

VICINITY MAP  
SCALE: 1"=500'

**SITE TABULATION:**

EXISTING ZONE:	R-2
PROPOSED ZONE:	PDH-2
GROSS SITE AREA (G.S.A.):	2.5930 AC. OR 112,949 S.F.
ALLOWABLE DENSITY:	2 DU/AC.
PROPOSED DENSITY:	1.93 DU/AC.
PROPOSED NUMBER OF UNITS:	5 SINGLE FAMILY DETACHED**
MINIMUM LOT SIZE:	NO REQUIREMENT
MINIMUM LOT SIZE PROVIDED:	5,230 S.F.
AVERAGE LOT SIZE:	9,054 S.F.
MAXIMUM BUILDING HEIGHT:	35 FT. (FROM THE R-2 ZONE)
YARD SETBACKS:	SEE THE TYP. UNIT PLAN
REQUIRED OPEN SPACE:	0.52 AC. (20%)
PROPOSED OPEN SPACE:	1.37 AC. (53%)
RECREATIONAL OPEN SPACE:	1.27 AC.
PARKING REQUIRED:	10 SPACES
PARKING PROVIDED:	20 SPACES (2 PER GARAGE & 2 PER DRIVEWAY X 5 LOTS)

\*APPLICANT SHALL USE BEST EFFORTS TO SAVE TREE. THE TREE PRESERVATION PLAN PER THE PROFFERS WILL SET FORTH METHODS TO BE FOLLOWED DURING CONSTRUCTION.

\*\*INCLUDES ONE EXISTING HOUSE

LOT SIZE TABLE	
LOT NO.	LOT AREA
1	5,500 S.F.±
2	5,680 S.F.±
3	8,196 S.F.±
4	18,333 S.F.±
5	7,563 S.F.±

**SHEET INDEX**

- 1) CONCEPTUAL/FINAL DEVELOPMENT PLAN
- 2) LANDSCAPE PLAN
- 3) GENERAL NOTES AND DETAILS
- 4) EXISTING VEGETATION MAP
- 5) BMP COMPUTATIONS
- 6) STORMWATER MANAGEMENT
- 7) STORMWATER MANAGEMENT
- 8) ARCHITECTURAL ELEVATIONS LOTS 1 & 2
- 9) ARCHITECTURAL ELEVATIONS LOTS 3 & 5



**TRI-TEK ENGINEERING**

CIVIL  
ENVIRONMENTAL  
LAND PLANNING  
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**LOT 1 - SECTION 2  
HIDEAWAY PARK**

FAIRFAX COUNTY, VIRGINIA  
PROVIDENCE DISTRICT  
DB. 3850 PG. 396

**CONCEPTUAL/FINAL  
DEVELOPMENT PLAN**

DATE	REVISION
1/30/07	PER COUNTY COMMENTS.
3/7/07	PER COUNTY COMMENTS.
5/15/07	PER COUNTY COMMENTS.



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PROVIDENCE DISTRICT  
FAIRFAX COUNTY, VIRGINIA  
DB. 3850 PG. 396

# LOT 1 - SECTION 2 HIDEAWAY PARK

# LANDSCAPE PLAN

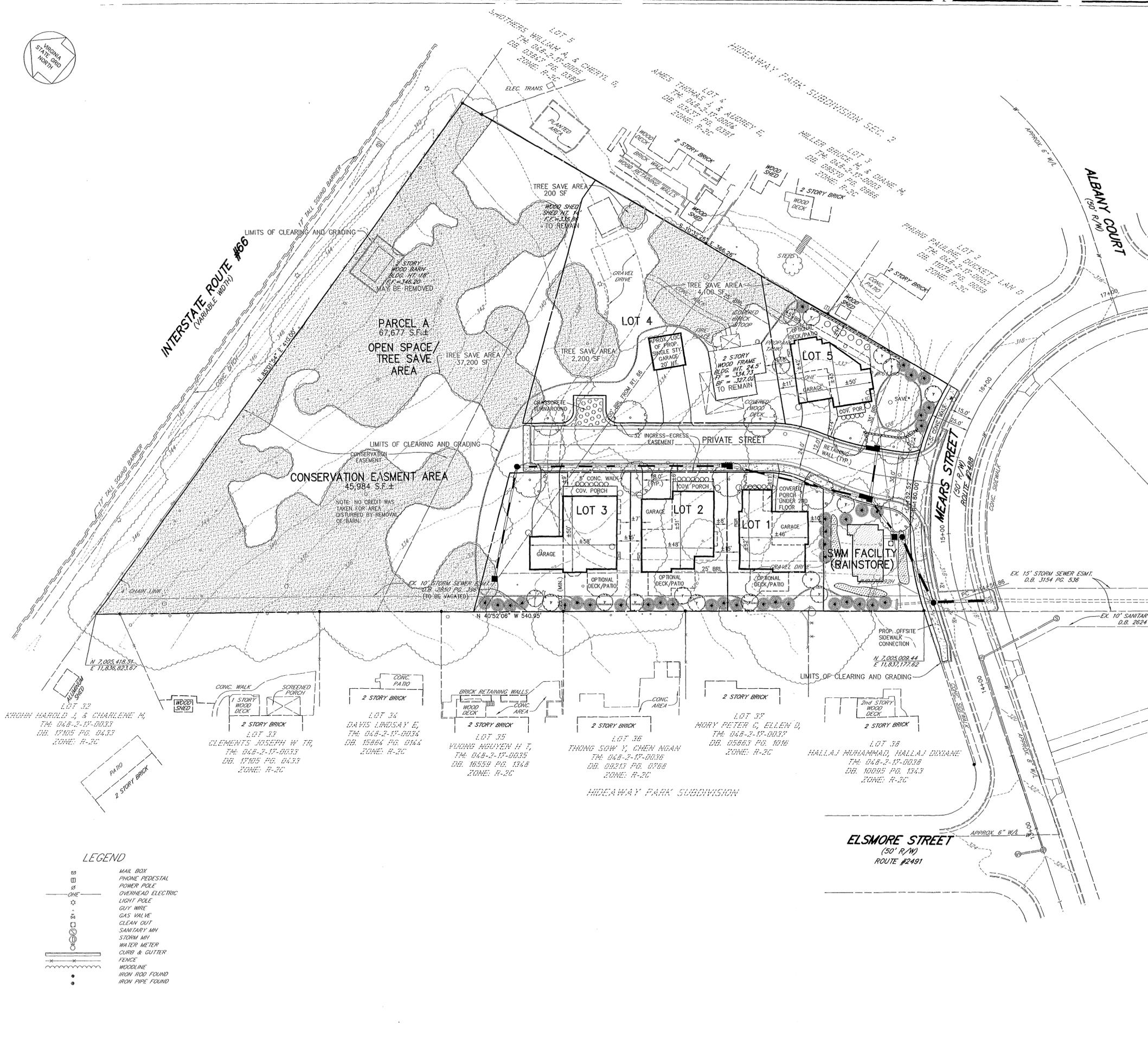
### LEGEND:

- LARGE DECIDUOUS TREE (2.5" - 3.0" CALIPER)
- SMALL OR COMPACT DECIDUOUS TREE (2.0" - 3.0" CALIPER)
- EVERGREEN TREE (6' - 8' HEIGHT)
- MEDIUM SHRUB
- SMALL SHRUB
- EXISTING TREELINE
- PROPOSED TREELINE
- PERENNIALS, ORNAMENTAL GRASSES AND/OR SHRUB MASSING
- LIMITS OF CLEARING & GRADING

### RECOMMENDED PLANT LIST:

- |                                                                                                                                                           |                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SHADE TREES</b><br>LITTLELEAF LINDEN<br>RED MAPLE<br>RED OAK<br>WILLOW OAK                                                                             | <b>BOTANICAL NAME</b><br>TILIA CORDATA<br>ACER RUBRUM<br>QUERCUS RUBRA<br>QUERCUS PHELLOS                                                                    |
| <b>SHRUBS</b><br>AZALEA<br>BOXWOOD<br>SOUTHERN BAYBERRY<br>VIBURNUM<br>INKBERRY HOLLY<br>HEAVENLY BAMBOO<br>HYDRANGEA<br>YEWE                             | <b>BOTANICAL NAME</b><br>RHODODENDRON<br>BUXUS<br>MYRTICA CERIFERA<br>VIBURNUM<br>ILEX GLABRA<br>IVANDINA DOMESTICA<br>HYDRANGEA<br>TAXUS BACCATA            |
| <b>ORNAMENTAL TREES</b><br>EASTERN REDBUD<br>FLOWERING DOGWOOD<br>SWEETBAY MAGNOLIA<br>YOSHINO CHERRY                                                     | <b>BOTANICAL NAME</b><br>CERCIS CANADENSIS<br>CORNUS FLORIDA<br>MAGNOLIACEAE MAGNOLIA VIRGINIANA<br>PRUNUS X YEDOENSIS                                       |
| <b>PERENNIALS</b><br>ASTILE<br>IRIS<br>BLACK-EYED SUSAN<br>ORNAMENTAL GRASSES<br>COREOPSIS<br>PEROVSKIA<br>DAYLILY<br>SEDUM<br>HOSTA<br>PURPLE CONEFLOWER | <b>BOTANICAL NAME</b><br>CHINENSIS<br>IRIS<br>RUDBECKIA HIRTA<br>GRAMINEAE<br>TICKSEED<br>PEROVSKIA<br>HEMEROCALLIS<br>SEDUM<br>FUNKIA<br>ECHINECEA PURPUREA |
| <b>EVERGREEN TREES</b><br>AMERICAN HOLLY<br>LOBLOLLY PINE<br>EASTERN REDCEDAR<br>SERBIAN SPRUCE                                                           | <b>BOTANICAL NAME</b><br>ILEX OPACA<br>PINUS TAEDA<br>JUNIPERUS VIRGINIANA<br>PICEA OMORIKA                                                                  |

Application No. 2006-PR-007  
 APPROVED DEVELOPMENT PLAN  
 (DP) (GDP) (GDP) (FDP)  
 SEE PROFESSIONAL DATED 7/22/07  
 Date of (EOS) (FC) approval 7/23/07  
 Sheet 9 of 9



### LEGEND

- MAIL BOX
- PHONE PEDESTAL
- POWER POLE
- OVERHEAD ELECTRIC
- LIGHT POLE
- GUY WIRE
- GAS VALVE
- CLEAN OUT
- SANITARY AIR
- STORM AIR
- WATER METER
- CURB & GUTTER
- FENCE
- WOODLINE
- IRON ROD FOUND
- IRON PIPE FOUND

**TREE COVER:**  
 SITE AREA: 2,5930 AC. OR 112,949 S.F.  
 PERCENTAGE OF TREE COVER REQUIRED: 20%  
 TREE COVER REQUIRED: 22,589 S.F.  
 CREDIT FOR TREE'S PRESERVED: 43,700 S.F.  
 ADDITIONAL CREDIT FOR PRESERVATION x (1.25): 54,625 S.F.  
 TREE COVER PROPOSED: 5,325 S.F..  
 TOTAL TREE COVER PROVIDED: 59,950 S.F.  
 TREE COVER MET

DATE	REVISION	PER. COUNTY COMMENTS
1/20/07		
3/7/07		
3/15/07		

PM: IDB SCALE: 1"=30'  
 PE: IDB DATE: 2/16/06  
 CO: MSO SHEET 2 OF 9

**GENERAL NOTES:**

- THE PROPERTY DELINEATED ON THIS CONCEPTUAL/FINAL DEVELOPMENT PLAN (CDP/FDP) IS IDENTIFIED ON FAIRFAX COUNTY TAX ASSESSMENT MAP #048-2-((17))-1 AND IS CURRENTLY ZONED R-2.
- THE TOPOGRAPHY SHOWN HEREON IS FROM A CURRENT FIELD SURVEY CONDUCTED BY TRI-TEK ENGINEERING IN APRIL, 2005. THE TOPOGRAPHY IS SHOWN AT A 2 FOOT CONTOUR INTERVAL.
- THE BOUNDARY INFORMATION SHOWN HEREON IS FROM A CURRENT FIELD SURVEY CONDUCTED BY TRI-TEK ENGINEERING IN APRIL, 2005.
- THE PROPERTY SHOWN ON THIS CDP/FDP IS IN THE PROVIDENCE MAGISTERIAL DISTRICT, THE LOWER POTOMAC SANITARY SEWER DISTRICT (ACCONTINK, M-2 SEWER SUB SHED), AND THE ACCOTINK CREEK WATER SHED.
- THIS DEVELOPMENT IS LOCATED IN THE VIENNA PLANNING DISTRICT (AREA 1); LEE COMMUNITY PLANNING SECTOR (VI), IS PLANNED FOR RESIDENTIAL USE AT ONE (1) TO TWO (2) DWELLING UNITS PER ACRE, IS IN CONFORMANCE WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN AND WILL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS AND CONDITIONS.
- THE FAIRFAX WATER AUTHORITY IS THE PUBLIC WATER AND THE COUNTY OF FAIRFAX IS THE SANITARY SEWER SUPPLY AGENCY FOR THIS DEVELOPMENT.
- STORMWATER MANAGEMENT WILL BE PROVIDED IN A RAINSTORE UNDERGROUND SWM FACILITY. BEST MANAGEMENT PRACTICES (BMP) WILL BE PROVIDED BY THE PRESERVATION OF LAND ALONG THE NORTH BOUNDARY OF THE SITE. SEE PLAN FOR LOCATION.
- THIS PLAN DOES NOT PURPORT TO SHOW ALL EXISTING UNDERGROUND UTILITIES AND THOSE SHOWN ARE APPROXIMATE. THERE ARE NO KNOWN EXISTING UNDERGROUND UTILITY EASEMENTS HAVING A 25' WIDTH OR MORE ON THE SITE.
- THIS PLAN DOES NOT SHOW UTILITIES. ALL NECESSARY PUBLIC UTILITIES ARE READILY ACCESSIBLE TO THE SITE AND WILL BE EXTENDED BY THE DEVELOPER OR UTILITY COMPANY. INDIVIDUAL BUILDING UTILITY PLANS AND PROFILES WILL BE SUBMITTED IN THE FUTURE FOR CONSTRUCTION PURPOSES. TRI-TEK ENGINEERING ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION WITH THESE PLANS.
- THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON THIS SITE. IF ANY SUBSTANCES ARE FOUND, THE METHODS FOR DISPOSAL SHALL ADHERE TO COUNTY, STATE OR FEDERAL LAW.
- THERE ARE NO KNOWN BURIAL SITES ON THIS SITE. ALL EXISTING STRUCTURES FOUND ON SITE ARE PROPOSED TO REMAIN UNLESS OTHERWISE NOTED.
- ANY AND ALL OFF-SITE GRADING, R.O.W., PARKING, ACCESS & UTILITY CROSSING SHALL BE ALLOWED WITH PERMISSION OF ADJACENT OWNERS AS LONG AS NO OFF-SITE TREES ARE IMPACTED.
- ALL PUBLIC STREETS SHALL CONFORM TO FAIRFAX COUNTY AND/OR VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) STANDARDS AND SPECIFICATIONS. ACCESS TO THE SITE IS PROVIDED BY A PRIVATE DRIVE CONSTRUCTED TO STANDARDS SET FORTH BY THE COUNTY OF FAIRFAX FOR PIPESTEM DRIVEWAYS.
- PARKING WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE. THE NUMBER OF PARKING SPACES PROVIDED MAY BE ADJUSTED BASED ON THE ACTUAL NUMBER OF UNITS CONSTRUCTED. THE GARAGE AND ANY TANDEM SPACE IN FRONT OF WILL BE COUNTED AS PART OF THE REQUIRED PARKING SPACES.
- IN ACCORDANCE WITH PARAGRAPH 4 OF SECTION 16-403 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS TO THE SIZES, DIMENSIONS, FOOTPRINTS AND LOCATIONS OF BUILDINGS, PARKING SPACES, GARAGES, SIDEWALKS, AND UTILITIES MAY OCCUR WITH FINAL ENGINEERING AND DESIGN AS LONG AS THERE IS NO DECREASE IN LANDSCAPING OR OPEN SPACE AT THE PERIPHERY OF THE SITE.
- A SIGNIFICANT PORTION OF THE NORTHERN PORTION OF THE SITE WILL BE PRESERVED. THIS AREA IS A WONDERFUL NATURAL SETTING AND WILL BE ACCESSED BY THE EXTENSION OF THE SIDEWALK FROM THE PRIVATE STREET.

**16-501 CONCEPTUAL DEVELOPMENT PLAN COMMENTS:**

- VICINITY MAP AS SHOWN ON PLAN.
  - CONTRACT PURCHASER/APPLICANT: PROSPECT DEVELOPMENT 12531 POPLAR LANE WOODBRIDGE, VA. 22192

OWNER: JOSEPH T. WATERS  
PARCEL TAX ID NO.: 48-2-((17))-1  
ZONING: R-2  
DEED BOOK 3841, PAGE 365

  - TOPOGRAPHY AS SHOWN ON THE PLAN SEE GENERAL NOTE 2.
  - SCALE AND NORTH ARROW AS SHOWN ON THE PLAN.
  - N/A (SINGLE FAMILY DETACHED DWELLINGS). MAXIMUM BUILDING HEIGHT IS 35'.
  - PROPOSED CIRCULATION AS SHOWN ON THE PLAN.
  - MAJOR OPEN SPACE AS SHOWN ON THE PLAN.
  - REFER TO THE SITE TABULATIONS FOR PARKING CALCULATIONS.
  - EXISTING AND PROPOSED ROADS AND, REQUIRED DIMENSIONS AS SHOWN ON THE PLAN.
  - NO 100 YEAR FLOODPLAIN, R.P.A., R.M.A. OR E.Q.C. EXIST ON THE SITE.
  - INFORMATION REGARDING VEGETATION AS SHOWN ON THE EXISTING VEGETATION MAP.
  - STORMWATER MANAGEMENT AS SHOWN ON THE PLAN. SEE GENERAL NOTE 7.
  - EXISTING UTILITY EASEMENTS AS SHOWN ON THE PLAN OR REFER TO GENERAL NOTE 8.
  - AREAS THAT HAVE SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION ON THE PROPERTY SHALL BE CONSIDERED FOR TREE PRESERVATION AND PASSIVE RECREATION DEVELOPMENT.
  - THERE ARE NO KNOWN GRAVES OR PLACES OF BURIAL ON SITE.
  - THIS DEVELOPMENT IS IN CONFORMANCE WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN.
  - ALL REQUIRED LANDSCAPE SCREENING IS SHOWN ON THE PLAN. PERIPHERAL DIMENSIONS ARE SHOWN ON THE PLAN. REFER TO THE TYPICAL UNIT PLAN (THIS SHEET) FOR ADDITIONAL SETBACK INFORMATION.
  - ONE EXISTING HOME (SEE PLAN) AND OUT STRUCTURE WILL BE PRESERVED. THE DATE OF CONSTRUCTION OF THE EXISTING HOUSE IS 1900 BASED ON COUNTY RECORDS. THE DATE OF CONSTRUCTION OF THE OUTBUILDINGS ARE UNKNOWN.
  - N/A
  - REFER TO THE SITE TABULATIONS FOR PROPOSED NUMBER OF DWELLING UNITS.
  - REFER TO THE SITE TABULATIONS FOR OPEN SPACE CALCULATIONS.
  - SEE GENERAL NOTE 5 FOR ORDINANCE CONFORMANCE AND/OR WAIVERS AND MODIFICATIONS.
  - AMENITY AREAS ARE AS SHOWN ON THE PLAN.
  - DEVELOPMENT SCHEDULE AND PHASING TO BE DETERMINED AS MARKET CONDITIONS ALLOW.
- SOILS CLASSIFICATION MAP TO BE SUBMITTED WITH THIS PLAN.
- PUBLIC IMPROVEMENTS, BOTH ON AND OFF-SITE ARE SHOWN ON THE PLAN. TIMING FOR SUCH IMPROVEMENTS WILL DEPEND ON MARKET CONDITIONS.
- THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON SITE. IF ANY SUBSTANCES ARE FOUND, THE METHODS FOR DISPOSAL SHALL ADHERE TO COUNTY, STATE AND/OR FEDERAL LAW.
- N/A

**16-502 FINAL DEVELOPMENT PLAN COMMENTS:**

- VICINITY MAP AS SHOWN ON THE PLAN.
  - PROPERTY LINE INFORMATION AS SHOWN ON THE PLAN.
  - REFER TO THE SITE TABULATIONS FOR OVERALL SITE AREA.
  - SCALE AND NORTH ARROW AS SHOWN ON THE PLAN.
  - EXISTING STREET INFORMATION AS SHOWN ON THE PLAN.
  - TOPOGRAPHY AS SHOWN ON THE PLAN. SEE GENERAL NOTE 2.
  - PROPOSED USES AS SHOWN ON THE PLAN.
  - N/A (SINGLE FAMILY DWELLING). MAXIMUM BUILDING HEIGHT IS 35'.
  - DISTANCES FROM PROPOSED DEVELOPMENT (LOT LINE) TO THE SITE BOUNDARY ARE SHOWN ON THE PLAN.
  - N/A
  - PROPOSED CIRCULATION AS SHOWN ON THE PLAN.
  - PARKING AS SHOWN ON THE PLAN. SEE THE SITE TABULATIONS FOR THE PARKING CALCULATIONS.
  - OPEN SPACE AND AMENITY AREAS ARE AS SHOWN ON THE PLAN.
  - INFORMATION REGARDING VEGETATION AS SHOWN ON THE EXISTING VEGETATION MAP AND LANDSCAPE PLAN.
  - THERE ARE NO KNOWN GRAVES OR PLACES OF BURIAL ON SITE.
  - PROPOSED UTILITIES AS SHOWN ON THE PLAN OR REFER TO GENERAL NOTE 9.
  - STORMWATER MANAGEMENT AS SHOWN ON THE PLAN. SEE GENERAL NOTE 7.
  - EXISTING UTILITY EASEMENTS AS SHOWN ON THE PLAN OR REFER TO GENERAL NOTE 8.
  - NO 100 YEAR FLOODPLAIN, R.P.A., R.M.A. OR E.Q.C. EXIST ON SITE.
  - DEVELOPMENT SCHEDULE AND PHASING TO BE DETERMINED BY MARKET CONDITIONS.
- REFER TO SITE TABULATIONS.
- SOILS CLASSIFICATION MAP TO BE SUBMITTED WITH THIS PLAN.
- ARCHITECTURAL SKETCHES ARE NOT AVAILABLE AT THIS TIME.
- THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON SITE. IF ANY SUBSTANCES ARE FOUND, THE METHODS FOR DISPOSAL SHALL ADHERE TO COUNTY, STATE AND/OR FEDERAL LAW.
- SEE GENERAL NOTE 5 FOR ORDINANCE CONFORMANCE AND/OR WAIVERS AND MODIFICATIONS.
- N/A
- N/A

**SOIL EVALUATION**  
for CONSTRUCTION of ADDITIONS  
and/or ACCESSORY STRUCTURES  
in UNMAPPED SOIL AREAS

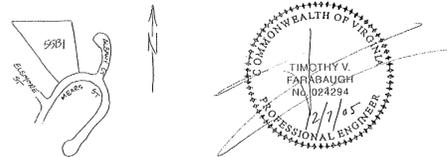


Requested By: Prospect Development Company, Inc.  
Proposed Use: Residential Single-family Detached  
Location: 8914 Mears Street

Legal Description: Hideaway Park, Section 2, Lot 1  
Tax Map ID: 48-2-((17))-1 Land Size: 2.593 acres  
Site Information: Fairfax County Topographic Tax Map

Evaluation By: Timothy V. Farabaugh, P.E.  
Date: December 7, 2005

SOIL MAP (Scale 1" = 500') Piedmont Upland Physiographic Province



Soil Map No.	Soil Series Name	Problem Class	Slope Range (%)	Estimated % Site
55B1	Glencel	C	2-7%	100

Slope Class	Slope	Potential Erosion Symbols
A	0-2%	0 - Soil Accumulation (Low)
B	2-7%	0 - No Erosion (Low)
C	7-14%	1 - Slight Erosion (Low)
D	14-25%	2 - Moderate Erosion (Mod)
E	25+ percent	3 - Severe Erosion (High)

POTENTIAL SOIL PROBLEMS	Yes/No	Soil Type
Slope Instability	N	
Marginal to Low Bearing Capacity (Building Support)	N	
High Seasonal Water Table	N	
High Shrink-Swell Clays	N	
Marginal to Poor subsurface Drainage	N	
Shallow Depth to Bedrock	N	
High Erodibility	Y	55
Flood Plain (Alluvial)	N	
Marginal to Poor Septic Drainfield	N	
Hydic Soils/Potential Wetlands	N	

**DESCRIPTION OF SOIL CHARACTERISTICS**

**(55) Glencel**

This association is generally occurs on hilltops and sideslopes underlain by micaceous schist. Silts and clays overlie silty and sandy decomposed rock and hard bedrock typically ranges from 5 to 100 feet. Glencel soils are characterized as having moderate to moderately rapid permeability. Foundation support for small buildings (three stories or less) is rated GOOD; however, high mica content causes soils to 'fluff' up when disturbed and compact difficulties may require engineering designs for use as structural fill. These soils are generally suitable for septic drainfields and infiltration trenches. These soils are often highly susceptible to erosion.

*Man-placed FILL and/or disturbed soils should be anticipated around the basement foundation of the existing home and on-site sewage disposal system.*

The following Table summarizes some of the pertinent soil characteristics and general soil ratings published by the County for site development purposes.

Soil No.	Soil Name	Prob. Class	Foundation Support	Drainage	Septic Drainfields Infiltration Trenches	Erosion Potential	Depth to Hard Rock (ft)	Permeability	Depth to Seasonal High Water Table
55	Glencel	C	Good	Good	Good	High	6-100	moderately rapid	

**GEOTECHNICAL REQUIREMENTS**

Fairfax County identifies Soil Associations 55 as Non-Problem Soil Class C since few soil foundation problems typically occur that would adversely affect most residential uses. Glencel soils are highly erodible, even on B slopes. Numerous gullies can be expected to form on unprotected soils in a severe storm.

A geotechnical engineering report may not be required for construction in (55) Glencel soil for this site as long as the proposed construction is in natural, undisturbed soils.

If the proposed foundation grades require the placement of structural fill over Class C soils, the builder or site engineer shall provide adequate design information on the site grading or construction plans to adequately address the placement, material quality, and testing frequency of the engineered fill.

At a minimum, site grading plans should indicate suitable positive surface grading away from structures. Construction plans should indicate suitable surface waterproofing and drainage for below-grade foundation walls.

Please note that a report waiver is required if the building footprint is within 25 feet of CLASS A soils. A report is required for proposed construction over 3 stories or 40 feet in height.

**FINAL NOTES**

This report and accompanying soil map are based on a site investigation of the referenced property. Soil characteristics, descriptions and potential problems are based on the site conditions at the time of the investigation. Any disturbance that drastically alters the original site conditions may affect the interpretations of this report.

**MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS**

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:  
Special Permits (8-011 2J & 2L) Special Exceptions (9-011 2J & 2L)  
Cluster Subdivision (9-615 1G & 1N) Commercial Revitalization Districts (9-622 2A (12) & (14))  
Development Plans PRC District (16-302 3 & 4L) PRC Plan (16-303 1E & 1O)  
FDP P Districts (except PRC) (16-502 1F & 1O) Amendments (18-202 10F & 10G)

1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100).
2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 1 & 6.
3. Provide:

Facility Name/Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
RAIN STORE UNDERGROUND	2.29	1.27	3.56	725	1841	
Totals	2.29	1.27	3.56	725	1841	
4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 1 & 6. Pond inlet and outlet pipe systems are shown on Sheet 1 & 6.
5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 1 (Public R/W). Type of maintenance access road surface noted on the plat is N/A (asphalt, geotext, gravel, etc.).
6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 2.
7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 6.
8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 6.
9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 6.
10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 1 & 3.
11. A submission waiver is requested for N/A.
12. Stormwater management is not required because N/A.

Application No. 2006-16-017 Staff: ABK  
 APPROVED DEVELOPMENT PLAN  
 (DPI) (GDP) (ICDP) (FDP)  
 SEE PROFFERS DATED 7/23/07  
 Date of (EGS) (PC) approval 7/23/07  
 Sheet 3 of 9

**LOT 1 - SECTION 2**  
**HIDEAWAY PARK**  
 DB. 3850 PG. 396  
 PROVIDENCE DISTRICT FAIRFAX COUNTY, VIRGINIA

**GENERAL NOTES AND DETAILS**

DATE	REVISION
1/30/07	PER COUNTY COMMENTS:
3/7/07	PER COUNTY COMMENTS:
5/15/07	PER COUNTY COMMENTS:

PM: IDB SCALE: AS SHOWN  
 PE: IDB DATE: 2/16/06  
 CO: MSQ SHEET 3 OF 9

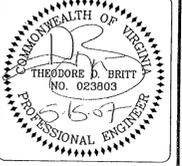
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Cover Type	Primary Species	Understory Species	Successional Stage	Condition	Area	
A	Developed	<i>Juglans nigra</i> , <i>Juniperus virginiana</i> , <i>Ilex opaca</i> , <i>Fraxinus serotina</i>	Mostly turfgrass.	N/A	good	2.593 ACRES
	Comments	Trees scattered over most of site. Mostly indigenous bottomland species, but several landscape trees, such as spruces and Japanese maple. One very large <i>Platanus occidentalis</i> that is joint property and one very large <i>Ilex opaca</i> . Most of the trees are desirable, but most will not be very tolerant of change.				



CIVIL ENVIRONMENTAL LAND PLANNING SURVEYING  
690 Center Street Suite 300 Herndon, Virginia 20170  
V: (703) 481-5900 F: (703) 481-5901 info@tritekinc.com

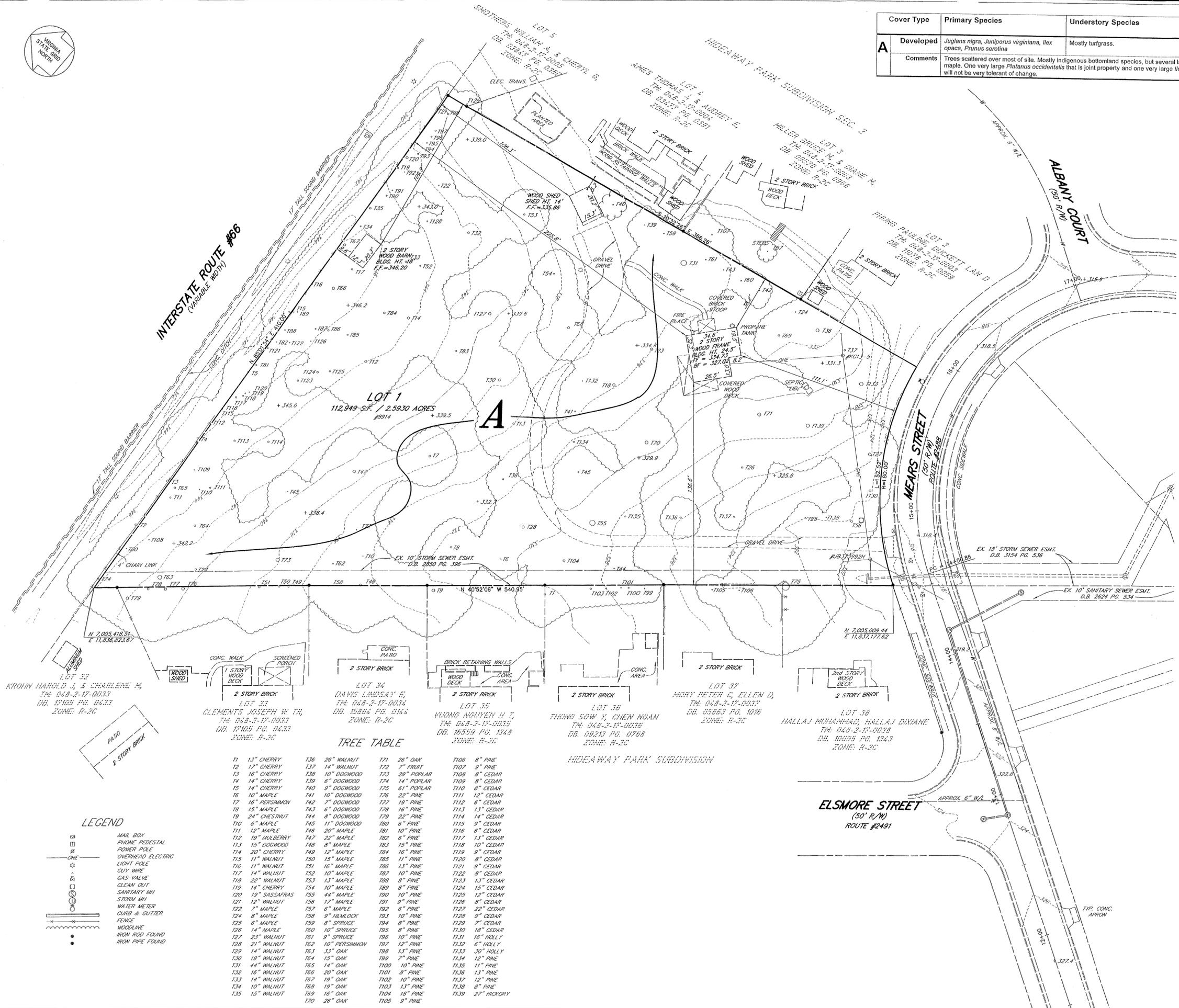


LOT 1 - SECTION 2  
HIDEAWAY PARK  
DB. 3850 PG. 396  
FAIRFAX COUNTY, VIRGINIA  
PROVIDENCE DISTRICT

EXISTING VEGETATION MAP

DATE	REVISION
1/30/07	PER COUNTY COMMENTS.
3/7/07	PER COUNTY COMMENTS.
5/15/07	PER COUNTY COMMENTS.

DATE: 2/16/06  
SCALE: 1"=30'  
SHEET: 4 OF 9



TREE TABLE

71 13" CHERRY	736 26" WALNUT	771 26" OAK	7106 8" PINE
72 17" CHERRY	737 14" WALNUT	772 7" FRUIT	7107 9" PINE
73 16" CHERRY	738 10" DOGWOOD	773 20" POPULAR	7108 8" CEDAR
74 14" CHERRY	739 6" DOGWOOD	774 14" POPULAR	7109 8" CEDAR
75 14" CHERRY	740 9" DOGWOOD	775 61" POPULAR	7110 8" CEDAR
76 10" MAPLE	741 10" DOGWOOD	776 22" PINE	7111 12" CEDAR
77 16" PERSIMMON	742 7" DOGWOOD	777 19" PINE	7112 6" CEDAR
78 15" MAPLE	743 6" DOGWOOD	778 16" PINE	7113 13" CEDAR
79 24" CHESTNUT	744 8" DOGWOOD	779 22" PINE	7114 14" CEDAR
710 6" MAPLE	745 11" DOGWOOD	780 6" PINE	7115 9" CEDAR
711 12" MAPLE	746 20" MAPLE	781 10" PINE	7116 6" CEDAR
712 19" MULBERRY	747 22" MAPLE	782 6" PINE	7117 13" CEDAR
713 15" DOGWOOD	748 8" MAPLE	783 15" PINE	7118 10" CEDAR
714 20" CHERRY	749 12" MAPLE	784 16" PINE	7119 9" CEDAR
715 11" WALNUT	750 15" MAPLE	785 11" PINE	7120 8" CEDAR
716 11" WALNUT	751 16" MAPLE	786 13" PINE	7121 9" CEDAR
717 14" WALNUT	752 10" MAPLE	787 10" PINE	7122 8" CEDAR
718 22" WALNUT	753 13" MAPLE	788 8" PINE	7123 13" CEDAR
719 14" CHERRY	754 10" MAPLE	789 8" PINE	7124 15" CEDAR
720 19" SASSAFRAS	755 44" MAPLE	790 10" PINE	7125 12" CEDAR
721 12" WALNUT	756 17" MAPLE	791 9" PINE	7126 8" CEDAR
722 7" MAPLE	757 6" MAPLE	792 6" PINE	7127 22" CEDAR
723 8" WALNUT	758 9" HEMLOCK	793 10" PINE	7128 9" CEDAR
724 6" MAPLE	759 11" DOGWOOD	794 8" PINE	7129 9" CEDAR
725 6" MAPLE	760 10" SPRUCE	795 8" PINE	7130 18" CEDAR
726 14" MAPLE	761 9" SPRUCE	796 10" PINE	7131 16" HOLLY
727 23" WALNUT	762 10" PERSIMMON	797 12" PINE	7132 6" HOLLY
728 21" WALNUT	763 33" OAK	798 13" PINE	7133 30" HOLLY
729 14" WALNUT	764 15" OAK	799 7" PINE	7134 12" PINE
730 19" WALNUT	765 14" OAK	7100 10" PINE	7135 11" PINE
731 14" WALNUT	766 20" OAK	7101 8" PINE	7136 13" PINE
732 16" WALNUT	767 19" OAK	7102 10" PINE	7137 12" PINE
733 14" WALNUT	768 19" OAK	7103 13" PINE	7138 8" PINE
734 10" WALNUT	769 16" OAK	7104 18" PINE	7139 27" HICKORY
735 15" WALNUT	770 26" OAK	7105 9" PINE	

LEGEND

MAIL BOX
PHONE PEDESTAL
POWER POLE
OVERHEAD ELECTRIC
LIGHT POLE
GUY WIRE
GAS VALVE
CLEAN OUT
SANITARY MH
STORM MH
WATER METER
CURB & GUTTER
FENCE
WOODLINE
IRON ROD FOUND
IRON PIPE FOUND

Application No. 2005-PB-012, Shift A154  
APPROVED DEVELOPMENT PLAN  
(DP) (GDP) (GDP) (FDP)  
SEE PROCEEDINGS DATED 7/23/03  
Date of (GOS) (PC) approval 3/23/07  
Sheet 9 of 9

# BMP FACILITY DESIGN CALCULATIONS

Northern Virginia BMP Handbook 11/6/92

## BMP Facility Design Calculations

Plan Name: HIDEAWAY PARK  
 Plan Number: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Engineer: EES

### I. Water Quality Narrative

(SEE BMP NARRATIVE SHEETS)

### II. Watershed Information

Part 1: List all of the Subareas and "C" Factors used in the BMP Computations

Subarea Designation and Description (1)	"C" (2)	Acres (3)
(1) ONSITE CONTROLLED TO RAINSTORE FACILITY	0.41	1.43
(2) CONSERVATION AREA ONSITE CONTROLLED	0.25	0.86
(3) CONSERVATION AREA ONSITE UNCONTROLLED	0.25	0.18
(4) ONSITE UNCONTROLLED	0.39	0.12
(5) OFFSITE CONTROLLED TO RAINSTORE FACILITY	0.43	1.27

NOTE: Rational formula "C" factors are taken from the general zoning values listed in Appendix 4-1 or 4-2 depending on the location of the BMP facility (Fairfax County Public Facilities Manual Chart A6-19 or Prince William County Design and Construction Standards Manual, Exhibit 1).

Appendix 4-4a  
 Calculations Worksheet

Northern Virginia BMP Handbook 11/6/92

### III. Phosphorus Removal - General

BMP phosphorus removal efficiencies are the same for Northern Virginia jurisdictions unless otherwise noted. Table 4-1 presents the accepted removal efficiencies for BMPs in Northern Virginia.

Facility Type	Removal Rate
BIORETENTION BASIN (PER PAGE 3.11-4 OF VSWMH)	65%
- Extended Detention Dry Pond	
Design (i) (Chart "A")	40%
Regional	50%
- Wet Pond	
Design (i) (4.0 x Vr)	50%
Design (ii) (2.5 x Vr + Extended Detention)	45%
Regional (4.0 x Vr)	65%
- Infiltration Trench	
Design (i) (0.5 in/imp. ac.)	50%
Design (ii) (1.0 in/imp. ac.)	65%
Design (iii) (2-year 2-hour storm)	70%

NOTE: Phosphorus removal credit and specific requirements for the establishment of regional ponds may vary between jurisdictions. The designer should contact the appropriate agency before consideration of such a facility.

Table 4-1: Phosphorus Removal Efficiencies for Different BMP Facilities

### IIIa. Phosphorus Removal - "Occoquan Method"

This section is for use in the jurisdictions which do not utilize CBLAD's "Chesapeake Bay Method" for phosphorus removal calculations. The "Chesapeake Bay Method" is addressed in Section IIIb of this worksheet. Please check with your local jurisdiction to determine which method to use.

Appendix 4-4b  
 Calculations Worksheet

Northern Virginia BMP Handbook 11/6/92

### Part 2: Compute the Weighted Average "C" Factor for the Site

(A) Area of the site (a) 2.59 acres

(B) Subarea Designation

(1)	"C" (2)	Acres (3)	Product (4)
(1) ONSITE CONTROLLED TO RAINSTORE FACILITY	0.41	1.43	0.59
(2) CONSERVATION AREA ONSITE CONTROLLED	0.25	0.86	0.22
(3) CONSERVATION AREA ONSITE UNCONT.	0.25	0.18	0.05
(4) ONSITE UNCONTROLLED	0.39	0.12	0.05

(b) Total = 0.91  
 (b) / (a) = (c) 0.35

(C) Weighted average "C" factor

### Part 3: Compute the Total Phosphorus Removal for the Site

Subarea Designation (1)	BMP Type (2)	Removal Eff. (%) (3)	Area Ratio (4)	"C" Factor Ratio (5)	Product (6)
(2)	OPEN SPACE 100%	100	(0.86/2.59)	(1)	33.20
(3)	OPEN SPACE 100%	100	(0.18/2.59)	(1)	6.95

(a) Total = 40.15 %

Appendix 4-4c  
 Calculations Worksheet

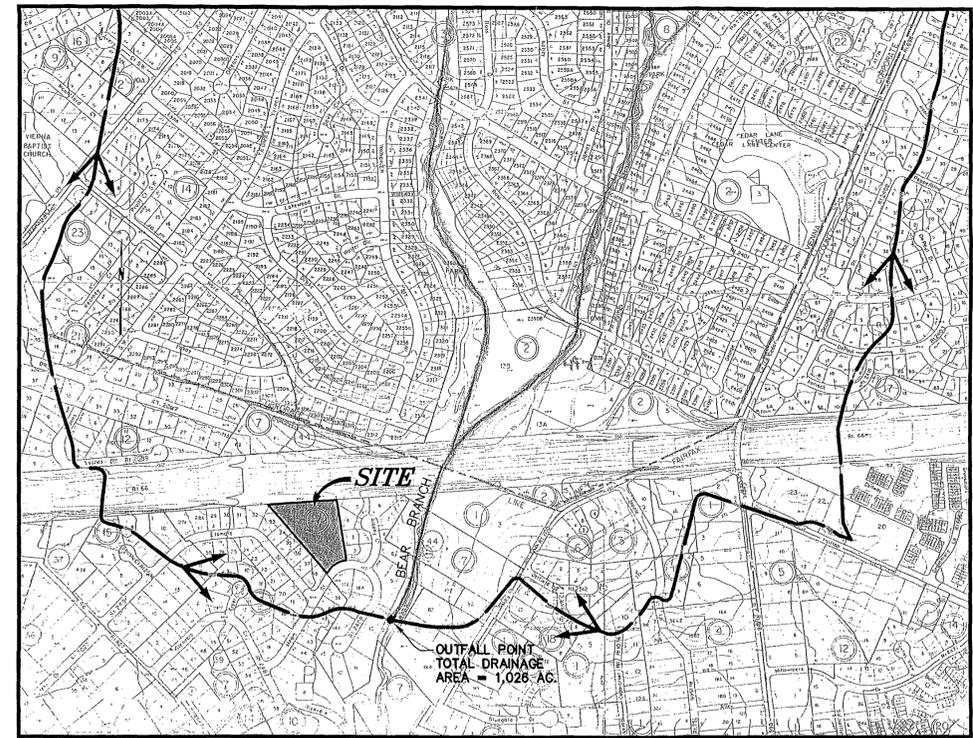
Northern Virginia BMP Handbook 11/6/92

### Part 4: Determine Compliance with Phosphorus Removal Requirement

(A) Select Requirement (a) 40%

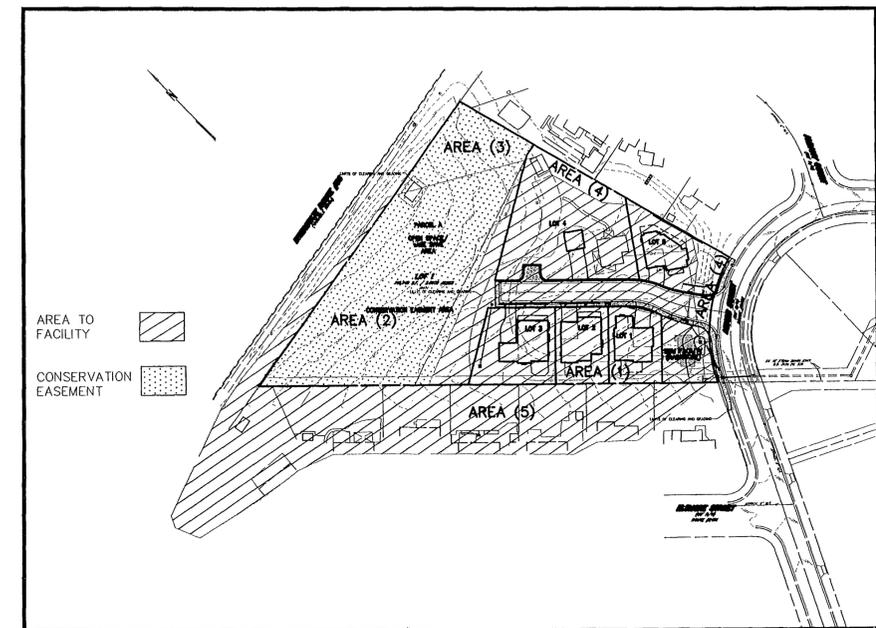
- Water Supply Overlay District (Occoquan Watershed) = 50% (Fairfax County and Prince William County)
- Chesapeake Bay Preservation Area (New Development) = 40% (Fairfax County) / 50% (Prince William County)
- Chesapeake Bay Preservation Area (Redevelopment) = [1-0.9 x ("pre" / "post")] x 100 = %

(B) If Line 3(a) 40.15 ≥ Line 4(a) 40 then Phosphorus removal requirement is satisfied.



DRAINAGE DIVIDES MAP  
 SCALE: 1"=500'

Application No. 2006-PL-017, Staff: ARH  
 APPROVED DEVELOPMENT PLAN  
 (DP) (GDP) (CDP) (EDP) 9/23/07  
 SEE ENGINEERS DATED 7/23/07  
 Date of (603) (PC) approval 9/23/07  
 Sheet 9 of 9



BMP DRAINAGE MAP  
 SCALE: 1"=100'



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 info@tritekinc.com



LOT 1 - SECTION 2  
 HIDEAWAY PARK

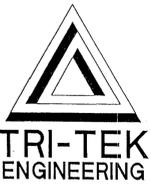
FAIRFAX COUNTY, VIRGINIA

PROVIDENCE DISTRICT

BMP COMPUTATIONS

DATE	REVISION	PER COUNTY COMMENTS
1/30/07		
3/7/07		
5/15/07		

PM: IDB SCALE: AS SHOWN  
 PE: IDB DATE: 2/16/06  
 CO: MSO SHEET 5 OF 9



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F: (703) 481-5901  
info@tritekinc.com



LOT 1 - SECTION 2  
HIDEAWAY PARK  
DB. 3850 PG. 396  
FAIRFAX COUNTY, VIRGINIA  
PROVIDENCE DISTRICT

STORMWATER  
MANAGEMENT

DATE	REVISION
1/30/07	PER COUNTY COMMENTS.
3/7/07	PER COUNTY COMMENTS.
5/15/07	PER COUNTY COMMENTS.

PM: IDB SCALE: AS SHOWN  
PE: IDB DATE: 2/18/06  
CO: MSO SHEET 6 OF 9

ROUTE: ON SITE  
COUNTY: FAIRFAX  
PROJ: HIDEAWAY PARK

STORM SEWER DESIGN  
COMPUTATIONS

FROM STR	TO STR	DRAIN. AREA ACRES	RUNOFF COEFF. C	CA		INLET TIME MIN.	RAINFALL INTENSITY IN./HR.	RUNOFF Q C.F.S.	INVERT ELEVATIONS		LENGTH FT.	SLOPE FT./FT.	DIA. IN.	n	CAPACITY		VELOCITY F.P.S.	FLOW TIME MIN.	REMARKS
				INCR.	ACCUM.				UPPER	LOWER					C.F.S.	F.P.S.			
2	1	*POND OUTFLOW																	
1	EX.7	0.64	0.45	0.29	0.29	5.0	7.27	7.72	313.35	313.10	47	0.0053	21	0.013	11.6	5.2	0.15		
EX.7	EX.6	0.13	0.70	0.09	0.38	5.0	7.27	10.48	312.69	310.25	115	0.0212	21	0.013	23.1	9.5	0.20		
EX.6	EX.5	0.00	0.00	0.00	0.38	5.0	7.27	10.48	310.09	309.50	67	0.0088	21	0.013	14.9	6.8	0.16		
EX.5	EX.4	8.18	0.40	3.27	3.65	10.0	5.92	29.33	307.74	306.50	117	0.0106	27	0.013	31.9	9.2	0.21		
EX.4	EX.3	0.00	0.00	0.00	3.65	10.0	5.92	29.33	306.39	306.09	32	0.0094	27	0.013	30.0	8.7	0.06		
EX.3	EX.2	0.00	0.00	0.00	3.65	10.0	5.92	29.33	305.89	305.37	35	0.0149	27	0.013	37.7	10.7	0.05		
EX.2	EX.1	0.00	0.00	0.00	3.65	10.0	5.92	29.33	305.15	304.88	21	0.0129	27	0.013	35.1	10.0	0.03		
* FROM SWM POND COMPUTATIONS																			

STORM DRAINAGE NARRATIVE:

DRAINAGE FROM THIS SITE PRINCIPALLY FLOWS IN A SOUTHERLY DIRECTION TO A CLOSED STORM SEWER OUTFALL. THE EXISTING 21" STORM SEWER CROSSING MEARS STREET IS BEING REPLACED WITH NEW 21" STORM SEWER PIPE AND IT IS BEING INSTALLED AT A LOWER ELEVATION IN ORDER TO ALLOW A DEEPER ONSITE RAINSTORE FACILITY. THE PIPED OUTFALL THEN TRAVELS 423' TO THE BED AND BANK FLOODPLAIN OF BEAR BRANCH WHICH RUNS IN A SOUTHERLY DIRECTION

STORMWATER OUTFALL NARRATIVE:

THE PROPOSED SITE OUTFALLS AT THE SOUTHERN AN EASTERN PROPERTY LINES. THE SOUTHERN OUTFALL CONSISTS OF A 24" STORM SEWER PIPE. THE FLOWS AT THE PIPE HAVE BEEN REDUCED TO BELOW THE PREDEVELOPMENT LEVEL FOR THE 2 AND 10 YEAR STORMS. THE PIPED OUTFALL EXISTS INTO AN EXISTING BED AND BANKS CHANNEL. THE CHANNEL HAS A RIP-RAP LINING AT THE PIPE OUTFALL AND THE REMAINDER CONTAINS A COMBINATION OF VEGETATION, LOOSE CONCRETE, AND RIP-RAP LINING. THE CHANNEL THEN PROCEEDS 120' TO THE BED AND BANK FLOODPLAIN OF BEAR BRANCH. THE DRAINAGE AREA TO THIS POINT OF BEAR BRANCH IS 1026 ACRES, GREATER THAN 100 TIMES THE SITES CONTRIBUTING DRAINAGE AREA OF 2.59 ACRES. THE EASTERN OUTFALL CONSISTS OF SHEET FLOW ALONG THE EASTERN PROPERTY LINE. THE DRAINAGE PATTERN AND QUANTITY OF FLOW HAVE NOT BEEN ALTERED. AFTER LEAVING THE EASTERN PROPERTY LINE, RUNOFF RUNS ALONG MEARS STREET THEN TO THE SAME PIPED OUTFALL AS THE SOUTHERN OUTFALL TO BEAR BRANCH. GIVEN NO INCREASE IN RUNOFF, THE ADEQUACIES OF THE OUTFALLS, THE PROXIMITY OF THE SITE TO BEAR BRANCH (A MAJOR FLOOD PLAIN WITH A DRAINAGE AREA IN EXCESS OF 100 TIMES THE SITE AREA), IT IS OUR OPINION THAT THE SITE OUTFALLS ARE ADEQUATE AND NO ADVERSE IMPACT TO THE DOWNSTREAM CHANNEL AND IMPROVEMENTS WILL OCCUR AS A DIRECT RESULT OF THIS DEVELOPMENT.

STORMWATER MANAGEMENT NARRATIVE:

THE SITE HAS AN UNDERGROUND RAINSTORE STORMWATER MANAGEMENT FACILITY. THE POND INFLOW IS 3.56 AC., 0.49 AC. OF THAT IS IMPERVIOUS ACREAGE. THE TIME OF CONCENTRATION IS 5 MINUTES. FLOWS WERE GENERATED USING THE RATIONAL METHOD. THE POND HAS BEEN SIZED TO ADEQUATELY DETAIN THE 2 AND 10 YEAR STORM.

STORMWATER MANAGEMENT CALCULATIONS

PRE-DEVELOPMENT RUNOFF

Q=CIA C=0.25 A=2.5930 AC

Q2YR, 2H=0.25 X 5.45 IN/HR X 2.59 AC=3.53 CFS  
Q10YR, 2H=0.25 X 7.27 IN/HR X 2.59 AC=4.71 CFS  
V2YR, 2H=0.25 X 2"/12" X 2.59 AC=0.1079 AC FT

POST-DEVELOPMENT RUNOFF

C=(0.41) 0.9 + (2.18) 0.25=0.35  
2.59

Q2YR, 2H=0.35 X 5.45 IN/HR X 2.59 AC=4.94 CFS  
Q10YR, 2H=0.35 X 7.27 IN/HR X 2.59 AC=6.59 CFS  
V2YR, 2H=0.35 X 2"/12" X 2.59 AC=0.1511 AC FT

INCREASE DUE TO THE DEVELOPMENT

Q2YR, 2H=4.94 CFS - 3.53 CFS=1.41 CFS  
Q10YR, 2H=6.59 - 4.71 CFS=1.88 CFS  
V2YR, 2H=0.1511 AC FT - 0.1079 AC FT=0.0432 AC FT

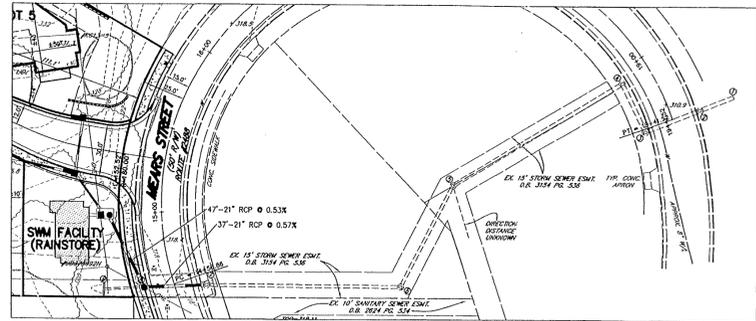
REDUCTION DUE TO SWM FACILITY

Q2YR, 2H=7.42 CFS - 5.97 CFS=1.45 CFS  
Q10YR, 2H=9.90 - 7.72 CFS=2.18 CFS

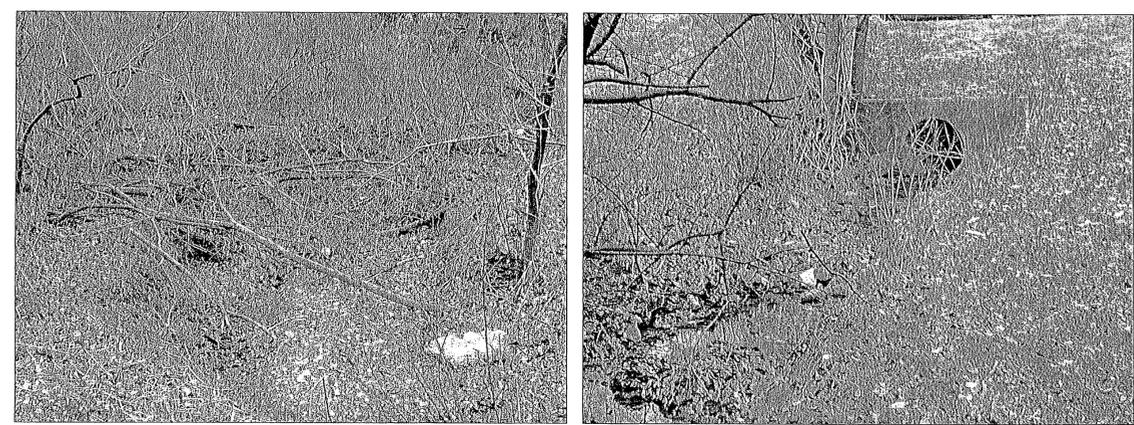
REDUCTION OF FLOWS AT THE SWM FACILITY IS GREATER THAN THE INCREASE DUE TO DEVELOPMENT.

BMP NARRATIVE:

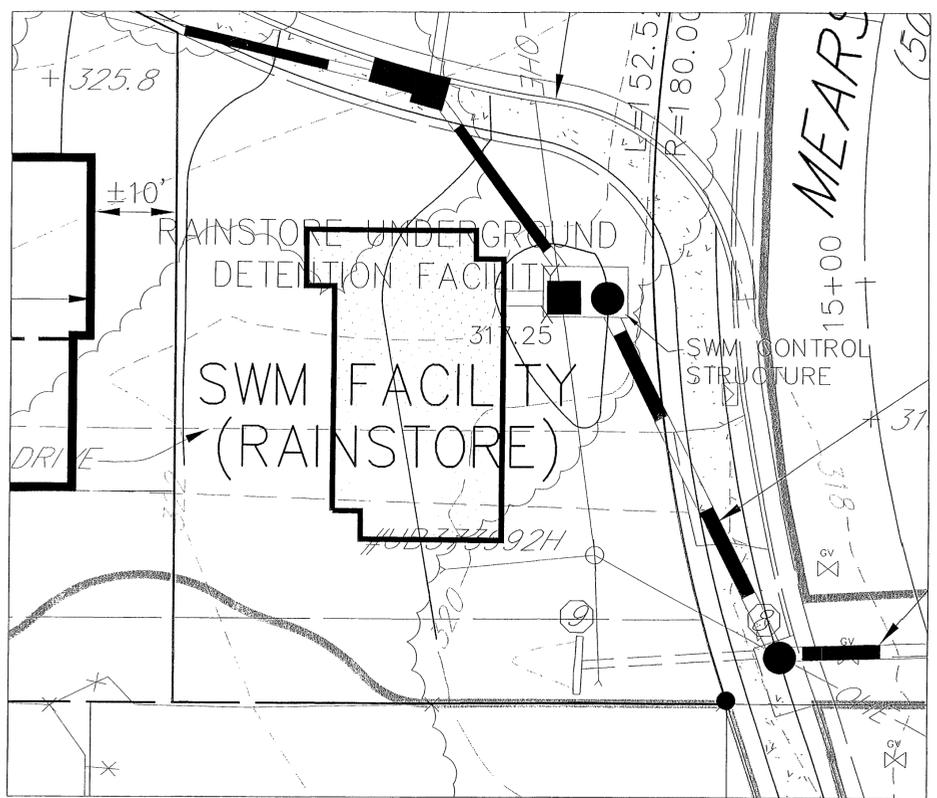
BMP'S ARE PROVIDED BY A CONSERVATION EASEMENT. THE CONSERVATION EASEMENT IS 1.04 AC.



SITE OUTFALL MAP  
SCALE 1"=50'



SITE OUTFALL PHOTOS  
OUTFALL CHANNEL AT PIPED  
STORM SEWER OUTFALL.



SWM POND GRAPHIC  
SCALE 1"=10'

### STAGE/STORAGE/DISCHARGE TABLE

#### LEVEL POOL ROUTING DATA

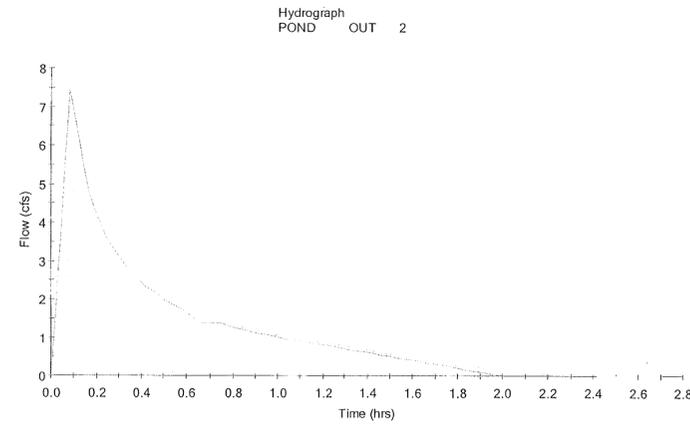
HYG Dir = C. [2212]  
 Inflow HYG file = NONE STORED - POND IN 2  
 Outflow HYG file = NONE STORED - POND OUT 2  
 Pond Node Data = POND  
 Pond Volume Data = POND  
 Pond Outlet Data = Outlet 1  
 No Infiltration

#### INITIAL CONDITIONS

Starting WS Elev = 313.50 ft  
 Starting Volume = 0 cu.ft  
 Starting Outflow = .00 cfs  
 Starting Infiltr. = .00 cfs  
 Starting Total Out = .00 cfs  
 Time Increment = .0417 hrs

Elevation ft	Outflow cfs	Storage cu.ft	Infiltr. cfs	Q Total cfs	2S/A + Q cfs
313.50	.00	0	.00	.00	.00
313.75	.26	172	.00	.26	2.55
314.00	1.01	344	.00	1.01	5.59
314.25	2.03	516	.00	2.03	8.90
314.50	3.06	688	.00	3.06	12.37
314.75	4.14	860	.00	4.14	15.80
315.00	5.29	1032	.00	5.29	19.54
315.25	6.99	1204	.00	6.99	23.03
315.50	7.86	1376	.00	7.86	26.19

### 2YR STORM



No Infiltration

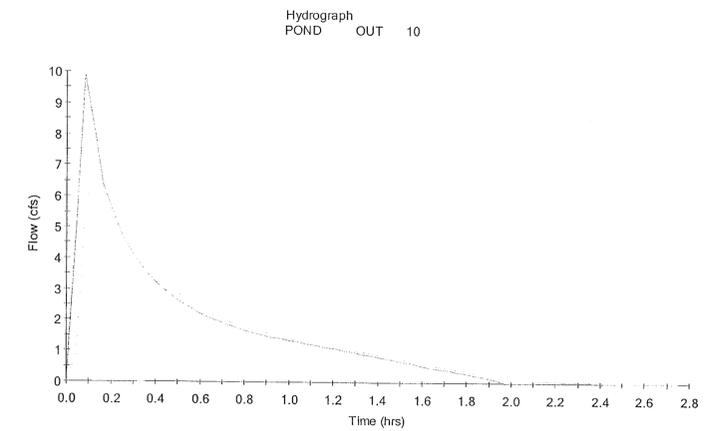
#### INITIAL CONDITIONS

Starting WS Elev = 313.50 ft  
 Starting Volume = 0 cu.ft  
 Starting Outflow = .00 cfs  
 Starting Infiltr. = .00 cfs  
 Starting Total Out = .00 cfs  
 Time Increment = .0417 hrs

#### INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 7.42 cfs at .0834 hrs  
 Peak Outflow = 5.97 cfs at .1251 hrs  
 Peak Elevation = 315.04 ft  
 Peak Storage = 1058 cu.ft

### 10YR STORM



No Infiltration

#### INITIAL CONDITIONS

Starting WS Elev = 313.50 ft  
 Starting Volume = 0 cu.ft  
 Starting Outflow = .00 cfs  
 Starting Infiltr. = .00 cfs  
 Starting Total Out = .00 cfs  
 Time Increment = .0417 hrs

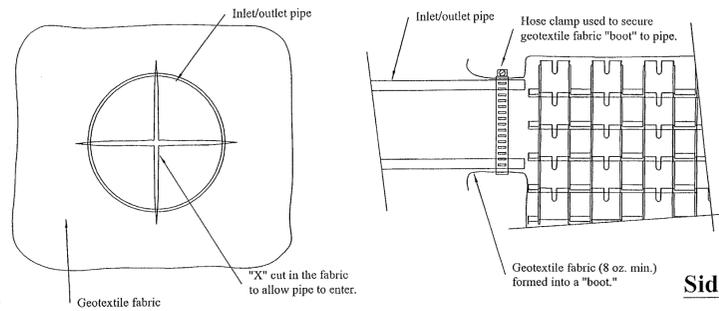
#### INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 9.90 cfs at .0834 hrs  
 Peak Outflow = 7.72 cfs at .1251 hrs  
 Peak Elevation = 315.46 ft  
 Peak Storage = 1348 cu.ft

Application No. 2006-1-017 Staff ARH  
 APPROVED DEVELOPMENT PLAN  
 (DP) (GDP) (CDP) (FDP)  
 SEE PROFESSIONAL ENGINEER'S DATED 7/23/04  
 Date of (30S) (F) approval 7/23/04  
 Sheet 9 of 9

### RAINSTORE FACILITY DETAILS

End view of pipe/fabric connection. Cut an X in the fabric slightly larger than pipe, pull the fabric around the pipe to create the "boot" and then secure with a hose-clamp.



#### Rainstore3 Inlets/Outlets With Fabric

Connecting pipe to the Rainstore3 structure

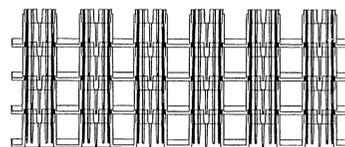
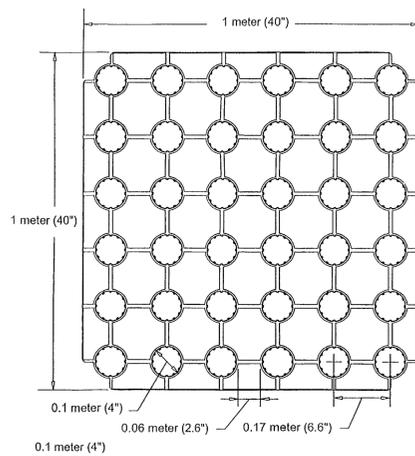
NOT TO SCALE  
 Invisible  
 Structures, Inc.  
 RS3inletoutlet.dwg

1690 Jackson St., Suite 310  
 Golden, Colorado 80401  
 800-233-1510 FAX 800-233-1522  
 www.invisiblestructures.com 08/04

#### NUMBER OF UNITS

USE 6 UNITS (20') WIDE BY 11 UNITS (36.67') LONG BY 6 UNITS (2') DEEP. 396 UNITS TOTAL.

#### Rainstore3 Unit Dimensions



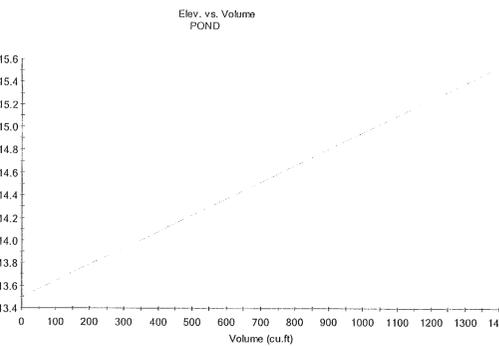
#### Rainstore3 Unit Detail

Single Rainstore3 injection molded unit geometry and dimensions

NOT TO SCALE  
 Invisible

Structures, Inc.

1597 Cole Blvd., Suite 310  
 Golden, Colorado 80401  
 800-233-1510 FAX 800-233-1522  
 www.invisiblestructures.com 08/04



### MASTER SUMMARY

#### MASTER NETWORK SUMMARY

SCS Unit Hydrograph Method  
 Hydrograph File Import Option Used For 1 node(s)

(\*Node=Outfall; +Node=Diversion;)  
 (Trun= HYG Truncation: Blank=None; L=Left; R=Right; LR=Left&Right)

Node ID	Return Type Event	HYG Vol cu.ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond Storage cu.ft
POND	IN POND	2	10883	.0834	7.42		
POND	IN POND	10	14538	.0834	9.90		
POND	OUT POND	2	10881	.1251	5.97	315.04	1058
POND	OUT POND	10	14538	.1251	7.72	315.46	1348

### ROUTING OUTLETS

#### OUTLET STRUCTURE INPUT DATA

Structure ID = 00  
 Structure Type = Orifice-Circular  
 # of Openings = 1  
 Invert Elev. = 313.50 ft  
 Diameter = 1.5800 ft  
 Orifice Coeff. = .600

Structure ID = C0  
 Structure Type = Culvert-Circular  
 No. Barrels = 1  
 Barrel Diameter = 1.7500 ft  
 Upstream Invert = 313.25 ft  
 Downstream Invert = 313.13 ft  
 Horiz. Length = 24.00 ft  
 Barrel Length = 24.00 ft  
 Barrel Slope = .00500 ft/ft

#### OUTLET CONTROL DATA..

Manning's n = .0130  
 Ke = .2000 (forward entrance loss)  
 Kp = .014830 (per ft of full flow)  
 Kr = .2000 (reverse entrance loss)  
 HW Convergence = .001 +/- ft

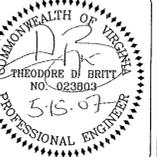
#### INLET CONTROL DATA..

Equation form = 1  
 Inlet Control K = .0018  
 Inlet Control M = 2.0000  
 Inlet Control c = .02920  
 Inlet Control Y = .7400  
 T1 ratio (HW/D) = 1.050  
 T2 ratio (HW/D) = 1.205  
 Slope Factor = -.500



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LOT 1 - SECTION 2  
 HIDEAWAY PARK

FAIRFAX COUNTY, VIRGINIA  
 PROVIDENCE DISTRICT  
 DB. 3850 PG. 396

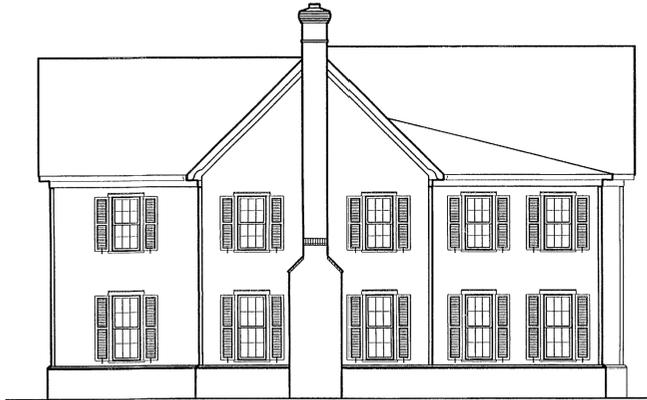
STORMWATER  
 MANAGEMENT

DATE	REVISION	PER COUNTY COMMENTS
1/30/07		
3/7/07		
5/15/07		

PM: IDB SCALE: AS SHOWN  
 PE: IDB DATE: 2/16/06  
 CO: MSO SHEET 7 OF 9



01 FRONT ELEVATION - LOT 1  
A4 SCALE 1/8" = 1'-0"



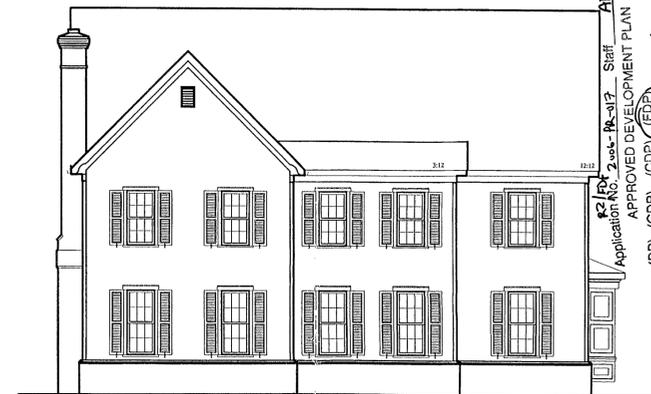
01 RIGHT ELEVATION - LOT 1  
A4 SCALE 1/8" = 1'-0"



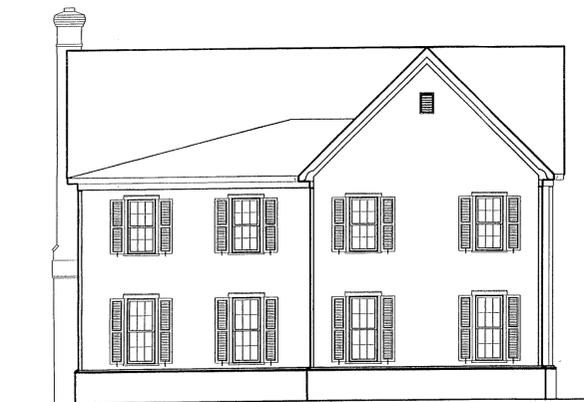
01 LEFT ELEVATION - LOT 1  
A4 SCALE 1/8" = 1'-0"



01 FRONT ELEVATION - LOT 2  
A4 SCALE 1/8" = 1'-0"



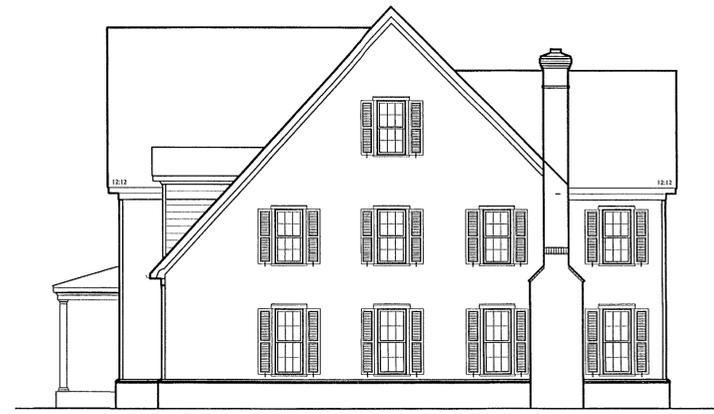
01 BACK ELEVATION - LOT 2  
A4 SCALE 1/8" = 1'-0"



01 BACK ELEVATION - LOT 1  
A4 SCALE 1/8" = 1'-0"



01 LEFT ELEVATION - LOT 2  
A4 SCALE 1/8" = 1'-0"



01 RIGHT ELEVATION - LOT 2  
A4 SCALE 1/8" = 1'-0"



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LOT 1 - SECTION 2  
HIDEAWAY PARK  
DB. 3850 P.G. 396

PROVIDENCE DISTRICT FAIRFAX COUNTY, VIRGINIA

ARCHITECTURAL  
ELEVATIONS  
LOTS 1 & 2

DATE	REVISION
1/30/07	PER COUNTY COMMENTS.
3/7/07	PER COUNTY COMMENTS.
5/15/07	PER COUNTY COMMENTS.

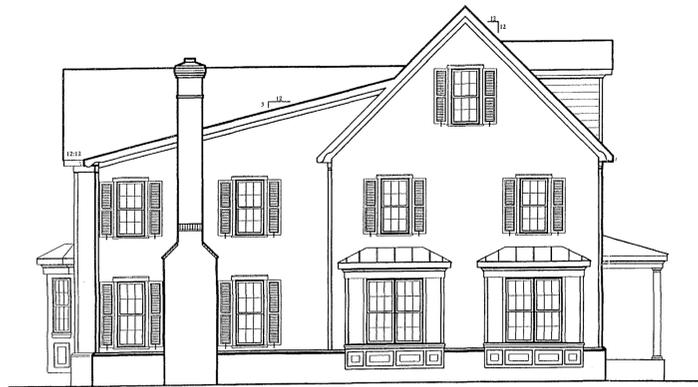
PM: JDB SCALE: 1/8" = 1'-0"  
PE: JDB DATE: 2/16/06  
CO: MSQ SHEET 8 OF 9



01 FRONT ELEVATION - LOT 3  
A4 SCALE 1/8" = 1'-0"



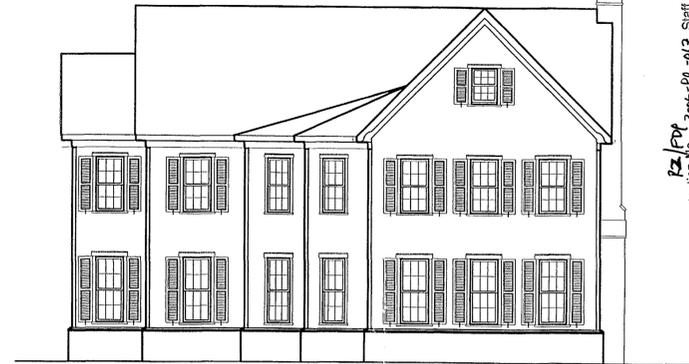
01 RIGHT ELEVATION - LOT 3  
A4 SCALE 1/8" = 1'-0"



01 LEFT ELEVATION - LOT 3  
A4 SCALE 1/8" = 1'-0"



01 FRONT ELEVATION - LOT 5  
A4 SCALE 1/8" = 1'-0"



01 BACK ELEVATION - LOT 5  
A4 SCALE 1/8" = 1'-0"



01 BACK ELEVATION - LOT 3  
A4 SCALE 1/8" = 1'-0"



01 LEFT ELEVATION - LOT 5  
A4 SCALE 1/8" = 1'-0"



01 RIGHT ELEVATION - LOT 5  
A4 SCALE 1/8" = 1'-0"

  
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Application No. 2006-PL-017 Staff ABH  
APPROVED DEVELOPMENT PLAN  
(DP) (GDP) (CDP) (FDP) 7/23/07  
SEE PROFESSIONAL DATED 7/23/07  
Date of EGS (FC) approval 7/23/07  
Sheet 9 of 9

LOT 1 - SECTION 2  
HIDEAWAY PARK  
DB. 3850 PG. 396  
FAIRFAX COUNTY, VIRGINIA  
PROVIDENCE DISTRICT

ARCHITECTURAL  
ELEVATIONS  
LOTS 3 & 5

DATE	REVISION
1/30/07	PER COUNTY COMMENTS.
3/7/07	PER COUNTY COMMENTS.
5/15/07	PER COUNTY COMMENTS.

PM: IDB SCALE: 1/8" = 1'-0"  
PE: IDB DATE: 2/16/06  
CO: MSQ SHEET 9 OF 9