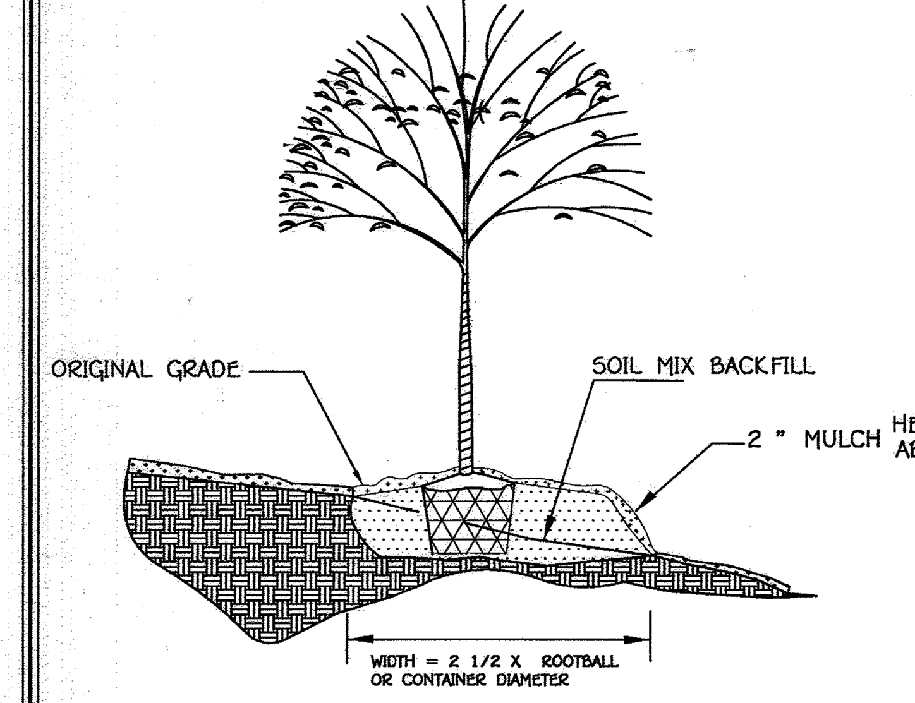
SCHEDULE A - PERIMETER LANDSCAPE EDGE

PERIMETER	P-1	P-2	P-3	P-4	P-5	P-6	P-7	TOTAL
CATEGORY	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	EXISTING HOUSE LOT	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	
LANDSCAPE TYPE	A	A	N/A	A	A	N/A	A	
LINEAR FEET OF PERIMETER	428.22' L.F.	549.05' L.F.	372.10' L.F.	298.58' L.F.	476.31 L.F.	433.09' L.F.	1,723.69' L.F.	
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	(428.22'/60' = 7.13) = 7 0	(549.05'/60' = 9.15) = 9 0	0 0	(298.58'/60' = 4.97) = 5 0	(476.31'/60' = 7.94) = 8 0	N/A	(1,723.69'/60' = 28.73) = 29 0	58
CREDIT FOR WALL, FENCE OR BERM		0	0	0	0	N/A	0	
CREDIT FOR EXISTING VEGETATION SHADE TREES EVERGREEN TREES	YES, FORESTED AREA (428.22') (428.22'/60' = 7.13) = 7 0	YES, FORESTED AREA (102.27') (102.22'/60' = 1.70) = 2 0	0 0	YES, FORESTED AREA (298.58') (298.58'/60' = 4.97) = 5 0	0 0	N/A	YES, FORESTED AREA (635.18') (635.18'/60' = 10.59) = 11 0	25 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES	0 0	(REQ'D-CREDITS) (9-2) = 7 0	0 0	(REQ'D-CREDITS) (5-5) = 0 0	8 0	N\A	(REQ'D-CREDITS) (29-11) = 18 0	33 0

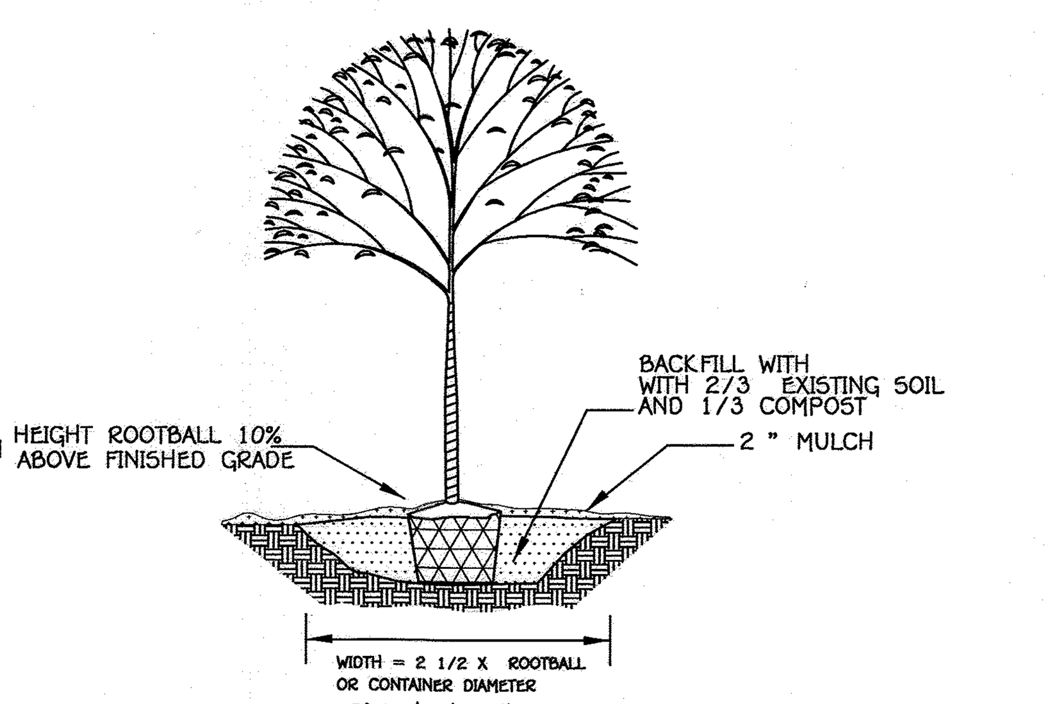
LANDSCAPING PLANT LIST

TOTAL	KEY	NAME	SIZE
7		ACER SACCHARUM SUGAR MAPLE	2 1/2"- 3" CALIPER FULL CROWN, B&B
10		ACER RUBRUM RED SUNSET RED MAPLE	2 1/2"- 3" CALIPER FULL CROWN, B&B
8		QUERCUS RUBRA RED OAK	2 1/2"- 3" CALIPER FULL CROWN, B&B
8		TILIA CORDATA GREENSPIRE LITTLELEAF LINDEN	2 1/2"- 3" CALIPER FULL CROWN, B&B

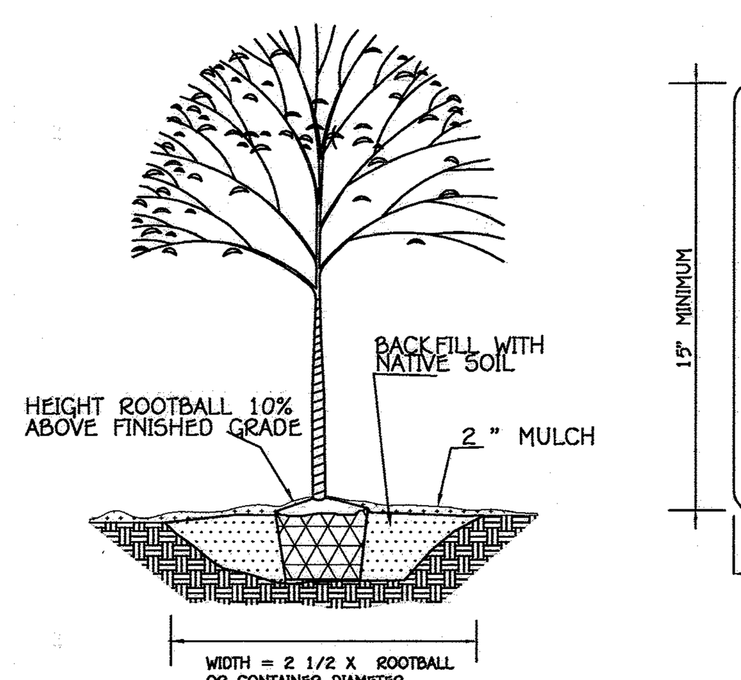
"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL". FINANCIAL SURETY FOR THE 33 TOTAL REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE BUILDERS GRADING PERMIT IN THE AMOUNT OF $9,900.00.



Planting on Slope

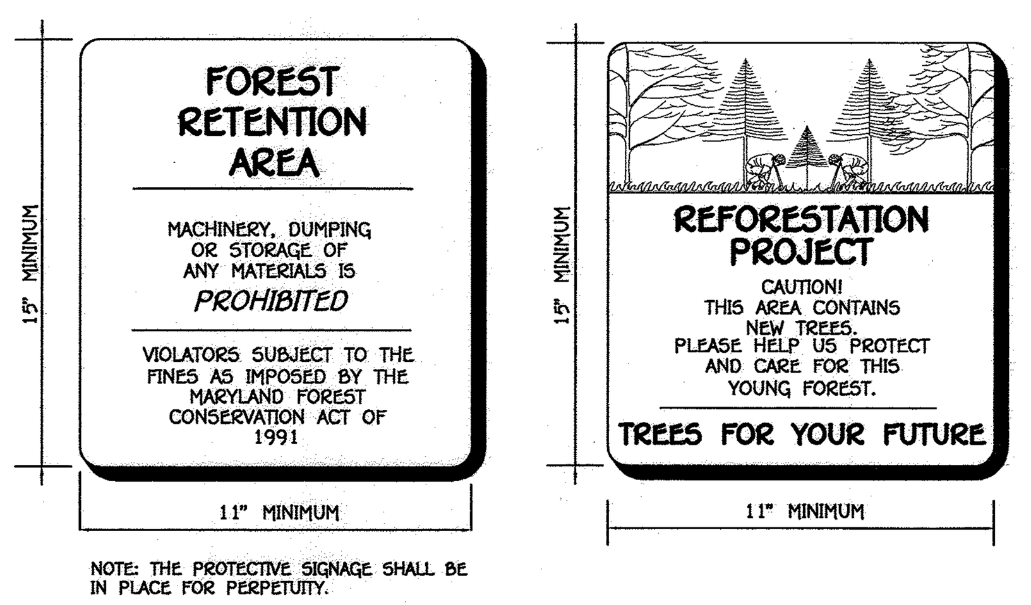


Disturbed Soil



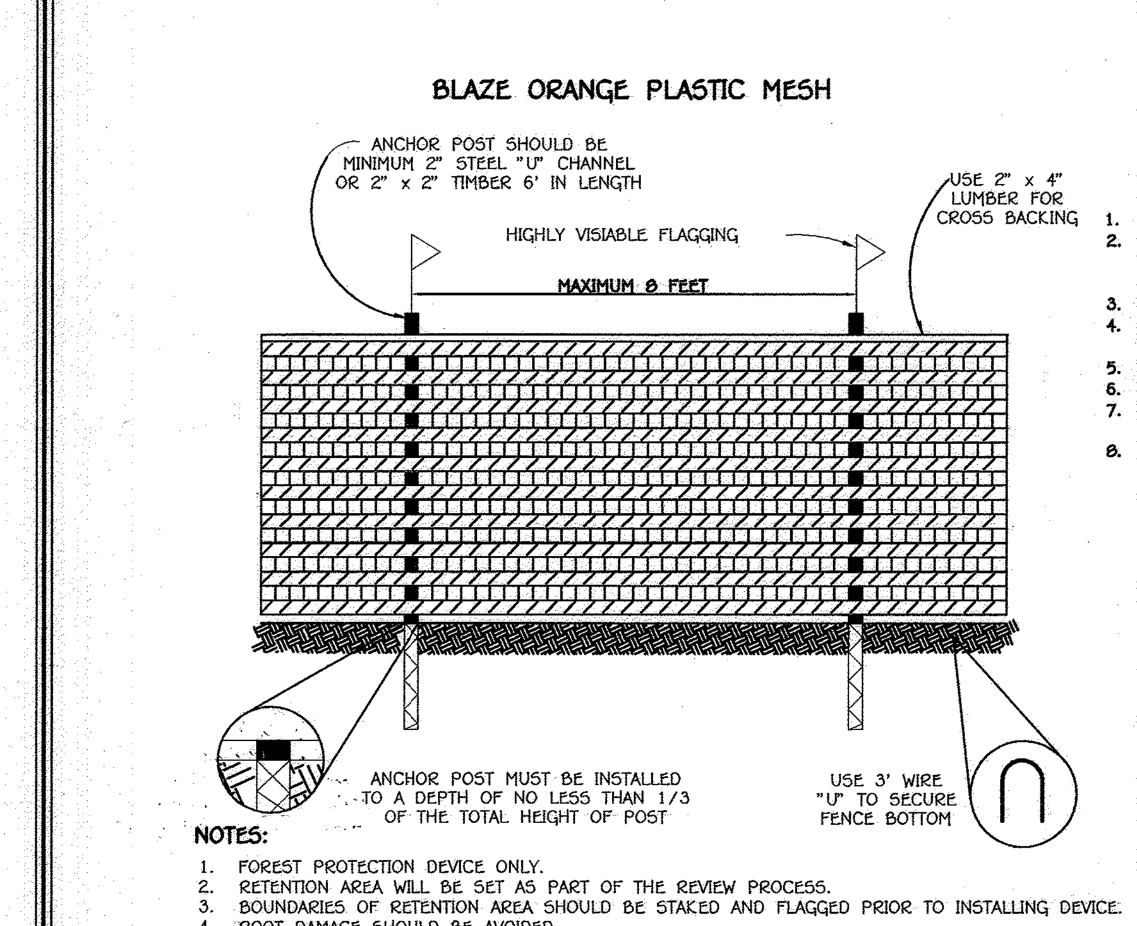
Undisturbed Soil

ON-SITE SIGNAGE



NOTE: THE PROTECTIVE SIGNAGE SHALL BE IN PLACE FOR PERPETUITY.

BLAZE ORANGE PLASTIC MESH



NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL

NOT TO SCALE

Developer's/Builder's Certificate

I/We certify that the landscaping shown on this plan will be done according to Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of notice of Landscape Installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

Developer/Builder — Date 2-18-13

MD DNR Qualified Professional
USACOE Wetland Delineator
Certification # WDCP93MD0610044B
JOHN P. CANOLES

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

I:\2011\11046\dwg\11046-3001Supplemental Plan 8-10-12.dwg, 2/13/2013 2:05:42 PM, \\FCC067\36Mylar

Planting/Soil Specifications

1. Planting of nursery stock shall take place between March 15th and April 30th or September 15th - November 15th.
2. A twelve (12) inch layer of topsoil shall be spread over all forestation areas impacted by site grading to assure a suitable planting area. Disturbed areas shall be seeded and stabilized as per general construction plan for project. Planting areas not impacted by site grading shall have no additional topsoil installed.
3. All bareroot planting stock shall have their root systems dipped into an anti-desiccant gel prior to planting.
4. Plants shall be installed so that the top of root mass is level with the top of existing grade. Backfill in the planting pits shall consist of 3 parts existing soil to 1 part pine fines or equivalent.
5. Fertilizer shall consist of Agriform 22-8-2, or equivalent, applied as per manufacturer's specifications.
6. A two (2) inch layer of hardwood mulch shall be placed over the root area of all plantings.
7. Plant material shall be transported to the site in a tarped or covered truck. Plants shall be kept moist prior to planting.
8. All non-organic debris associated with the planting operation shall be removed from the site by the contractor.

REFORESTATION PLAN

The reforestation area will be placed into a Forest Conservation Easement.

A. Planting Plan and Methods

Plant species selection was based on our knowledge regarding plant communities in Maryland's Piedmont Plateau and information provided in the soil survey on typical vegetation for the soil type on the planting site. Species selection was also based on our knowledge of plant availability in the nursery industry.

Reforestation will be accomplished through a mixed planting of whips and branched transplants. Container grown stock is recommended but bareroot stock may be used to help control afforestation costs. If bareroot stock is used the root systems of all plants will be dipped in an anti-desiccant gel prior to planting to improve moisture retention in the root systems.

Prior to planting the proposed Forest Conservation Easements all multiflora rose in the planting area shall be removed. Removal of the rose may be performed with mowing and herbicide treatments. Physical removal of all top growth following by a periodic herbicide treatment of stump sprouts is recommended. Native tree and shrub species occurring within the rose thickets should be retained wherever possible. Herbicides treatments shall occur on 2 month intervals during the first growing season and once each in the spring and fall for subsequent years. Herbicide used shall be made specifically to address woody plant material and shall be applied as per manufacturers specifications. Care should be taken not to spray planted trees or naturally occurring native tree/shrub seedlings. It is recommended that initiation of rose removal begin at least six months prior to planting.

B. Planting and Soil Specifications

Plant material will be installed in accordance with the Planting Detail and Planting Specifications shown on the Forest Conservation Plan.

Amendments to existing soil will be in accordance with the Planting Specifications shown on the Forest Conservation Plan. Soil disturbance will be limited to individual planting locations.

C. Maintenance of Plantings

See Post Construction Notes

D. Guarantee Requirements

A 90 percent survival rate of the reforestation plantings will be required after one growing season. All plant material below the 90 percent survival threshold will be replaced at the beginning of the second growing season. At the end of the second growing season, a 75 percent survival rate will be required. All plant material below the 75 percent survival threshold will be replaced by the beginning of the next growing season.

E. Security for Reforestation

Section 16-1209 of the Howard County Forest Conservation Act requires that a developer shall post a security (bond, letter of credit, etc.) with the County to insure that all work is done in accordance with the FCP.

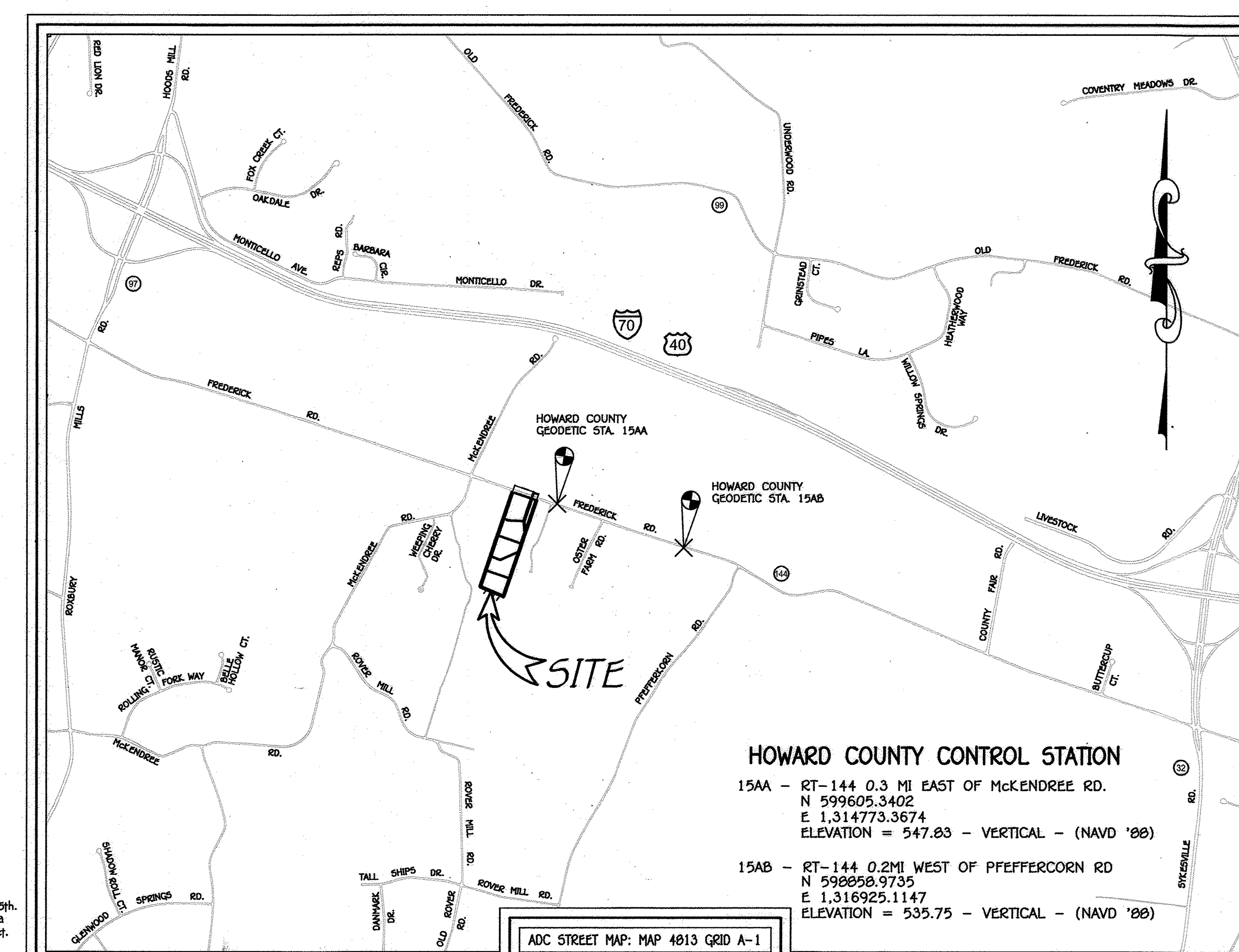
Owner/Developer

Harold E. Renfro, Jr. And
Marilyn S. Renfro
13765 Frederick Road
West Friendship, Maryland 21794
Phone# 301-854-6782

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/12/13

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/13



HOWARD COUNTY CONTROL STATION

15AA - RT-144 0.3 MI EAST OF McKENDREE RD.
N 599605.3402
E 1,314773.3674
ELEVATION = 547.83 - VERTICAL - (NAVD '88)

15AB - RT-144 0.2MI WEST OF PFEFFERCORN RD
N 598858.9735
E 1,316925.1147
ELEVATION = 535.75 - VERTICAL - (NAVD '88)

ADC STREET MAP: MAP 4813 GRID A-1

VICINITY MAP
SCALE: 1" = 2000'

FOREST CONSERVATION WORKSHEET

NET TRACT AREA		Acres
A. TOTAL TRACT AREA	=	17.0
B. AREA WITHIN 100 YEAR FLOODPLAIN	=	0
C. AREA TO REMAIN IN AGRICULTURE PRODUCTION	=	0
D. NET TRACT AREA	=	17.0

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)
ARA MDR IDA HDR MPD CIA
RC-DEO

INFORMATION FOR CALCULATIONS:		
E. AFFORESTATION THRESHOLD	20% x D =	3.4
F. FOREST CONSERVATION THRESHOLD	25% x D =	4.2
EXISTING FOREST COVER:		
G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	=	7.0
H. AREA OF FOREST ABOVE REFORESTATION THRESHOLD	=	3.6
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD:	=	2.8
BREAK EVEN POINT:		
J. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION	=	0.6
	BREAK-EVEN POINT	4.8
K. CLEARING PERMITTED WITHOUT MITIGATION	=	2.8
PROPOSED FOREST CLEARING:		
L. TOTAL AREA OF FOREST TO BE CLEARED OR RETAINED OUTSIDE FCE	=	3.3
M. TOTAL AREA OF FOREST TO BE RETAINED IN FCE	=	3.7
PLANTING REQUIREMENTS:		
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	=	0.7
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	=	1.0
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	=	0
R. TOTAL REFORESTATION REQUIRED	=	1.7
S. TOTAL AFFORESTATION REQUIRED	=	0
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED	=	1.7

FOR LOT 2 ONLY
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 51063 Expiration Date: 6/7/2023
8/15/2022

STATE OF MARYLAND — BRIAN E. WAGNER — 51063 — PROFESSIONAL ENGINEER

* EXISTING HOUSE TO REMAIN

LOT NUMBER	ADDRESS	DISCONNECTION OF ROOFTOP RUN-OFF N-1 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUN-OFF N-2 (Y/N)	MICRO-BIO-RETENTION M-6 (NUMBER)
1	13787 FREDERICK ROAD	0	Y	2
2	13783 FREDERICK ROAD	6	Y	0
3*	13765 FREDERICK ROAD	0	Y	N/A
4	13775 FREDERICK ROAD	0	Y	1
5	13771 FREDERICK ROAD	0	Y	1

Post-Construction Management Plan

Howard County requires a two year post-construction management plan be prepared as part of the forest conservation plan. The plan goes into effect upon acceptance of the construction certification of completion by the County. Eco-Science Professionals, or another qualified professional designated by the developer, will be responsible for implementation of the post-construction management plan.

The following items will be Incorporated Into the plan:

A. Fencing and Signage

Permanent signage Indicating the limits of the retention/reforestation area shell be maintained.

B. General Site Inspections/Maintenance of Plantings

Site inspections will be performed a minimum of three times during the growing season. The purpose of the inspections will be to assess the health of the afforestation plantings. Appropriate measures will be taken to rectify any problems which may arise.

In addition, maintenance of the afforestation plantings will Involve the following steps:

1. Watering All plant material shall be watered twice a month during the 1st growing season, more or less frequently depending on weather conditions. During the second growing season, once a month during May-September, If needed.
2. Removal of invasive exotics and noxtous weeds Old field successional species will be retained.
3. Identification of serious plant pests and diseases, treatment with appropriate agent.
4. Pruning of dead branches.
5. After 12 and 24 months, replacement of plants, if required, in accordance with the Guarantee Requirements shown on the FCP.

C. Education

The developer will provide appropriate materials to property owners informing them of the location and purpose of the afforestation area. Materials may include site plans and information explaining the intent of the forest conservation law.

D. Final Inspection

At the end of the two year post-construction management period, Eco-Science Professionals, or another qualified professional, will submit to the administrator of the Howard County Forest Conservation Program certification that all retention/afforestation requirements have been met. Upon acceptance of this certification, the County will release the developer from all future obligations and release the developer's bond. After each lot is stabilized, install stormwater management practices.

0' 50' 100' 200'
SCALE: 1" = 50'

Construction Period Protection Program

A. Forest Protection Techniques

Soil Protection Area (Critical Root Zone)

The soil protection area, or critical root zone, of a tree is that portion of the soil column where most of a its roots may be found. The majority of roots responsible for water and nutrient uptake are located just below the soil surface. Temporary fencing shall be placed around the critical root zone of the forest in areas where the forest limits occur within 25 feet of the limit of disturbance.

Fencing and Signage
2.
Existing forest limits occurring within 25 feet of the limits of disturbance shall be protected using temporary protective fencing. Permanent signage shall be placed around the afforestation area prior to plant installation, as shown on the plan.

B. Pre-Construction Meeting

Upon staking of limits of disturbance a pre-construction meeting will be held between the developer, contractor and appropriate County inspector. The purpose of the meeting will be to verify that all sediment control is in order, and to notify the contractor of possible penalties for non-compliance with the FCP.

C. Storage Facilities/Equipment Cleaning

All equipment storage, parking, sanitary facilities, material stockpiling, etc. associated with construction of the project will be restricted to those areas outside of the proposed Forest Conservation Easement. Cleaning of equipment will be limited to area within the LOD of the proposed homesites. Wastewater resulting from equipment cleaning will be controlled to prevent runoff into environmentally sensitive areas.

D. Sequence of Construction

The following timetable represents the proposed timetable for development. The items outlined in the Forest Conservation Plan will be enacted within two (2) years of subdivision approval.

Below find a proposed sequence of construction.

1. Install all signage, and sediment control devices.
2. Hold pre-construction meeting between developer, contractor and County inspector.
3. Build access roads, install well and septic systems, and construct houses. Stabilize all disturbed areas accordingly.
4. Install permanent protective signage for Easements and initiate plantings in accordance with Forest Conservation Plan. Plantings will be completed within two (2) years of subdivision approval.
5. Remove sediment control.
6. Hold post-construction meeting with County inspectors to assure compliance with FCP. Submit Certification of Installation.
7. Monitor and maintain plantings for 2 years

E. Construction Monitoring

Eco-Science Professionals, or another qualified professional designated by the developer, will monitor construction of the project to ensure that all activities are in compliance with the Forest Conservation Plan.

F. Post-Construction Meeting

Upon completion of construction, Eco-Science Professionals, or another qualified professional designated by the developer, will notify the County that construction has been completed and arrange for a post-construction meeting to review the project site. The meeting will allow the County inspector to verify that afforestation plantings have been installed.

FCP NOTES:

1. Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
2. Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land covenants.
3. Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or the FCE boundary, whichever is greater.
4. There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
5. No stockpiles, parking areas, equipment cleaning areas, etc. shall occur within areas designated as Forest Conservation Easements.
6. Temporary fencing shall be used to protect forest resources during construction. Fencing shall be installed along limits of disturbance occurring within 50 feet of the proposed FCE limits.
7. Permanent signage will be posted a at 50-100 foot intervals along all FCE limits.
8. The Forest Conservation Act requirements for this project will be met through the retention of 3.7 acres of net tract area forest within the limits of a Forest Conservation Easement and a reforestation obligation of 1.7 acres. The reforestation obligation will be met with 1.3 acres of onsite planting and 0.4 acres of offsite reforestation or with the purchase of credit in a Forest Conservation Bank.

LANDSCAPE NOTES

The Owner, Tenants And/Or Their Agents Shall Be Responsible For Maintenance Of The Required Landscaping Including Both Plant Materials And Berms, Fences And Walls. All Plant Materials Shall Be Maintained In Good Growing Conditions, And When Necessary, Replaced With New Materials To Ensure Continued Compliance With Applicable Regulations. All Other Required Landscaping Shall Be Permanently Maintained In Good Condition, And When Necessary, Repaired Or Replaced.

No Clearing Of Existing Vegetation Is Permitted Within The Landscape Edge For Which Credit Is Being Taken; However, Landscape Maintenance Is Authorized.

At The Time Of Plant Installation All Shrubs And Trees Listed And Approved On The Landscape Plan, Shall Comply With The Proper Height Requirement In Accordance With The Howard County Landscape Manual. In Addition, No Substitutions Or Relocations Of The Required Plantings May Be Made Without Prior Review And Approval From The Department Of Planning And Zoning. Any Deviation From The Approved Landscape Plan May Result In Denial Or Delay In The Release Of Landscape Surety Until Such Time As All Required Materials Are Planted And/or Revision Are Made To Applicable Plans Or Certificates.

Guarantee Requirements

1. A 75 percent survival rate of forestation plantings will be required at the end of the 24 month maintenance period. All plant material below the 75 percent threshold will be replaced at the beginning of the next growing season.

Surety for Forestation

1. The developer shall post a surety (bond, letter of credit) to ensure that forestation plantings are completed. Upon acceptance of the plantings by the County, the bond shall be released.

Maintenance Of Plantings

1. Maintenance of plantings shall last for a period of 24 months.
2. All plant material shall be watered twice a month during the 1st growing season. Watering may be more or less frequent depending on weather conditions. During second growing season, once a month during May-September, if needed.
3. Invasive exotics and noxious weeds will be removed from forestation areas. Old field successional species will be retained.
4. Plants will be examined a minimum two times during the growing season for serious plant pests and diseases. Serious problems will be treated with the appropriate agent.
5. Dead branches will be pruned from plantings.

Sequence Of Consrtuction

1. Sediment control and tree protection devices shall be installed in accordance with general construction plan for site. Site shall be graded in accordance with general construction plans.
2. Proposed forestation areas impacted by site grading shall be topsoiled and stabilized as per #2 of Planting/Soil Specifications for project.
3. Plants shall be installed as per Plant Schedule and the Planting/Soil Specifications for the project.
4. Upon completion of the planting, signage shall be installed as per the Forest Protection Devices shown on the Forest Conservation Plan.
5. Plantings shall be maintained and guaranteed in accordance with the Maintenance and Guarantee requirements for project.

PLANTING SCHEDULE

FCE #1 - 1.30 acres
Planting units Required: 910
Planting units Provided: 910

Qty	Species	Size	Spacing	
125	Acer rubrum - Red Maple	2-3"	11' o.c.	
20	Liriodendron tulipifera - Tulip poplar **	2-3"	11' o.c.	
75	Nyssa sylvatica - Black Gum	2-3"	11' o.c.	
55	Platanus occidentalis - Sycamore	2-3"	11' o.c.	
75	Quercus palustris - Pin Oak	2-3"	11' o.c.	
75	Salix nigra - Black Willow	2-3"	11' o.c.	960
55	Ulmus americana - American Elm	2-3"	11' o.c.	960
480	total whip plantings x2 units/trees=FCA unit credit			
	Total Unit Credit			

GENERAL NOTES

1. Subject Property Zoned RC-DEO Per The 2/02/04 Comprehensive Zoning Plan And The Comp-Lite Zoning Amendments Dated 07-28-06.
2. Coordinates Based On Nad '83, Maryland Coordinate System As Projected By Howard County Geodetic Control Stations No. 15AA And 15AB.
   Station No. 15AA North 599,605.3402 East 1,314,773.3674
   Station No. 15AB North 598,858.9735 East 1,316,925.1147
3. This Plat Is Based On Field Run Monumented Boundary Survey Performed On Or About March, 2011 By Fisher, Collins & Carter, Inc.
4. B.R.L. Denotes Building Restriction Line.
5. ● Denotes Iron Pin Set With Cap "F.C.C. 106".
6. Denotes Iron Pipe Or Iron Bar Found.
7. O Denotes Angular Change In Bearing Of Boundary Or Rights-Of-Way.
8. ■ Denotes Concrete Monument Set With Cap "F.C.C. 106".
9. Denotes Concrete Monument Or Stone Found.
10. All Lot/Parcel Areas Are More Or Less (±).
11. Distances Shown Are Based On Surface Measurement And Not Reduced To Nad '83 Grid Measurement.
12. No Cemeteries Exist On This Site Based On A Visual Site Visit And Based On A Examination Of The Howard County Cemetery Inventory Map. No Historic Structures Exist On Site.
13. For Flag Or Pipestem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To The Junction Of The Flag Or Pipestem And Road Right-Of-Way Line And Not To The Pipestem Lot Driveway.
14. Driveways Shall Be Provided Prior To Issuance Of A Use And Occupancy Permit For Any New Dwellings To Ensure Safe Access For Fire And Emergency Vehicles Per The Following (Minimum) Requirements:
    a) Width - 12 Feet (16 Feet Serving More Than One Residence);
    b) Surface - Six (6") Inches Of Compacted Crusher Run Base With Tar And Chip Coating. (1 -1/2" Minimum);
    c) Geometry - Maximum 15% Grade, Maximum 10% Grade Change And 45-Foot Turning Radius;
    d) Structures (Culverts/Bridges) - Capable Of Supporting 25 Gross Tons (H25-Loading);
    e) Drainage Elements - Capable Of Safely Passing 100 Year Flood With No More Than 1 Foot Depth Over Surface;
    f) Maintenance - Sufficient To Ensure All Weather Use.
15. This Plat Is In Compliance With The Amended Fifth Edition Of The Subdivision And Land Development Regulations Per Council Bill 45-2003 And The Zoning Regulations As Amended By Council Bill 75-2003. Development Or Construction On These Lots Must Comply With Setback And Buffer Regulations In Effect At The Time Of Submission Of The Site Development Plan, Waiver Petition Application, Or Building/Grading Permit And Per The Comp-Lite Zoning Regulations Dated July 28, 2006 And In Accordance With Preliminary Plan Development Criteria.
16. No Historic Structures Or Cemeteries Exist On The Subject Property.
17. There Is An Existing Dwelling/Structure(s) Located On Lot 3 To Remain. No New Buildings, Extensions Or Additions To The Existing Dwelling(s) Are To Be Constructed At A Distance Less Than The Zoning Regulation Requirements.
18. The Use-In-Common Driveway Maintenance Agreement For Lots 1 Thru 5 Has Been Recorded In The Howard County Land Records Office Simultaneously With The Recording Of This Subdivision Plat.
19. Forest Stand Delineation And Wetland Delineation Was Prepared By Eco-Science Professionals, Inc. Dated April 5, 2012.
20. The Forest Conservation Requirements Of Section 16.1200 Of The Howard County Code And Forest Conservation Act For This Subdivision Totals 5.0 Acres Consisting Of 3.7 Acres Of On-Site Retention; 1.3 Acres Of On-Site Reforestation And 0.4 Acres Of Off-Site Planting. There Is No Surety Required For On-Site Forest Retention. Surety For On-Site Reforestation Is $28,314.00 Based On 1.3 Acres x 43,560 Sq. Ft./Acre x 0.50/Sq. Ft. The Offsite 0.4 Acres Reforestation Obligation Is Provided By 0.8 Acres Of Forest Retention On Quartz Hill Tree Bank, SDP-10-104 (FC), Property Of Quartz Hill, LLC., Tax Map 8, Grid 5 Tax Parcel 401.
21. This Property Is Located Outside The Metropolitan District.
22. A Community Meeting Was Conducted On March 8, 2012 For The Purpose Of The Developer To Provided Information To The Community Regarding The Proposed Residential Development And To Allow The Community To Ask Questions And To Make Comments, Per Section 16.128(d), Of The Subdivision Regulations.
23. No 100 Year Floodplain Exists Within Submission Limits Of This Final Plat.
24. Frederick Road (Maryland Route 144) Is Designated As A Scenic Road.
25. Landscaping For Lots 1, 2, 4 And 5 Is On File With This Plat Is Provided In Accordance With A Certified Landscape Plan. In Accordance With Section 16.124 Of The Howard County Code And The Landscape Manual A Landscape Surety For (33) Shade Trees In The Amount Of ($9,900.00) Is Provided With The Grading Permit.
    Lot 1 Surety: 8 Shade Trees @ 300/Shade Tree = $2,400.00
    Lot 2 Surety: None
    Lot 4 Surety: 4 Shade Trees @ 300/Shade Tree = $1,200.00
    Lot 5 Surety: 21 Shade Trees @ 300/Shade Tree = $6,300.00
26. Plat Subject To WP-12-174 Which The Planning Director On August 1, 2012 And Reconsideration On September 17, 2012 Approved A Waiver From Section Section 16.120(b)(4)(iii)(b) Which Prohibits Floodplain, Wetland, Streams, Their Buffers And Forest Conservation Easements On Lots Or Parcels Less Than 10 Acres In Size; Section 16.144(b) Which Requires The Submission Of A Preliminary Equivalent Sketch Plan To Begin The Subdivision Process, And Section 16.116(a) And (c) Which Prohibits Grading Within A Stream Or Wetlands. Approval Is Subject To The Following Conditions:
    1) Forest Conservation Signs Must Be Posted Along The Entire Perimeter Of The Forest Conservation Easement With No More Than 50' Of Spacing Between Each Sign.
    2) The Waiver Petition Number And Its Conditions Of Approval Must Be Added To The Plat.
    3) No Grading, Removal Of Vegetative Cover And Trees, Paving And New Structures Are Permitted Within The Wetlands, Forest Conservation Easement And Required Buffers With The Exception Of The Disturbance Needed For The Widening Of The Driveway. If The Existing Driveway Requires Widening Based On A Review Of The Final Subdivision Plan, Be Advised That An MDE Wetlands Permit May Be Necessary.
    4) Distributing Educational Material To Each Lot Purchaser Explaining The Restrictions On Encroachment Into The Forest Conservation Easement, Wetland And Their Buffers.
    5) Submission Of A Final Subdivision Plat Is Required.
    6) Compliance With The Enclosed Comments From The Development Engineering Division Dated June 21, 2012.
27. The Lots/Parcels Shown Hereon Comply With The Minimum Lot Width And Lot Areas Is Required By The Maryland State Department Of The Environment.
28. This Area Designates A Private Sewerage Easement Of At Least 10,000 Square Feet As Required By The Maryland State Department Of The Environment For Individual Sewerage Disposal. Improvements Of Any Nature In This Area Area Restricted Until Public Sewerage Is Available. These Easements Shall Become Null And Void Upon Connection To A Public Sewerage System. The County Health Officer Shall Have The Authority To Grant Adjustments To The Private Sewerage Easement. Recordation Of A Modified Sewerage Easement Shall Not Be Necessary.
29. No Grading, Removal Of Vegetative Cover Or Trees, Paving And New Structures Shall Be Permitted Within The Required Wetlands, Stream(s) Or Buffers, Forest Conservation Easement Areas And 100 Year Floodplain, Except As Listed In Waiver Petition, WP-12-174; Approval Condition #3.
30. Previous Department Of Planning And Zoning File Numbers: ECP-12-051 And WP-12-174.
31. Stormwater Management Is In Accordance With The MDE Stormwater Design Manual, Volumes I & II, Revised 2009. The Proposed Practices Will Be Located On The Individual Lots As Follows:
    Lot 1: Micro-Bioretention (M-6), For The Proposed House And Non-rooftop Disconnection (N-2) For The Proposed Driveway.
    Lot 2: Rooftop Disconnection (N-1) For The Proposed House ~~And Driveway~~. GARAGE & DRYWELLS (M5) FOR PROP. HOUSE & DRIVEWAY (2)
    Lot 3: Non-Rooftop Disconnection (n-2) For The Proposed Driveway. The Existing House Will Remain For Which SWM Is Not Required.
    Lot 4: Micro-bioretention (M-6) For The Proposed House And Non-rooftop Disconnection (N-2) For The Proposed Driveway.
    Lot 5: Micro-Bioretention (M-6) For The Proposed House And Non-rooftop Disconnection (N-2) For The Proposed Driveway.
    These Practices Shall Be Privately Owned And Maintained In Accordance With Individual Declarations Of Covenants.
32. Noise Report Is Not Required In Accordance With Howard County Design Manual III Section 5.2.F.2(3).
33. Topography Shown Is Based On Field Survey By Fisher, Collins & Carter, Inc. During
34. Environmental Concept Plan (ECP-12-051) Approved In Technically Complete Letter.
35. The House On Lot 1 Must Be Located With The Front Facing MD 144 To Ensure That A Noise Study Is Not Required.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10692, EXPIRATION DATE: 12/12/13.

Signature Professional Land Surveyors — DATE 2/13/13

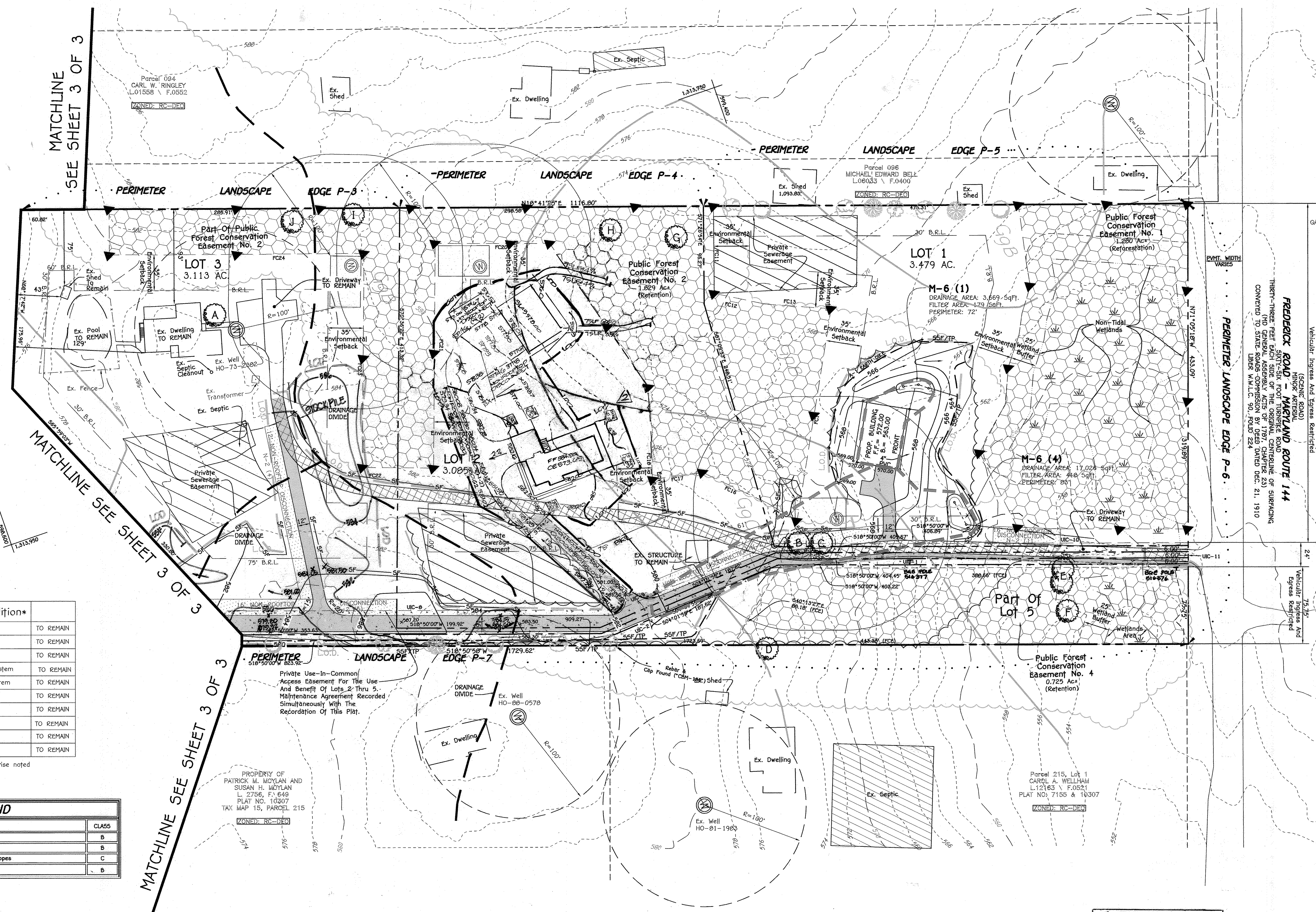
(2) REDLINED TO SHOW REV. HOUSE LOCATION JUNE 10, 2022

SUPPLEMENTAL PLAN
LANDSCAPE, FOREST CONSERVATION, TOPOGRAPHIC, SOILS, AND STORMWATER MANAGEMENT
RENFRO PROPERTY
LOTS 1 THRU 5
13765 FREDERICK ROAD
WEST FRIENDSHIP, MD 21794-9703

TAX MAP #15 GRID NO. 1 PARCEL #178
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ZONED: RC-DEO
SCALE: 1"=50' DATE: FEBRUARY 6, 2013
SHEET 1 OF 3

F-13-040

LEGEND	
SYMBOL	DESCRIPTION
---578---	EXISTING 2' CONTOURS
—580—	EXISTING 10' CONTOURS
—578—	PROPOSED 2' CONTOURS
—580—	PROPOSED 10' CONTOURS
+362.5	SPOT ELEVATION
LOD	LIMITS OF DISTURBANCE
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED PAVING
	EXISTING PAVING
ChA ChB2	SOILS LINES AND TYPE
—SSF—	SUPER SILT FENCE
	A-1 EARTH DIKE
	NON-ROOFTOP DISCONNECTION (N-2)
	DRAINAGE AREA FOR MICRO BIORETENTION FACILITIES
	DRAINAGE DIVIDE
	WETLAND AREA
	FOREST RETENTION AREA
(H)	SPECIMEN TREE
▲	PERMANENT FOREST CONSERVATION FENCE
SSF	SUPER SILT FENCE



(H) SPECIMEN TREES

Specimen Tree Chart

Key	Species, Size	Condition*	
A	Quercus rubra, 33.5"		TO REMAIN
B	Acer saccharinum, 34.5"		TO REMAIN
C	Acer saccharinum, 37"		TO REMAIN
D	Acer saccharinum, 57"	multi-stem	TO REMAIN
E	Platanus occidentalis, 31"	twin-stem	TO REMAIN
F	Platanus occidentalis, 30"		TO REMAIN
G	Quercus velutina, 37.5"		TO REMAIN
H	Quercus velutina, 31"		TO REMAIN
I	Quercus rubra, 41"		TO REMAIN
J	Quercus alba, 34.5"		TO REMAIN

*good unless otherwise noted

Critical root zone shall be 1.5':1" dbh

SOILS LEGEND		
SOIL	NAME	CLASS
GgB	Glenelg loam, 3 to 8 percent slopes	B
GgC	Glenelg loam, 8 to 15 percent slopes	B
GnB	Glenville-Baile silt loams, 0 to 8 percent slopes	C
MaC	Manor loam, 8 to 15 percent slopes	B

NOTES:
- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

LANDSCAPING PLANT LIST			
TOTAL	KEY	NAME	SIZE
7		ACER SACCHARUM SUGAR MAPLE	2 1/2"- 3" CALIPER FULL CROWN, B&B
10		ACER RUBRUM RED SUNSET RED MAPLE	2 1/2"- 3" CALIPER FULL CROWN, B&B
8		QUERCUS RUBRA RED OAK	2 1/2"- 3" CALIPER FULL CROWN, B&B
8		TILIA CORDATA GREENSPIRE LITTLELEAF LINDEN	2 1/2"- 3" CALIPER FULL CROWN, B&B

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL". FINANCIAL SURETY FOR THE 33 TOTAL REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE BUILDERS GRADING PERMIT IN THE AMOUNT OF $9,900.00.

△2 REDLINED TO SHOW REVISED HOUSE LOCATION JUNE 10, 2022

NO.	REVISION	DATE
△1	REVISION TO SHOW PROPOSED RELOCATED DRIVEWAY FOR LOT 3 REVISE UIC DRIVEWAY GRADING & SEDIMENT EROSION CONTROL	9/25/14

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

Owner/Developer
Harold E. Renfro, Jr. And
Marilyn S. Renfro
13765 Frederick Road
West Friendship, Maryland 21794
Phone# 301-854-6782

MD DNR Qualified Professional
USACOE Wetland Delineator
Certification # WDCP93MD0610044B
JOHN P. CANOLES
Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

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Professional Land Surveyor — 2/13/13 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — 3/12/13 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 3/12/13 DATE

0' 50' 100' 200'

SCALE: 1" = 50'

FOR LOT 2 ONLY

STATE OF MARYLAND BRIAN E. WAGNER 51063 PROFESSIONAL ENGINEER 8/15/2022

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 51063 Expiration Date: 6/7/2023

SUPPLEMENTAL PLAN
LANDSCAPE, FOREST CONSERVATION, TOPOGRAPHIC, SOILS, AND STORMWATER MANAGEMENT
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F-13-040

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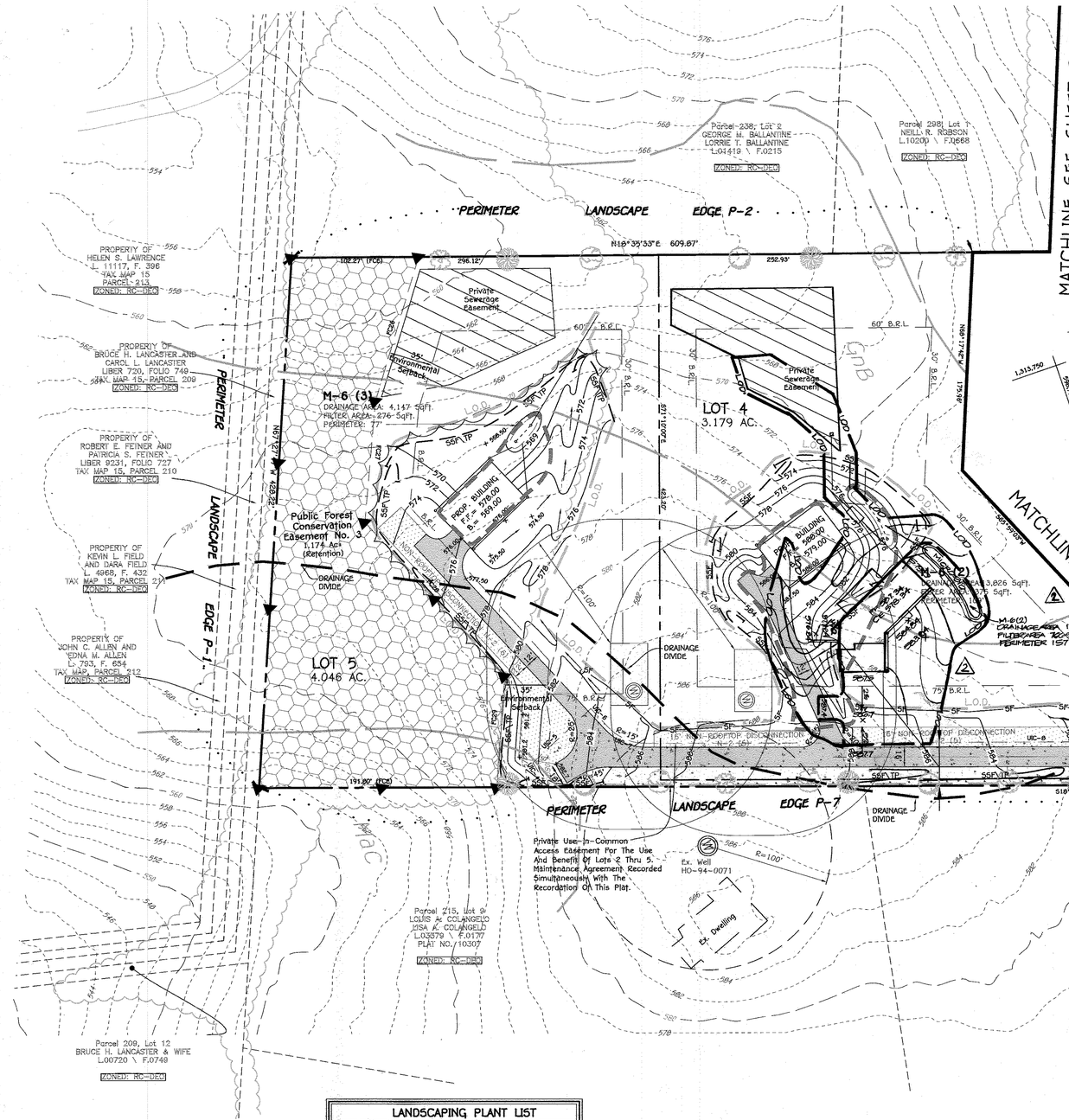
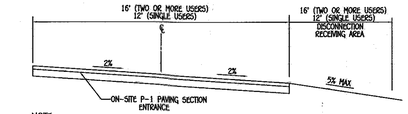




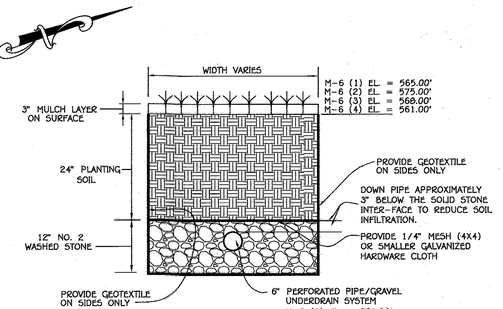
NOTE:
ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF NONROOFTOP RUNOFF (N-2)

1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

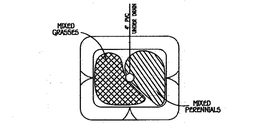


TYPICAL SECTION - BIO-RETENTION FACILITY (M-6)

NO SCALE

MICRO-BIORETENTION (M-6) OPERATION & MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDER BEYOND TREATMENT. TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS. WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



MICRO-BIORETENTION PLANTING DETAIL

NOT TO SCALE

MIXED PERENNIALS & OUTSIDE CONTAINER MAINTENANCE AREA

SHRUBS & DECIDUOUS EVERGREEN

NOTE: PLANT MATERIAL MUST COVER AT LEAST 90% OF THE SURFACE AREA OF THE MICRO-BIORETENTION

*SEE PLANT MATERIAL CHARTS FOR QUANTITIES AND SPACING.

DRAINAGE AREA M-6 (1) MICRO-BIORETENTION PLANT MATERIAL

QUANTITY	NAME	MAXIMUM SPACING (FT.)
22	MIXED PERENNIALS	1 FT.
11	SHRUBS	2 FT.

DRAINAGE AREA M-6 (2) MICRO-BIORETENTION PLANT MATERIAL

QUANTITY	NAME	MAXIMUM SPACING (FT.)
52	MIXED PERENNIALS	1 FT.
26	SHRUBS	2 FT.

DRAINAGE AREA M-6 (3) MICRO-BIORETENTION PLANT MATERIAL

QUANTITY	NAME	MAXIMUM SPACING (FT.)
47	MIXED PERENNIALS	1 FT.
23	SHRUBS	2 FT.

DRAINAGE AREA M-6 (4) MICRO-BIORETENTION PLANT MATERIAL

QUANTITY	NAME	MAXIMUM SPACING (FT.)
34	MIXED PERENNIALS	1 FT.
17	SHRUBS	2 FT.

B.3.B Specifications for Bioretention

1. Material Specifications

The allowable materials to be used in bioretention area are detailed in Table B.3.2.

2. Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

pH range	5.2-7.0
organic matter	1.5 - 4% (by weight)
magnesium	35 lb./ac
phosphorus (phosphate - P2O5)	75 lb./ac
potassium (potash - K2O)	85 lb./ac
soluble salts	not to exceed 500 ppm

All bioretention areas shall have a minimum of one test. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the top soil was excavated.

Since different labs calibrate their testing equipment differently, all testing results shall come from the same testing facility.

Should the pH fall out of the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

3. Compaction

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. If bioretention areas are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to reshape the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material

Recommended plant material for bioretention areas can be found in Appendix A, Section A.2.3.

5. Plant Installation

Mulch should be placed to a uniform thickness of 2" to 3". Shredded hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Root stock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/4" of the ball is above finish grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications. The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains

Underdrains are to be placed on a 3'-0" wide section of filter cloth. Pipe is placed next, followed by the gravel bedding. The ends of underdrain pipes not terminating in an observation well shall be capped.

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5 %. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

The bioretention facility may not be constructed until all contributing drainage area has been stabilized.

Table B.3.2 Materials Specifications for Bioretention

Material	Specification	Size	Notes
Plantings	see Appendix A: Table A.4	n/a	plantings are site-specific
planting soil (2.5' to 4' deep)	sand 35-60% silt 30-55% clay 10-25%	n/a	USDA soil types loamy sand, sandy loam or loam
mulch	shredded hardwood		aged 6 months, minimum
pea gravel diaphragm and curtain drain	pea gravel: ASTM-D-448 ornamental stone: washed cobbles	pea gravel: No. 6 stone: 2" to 5"	
geotextile	Class "C" - apparent opening size (ASTM-D-4751), grab tensile strength (ASTM-D), puncture resistance ASTM-D-4833	n/a	for use as necessary beneath underdrains only
underdrain gravel	AASHTO M-43	0.375" to 0.75"	
underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes
poured in place concrete (if required)	MSHA Mix No. 3; f < = 3500 psi p 28 days, normal weight, air-entrained; reinforcing to	n/a n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast)not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.R/99; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking
sand (1' deep)	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Greystone M10 are not acceptable. No carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

LEGEND

SYMBOL	DESCRIPTION
	EXISTING 2' CONTOURS
	EXISTING 10' CONTOURS
	PROPOSED 2' CONTOURS
	PROPOSED 10' CONTOURS
+382.5	SPOT ELEVATION
LOD	LIMITS OF DISTURBANCE
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED PAVING
	EXISTING PAVING
CkA, CkB2	SOILS LINES AND TYPE
SSF	SUPER SILT FENCE
	A-1 EARTH DIKE
	NON-ROOFTOP DISCONNECTION (N-2)
	DRAINAGE AREA FOR MICRO BIORETENTION FACILITIES
	DRAINAGE DIVIDE
	WETLAND
	FOREST RETENTION AREA

LANDSCAPING PLANT LIST

TOTAL	KEY	NAME	SIZE
7		ACER SACCHARUM SUGAR MAPLE	2 1/2" - 3" CALIPER FULL CROWN, B&B
10		ACER RUBRUM RED SUNSET RED MAPLE	2 1/2" - 3" CALIPER FULL CROWN, B&B
8		QUERCUS RUBRA RED OAK	2 1/2" - 3" CALIPER FULL CROWN, B&B
8		TILIA CORDATA GREENSPIRE LITTLELEAF LINDEN	2 1/2" - 3" CALIPER FULL CROWN, B&B

*THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE 33 TOTAL REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE BUILDERS GRADING PERMIT IN THE AMOUNT OF $9,900.00.

NO.	REVISION	DATE
1	REVISION TO SHOW REVISED REQUIRED DRIVEWAY FOR LOT 3, REVISED LOD, DRIVEWAY GRADING & SEDIMENT EROSION CONTROL	9/20/14

Owner/Developer
Harold E. Renfro, Jr. And
Marilyn S. Renfro
13765 Frederick Road
West Friendship, Maryland 21794
Phone# 301-854-6782

PROFESSIONAL CERTIFICATION

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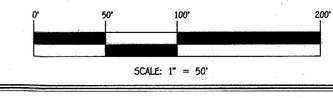
Professional Land Surveyor
TERRELL LANDAUER
2/13/13
DATE

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License Number 22732 Expiration Date October 2018
June 21, 2017

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/12/13

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 2/12/13



SCALE: 1" = 50'

MD DNR Qualified Professional
USACOE Wetland Delineator
Certification # WDCP93MD061004AB
JOHN P. CANCLES

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

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TAX MAP #15 GRID NO. 1 PARCEL #178
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SCALE: 1"=50' DATE: FEBRUARY 6, 2013
SHEET 3 OF 3

F-13-040

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