

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-5	SUPPLEMENTAL PLAN - TOPOGRAPHY, STORMWATER MANAGEMENT, LANDSCAPING, AND FOREST CONSERVATION
6	SEEDING & EROSION CONTROL PLAN, NOTES, & DETAILS

LINE	BEARING	LENGTH
UC-1	S74°30'25"W	409.44
UC-2	N80°50'19"W	65.19
UC-3	N80°50'19"W	275.05
UC-4	S40°57'19"W	49.88
UC-5	N74°30'25"W	293.93
UC-6	S138.00'	L=158.17
UC-7	S09°47'11"W	12.89
UC-8	N74°30'25"W	11.85
UC-9	S138.00'	L=158.20
UC-10	N73°50'32"E	286.53
UC-11	S40°57'19"W	67.29
UC-12	S80°30'18"E	280.07
UC-13	N74°30'25"W	11.85
UC-14	N74°30'25"E	419.04

POINT	NORTH (feet)	EAST (feet)
26	278662.8500	1300106.4634
27	278662.8532	1299860.2960
28	278737.0252	1299225.3268
29	278736.3847	1299569.3571
30	278700.8530	1300939.7352
31	278700.1124	1301023.9624
32	278699.4555	1301344.2563
33	278729.0274	1300771.4684
34	278767.0372	1299711.9978
35	278643.4922	1299757.0977
36	278693.2569	1299908.5749
37	278698.2249	1300695.6544
38	278683.6458	1300777.6152
39	278754.3108	1300816.6337
40	278644.2277	1300824.9836
41	278662.3177	1301393.9948
42	278750.7278	1300955.0977
43	278762.8453	1300944.0293

Density Exchange Tabulation	
Receiving Parcel Information	Property Of: BV Business Trust, Tax Map No. 28, Sub 11, Parcel No. 49, Liber 11276, Folio 36, Willow Creek Subdivision (SP-06-007)
Total Parcel Acreage	Lot 6 (38.25) Acres
Preservation Parcel Acreage	N/A
Preservation Acreage Available For Density	34,000 Acres (0.8250 Ac. = 4.25 Ac.) (1 Unit Retained For Lot 6)
CDU Units Created (1:4.25)	34,000 Ac. x 1 CDU Unit/4.25 Ac. = 8,00
CDU Units Sent (1:4.25)	7 CDU Units
Average of Preservation Easement Remaining to be Sent	4,250 Acres (34,000 Ac. - (7 CDU x 4.25 Ac./CDU))

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PL-1	S74°30'25"W	409.44
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PL-12	S80°30'18"E	280.07
PL-13	N74°30'25"W	11.85
PL-14	N74°30'25"E	419.04

Minimum Lot Size Tabulation			
Lot No.	Gross Area	Pipestem Area	Minimum Lot Size
1	3,139 Ac.	0.134 Ac.	3,005 Ac.
2	3,205 Ac.	0.202 Ac.	3,003 Ac.
3	3,257 Ac.	0.237 Ac.	3,000 Ac.
4	3,285 Ac.	0.193 Ac.	3,092 Ac.
5	4,075 Ac.	0.143 Ac.	3,932 Ac.
6	38,250 Ac.	0.218 Ac.	38,032 Ac.

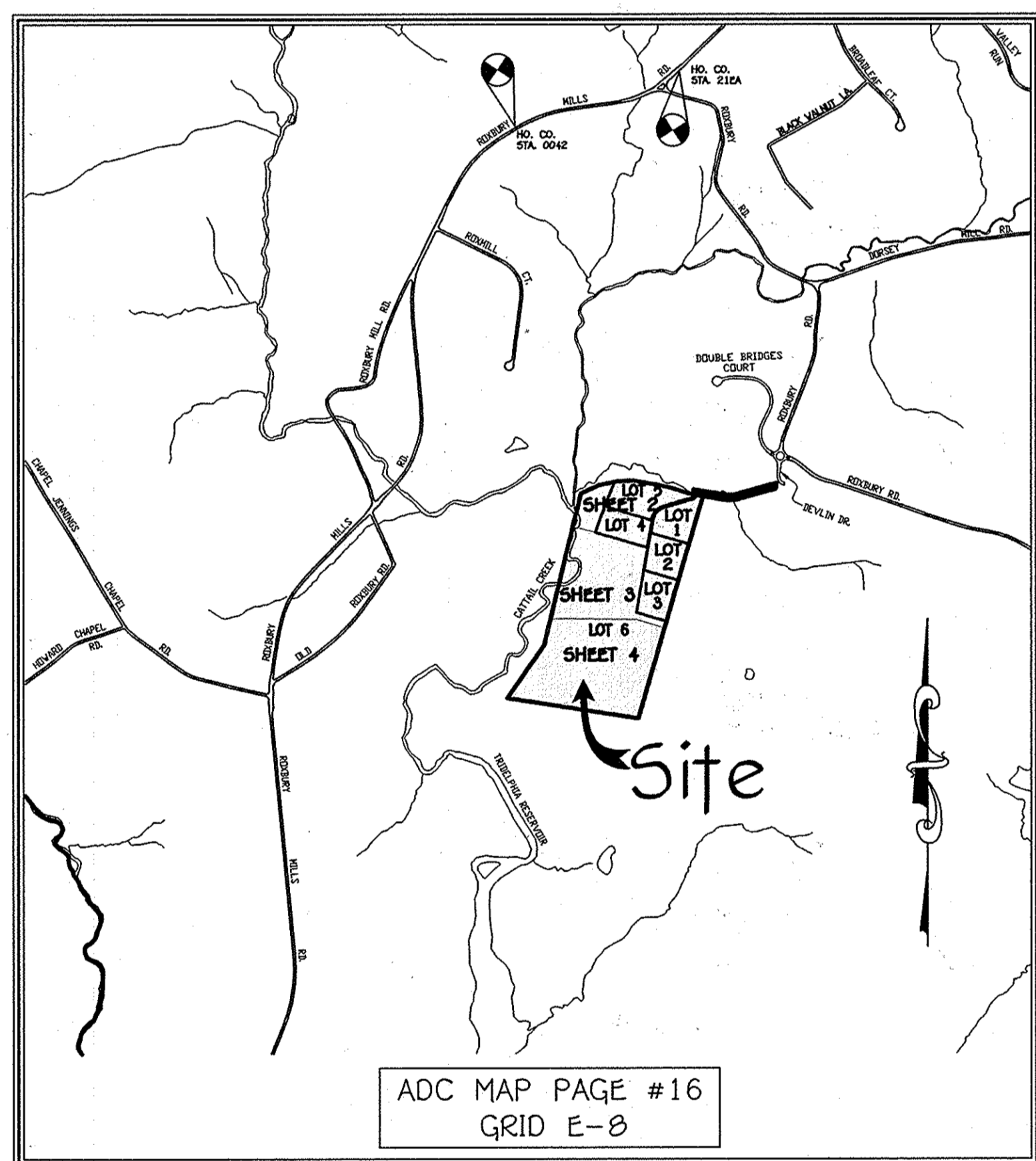
ROAD NAME	CLASSIFICATION	DESIGN SPEED	EASEMENT WIDTH
DRIVEWAY 'A'	USE-IN-COMMON	15 MPH	36'

STORMWATER MANAGEMENT PRACTICES				
LOT No.	ADDRESS	ROOFTOP DISCONNECTION (NUMBER)	NON-ROOFTOP DISCONNECTION (NUMBER)	MICRO BIO-RETENTION (NUMBER)
1	15105 DEVLIN DRIVE	---	1	M-6 (1)
2	15111 DEVLIN DRIVE	4	1	M-6 (2)
3	15117 DEVLIN DRIVE	5	1	M-6 (3)
4	15135 DEVLIN DRIVE	---	0	M-6 (4)
5	15141 DEVLIN DRIVE	---	1	M-6 (5)
6	15123 DEVLIN DRIVE	0	---	M-6 (6)
---	COMMON DRIVEWAY	0	3	M-6 (6)

LEGEND	
SYMBOL	DESCRIPTION
---492---	EXISTING 2' CONTOURS
---490---	EXISTING 10' CONTOURS
---	PROPOSED CONTOUR
+	SPOT ELEVATION
---	LIMITS OF DISTURBANCE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	PROPOSED PAVING
---	SOILS LINES AND TYPE
---	SUPER SILT FENCE
---	STABILIZES CONSTRUCTION ENTRANCE
---	PROPOSED MICRO BIORETENTION (M-6)
---	NON-ROOFTOP DISCONNECTION (N-2)
---	ROOFLEADERS
---	UNDERDRAIN PIPE
---	15% TO 24.9% STEEP SLOPES
---	25% AND GREATER STEEP SLOPES
---	DRAINAGE AREA FOR MICRO-BIORETENTION AND BIORETENTION FACILITIES
---	DRAINAGE AREA FOR STORM DRAIN
---	TREE PROTECTION
---	FOREST CONSERVATION EASEMENT (RETENTION)
---	WETLAND AREA
---	25' WETLAND BUFFER
---	FLOODPLAIN ELEVATION
---	STREAM BANK BUFFER
---	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
---	PROPOSED FOREST CONSERVATION EASEMENT SIGNAGE
---	BORING (PERC) TEST HOLE
---	SILT FENCE
---	EARTH DIKE
---	SPECIMEN TREE

SITE ANALYSIS DATA CHART	
1. AREA TABULATION:	A. TOTAL TRACT AREA = 55.196 Ac.
	B. AREA OF PROPOSED ROAD (SL) = 0.000 Ac.
	C. AREA OF PROPOSED BUILDABLE LOTS = 55.192 Ac.
	D. AREA OF PROPOSED BUILDABLE PRESERVATION PARCELS = 0.000 Ac.
	E. AREA OF PROPOSED NON-BUILDABLE PRESERVATION PARCELS = 0.000 Ac.
2. NUMBER OF LOTS/PARCELS PROPOSED = 6	A. BUILDABLE LOTS = 6
	B. BUILDABLE PRESERVATION PARCELS = 0
	C. NON-BUILDABLE PRESERVATION PARCELS = 0
3. AREA OF FLOODPLAIN = 5.48 Ac.	
4. AREA OF DENSITY BANDING (55.192 Ac. - 25.5 Ac.) = 29.692 Ac.	

SUPPLEMENTAL PLAN TOPOGRAPHY, STORMWATER MANAGEMENT AND PERIMETER LANDSCAPING CATTAIL OVERLOOK LOTS 1 THRU 6 ZONING: RR-DEO TAX MAP No. 21 GRID No. 20 & 21 PARCEL Nos. 24 & 84 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 1200'

SCHEDULE A - PERIMETER LANDSCAPE EDGE										
PERIMETER	P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	TRASH PAD	TOTAL
ADJACENT TO PERIMETER PROPERTIES										
LANDSCAPE TYPE										
LINEAR FEET OF PERIMETER	701 LF	2164 LF	1241 LF	603 LF	1460 LF	1082 LF	50 LF	795 LF	16 LF	
CREDIT FOR EXISTING VEGETATION										
SHADE TREES	*2	2164 LF	1241 LF	603 LF	1460 LF	1082 LF	50 LF	**1 & 395 LF		
SMALL/MEDIUM DECIDUOUS TREES (2:1 SUBSTITUTION)		0 LF REMAINING	0 LF REMAINING	0 LF REMAINING	0 LF REMAINING	0 LF REMAINING	0 LF REMAINING	400 LF REMAINING		
NUMBER OF PLANTS REQUIRED	*10 (+2 EX)							**6 (+1 EX)		19***
SHADE TREES	701/60' = 11.7 OR 12							(400'/60' = 6.7 OR 7)		
NUMBER OF PLANTS PROVIDED										
SHADE TREES	4	0	0	0	0	0	0	3	0	7
SMALL/MEDIUM DECIDUOUS TREES (2:1 SUB.)	12	0	0	0	0	0	0	6	0	18
SHRUBS									6	6

* EX. 36" NORTHERN RED OAK TREE & EX. TRIPLE RED MAPLE TREE TO REMAIN CREDITED TO P-1.
 ** EX. 24" SHINGLE OAK TREE TO REMAIN CREDITED TO P-8
 *** 3 EXISTING SHADE TREES HAVE BEEN CREDITED TOWARD 3 OF THE 19 REQUIRED SHADE TREES.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL OFFICE: 1022 BALDWIN NATIONAL PLACE
 ELKTON CITY, MARYLAND 21821
 (410) 461-2895

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad E. Egan 8-23-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad E. Egan 8-23-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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 Landscaping 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.

Bob Buice 7/10/14
 DATE

OWNER
 MR. BOB BUICE
 21400 NEW HAMPSHIRE AVE.
 BROOKVILLE, MARYLAND 20833-1805
 410-489-7900 ATTN: TIM PEAGA

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 15950 NORTH AVENUE
 P.O. BOX 482
 LISBON, MARYLAND 21765
 410-489-7900

Stephanie J. Tuite 7/10/14
 DATE

Professional certification, I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 38385, Expiration Date 1-12-16.

STEPHANIE J. TUITE
 PROFESSIONAL ENGINEER

General Notes:

- This Area Designates A Private Sewerage Easement Of A Minimum Of 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 Are 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 Easement Shall Not Be Necessary. The Lots Shown Herein Comply With The Minimum Ownership Width And Lot Area As Required By The Maryland State Department Of The Environment.
- Subject Property Zoned RC-DEO Per The 10/06/13 Comprehensive Zoning Plan.
- Coordinates Based On NAD 83, Maryland Coordinate System As Projected By Howard County Geodetic Control Station No. 21EA And No. 0042.
 518.21EA N 582715.167 (feet), E 1300495.024 (feet)
 519.0042 N 582213.383 (feet), E 1299954.995 (feet)
- This Plan Is Based On Field Run Monumented Boundary Survey Performed On Or About October, 2013, By Fisher, Collins And Carter, Inc.
- B.R.L. Denotes Building Restriction Line.
- Denotes Iron Pipe In-Set Capped "F.C.C." 10".
- Denotes Iron Pipe Or Iron Bar Found.
- O Denotes Angular Change In Bearing Of Boundary Or Right-Of-Way.
- Denotes Concrete Monument With Aluminum Pipe "F.C.C." 10".
- Denotes Concrete Monument Of Stone Found.
- For Flag Or Pipestem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To The Junction Of Flag Or Pipestem And The Road Right-Of-Way Line And Not Onto The Flag Or Pipestem Driveway.
- Driveway(s) Shall Be Provided Prior To Issuance Of A Residential Occupancy Permit For Any New Dwelling To Insure 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 (1-125-Loading);
 e) Drainage Elements - Capable Of Safely Passing 100 Year Flood With No More Than 1 Foot Depth Over Surface;
 f) Structure Clearances - Minimum 12 Feet;
 g) Maintenance - sufficient to ensure All Weather Use.
- All Lot Areas Are More Or Less (+ or -).
- Distances Shown Are Based On Surface Measurement And Not Reduced To NAD 83 Grid Measurement.
- No Grading, Removal Of Vegetative Cover Or Trees, Or Placement Of New Structures Is Permitted Within The Limits Of Wetlands, Stream(s), Or Their Buffers And Forest Conservation Easement Areas.
- Previous Department Of Planning And Zoning File Numbers: WP-01-101, P-03-51, ECP-14-041, WP-14-108.
- Articles Of Incorporation For The Capital Overlook Homeowners Association, Inc. Will Be Filed With The Maryland State Department Of Assessments And Taxation Prior To Issuance Of The Original Record Plat For Signature.
- This Plan Is In Compliance With The Amended Fifth Edition Of The Subdivision And Land Development Regulations. 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, Wetland Petition Application, Or Building/Grading Permit.
- No Cemeteries Exist On This Site Based On A Visual Site Visit And Based On An Examination Of The Howard County Cemetery Inventory Map.
- Because The Property Had Applied For A Soil Percolation Test Application And Plan To The Health Department Prior To July 1, 2012 Approval By The Planning Board Is Not Required.
- There Are No Existing Dwellings Or Structures Located On Lots 1 Thru 6.
- Stormwater Management Will Be In Accordance With HDE Storm Water Design Manual, Volumes 1 & 2, Revised 2009. Use Of Six (6) Micro Bio-Retention Facilities And Eight (8) Areas Of Non-Rooftop Runoff And Seventeen (17) Rooftop Disconnections Are Proposed For This Subdivision.
- The Lots Shown Herein Comply With The Minimum Ownership Width And Lot Area As Required By The Maryland State Department Of The Environment.
- No Noise Study Is Required For This Project.
- Private Well And Septic Shall Be Utilized Within This Development.
- This Property Is Located Outside Of The Metropolitan District.
- The Traffic Study Dated November, 2013 Was Prepared By Mira Group And Approved On January 8, 2014.
- Speed Study Dated November, 2013 Was Prepared By Mira Group And Approved On January 8, 2014.
- The Forest Site And Wetland Delineation Report For This Project, Dated December 17, 2013 Was Prepared By Eco-Science Professionals, Inc. And Approved On January 14, 2014.
- The Forest Conservation Requirements Per Section 16.1200 Of The Howard County Code And The Forest Conservation Manual For This Subdivision Will Be Fulfilled By On-Site Retention Of 19.14 Acres Of Forest Which Meets The Breakdown Point Of 19.14 Acres Of Required Retention. There Is No Surety For Forest Retention.
- The Floodplain Study For This Project Was Prepared By Fisher, Collins & Carter, Inc. In December, 2013 Approved On January 8, 2014.
- The Private Use-In-Common Driveway Access Easement Agreement For The Use And Benefit Of Lots 1 Thru 6 Is Recorded Simultaneously With This Plat.
- This Plan Has Been Prepared In Accordance With The Provisions Of Section 16.124 Of The Howard County Code And The Landscape Manual. In Accordance With Section 16.124 Of The Howard County Code And The Landscape Manual, A Landscape Surety For Perimeter Landscape And Trash Pad Screening Requirements For 7 Shade Trees And 18 Evergreen Trees, And 6 Shrubs In The Amount Of (\$4,900.00) Shall Be Provided With The DPW Developers Agreement.
- A Pre-Submission Community Meeting Was Held For This Project On September 19, 2013.
- All Wells Shall Be Drilled Prior To Final Plat Recordation. It Is The Developers Responsibility To Schedule The Well Drilling Prior To Final Plat Submission. It Will Not Be Considered "Governmental Delay" If The Well Drilling Holds Up Health Department Signature Of The Record Plat.
- The Forest Conservation Easements Shown On This Plat Have Been Established To Fulfill The Requirements Of Section 16.1200 Of The Howard County Code And The Forest Conservation Act. No Clearing, Grading Or Construction Is Permitted Within The Forest Conservation Easement; However, Forest Management Practices As Defined In The Deed Of Forest Conservation Are Allowed.
- Should Disturbance Occur In The Forest Conservation Easement Areas Or After Construction, Civil Penalties Or Mitigation May Be Imposed.
- The Development Proposal For This Property Is A Major Subdivision Within The RC-DEO Zoning District. However The Property Owner Had Applied For A Soil Percolation Test And Received Approval For A Percolation Certification Plan By The Health Officer On April 19, 2009 Which Is Prior To July 1, 2012 And Is Therefore grandfathered To SB-236. A Preliminary Plan Must Be Submitted Within 18 Months From July 1, 2012 Or January 1, 2014 And Approved No Later Than October 1, 2016.
- Lot 6 Is Encumbered With A Easement Agreement With Howard County, Maryland And The Cattail Overlook Homeowners Association, Inc. This Agreement Outlines The Maintenance Responsibilities Of The Owner, Prohibits Subdivision Of The Parcel, And Enumerates The Uses Permitted On The Property. On-Site Retention Of Forest For Non-Cluster Subdivisions In The RC Zoning District. The Developer Will Pay The Fee-In-Lieu.
- Density Sending Parcel Tabulation:
 See Density Sending Tabulation This Sheet.
- An Executed M.H.U. Agreement And Covenants With The Howard County Housing Department Will Be Recorded Simultaneously With The Record Plat.
- Soils Information Taken From NCSS Web Site Survey.
- Topography Shown Is From Howard County GIS And Supplemented With Field Run Topo Dated November, 2013 By Fisher, Collins & Carter, Inc.
- All Existing Well And Septic Fields Within 100 Feet Of The Subject Property Boundary Have Been Shown.
- Any Changes To A Private Sewerage Area Shall Require A Revised Percolation Certification Plan.
- There Are Steep Slopes Of 25% Or Greater On-Site.
- An Address Signage Sign Shall Be Provided For Lots 1 Thru 6 At The Intersection Of Devlin Drive And The Use-In-Common Driveway For Lots 1 Thru 6 The Private Range Of The Address Signs Shall Be Fabricated And Installed By Howard County Traffic Division At 410-313-2450 For Details And Cost Estimate. There Shall Be An Address Sign At The Point Where Each Individual Driveway Intersects With The Use-In-Common Driveway.
- All Sign Posts Used For Traffic Control Signs Installed In The County Right-Of-Way Shall Be Mounted On A 2" Galvanized Steel, Perforated, Square Tube Post (14 Gauge) Inserted Into A 2-1/2" Galvanized Steel, Perforated, Square Tube Sleeve (12 Gauge) 3' Long. A Galvanized Steel Pole Cap Shall Be Mounted On Top Of Each Post.
- The Project Is In Conformance With The Latest Howard County Standards Unless Waivers Have Been Approved.
- This Resubdivision Plan Is Located In The Designated Tier IV Growth Area Of Howard County, Per The Planward 2050 Tier Map And Would Be Subject To The State's SB-236, But Is Considered Grandfathered To SB-236 To Allow This Major Subdivision Because The Property Owner Had Applied For A Soil Percolation Test Application And A Percolation Test Plan To The Howard County Health Department Prior To July 1, 2012.
- All Construction Shall Be In Accordance With The Latest Standards And Specifications Of Howard County Plus MSHA Standards And Specifications If Applicable.
- The Contractor Shall Notify The Department Of Public Works/Bureau Of Engineering/Construction Inspection Division At (410) 313-1880 At Least Five (5) Working Days Prior To The Start Of Work.
- The Contractor Shall Notify "Miss Utility" At 1-800-257-7777 At Least 48 Hours Prior To Any Excavation Work Being Done.
- Existing Utilities Are Based On Existing Road Plans On File With Meriwether Farm (F-08-139) and field locations as part of the topographic survey.
- The Homeowners Association Covenants And Restrictions Are Recorded Simultaneously With This Final Plat In The Land Records Office Of Howard County, Maryland.
- This Plan Is Subject To WP-14-108, Approved On April 7, 2014 Waiving Section 16.120(b)(4)(iii)(B) Prohibiting Floodplains, Wetlands, Streams, Their Buffers And Forest Conservation On Lots Less Than 10 Acres So As To Allow An Area Of Floodplain, A Perennial Stream An The 100' Stream Bank Buffer On Lots 1 And 5 And Within The Pipestem Areas For Lots 1 To 6 And Section 16.120(b)(6)(v) Requiring A 10' Setback From The Project Boundary For Shared Driveways. Approval Is Subject To The Following Conditions:
 (1) A 25' Environmental Building Restriction Line on Lots 1 and 5 shall be Dimensioned From the Floodplain And/Or 100' Stream Bank Buffer (From Whichever Extends Farthest On The Lot).
 (2) Maryland Department Of The Environment Permits Shall be Obtained For Disturbance In The Floodplain, 100' Stream Bank Buffer And Perennial Stream (As Applicable) For The Construction Of The Shared Driveway. A Notation Shall be Added To The Plat Referencing The Permit Number(s) And Date Of Application.
 (3) A Reduction In The 10' Setback From The Property Boundary For The Location Of The Shared Driveway Is Approved. The Driveway Shall Be Shaded Within The Floodplain Area Of The Lots To The Extent Necessary To Limit Disturbance Of The Northern Environmental Features Located Within The Pipestem Area. Existing Vegetation And Planting Of Shade Trees On Both Sides Of The Shared Driveway Shall Fulfill Required Screening Of The Driveway From The Property Boundaries.
- This Plan Is Subject To Design Manual Water, Approved On March 27, 2014 Waiving Design Manual, Volume I, Section 2.6.B Which Requires A Public Access Place be Provided If A Shared Residential Driveway Crosses A 100-Year Floodplain Which Would Allow A Shared Use-In-Common Driveway To be Constructed. Approval Is Subject To The Reconstruction Of Current Floodplain County Standards. The Reconstruction Shall Include Address, Replacement Of The Existing Culvert, And Bringing The Road Up So That It Would Meet The 1' Freeboard Requirement To The Edge Of Pavement Of The Driveway. The Driveway And Culvert Reconstruction shall be Bonded With The Supplemental Plan From The Public Road To Where It Meets The Existing Driveway On The Far Side Of The Crossing. Maryland Department Of The Environment Permits Are Being Applied For.

Title Sheet
Cattail Overlook
Lots 1 Thru 6

(A Resubdivision Of Lot 2 Buice Property - Plat No. 5426 - 5429) And (A Resubdivision Of Meriwether Farm Section One Non-Buildable Parcel "E" Plat No. 21339 - 21344)

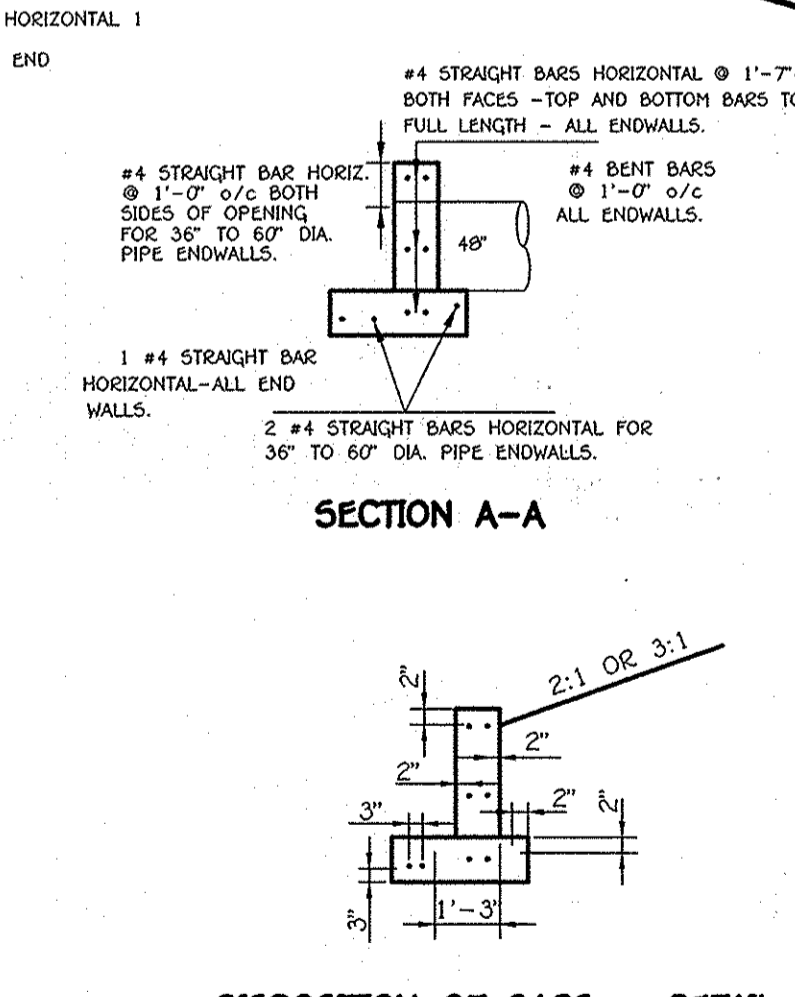
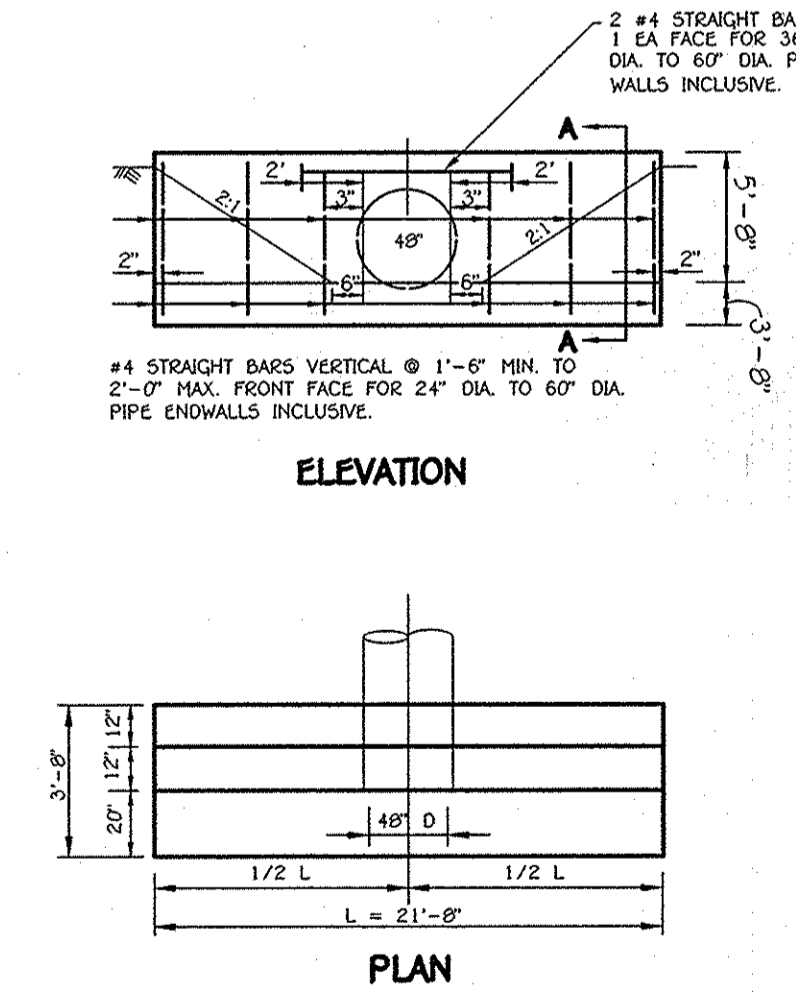
TAX MAP: 21 ZONED: RC-DEO PARCELS: 24 & 84 GRIDS: 20 & 21
 FOURTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SCALE: 1" = 100' DATE: JULY, 2014
 SHEET 1 OF 6

F-14-072

NOTE:
 1. MARYLAND DEPARTMENT OF THE ENVIRONMENT PERMIT # 20146142/14-NT-3258 WAS APPROVED ON JANUARY 13, 2015.
 2. THE MD ENVIRONMENTAL TRUST AND OWNERS (KLEINS) OF APPROXIMATELY LOT 2 OF THE CHASE FARM SUBDIVISION HAVE APPROVED THE LOCATION OF THE OFF-SITE SECTION OF THE SHARED DRIVEWAY FOR THE CATTAIL OVERLOOK SUBDIVISION WHICH CROSSES ONTO THE NORTHWEST PORTION OF LOT 2. IT HAS BEEN NOTED IN THE DECLARATION OF EASEMENT AND MAINTENANCE OBLIGATION RECORDED WITH E-11972 THAT THE OWNER OF LOT 2 WILL NOT BE A PARTY TO UPKEEP OR MAINTENANCE OF THE SHARED DRIVEWAY FOR CATTAIL OVERLOOK SUBDIVISION, LOTS 1 TO 6.



SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
Co	Codorus and Haboro silt loams, 0 to 3 percent slopes	C	0.37
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.37
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.37
HcD	Manor loam, 15 to 25 percent slopes, very rocky	B	0.24
HfF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B	0.24



REINFORCING: DEFORMED STEEL BARS (1/2" DIA.)
 CHAMFER: ALL EXPOSED EDGES 1" x 1" OR AS DIRECTED.
 CONC. SHALL BE S.H.A. A MIX NO. 2.

MODIFIED TYPE 'C' ENDWALL (HW-2)

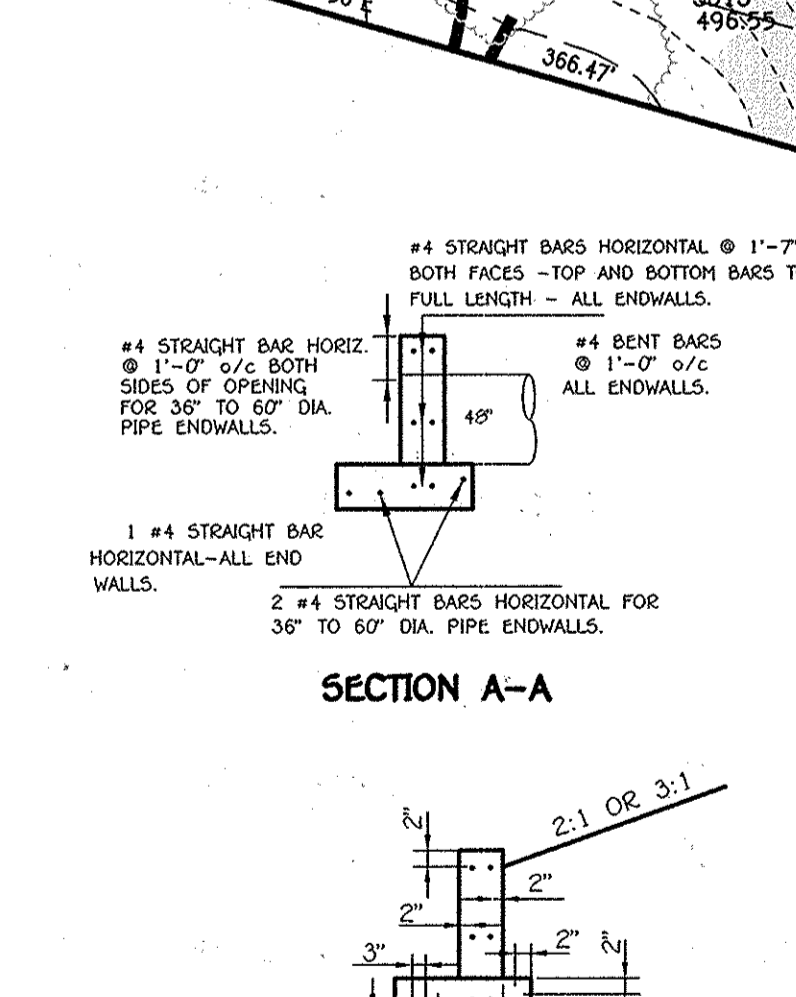
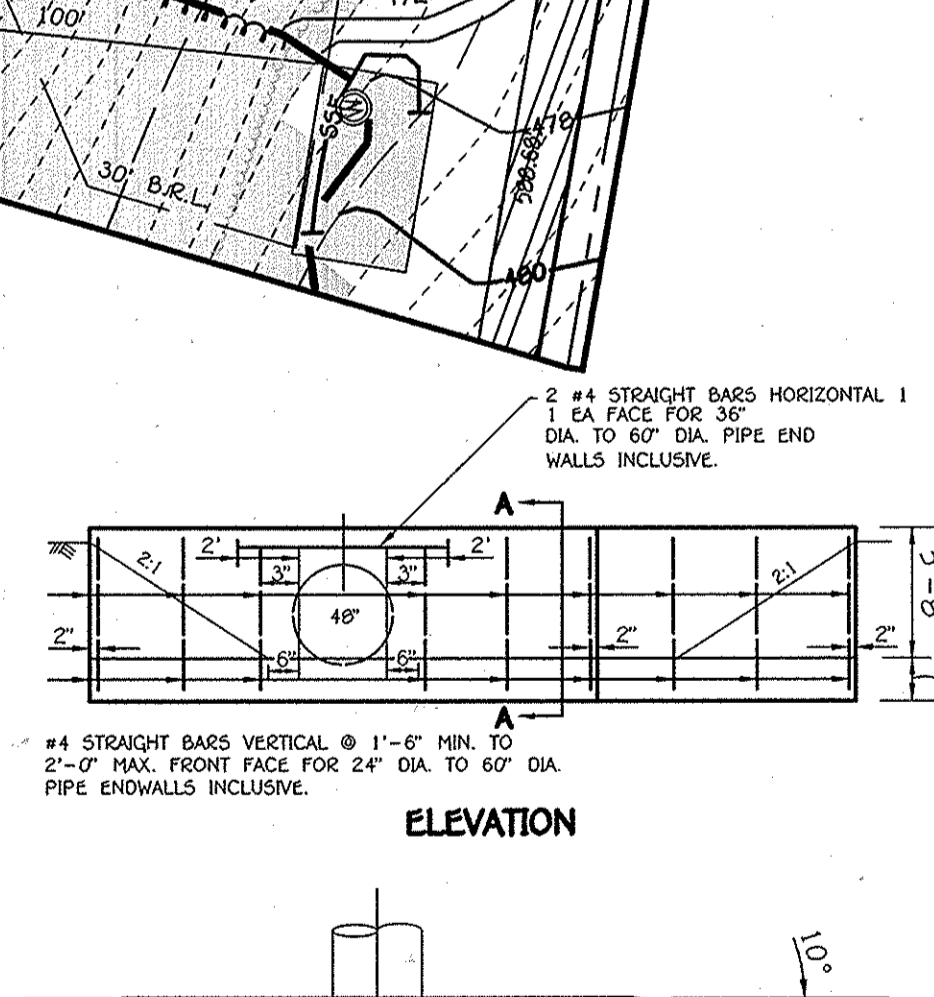
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL OFFICE: 1072 HANCOCK NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

Developer's/Builder's Certificate
 I/We certify that the landscaping shown on this plan will be done according to Section 18.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of Landscape Installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 8-28-14
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 8-28-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Approved: [Signature] 8/19/14
 Howard S. G...
 Date: 8/12/14
 Developer/Builder

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.



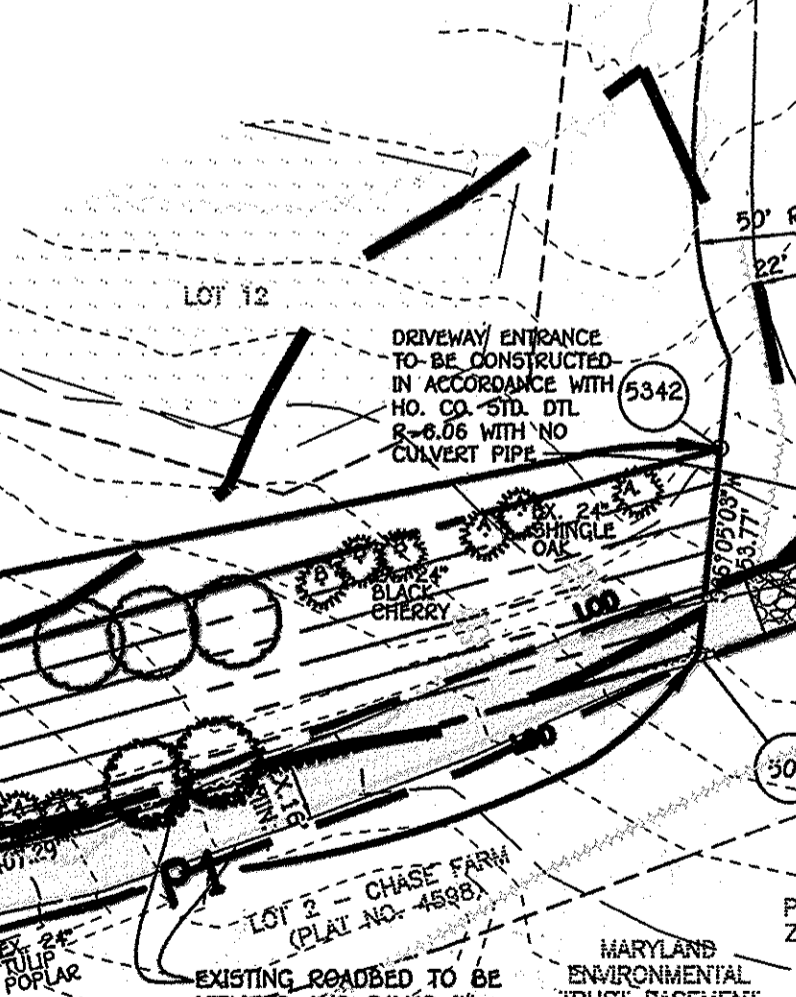
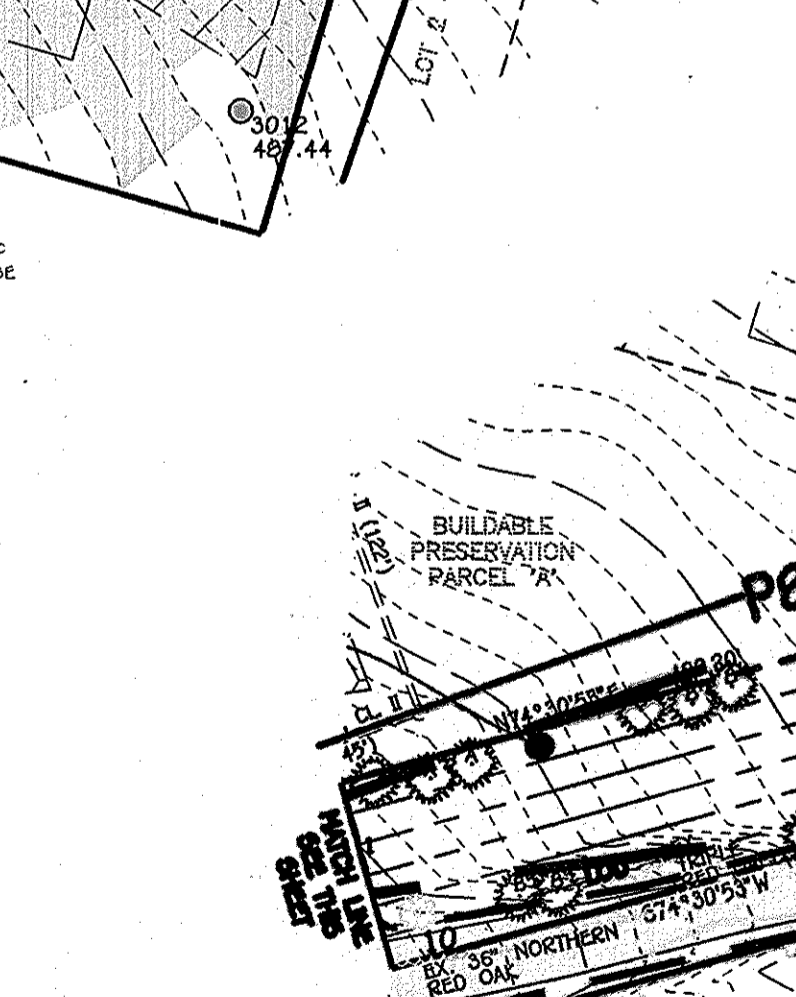
REINFORCING: DEFORMED STEEL BARS (1/2" DIA.)
 CHAMFER: ALL EXPOSED EDGES 1" x 1" OR AS DIRECTED.
 CONC. SHALL BE S.H.A. A MIX NO. 2.

MODIFIED TYPE 'C' ENDWALL (HW-1)

OWNER
 MR. BOB BUICE
 21400 NEW HAMPSHIRE AVE.
 BROOKVILLE, MARYLAND 20833-1805
 410-499-7900 ATTN: TIM FEAGA

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 15950 NORTH AVENUE
 P.O. BOX 482
 US80N, MARYLAND 21765
 410-499-7900

Scale: 1" = 50'



REINFORCING: DEFORMED STEEL BARS (1/2" DIA.)
 CHAMFER: ALL EXPOSED EDGES 1" x 1" OR AS DIRECTED.
 CONC. SHALL BE S.H.A. A MIX NO. 2.

MODIFIED TYPE 'C' ENDWALL (HW-1)

[Signature] 8/12/14
 DATE

Professional certification. I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 36386, Expiration Date 11-12-16.



Supplemental Plan - Topography, Stormwater Management, Landscaping, & Forest Conservation
Cattail Overlook
 Lots 1 Thru 6
 (A Resubdivision of Lot 2 Buice Property - Plat Nos. 5426 - 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E' Plat No. 21339 - 21344)
 ZONED: RC-DEO
 TAX MAP: 21 PARCELS: 24 & 64 GRIDS: 20 & 21
 FOURTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SCALE: 1"=100' DATE: JULY, 2014
 SHEET 2 OF 6

SOILS LEGEND			
SOIL	NAME	CLASS	K. FACTOR
Co	Codorus and Harboro silt loams, 0 to 3 percent slopes	C	0.37
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.37
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.37
MdD	Manor loam, 15 to 25 percent slopes, very rocky	B	0.24
MkF	Manor-brinklow complex, 25 to 65 percent slopes, very rocky	B	0.24



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SOURCE OFFICE PARK - 10272 BALDWIN INDUSTRIAL PARK
 COLLETT CITY, MARYLAND 21042
 (410) 461-2995

APPROVED: DEPARTMENT OF PLANNING AND ZONING

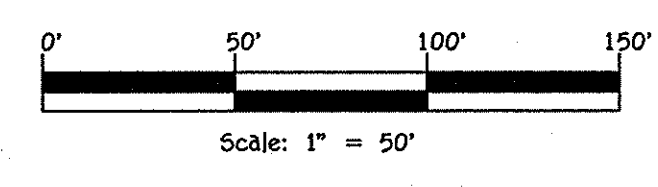
Victor Schuch 8-28-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edwards 8-28-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Developer's/Builder's Certificate

I/We certify that the landscaping shown on this plan will be done according to Section 15.124 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.

[Signature] 7/10/14
 Developer/Builder Date



OWNER

MR. BOB BUICE
 21400 NEW HAMPSHIRE AVE.
 BROOKVILLE, MARYLAND 20833-1805
 410-489-7900 ATTN: TIM PEAGA

DEVELOPER

HERITAGE LAND DEVELOPMENT
 19950 NORTH AVENUE
 P.O. BOX 482
 LISBON, MARYLAND 21765
 410-489-7900

Stephanie J. Tuje 7/10/14
 Stephanie J. Tuje, P.E. 38386 DATE
 "Professional certification, I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 38386, Expiration Date 1-12-16."



Supplemental Plan - Topography, Stormwater Management, Landscaping, & Forest Conservation

Cattail Overlook
 Lots 1 Thru 6

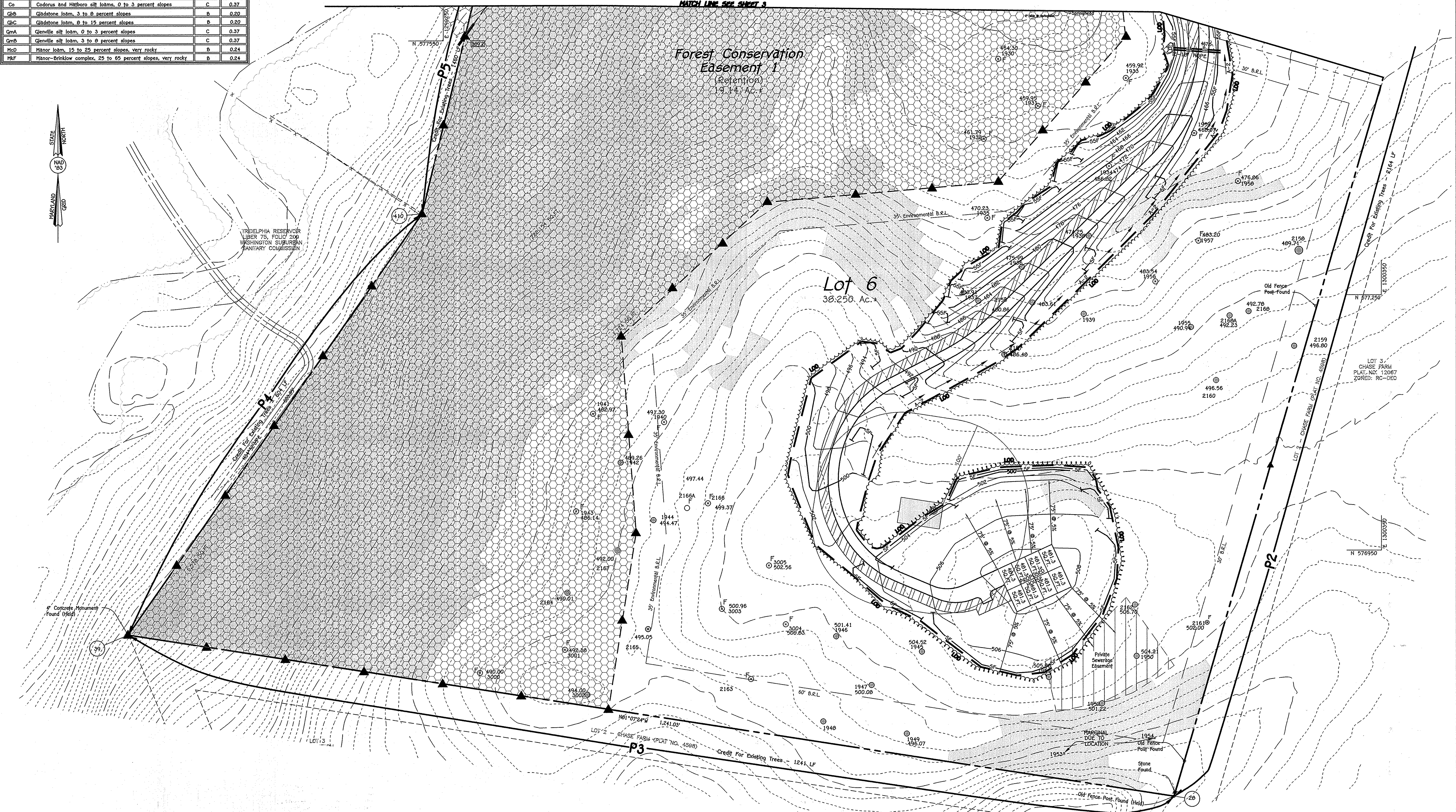
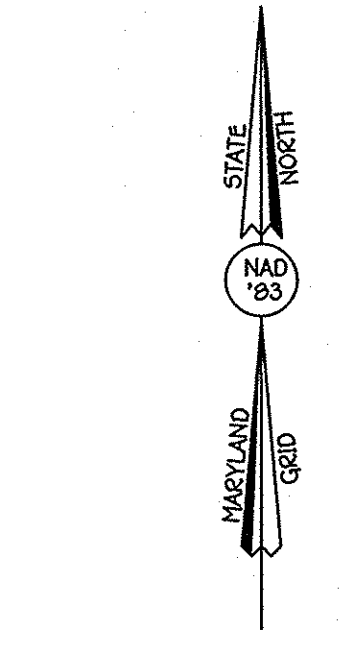
(A Resubdivision Of Lot 2 Buice Property - Plat Nos. 5426 - 5429) And (A Resubdivision Of Marivether Farm Section One Non-Buildable Parcel 'E' Plat Nos. 21339 - 21344)

TAX MAP: 21 PARCELS: 24 & 24 GRIDS: 20 & 21
 FOURTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SCALE: 1"=100' DATE: JULY, 2014
 SHEET 3 OF 6

F-14-072

K:\SDS\PROJ\30536 BUICE MD 83\DWG\RECORD PLATS\30536 Support Plan.dwg, Sheet 3, 7/10/2014 2:43:15 PM, 1:1

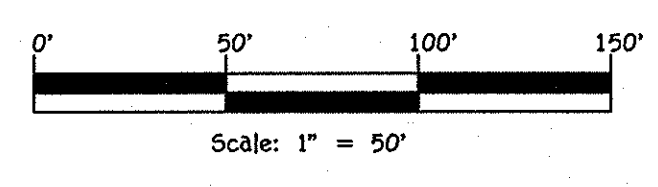
SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
Co	Codorus and Hatzboro silt loams, 0 to 3 percent slopes	C	0.37
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
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GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.37
McD	Manor loam, 15 to 25 percent slopes, very rocky	B	0.24
MkF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B	0.24



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SOURCE OFFICE PARK - 10272 BALDWIN INDUSTRIAL PARK
 GAITHERSBURG, MARYLAND 20878
 (410) 461-2995

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kurt Selmer 8-22-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Chad Edler 8-22-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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.
T. C. F. J. 7/10/14
 Developer/Builder



OWNER
 MR. BOB BUICE
 21400 NEW HAMPSHIRE AVE.
 BROOKVILLE, MARYLAND 20833-1805
 410-489-7900 ATTN: TIM PEAGA

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 15950 NORTH AVENUE
 P.O. BOX 492
 LISBON, MARYLAND 21765
 410-489-7900

Stephanie Tufts 7/10/14
 Stephanie Tufts, P.E. 50396 DATE
 "Professional certification, I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 38326, Expiration Date 1-12-16."



Supplemental Plan - Topography, Stormwater Management, Landscaping, & Forest Conservation
Cattail Overlook
 Lots 1 Thru 6
 (A Resubdivision of Lot 2 Buice Property - Plat Nos. 5426 - 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel "E" Plat Nos. 21339 - 21344)
 TAX MAP: 21 PARCELS: 24 & 94 GRIDS: 20 & 21
 FOURTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SCALE: 1"=100' DATE: JULY, 2014
 SHEET 4 OF 6

NOTES

- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 19.14 ACRES OF FOREST WHICH IS SUFFICIENT TO MEET THE BREAK-EVEN POINT OF 19.14 ACRES OF REQUIRED RETENTION. SURETY IS NOT REQUIRED FOR RETENTION.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL, A LANDSCAPE SURETY FOR THE PERMETER LANDSCAPING AND TRASH PAD SCREENING FOR 7 SHADE TREES, 10 EVERGREENS, AND 6 SHRUBS IN THE AMOUNT OF (\$4,980.00) SHALL BE PROVIDED WITH THE GRADING PERMIT.
LOT 1 SURETY: (3) SHADE TREES @300/SHADE TREE & (6) EVERGREENS @150/EVERGREEN = \$1,800.00
LOT 5 SURETY: (4) SHADE TREES @300/SHADE TREE & (12) EVERGREENS @150/EVERGREEN & (6) SHRUBS @ \$30/SHRUB = \$3,180.00
- AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS 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 REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERM, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, 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.
- SEE THE RECORD PLAT FOR THE BEARING AND DISTANCE DESCRIPTIONS OF THE FOREST CONSERVATION EASEMENTS.

GUARANTEE REQUIREMENTS

A 75 PERCENT SURVIVAL RATE OF REFORESTATION 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.

PLANTING / SOIL SPECIFICATIONS

- Planting Of Nursery Stock Shall Take Place Between March 15th And April 30th Or September 15th And November 15th.
- A Twelve (12) Inch Layer Of Topsoil Shall Be Spread Over All Reforestation Areas Impacted By Site Grading To Assure A Suitable Planting Area, If Applicable. Disturbed Areas Shall Be Seeded And Stabilized In Accordance With The Sediment & Erosion Control Plan For This Project. Planting Areas Not Impacted By Site Grading Shall Have No Additional Topsoil Installed.
- All Bare Root Planting Stock Shall Have Their Root System Dipped Into An Anti-Desiccant Gel Prior To Planting.
- Plants Shall Be Installed So That The Top Of The 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.
- Fertilizer Shall Consist Of Agriform 22-0-2, Or Equivalent, Applied As Per Manufacturer's Specifications.
- A Two (2) Inch Layer Of Hardwood Mulch Shall Be Placed Over The Root Area Of All Plantings. See Planting Detail.
- Plant Material Shall Be Transported To The Site In A Tarped Or Covered Truck. Plants Shall Be Kept Moist Prior To Planting.
- All Non-Organic Debris Associated With The Planting Operation Shall Be Removed From The Site By The Contractor.

MULTIFLORA ROSE CONTROL NOTE:

PRIOR TO PLANTING ALL MULTIFLORA ROSE WITHIN PLANTING AREAS SHALL BE REMOVED. Removal Of The Multiflora Rose May Be Performed With Mowing And Herbicide Treatments. Physical Removal Of All Top Growth Followed 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. Herbicide Treatments Shall Occur On Two (2) Month Intervals During The First Growing Season And Once In The Spring And Once In The Fall For Subsequent Years. Herbicide Used Shall Be Made Specifically To Address Woody Plant Material And Shall Be Applied As Per Manufacturer's Specifications. Care Should Be Taken Not To Spray Planted Trees Or Naturally Occurring Native Tree And Shrub Seedlings. It Is Recommended That Initiation Of Rose Removal Begin At Least Six Months Prior To Planting So That New Growth Of Roses Is Able To Be More Successfully Managed.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING CONDITIONS.
- ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

SEQUENCE OF CONSTRUCTION

- Sediment Controls And Tree Protective Devices Shall Be Installed In Accordance With Sediment & Erosion Control Plans For This Site, If Applicable. (2 Days) Site Shall Be Graded In Accordance With The Plans. (1 Week)
- Proposed Landscape Planting Areas (Along The Common Driveway) Impacted By The Site Grading Shall Be Topsoiled And Stabilized As Per Note 2 Of The "Planting / Soil Specifications". (1 Day)
- Plants Shall Be Installed And Maintained As Per Notes And Specifications. (1 Year)

NOTE: Plantings Shall Be Guaranteed And Maintained In Accordance With The "Guarantee Requirements" (1 Year) And "Maintenance Of Plantings" Associated With This Project.

FOREST PROTECTION GENERAL NOTES

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING, AS NECESSARY, AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
- THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES, UNLESS ROOT PRUNING IS PROPOSED.
- ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
- ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
- INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
- THE GENERAL CONTRACTOR SHALL PERFORM MARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
- THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
- ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

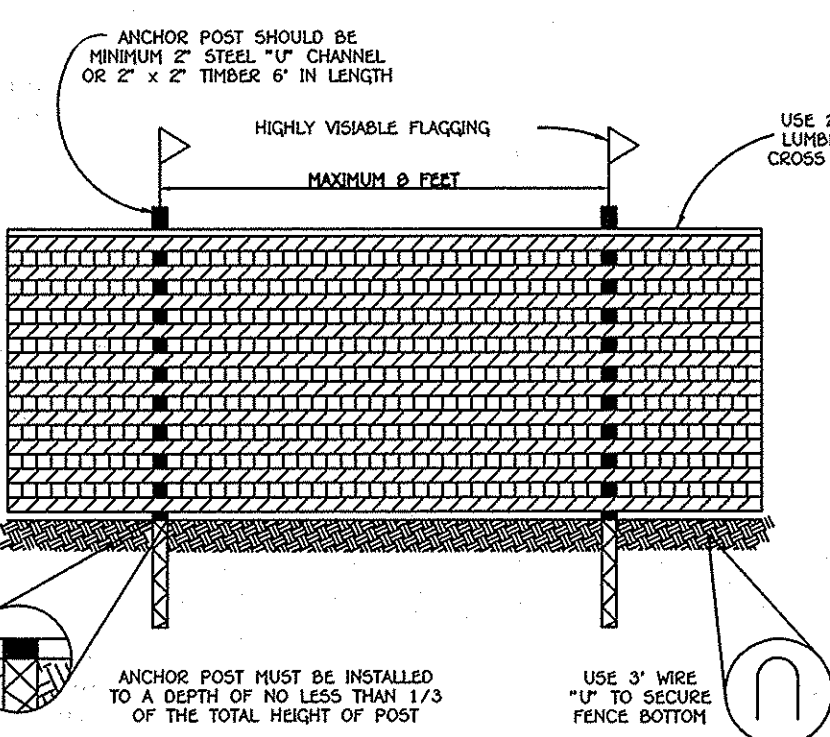
KEY	SPECIES	SIZE (DBH)	COMMENTS
1	TULIP POPLAR	35"	GOOD CONDITION
2	SYCAMORE	36"	GOOD CONDITION
3	TULIP POPLAR	34"	GOOD CONDITION
4	TULIP POPLAR	34"	GOOD CONDITION
5	SYCAMORE	31"	GOOD CONDITION
6	SYCAMORE	56"	SPLITS INTO 3 ABOVE EAGLEST HEIGHT
7	SYCAMORE	33"	TWIN STEMS INCLUDES A 3" TRUNK
8	TULIP POPLAR	40"	GOOD CONDITION
9	TULIP POPLAR	40"	GOOD CONDITION
10	NORTHERN RED OAK	36"	GOOD CONDITION

NOTE: ALL SPECIMEN TREES ARE TO BE RETAINED.

FOREST CONSERVATION WORKSHEET VERSION 1.0

BASIC SITE DATA:		
A. TOTAL TRACT AREA	55.19 AC	
B. AREA WITHIN 100 YEAR FLOODPLAIN	5.46	
C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION	0	
D. NET TRACT AREA	49.71 AC	
LAND USE CATEGORY (from Table 3.2.1, page 40, HSM&I)		
ASA	MDE	IDA
HDR	HPD	CA
INFORMATION FOR CALCULATIONS:		
D. AFFORESTATION THRESHOLD	0.20% x D =	9.94
E. FOREST CONSERVATION THRESHOLD	0.25% x D =	14.43
F. EXISTING FOREST COVER		45.00
G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD		33.57
H. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION		19.14
I. CLEARING PERMITTED WITHOUT MITIGATION		26.86
J. TOTAL AREA OF FOREST TO BE CLEARED		26.86
K. TOTAL AREA OF FOREST TO BE RETAINED		19.14
PLANTING REQUIREMENTS:		
L. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD		6.72
M. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD		0
N. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD		-6.72
O. TOTAL AFFORESTATION REQUIRED		0
P. TOTAL REFORESTATION REQUIRED		0
Q. TOTAL REFORESTATION AND AFFORESTATION REQUIRED		0
R. EXCESS FOREST CREDIT		0

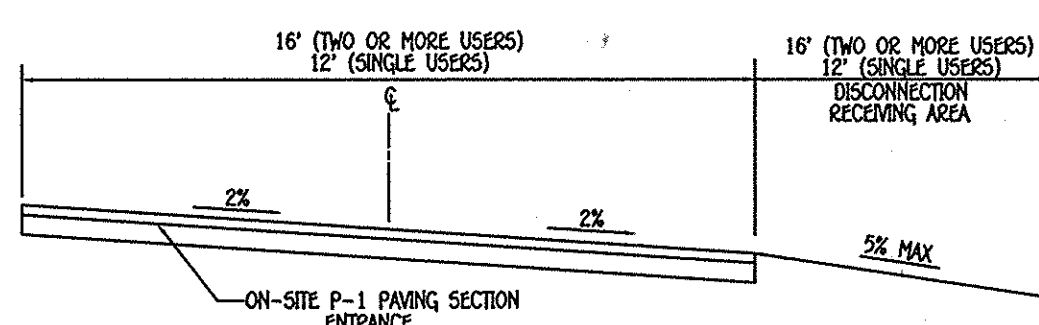
BLAZE ORANGE PLASTIC MESH



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

TREE PROTECTION DETAIL

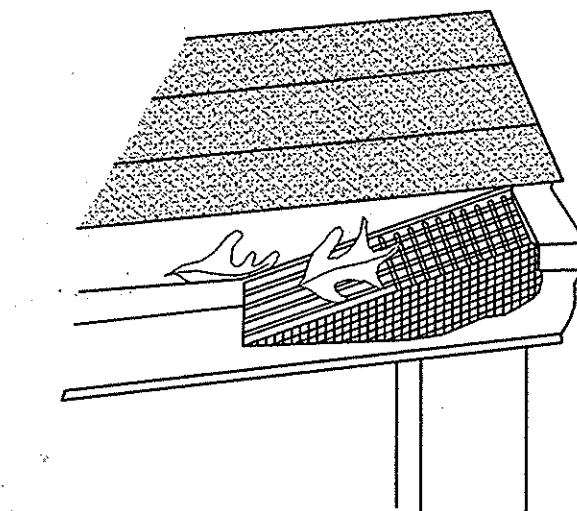
NOT TO SCALE



NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME 1, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

NOT TO SCALE



GUTTER DRAIN FILTER DETAIL

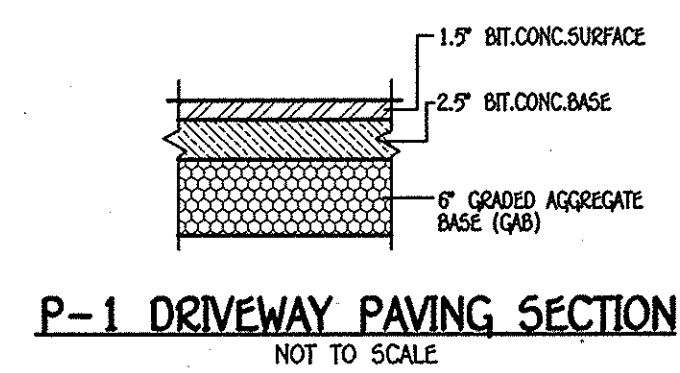
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STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THE SITE DEVELOPMENT PLAN.

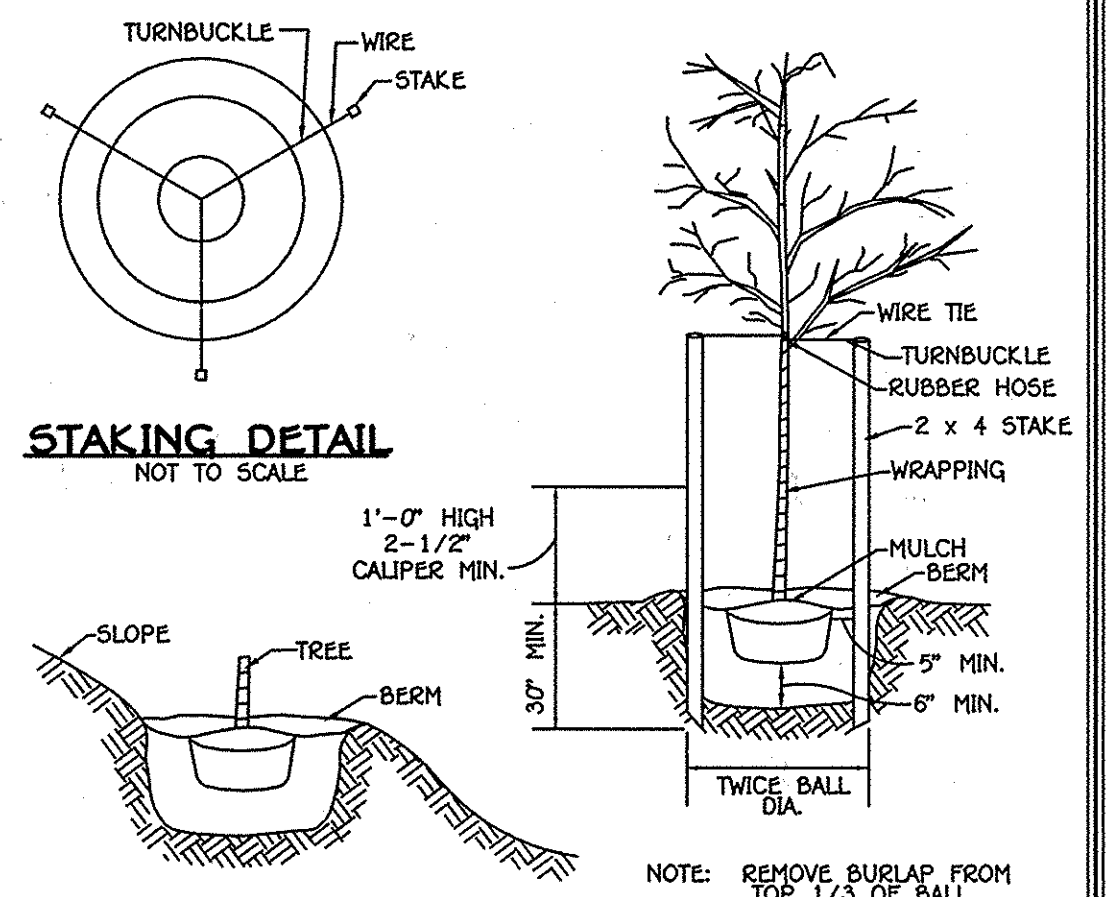
OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF ROOFTOP RUNOFF (N-1) DISCONNECTION OF NONROOFTOP RUNOFF (N-2)

- 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 CONSTRUCTION OR DEVELOPMENT OF IMPROVED AREA. IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



P-1 DRIVEWAY PAVING SECTION

NOT TO SCALE



STAKING DETAIL

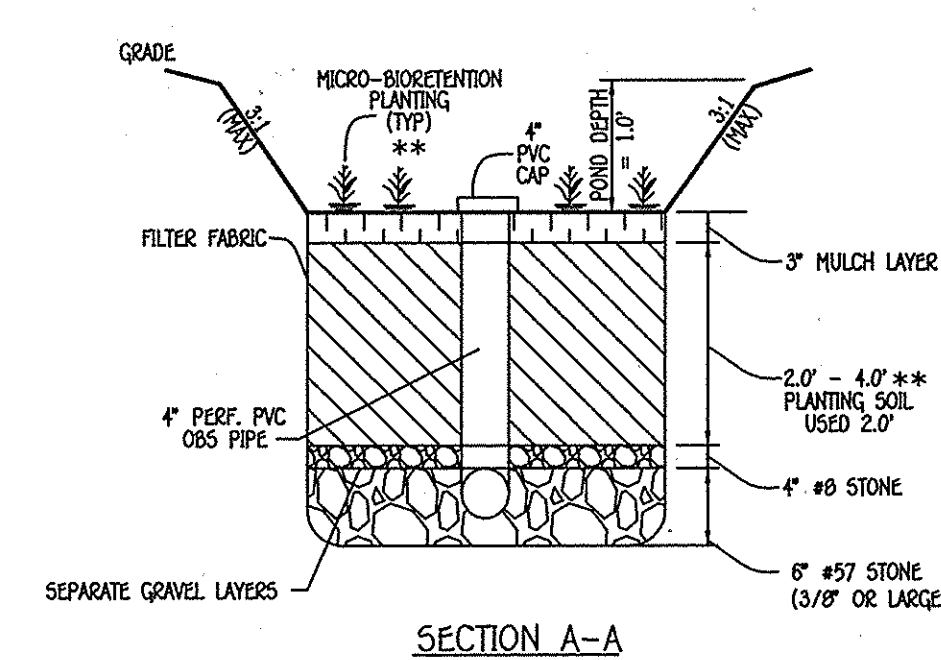
NOT TO SCALE

GRADING FOR PLANTING ON SLOPES

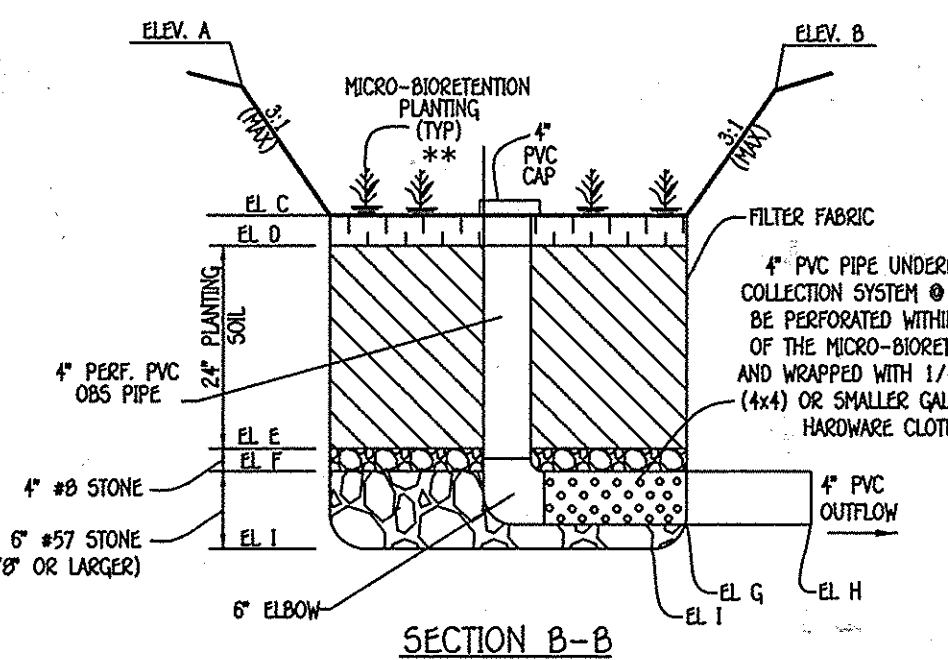
NOT TO SCALE

TREE PLANTING

NOT TO SCALE



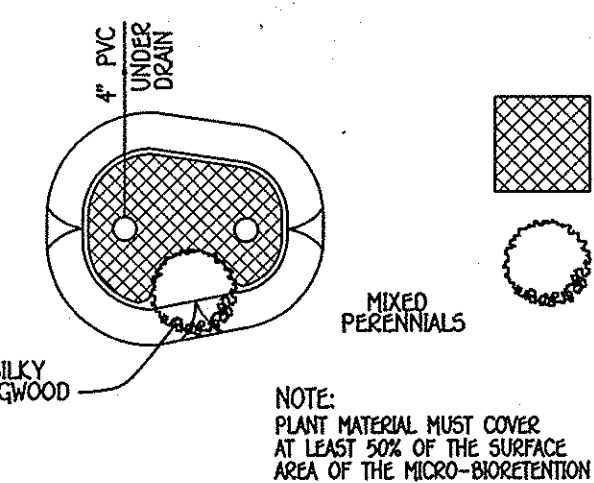
SECTION A-A



SECTION B-B

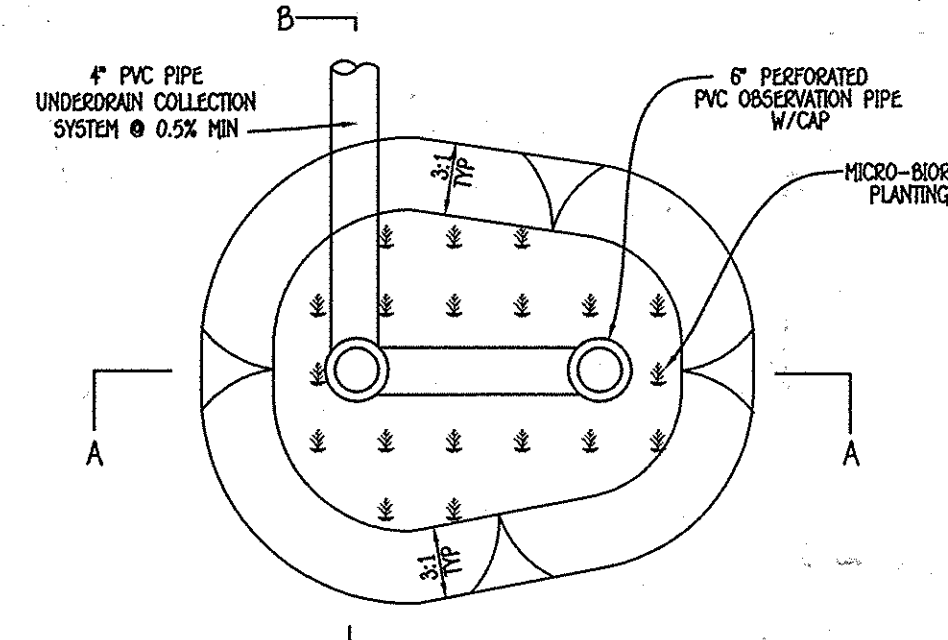
MICRO-BIORETENTION DETAIL (M-6)

NOT TO SCALE



MICRO-BIORETENTION PLANTING DETAIL

NOT TO SCALE



PLAN

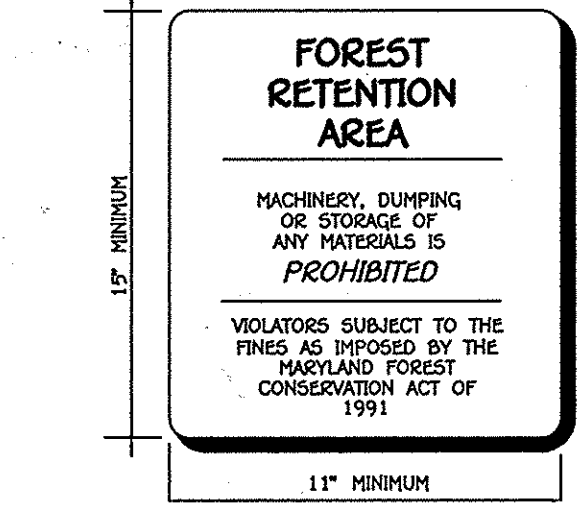
NOT TO SCALE

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

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. 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. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME 1, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

MICRO-BIORETENTION									
BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1	467.50	467.50	466.50	466.25	464.25	464.00	463.67	455.97	463.50
2	484.00	484.00	483.00	482.75	480.75	480.50	480.17	478.00	480.00
3	489.00	489.00	488.00	487.75	485.75	485.50	485.17	475.00	485.00
4	438.00	438.00	437.00	436.75	434.75	434.50	434.17	433.97	434.00
5	416.00	416.00	415.00	414.75	412.75	412.50	412.17	412.00	412.00
6	465.75	465.75	465.00	464.75	462.75	462.50	462.17	461.90	462.00

MICRO-BIORETENTION PLANT MATERIAL									
MICRO-BIO 1 QUANTITY	MICRO-BIO 2 QUANTITY	MICRO-BIO 3 QUANTITY	MICRO-BIO 4 QUANTITY	MICRO-BIO 5 QUANTITY	MICRO-BIO 6 QUANTITY	NAME	MAXIMUM SPACING (FT.)		
45	30	25	30	32	40	MIXED PERENNIALS	1.5 TO 3.0 FT.		
1	1	1	1	1	1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION		



FOREST CONSERVATION SIGN DETAIL

NOT TO SCALE

LANDSCAPING PLANT LIST			
QTY.	KEY	NAME	SIZE
4	1	ACER RUBRUM 'OCTOBER GLOW' (OCTOBER RED MAPLE)	2.5"-3" CAL. FULL CROWN, B&B
3	2	TILIA CODATA 'GREENSPIRE' (GREENSPIRE LITTLELEAF LINDEN)	2.5"-3" CAL. FULL CROWN, B&B
9	3	ILEX 'NELLIE R. STEVENS' (NELLIE R. STEVENS HOLLY)	5" - 6" HT. B&B
9	4	THUJA PLICATA (GIANT ARBOREVIATA 'GREEN GIANT')	5" - 6" HT. B&B

TOTAL: 7 SHADE TREES, 16 EVERGREEN

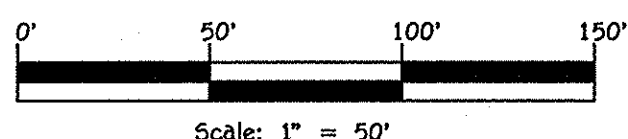
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SERVICE OFFICE: 15272 BALDORNE INDUSTRIAL PARK
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2885

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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature]
 DATE: 8-28-14
 [Signature]
 DATE: 8-28-14
 [Signature]



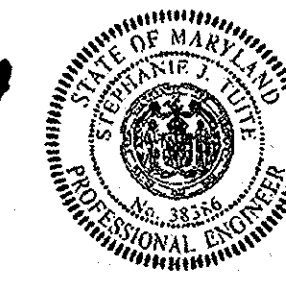
OWNER

MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM PEAGA

DEVELOPER

HERITAGE LAND DEVELOPMENT
19950 NORTH AVENUE
P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

Stephanie J. Tufts 7/10/14
 Stephanie J. Tufts, P.E. 36396
 Professional certification, I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 36396, Expiration Date 1-12-16.

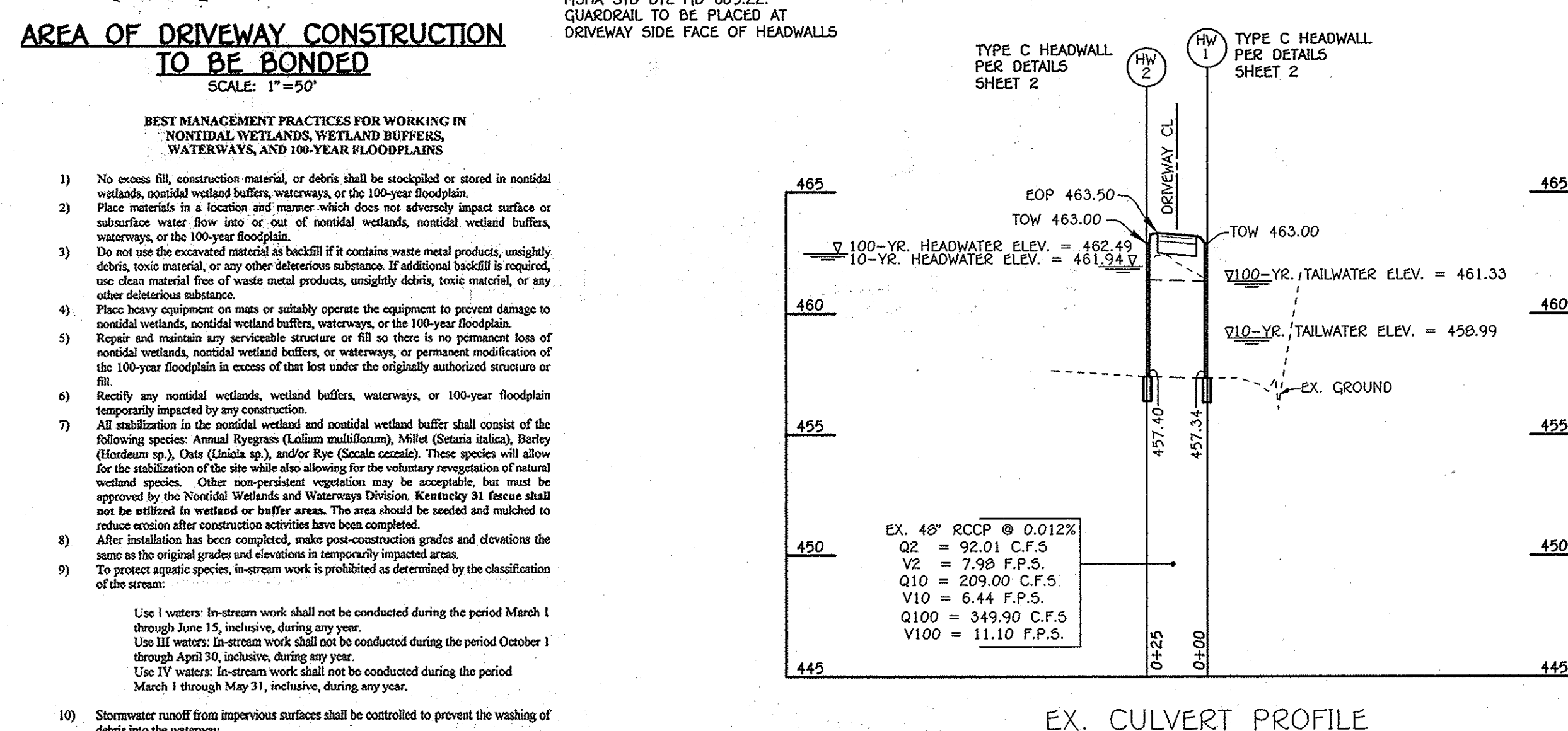
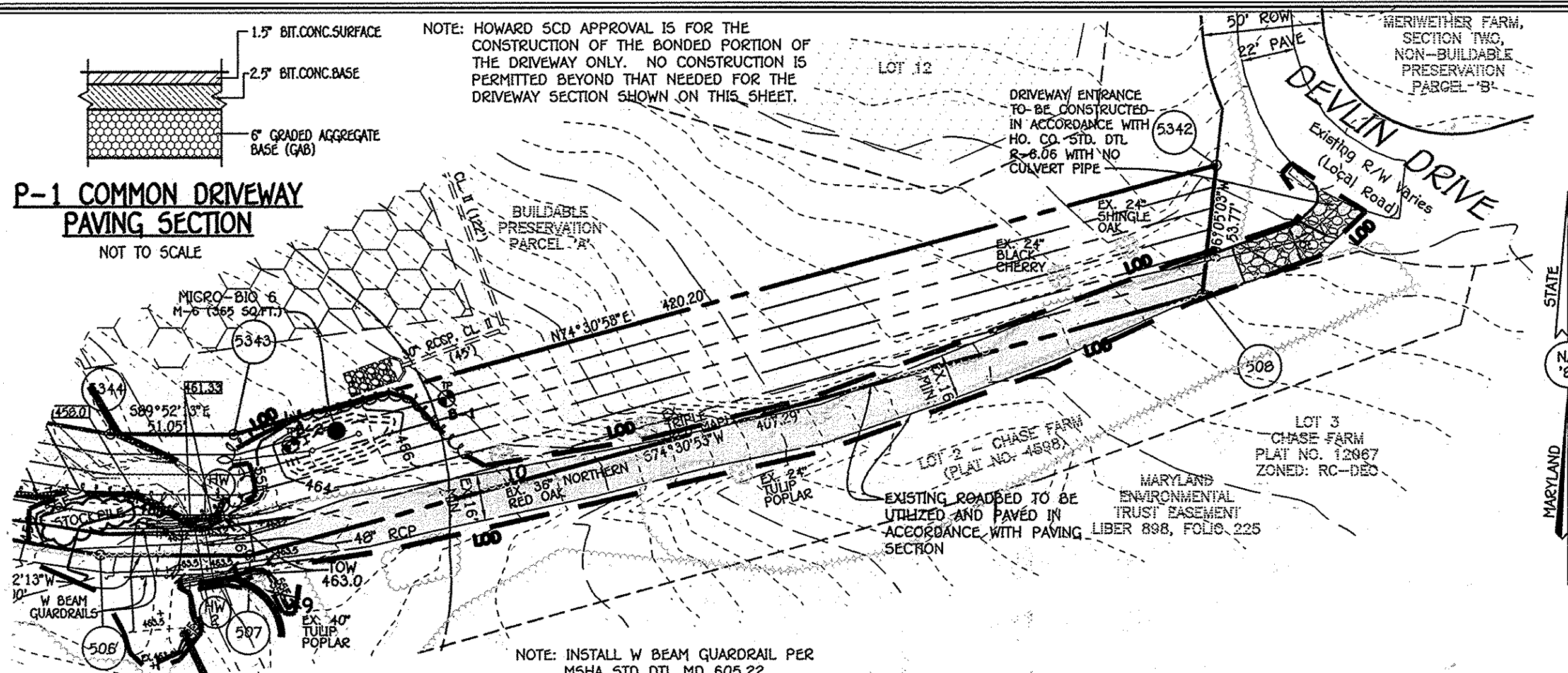


Supplemental Plan - Topography, Stormwater Management, Landscaping, & Forest Conservation

Cattail Overlook
Lots 1 Thru 6

(A Re subdivision of Lot 2 Buce Property - P&H Nos. 5428 - 5429) And (A Re subdivision of Meriwether Farm Section One Non-Buildable Parcel C Plat Nos. 21339 - 21344)

ZONED: RC-DEO
 TAX MAP: 21 PARCELS: 24 & 84
 FOURTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SCALE: 1"=100' DATE: JULY, 2014
 SHEET 5 OF 6



SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

- Soil Preparation**
 1. Temporary Stabilization
 - a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - b. Apply fertilizer and lime as prescribed on the plans.
 2. Permanent Stabilization
 - a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetation establishment are:
 - i. Soil pH between 6.0 and 7.0.
 - ii. Soluble salts less than 500 parts per million (ppm).
 - iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent all plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loess will be planted, then a sand soil (less than 30 percent all plus clay) would be acceptable.
 - iv. Soil contains 1.5 percent minimum organic matter by weight.
 - v. Soil contains sufficient pore space to permit adequate water penetration.
 - b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
 - d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
 - e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by disking with a heavy chain or other equipment to roughen the surface where the conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.
- Topsoiling**
 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
 2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. The depth of topsoil to be added for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
 3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - c. The original soil to be vegetated contains material toxic to plant growth.
 - d. The soil is so acidic that treatment with limestone is not feasible.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

- Application**
 - a. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with weighted roller to provide good seed to soil contact.
 - b. Drill or Outdragger Seeding: Mechanized seeders that apply and cover seed with soil.
 - c. Outdragger seeders are required to provide a minimum of 1/4 inch of soil covering. Seeded must be firm after planting.
 - d. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
 - e. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
 - f. If fertilizer is being applied at the time of seeding, the application rates must not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P (phosphorus), 200 pounds per acre; K (potassium), 200 pounds per acre.
 - g. Lime Use: only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - h. Mix seed and fertilizer on site and seed immediately and without interruption.
 - i. When hydroseeding do not incorporate seed into the soil.
- Mulching**
 1. Mulch Materials (in order of preference)
 - a. Straw consisting of thoroughly threshed wheat, oat, or barley and reasonably bright in color. Straw is to be free of noxious weeds as specified in the Maryland Seed Law and not moldy, matted, decayed, or excessively dirty.
 - b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - c. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly applied slurry.
 - d. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blower-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - e. WCFM material must not contain elements or compounds of concentration levels that will be phytotoxic.
 - f. WCFM must conform to the following physical requirements: fiber with a minimum of 10 millimeter diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 80 percent minimum.
 2. Application
 - a. Apply mulch to all seeded areas immediately after seeding.
 - b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution over the soil so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
 - c. Wood cellulose fiber mulch is to be applied to a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 3. Anchoring
 - a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
 - i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can be operated safely. If used on sloping land, this practice should follow the contour.
 - ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - iii. Synthetic binders such as Acrylic DLR (Aero-Tack), DCA-70, Petrosol, Terra Tex II, Terra Tack AR or other approved equivalent may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of spool binders is strictly prohibited.
 - iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet long.

TEMPORARY SEEDING NOTES (B-4-4)

- Application**
 1. To stabilize disturbed soils with vegetation for up to 6 months.
 2. To use fast growing vegetation that provides cover on disturbed soils.
- Conditions Where Practice Applies**
 1. Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
 2. Criteria
 - i. 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
 - ii. 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
 - iii. 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Hardiness Zone (from Figure B.3):	6b	Fertilizer Rate (10-20-20)	Lime Rate
Seed Mixture (from Table B.1):			
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths
BARLEY	96	3/1 - 5/15, 8/15 - 10/15	1" 436 lb/ac (10 lb/1000 sf)
OATS	72		1" 1000 sf
RYE	112		1"

PERMANENT SEEDING NOTES (B-4-5)

- A. Seed Mixtures**
 1. General Use
 - a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site conditions or purpose of seeding, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
 - c. For sites having disturbed areas over 5 acres, use and show the rates and seeding dates recommended by the soil testing agency. 4. For areas receiving low maintenance, apply urea fertilizer (46-0-0) at 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
 2. Turfgrass Mixtures
 - a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
 - b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
 - i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management, irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - ii. Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
 - iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf areas. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

- Application**
 1. To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.
 2. Conditions Where Practice Applies
 - i. Stockpile areas are utilized when it is necessary to salvage and store soil for later use.
- Criteria**
 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Batching must be provided in accordance with Section B-3 Land Grading.
 3. Runoff from the stockpile area must drain to a suitable sediment control practice.
 4. Access the stockpile area from the up-slope side.
 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

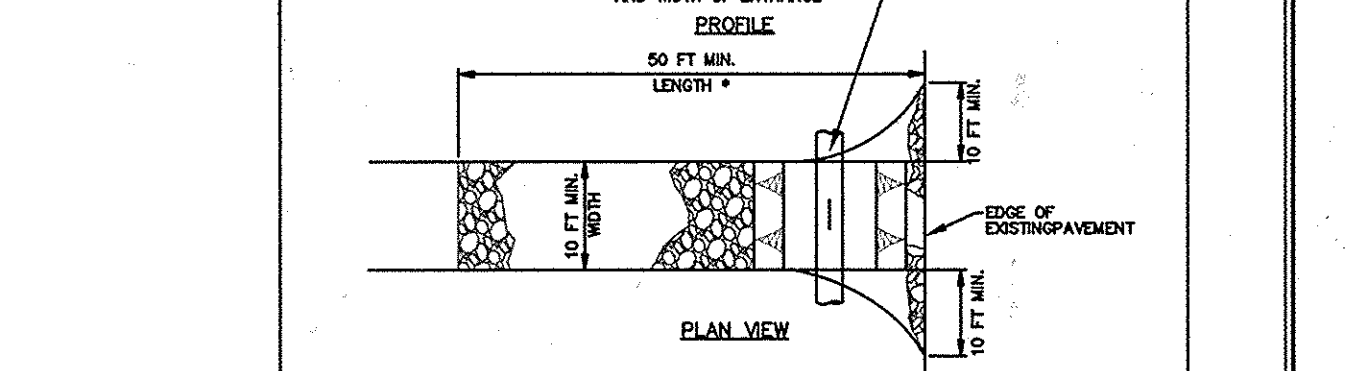
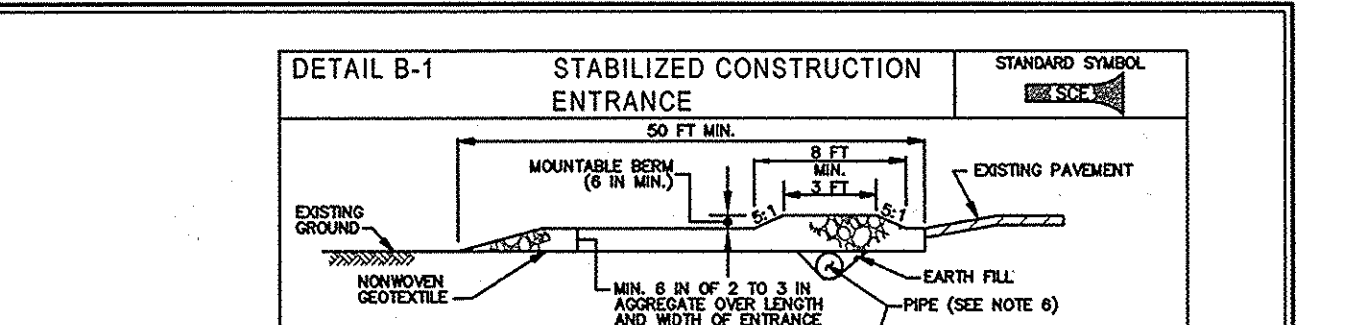
1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL.
2. ALL EROSION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DEVELOPMENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 3 CALENDAR DAYS FOR ALL PERMITS; b) 7 DAYS FOR ALL PERMITS; c) 7 DAYS FOR ALL PERMITS; d) 7 DAYS FOR ALL PERMITS; e) 7 DAYS FOR ALL PERMITS; f) 7 DAYS FOR ALL PERMITS; g) 7 DAYS FOR ALL PERMITS; h) 7 DAYS FOR ALL PERMITS; i) 7 DAYS FOR ALL PERMITS; j) 7 DAYS FOR ALL PERMITS; k) 7 DAYS FOR ALL PERMITS; l) 7 DAYS FOR ALL PERMITS; m) 7 DAYS FOR ALL PERMITS; n) 7 DAYS FOR ALL PERMITS; o) 7 DAYS FOR ALL PERMITS; p) 7 DAYS FOR ALL PERMITS; q) 7 DAYS FOR ALL PERMITS; r) 7 DAYS FOR ALL PERMITS; s) 7 DAYS FOR ALL PERMITS; t) 7 DAYS FOR ALL PERMITS; u) 7 DAYS FOR ALL PERMITS; v) 7 DAYS FOR ALL PERMITS; w) 7 DAYS FOR ALL PERMITS; x) 7 DAYS FOR ALL PERMITS; y) 7 DAYS FOR ALL PERMITS; z) 7 DAYS FOR ALL PERMITS.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT STABILIZATION (SEC. B-4-1) TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT APPLY FOR PERMANENT STABILIZATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL THE PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. SITE ANALYSIS:
 - a. TOTAL AREA OF SITE: 95.20 ACRES
 - b. AREA DISTURBED: 0.41 ACRES
 - c. AREA TO BE ROOFED OR PAVED: 0.19 ACRES
 - d. AREA TO BE VEGETATIVELY STABILIZED: 0.22 ACRES
 - e. TOTAL CUT: 100 CU YD.
 - f. TOTAL FILL: 100 CU YD.
 - g. OFFSITE WASTE/BORROW AREA LOCATION: N/A
7. ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMITS EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
10. REVISIONS FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE, PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRES PER GRADING UNIT) AT A TIME, WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

SEQUENCE OF CONSTRUCTION

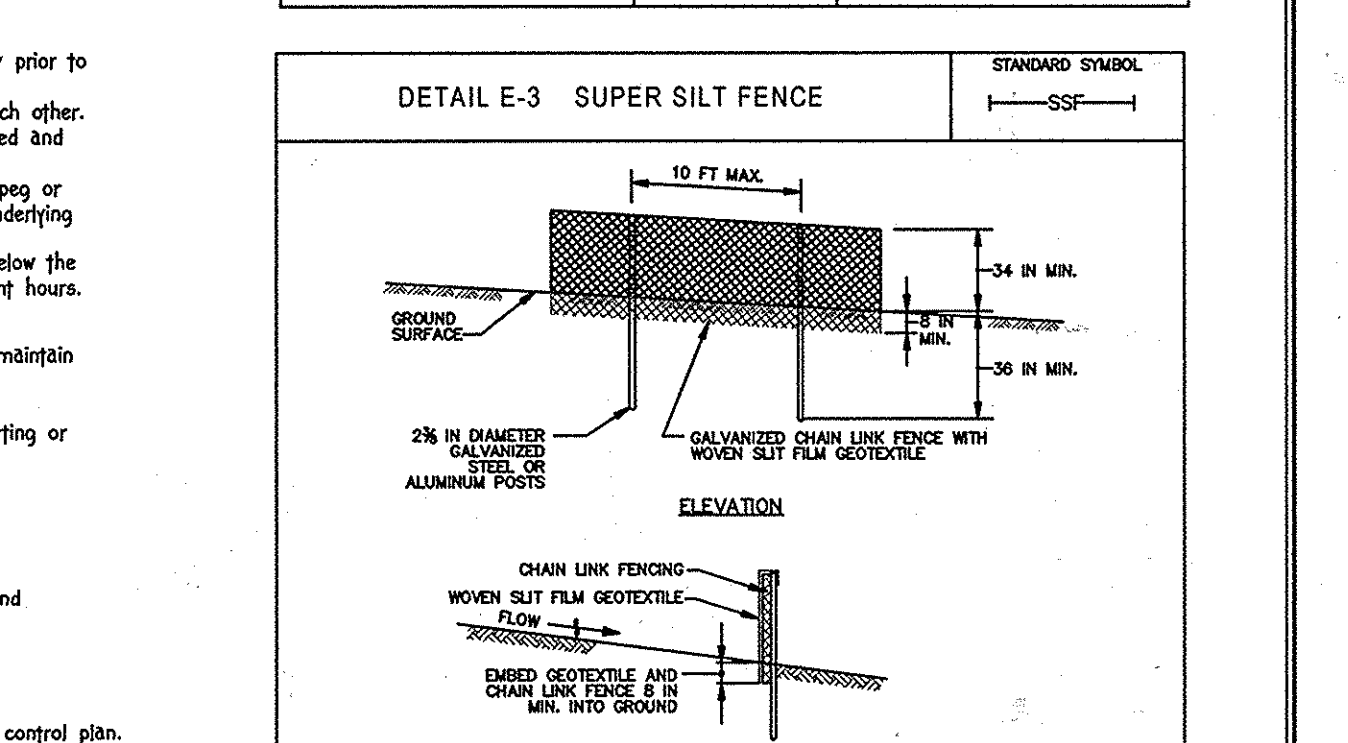
1. OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS)
2. NOTIFY "MISSED UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-252-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER-SILT FENCE, AND DIVERSION FOR OFF-SITE WATER THRU EXISTING UNDERLYING PIPE AS OUTLINED WITH THE PERMITS (AS NECESSARY). (3 DAYS)
4. REMOVE NECESSARY TREES AND TEMPORARY SEED DISTURBED AREAS AS NECESSARY. (5 DAYS)
5. CONSTRUCT HEADWALLS AND GUARDRAIL (40 DAYS)
6. UPON CURING OF POURED WALLS, ROUGH GRADE AND INSTALL DRIVEWAY. (1 WEEK)
7. INSTALL EROSION CONTROL MATTING AND PERMANENT SEEDING. (3 DAYS)
8. UPON COMPLETION OF ALL GRADING WITHIN DISTURBED AREA TO MICRO-BIORETENTION AREA, CONSTRUCT MICRO-BIORETENTION PLANT MATERIAL AND MULCH. (2 DAYS)
9. INSTALL MICRO-BIORETENTION PLANT MATERIAL AND MULCH. (1 DAY)
10. ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS, WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (3 DAYS)

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

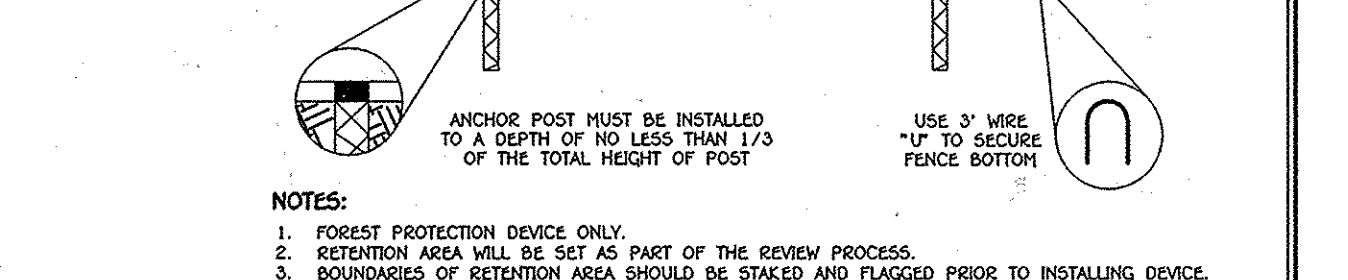
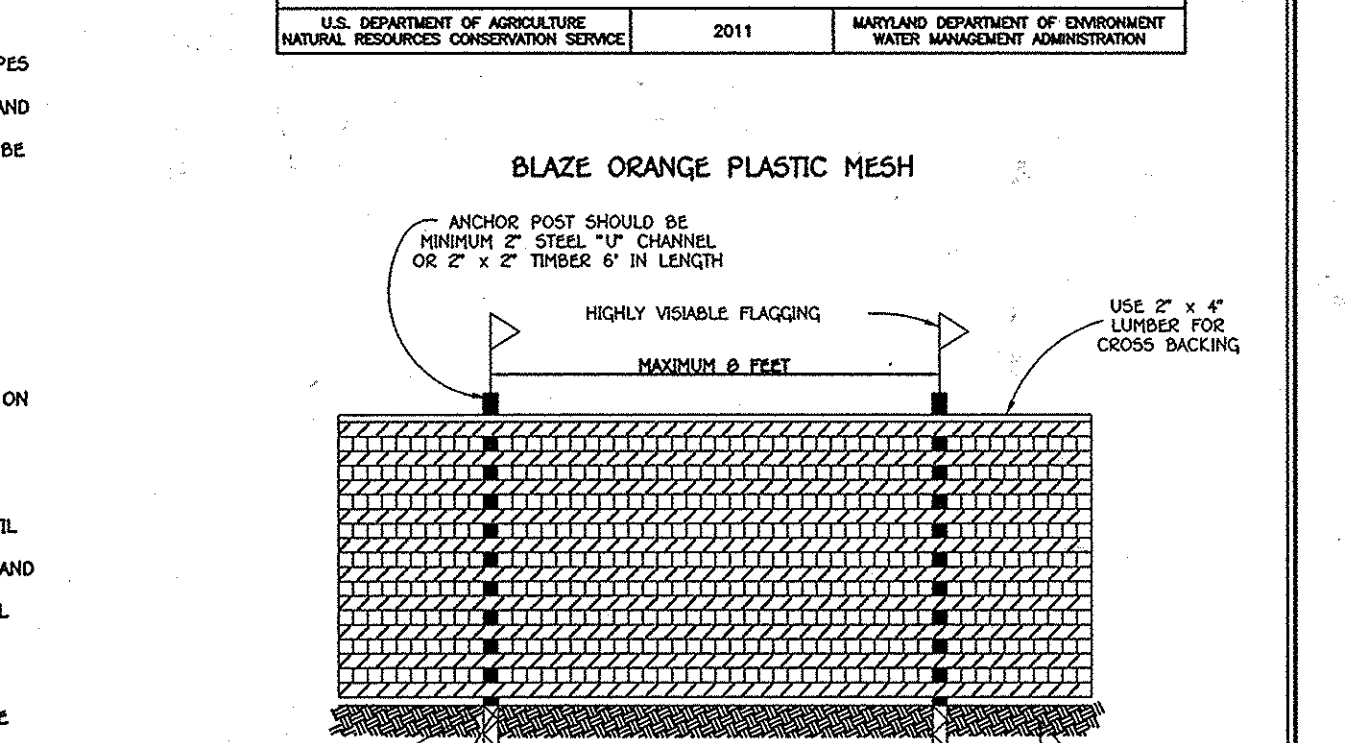
Stephanie J. Tuite, P.E. 8/12/14
 DATE: 8/12/14
 Professional certification, I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer in the State of Maryland, License No. 38385, expiration date 12-12-16.



- ### CONSTRUCTION SPECIFICATIONS
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SOE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 8 FEET. PLACE SOE TO FIT MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SOE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE THROUGH THE SOE WITH A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. THE SOE SHALL BE INSTALLED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY. A PIPE IS NOT NECESSARY. A MOUNTABLE BEAM IS REQUIRED WHEN SOE IS NOT LOCATED AT A HIGH SPOT.
 3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
 4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT PERMITS) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SOE.
 5. MAINTAIN ENTRANCE IN A CONDITION THAT PREVENTS BACKLOGGING OF SEDIMENT AND STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAR SURFACE. MOUNTABLE BEAM, AND OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAR SURFACE. MOUNTABLE BEAM, AND OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAR SURFACE. MOUNTABLE BEAM, AND OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAR SURFACE.



- ### CONSTRUCTION SPECIFICATIONS
1. INSTALL 2 1/2" DIAMETER GALVANIZED STEEL POSTS OF 0.008 INCH WALL THICKNESS AND SIX FOOT LENGTH AND FURTER THAN TO FEET APART. DRIVE THE POSTS A MINIMUM OF 6 INCHES INTO THE GROUND.
 2. FASTEN A GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (26 INCH MAXIMUM OPENING) 42 INCHES ABOVE GROUND TO THE GALVANIZED STEEL POSTS.
 3. FASTEN WOVEN SILT FENCE GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPPER SIDE OF CHAIN LINK FENCE WITH 2" SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. ENDED EVERY 24 INCHES.
 4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
 5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE LAND FENCE ALIGNMENT TO PREVENT RUNOFF FROM THE ENDS OF THE SUPER SILT FENCE.
 6. PROVIDE MANUFACTURED SEDIMENT TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE MEETS THE REQUIREMENTS OF SECTION H-1 MATERIALS.
 7. REMOVE ACCUMULATED DEBRIS AND DEBRIS WHEN BUILDS DEVELOP IN FENCE OR WHEN SHOWING THAT CHAIN LINK FENCING AND GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.



Sediment & Erosion Control Plan, Notes, & Details
Cattail Overlook
 Lots 1 Thru 6
 (A Resubdivision of Lot 2 Bulle Property - Plot Nos. 5428 - 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel "E" Plot Nos. 21339 - 21344)
 ZONED: RC-DEO
 PARCELS: 24 & 24
 TAX MAP: 21
 FOURTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SCALE: 1"=100'
 DATE: MAY, 2014
 SHEET 6 OF 6

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE BLDG. - 16275 BROADWAY NATIONAL FEE
 ELICOTT CITY, MARYLAND 21042
 (410) 461 - 2955

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kathleen... 8-28-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John R. Robertson 8/12/14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

BUILDER/DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERSONNEL ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT."
Stephanie J. Tuite 8/12/14
 SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATE
 "I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND SOUND SOLUTION TO THE PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT."
Stephanie J. Tuite 8/12/14
 SIGNATURE OF ENGINEER DATE

OWNER
 MR. BOB BUJICE
 21400 N.W. HAMPSHIRE AVE.
 BROOKVILLE, MARYLAND 20833-1805
 410-489-7900 ATTN: TIM FEAGA

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 15950 NORTH AVENUE
 P.O. BOX 482
 LISBON, MARYLAND 21765
 410-489-7900

