County of Fairfax, Virginia

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

January 9, 2013

Christopher and Karen Barth
7250 Idylwood Road
Falls Church, VA 22043

RE: Rezoning Application RZ 2012-DR-017

Dear Mr. and Ms. Barth:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on January 8, 2013, granting Rezoning Application RZ 2012-DR-017 in the name of Christopher and Karen Barth. The Board's action rezones certain property in the Dranesville District from the R-2 and HC Districts to the R-3 and HC District to permit the residential development at a density of 2.15 dwelling units per acre. The subject property is located in the N.W. quadrant of Idylwood Road and Redd Road on approximately 40,591 square feet of land, [Tax Map 40-3 ((1)) 82], subject to the proffers dated December 20, 2012.

The Board also:

- Waived construction of the sidewalk and road frontage improvements along the Redd Road frontage of the site.
- Waived construction of road frontage improvements along the Idylwood Road frontage of the site.

Office of the Clerk to the Board of Supervisors
12000 Government Center Parkway, Suite 533
Fairfax, Virginia 22035
Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903
Email: clerktothebos@fairfaxcounty.gov
http://www.fairfaxcounty.gov/bosclerk

- Waived the trail requirement along Idylwood Road, subject to the construction of a five-foot wide concrete sidewalk or a six-foot wide asphalt path, in accordance with the Public Facilities Manual, across the property's Idylwood Road frontage.

Sincerely,

Catherine A. Chianese

Catherine A. Chianese
Clerk to the Board of Supervisors

Cc: Chairman Sharon Bulova
Supervisor John Foust, Dranesville District
Tim Shirocky, Acting Director, Real Estate Division, Dept. of Tax Administration
Barbara Berlin, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning
Thomas Conry, Dept. Manager – GIS - Mapping/Overlay
Angela K. Rodeheaver, Section Chief, Transportation Planning Division
Donald Stephens, Transportation Planning Division
Department of Highways-VDOT
Sandy Stallman, Park Planning Branch Manager, FCPA
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division
Planning Commission
Denise James, Office of Capital Facilities/Fairfax County Public Schools
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at Fairfax, Virginia, on the 8th day of January 2013, the following ordinance was adopted:

AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROPOSAL NUMBER RZ 2012-DR-017

WHEREAS, Christopher and Karen Barth, filed in the proper form an application requesting the zoning of a certain parcel of land herein after described, from the from R-2 and HC Districts to the R-3 and HC Districts, and

WHEREAS, at a duly called public hearing the Planning Commission considered the application and the propriety of amending the Zoning Ordinance in accordance therewith, and thereafter did submit to this Board its recommendation, and

WHEREAS, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

NOW, THEREFORE, BE IT ORDAINED, that that certain parcel of land situated in the Dranesville District, and more particularly described as follows (see attached legal description):

Be, and hereby is, zoned to the R-3 and HC Districts, and said property is subject to the use regulations of said R-3 and HC Districts, and

BE IT FURTHER ENACTED, that the boundaries of the Zoning Map heretofore adopted as a part of the Zoning Ordinance be, and they hereby are, amended in accordance with this enactment, and that said zoning map shall annotate and incorporate by reference the additional conditions governing said parcel.

GIVEN under my hand this 8th day of January, 2013.

Catherine A. Chianese
Clerk to the Board of Supervisors

Christopher and Karen Barth
App # RZ 2012-DR-017
Proffers
Dec 20, 2012

Pursuant to Section 15.2-2303 (a) of The Code of Virginia, 1950, as amended, the undersigned; Christopher and Karen Barth, the Applicants and Owners, for themselves and their successors and assigns (hereinafter referred to as the "Applicant") filed for the rezoning for the property located at Tax Map 40-3-01 Parcel 82 (hereinafter referred to as the "Application Property") hereby agrees to the following Proffers, provided that the Fairfax County Board of Supervisors approves the rezoning of the Application Property to the R-3 Zoning District, as proffered herein.

1. **Substantial Conformance.**
   a. **Shared driveway plan:** Subject to the provisions of Section 18-204 of the Fairfax County Zoning Ordinance ("the Ordinance"), development of the Application Property identified on the Fairfax County Tax Map 40-3 ((1)), Parcel 82 shall be in substantial conformance with the Generalized Development Plan ("GDP") entitled Mid Pike Subdivision Lot 82 Block 1 and prepared by Advance Engineering Group, LLC, dated 4-23-2012 as revised through 9-26-2012.
   b. **Separate driveway plan:** If at the time of Subdivision Plan the applicant elects to develop the site in substantial conformance with the GDP dated 4-23-2012 as revised through 10-25-2012, then development of the Application Property shall be in substantial conformance with this GDP.
2. **Minor Modifications.** Minor modifications from the GDP and these Proffers, which may become occasioned as part of the final architectural and engineering design, may be permitted as determined by the Zoning Administrator in accordance with the provisions set forth in Section 18-204 of the Fairfax County Zoning Ordinance.
3. **Successors and Assigns.** Each reference to Applicant in this Proffer Statement shall include within its meaning, and shall be binding upon, Applicant's successor(s) in interest, assigns, and/or developer(s) of the Application Property or any portion of the Application Property.
4. **Maximum Density.** A maximum of 2 dwelling units shall be permitted on the Application Property. (1 dwelling per lot after subdivision)
5. **Zoning Agreement.** While the property is being rezoned to R-3, the Applicant property shall meet the minimum yard requirements of the R-2 District, except along the Idylwood Road front. Only 2 single family homes shall be located on the application property, and the homes shall be single family dwellings.
6. **Storm Water Detention/Water Quality.**
   a. The Applicant shall provide stormwater management and stormwater quality facilities as generally depicted on the GDP, subject to the requirements of the Fairfax County Public Facilities Manual. Prior to subdivision plan approval, stormwater management (SWM), best management practice (BMP) facilities, and adequate outfall shall be provided in accordance with the Public Facilities Manual (PFM) as determined by DPWES.
   b. In addition to the above, the Applicant shall provide BMP facilities for each lot that provide a minimum of 50% phosphorus removal efficiency, as determined by DPWES.

CB/KB

c. The Applicant reserves the right to pursue innovative stormwater detention and water quality measures, subject to the review and approval of Fairfax County DPWES.

7. **Architecture and Building Materials.** The design and architecture of the approved units shall be in substantial conformance with the illustrative elevation attached as Sheet (2) of the (GDP), or of comparable quality as determined by DPWES. The exterior facade of the new home constructed on the site shall be brick, stone, cementitious siding, vinyl siding, or a combination thereof.

8. **Interior Noise Reduction:** In order to reduce interior noise in the proposed residential dwelling constructed on lot two, the Applicant shall employ the following acoustical treatment measures:
   - Exterior walls shall have a laboratory sound transmission class (STC) rating of at least 45.
   - Doors and glazing shall have a laboratory STC rating of at least 34.
   - All surfaces shall be sealed and caulked in accordance with methods approved by the American Society of Testing and Materials to minimize sound transmission.

9. **Energy Efficiency.** The new house on Lot 2 shall be designed and constructed as an ENERGY STAR qualified home. Prior to the issuance of the Residential Use Permit for the new home on Lot 2, documentation shall be submitted to the Environment and Development Review Branch of the Department of Planning and Zoning from a home energy rater certified through the Residential Energy Services network program that demonstrates that the home has attained the ENERGY STAR for homes qualification.

10. **Dedication.** The Applicant shall dedicate and convey in fee simple without encumbrance to the Board of Supervisors right-of-way up to a width of 32 (thirty two) feet from centerline of Idylwood Road as shown on the Generalized Development Plan (GDP). Dedication shall occur at the time of subdivision plan approval.

11. **Density Credit.** Density credit shall be reserved as may be permitted by the provisions of Paragraph 4 of Section 2-308 of the Ordinance for all eligible dedications described herein.

12. **Water and Sewer.** The Applicant shall be responsible for constructing all facilities to connect the proposed home on Lot 2 of the Application Property to public water and sewer.

13. **Tree Preservation.**

    a. **Tree Cover and Tree Preservation in Accordance with PFM.** The applicant shall satisfy the tree preservation and tree canopy requirements of the Public Facilities Manual (PFM) of Fairfax County.

    b. **Tree Preservation Plan.** The Applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent subdivision plan submissions. The preservation plan shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a Certified Arborist or Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES

    The tree preservation plan shall consist of a tree survey that includes the location, species, critical root zone, size, crown spread and condition rating percentage rating of all individual trees 12 inches in diameter and greater located within 25 feet within the undisturbed area and 10 feet of the limits clearing and grading in the disturbed area shown on the GDP for the entire site. The tree preservation plan shall provide for the preservation of those areas shown

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for tree preservation, those areas outside of the limits of clearing and grading shown on the GDP and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan.

c. **Tree Preservation Walk-Through.** The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments, if any, to the clearing limits can be made to increase the area of tree of tree preservation and/or to increase survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as a little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.

d. **Limits of Clearing and Grading.** The Applicant shall conform strictly to the limits of clearing and grading as shown on the GDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the GDP, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.

e. **Tree Preservation Fencing.** All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super slit fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the three preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the

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fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.

f. **Root Pruning.** The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

   i. Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.

   ii. Root pruning shall take place prior to any clearing and grading, or demolition of structures.

   iii. Root pruning shall be conducted with the supervision of a certified arborist.

   iv. An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.

g. **Demolition of Existing Structures**: At the time of subdivision plan review, the applicant shall submit a narrative that describes how trees adjacent to the existing structures and features to be removed will be protected during demolition activities

h. **Site Monitoring.** During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work adjacent to any vegetation to be preserved and tree preservation efforts in order to ensure conformance with all tree preservation proffers, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.

14. **Existing Detached Car Port.** A detached car port currently exists on the Application Property and its footprint rests on both proposed lots. The Applicant shall remove this structure prior to the issuance of the residential use permit (RUP) for the dwelling on Lot 2. The proposed new home on Lot 2 may include an attached garage as shown on the GDP.

15. **Additions and Accessory Structures**. Additions and accessory structures, including replacement of existing structures, that conform to the applicable Zoning Ordinance provisions and these proffers may be permitted without an amendment to these Proffers and the GDP. The applicant may encroach into the limits of clearing and grading shown for lot 1 on the GDP in order to replace the existing dwelling or construct additions or accessory structures, provided that tree preservation and canopy requirements are met.

16. **Common Driveway Easement.** In the event that the applicant elects to develop the site in accordance with Proffer 1A, the Applicant shall grant ingress/egress easements for the benefit of proposed (LOT 1) over the common driveway shown on the (GDP). Said easements shall be the subject of a private maintenance agreement to be recorded at time of subdivision plat approval for the Application Property. Purchasers shall execute a disclosure memorandum at time of contract acknowledging the ingress/egress easement.

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17. **Erosion and Sediment Control.** The applicant shall implement erosion and sediment control measures before and during all construction activities, in accordance with the Public Facilities Manual (PFM) of Fairfax County.

18. **Idylwood Road Sidewalk/Trail Improvements.** In lieu of constructing the required 10 (ten) foot wide trail, the Applicant shall construct either 1) a concrete sidewalk, 5 (five) feet in width or 2) an asphalt shared use path, 6 (six) feet in width extending along the application property's full frontage of Idylwood Road. The sidewalk/path shall be graded to be ADA compliant.

19. **Park Contribution.** Prior to subdivision plan approval, the Applicant shall contribute $2,679 to the Fairfax County Park Authority for its use in establishing and maintaining parks and recreational facilities in the Dranesville District of Fairfax County.

20. **Housing Trust Fund Contribution.** Prior to the issuance of the first Building Permit, the Applicant shall contribute to the Fairfax County Housing Trust Fund a sum equal to one-half of one percent (0.5%) of the value of the new unit approved on the property. The percentage shall be based on the sales price of the unit subject to the contribution and is estimated through comparable sales of similar type units. The projected sales price shall be as determined by the Department of Housing and Community Development in consultation with the Applicant to assist the County in its goal to provide affordable dwellings.

21. **Archaeological Study.** Prior to any land disturbing activities on the Application Property, the applicant shall conduct a Phase I archaeological study of the Application Property, and provide the results of such studies to the Resource Management Division of the Fairfax County Park Authority. If deemed necessary by the Resource Management Division, the Applicant shall conduct a Phase II and/or Phase III archaeological study on only those areas of the Application Property identified for further study by the Resource Management Division. The studies shall be conducted by a qualified archaeological professional approved by Resource Management Division, and shall be reviewed and approved by the Resource Management Division. The studies shall be completed prior to subdivision plat recordation.

22. **Culvert Pipe.** Prior to obtaining the VDOT driveway permit, the applicant shall ensure the existing culvert pipe has adequate capacity for the proposed driveway, and if necessary, make the improvements to meet VDOT requirements.

23. **Escalation.** All monetary contributions required by these proffers shall be adjusted upward or downward based on the percentage change in the annual rate of inflation as calculated by referring to the Consumer Price Index for all urban customers, (not seasonally adjusted) as reported by the United States Department of Labor, Bureau of Labor Statics occurring subsequent to the date of rezoning approval and up to the date of payment. In no event shall an adjustment increase exceed the annual rate of inflation as calculated by CPI-U.

20 DEC 2012

Christopher D. Barth

Title Owner/Applicant

20 Dec 2012

Karen M. Barth

Title Co-Owner/Co-Applicant

MID PIKE SUBDIVISION
LOT 82 BLOCK 1
DRANESVILLE DISTRICT #1
FAIRFAX COUNTY, VIRGINIA
GENERALIZED DEVELOPMENT PLAN
REZONING & SUBDIVIDING
RZ 2012-0147
7250 IDYLWOOD ROAD
FALLS CHURCH, VA 22043

APPLICANT: CHRISTOPHER AND KAREN BARTH
7250 IDYLWOOD ROAD,
FALLS CHURCH, VA 22043

PREPARED BY: ADVANCE ENGINEERING GROUP, LLC
701 W BROAD ST, SUITE 306
FALLS CHURCH, VA 22046
703-533-1581

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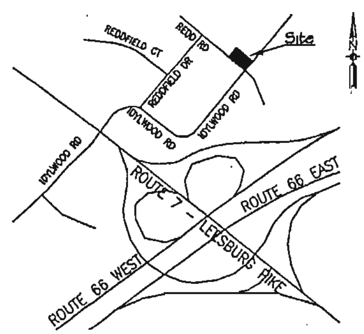


Advance Engineering Group LLC
Civil, Structural & Geotechnical Engineers / Planners
701 W Broad St. Suite 306, Falls Church VA 22046
703-533-1581 / Fax-703-533-1542
www.advanceengroup.net info@advanceengroup.net

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1

COVER SHEET

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-824
ENG. OF RECORD	A.E.F
ISSUE DATE	4-23-2012
APPLICAT. NO.	

SEAL 10-31-12

NO.	DATE	BY	REMARKS
1	6-07-12	A.E.F	PER CITY COMMENTS
2	9-25-12	A.E.F	PER CITY COMMENTS
3	10-25-12	A.E.F	INDIVIDUAL DRIVEWAYS ADJUSTED LOT SIZES

824
CO-1
SHEET 1 OF 7

GENERAL NOTES:

THE PROPERTY DELINEATED ON THESE PLANS IS LOCTED ON FAIRFAX COUNTY TAX ASSESMENT MAP NUMBER 40-3 ((01)) 0082. THE SITE IS CURRENTLY ZONED R-2, THE PROPOSED ZONING IS R-3 .

1. BOUNDARY INFORMATION OBTAINED FROM CERTIFIED SURVEY BY DOMINION SURVEYS DATED NOV0 I 6-2010.
2. TOPOGRAPHIC INFORMATION OBTAINED FROM FIELD RUN TOPOGRAPHIC SURVEY WITH TOTAL STATION PREPARED BY ADVANCE ENGINEERING GROUP, LLC. ON DEC-13-201 I
3. TO THE BEST OF OUR KNOWLEDGE , THERE ARE NO HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 116.4, 302.4 AND 356; WASTE MANAGEMENT VR 672-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATION; AND /OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40 CODE OF FEDERAL REGULATIONS PART 280; TO BE GENERATED, UTILIZED, STORED, TREATED, AND /O R DISPOSED OF ON SITE.
4. THE PROPERTY IS LOCATED ON HC ZONING OVERLAY DISTRICT.
5. THERE ARE NO AFFORDABLE DWELLING UNITS (ADU) REQUIRED OR PROPOSED FOR THIS PROJECT.
6. NO DENSITY REDUCTIONS ARE REQUIRED BY ZONING SECTION 2-308.
7. THERE ARE NO PROPOSED RECREATION FACILITIES PROPOSED FOR THIS DEVELOPMENT.

SITE TABULATIONS:

SITE AREA = 40,691.8 SF = 0.982 ACRES
ADJUSTED SITE AREA = 38,841.8 SF =0.880 ACRES
EXISTING ZONE = R-2 RESIDENTIAL
PROPOSED ZONE = R-3 RESIDENTIAL

BULK REGULATION (R-3 ZONNING DISTRICT)

	REQUIRED	PROVIDED	
NUMBER OF UNITS:		LOT 1 / 1 SFD DWELLING UNIT (EXIST)	LOT 2 / 1 SFD DWELLING UNIT (NEW)
DENSITY:	8 DU/AC (MAX)	2.28	2.27
MINIMUM LOT AREA:	10,500 SF	(1) 15186.5 SF	19,315.00 SF
AVERAGE LOT AREA:	11,500 SF	16170.73	
MINIMUM LOT WIDTH:	INTERIOR LOT - 80'	N/A	152.10
	CORNER LOT - 100'	187.81	N/A
MAX BUILDING HEIGHT:	35'	27' (EXIST)	30' (PROP)
SET BACKS: FRONT YD	30 (2)	87.41' TO REDD RD NW 50.00 TO EYLWOOD NW	58.00 (PROP)
REAR YD	25	NA (CORNER LOT)	74.02' (PROP)
SIDE YD	12	87.8 1' (PROP)	16.00 TO LOT 80 + 58.0' TO LOT 1
OPEN SPACE:	N/A	N/A	N/A
PARKING:	2 SPACES PER DU	2 SPCS	2 SPCS
LOT SHAPE FACTOR:		16.90	16.08

*NOTES:
1.- ADJUSTED AREA FOR LOT #1 SHOWN IS AFTER, 8550.00 SF OF LAND DEDICATION FOR PUBLIC SIDEWALK.
2- SETBACKS SHOWN FOR LOTS #1 AND #2 ARE RELATED TO THE PROPOSED NEW LOT LINE OR EXISTING AND AFTER LAND DEDICATION ALONG EYLWOOD RD.

ADDITIONAL NOTES

1. TO THE BEST OF OUR KNOWLEDGE, NO HAZARDOUS WASTE DESTS ON THIS SITE.
2. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN CEMETERIES ON THIS PROPERTY.
3. THIS SITE IS LOCATED WITHIN THE PIMMIT RUN WATERSHED

SLOPES OVER 15%	[ ] YES	[X] NO
R.P.A	[ ] YES	[X] NO
R.M.A	[ ] YES	[X] NO
OVERLAY DISTRICT (WATER SUPPLY)	[ ] YES	[X] NO
WETLANDS	[ ] YES	[X] NO
FLOODPLAIN	[ ] YES	[X] NO

4. THE PROPERTY DELINEATED ON THIS PLAN IS NOT ON THE 100 YEARS FLOOD PLAIN.
5. TO THE BEST OF OUR KNOWLEDGE THERE IS NO KNOWN ARCHEOLOGICAL SITES ON THIS PROPERTY.
6. THE PROPERTY DELINEATED ON THIS PLAN IS NOT LOCATED WITHIN A RESOURCE PROTECTION AREA AS SHOWN ON CHESAPEAKE BAY PRESERVATION AREA MAP (MAP #PA-2).
7. THIS LOT RECORDED PRIOR TO AUGUST 1, 1978 AND AS SUCH IS NOT REQUIRED TO MEET CURRENT LOT WIDTH AND SIZE REQUIREMENTS UNDER FAIRFAX COUNTY ZONING ORDINANCE, ARTICLE 2-405.
8. THIS PROPERTY IS SERVED BY PUBLIC WATER AND SEWER.

FROTTERED OR CONDITIONED SITE:	[ ] YES	[ ] NO SPECIAL EXCEPTION
WATER SUPPLY	[X] PUBLIC	[ ] WELL
SEWER SERVICE	[X] PUBLIC	[ ] PRIVATE

9.- THE PROPOSED DEVELOPMENT CONFORMS WITH THE PROVISIONS OF ARTICLE 3 , FOR R3 PROPOSED ZONING DISTRICT AND ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS. NO WAIVERS, VARIANCES ,SPECIAL EXCEPTIONS , NOR PFM MODIFICATIONS ARE REQUESTED IN ASSOCIATION WITH THIS PROPOSED DEVELOPMENT

10. THERE ARE NO PROPOSED PUBLIC IMPROVEMENT PLANS CONTEMPLATED FOR THIS DEVELOPMENT
11. THE PROPOSED CHANGE FROM R2 TO R3 ZONING DISTRICT IS IN HARMONY WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN WHICH CALLS FOR THIS TYPE OF REDEVELOPMENT. THE PROPOSED PROJECT WILL COMPY WITH ALL OTHER REQUIREMENTS OF THE COMPREHENSIVE PLAN

WATERSHED = PIMMIT RUN
TOTAL LAND DISTURBANCE = 84700 SQ FT

GENERALIZED DEVELOPMENT PLAN SUBMISSION CHECKLIST:

- TWENTY-THREE (23) COPIES OF A GENERALIZED DEVELOPMENT PLAN PROVIDED HEREIN WITH APPLICATION.
- ONE 8 1/2" X 11" REDUCTION OF THE PLAN PROVIDED HEREIN WITH APPLICATION.
- A GENERALIZED DEVELOPMENT PLAN, AT A SCALE OR NOT LESS THAN ONE INCH EQUALS ONE HUNDRED FEET (1"= 100), SHALL SHOW THE FOLLOWING:

A. SCALE AND NORTH ARROW, WITH NORTH, TO THE EXTENT FEASIBLE, ORIENTED TO THE TOP OF THE PLAN.

– SCALE AND NORTH ARROW HAVE BEEN PROVIDED ON PLAN, SEE SHEET 3 OF 7.

B. EXCEPT FOR SINGLE FAMILY DETACHED DWELLINGS, THE APPROXIMATE LOCATION AND DIMENSIONS OF ALL PROPOSED STRUCTURES AND USES, TO INCLUDE THE MAXIMUM HEIGHT IN FEET OF ALL STRUCTURES AND PENTHOUSES, AND A GRAPHIC DEPICTION OF THE ANGLE OF BULK PLANE, IF APPLICABLE.

– PROPOSED STRUCTURE AND USE INCLUDING MAXIMUM HEIGHT HAS BEEN PROVIDED ON PLANS. SEE SHEET 2 OF 7 (THIS SHEET)

C. THE PROPOSED TRAFFIC CIRCULATION PLAN INCLUDING MAJOR STREETS AND MAJOR PEDESTRIAN, BIKE AND/OR BRIDLE PATHS, AND THE LOCATION OF ALL TRAILS REQUIRED BY THE ADOPTED COMPREHENSIVE PLAN.

– PROPOSED DRIVEWAY LOCATION HAS BEEN PROVIDED ON PLANS. TRAILS ARE REQUIRED PER THE FAIRFAX COUNTY TRAILS PLAN. A WAIVER FOR AN 10 FT TRAIL ENCROACHMENT ALONG EYLWOOD IS REQUESTED . THERE IS AN EXISTING 5'SIDEWALK ALONG EYLWOOD ROAD AND A WIDENING TO 6 FT IS PROPOSED SEE GENERAL DEVELOPMENT PLAN ON SHEET 3)

A WAIVER OF STREET FRONTAGE IMPROVEMENTS ALONG REDD RD IS REQUESTED

D. ALL PROPOSED MAJOR OPEN SPACE AREAS AND THE APPROXIMATE LOCATION OF ALL PROPOSED COMMUNITY AND PUBLIC FACILITIES.

– THERE IS NO OPEN SPACE REQUIREMENT FOR SITE. THEREFORE NO MAJOR OPEN SPACE AREAS HAVE BEEN PROPOSED. THERE ARE NO PROPOSED COMMUNITY OR PUBLIC FACILITIES.

E. THE PROPOSED PLAN FOR ALL MAJOR SANITARY SEWER IMPROVEMENTS.

– N/A NO SANITARY IMPROVEMENTS WITHIN THE RAV PROPOSED.

F. APPROXIMATE LOCATION, ESTIMATED SIZE OF FOOTPRINT IN ACRES AND TYPE OF ALL PROPOSED STORMWATER MANAGEMENT FACILITIES, INCLUDING THE FULL EXTENT OF SIDE SLOPES, EMBANKMENTS, SPILLWAYS, DAMS, AND APPROXIMATE WATER SURFACE ELEVATION FOR DESIGN STORMS, IF APPLICABLE. IN ADDITION, A PRELIMINARY STORMWATER MANAGEMENT PLAN THAT INCLUDES INFORMATION ABOUT THE ADEQUACY OF DOWNSTREAM DRAINAGE, INCLUDING THE SUFFICIENCY OF CAPACITY OF ANY STORM DRAINAGE, PIPES, AND OTHER CONVEYANCES INTO WHICH STORMWATER RUNOFF WILL BE CONVEYED. WHEN THERE IS 2500 SQUARE FEET OR MORE OF LAND DISTURBED ACTIVITY ON THE ENTIRE APPLICATION PROPERTY, IN ADDITION TO THE ABOVE, THE PRELIMINARY STORMWATER MANAGEMENT PLAN SHALL INCLUDE:

(1) A GRAPHIC DEPICTING INFORMATION AS DESCRIBED WITHIN DETAILED APPLICATION CHECKLIST.
(2) A PRELIMINARY STORMWATER MANAGEMENT NARRATIVE SETTING FORTH THE REQUIRED INFORMATION WITHIN THE DETAILED APPLICATION CHECKLIST.

– STORM WATER OUTFALL ANALYSIS AND BMP CALCULATIONS FOR PROPOSED INNOVATION TECHNICES HAVE BEEN PROVIDED. SEE SHEETS 4 OF 7 AND 5 OF 7 INCLUDING THE CHECKLIST.

G. THE LOCATION OF ALL EXISTING UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) FEET OR MORE AND ALL MAJOR UNDERGROUND UTILITY EASEMENTS REGARDLESS OF WIDTH.

– IN APPLICANTS KNOWLEDGE, THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH TWENTY-FIVE (25) FEET OR GREATER.

H. A SCHEDULE SHOWING THE NUMBER OF PARKING SPACES PROVIDED AND THE NUMBER REQUIRED BY THE PROVISIONS OR ARTICLE 11 OF THE ZONING ORDINANCE

I. – A SCHEDULE SHOWING THE NUMBER OF PARKING SPACES PROVIDED AND THE NUMBER REQUIRED HAS BEEN PROVIDED, SEE SHEET 2 OF 7 (THIS SHEET)

WHETHER IT IS AIR SURVEYOR, FIELD RUN.

– TOPOGRAPHIC INFORMATION PROVIDED ON SHEETS 3 OF 7 AS PREPARED BY A FIELD RUN SURVEY COMPLETED BY AEG GROUP, LLC (SEE NOTE ON THIS SHEET)

K. A DELINEATION OF THOSE GENERAL AREAS THAT HAVE SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION AND PRESERVATION, AND A STATEMENT OF HOW SUCH WILL BE ACCOMPLISHED.

– IN THE APPLICANTS OPINION, THE SITE HAS NO SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION OR PRESERVATION.

L. A STATEMENT OR VISUAL PRESENTATION OF HOW ADJACENT AND NEIGHBORING PROPERTIES SHALL BE PROTECTED FROM ANY ADVERSE EFFECTS PROMPTED BY THE PROPOSED DEVELOPMENT, TO INCLUDE VEHICULAR ACCESS PLANS AND DIMENSIONS OF ALL PERIPHERAL YARDS THAT WILL BE PROVIDED.

– ALL REQUIRED PERIPHERALS YARDS FOR PROPOSED STRUCTURES AND DRIVEWAYS HAVE BEEN PROVIDED IN ACCORDANCE WITH THE BULK REGULATIONS SET FORTH IN SECTION 8-307 OF THE FAIRFAX COUNTY ZONING ORDINANCE. SEE SHEET 3 OF 7

M. A DELINEATION OF ALL EXISTING STRUCTURES, AND AN INDICATION OF THEIR DATE OF CONSTRUCTION IF KNOW, AND WHETHER THEY WILL BE RETAINED OR DEMOLISHED.

– EXISTING DWELLING CONSTRUCTED CIRCA 1940 IS TO REMAIN THE DETACHED GARAGE WILL BE DEMOLISHED..... SEE SHEET 3 OF 7

N. A STATEMENT SETTING FORTH THE MAXIMUM GROSS FLOOR AREA AND FAR PROPOSED FOR ALL USES OTHER THAN RESIDENTIAL.

– N/A NO FAR REQUIREMENTS FOR RESIDENTIAL DEVELOPMENT

O. A STATEMENT OR PRESENTATION SETTING FORTH THE MAXIMUM NUMBER OR DWELLING UNITS PROPOSED, AND THE DENSITY AND THE OPEN SPACE CALCULATIONS BASED ON THE PROVISIONS OF SECTIONS 2-305 (MAXIMUM DENSITY) AND 2-309 (OPEN SPACE) OF THE ZONING ORDINANCE.

– A TABLE SHOWING MAXIMUM DWELLING UNITS PER ACRE IS SHOWN ON THIS SHEET

P. A STATEMENT OF THOSE SPECIAL AMENITIES THAT ARE PROPOSED WITHIN THE DEVELOPMENT.

– THERE ARE NO SPECIAL AMENITIES THAT ARE PROPOSED ON THIS PLAN.

Q. A STATEMENT OF THE PUBLIC IMPROVEMENTS, BOTH ON AND OFF-SITE, THAT ARE PROPOSED FOR DEDICATION AND/OR CONSTRUCTION, AND AN ESTIMATE OF THE TIMING OF PROVIDING SUCH IMPROVEMENTS.

– STREET FRONTAGE DEDICATION CAN BE PROVIDED IF REQUESTED

R. A STATEMENT SETTING FORTH THE PROPOSED APPROXIMATE DEVELOPMENT SCHEDULE.

– DEVELOPMENT IS ANTICIPATED TO COMMENCE UPON APPROVAL OF SITE PLAN.

S. APPROXIMATE DELINEATION OF ANY FLOODPLAIN DESIGNED BY THE FEDERAL INSURANCE ADMINISTRATION, UNITED STATES GEOLOGICAL SURVEY, OR FAIRFAX COUNTY. THE APPROXIMATE DELINEATION OF ANY RESOURCE PROTECTION AREA AND RESOURCE MANAGEMENT ARE, AND THE APPROXIMATE DELINEATION OF ANY ENVIRONMENTAL QUALITY CORRIDOR AS DEFINED IN THE ADOPTED COMPREHENSIVE PLAN, AND, IF APPLICABLE, THE DISTANCE OF ANY EXISTING AND PROPOSED STRUCTURES FROM THE FLOODPLAIN, RESOURCE PROTECTION AREA AND RESOURCE MANAGEMENT AREA, OR ENVIRONMENTAL QUALITY CORRIDOR.

– IN ACCORDANCE WITH FEMA ISSUED FLOOD MAPS, THERE IS NO 100-YEAR FLOODPLAIN ON THE SITE. IN ACCORDANCE WITH FAIRFAX COUNTY GIS MAP #39-1, THERE ARE NO RESOURCE PROTECTION AREAS (RPA) OR ENVIRONMENTAL QUALITY CORRIDORS (EQC) ON THE SITE.

T. ANY PROPOSED IMPROVEMENTS TO THE PUBLIC RIGHTS-OF-WAY AND DELINEATION OF THE EXISTING CENTERLINE TO THE EDGE OF THE PAVEMENT AND TO THE EDGE OF THE RIGHT-OF-WAY.

– A DEDICATION OF A 15 FT WIDE PARCEL PARALLEL TO EYLWOOD RD TO EXTEND EYLWOOD TO A W TO 15 FT FROM THE CENTERLINE OF THE RD, TO THE EDGE OF THE PROPERTY. SEE SHEET 3 OF 7).

U. A PLAN SHOWING LIMITS OF CLEARING, PROPOSED LANDSCAPING AND SCREENING IN ACCORDANCE WITH ARTICLE 13 OF THE ZONING ORDINANCE. A DELINEATION OF EXISTING VEGETATION, TO INCLUDE EXISTING VEGETATION TO BE PRESERVED, AND WHEN THERE IS 2500 SQUARE FEET OR MORE OF LAND DISTURBING ACTIVITY, AN EXISTING VEGETATION MAP.

– THE PROPOSED LIMITS OF CLEARING HAS BEEN PROVIDED. SEE SHEET 3 OF 7 . AN EXISTING VEGETATION MAP AND TREE PRESERVATION PLAN HAVE BEEN PROVIDED. SEE SHEETS 6 OF 7 & SHEET 7 OF 7 RESPECTIVELY.

V.- APPROXIMATE DELINEATION OF ANY GRAVE, OBJECT OR STRUCTURE MARKING A PLACE OF BURIAL IF KNOW, AND A STATEMENT INDICATING HOW THE PROPOSED DEVELOPMENT WILL IMPACT THE BURIAL SITE.

– TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO GRAVES, MARKERS, OBJECTS OR STRUCTURES MARKING A PLACE OF BURIAL

W.- A STATEMENT WHICH CONFIRMS THE OWNERSHIP OF THE SUBJECT PROPERTY, AND THE NATURE OF THE APPLICANTS INTEREST IN SAME.

– THE PROPERTY HEREON IS IN THE OWNERSHIP OF MR. CHRISTOPHER D BARTH RECORDED IN DEED BOOK # 1678 PAGE 0512 AMONG THE LAND RECORDS OF FAIRFAX COUNTY.

REQUESTED MODIFICATION/WAIVERS

1. A WAIVER OF THE 10 FT TRAIL REQUIREMENT ALONG EYLWOOD ROAD IS REQUESTED. A WIDENING OF THE EXISTING SIDEWALK IS BEING PROPOSED TO 5 FT OF ASPHALT OR 6 FT OF PAVEMENT, AND THE SIDEWALK WILL MAKE ADA COMPLIANT.
2. A WAIVER OF STREET FRONTAGE IMPROVEMENTS ALONG REDD ROAD IS REQUESTED.
3.- A WAIVER OF DEDICATED OUTLOT FOR BMP FACILITIES. BMP FACILITIES ARE PROPOSED ON INDIVIDUAL LOTS

ADEQUATE OUTFALL NARRATIVE

FOR LOT 1 , WHERE THE EXISTING HOUSE IS LOCATED , THE REDEVELOPMENT CONVERTS ALMOST N ADDED A NEW GARAGE. THIS AREA HAS BEEN GRADED BEFORE, WHEN THE EXISTING HOUSE WAS BUILT AND THE EXISTING DRAINAGE PATTERN DIRECTS THE RUNOFF IN ALL DIRECTIONS AWAY FROM THE HOUSE . NET RUNOFF INCREASE FOR LOT 1 IS ONLY 0.10~0.11 CFS GENERATED IN THE GARAGE AND IT WILL BE CONVEYED TO THE PROPOSED INFILTRATION TRENCH LOT 1

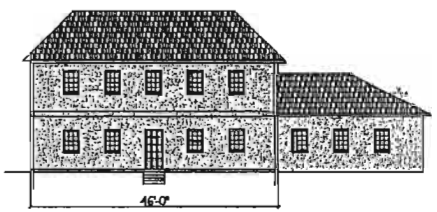
FOR LOT 2 , BUILDING A NEW HOUSE WILL INTAIL A LARGER LAND DISTURBANCE. THE EXISTING DRAINAGE PATTERN IS FAIRLY UNIFORM SHOWING A LAND SLOPE FROM FRONT TO BACK OF THE LOT. THE RUNOFF FROM THE FRONT YARD WILL HAVE TO BE DIVERTED AROUND THE HOUSE TOWARDS THE PROPOSED INFILTRATION TRENCHES. FOR THIS LOT THE NET INCREASE IN RUNOFF IS 0.10~0.404 CFS

ONLY THE EXCESS OF RUNOFF OVERFLOWING THE 3 INCH INFILTRATION TRENCHES FOR THE TWO LOTS THROUGH THE SPILLWAYS WILL SHEETFLOW TOWARD THE BACK LOTS AT MODERATE AND CONTROLLED VELOCITY WITHOUT ANY CHANCE OF CAUSING ANY IMPACT UPON ADJACENT PROPERTIES.

ACCORDING TO SECTION 4-0608.6A, ADEQUATE OUTFALL ANALYSIS FOR SECTION 4-0608.6 IS NOT REQUIRED SINCE THERE IS NO DIVERSION OF STORMWATER FROM ONE DRAINAGE AREA TO ANOTHER AND THE ASSOCIATED RUNOFF Q10=0.416 CFS IS ENTIRELY SHEETFLOW SO IT ACCORDANCE TO THE TFM, SECTION 6-0608.1 IT IS THE OPINION OF THE ENGINEER, THAT THE DOWNSTREAM PATH IS ADEQUATE AND THAT THE SCOPE OF THIS PROJECT HAS A MINIMUM EFFECT ON THE DISCHARGE VOLUME AS OUTLINED ABOVE.

LEGEND

- EXISTING INTERMEDIATE CONTOUR — 113
- EXISTING INDEX CONTOUR — 82.5
- PROPOSED CONTOUR — 20
- EXISTING EDGE OF PAVEMENT — EX. DP
- PROPOSED EDGE OF PAVEMENT — PROP. DP
- EXISTING CURB AND GUTTER — EX C&G
- PROPOSED CURB AND GUTTER — CG-6
- TRANSITION FROM CG-6 TO CG-6R — CG-6 CG-6R
- EXISTING UTILITY POLE — CB-3
- FENCELINE — X
- EXISTING WATER METER — W M
- EXISTING STORM SEWER MANHOLE — D
- EXISTING SANITARY SEWER — S
- PROPOSED SANITARY SEWER — S
- EXISTING ELECTRIC SERVICE — E E
- EXISTING GAS LINE — G G
- EASEMENT LINE
- CENTERLINE
- PROPOSED SPOT ELEVATION — 123
- EXISTING TREE — 100 SF, 575 mm (15") OAK
- EXISTING STOP SIGN
- TEMP.CONST. ENTRANCE — CE
- EXISTING LANDSCAPE TO REMAIN
- LIMITS OF DISTURBANCE — LOD
- EXISTING STREET LIGHT



PROPOSED NEW HOUSE FOR LOT 2
SCALE 1" = 10 FT APPROX

Advance Engineering Group LLC.
Civil, Structural & Geotechnical Engineers / Planners
701 W.Broad St. Suite 306, Falls Church VA 22046
703-533-1501 Fax-703-533-1502
www.Adveng.net info@adveng.net

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-4-(01)- 0082

PROJECT INFORMATION AND VICINITY MAP

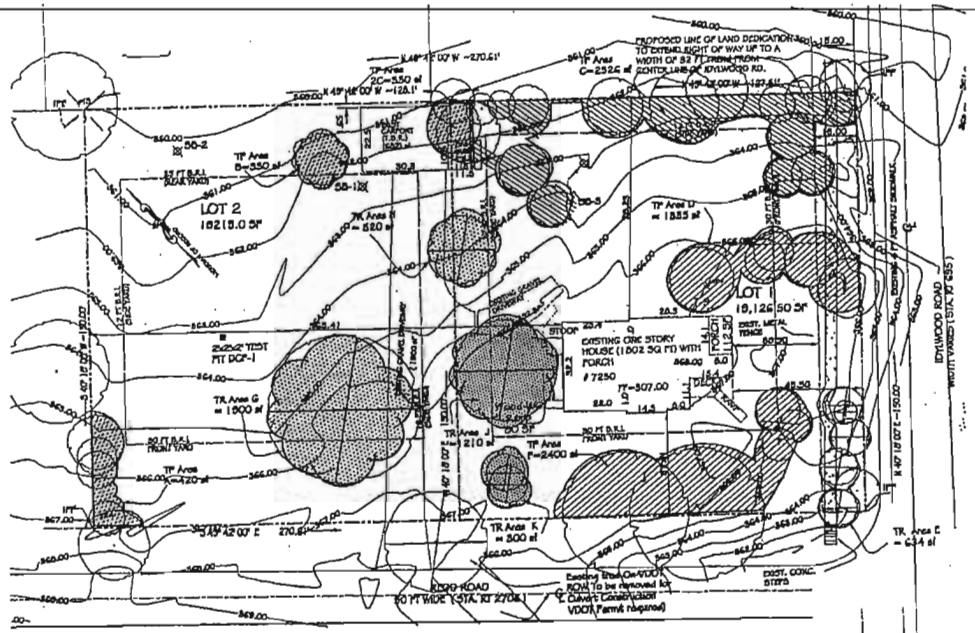
PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-584
DSG. OF RECORD	A.E.F
ISSUE DATE	4-25-2012
APPLICANT. NO.	

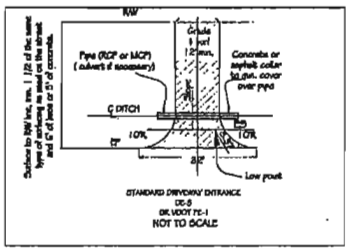
NO.	DATE	BY	REMARKS
1	6-07-12	A.E.F	PER CITY COMMENTS
2	8-26-12	A.E.F	PER CITY COMMENTS
3	10-25-12	A.E.F	INDIVIDUAL DRIVEWAYS ADJUSTED LOT 2&3

COMMONWEALTH OF VIRGINIA — ALEX E. FERNANDEZ — No. 19287 — PROFESSIONAL ENGINEER
SEAL
10-31-12

824
CO-2
SHEET 2 OF 7

P:\824_WynwoodAve\b_Detail\Site_2CO_01_02_824_R2.dwg, 11/1/2012 11:04:11 AM, ADVENG To PDF.pc3





PROPOSED NEW DRIVEWAY ENTRANCE

IMPERVIOUS AREA CALCULATIONS LOT 1

Description	Development Pre	Post
Existing House	1,690 sf	1,690 sf
Existing Dway to be Removed	202 sf	
Existing Stoop 4 Steps	55 sf	55 sf
Existing Front Ramp To Stay	80 sf	80 sf
Existing Jogging Trail	604 sf	
Addition To Jogging Trail		302 sf
New Concrete Driveway		2544 sf
New Garage		645 sf
New Front Conc Walk		124 sf
Total	2,555 sf	5,077 sf
Total lot area=	19,215 sf 0.441 AC	
Increase in impervious	2,522 sf	
Percentage of imp.	31.63 %	>10% BMP IS Req'd

STORM WATER MANAGEMENT

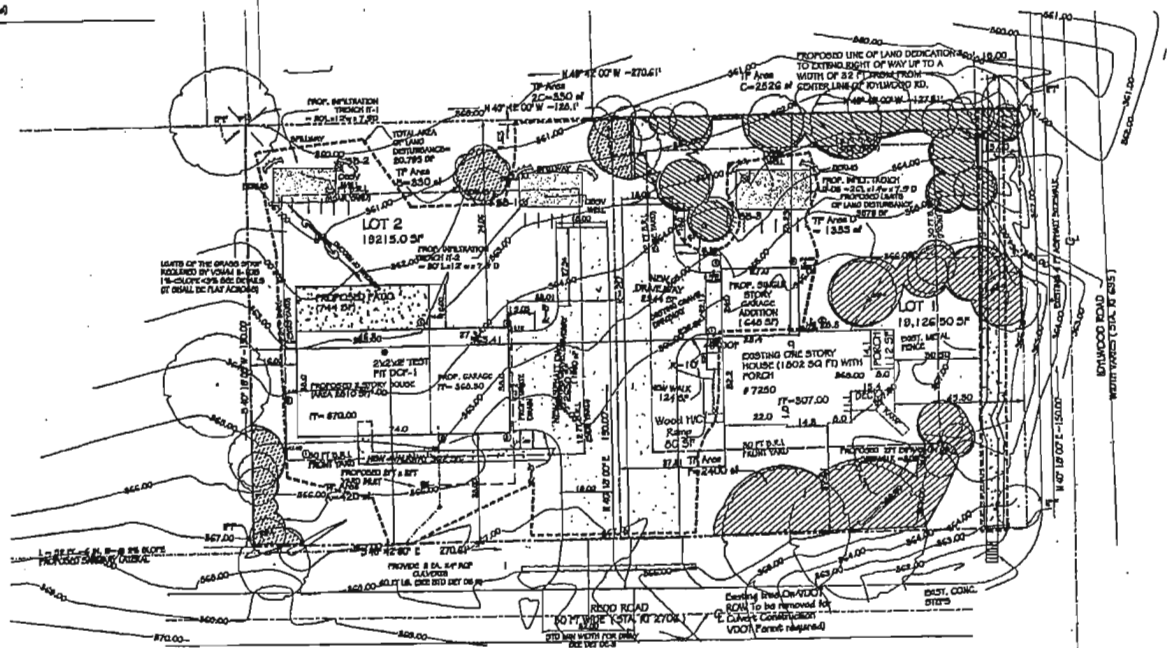
Impervious C-factor=	0.9	Paved	
Pervious C-factor=	0.25	Unpaved	
Site area	18,045 sf	0.488 AC	
Pre development			
Impervious Areas	2,855 sf	or 0.066 AC	
Landscaped lawn=	16,320 sf	or 0.375 AC	
C Factor	(0.066*0.90 + 0.375*0.25)= 0.346		
Post development			
Impervious Area	6,077 sf	or 0.140 AC	
Landscaped lawn	13,136 sf	or 0.302 AC	
C Factor	(0.140*0.90 + 0.302*0.25)= 0.456		
Pre development			
Q2=	0.346	5.45 0.441	0.836 cfs
Q10=	0.346	7.27 0.441	1.116 cfs
Post development			
Q2=	0.456	5.45 0.441	1.005 cfs
Q10=	0.456	7.27 0.441	1.461 cfs
CHANGE IN RUNOFF			
Q2 Inc =	0.255 cfs		
Q10 Inc =	0.345 cfs		

IMPERVIOUS AREA CALCULATIONS LOT 2

Description	Development Pre	Post
New House	0.0 (Vacant)	2,810 sf
Existing and New Driveways	1,960 sf	2,680 sf
Carport to Be Removed	652 sf	
Storage Shed To Be Removed	56 sf	
New Concrete Patio		744 sf
Front Concrete Walk		302 sf
Total	2,746 sf	6,506 sf
Total lot area=	18,126.5sf 0.488 Ac	
Increase in impervious	3,758 sf 0.086 Ac	
Percentage of imp.	34.02 %	>10% BMP IS Req'd

STORM WATER MANAGEMENT

Impervious C-factor=	0.9	Paved	
Pervious C-factor=	0.25	Unpaved	
Site area	18,126.50 sf	0.459 AC	
Pre development			
Impervious Areas	2,746 sf	or 0.063 AC	
Landscaped lawn=	16,276.50 sf	or 0.376 AC	
C Factor	(0.063*0.90 + 0.376*0.25)= 0.345		
Post development			
Impervious Area	6,506 sf	or 0.146 AC	
Landscaped lawn	12,620.5 sf	or 0.290 AC	
C Factor	(0.149*0.90 + 0.290*0.25)= 0.471		
Pre development			
Q2=	0.343	5.45 0.459	0.822 cfs
Q10=	0.343	7.27 0.459	1.096 cfs
Post development			
Q2=	0.471	5.45 0.459	1.127 cfs
Q10=	0.471	7.27 0.459	1.504 cfs
CHANGE IN RUNOFF			
Q2 Inc =	0.306 cfs		
Q10 Inc =	0.408 cfs		



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AEG GROUP

MID PIKE
LOT 82 BLK I
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-(19)-0082

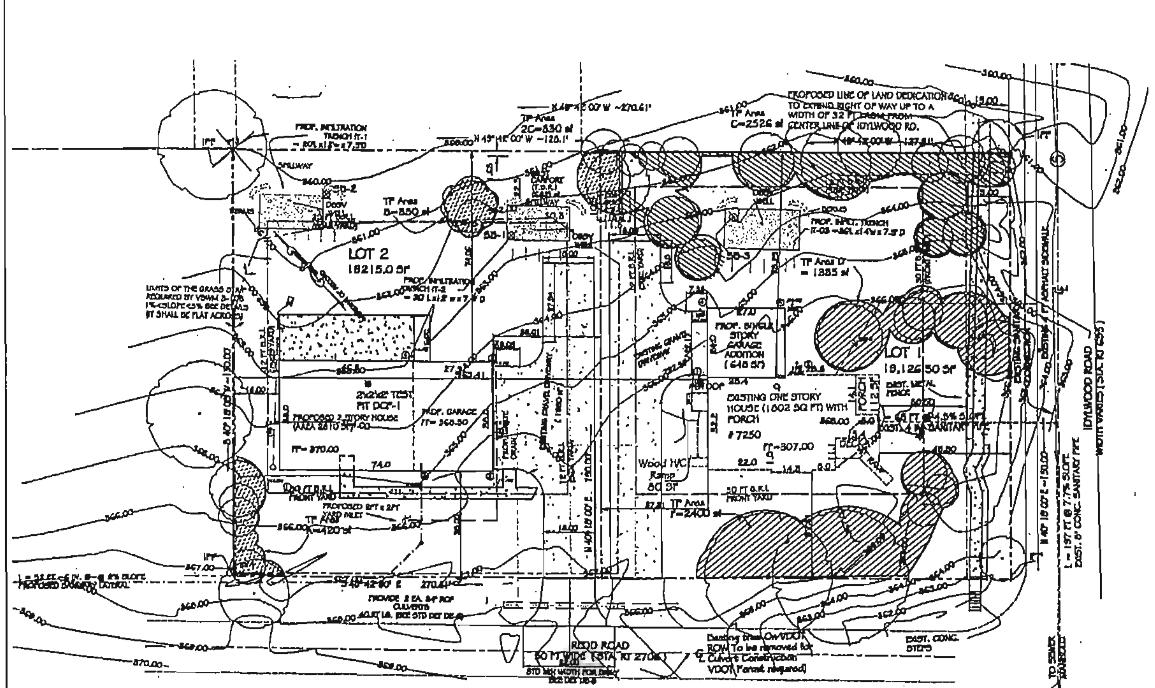
EXISTING CONDITIONS AND GENERALIZED DEVELOPMENT PLAN

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-534
DAT. OF RECORD	A.E.F
ISSUE DATE	4-23-2012
ARTWORK NO.	

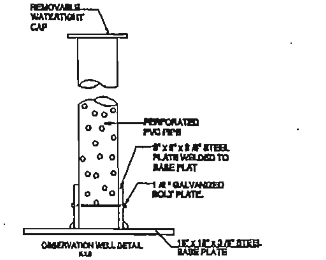
ALEX E. FERNANDEZ
No. 19067
PROFESSIONAL ENGINEER
10-31-12
SEAL

NO.	DATE	BY	REMARKS
1	6-07-12	A.E.F	FOR CITY COMMENTS
2	8-15-12	A.E.F	FOR CITY COMMENTS
3	10-25-12	A.E.F	INDIVIDUAL DRIVEWAYS ADJUSTED (10' 25'S)

824
GDP-1
SHEET 3 OF 7



STORM WATER MANAGEMENT
SCALE 1" = 20 FT

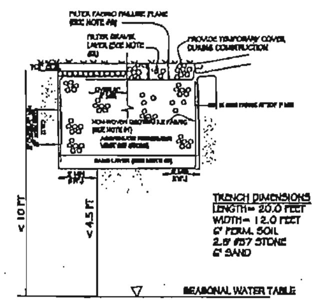


OBSERVATION WELL DETAIL
N.T.S.

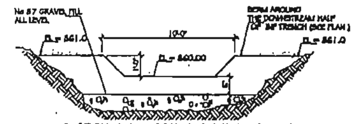
NOTES:
1. USE NON-WOVEN GEOTEXTILE FABRIC WITH AOS OF 70-100 US SIEVE OR 0.2 MM- 0.15 MM AS DETERMINED BY ASTM D4751 AND A TRAPEZOIDAL TEAR STRENGTH OF 45 LB OR 0.2 KN AS DETERMINED BY ASTM D4533.

2. AN 8-IN. DEEP BOTTOM SAND LAYER (VDOT FINE AGGREGATE, GRADING A OR B) IS REQUIRED.

3. FOR AN AGGREGATE SURFACE TRENCH, FILTER FABRIC SHALL SURROUND ALL OF THE AGGREGATE FILL MATERIAL EXCEPT THE TOP ONE FOOT. A SEPARATE PIECE OF FABRIC SHALL BE USED FOR THE TOP LAYER TO ACT AS A FAILURE PLANE. THIS TOP PIECE CAN THEN BE REPLACED AND REPLACED UPON CLOGGING.



TRENCH DIMENSIONS
LENGTH= 20.0 FEET
WIDTH= 12.0 FEET
6" PERM. SOIL
2.5' #57 STONE
6" SAND



SECTION A-A SPILLWAY AND BERM DETAIL
NOT TO SCALE

TEST DATE 2-23-2012 TIME 2 HRS

FIELD TEST RESULTS Boring 1			
Time	Depth Absolute	Depth Relative	Infiltration rate
Hr	in	in	in/hr
3:00	13.00	0	0
3:30	15.00	2.00	4.00
4:00	17.00	2.00	4.00
4:30	23.00	6.00	8.00
5:00	25.00	2.00	8.00
	Infiltration rate		6.00

FIELD TEST RESULTS Boring 2			
Time	Depth Absolute	Depth Relative	Infiltration rate
Hr	in	in	in/hr
3:00	10.00	0	0
3:30	14.00	4.0	8.00
4:00	19.00	5.0	9.00
4:30	23.00	4.0	9.00
5:00	25.00	2.0	6.00
	Infiltration rate		8.00

FIELD TEST RESULTS Boring 3			
Time	Depth Absolute	Depth Relative	Infiltration rate
Hr	in	in	in/hr
3:00	15.00	0	0
3:30	18.00	3.0	6.00
4:00	22.00	4.0	7.00
4:30	25.00	3.0	7.00
5:00	27.00	2.0	5.00
	Infiltration rate		6.25

USE BORINGS #1 RESULTS FOR ALL (3) TRENCH LOCATIONS AND 3.0 IN/HR FOR DESIGN.

NOTE:
THE DIAMETER OF THE HOLES WAS 4 INCH, AND DEPTH 108 INCH.
INFILTRATION TESTS PERFORMED FOLLOWING 24 HOURS SATURATION PERIOD.

NOTE THE EXACT DEPTH OF THE OBSERVATION WELL SHALL BE PERMANENTLY MARKED ON THE WELL CAP.

INFILTRATION TRENCH DESIGN FOR IT-01 & IT-02 (LOT 2)

TOTAL RAINFALL ACCUMULATION = 3 IN
DURATION OF STORM (2-YR AND 2-HR STORM) = 2 Hr
(PFM, FAIRFAX COUNTY VA, 2003 6-1503.4A)
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr

IMPERVIOUS AREA TO BE TREATED = (3888+2810)/2=3374 SF
INFILTRATION RATE AS MEASURED IN THE FIELD = 6.0 IN/Hr
INFILTRATION RATE FOR DESIGN= 3.0 INCH/Hr
(VIRGINIA STORMWATER MANAGEMENT HANDBOOK: 3.00 3-3)
VOLUME IN =3374 x 3/12 = 843.6 CF

TRENCH DIMENSIONS
LENGTH = 20 FT
WIDTH = 12 FT
SURFACE AREA OF TRENCH = 20 x 12 = 240 SF
MIN SURFACE AREA =
= SAmin= (V)cf /((3.0 in/hr)x48 hrs)/12 =
=(843cf)/0.25 ft/hr (48.0)= 70.25 SF< 240 OK
VOLUME OUT = 3.0 IN/Hr x 2Hr /12x 240 SF = 120.0 CF
STORAGE VOL. REQUIRED = 843- 120.0 = 723.6 CF
USING # 57 STONE @ VOID 40%

DEPTH OF TRENCH = Vs/(Nx A)= 723.6 CF / (0.4x 240 SF) = 7.5 FT
USE 2 TRENCH(S) OF EACH SIZE (20 'L x 12 'W x 7.5' D)

RATE OF DISCHARGE, Q(out) = 3.0 x 1/12 x 240 SF =60.0 CF/Hr
INFILTRATION TIME REQUIRED = 723.6 CF / 60.0 = 12.0 Hrs
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr OK

SPILLWAY DESIGN
I=9.8 in/hr c=0.471 Ac=0.065+0.085+0.223=0.373
Q100 = 1.25 CL (Hprv)^3/2
Q100 = 1.25x0.471x(0.373 Ac/2)x9.8 in/hr = 1.08 cfs
Hprv = 0.15 C= 3.3 (PFM 6-1802.11)
Lmin= (1.08 cfs/ (1.25)(3.3)(0.15)^3/2 = 1.08/0.24 = 4.5 FT USE 6 FT

INFILTRATION TRENCH DESIGN FOR IT-03 (LOT 1)

TOTAL RAINFALL ACCUMULATION = 3 IN
DURATION OF STORM (2-YR AND 2-HR STORM) = 2 Hr
(PFM, FAIRFAX COUNTY VA, 2003 6-1503.4A)
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr

IMPERVIOUS AREA TO BE TREATED = 2336+2755=5091 SF
INFILTRATION RATE AS MEASURED IN THE FIELD = 6.0 IN/Hr
INFILTRATION RATE FOR DESIGN= 3.0 INCH/Hr
(VIRGINIA STORMWATER MANAGEMENT HANDBOOK: 3.00 3-3)
VOLUME IN =5091 x 3/12 = 1272 CF

TRENCH DIMENSIONS
LENGTH = 26 FT
WIDTH = 14 FT
SURFACE AREA OF TRENCH = 26 x 14 = 364 SF
MIN SURFACE AREA =
= SAmin= (V)cf /((3.0 in/hr)x48 hrs)/12 =
=(1272 cf)/(144.0)x12= 106 SF< 364 OK
VOLUME OUT =0.25 FT/Hr x 2Hr x 364 SF = 182 CF
STORAGE VOL. REQUIRED = 1272-182 = 1090 CF
USING # 57 STONE @ VOID 40%

DEPTH OF TRENCH = Vs/(Nx A)=1090 CF / (0.4x 364 SF) = 7.5 FT
MAXIMUM DEPTH=
=[(3.0 in/hr)x48 hrs]= 144 in = 12.0 FT OK
USE IT-03 TRENCH (26 'L x 14 'W x 7.5' D)

RATE OF DISCHARGE, Q(out) = 3.0 x 1/12 x 364 SF = 91.0 CF/Hr
INFILTRATION TIME REQUIRED = 1090 CF / 91.0 = 12.00 Hrs
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr OK

SPILLWAY DESIGN
I=9.8 in/hr Ac= 0.055+0.063+0.182= 0.300 Ac
Q100 = 1.25 CL (Hprv)^3/2
Q100 = 1.25x0.456x(0.309 Ac)x9.8 in/hr = 1.78 cfs
Hprv = 0.15 C= 3.3 (PFM 6-1802.11)
Lmin= (1.78 cfs/1.25)(3.3)(0.15)^3/2 = 1.78/(1.25)(3.3)(0.058) =
=1.78/ .24 = 7.2 FT USE 10 FT OK

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTIONS, 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)
Cluster Subdivision (9-615 1G & 1N)
Development Plans PRC District (16-302 2 & 4L)
PDP P Districts (except PRC) 916-502 1F & 1Q)
Special Exceptions (9-011 2J & 2L)
Commercial Revitalization Districts (9-622 2A (12)&(14))
PRC Plan (16-303 1E & 1O)
Amendments (18-202 10F & 10I

1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
The Plat Scale is 1"= 20 ft (larger than minimum) OK

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____
All above shown on sheets 4 OF 7 & 5 OF 7 No access road required . No Outlet protectin required

3. Provide:

Facility Name/ Type & No. (e.g. dry pond, infilt. Trench, underground vault, etc.)	On-Site area served (acres)	Off-Site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf.)	If pond, dam height (ft.)
IT-01	0.186	0.0	0.186	240	724.0	
IT-02	0.186	0.0	0.186	240	724.0	
IT-03	0.309	0.0	0.309	364	1090.0	

4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 5 OF 7 (One Yard Inlet and Drain)

5. Maintenance accesses (road) to stormwater management facility(ies) are shown on Sheet Not Required .

6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet Tree Presrvation Canopy on Sheet 3 of 7 and Landscalping is shown on sheet 6 of 7

7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 5 of 7 (WATER QUANTITY AND WATER QUALITY

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 No Concentrated Outfall Required . Excess runoff leaves the site as sheetflow

9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet Not Required

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 2 of 7 .

11. A submission waiver is requested for Not Required

12. Stormwater management is not required because Not Applicable

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AEG GROUP

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1)) - 0082

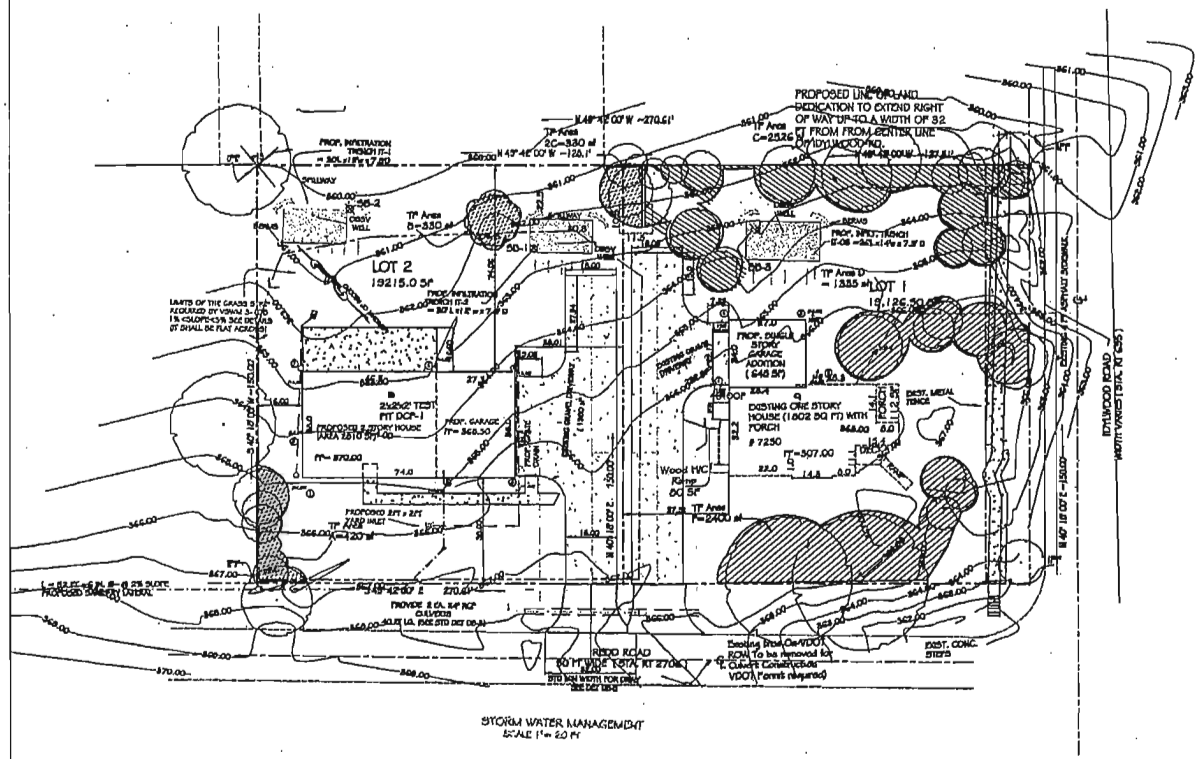
INFILTRATION TRENCH DESIGN

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-824
ENG. OF RECORD	A.E.F
ISSUE DATE	4-23-2012
APPLICAT. NO.	

SEAL 10-31-12

NO.	DATE	BY	REMARKS
1	8-07-12	A.E.F	PER CITY COMMENTS
2	9-25-12	A.E.F	PER CITY COMMENTS
3	10-25-12	A.E.F	INDIVIDUAL DRIVEWAYS ADJUSTED LOT SIZES

824
GDP-2
SHEET 4 OF 7



STORM WATER MANAGEMENT
SCALE 1"= 20 FT

LEGEND

- A1 - BUILDING AREA (CONTROLLED) (AREA= 2560 sq ft= 0.054 AC.)
- A2 - PAVED AREA (CONTROLLED) (AREA=333 + 164 = 537 Sft =0.012 A.C.)
- A3 - PAVED AREA (UNCONTROLLED) (AREA= 233 sf + 175 sf =408 sf = 0.011 AC.)
- A4 - UNPAVED AREA (CONTROLLED) (AREA= 2627 sq ft= 0.060 AC.)
- A5 - UNPAVED AREA (UNCONTROLLED) (AREA=2502+2910+579=6367 sq ft = 0.806 AC.
- DRAINAGE DIVIDE

WATER QUALITY NARRATIVE

THE PROPOSED INFILTRATION TRENCHES WILL PROVIDE WATER TREATMENT TO APPROXIMATELY 0.196 ACRES OF IMPERVIOUS AND PERVIOUS AREA FOR EACH TRENCH ON LOT 2 (IT-01 AND IT-02) ; AND 0.308 ACRES IN LOT 1. BUILDING AREA , OTHER IMPERVIOUS AREAS AND TRIBUTARY PORTION OF THE PERVIOUS AREA. THE PHOSPHORUS REMOVAL REQUIRED IS 40 % FOR LOT 1 AND 40% FOR LOT 2 (REDEVELOPMENT PTM FAIRFAX VA, 2003 6-401.2B). THE PHOSPHORUS REMOVAL REQUIREMENTS ARE EXCEEDED, 58.7 % IS REMOVED FROM LOT 1 AND 64.4 % FROM LOT 2. THE WATER QUALITY REQUIREMENT IS MET BY THE BMP FACILITIES (INFILTRATION TRENCHES) FOR THIS PROJECT. AFTER INSTALLATION OF INFILTRATION TRENCH, BOTH STORMWATER QUALITY AND QUANTITY WILL BE CONTROLLED .

STORM WATER MANAGEMENT NARRATIVE

FOR LOT 1 APPROXIMATELY 0.309 ACRES OF THE RUNOFF IS CONVEYED TO THE PROPOSED INFILTRATION TRENCH (IT-01), AND THIS WILL PROVIDE WATER TREATMENT TO APPROXIMATELY 0.308 ACRE OF IMPERVIOUS AREA (BUILDING AREA AND TRIBUTARY PORTION OF THE PERVIOUS AREA). IT-01 IS REQUIRED TO HAVE 1080 CUBIC FEET OF STORAGE VOLUME, AND SAME CUBIC FEET STORAGE CAPACITY IS PROVIDED. THE INFILTRATION RATE IS SUCH THAT THE TRENCH PROVIDES WATER DETENTION AND INFILTRATION AT THE SAME TIME. A 100 YEAR STORM WITH NO OVERFLOW. THE OTHER 50% OF UNTREATED AREA IS SHEET FLOW NATURALLY FLOWING TOWARDS EDMUND AND REDD RD WITHOUT ANY CHANGES FROM EXISTING DRAINAGE PATTERN AND NO ADDITIONAL IMPERVIOUS AREA. EXISTING CONDITIONS SHOW NO CONCENTRATED FLOW ISSUES.

FOR LOT 2 APPROXIMATELY 0.378 ACRES OF THE RUNOFF IS CONVEYED TO THE 2 PROPOSED INFILTRATION TRENCHES ON LOT 2 (IT-01 AND IT-02), AND THIS WILL PROVIDE WATER TREATMENT AND DETENTION TO APPROXIMATELY 0.378 ACRES OF IMPERVIOUS AREA. EACH TRENCH ON LOT 2 REQUIRES 724 CUBIC FEET OF STORAGE, AND SAME CUBIC FEET OF STORAGE IS PROVIDED. THEREFORE, WATER DETENTION FOR 2 YR ON RUNOFF REQUIREMENT IS MET

PHOSPHORUS REMOVAL CALCULATIONS -LOT 1 "OCCOQUAN METHOD"

	Pre	Post		
Impervious Area	15%	33%	136.7 % Net increase	
%P Removal	1-0.9*(0.14/0.19) =	57.1 %		
Development	Redev. W/O East BMP	[PTM, FAIRFAX COUNTY VA, 2003 6-401.2B1]		
%P Removal Required	40 %			
Area of the site - (A)	0.441 AC			

Surface area design (B)	Designation	C-Factor	Acres	Product
Building area (Controlled)	A1	0.9	0.054 AC	0.046
Paved area (Controlled)	A2	0.9	0.063 AC	0.057
Paved area (Uncontrolled)	A3	0.9	0.021 AC	0.018
Unpaved area (Controlled)	A4	0.25	0.192 AC	0.048
Unpaved area (Uncontrolled)	A5	0.25	0.111 AC	0.028
		Total	0.441 AC	0.200
Weighted average C-Factor			(C) = (B1 / (A) =0.471 AC	

%P Removal	1 Hr Detention	2 Year Storm			
Subarea Designation	BMP Type	Efficiency	Area Ratio	C-Factor Ratio	%P Removal
A1	Infiltration Trench	70%	0.122 AC	1.907	16.9 %
A2	Infiltration Trench	70%	0.143 AC	1.867	18.9 %
A3	None	0%	0.047 AC	1.867	0.0%
A4	Infiltration Trench	70%	0.435 AC	0.552	16.8%
A5	None	0%	0.252 AC	0.552	0.0%
Total %P Removal	Required	40.0 %	Total		53.7 %

The phosphorus removal is in compliance with Phosphorus Removal Requirement. Therefore, the design is acceptable.

PHOSPHORUS REMOVAL CALCULATIONS -LOT 2 "OCCOQUAN METHOD"

	Pre	Post		
Impervious Area	14%	33 %	137.0 % Net increase	
%P Removal	1-0.9*(0.14/0.53) =	62.4 %		
Development	Redev. W/O East BMP	[PTM, FAIRFAX COUNTY VA, 2003 6-401.2B1]		
%P Removal Required	40.0 %			
Area of the site - (A)	0.439 AC			

Surface area design (B)	Designation	C-Factor	Acres	Product
Building area (Controlled)	A1	0.9	0.065 AC	0.058
Paved area (Controlled)	A2	0.9	0.090 AC	0.076
Paved area (Uncontrolled)	A3	0.9	0.000 AC	0.000
Unpaved area (Controlled)	A4	0.25	0.223 AC	0.056
Unpaved area (Uncontrolled)	A5	0.25	0.057 AC	0.017
		Total	0.439 AC	0.207
Weighted average C-Factor			(C) = (B) / (A=0.471 AC	

%P Removal	1 Hr Detention	2 Year Storm			
Subarea Designation	BMP Type	Efficiency	Area Ratio	C-Factor Ratio	%P Removal
A1	Infiltration Trench	70%	0.147 AC	1.910	19.6 %
A2	Infiltration Trench	70%	0.183 AC	1.910	25.0%
A3	None	0%	0.000 AC	1.910	0.0%
A4	Infiltration Trench	70%	0.305 AC	0.531	15.9%
A5	None	0%	0.152 AC	0.531	0.0%
Total %P Removal	Required	40.0 %	Total		64.4%

The phosphorus removal is in compliance with Phosphorus Removal Requirement. Therefore, the design is acceptable.

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GROUP

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-01J - 0002

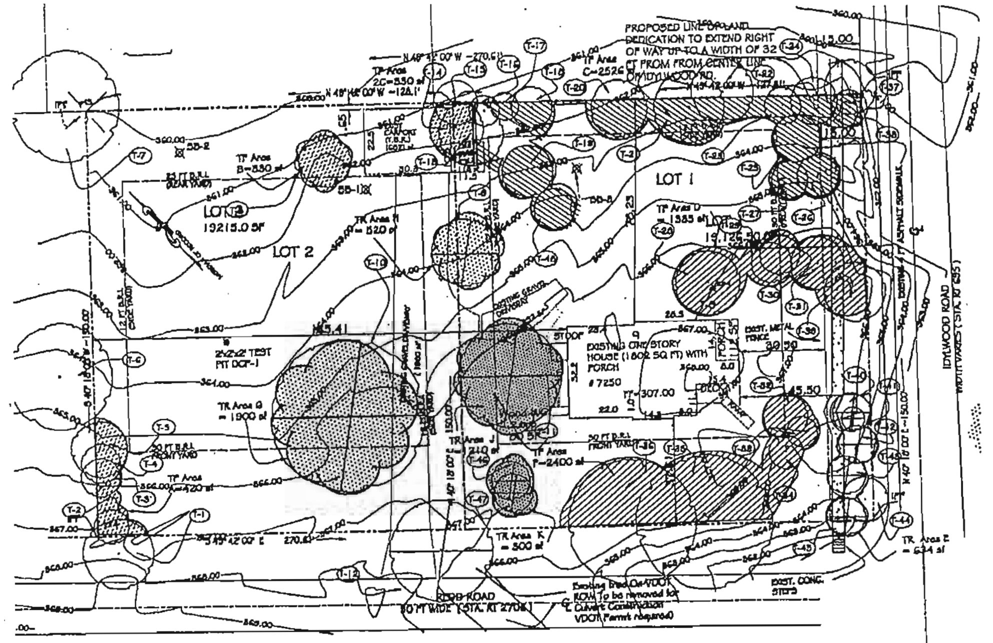
WATER QUALITY REQUIREMENTS

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-334
DIG. OF RECORD	A.E.F
ISSUE DATE	4-25-2012
ATTACH. NO.	

ALEX E. FERNANDEZ
No. 19967
PROFESSIONAL ENGINEER
SEAL
10-31-12

NO.	DATE	BY	REMARKS
1	8-07-12	A.E.F	PER CITY COMMENTS
2	9-25-12	A.E.F	PER CITY COMMENTS
3	10-25-12	A.E.F	INDIVIDUAL REVISIONS ADJUSTED LOT SIZE

824
GDP-3
SHEET 5 OF 7



EXISTING VEGETATION
SCALE = 1" = 50 FT

EXISTING VEGETATION
TP Area A = 420 SF
TP Area B = 550 SF
TP Area C = 2526 SF
TP Area D = 1335 SF
TR Area E = 634 SF
TP Area F = 2100 SF
TR Area G = 1900 SF
TR Area H = 520 SF
TR Area J = 1210 SF
TR Area K = 800 SF

TOTAL EV = 11873 SF

VEGETATION TO BE REMOVED
TR Area E = 634 SF
TR Area G = 1900 SF
TR Area H = 520 SF
TR Area J = 1210 SF
TR Area K = 800 SF

TOTAL TR = 4564 SF

VEGETATION TO PRESERVE
EXISTING - REMOVAL = 11875 - 4564 = 6711 SF

TREE INVENTORY

7250 IDYLWOOD RD, FAIRFAX, VA
Date of site visit: April 25th, 2012
Certified Arborist: Alex E Fernandez PE

TREE #	BOTANIC NAME	COMMON NAME	CALIPER (DBH) (inches)	SPECIES RATING (0-100%)	CONDITION RATING (0-100%)	PRESERVE / REMOVE
T-1	Juglan nigra	Black Walnut	27	70	70	Preserve
T-2	Cercis canadensis	Redbud	4	50	60	Preserve
T-3	Juniperus Virginiana	Juniper	8	60	60	Preserve
T-4	Juniperus Virginiana	Juniper	10	60	65	Preserve
T-5	Juglan nigra	Walnut	18	70	65	Preserve
T-6	Prunus Serotina	Black Cherry	22	50	50	Out Of Prop.
T-7	Juglan nigra	Walnut	25	70	70	Out Of Prop.
T-8	Ulmus americana	American Elm	64	70	70	Preserve
T-9	Acer Saccarum	Silver Maple	20	55	70	Remove
T-10	Liriodendron Tulipifera	Tulip Poplar	48	80	75	Remove
T-11	Quercus Alba	White Oak	44	80	70	Remove
T-12	Quercus Prinus	Chestnut Oak	20	80	65	In ROW(Remove) ⑥
T-13	Juglan nigra	Black Walnut	11	70	40	Preserve
T-14	Ulmus americana	American Elm	17	70	65	Preserve
T-15	Juglan nigra	Walnut	19	70	65	Preserve
T-16	Acer Platanoides	Norway Maple	8	60	65	Preserve
T-17	Cornus florida	Flowering Dogwood	6	50	60	Preserve
T-18	Cornus florida	Flowering Dogwood	6+4	50	60	Preserve
T-19	Quercus Rubra	Red Oak	11	80	70	Preserve
T-20	Cornus florida	Flowering Dogwood	6	50	70	Preserve
T-21	Prunus Serotina	Black Cherry	16	45	65	Preserve
T-22	Quercus Falcata	Southern Red Oak	25	80	70	Out Of Prop.
T-23	Cornus florida	Flowering Dogwood	2+4+2+3	50	65	Preserve
T-24	Robinia Pseudoacacia	Locust	16	50	70	Preserve
T-25	Robinia Pseudoacacia	Locust	8+6	50	65	Preserve
T-26	Prunus Serotina	Black Cherry	8	45	65	Preserve
T-27	Cornus florida	Flowering Dogwood	6	50	65	Preserve
T-28	Acer Platanoides	Norway Spruce	16	60	70	Preserve
T-29	Sassafras Albidum	Sassafras	8	60	70	Preserve
T-30	Sassafras Albidum	Sassafras	6+6	60	70	Preserve
T-31	Prunus Serotina	Black Cherry	10	45	65	Preserve
T-32	Picea abies	Norway Spruce	9	70	70	Preserve
T-33	Ilex opaca	American Holly	6+5+4+4	60	65	Preserve
T-34	Ilex opaca	American Holly	5+5	60	65	Preserve
T-35	Fagus Grandifolia	American Beech	42	80	80	Preserve
T-36	Fagus Grandifolia	American Beech	35	80	80	Preserve
T-37	Robinia Pseudoacacia	Locust	20	50	75	Preserve
T-38	Quercus Alba	White Oak	13	80	65	Preserve
T-39	Acer Platanoides	Norway Maple	15	50	70	Preserve
T-40	Acer Platanoides	Norway Maple	5	50	65	Remove
T-41	Acer Platanoides	Norway Maple	8	50	70	Remove
T-42	Acer Platanoides	Norway Maple	10	50	70	Remove
T-43	Acer Platanoides	Norway Maple	8	50	70	Dead (Remove)
T-44	Robinia Pseudoacacia	Locust	11	40	65	Preserve
T-45	Robinia Pseudoacacia	Locust	13	40	60	Remove
T-46	Koelreuteria paniculata	Golden Rain Tree	6	60	70	Remove
T-47	Koelreuteria paniculata	Golden Rain Tree	5	60	60	Remove
T-48	Cornus florida	Flowering Dogwood	8	50	70	Preserve

Notes:
1. Condition and Species Rating are based on formula provided by the Guide for Plant Appraisal published by the International Society Of Arboricult.
2. All trees indicated so, are to be cleared from the site due to construction impacts.
3. All trees with a minimum 4" D.B.H. were inventoried and evaluated.
4. Out Of Property Trees are included due to proximity to Project Land Disturbance Limits
5. Neither the Project Arborist or Advanced Engineering Group, LLC condone the implementing of any suggested tree preservation or removal techniques without the agreement/permission of the adjacent property owner or HOA, given the loss of border trees and boundary line trees.
6. Removal of tree on Redd Rd R.O.W will require the contractor to secure VDOT permit.

TREE INVENTORY AND CONSERVATION NARRATIVE

A.- EXISTING YARD VEGETATION COVER CONSISTS OF REMNANTS OF UPLAND FOREST MAINLY OAKS, AMERICAN BEECH AND YELLOW POPLAR OF REGULAR HEIGHT INTERMIXED WITH VEGETATION CORRESPONDING TO THE EARLY SUCCESIONAL FOREST MAINLY NORWAY MAPLES, LOCUSTS, WALNUTS, DOGWOODS, AMERICAN HOLLY, REDBUDS , AMERICAN ELM AND OTHER UNDERSTORY TREES INTERMIXED WITH SOME LEVELS TURFGRASS, REMNANTS OF NATIVE HERBACEOUS PLANTS AND SUCH ORIGINAL LAND COVER . ALL TREES IN THE INVENTORY ARE NATIVE AND IN SATISFACTORY CONDITION

B.-IN LOT ONE BACK YARD , SOME LANDSCAPED NON NATIVE NURSERY STOCK TREES, AND SHRUBS WERE NOT CONSIDERED IN THE INVENTORY FOR BEING LESS THAN 4" IN CALIPER. .

C.-FOUR TREES ON THE SURVEY ARE VALUABLE TREES . (No. T-10, 48 INCH CALIPER TULIP POPLAR, T-11, A 44" CALIPER WHITE OAK, T-34 AND T-35 , A 42" AND A 85" CALIPER AMERICAN BEECH TREES) DUE TO LARGE DIAMETER AND CANOPY IN ADDITION TO A HIGH SPECIES RATING) . VALUABLE FOR AIR QUALITY OR WILDLIFE SUPPORT . THE WHITE OAK (T-11) FALLS WITHIN THE DISTANCE AND NORTHWESTERN- SOUTHEASTERN RANGE TO SAVE ENERGY FOR LOT 1

D.- FOR LOT 2 ONLY T-3, T-4 AND T-5 FALL WITHIN THE REQUIRED SIMILAR LOCATION FOR ENERGY CONSERVATION CREDIT IF THEY WERE NEW PLANTINGS , BUT IT IS RECOMMENDED TO SAVE THEM FOR THE PROPOSED DEVELOPMENT IN LOT 2

E- TWO TREES IN THIS INVENTORY, CONSIDERED RARE OR ENDANGERED SPECIES WERE FOUNDAT THE SITE. T-11 AND T-38 BOTH ARE QUERCUS ALBA,. THEIR PRESERVATION IS ENCOURAGED..

.E.- SOME TREES ON THIS SURVEY ARE CONSIDERED MODERATELY INVASIVE SPECIES. TREES T-39 THROUGH T-45 CONSISTING OF HONEY LOCUSTS OR BLAK LOCUSTS AND NORWAY MAPLES ARE RATED AS SUCH. HOWEVER THEY ARE LOCATED PARALLEL TO IDYLWOOD ROAD RIGHT OF WAY LINE AND FAR FORM THE PROPOSED RE-DEVELOPMENT IMPACT.

F.- NO CONSTRUCTION DEBRIS , FILL AND OR OTHER MATERIALS SHALL BE PLACED OR STORED BENEATH THE CANOPY COVER OF PROTECTED TREES OR OUTSIDE OF THE LIMITS OF DISTURBANCE.ON APPROVED PLANS

G.- VEGETATION TO BE REMOVED SHALL BE APPROVED BY THE COUNTY ARBORIST. TREES MEASURING 12" OR MORE IN DIAMETER WITHIN THE 25 FT OF THE PROPOSED LIMITS OF CLEARING THAT DO NOT MEET THE STANDARDS OF STRUCTURAL INTEGRITY BY THE "GUIDE FOR PLAT APPRAISAL" SHALL BE LABELED IN "POOR CONDITION" AND SHALL BE CONSIDERED FOR REMOVAL AFTER APPROVAL OF THE COUNTY ARBORIST

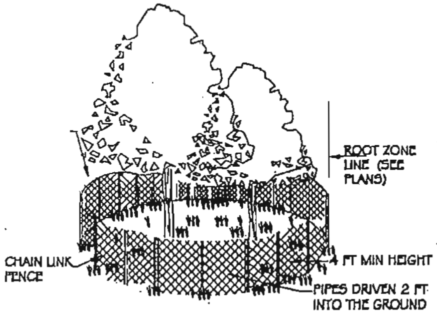
G.- TREES T-13, T-14 , T-15 AND T-19 (WALNUTS, ELM AND A RED OAK) ARE BEING CLAIMED WITHIN THE TREE CONSERVATION PLANS FOR LOTS 1 AND 2 . HOWEVER; DUE TO THE IMMEDIATE PROXIMITY TO THE DEMOLITION OF THE EXISTING CARPORT AND STORAGE SHED, PROBABLY IT IS NOT POSSIBLE TO INSTALL REGULAR TREE PROTECTION FENCE. THIS DEMO WORK WOULD NEED TO BE DONE WITH LIGHT EQUIPMENT AND AS MANUALLY AS POSSIBLE TO MINIMIZE ROOT ZONE DAMAGE

PRESERVATION & PROTECTION OF EXISTING VEGETATION

A.- TREES DESIGNATED FOR PROTECTION SHALL RECEIVE ENHANCED LEVEL OF MAINTENANCE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD. SELECTIVE ROOT AND LIMBS PRUNING IN ANY EXCAVATION ENCROACHING THE CANOPY OF TREES TO PRESERVE IN ACCORDANCE WITH PFM PLATE 7-12. PROVIDE TREE PROTECTION FENCE WITHIN 10 FEET OF THE TRUNK OF PRESERVATION TREES BEHIND THE SILT FANCE.

B.- VEGETATION TO BE REMOVED SHALL BE APPROVED BY THE COUNTY ARBORIST. TREES MEASURING 12" OR MORE IN DIAMETER WITHIN THE 25 FT OF THE PROPOSED LIMITS OF CLEARING THAT DO NOT MEET THE STANDARDS OF STRUCTURAL INTEGRITY BY THE "GUIDE FOR PLAT APPRAISAL" SHALL BE LABELED IN "POOR CONDITION" AND SHALL BE CONSIDERED FOR REMOVAL BY THE COUNTY ARBORIST'S REQUEST

C.- LOCATION AND METHOD OF FOR PROTECTION AND PRESERVATION OF EXISTING TREES SHALL BE APPROVED BY THE COUNTY INSPECTOR PRIOR TO COMMENCEMENT OF GROUND DISTURBING ACIVITY.



TREE PROTECTION FENCE DETAIL

NO.	DATE	BY	REMARKS
△	8-07-12	A.E.F	PER CITY COMMENTS
△	8-26-12	A.E.F	PER CITY COMMENTS
△	10-25-12	A.E.F	INDIVIDUAL DRIVEWAYS ADJUSTED LOT SIZES

SEAL: COMMONWEALTH OF VIRGINIA, ALEX E. FERNANDEZ, No. 18387, PROFESSIONAL ENGINEER
10-31-12

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-824
ENG. OF RECORD	A.E.F
ISSUE DATE	4-23-2012
APPLICAT. NO.	

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1)) - 0082

EXISTING VEGETATION

GROUP

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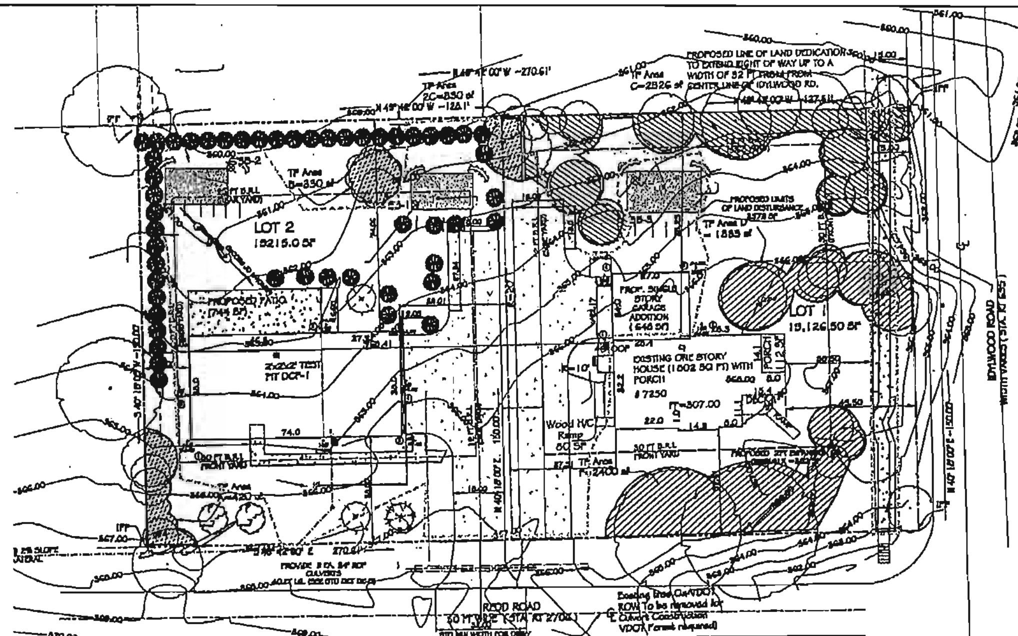
824
GDP-4
SHEET 6 OF 7



GENERALIZED DELOPMENT PLAN .
TREE PRESERVATION PLAN
SCALE = 1" = 30 FT

TREE PLANTING SCHEDULE											
ID	PLAN SYMB.	D/E	BOTANICAL NAME	COMMON NAME	CAT	CAL IN	10 YR CANOPY	CREDIT FACTOR		QTY (EA)	TOTAL SF
RM		LD	ACER RUBRUM	RED MAPLE	IV	2"	200 sf	1.50	WL	2 EA	600 sf
QR		LD	QUERCUS RUBRA	NORTHERN RED OAK	IV	2"	200 sf	1.50	EC	2 EA	600 sf
SY		LD	PLATANUS OCCIDENTALIS	SYCAMORE	IV	2"	200 sf	1.50	NAT	1 EA	300 sf
PV		LE	THUJA OCCIDENTALIS	AMERICAN ARBOVITAE	I	6 FT	40 sf	1.00		50 EA	2000 sf

TOTAL = 3500 SF

LD = LARGE DECIDUOUS MD = MEDIUM DECIDUOUS SD = SMALL DECIDUOUS
LE = LARGE EVERGREEN ME = MEDIUM EVERGREEN SE = SMALL EVERGREEN

CREDIT CODES: WQ = WATER QUALITY AQ = AIR QUALITY EC = ENERGY CONSERVATION
WL = WILD LIFE NAT = VIRGINIA NATIVE

TREE PRESERVATION NARRATIVE

A.- THE SITE IS POPULATED WITH A RANGE OF NATIVE SPECIES OF VALUE. MANY SPECIES ON LOT ONE ARE VALUABLE FOR AIR QUALITY, WILD LIFE, WATER QUALITY, ENERGY CONSERVATION ETC.

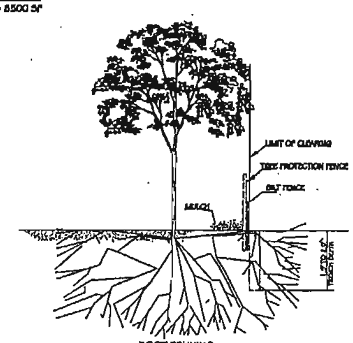
B.- EVERY EFFORT SHALL BE MADE TO PROTECT THE TREE PRESERVATION CANOPY SHOWN HEREIN DURING CONSTRUCTION. NO CONSTRUCTION DEBRIS, FILL AND OR OTHER MATERIALS SHALL BE PLACED OR STORED BENEATH THE CANOPY COVER OF PROTECTED TREES.

C.- VEGETATION TO BE REMOVED SHALL BE APPROVED BY THE COUNTY ARBORIST. TREES EASURING 12" OR MORE IN DIAMETER WITHIN THE 25 FT OF THE PROPOSED LIMITS OF CLEARING THAT DO NOT MEET THE STANDARDS OF STRUCTURAL INTEGRITY BY THE "GUIDE FOR PLANT APPRAISAL" SHALL BE LABELED IN "POOR CONDITION" AND SHALL BE CONSIDERED FOR REMOVAL BY THE COUNTY ARBORIST

D.- PROVIDE, IMPLEMENT AND FOLLOW A TREE CONSERVATION AND PROTECTION PROGRAM THAT IS DEVELOPED TO THE SATISFACTION OF THE COUNTY ARBORIST.

E.- LOCATION AND METHOD OF FOR PROTECTION AND PRESERVATION OF EXISTING TREES SHALL BE APPROVED BY THE COUNTY INSPECTOR PRIOR TO COMMENCEMENT OF GROUND DISTURBING ACIVITY.

F.- APPLICANT MUST PROVIDE DOCUMENTATION OF COMMUNICATION WITH ADJACENT PROPERTY OWNERS VERIFYING NOTIFICATION OF CONSTRUCTION IMPACT, POTENTIAL FOR ROOT LOSS, AND AGREED UPON REMEDIAL MEASURES PERTAINING TO THE EXISTING TREES ON ADJACENT PROPERTIES AND WITHIN THE 25 FT LINE OUTSIDE OF THE LIMITS OF DISTURBANCE. FOR INSTANCE T-6, T7 AND T-22



ROOT PRUNING

Table 12.8 . - Tree Preservation Target Calculation And Statement	
A. - Pre-development Area Of Existing Tree Canopy (From Existing Vegetation Map) =	11270
B. - Percentage Of Gross Site Area Covered By Exist.Tree Canopy =	28 %
C. - Percentage Of Ten Year Tree Canopy Required for Site (From Table 12.4) =	25.0 %
D. - Percentage Of Ten Year Tree Canopy Requirement That Should Be Met Through Tree Preservation =	20 %
E. - Proposed Percentage Of Tree Canopy Requirement That Will Be Met Through Tree Preservation =	68 %
F. - Has The Tree Preservation Target Minimum been Met ? =	YES
G. - If No ; then a request to deviate from the Tree Preservation Target shall be provided on the plans that states one or more of the justifications listed on Art. 12-0507.3 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 provided =	
H.- If G requires a narrative it shall be prepared in accordance with Article 12-0507.4	
I.- Place the information prior to the Ten Year Canopy Calculations as per instructions on Table 12.12	2618

TREE CONSERVATION
7230 IDYLWOOD RD, FAIRFAX, VA
Date of site visit: february, 2012

Step	Table 12.12 10-year Tree Canopy Calculation Worksheet	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	8221	§ 12-0507.2
B. Tree Canopy Requirements			
B1	Identify Gross Site Area	40591	§12-0510.1.A
B2	Substract area dedicated to parks , road frontage and	0	§12-0510.1.B
B3	Substract area of Exemptions	40591	§12-0510.1.C(1) to §12-0510.1.C(6)
B4	Adjusted gross site Area (B1-B2) =	40591	
B5	Identify site Zoning and Or/Use =	R3	
B6	Percentage of 10 year Canopy required =	25 %	§ 12-0509.1 § and table 12.4
B7	Area Of 10 Year Canopy required (B4xB5) =	10148	
B8	Modification of the 10 Year Canopy requested ?	NO	Yes Or No
B9	If Yes, then list plan sheet where modification is requested		Sheet Number
C. Tree Preservation			
C1	Tree Preservation Target Area	8221	
C2	Total Canopy Area Meeting standards Of 12-0200	8221	
C3	C2 x 1.25 =	10276	§ 12-0509.3B
C4	Total Canopy Area provided by unique or valuable forest or Woodland Communities	0.0	
C5	C4x1.5=	0.0	§ 12-0509.3B(1)
C6	Total Canopy Area provided by "Heritage", "Memorial", "Specimen" or "Street" trees =	0	
C7	C6 x1.5 to 3.0 =	0	§ 12-0509.3B(2)
C8	Canopy Area Of Trees within resource Protection area and 100 Yr floodplain	0	
C9	C8 x 1.0 =	0	§ 12-0509.3C(1)
C10	Total of C3, C5, C7 and C9 =	10276	
D1	Area Of Canopy to be Met By Tree Planting (B7-C10) =	0	
D2	Area Of Canopy planted for Air Quality benefits	0	
D3	x 1.5 =	0	§ 12-0510.4B(1)
D4	Area Of Canopy planted for Energy Conservation	400	
D5	x 1.5 =	600	§ 12-0510.4B(2)
D6	Area Of Canopy planted for Water Quality Benefits	0	
D7	x 1.25 =	0	§ 12-0510.4B(3)
D8	Area Of Canopy planted for Wildlife Benefits	400	
D9	x 1.5 =	600	§ 12-0510.4B(4)
D10	Area Of Canopy provided by Native Trees	200	
D11	x 1.5 =	300	§ 12-0510.4B(5)
D12	Area Of Canopy Provided By Improved Cultivars and Varieties	0	
D13	x 1.25 =	0	§ 12-0510.4B(6)
D14	Area Of Canopy Provided Through Seedlings x 1.0	0	§ 12-0510.4D(1)
D15	Area Of Canopy Provided Through Native Shrubs x 1.0	0	§ 12-0510.4D(1)a
D16	Percentage Of D14 represented by D15	0	Must Not Exceed 33% of D14
D17	Total Of Canopy Area Provide Through Tree Planting	3500	
D18	Is an Offsite Planting Relief Requested ?	NO	Yes Or No?
D19	Tree Bank Or Tree Fund ?	NO	Yes Or No?
D20	Canopy Area Requested To Be Provided Through Offsite Banking Or Tree Fund	0	
D21	Amount To Be deposited into the Tree Preservation and Planting Fund	0	
E	Total Of Ten Year Tree Canopy Provided		
E1	Total Of Canopy Area Provided Through Tree Preservation = (C-10) =	10276	
E2	Total Of Canopy Area Provided Through Tree Planting = (D-17) =	3500	
E3	Total Of Canopy Area Provided Through Off-site Mechanism =(D-19) =	0	
E4	Total Of Ten Year Canopy Provided = (E1 + E2 + E3) =	13776	

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GROUP

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1)) - 0082

TREE PRESERVATION PLAN

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-824
ENG. OF RECORD	A.E.F
ISSUE DATE	4-23-2012
APPROVAL NO.	

ALEX E FERNANDEZ No. 19387 PROFESSIONAL ENGINEER
10-31-12
SEAL

NO.	DATE	BY	REMARKS
1	8-07-12	A.E.F	PER CITY COMMENTS
2	8-28-12	A.E.F	PER CITY COMMENTS
3	10-25-12	A.E.F	INDIVIDUAL DRIVEWAYS ADJUSTED LOT SIZES

824
GDP-5
SHEET 7 OF 7

MID PIKE SUBDIVISION
LOT 82 BLOCK 1
DRANESVILLE DISTRICT #1
FAIRFAX COUNTY, VIRGINIA
GENERALIZED DEVELOPMENT PLAN
REZONING & SUBDIVIDING
RZ 2012-0147
7250 IDYLWOOD ROAD
FALLS CHURCH, VA 22043

APPLICANT: CHRISTOPHER AND KAREN BARTH
7250 IDYLWOOD ROAD,
FALLS CHURCH, VA 22043

PREPARED BY: ADVANCE ENGINEERING GROUP, LLC
701 W BROAD ST, SUITE 306
FALLS CHURCH, VA 22046
703-533-1581

TABLE OF CONTENTS		
SHEET	NO.	LEGEND
CO-1	1_of _7	COVER SHEET
CO-2	2_of _7	PROJECT INFORMATION
GDP-1	3_of _7	EXISTING CONDITIONS AND GENERALIZED DEVELOPMENT PLAN
GDP-2	4_of _7	STORM WATER MANAGEMENT & INFILTRATION TRENCH DESIGN
GDP-3	5_of _7	WATER QUALITY REQUIREMENTS
GDP-4	6_of _7	EXISTING TREE COVER INVENTORY
GDP-5	7_of _7	TREE PRESERVATION PLAN

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MID PIKE
LOT 52 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1))-0082

COVER SHEET

PROJECT MANAGER: A.E.F.
PROJECT NO.: 1-VA-824
DWG. OF RECORD: A.E.F.
ISSUE DATE: 4-23-2012
APPLICAT. NO.:

COMMONWEALTH OF VIRGINIA
ALEX E. FERNANDEZ
No. 19927
PROFESSIONAL ENGINEER
SEAL 10/8/12

NO.	DATE	BY	REMARKS
1	8-07-12	A.E.F	FOR CITY COMMENTS
2	8-25-12	A.E.F	FOR CITY COMMENTS

824
CO-1
SHEET 1 OF 7

GENERAL NOTES:

THE PROPERTY DELINEATED ON THESE PLANS IS LOCTED ON FAIRFAX COUNTY TAX ASSESMENT MAP NUMBER 40-3 ((01)) 0032. THE SITE IS CURRENTLY ZONED R-2, THE PROPOSED ZONING IS R-3.

1. BOUNDARY INFORMATION OBTAINED FROM CERTIFIED SURVEY BY DOMINION SURVEYS DATED NOV016-2010.
2. TOPOGRAPHIC INFORMATION OBTAINED FROM FIELD RUN TOPOGRAPHIC SURVEY WITH TOTAL STATION PREPARED BY ADVANCE ENGINEERING GROUP, LLC. ON DEC-13-2011
3. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 116.4, 302.4 AND 356; WASTE MANAGEMENT VR 672-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATION; AND /OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40 CODE OF FEDERAL REGULATIONS PART 280; TO BE GENERATED, UTILIZED, STORED, TREATED, AND /O R DISPOSED OF ON SITE.
4. THE PROPERTY IS LOCATED ON HC ZONING OVERLAY DISTRICT.
5. THERE ARE NO AFFORDABLE DWELLING UNITS (ADU) REQUIRED OR PROPOSED FOR THIS PROJECT.
6. NO DENSITY REDUCTIONS ARE REQUIRED BY ZONING SECTION 2-308.
7. THERE ARE NO PROPOSED RECREATION FACILITIES PROPOSED FOR THIS DEVELOPMENT.

SITE TABULATIONS:

SITE AREA = 40,591.5 SF = 0.932 ACRES
ADJUSTED SITE AREA = 38,341.5 SF = 0.880 ACRES
EXISTING ZONE = R-2 RESIDENTIAL
PROPOSED ZONE = R-3 RESIDENTIAL

BULK REGULATION (R-3 ZONNING DISTRICT)

	REQUIRED	PROVIDED LOT 1	PROVIDED LOT 2
NUMBER OF UNITS:		1 SFD DWELLING UNIT (EXIST)	1 SFD DWELLING UNIT (NEW)
DENSITY:	3 DU/AC (MAX)	2.42	2.15
MINIMUM LOT AREA:	10,500 SF	(1) 18043.5 SF	20,196.50 SF
AVERAGE LOT AREA:	11,500 SF	19170.75	
MINIMUM LOT WIDTH:	INTERIOR LOT - 80'	NA	160.3
	CORNER LOT - 105'	120.30	NA
MAX BUILDING HEIGHT:	35'	27' (EXIST)	30' (PROP)
SET BACKS: FRONT YD	30	(2) 37.61' TO REDD RD R/W / 30.50 TO IDYLWOOD R/W	38.00 (PROP)
REAR YD	25	NA (CORNER LOT)	74.06' (PROP)
SIDE YD	12	30.50 (PROP)	16.00 TO LOT 30 & 44.84 TO LOT 1
OPEN SPACE:	N/R	NA	NA
PARKING:	2 SPACES PER DU	2 SPCS	2 SPCS
LOT SHAPE FACTOR:		16.20	16.04

NOTES:
1.- ADJUSTED AREA FOR LOT #1 SHOWN IS AFTER 2250.00 SF OF LAND DEDICATION FOR PUBLIC SIDEWALK
2.- SETBACKS SHOWN FOR LOTS #1 AND #2 ARE RELATED TO THE PROPOSED NEW LOT LINE OR EXISTING AND AFTER LAND DEDICATION ALONG IDYLWOOD RD.

ADDITIONAL NOTES

1. TO THE BEST OF OUR KNOWLEDGE, NO HAZARDOUS WASTE EXISTS ON THIS SITE.
2. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN CEMETERIES ON THIS PROPERTY.
3. THIS SITE IS LOCATED WITHIN THE PIMMIT RUN WATERSHED

SLOPES OVER 15%	[ ] YES	[X] NO
R.P.A	[ ] YES	[X] NO
R.M.A	[ ] YES	[X] NO
OVERLAY DISTRICT (WATER SUPPLY)	[ ] YES	[X] NO
WETLANDS	[ ] YES	[X] NO
FLOODPLAIN	[ ] YES	[X] NO

4. THE PROPERTY DELINEATED ON THIS PLAN IS NOT ON THE 100 YEARS FLOOD PLAIN.
5. TO THE BEST OF OUR KNOWLEDGE THERE IS NO KNOWN ARCHEOLOGICAL SITES ON THIS PROPERTY.
6. THE PROPERTY DELINEATED ON THIS PLAN IS NOT LOCATED WITHIN A RESOURCE PROTECTION AREA AS SHOWN ON CHESAPEAKE BAY PRESERVATION AREA MAP (MAP APA-2).
7. THIS LOT RECORDED PRIOR TO AUGUST 1, 1978 AND AS SUCH IS NOT REQUIRED TO MEET CURRENT LOT WIDTH AND SIZE REQUIREMENTS UNDER FAIRFAX COUNTY ZONING ORDINANCE, ARTICLE 2-405.
8. THIS PROPERTY IS SERVED BY PUBLIC WATER AND SEWER.

PROFFERED OR CONDITIONED SITE:	[ ] YES	[ ] NO SPECIAL EXCEPTION
WATER SUPPLY	[X] PUBLIC	[ ] WELL
SEWER SERVICE	[X] PUBLIC	[ ] PRIVATE

9.- THE PROPOSED DEVELOPMENT CONFORMS WITH THE PROVISIONS OF ARTICLE 3, FOR R3 PROPOSED ZONING DISTRICT AND ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS. NO WAIVERS, VARIANCES, SPECIAL EXCEPTIONS, NOR PFM MODIFICATIONS ARE REQUESTED IN ASSOCIATION WITH THIS PROPOSED DEVELOPMENT

10. THERE ARE NO PROPOSED PUBLIC IMPROVEMENT PLANS CONTEMPLATED FOR THIS DEVELOPMENT

11. THE PROPOSED CHANGE FROM R2 TO R3 ZONING DISTRICT IS IN HARMONY WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN WHICH CALLS FOR THIS TYPE OF REDEVELOPMENT. THE PROPOSED PROJECT WILL COMPY WITH ALL OTHER REQUIREMENTS OF THE COMPREHENSIVE PLAN

WATERSHED = PIMMIT RUN
TOTAL LAND DISTURBANCE = 34700 SQ FT

GENERALIZED DEVELOPMENT PLAN SUBMISSION CHECKLIST:

- TWENTY-THREE (23) COPIES OF A GENERALIZED DEVELOPMENT PLAN PROVIDED HEREON WITH APPLICATION.
- ONE 8 ½" X 11" REDUCTION OF THE PLAN PROVIDED HEREON WITH APPLICATION.
- A GENERALIZED DEVELOPMENT PLAN, AT A SCALE OF NOT LESS THAN ONE INCH EQUALS ONE HUNDRED FEET (1"=100'), SHALL SHOW THE FOLLOWING:

A. SCALE AND NORTH ARROW, WITH NORTH, TO THE EXTENT FEASIBLE, ORIENTED TO THE TOP OF THE PLAN.

- SCALE AND NORTH ARROW HAVE BEEN PROVIDED ON PLAN, SEE SHEET 3 OF 7.

B. EXCEPT FOR SINGLE FAMILY DETACHED DWELLINGS, THE APPROXIMATE LOCATION AND DIMENSIONS OF ALL PROPOSED STRUCTURES AND USES, TO INCLUDE THE MAXIMUM HEIGHT IN FEET OF ALL STRUCTURES AND PENTHOUSES, AND A GRAPHIC DEPICTION OF THE ANGLE OF BULK PLANE, IF APPLICABLE.

- PROPOSED STRUCTURE AND USE INCLUDING MAXIMUM HEIGHT HAS BEEN PROVIDE D ON PLANS. SEE SHEET 2 OF 7 (THIS SHEET)

C. THE PROPOSED TRAFFIC CIRCULATION PLAN INCLUDING MAJOR STREETS AND MAJOR PEDESTRIAN, BIKE AND/OR BRIDLE PATHS, AND THE LOCATION OF ALL TRAILS REQUIRED BY THE ADOPTED COMPREHENSIVE PLAN.

- PROPOSED DRIVEWAY LOCATION HAS BEEN PROVIDED ON PLANS. TRAILS ARE REQUIRED PER THE FAIRFAX COUNTY TRAILS PLAN. A WAIVER FOR AN 10 FT TRAIL REQUIREMENT ALONG IDYLWOOD IS REQUESTED. THERE IS AN EXISTING JOGGING TRAIL ALONG IDYLWOOD ROAD AND A WIDENING TO 6 FT IS PROPOSED (SEE GENERAL DEVELOPMENT PLAN ON SHEET 3).

A WAIVER OF STREET FRONTAGE IMPROVEMENTS ALONG REDD RD IS REQUESTED

D. ALL PROPOSED MAJOR OPEN SPACE AREAS AND THE APPROXIMATE LOCATION OF ALL PROPOSED COMMUNITY AND PUBLIC FACILITIES.

- THERE IS NO OPEN SPACE REQUIREMENT FOR SITE. THEREFORE NO MAJOR OPEN SPACE AREAS HAVE BEEN PROPOSED. THERE ARE NO PROPOSED COMMUNITY OR PUBLIC FACILITIES.

E. THE PROPOSED PLAN FOR ALL MAJOR SANITARY SEWER IMPROVEMENTS.

- NA NO SANITARY IMPROVEMENTS WITHIN THE R/W PROPOSED

F. APPROXIMATE LOCATION, ESTIMATED SIZE OF FOOTPRINT IN ACRES AND TYPE OF ALL PROPOSED STORMWATER MANAGEMENT FACILITIES, INCLUDING THE FULL EXTENT OF SIDE SLOPES, EMBANKMENTS, SPILLWAYS, DAMS, AND APPROXIMATE WATER SURFACE ELEVATION FOR DESIGN STORMS, IF APPLICABLE. IN ADDITION, A PRELIMINARY STORMWATER MANAGEMENT PLAN THAT INCLUDES INFORMATION ABOUT THE ADEQUACY OF DOWNSTREAM DRAINAGE, INCLUDING THE SUFFICIENCY OF CAPACITY OF ANY STORM DRAINAGE, PIPES, AND OTHER CONVEYANCES INTO WHICH STORMWATER RUNOFF WILL BE CONVEYED. WHEN THERE IS 2500 SQUARE FEET OR MORE OF LAND DISTURBING ACTIVITY ON THE ENTIRE APPLICATION PROPERTY, IN ADDITION TO THE ABOVE, THE PRELIMINARY STORMWATER MANAGEMENT PLAN SHALL INCLUDE:

(1) A GRAPHIC DEPICTING INFORMATION AS DESCRIBED WITHIN DETAILED APPLICATION CHECKLIST.
(2) A PRELIMINARY STORMWATER MANAGEMENT NARRATIVE SETTING FORTH THE REQUIRED INFORMATION WITHIN THE DETAILED APPLICATION CHECKLIST.

- STORM WATER OUTFALL ANALYSIS AND BMP CALCULATIONS FOR PROPOSED INFILTRATION TRENCHES HAVE BEEN PROVIDED, SEE SHEETS 4 OF 7 AND 5 OF 7 INCLUDING THE CHECKLIST

G. THE LOCATION OF ALL EXISTING UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) FEET OR MORE AND ALL MAJOR UNDERGROUND UTILITY EASEMENTS REGARDLESS OF WIDTH.

- IN APPLICANTS KNOWLEDGE, THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH TWENTY-FIVE (25) FEET OR GREATER.

H. A SCHEDULE SHOWING THE NUMBER OF PARKING SPACES PROVIDED AND THE NUMBER REQUIRED BY THE PROVISIONS OR ARTICLE 11 OF THE ZONING ORDINANCE

I.

- A SCHEDULE SHOWING THE NUMBER OF PARKING SPACES PROVIDED AND THE NUMBER REQUIRED HAS BEEN PROVIDED. SEE SHEET 2 OF 7 (THIS SHEET)

WHETHER IT IS AIR SURVEYOR FIEL RUN.

- TOPOGRAPHIC INFORMATION PROVIDED ON SHEETS 3 OF 7 AS PREPARED BY A FIELD RUN SURVEY COMPLETED BY AEG GROUP, LLC (SEE NOTE ON THIS SHEET)

K. A DELINEATION OF THOSE GENERAL AREAS THAT HAVE SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION AND PRESERVATION, ANA A STATEMENT OF HOW SUCH WILL BE ACCOMPLISHED.

- IN THE APPLICANTS OPINION, THE SITE HAS NO SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION OR PRESERVATION.

L. A STATEMENT OR VISUAL PRESENTATION OF HOW ADJACENT AND NEIGHBORING PROPERTIES SHALL BE PROTECTED FROM ANY ADVERSE EFFECTS PROMPTED BY THE PROPOSED DEVELOPMENT, TO INLCUDE VEHICULAR ACCESS PLANS AND DIMENSIONS OF ALL PERIPHERAL YARDS THAT WILL BE PROVIDED.

- ALL REQUIRED PERIPHERALS YARDS FOR PROPOSED STRUCTURES AND DRIVEWAYS HAVE BEEN PROVIDED IN ACCORDANCE WITH THE BULK REGULATIONS SET FORTH IN SECTION 3-207 OF THE FAIRFAX COUNTY ZONING ORDINANCE. SEE SHEET 3 OF 7

M. A DELINEATION OF ALL EXISTING STRUCTURES, AND AN INDICATION OF THEIR DATE OF CONSTRUCTION IF KNOW, AND WHETHER THEY WILL BE RETAINED OR DEMOLISHED.

- EXISTING DWELLING CONSTRUCTED CIRCA 1840 IS TO REMAIN THE DETACHED GARAGE WILL BE DEMOLISHED...... SEE SHEET 3 OF 7

N. A STATEMENT SETTING FORTH THE MAXIMUM GROSS FLOOR AREA AND FAR PROPOSED FOR ALL USES OTHER THAN RESIDENTIAL

- N/A NO FAR REQUIREMENTS FOR RESIDENTIAL DEVERLOPMENT

O. A STATEMENT OR PRESENTATION SETTING FORTH THE MAXIMUM NUMBER OR DWELLING UNITS PROPOSED, AND THE DENSITY AND THE OPEN SPACE CALCULATIONS BASED ON THE PROVISIONS OF SECTIONS 2-308 (MAXIMUM DENSITY) AND 2-309 (OPEN SPACE) OF THE ZONING ORDINANCE.

- A TABLE SHOWING MAXIMUM DWELLING UNITS PER ACRE IS SHOWN ON THIS SHEET

P. A STATEMENT OF THOSE SPECIAL AMENITIES THAT ARE PROPOSED WITHIN THE DEVELOPMENT.

- THERE ARE NO SPECIAL AMENITIES THAT ARE PROPOSED ON THIS PLAN.

Q. A STATEMENT OF THE PUBLIC IMPROVEMENTS, BOTH ON AND OFF-SITE, THAT ARE PROPOSED FOR DEDICATION AND/OR CONSTRUCTION, AND AN ESTIMATE OF THE TIMING OF PROVIDING SUCH IMPROVEMENTS.

- STREET FRONTAGE DEDICATION CAN BE PROVIDED IF REQUESTED

R. A STATEMENT SETTING FORTH THE PROPOSED APPROXIMATE DEVELOPMENT SCHEDULE.

- DEVELOPMENT IS ANTICIPATED TO COMMENCE UPON APPROVAL OF SITE PLAN.

S. APPROXIMATE DELINEATION OF ANY FLOODPLAIN DESIGNED BY THE FEDERAL INSURANCE ADMINISTRATION, UNITED STATES GEOLOGICAL SURVEY, OR FAIRFAX COUNTY, THE APPROXIMATE DELINEATION OF ANY RESOURCE PROTECTION AREA AND RESOURCE MANAGEMENT ARE, AND THE APPROXIMATE DELINEATION OF ANY ENVIRONMENTAL QUALITY CORRIDOR AS DEFINED IN THE ADOPTED COMPREHENSIVE PAN, AND, IF APPLICABLE, THE DISTANCE OF ANY EXISTING AND PROPOSED STRUCTURES FROM THE FLOODPLAIN, RESOURCE PROTECTION AREA AND RESOURCE MANAGEMENT AREA, OR ENVIRONMENTAL QUALITY CORRIDOR.

- IN ACCORDANCE WITH FEMA ISSUED FLOOD MAPS, THERE IS NO 100-YEAR FLOODPLAIN ON THE SITE. IN ACCORDANCE WITH FAIRFAX COUNTY GIS MAP #39-4, THERE ARE NO RESOURCE PROTECTION AREAS (RPA) OR ENVIRONMENTAL QUALITY CORRIDORS (EQC) ON THE SITE.

T. ANY PROPOSED IMPROVEMENTS TO THE PUBLIC RIGHTS-OF-WAY AND DELINEATION OF THE EXISTING CENTERLINE TO THE EDGE OF THE PAVEMENT AND TO THE EDGE OF THE RIGHT-OF-WAY.

- A DEDICATION OF A 18 FT WIDE PARCEL PARALLEL TO IDYLWOOD RD TO EXTEND IDYLWOOD R.O.W TO 32 FT FROM THE CENTERLINE OF THE RD. TO THE EDGE OF THE PROPERTY. SEE SHEET 3 OF 7.

U.- A PLAN SHOWING LIMITS OF CLEARING, PROPOSED LANDSCAPING AND SCREENING IN ACCORDANCE WITH ARTICLE 13 OF THE ZONING ORDINANCE, A DELINEATION OR EXISTING VEGETATION, TO INCLUDE EXISTING VEGETATION TO BE PRESERVED, AND WHEN THERE IS 2500 SQUARE FEET OR MORE OF LAND DISTURBING ACTIVITY, AN EXISTING VEGETATION MAP.

- THE PROPOSED LIMITS OF CLEARING HAS BEEN PROVIDED, SEE SHEET 3 OF 7. AN EXISTING VEGETATION MAP AND TREE PRESERVATION PLAN HAVE BEEN PROVIDED. SEE SHEETS 6 OF 7 & SHEET 7 OF 7 RESPECTIVELY.

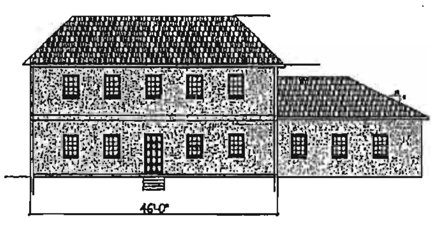
V.- APPROXIMATE DELINEATION OF ANY GRAVE, OBJECT OR STRUCTURE MARKING A PLACE OF BURIAL IF KNOW, AND A STATEMENT INDICATING HOW THE PROPOSED DEVELOPMENT WILL IMPACT THE BURIAL SITE.

- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO GRAVES, MARKERS, OBJECTS OR STRUCTURES MARKING A PLACE OF BURIAL

W.- A STATEMENT WHICH CONFIRMS THE OWNERSHIP OF THE SUBJECT PROPERTY, AND THE NATURE OF THE APPLICANTS INTEREST IN SAME.

- THE PROPERTY HEREON IS IN THE OWNERSHIP OF MR. CHRISTOPHER D BARTH RECORDED IN DEED BOOK 21673 PAGE 0316 AMONG THE LAND RECORDS OF FAIRFAX COUNTY.

REQUESTED MODIFICATION/WAIVERS
1. A WAIVER OF THE 10 FT TRAIL REQUIREMENT ALONG IDYLWOOD ROAD IS REQUESTED. A WIDENING OF THE EXISTING SIDEWALK IS BEING PROPOSED TO 5 FT OF ASPHALT OR 6 FT OF PAVEMENT, AND THE SIDEWALK WILL MADE ADA COMPLIANT.
2. A WAIVER OF STREET FRONTAGE IMPROVEMENTS ALONG REDD ROAD IS REQUESTED.
3.- A WAIVER OF DEDICATED OUTLOT FOR BMP FACILITIES. BMP FACILITIES ARE PROPOSED ON INDIVIDUAL LOTS



PROPOSED NEW HOUSE FOR LOT 2
SCALE 1" = 10 FT APPROX

ADEQUATE OUTFALL NARRATIVE

FOR LOT 1, WHERE THE EXISTING HOUSE IS LOCATED, THE RE-DEVELOPMENT CONSISTS SIMPLY IN ADDING A NEW GARAGE. THIS AREA HAS BEEN GRADED BEFORE, WHEN THE EXISTING HOUSE WAS BUILT AND THE EXISTING DRAINAGE PATTERN DIRECTS THE RUNOFF IN ALL DIRECTIONS AWAY FROM THE HOUSE. NET RUNOFF INCREASE FOR LOT 1 IS ONLY Q10=0.11 CFS ORIGINATED IN THE GARAGE AND IT WILL BE CONVEYED TO THE PROPOSED INFILTRATION TRENCH LOT 1

FOR LOT 2, BUILDING A NEW HOUSE WILL ENTAIL A LARGER LAND DISTURBANCE. THE EXISTING DRAINAGE PATTERN IS FAIRLY UNIFORM SHOWING A MILD SLOPE FROM FRONT TO BACK OF THE LOT. THE RUNOFF FROM THE FRONT YARD WILL HAVE TO BE CONVEYED AROUND THE HOUSE TOWARD THE PROPOSED INFILTRATION TRENCHES. FOR THIS LOT THE NET INCREASE IN RUNOFF IS Q10=.404 CFS

ONLY THE EXCESS OF RUNOFF OVERFLOWING THE 3 EACH INFILTRATION TRENCHES FOR THE TWO LOTS THROUGH THE SPILLWAYS WILL SHEETFLOW TOWARD THE BACK LOTS AT MODERATE AND CONTROLLED VELOCITY WITHOUT ANY CHANCE OF CAUSING ANY IMPACT UPON ADJACENT PROPERTIES.

ACCORDING TO SECTION 6-0203.3A, ADEQUATE OUTFALL ANALYSIS FOR SECTION 6-0203.2 IS NOT REQUIRED SINCE THERE IS NO DIVERSION OF STORMWATER FROM ONE DRAINAGE AREA TO ANOTHER AND THE ASSOCIATED RUNOFF Q10=0.413 CFS IS ENTIRELY SHEETFLOW SO IN ACCORDANCE TO THE PFM, SECTION 6-0203.1 IT IS THE OPINION OF THE ENGINEER THAT THE DOWNSTREAM SYSTEM IS ADEQUATE AND THAT THE SCOPE OF THIS PROJECT HAS A MINIMUM EFFECT ON THE DISCHARGE VOLUME AS OUTLINED ABOVE.

LEGEND

EXISTING INTERMEDIATE CONTOUR	313
EXISTING INDEX CONTOUR	32.5
PROPOSED CONTOUR	20
EXISTING EDGE OF PAVEMENT	EX. EP
PROPOSED EDGE OF PAVEMENT	PROP. EP
EXISTING CURB AND GUTTER	EX. C & G
PROPOSED CURB AND GUTTER	CG-6
TRANSITION FROM CG-6 TO CG-6R	CG-6 CG-6R
EXISTING UTILITY POLE	
FENCELINE	X
EXISTING WATER METER	W (M)
EXISTING STORM SEWER MANHOLE	(D)
EXISTING SANITARY SEWER	(S)
PROPOSED SANITARY SEWER	
EXISTING ELECTRIC SERVICE	E
EXISTING GAS LINE	G
EASEMENT LINE	
CENTERLINE	
PROPOSED SPOT ELEVATION	123
EXISTING TREE	100 gl 375 mm (15") OAK
EXISTING STOP SIGN	
TEMP.CONST. ENTRANCE	(CE)
EXISTING LANDSCAPE TO REMAIN	
LIMITS OF DISTURBANCE	(LOD)
EXISTING STREET LIGHT	

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AEG GROUP

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1))-0032

PROJECT INFORMATION AND VICINITY MAP

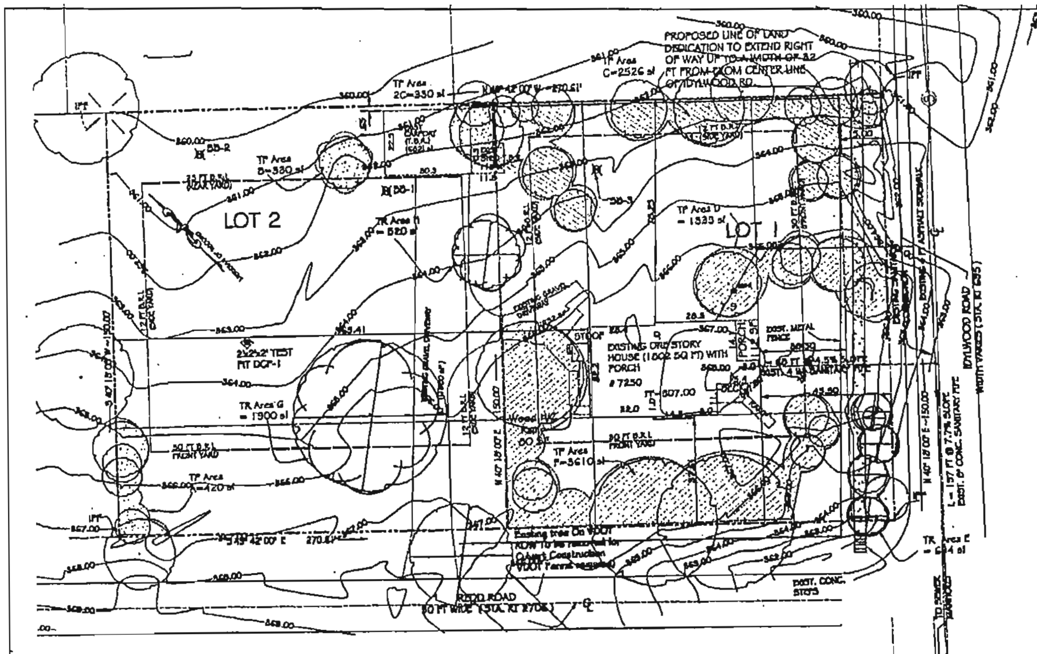
PROJECT MANAGER	A.E.F
PROJECT NO.	11-M-824
ENG. OF RECORD	A.E.F
ISSUE DATE	4-25-2012
APPLICAT. NO.	

COMMONWEALTH OF VIRGINIA
ALEX E FERNANDEZ
No. 19387
PROFESSIONAL ENGINEER

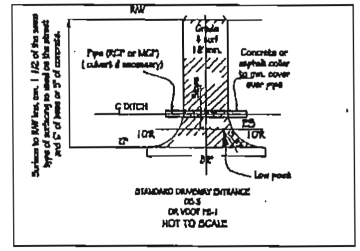
10/8/12
SEAL

NO.	DATE	BY	REMARKS
1	6-07-12	A.E.F	PER CTY COMMENTS
2	9-25-12	A.E.F	PER CTY COMMENTS

824
CO-2
SHEET 2 OF 7



TOPOGRAPHY AND EXISTING CONDITIONS
SCALE 1"= 20 FT



PROPOSED NEW DRIVEWAY ENTRANCE

IMPERVIOUS AREA CALCULATIONS LOT 1

Description	Development Pre	Post
Existing House	1,650 sf	1,680 sf
Existing Dwy to be Removed	282 sf	
Existing Stoop & Steps	85 sf	85 sf
Existing Front Ramp To Stry sf	80 sf	80
Existing Jogging Trail	604 sf	
Addition To Jogging Trail		802 sf
New Concrete Driveway		692 sf
New Garage		638 sf
New Front Conc Walk		124 sf
Total	2,685 sf	4,215 sf

Total lot area=	18,045 sf	0.433 AC
Increase in impervious	1,320 sf	
Percentage of imp.	23.36 %	>16% BMP IS Req'd

STORM WATER MANAGEMENT

Impervious C-factor=	0.8	Paved		
Pervious C-factor=	0.25	Unpaved		
Site area	18,045 sf	0.433 AC		
Pre development				
Impervious Areas	2,885 sf	or 0.066 AC		
Landscaped lawn=	15,160 sf	or 0.358 AC		
C Factor	(0.066*0.80 + 0.846*0.25)= 0.354			
Post development				
Impervious Area	4,215 sf	or 0.097 AC		
Landscaped lawn	18,830 sf	or 0.317 AC		
C Factor	(0.097*0.80 + 0.317*0.25)= 0.402			
Pre development				
Q2=	0.354	5.45	0.414	0.800 cfs
Q10=	0.354	7.27	0.414	1.067 cfs
Post development				
Q2=	0.402	5.45	0.414	0.907 cfs
Q10=	0.402	7.27	0.414	1.210 cfs
CHANGE IN RUNOFF				
Q2 Inc =	0.107 cfs			
Q10 Inc =	0.143 cfs			

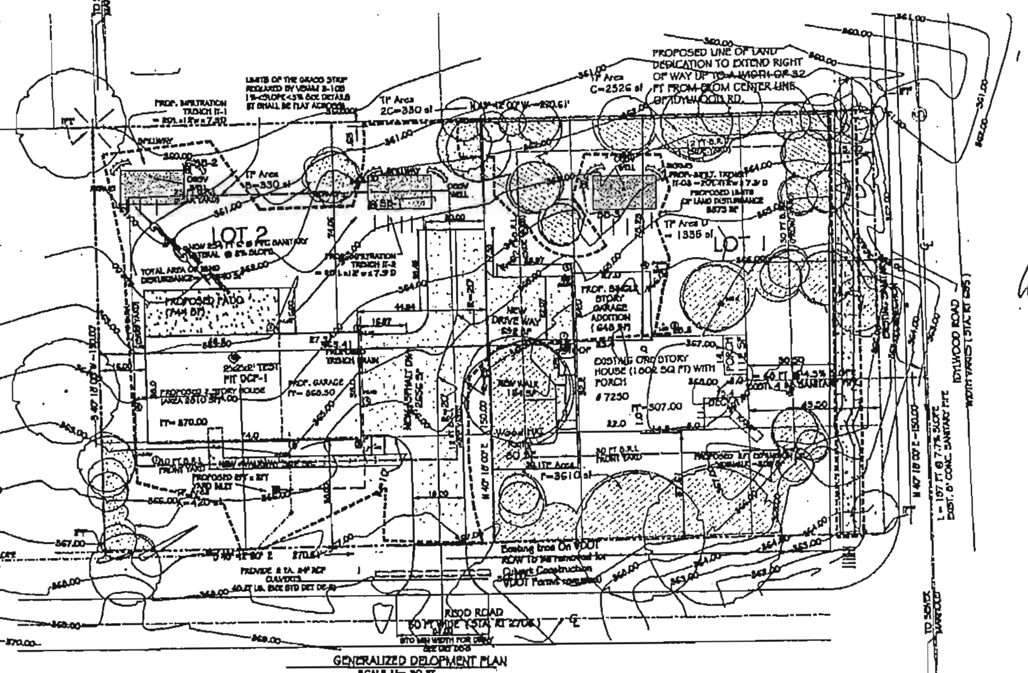
IMPERVIOUS AREA CALCULATIONS LOT 2

Description	Development Pre	Post
New House	0.0 (Vacant)	2,810 sf
Existing and New Driveways	1,960 sf	2,893 sf
Carport to Be Removed	582 sf	
Storage Shed To Be Removed	80 sf	
New Concrete Patio		744 sf
Front Concrete Walk		302 sf
Total	2,746 sf	6,748 sf

Total lot area=	20253 sf	0.466 Ac
Increase in impervious	4,001 sf	0.920 Ac
Percentage of imp.	32.32 %	>16% BMP IS Req'd
Total Disturbed Area	5,062 sf	

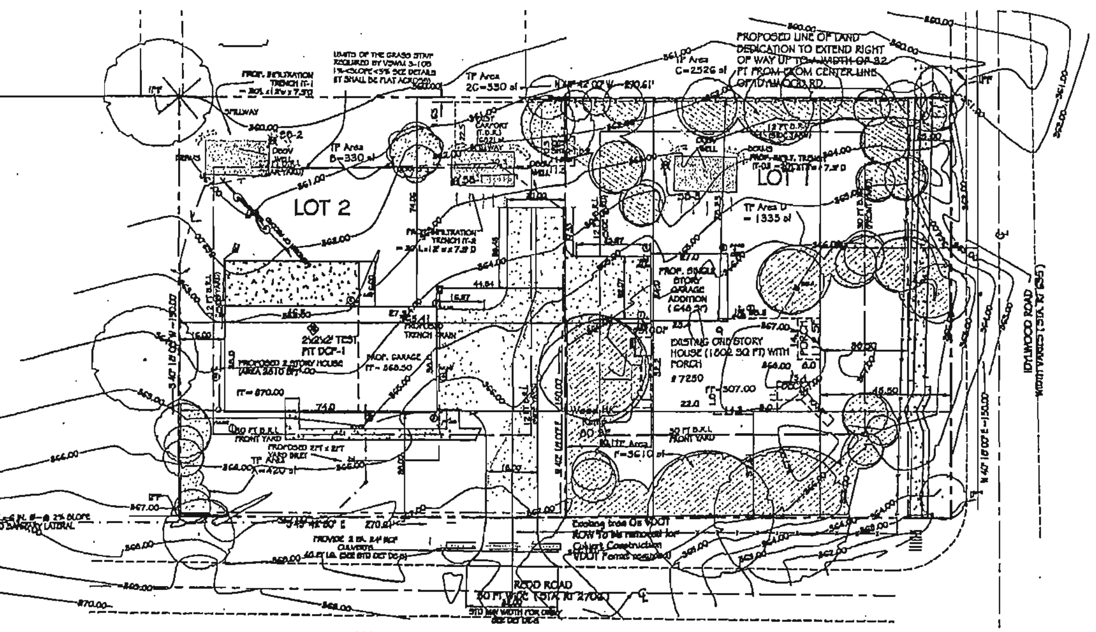
STORM WATER MANAGEMENT

Impervious C-factor=	0.8	Paved		
Pervious C-factor=	0.25	Unpaved		
Site area	20253 sf	0.466 AC		
Pre development				
Impervious Areas	2,746 sf	or 0.063 AC		
Landscaped lawn=	17,507 sf	or 0.402 AC		
C Factor	(0.063*0.80 + 0.402*0.25)= 0.338			
Post development				
Impervious Area	6,512 sf	or 0.149 AC		
Landscaped lawn	13,745 sf	or 0.316 AC		
C Factor	(0.149*0.80 + 0.315*0.25)= 0.453			
Pre development				
Q2=	0.338	5.45	0.465	0.857 cfs
Q10=	0.338	7.27	0.465	1.145 cfs
Post development				
Q2=	0.459	5.45	0.465	1.163 cfs
Q10=	0.367	7.27	0.291	1.552 cfs
CHANGE IN RUNOFF				
Q2 Inc =	0.306 cfs			
Q10 Inc =	0.408 cfs			

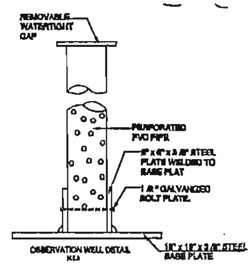


GENERALIZED DELOPMENT PLAN
SCALE 1"= 20 FT
STORM WATER MANAGEMENT
SCALE 1"= 20 FT

824
GDP-1
SHEET 3 OF 7



STORM WATER MANAGEMENT
SCALE 1"= 20 FT

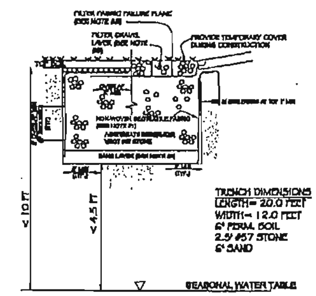


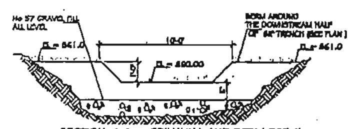
OBSERVATION WELL DETAIL
N.T.S.

NOTES:
1. USE NON-WOVEN GEOTEXTILE FABRIC WITH AOS OF 70-100 US SIEVE OR 0.2 MM- 0.15 MM AS DETERMINED BY ASTM D4751 AND A TRAPEZOIDAL TEAR STRENGTH OF 45 LB OR 0.2 KN AS DETERMINED BY ASTM D4533.

2. AN 8-IN. DEEP BOTTOM SAND LAYER (VDOT FINE AGGREGATE, GRADING A OR B) IS REQUIRED.

3. FOR AN AGGREGATE SURFACE TRENCH, FILTER FABRIC SHALL SURROUND ALL OF THE AGGREGATE FILL MATERIAL EXCEPT THE TOP ONE FOOT. A SEPARATE PIECE OF FABRIC SHALL BE USED FOR THE TOP LAYER TO ACT AS A FAILURE PLANE. THIS TOP PIECE CAN THEN BE REPLACED AND REPLACED UPON CLOGGING.





SECTION A-A SPILLWAY AND BERM DETAIL
NOT TO SCALE

TEST DATE: 8-23-2012 TIME: 2 HRS

FIELD TEST RESULTS			
Boring 1			
Time	Depth Absolute	Depth Relative	Infiltration rate
Hr	in	in	in/hr
3:00	15.00	0	0
3:30	15.00	2.00	4.00
4:00	17.00	2.00	4.00
4:30	23.00	6.00	8.00
5:00	25.00	2.00	8.00
	Infiltration rate		6.00

FIELD TEST RESULTS			
Boring 2			
Time	Depth Absolute	Depth Relative	Infiltration rate
Hr	in	in	in/hr
3:00	10.00	0	0
3:30	14.00	4.0	8.00
4:00	19.00	5.0	9.00
4:30	23.00	4.0	8.00
5:00	25.00	2.0	6.00
	Infiltration rate		8.00

FIELD TEST RESULTS			
Boring 3			
Time	Depth Absolute	Depth Relative	Infiltration rate
Hr	in	in	in/hr
3:00	15.00	0	0
3:30	18.00	3.0	6.00
4:00	22.00	4.0	7.00
4:30	25.00	3.0	7.00
5:00	27.00	2.0	5.00
	Infiltration rate		6.25

USE BORINGS #1 RESULTS FOR ALL (3) TRENCH LOCATIONS AND 3.0 IN/HR. FOR DESIGN.

NOTE:
THE DIAMETER OF THE HOLES WAS 4 INCH. AND DEPTH 108 INCH.
INFILTRATION TESTS PERFORMED FOLLOWING 24 HOURS SATURATION PERIOD.

NOTE: THE EXACT DEPTH OF THE OBSERVATION WELL SHALL BE PERMANENTLY MARKED ON THE WELL CAP.

INFILTRATION TRENCH DESIGN FOR IT-01 & IT-02 (LOT 2)

TOTAL RAINFALL ACCUMULATION = 3 IN
DURATION OF STORM (2-YR AND 2-HR STORM) = 2 Hr
[PFM, FAIRFAX COUNTY VA, 2005 6-1303.4A]
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr

IMPERVIOUS AREA TO BE TREATED = (3888+2610)/2=3374 SF
INFILTRATION RATE AS MEASURED IN THE FIELD = 6.0 IN/Hr
INFILTRATION RATE FOR DESIGN= 3.0 INCH/Hr
[VIRGINIA STORMWATER MANAGEMENT HANDBOOK: 3.00 B-3]
VOLUME IN =3374 x 3/12 = 843.6 CF

TRENCH DIMENSIONS
LENGTH = 20 FT
WIDTH = 12 FT
SURFACE AREA OF TRENCH = 20 x 12 = 240 SF
MIN SURFACE AREA =
= SAmin= (V)cf /((3.0 in/hr)x48 hrs)/12 =
=(843cf)/0.25 ft/hr (48.0)= 70.25 SF< 240 OK
VOLUME OUT = 3.0 IN/Hr x 2Hr /12x 240 SF = 120.0 CF
STORAGE VOL. REQUIRED = 843- 120.0 = 723.6 CF
USING # 57 STONE @ VOID 40%

DEPTH OF TRENCH = Vs/(N x A)= 723.6 CF / (0.4x 240 SF) = 7.5 FT
USE 2 TRENCHE(S) OF EACH SIZE (20 'L x 12 ' W x 7.5' D)

RATE OF DISCHARGE, Q(out) = 3.0 x 1/12 x 240 SF =60.0 CF/Hr
INFILTRATION TIME REQUIRED = 723.6 CF / 60.0 = 12.0 Hrs
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr OK

SPILLWAY DESIGN
I=9.6 in/hr
Q100 = 1.25 CL (Hpv) ^ 3/2
Q100 = 1.25x0.467x(0.468 Ac/2)x9.6 in/hr = 1.33 cfs
Hpv = 0.15 C= 3.3 (PFM 6-1302.11)
Lmin= (1.33 cfs/1.25)/(3.3)(0.15)^3/2 = 1.66/0.19 = 8.8 FT USE 9 FT

INFILTRATION TRENCH DESIGN FOR IT-03 (LOT 1)

TOTAL RAINFALL ACCUMULATION = 3 IN
DURATION OF STORM (2-YR AND 2-HR STORM) = 2 Hr
[PFM, FAIRFAX COUNTY VA, 2005 6-1303.4A]
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr

IMPERVIOUS AREA TO BE TREATED = 3309 SF
INFILTRATION RATE AS MEASURED IN THE FIELD = 6.0 IN/Hr
INFILTRATION RATE FOR DESIGN= 3.0 INCH/Hr
[VIRGINIA STORMWATER MANAGEMENT HANDBOOK: 3.00 B-3]
VOLUME IN =3309 x 3/12 = 827 CF

TRENCH DIMENSIONS
LENGTH = 20 FT
WIDTH = 12 FT
SURFACE AREA OF TRENCH = 20 x 12 = 240 SF
MIN SURFACE AREA =
= SAmin= (V)cf /((3.0 in/hr)x48 hrs)/12 =
=(827.3cf)/(144.0)x12= 69 SF< 240 OK
VOLUME OUT =0 .25 FT/Hr x 2Hr x 240 SF = 120 CF
STORAGE VOL. REQUIRED = 827-120 = 707 CF
USING # 57 STONE @ VOID 40%

DEPTH OF TRENCH = Vs/(N x A)=707 CF / (0.4x 240 SF) = 7.4 FT
MAXIMUM DEPTH=
=[(3.0 in/hr)x48 hrs]= 144 in = 12.0 FT OK
USE #-03 TRENCHE (20 'L x 12 ' W x 7.4' D)

RATE OF DISCHARGE, Q(out) = 3.0 x 1/12 x 112 SF =28.0 CF/Hr
INFILTRATION TIME REQUIRED = 222 CF / 24.0 = 9.25 Hrs
MAXIMUM ALLOWABLE DRAIN TIME = 48 Hr OK

SPILLWAY DESIGN
I=9.6 in/hr Ac= 0.035+0.023+0.218= 0.288 Ac
Q100 = 1.25 CL (Hpv) ^ 3/2
Q100 = 1.25x0.576x(0.288 Ac)x9.6 in/hr = 1.38 cfs
Hpv = 0.15 C= 3.3 (PFM 6-1302.11)
Lmin= (1.33 cfs/1.25)/(3.3)(0.15)^3/2 = 1.66/0.19 = 8.4 FT USE 9 FT

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTIONS, 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)
Cluster Subdivision (9-615 1G & 1N)
Development Plans PRC District (16-302 2 & 4L)
FDP P Districts (except PRC) (16-502 1F & 1Q)
Special Exceptions (9-011 2J & 2L)
Commercial Revitalization Districts (9-622 2A (12)&(14))
PRC Plan (16-303 1E & 1O)
Amendments (18-202 10F & 10I

1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100).
The Plat Scale is 1"= 20 ft (larger than minimum) OK

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____
All above shown on sheets 4 OF 7 & 5 OF 7 No access road required , No Outlet protection required

3. Provide:

Facility Name/ Type & No. (e.g. dry pond, infilt. Trench, underground vault, etc.)	On-Site area served (acres)	Off-Site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf.)	If pond, dam height (ft.)
IT-01	0.077	0.0	.0.077	240	724.0	
IT-02	0.077	0.0	0.077	240	724.0	
IT-03	0.076	0.0	0.076	112.0	707	

4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 5 OF 7 (One Yard Inlet and Drain)

5. Maintenance accesses (road) to stormwater management facility(ies) are shown on Sheet Not Required .

6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet Tree Preservation Canopy on Sheet 3 of 7 and Landscaping is shown on sheet 6 of 7

7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 5 of 7 (WATER QUANTITY AND WATER QUALITY

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 No Concentrated Outfall Required . Excess runoff leaves the site as sheetflow

9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet Not Required

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 2 of 7 .

11. A submission waiver is requested for Not Required

12. Stormwater management is not required because Not Applicable

Advance Engineering Group LLC.
Civil, Structural & Geotechnical Engineers / Planners
701 W. Broad St. Suite 306, Falls Church VA 22046
703-533-1581 Fax-703-533-1582
www.advengroup.net info@advengroup.net

GROUP

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1)) - 0082

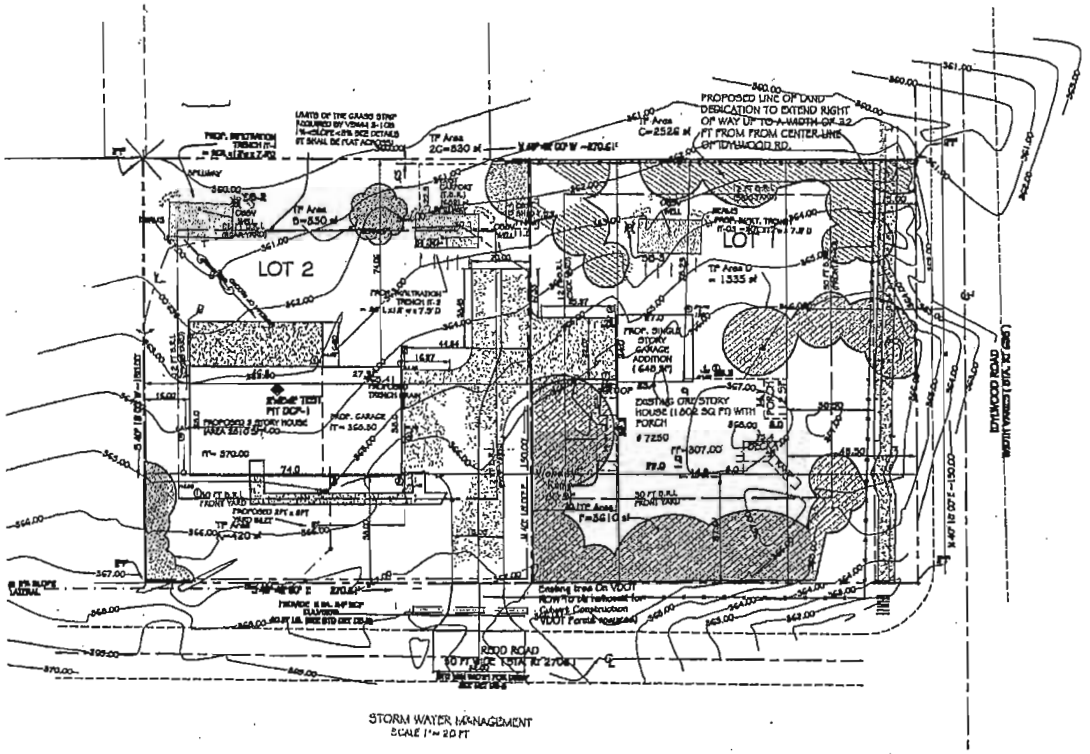
INFILTRATION TRENCH DESIGN

PROJECT MANAGER	A.E.F.
PROJECT NO.	11-VA-824
ENG. OF RECORD	A.E.F.
ISSUE DATE	4-23-2012
APPLICAT. NO.	

COMMONWEALTH OF VIRGINIA
ALEX E. FERNANDEZ
No. 13387
PROFESSIONAL ENGINEER
SEAL 10/8/12

NO.	DATE	BY	REMARKS
1	8-07-12	A.E.F.	PER CITY COMMENTS
2	9-25-12	A.E.F.	PER CITY COMMENTS

824
GDP-2
SHEET 4 OF 7



STORM WATER MANAGEMENT
SCALE 1"= 20 FT

LEGEND

- A1 - IMPERVIOUS AREA (CONTROLLED) (AREA= 2560 sq ft = 0.054 AC.)
- A2- PAVED AREA (CONTROLLED) (AREA=356 + 184 = 537 SF = 0.012 AC.)
- A3 - PAVED AREA (UNCONTROLLED) (AREA= 253 sf + 175 sf =460 sf = 0.011 AC.)
- A4 - UNPAVED AREA (CONTROLLED) (AREA= 2627 sq ft = 0.060 AC.)
- A5 - UNPAVED AREA (UNCONTROLLED) (AREA=2003+2810 +573=5267 sq ft = 0.808 AC.
- DRAINAGE DIVIDE

WATER QUALITY NARRATIVE

THE PROPOSED INFILTRATION TRENCHES WILL PROVIDE WATER TREATMENT TO APPROXIMATELY 0.076 ACRE OF IMPERVIOUS AREA FOR EACH TRENCH (BUILDING AREA , OTHER IMPERVIOUS AREAS AND SOME PORTION OF THE PERVIOUS AREA). THE PHOSPHORUS REMOVAL REQUIRED IS 86.2% FOR LOT 1 AND 40% FOR LOT 2 (REDEVELOPMENT PER FAIRFAX VA, BOS 6-401.251). THE PHOSPHORUS REMOVAL REQUIREMENTS ARE EXCEEDED, 50.8% IS REMOVED FROM LOT 1 AND 62.7% FROM LOT 2. THE WATER QUALITY REQUIREMENT IS MET BY THE BMP FACILITIES (INFILTRATION TRENCHES) FOR THIS PROJECT. AFTER INSTALLATION OF INFILTRATION TRENCH, BOTH STORMWATER QUALITY AND QUANTITY WILL BE CONTROLLED .

STORM WATER MANAGEMENT NARRATIVE

FOR LOT 1 APPROXIMATELY 80% OF THE RUNOFF IS CONVEYED TO THE PROPOSED INFILTRATION TRENCH (T-03), AND THIS WILL PROVIDE WATER TREATMENT TO APPROXIMATELY 0.076 ACRE OF IMPERVIOUS AREA (BUILDING AREA AND SOME PORTION OF THE PERVIOUS AREA). IT-08 IS REQUIRED TO HAVE 707 CUBIC FEET OF STORAGE VOLUME, AND 707 CUBIC FEET STORAGE CAPACITY IS PROVIDED. THE INFILTRATION RATE IS SUCH THAT THE TRENCH PROVIDES WATER DETENTION AND INFILTRATION AT THE SAME TIME. A 100 YEAR STORM WITH NO OVERFLOW. THE OTHER 20% OF UNTREATED AREA IS SHEET FLOW NATURALLY FLOWING TOWARDS IDYLWOOD AND REDD RD WITHOUT ANY CHANGES FROM EXISTING DRAINAGE PATTERN AND NO ADDITIONAL IMPERVIOUS AREA. EXISTING CONDITIONS SHOW NO CONCENTRATED FLOW ISSUES.

FOR LOT 2 APPROXIMATELY 80% OF THE RUNOFF IS CONVEYED TO THE 2 PROPOSED INFILTRATION TRENCHES ON LOT 2 (T-01 AND IT-02), AND THIS WILL PROVIDE WATER TREATMENT AND DETENTION TO APPROXIMATELY 0.155 ACRE OF IMPERVIOUS AREA. EACH TRENCH ON LOT 2 REQUIRES 727 CUBIC FEET OF STORAGE, AND 727 FEET OF STORAGE IS PROVIDED.

PHOSPHOROUS REMOVAL CALCULATIONS -LOT 1 "OCCOQUAN METHOD"

	Pre	Post	
Impervious Area	16%	23%	36.2 % Net Increase
%P Removal	1-0.9*(0.140.18) =		36.2 %
Development	Redev. W/O Exist BMP	[FFM, FAIRFAX COUNTY VA, 2003 6-401.251]	

%P Removal Required 36. %

Area of the site - (A) 0.414 AC

Surface area design (B)	Designation	C-Factor	Acres	Product
Building area (Controlled)	A1	0.9	0.053 AC	0.048
Paved area (Controlled)	A2	0.9	0.023 AC	0.020
Paved area (Uncontrolled)	A3	0.9	0.014 AC	0.012
Unpaved area (Controlled)	A4	0.25	0.218 AC	0.055
Unpaved area (Uncontrolled)	A5	0.25	0.112 AC	0.028
		Total	0.414 AC	0.162
Weighted average C-Factor			(C) = (B) / (A) =	0.391 AC

%P Removal Subarea Designation	1 Hr Detention 2 Year Storm BMP Type	Efficiency	Area Ratio	C-Factor Ratio	%P Removal
A1	Infiltration Trench	70%	0.128 AC	2.302	20.0 %
A2	Infiltration Trench	70%	0.054 AC	2.302	8.8 %
A3	None	0%	0.033 AC	2.302	0.0%
A4	Infiltration Trench	65%	0.518 AC	0.638	21.5%
A5	None	0%	0.270 AC	0.638	0.0%
Total %P Removal	Required	36.4 %	Total		50.5%

The phosphorus removal is in compliance with Phosphorus Removal Requirement. Therefore, the design is acceptable.

PHOSPHOROUS REMOVAL CALCULATIONS -LOT 2 "OCCOQUAN METHOD"

	Pre	Post	
Impervious Area	14%	33 %	137.0 % Net Increase
%P Removal	1-0.9*(0.140.33) =		63.4 %
Development	Redev. W/O Exist BMP	[FFM, FAIRFAX COUNTY VA, 2003 6-401.251]	

%P Removal Required 40.0 %

Area of the site - (A) 0.465 AC

Surface area design (B)	Designation	C-Factor	Acres	Product
Building area (Controlled)	A1	0.9	0.065 AC	0.058
Paved area (Controlled)	A2	0.9	0.090 AC	0.081
Paved area (Uncontrolled)	A3	0.9	0.000 AC	0.000
Unpaved area (Controlled)	A4	0.25	0.221 AC	0.055
Unpaved area (Uncontrolled)	A5	0.25	0.088 AC	0.022
		Total	0.465 AC	0.217
Weighted average C-Factor			(C) = (B) / (A)=	0.459 AC

%P Removal Subarea Designation	1 Hr Detention 2 Year Storm BMP Type	Efficiency	Area Ratio	C-Factor Ratio	%P Removal
A1	Infiltration Trench	70%	0.136 AC	1.961	19.0 %
A2	Infiltration Trench	70%	0.184 AC	1.961	25.1%
A3	None	0%	0.000 AC	1.961	0.0%
A4	Infiltration Trench	70%	0.474 AC	0.536	16.5%
A5	None	0%	0.192 AC	0.536	0.0%
Total %P Removal	Required	40.0 %	Total		62.7%

The phosphorus removal is in compliance with Phosphorus Removal Requirement. Therefore, the design is acceptable.

Advance Engineering Group LLC.
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GROUP

MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-(1)-0082

WATER QUALITY REQUIREMENTS

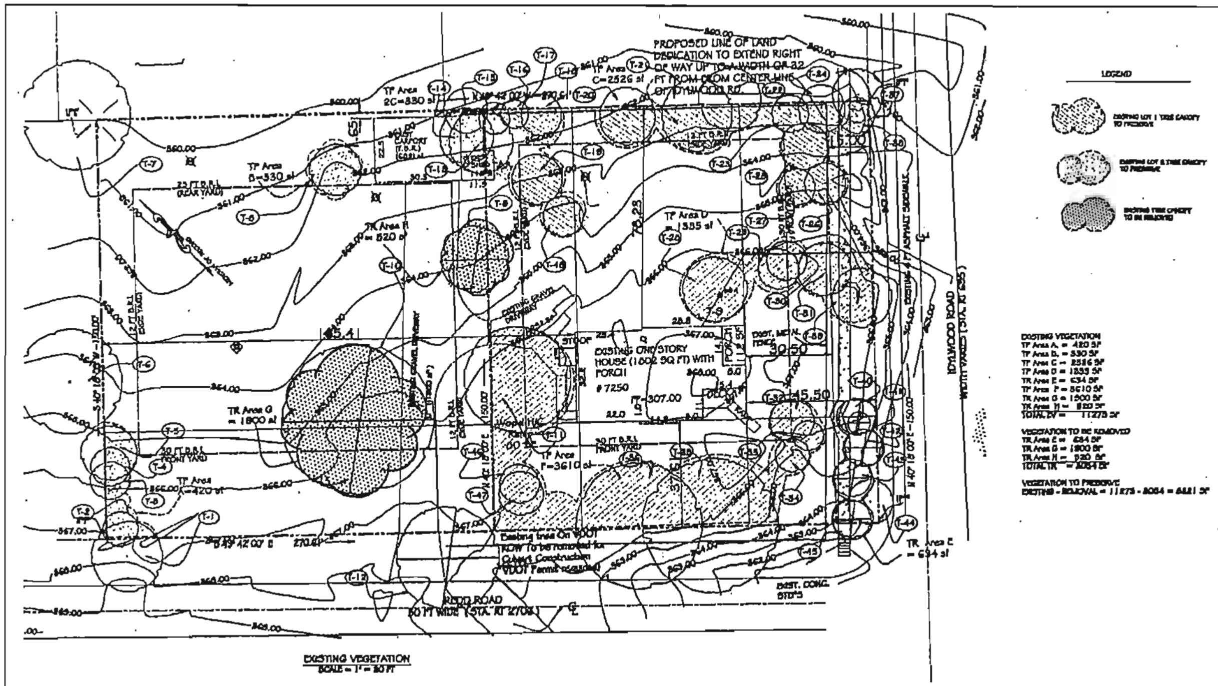
PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-564
DWG. OF RECORD	A.E.F
ISSUE DATE	4-23-2012

APPROVAL NO.

NO.	DATE	BY	REMARKS
2	8-07-12	A.E.F	1ST. CITY COMMENTS
1	9-30-12	A.E.F	1ST. CITY COMMENTS

COMMONWEALTH OF VIRGINIA
ALEX E. FERNANDEZ
No. 19807
PROFESSIONAL ENGINEER
10/8/12
SEAL

824
GDP-3
SHEET 5OF 7



TREE INVENTORY

7250 IDYLWOOD RD, FAIRFAX, VA
Date of site visit: April 25th, 2012
Certified Arborist: Alex E Fernandez PE

TREE #	BOTANIC NAME	COMMON NAME	CALIPER (DBH) (inches)	SPECIES RATING (0-100%)	CONDITION RATING (0100%)	PRESERVE / REMOVE
T-1	Juglan nigra	Black Walnut	27	70	70	Preserve
T-2	Cercis canadiensis	Redbud	4	50	60	Preserve
T-3	Juniperus Virginiana	Juniper	9	60	60	Preserve
T-4	Juniperus Virginiana	Juniper	10	60	65	Preserve
T-5	Juglan nigra	Walnut	18	70	65	Preserve
T-6	Prunus Serotina	Black Cherry	22	50	50	Out Of Prop.
T-7	Juglan nigra	Walnut	28	70	70	Out Of Prop.
T-8	Ulmus americana	American Elm	64	70	70	Preserve
T-9	Acer Saccarum	Silver Maple	20	55	70	Remove
T-10	Liriodendron Tulipifera	Tulip Poplar	48	80	78	Remove
T-11	Quercus Alba	White Oak	44	80	70	Preserve
T-12	Quercus Prinus	Chestnut Oak	20	80	65	In ROW(Remove) ⑥
T-13	Juglan nigra	Black Walnut	11	70	40	Preserve
T-14	Ulmus americana	American Elm	17	70	65	Preserve
T-15	Juglan nigra	Walnut	18	70	65	Preserve
T-16	Acer Platanoides	Norway Maple	8	60	65	Preserve
T-17	Cornus florida	Flowering Dogwood	6	50	60	Preserve
T-18	Cornus florida	Flowering Dogwood	6+4	50	60	Preserve
T-19	Quercus Rubra	Red Oak	11	80	70	Preserve
T-20	Cornus florida	Flowering Dogwood	6	50	70	Preserve
T-21	Prunus Serotina	Black Cherry	16	45	65	Preserve
T-22	Quercus Falcata	Southern Red Oak	25	80	70	Out Of Prop.
T-23	Cornus florida	Flowering Dogwood	2+4+2+3	50	65	Preserve
T-24	Robinia Pseudoacacia	Locust	16	50	70	Preserve
T-25	Robinia Pseudoacacia	Locust	8+6	50	65	Preserve
T-26	Prunus Serotina	Black Cherry	8	45	65	Preserve
T-27	Cornus florida	Flowering Dogwood	6	50	65	Preserve
T-28	Acer Platanoides	Norway Spruce	16	60	70	Preserve
T-29	Sassafras Albidum	Sassafras	8	60	70	Preserve
T-30	Sassafras Albidum	Sassafras	6+6	60	70	Preserve
T-31	Prunus Serotina	Black Cherry	10	45	65	Preserve
T-32	Picea abies	Norway Spruce	8	70	70	Preserve
T-33	Ilex opaca	American Holly	6+5+4+4	60	65	Preserve
T-34	Ilex opaca	American Holly	5+5	60	65	Preserve
T-35	Fagus Grandifolia	American Beech	42	80	80	Preserve
T-36	Fagus Grandifolia	American Beech	85	80	80	Preserve
T-37	Robinia Pseudoacacia	Locust	20	50	75	Preserve
T-38	Quercus Alba	White Oak	13	80	65	Preserve
T-39	Acer Platanoides	Norway Maple	15	50	70	Preserve
T-40	Acer Platanoides	Norway Maple	5	50	65	Remove
T-41	Acer Platanoides	Norway Maple	8	50	70	Remove
T-42	Acer Platanoides	Norway Maple	10	50	70	Remove
T-43	Acer Platanoides	Norway Maple	8	50	70	Dead (Remove)
T-44	Robinia Pseudoacacia	Locust	11	40	65	Preserve
T-45	Robinia Pseudoacacia	Locust	13	40	60	Remove
T-46	Koelreuteria paniculata	Golden Rain Tree	6	60	70	Preserve
T-47	Koelreuteria paniculata	Golden Rain Tree	5	60	60	Preserve
T-48	Cornus florida	Flowering Dogwood	8	50	70	Preserve

Notes:

1. Condition and Species Rating are based on formula provided by the Guide for Plant Appraisal published by the International Society Of Arborists.
2. All trees indicated as, are to be cleared from the site due to construction impacts.
3. All trees with a minimum 8" D.B.H. were inventoried and evaluated.
4. Out Of Property Trees are included due to proximity to Project Land Disturbance Limits
5. Neither the Project Arborist or Advanced Engineering Group, LLC condone the implementing of any suggested tree preservation or removal techniques without the agreement/permission of the adjacent property owner or HOA, given the loss of border trees and boundary line trees.
6. Removal of tree on Redd Rd R.O.W will require the contractor to secure VDOT permit.

TREE INVENTORY AND CONSERVATION NARRATIVE

A.- EXISTING YARD VEGETATION COVER CONSISTS OF REMNANTS OF UPLAND FOREST MAINLY OAKS, AMERICAN BEECH AND YELLOW POPLAR OF REGULAR HEIGHT INTERMIXED WITH VEGETATION CORRESPONDING TO THE EARLY SUCCESIONAL FOREST MAINLY NORWAY MAPLES, LOCUSTS, WALNUTS, DOGWOODS, AMERICAN HOLLY, REDBUDS , AMERICAN ELM AND OTHER UNDERSTORY TREES INTERMIXED WITH SOME LEVELS TURFGRASS, REMNANTS OF NATIVE HERBACEOUS PLANTS AND SUCH ORIGINAL LAND COVER . ALL TREES IN THE INVENTORY ARE NATIVE AND IN SATISFACTORY CONDITION

B.-IN LOT ONE BACK YARD , SOME LANDSCAPED NON NATIVE NURSERY STOCK TREES, AND SHRUBS WERE NOT CONSIDERED IN THE INVENTORY FOR BEING LESS THAN 4" IN CALIPER. .

C.-FOUR TREES ON THE SURVEY ARE VALUABLE TREES , (No. T-10, 48 INCH CALIPER TULIP POPLAR, T-11. A 44" CALIPER WHITE OAK, T-34 AND T-35 , A 42" AND A 85" CALIPER AMERICAN BEECH TREES) DUE TO LARGE DIAMETER AND CANOPY IN ADDITION TO A HIGH SPECIES RATING) . VALUABLE FOR AIR QUALITY OR WILDLIFE SUPPORT . THE WHITE OAK (T-11) FALLS WITHIN THE DISTANCE AND NORTHWESTERN- SOUTHEASTERN RANGE TO SAVE ENERGY FOR LOT 1

D.- FOR LOT 2 ONLY T-3, T-4 AND T-5 FALL WITHIN THE REQUIRED SIMILAR LOCATION FOR ENERGY CONSERVATION CREDIT IF THEY WERE NEW PLANTINGS , BUT IT IS RECOMMENDED TO SAVE THEM FOR THE PROPOSED DEVELOPMENT IN LOT 2

E- TWO TREES IN THIS INVENTORY, CONSIDERED RARE OR ENDANGERED SPECIES WERE FOUNDAT THE SITE. T-11 AND T-38 BOTH ARE QUERCUS ALBA,. THEIR PRESERVATION IS ENCOURAGED..

.E.- SOME TREES ON THIS SURVEY ARE CONSIDERED MODERATELY INVASIVE SPECIES. TREES T-39 THROUGH T-45 CONSISTING OF HONEY LOCUSTS OR BLAK LOCUSTS AND NORWAY MAPLES ARE RATED AS SUCH. HOWEVER THEY ARE LOCATED PARALLEL TO IDYLWOOD ROAD RIGHT OF WAY LINE AND FAR FORM THE PROPOSED RE-DEVELOPMENT IMPACT.

F.- NO CONSTRUCTION DEBRIS , FILL AND OR OTHER MATERIALS SHALL BE PLACED OR STORED BENEATH THE CANOPY COVER OF PROTECTED TREES OR OUTSIDE OF THE LIMITS OF DISTURBANCE,ON APPROVED PLANS

G.- VEGETATION TO BE REMOVED SHALL BE APPROVED BY THE COUNTY ARBORIST. TREES MEASURING 12" OR MORE IN DIAMETER WITHIN THE 25 FT OF THE PROPOSED LIMITS OF CLEARING THAT DO NOT MEET THE STANDARDS OF STRUCTURAL INTEGRITY BY THE "GUIDE FOR PLAT APPRAISAL" SHALL BE LABELED IN "POOR CONDITION" AND SHALL BE CONSIDERED FOR REMOVAL AFTER APPROVAL OF THE COUNTY ARBORIST

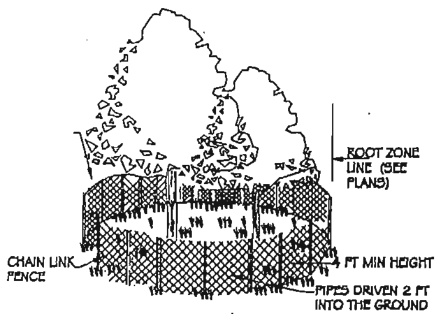
G.- TREES T-13, T-14 , T-15 AND T-19 (WALNUTS, ELM AND A RED OAK) ARE BEING CLAIMED WITHIN THE TREE CONSERVATION PLANS FOR LOTS 1 AND 2 . HOWEVER; DUE TO THE IMMEDIATE PROXIMITY TO THE DEMOLITION OF THE EXISTING CARPORT AND STORAGE SHED, PROBABLY IT IS NOT POSSIBLE TO INSTALL REGULAR TREE PROTECTION FENCE. THIS DEMO WORK WOULD NEED TO BE DONE WITH LIGHT EQUIPMENT AND AS MANUALLY AS POSSIBLE TO MINIMIZE ROOT ZONE DAMAGE

PRESERVATION & PROTECTION OF EXISTING VEGETATION

A.- TREES DESIGNATED FOR PROTECTION SHALL RECEIVE ENHANCED LEVEL OF MAINTENANCE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD. SELECTIVE ROOT AND LIMBS PRUNING IN ANY EXCAVATION ENCROACHING THE CANOPY OF TREES TO PRESERVE IN ACCORDANCE WITH PFM PLATE 7-12. PROVIDE TREE PROTECTION FENCE WITHIN 10 FEET OF THE TRUNK OF PRESERVATION TREES BEHIND THE SILT FANCE.

B.- VEGETATION TO BE REMOVED SHALL BE APPROVED BY THE COUNTY ARBORIST. TREES MEASURING 12" OR MORE IN DIAMETER WITHIN THE 25 FT OF THE PROPOSED LIMITS OF CLEARING THAT DO NOT MEET THE STANDARDS OF STRUCTURAL INTEGRITY BY THE "GUIDE FOR PLAT APPRAISAL" SHALL BE LABELED IN "POOR CONDITION" AND SHALL BE CONSIDERED FOR REMOVAL BY THE COUNTY ARBORISTS REQUEST

C.- LOCATION AND METHOD OF FOR PROTECTION AND PRESERVATION OF EXISTING TREES SHALL BE APPROVED BY THE COUNTY INSPECTOR PRIOR TO COMMENCEMENT OF GROUND DISTURBING ACIVITY.



TREE PROTECTION FENCE DETAIL

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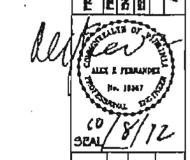
MID PIKE
LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
TAX MAP 040-3-((1)) - 0082

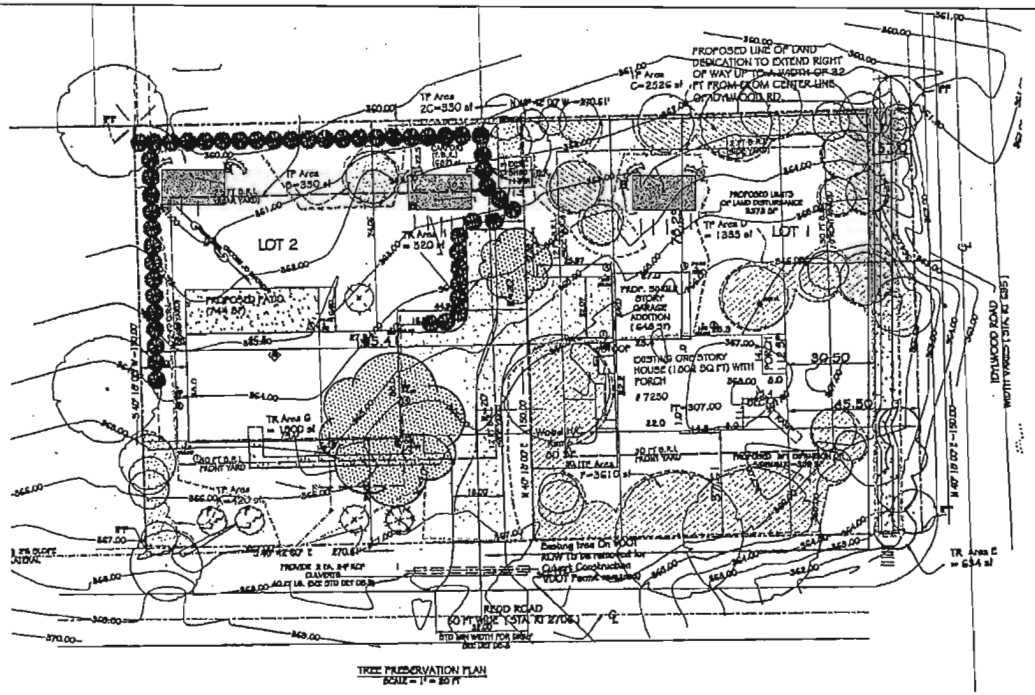
EXISTING VEGETATION

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-824
ENG. OF RECORD	A.E.F
ISSUE DATE	4-23-2012
APPLICAT. NO.	



NO.	DATE	BY	REMARKS
1	8-07-12	A.E.F	PER CITY COMMENTS
2	9-25-12	A.E.F	PER CITY COMMENTS

824
GDP-4
SHEET 6 OF 7



TREE PRESERVATION PLAN
SCALE = 1" = 30 FT

TREE PRESERVATION NARRATIVE

A.- THE SITE IS POPULATED WITH A RANGE OF NATIVE SPECIES OF VALUE. MANY SPECIES ON LOT ONE ARE VALUABLE FOR AIR QUALITY, WILD LIFE, WATER QUALITY, ENERGY CONSERVATION ETC.

B.- EVERY EFFORT SHALL BE MADE TO PROTECT THE TREE PRESERVATION CANOPY SHOWN HEREON DURING CONSTRUCTION. NO CONSTRUCTION DEBRIS, FILL AND OR OTHER MATERIALS SHALL BE PLACED OR STORED BENEATH THE CANOPY COVER OF PROTECTED TREES.

C.- VEGETATION TO BE REMOVED SHALL BE APPROVED BY THE COUNTY ARBORIST. TREES EXCEEDING 12" OR MORE IN DIAMETER, WITHIN THE 25 FT OF THE PROPOSED LIMITS OF CLEARING THAT DO NOT MEET THE STANDARDS OF STRUCTURAL INTEGRITY BY THE "GUIDE FOR PLANT APPRAISAL" SHALL BE LABELED W "POOR CONDITION" AND SHALL BE CONSIDERED FOR REMOVAL BY THE COUNTY ARBORIST

D.- PROVIDE, IMPLEMENT AND FOLLOW A TREE CONSERVATION AND PROTECTION PROGRAM THAT IS DEVELOPED TO THE SATISFACTION OF THE COUNTY ARBORIST.

E.- LOCATION AND METHOD OF FOR PROTECTION AND PRESERVATION OF EXISTING TREES SHALL BE APPROVED BY THE COUNTY INSPECTOR PRIOR TO COMMENCEMENT OF GROUND DISTURBING ACTIVITY.

F.- APPLICANT MUST PROVIDE DOCUMENTATION OF COMMUNICATION WITH ADJACENT PROPERTY OWNERS VERIFYING NOTIFICATION OF CONSTRUCTION IMPACT, POTENTIAL FOR ROOT LOSS, AND AGREED UPON REMEDIAL MEASURES PERTAINING TO THE EXISTING TREES ON ADJACENT PROPERTIES AND WITHIN THE 25 FT LINE OUTSIDE OF THE LIMITS OF DISTURBANCE. FOR INSTANCE T-6, T7 AND T-22

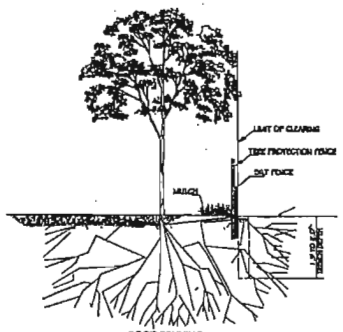
TREE PLANTING SCHEDULE

ID	PLAN SYMBL	D/E	BOTANICAL NAME	COMMON NAME	CAT	CAL IN	10 YR CANOPY	CREDIT FACTOR	CC	QTY (EA)	TOTAL SF
RM		LD	ACER RUBRUM	RED MAPLE	IV	2"	200 sf	1.50	WL	2 EA	600 sf
OR		LD	QUERCUS RUBRA	NORTHERN RED OAK	IV	2"	200 sf	1.50	EC	2 EA	600 sf
SY		LD	PLATANUS OCCIDENTALIS	SYCAMORE	IV	2"	200 sf	1.50	NAT	1 EA	300 sf
TV		LE	THUJA OCCIDENTALIS	AMERICAN ARBOVITAE	I	6 FT	40 sf	1.00		50 EA	2000 sf

TOTAL = 3500 SF

LD = LARGE DECIDUOUS MD = MEDIUM DECIDUOUS SD = SMALL DECIDUOUS
LE = LARGE EVERGREEN ME = MEDIUM EVERGREEN SE = SMALL EVERGREEN

CREDIT CODES: WQ = WATER QUALITY AQ = AIR QUALITY EC= ENERGY CONSERVATION
WL = WILD LIFE NAT = VIRGINIA NATIVE



ROOT PRUNING
ITM DETAIL T-18

Table 12.3 - Tree Preservation Target Calculation And Statement

A. - Pre-development Area Of Existing Tree Canopy (From Existing Vegetation Map) =	11275
B. - Percentage Of Gross Site Area Covered By Existing Tree Canopy =	27.6 %
C. - Percentage Of Ten Year Tree Canopy Required for Site (From Table 12.4) =	35.0 %
D. - Percentage Of Ten Year Tree Canopy Requirement That Should Be Met Through Tree Preservation =	27.6 %
E. - Proposed Percentage Of Tree Canopy Requirement That Will Be Met Through Tree Preservation =	61.0 %
F. - Has The Tree Preservation Target Minimum been Met ? =	YES
G. - If No ; Then a request to deviate from the Tree Preservation Target shall be provided on the plans that states one or more of the justifications listed on Art. 12-0507.5 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 provided =	
H.- If G requires a narrative it shall be prepared in accordance with Article 12-0507.4	
I.- Place the information prior to the Ten Year Canopy Calculations as per instructions on Table 12.12	8221

TREE CONSERVATION
7230 IDYLWOOD RD, FAIRFAX, VA
Date of plan work: February, 2012

Table 12.12 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	8221	§ 12-0507.2
B. Tree Canopy Requirements			
B1	Identify Gross Site Area	40591	§12-0510.1.A
B2	Subtract area dedicated to parks, road frontage and	0	§12-0510.1.B
B3	Subtract area of Exemptions	40591	§12-0510.1.C(1) to §12-0510.1.C(6)
B4	Adjusted gross site Area (B1-B2) =	40591	
B5	Identify site Zoning and Use =	R3	
B6	Percentage of 10 year Canopy required =	25 %	§ 12-0509.1 & and table 12.4
B7	Area Of 10 Year Canopy required (B4xB6) =	10148	
B8	Modification of the 10 Year Canopy requested ?	NO	Yes Or No
B9	If Yes, then list plan sheet where modification is requested		Sheet Number
C. Tree Preservation			
C1	Tree Preservation Target Area	8221	
C2	Total Canopy Area Meeting standards §# 12-0200	8221	
C3	C2 x 1.25 =	10276	§ 12-0508.5B
C4	Total Canopy Area provided by unique or valuable forest or Woodland Communities	0.0	
C5	C4x1.5=	0.0	§ 12-0506.5B(1)
C6	Total Canopy Area provided by "Heritage", "Memorial", "Specimen" or "Street" trees =	0	
C7	C6 x 1.5 to 3.0 =	0	§ 12-0506.5B(2)
C8	Canopy Area Of Trees within resource Protection areas and 100 Yr floodplain	0	
C9	C8 x 1.0 =	0	§ 12-0506.5C(1)
C10	Total of C3, C5, C7 and C8 =	10276	
D1	Area Of Canopy to be Met By Tree Planting (D7-C10) =	0	
D2	Area Of Canopy planted for Air Quality benefits	0	
D3	x 1.5 =	0	§ 12-0510.4B(1)
D4	Area Of Canopy planted for Energy Conservation	400	
D5	x 1.5 =	600	§ 12-0510.4B(2)
D6	Area Of Canopy planted for Water Quality benefits	0	
D7	x 1.25 =	0	§ 12-0510.4B(3)
D8	Area Of Canopy planted for Wildlife benefits	400	
D9	x 1.5 =	600	§ 12-0510.4B(4)
D10	Area Of Canopy provided by Native Trees	800	
D11	x 1.5 =	800	§ 12-0510.4B(5)
D12	Area Of Canopy Provided by Improved Cultivars and Varieties	0	
D13	x 1.25 =	0	§ 12-0510.4B(6)
D14	Area Of Canopy Provided Through Seedlings x 1.0	0	§ 12-0510.4C(1)
D15	Area Of Canopy Provided Through Native Shrubs x 1.0	0	§ 12-0510.4C(1)a
D16	Percentage Of D14 represented by D15	0	Must Not Exceed 33% of D14
D17	Total Of Canopy Area Provide Through Tree Planting	3500	
D18	Is an Offsite Planting Relief Requested ?	NO	Yes Or No?
D19	Tree Bank Or Tree Fund ?	NO	Yes Or No?
D20	Canopy Area Requested To Be Provided Through Offsite Banking Or Tree Fund	0	
D21	Amount To Be deposited into the Tree Preservation and Planting Fund	0	
E	Total Of Ten Year Tree Canopy Provided		
E1	Total Of Canopy Area Provided Through Tree Preservation = (D-10) =	10276	
E2	Total Of Canopy Area Provided Through Tree Planting = (D-17) =	3500	
E3	Total Of Canopy Area Provided Through Off-site Mechanism = (D-19) =	0	
E4	Total Of Ten Year Canopy Provided = (E1 + E2 +E3) =	13776	

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LOT 82 BLK 1
FAIRFAX COUNTY
DRANESVILLE DISTRICT #1
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TREE PRESERVATION PLAN

PROJECT MANAGER	A.E.F
PROJECT NO.	11-VA-824
DWG. OF RECORD	A.E.F
ISSUE DATE	4-25-2012
APPLICANT: NO.	

NO.	DATE	BY	REMARKS
1	6-07-12	A.E.F	PER CITY COMMENTS
2	9-25-12	A.E.F	PER CITY COMMENTS

ALICE E. FERNANDEZ
No. 18367
SEAL 10/8/12

824
GDP-5
SHEET 7 OF 7