residential

Dear Mr. Fraine:

The supplementary report dated March 3, 2014 and the previous geotechnical report dated October 4, 2013 and response dated November 15, 2013, all prepared on behalf of Kelly & Kimberly Campbell with your previous Project Number 101.000-13, have been reviewed. The report was re-submitted to satisfy development condition #8 of Special Exception Application number SE 2004-MV-038 and to partially support the site construction plan prepared by Harold A. Logan Associates, P.C. (submission number 5203-INF-006-3). The supplemented report is determined to be generally acceptable as-noted below:

1. The final grading plan shall show the approximate horizontal extents of the SRT piles and additional rip-rap being recommended along portions of the slope and shoreline being recommended for slope-stabilization. In addition, a note requiring building permit for the SRT piles should be placed on the plan. The final structural design of the SRT piles (including final depth, plate size, spacing, lateral pile capacity, etc.) will be reviewed during the building permit application.

The recommendations and details of the approved report shall be shown as requirements on the final construction plan/s (Fairfax County Public Facilities Manual [PFM], Section 4-0401). Per the PFM, the geotechnical engineer shall review the final (revised) construction (site) plan/s, and state his opinion as to whether or not the plan/s have been prepared in accordance with the approved recommendations of the approved report and revision/s.

The following requirements of Section 4-0502 of the PFM and Section 107-1-6 of The Code of the County of Fairfax, Virginia, shall be shown as a note on the approved plans:

1. All construction involving problem soil must be performed under the full-time inspection of the geotechnical engineer.

Department of Public Works and Environmental Services
Land Development Services
12055 Government Center Parkway, Suite 444
Fairfax, Virginia 22035-5503
Phone 703-324-1780 • TTY 703-324-1877 • FAX 703-324-1847



Kenneth Fraine, P.E.
Project #5203-SR-009-6
Page 2 of 2

2. The geotechnical engineer shall furnish a written opinion to the County as to whether or not work has been performed in accordance with the approved plans prior to the issuance of any occupancy or use permit.
3. Review and approval of plans, specifications and reports by the County, with or without recommendations by the Geotechnical Review Board, shall in no way relieve the developer of the responsibility for the design, construction and performance of the structures, pavement and slopes on the project and damage to surrounding properties.

If you have any questions, please contact me at 703-324-1720 or at email
Umakanthan.Sivapalarasah@fairfaxcounty.gov.

Sincerely,



Umakanthan Sivapalarasah, P.E.
Chief Geotechnical Engineer
Site Development and Inspections Division (SDID)
Herrity Building, Suite 535

Attachments: Review comments from GRB Member 1
Review comments from GRB Member 2
Review comments from GRB Member 3

cc: Mark Crain, L.S., Harold A. Logan Associates, P.C.
Kelly & Kim Campbell
Bijan Sistani, P.E., Chief, South Branch, SDID, LDS, DPWES
Geotechnical File

GRB Member #1

March 10, 2014

Mr. Kanthan Siva, PE
Chief Geotechnical Engineer
Department of Public Works and Environmental Services
Land Development Services, Site Development and Inspection Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503

Reference: **HALLOWING POINT RIVER ESTATES Sec 1 Lot 7
(Campbell Residence)
COUNTY SUBMISSION NO. 5203-SR-009-6**

Dear Mr. Siva:

I have received the geotechnical letter report titled "*Slope Stability Analysis and Design of Section 1 Slope, 11727 River Drive, Alexandria, Virginia*", dated March 3, 2014, prepared by Soil & Structure Consulting and a grading plan, dated February 28, 2014, prepared by Harold A. Logan. As a result of my review, I agree with use of SRT piles or plate pile to enhance the global stability of the slope up to an acceptable factor of safety of 1.25. I recommend approving this report after the following comments are adequately addressed:

- 1- The lateral capacity of an SRT pile, 13 feet long, spaced at a 4'x4' grid, which is used in the stability analysis, was assigned a value of 2,250 lbs/pile. Was the SRT lateral capacity based on an Lpile analysis? If so the Lpile output should be submitted to the County.
- 2- It should be noted that SRT piles in the first three rows are embedded in different soil layers (Soils 1 and 2) while the rest of the pile are embedded in Soil 1 only. Accordingly, they should have different lateral capacities.

GRB Member #2

March 25, 2014

County of Fairfax
Dept of Public Works & Environmental Services
Land Development Services
Attn: Mr. Kanthan Siva, P.E.
12055 Government Center Parkway, Suite No. 444
Fairfax, Virginia 22035-5503

Re: Hallowing Point River Estates Sec 1 Lot 7
5203-SR-009-6
Lorton, Virginia

Dear Mr. Siva:

In accordance with your request, I read the Soil & Structure Consulting, Inc. (SSC) letter report dated March 3, 2014, which provides an alternate stabilization plan for the "undisturbed" section of the slope. The consultant has proposed to use SRT piles, and has provided stability analyses indicating that a satisfactory factor of safety (greater than 1.25) is achievable with this system.

I have no objection to the revised plan as proposed by SSC, and recommend approval of the amended report. If you have any questions regarding the above, please call.

GRB Member #3

March 15, 2014

Mr. Kanthan Siva, P.E.
Chief Geotechnical Engineer
Environmental and Facilities Review Division
Office of Site Development Services
Department of Public Works and Environmental Management
Fairfax County, VA

Reference: Geotech. Report for: Hallowing Point River estates (aka
Campbell Residence)
Project # 5203-SR-009-6

Dear Siva:

In accordance with your memorandum dated March 5, 2014, I have reviewed the referenced geotechnical engineering report and civil drawing. Specifically, I have reviewed the following documents:

- 1.) *Slope Stability Analysis and Design of "Section 1" Slope, 11727 River Drive, Alexandria, VA*, prepared by Soil & Structure Consulting, dated October 4, 2013
- 2.) Harold Logan Associates Civil Drawing, Special Exception Plan, dated February 28, 2014.
- 3.) Fairfax County memo dated March 5, 2014.

The special exception plans do not include the slope stabilization measures recommended in the letter report by Soil & Structure Consulting. The drawings should be updated to reflect Soil & Structure Consulting's recommendation prior to issuing a permit.

If you have any questions concerning the above information please do not hesitate to contact me.