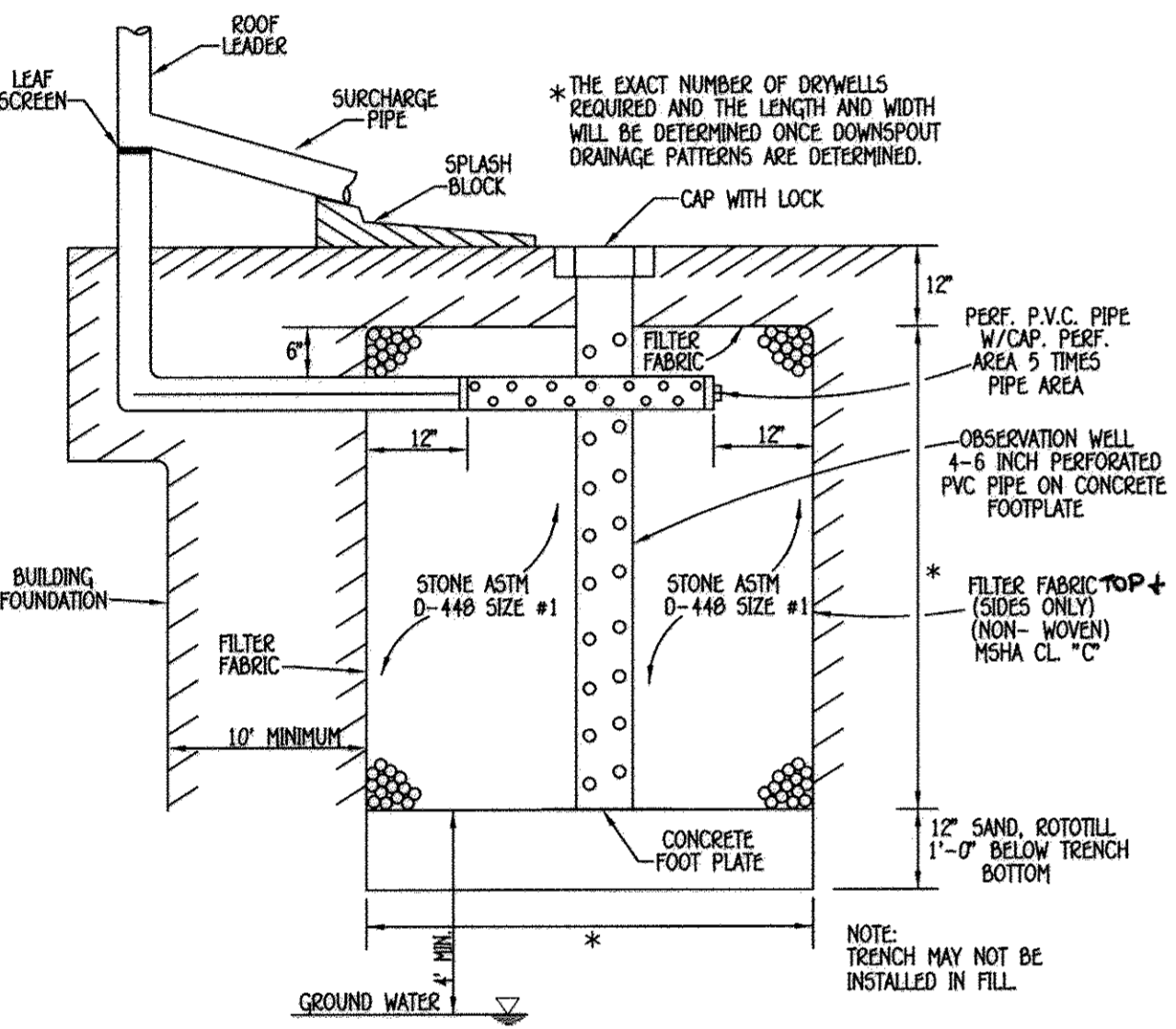


SHEET INDEX	
SHEET NO.	DESCRIPTION
1	SUPPLEMENTAL PLAN - TITLE SHEET
2	SUPPLEMENTAL PLAN - TOPOGRAPHY, SOILS, STORMWATER MANAGEMENT, & LANDSCAPING
3	SUPPLEMENTAL PLAN - TOPOGRAPHY, SOILS, STORMWATER MANAGEMENT, & LANDSCAPING
4	SUPPLEMENTAL PLAN - EXISTING/PROPOSED DRIVEWAY PROFILE
5	SEDIMENT & EROSION CONTROL NOTES & DETAILS

STORMWATER MANAGEMENT SUMMARY				
AREA ID.	ESDV REQUIRED CU.FT.	ESDV PROVIDED CU.FT.	REMARKS	
SITE	1,906	1,915	NON-ROOFTOP DISCONNECTION (M-2), DRYWELLS (M-5), & MICRO-BIORETENTION (M-6)	
TOTAL	1,906	1,915		

GROSS AREA = 10.41 ACRES
 LOD = 2.07 ACRES (SITE)
 RCN = 95.1
 TARGET Pe = 1.2'

STORMWATER MANAGEMENT PRACTICES				
LOT NO.	ADDRESS	NON-ROOFTOP DISCONNECTIONS N-2 (NUMBERS)	DRYWELLS M-5 (NUMBER)	MICRO-BIORETENTION M-6 (NUMBER)
1	13000 BRIGHTON DAM ROAD			
2	13010 BRIGHTON DAM ROAD	1	2	
3	13020 BRIGHTON DAM ROAD (COMMON DRIVEWAY)			1

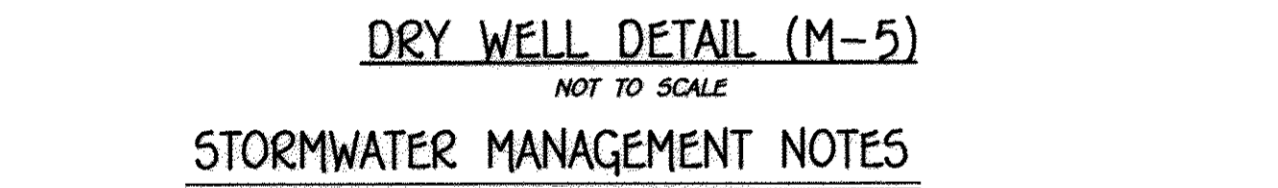


GUTTER DRAIN FILTER DETAIL
 NOT TO SCALE

DRY WELL CHART					
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L W D
LOT 2 (FRONT)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9' x 9' x 5'
LOT 2 (REAR)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9' x 9' x 5'
LOT 3 (FRONT)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9' x 9' x 5'
LOT 3 (REAR)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9' x 9' x 5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.
OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.



DRY WELL DETAIL (M-5)
 NOT TO SCALE
STORMWATER MANAGEMENT NOTES

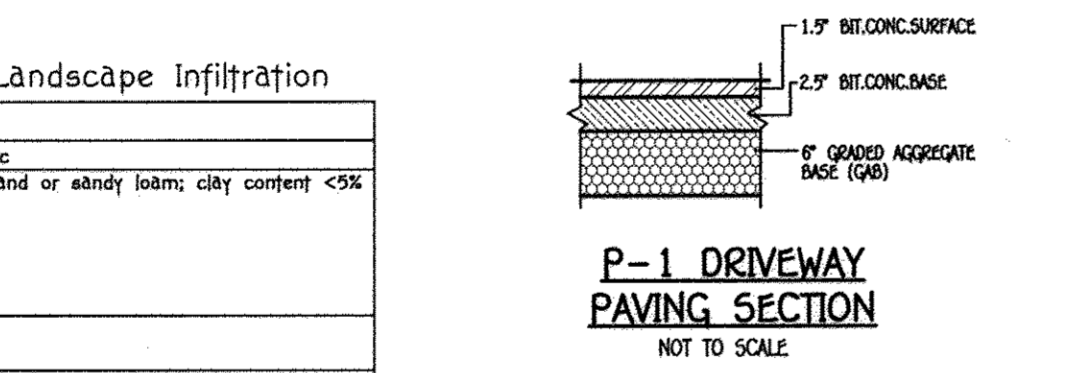
Table B.4. Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil	loamy sand 60-65% compost 35-40% or sandy loam 30% coarse sand 30% compost 40%		USDA soil types loamy sand or sandy loam; clay content < 5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Peak gravel diaphragm	pea gravel: ASTM-D-449	No. 8 or No. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel Underdrains and Distribution Headers	AGSHTO M-45	No. 57 or No. 40 aggregate (3/8" to 3/4")	
Underdrain piping	7.5#L Type PS 27B or AGSHTO M-27B	4" to 6" rigid schedule 40 PVC or 50R35	Slotted or perforated pipe: 3/8" perf. @ 6" on center, 4 holes per row, minimum of 3" of gravel over pipes; not necessary underdrain pipe. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-B15-60	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 site 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 308.6(R); vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressure); and analysis of potential cracking
Sand	AGSHTO-M-6 or ASTM-C-33	0.075" to 0.04"	Sand substitutions such as diabase and Gypstone (AGSHTO) #10 are not acceptable. No calcium chlorinated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL FILE
 ELKLOTT CITY, MARYLAND 21042
 (410) 461 - 2999

Chief, Division of Land Development
 Chief, Development Engineering Division



P-1 DRIVEWAY PAVING SECTION
 NOT TO SCALE

SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION = 10.41 AC.*
- LIMIT OF DISTURBED AREA = 87,520 SQ.FT. OR 2.01 AC.* (SWM BASED ON LOD)
- PRESENT ZONING DESIGNATION = RR-DEO (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- PROPOSED USE: RESIDENTIAL
- PREVIOUS HOWARD COUNTY FILES: WP-15-071; ECP-16-016.
- TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.79 AC.*
- TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.74 AC.*
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 1.24 AC.*
- TOTAL AREA OF STREAM (INCLUDING BUFFER) = 2.03 AC.*
- TOTAL AREA OF EXISTING FOREST = 6.59 AC. (EXCLUDING FLOODPLAIN)
- TOTAL AREA OF FOREST TO BE RETAINED = 4.68 AC. (SUBMISSION IS EXEMPT FROM FOREST CONSERVATION REGULATIONS, MINOR SUBDIVISION CREATING ONE ADDITIONAL LOT AND NO FURTHER SUBDIVISION POTENTIAL)
- TOTAL AREA OF LOTS / BUILDABLE PARCELS = 10.395 AC.*
- TOTAL GREEN OPEN AREA = 1.68 AC.* (WITHIN LOD)
- TOTAL IMPERVIOUS AREA = 0.32 AC.* (WITHIN LOD, EXCLUDES EXISTING IMPERVIOUS)
- TOTAL AREA OF ERODIBLE SOILS = 3.00 AC.*
- TOTAL AREA OF ROAD DEDICATION = 0.015 AC.*

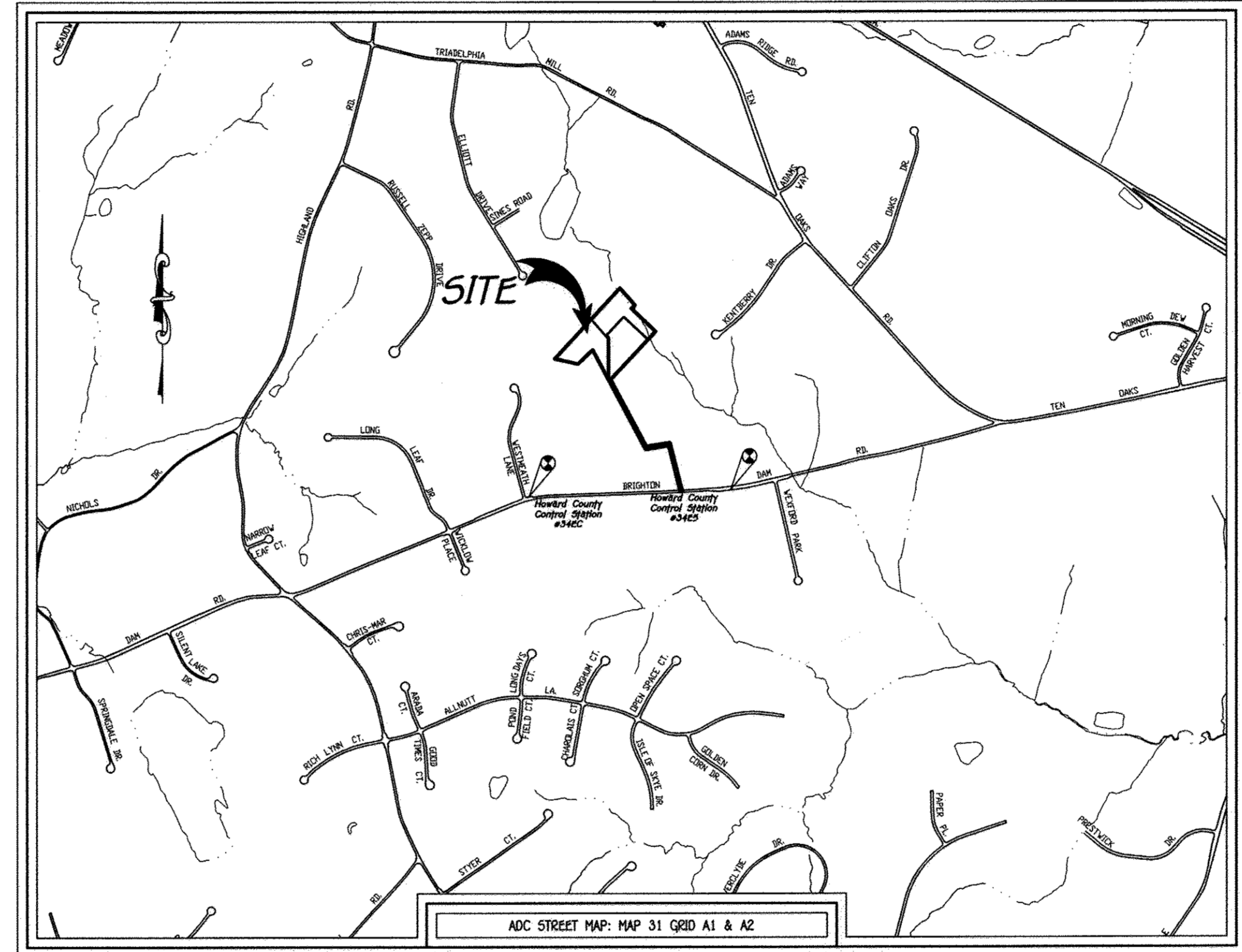
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A QUALIFIED LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38366, EXPIRATION DATE: 01/12/2018.

Signature Date: 5/25/16

SUPPLEMENTAL PLAN BRIGHTON ESTATES LOTS 1 THRU 3

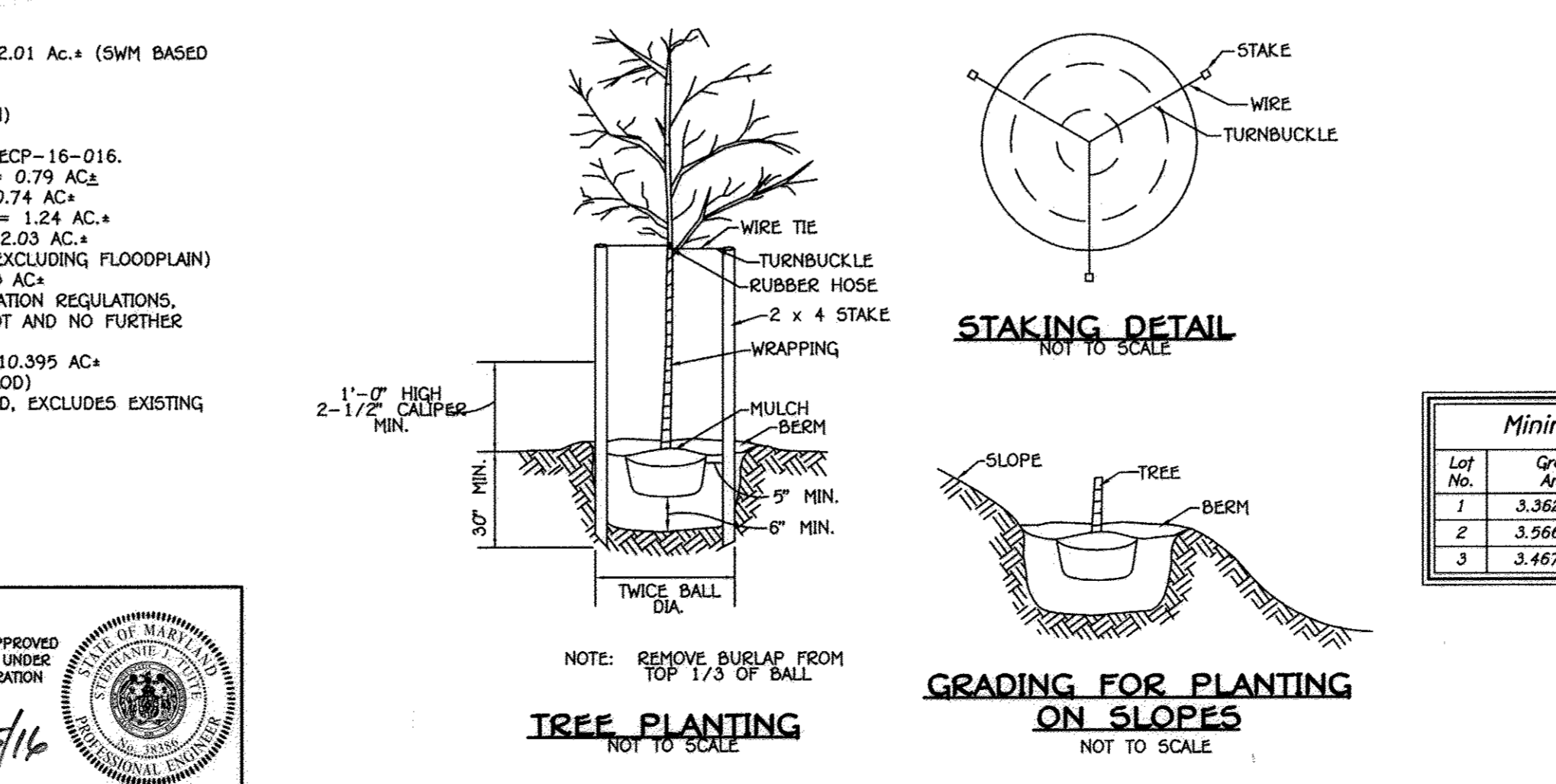
TAX MAP No. 34 GRID No. 12 PARCEL NOS. 432 & 308
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
 SCALE: 1" = 2000'

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #34E5 - HORIZONTAL - (NAD '83) N 559,538.083 E 1,322,535.920 ELEVATION = 460.445 - VERTICAL - (NAVD '86)
B.M.#2 - HOWARD COUNTY CONTROL STATION #34EC - HORIZONTAL - (NAD '83) N 559,469.751 E 1,320,470.709 ELEVATION = 496.354 - VERTICAL - (NAVD '86)



STAKING DETAIL
 NOT TO SCALE
 GRADING FOR PLANTING ON SLOPES
 NOT TO SCALE

- General Notes:**
- Subject Property Zoned RR-DEO Per The 10/06/13 Comprehensive Zoning Plan
 - Coordinates Based On NAD '83, Maryland Coordinate System As Projected By Howard County Geodetic Control Stations No. 34E5 And 34EC.
 - Station No. 34E5 North 559,538.083 East 1,322,535.920 Elev.=460.445
 - Station No. 34EC North 559,469.751 East 1,320,470.709 Elev.=496.354
 - This Plan is Based On Field Run Monumented Boundary Survey Performed On Or About April, 2015 By Fisher, Collins & Carter, Inc.
 - B.R.L. Denotes Building Restriction Line.
 - Denotes Iron Pin Set With Cap "F.C.C. 106".
 - Denotes Iron Pipe Or Iron Bar Found.
 - Denotes Angular Change In Bearing Of Boundary Or Right-of-Way.
 - Denotes Concrete Monument Set With Cap "F.C.C. 106".
 - Denotes Concrete Monument Or Stone Found.
 - For Flag Or Pipe Stem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To The Junction Of Flag Or Pipe Stem And The Road Right-Of-Way Line Only And Not Onto The Flag Or Pipe Stem Lot Driveway.
 - Driveways Shall Be Provided Prior To Residential Occupancy To Ensure Safe Access For Fire And Emergency Vehicles Per The Following (Minimum) Requirements:
 - Width - 12 Feet (16 Feet Serving More Than One Residence);
 - Surface - Six (6") Inches Of Compacted Crusher Run Base With Tar And Chip Coating, (1 - 1/2" Minimum);
 - Geometry - Maximum 15% Grade, Maximum 10% Grade Change And 45-Foot Turning Radius;
 - Structures (Culverts/Bridges) - Capable Of Supporting 25 Gross Tons (HEAVY LOADS);
 - Drainage Elements - Capable Of Safely Passing 100 Year Flood With No More Than 1 Foot Depth Over Surface;
 - Structure Clearances - Minimum 12 Feet;
 - Maintenance - Sufficient To Ensure All Weather Use.
 - No Grading, Removal Of Vegetative Cover Or Trees, Paving And New Structures Shall Be Permitted Within The Limits Of Wetlands, Stream(s), Or Their Required Buffers And Floodplain.
 - All Lot Areas Are More Or Less (±).
 - Distances Shown Are Based On Surface Measurement And Not Reduced To NAD '83 Grid Measurement.
 - APFO Traffic Study Is Not Required For This Project Since It Is A Minor Subdivision.
 - No Cemeteries Exist On This Site Based On A Visual Site Visit And Based On An Examination Of The Howard County Cemetery Inventory Map. No Historic Structures Exist On This Site.
 - Previous Department Of Planning And Zoning File Numbers: ECP-15-043; WP-15-071; ECP-16-016.
 - A Floodplain Study For This Project Was Prepared By Fisher, Collins & Carter, Inc. Dated August 21, 2015 And Approved On October 15, 2015.
 - This Property Is Not Located Within The Metropolitan District.
 - Private Water And Sewage Will Be Used Within This Site.
 - There Are No Existing Dwelling And Accessory Structures Located On Lot 1 Which Are To Remain. No New Buildings, Extensions Or Additions To The Existing Dwelling Are To Be Constructed At A Distance Less Than The Zoning Regulation Requirements.
 - This Plan 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.
 - No Noise Study Is Required For This Project.
 - Wetlands Delineation Report Prepared By Eco-Science Professionals, Inc., Dated August 24, 2015. There Is A 100 Year Floodplain, Wetlands And A Perennial Stream Located On Lots 2 And 3. A 35-Foot Environmental Buffer Has Been Provided From The 100-Foot Stream Bank Buffer.
 - The Lots Shown Hereon Comply With The Minimum Ownership, Width And Lot Area As Required By The Maryland State Department Of The Environment.
 - Section 16.121 Of The Subdivision Regulations Require A \$1,500.00 Payment For Fee-In-Lieu Of Providing Open Space For Non-Cluster Subdivisions In The RR Zoning District. The Developer Will Pay The Fee-In-Lieu.
 - Stormwater Management Will Be Provided In Accordance With Howard County And Maryland 37B Specifications. Stormwater Management Is In Accordance With Chapter 5. The Developer Will Be Required To Execute The Declaration Of Covenant And/Or A Developers Agreement For The Construction Of The Stormwater Management Practices And A Maintenance Agreement. Drywells (M-5), Non-Rooftop Disconnection (M-2), And Micro-Bioretenion (M-6) Have Been Provided To Treat Stormwater Management Requirements. These Devices Will Be Privately Owned And Maintained By The Individual Homeowners. Micro-Bioretenion (M-6) Which Treats The Common Driveway Impervious Surface Will Have Maintenance Responsibilities Described In The Driveway Maintenance Agreement.
 - ZZZZ This Area Designates A Private Sewage Easement Of At Least 10,000 Square Feet As Required By The Maryland State Department Of Planning And Zoning (COMAR 26.04.03). Improvements Of Any Nature In This Area Are Restricted Until Public Sewage Is Available. These Easements Shall Become Null And Void Upon Connection To A Public Sewage System. The County Health Officer Shall Have The Authority To Grant Adjustments To The Private Sewage Easement.
 - Existing Well And Septic Systems Are To Be Utilized On Lot 1.
 - Wells On Lots 2 And 3 Must Be Drilled Prior To Howard County Health Department Signature Of The Final Plat.
 - This Subdivision Is Within The Growth Tier III Which Are Minor Subdivisions Of 4 Lots Or Less That Utilize On-Site Septic Systems.
 - The Private Stormwater Management Practices (M-6) Have Been Provided To Treat Stormwater Management Requirements. These Devices Will Be Privately Owned And Maintained By The Individual Homeowners. Micro-Bioretenion (M-6) Which Treats The Common Driveway Impervious Surface Will Have Maintenance Responsibilities Described In The Driveway Maintenance Agreement.
 - Existing Well And Septic Systems Are To Be Utilized On Lot 1.
 - This Subdivision Is Exempt From Forest Conservation Requirements, Since It Is A Minor Subdivision Creating One Additional Lot With No Further Subdivision Potential Per Section 16.1202(b)(1)(viii) Of The Howard County Code. This Subdivision Is Creating One Additional Lot From Two (2) Deeded Parcels.
 - Sight Distance At Brighton Dam Road Was Determined To Be Adequate By The Development Engineering Division.
 - 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 Required Perimeter Landscaping Will Be Posted As Part Of The Builders Grading Permit In The Amount Of \$1,200.00 (4 Shade Trees, Based On The Total Number Of Required Trees, @ \$300.00 Each).
 - A Pre-Submission Community Meeting Was Held For This Project On November 21, 2014 In Accordance With Section 16.128 Of The Subdivision And Land Development Regulations.
 - This Site Is Not Adjacent To A Scenic Road.
 - This Project Is In Conformance With The Latest Howard County Standards Unless Waivers Have Been Approved.
 - No Grading, Removal Of Vegetative Cover And Trees, Paving And New Structures Are Permitted Within The 100 Year Floodplain, 25-Foot Wetland Buffers And 100-Foot Streambank Buffer, Except For The Use-In-Common Driveway. The Disturbance To The Wetlands And Its Buffer Shall Not Exceed A Necessary Disturbance For The Construction Of The Northern End Of The Shared Driveway, Per Section 16.116(c)(1)(i) Of The Subdivision Regulations.
 - 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) 313-1800 At Least Five (5) Working Days Prior To The Start Of Work.
 - The Contractor Shall Notify The Department Of Public Works/Bureau Of Engineering/Construction Inspection Division At (410) 313-1800 At Least 48 Hours Prior To Any Excavation Work Being Done.
 - The Existing Topography Shown Hereon Is Based On Howard County GIS Topography And Supplemented With Field Run Location Of Existing Driveway, On-Site Structures, Wetlands, And Streams Taken From A Field Run Survey Prepared By Fisher, Collins & Carter, Inc. Dated September 2015 & February 2016.
 - Existing Utilities Shown Based On Available County Information And Field Locations By Survey Prepared By Fisher, Collins & Carter, Inc. Dated September 2015.
 - Driveway Entrance To Be Provided In Accordance With Howard County Detail R-6.06.
 - On March 21, 2016 The Development Engineering Division Approved A Request To The Design Manual, Volume III, Section 2.6.B Which Requires A Public Access Place If A Shared Driveway Crosses The 100-Year Floodplain To Use A Private Use-In-Common Driveway. Subject To The Driveway Being Paved And That The 100-Year Floodplain Water Surface Elevation Is No More Than 1 Foot Over The Driveway At Any Point.
 - WP-15-071 Was Approved On December 18, 2014 Waiving Section 16.120(b)(4)(i) To Combine And Reconfigure Two Irregular Shaped Lots Into Three Lots, Section 16.120(b)(4)(iii)(b) To Subdivide The Property Into Three Lots With Environmentally Sensitive Features On The Three Proposed Lots, Section 16.120(b)(6)(ii)(a) To Utilize A Pipestem Design That Has A Pipestem Length Of Approximately 1,980 Feet In Length, Section 16.120(b)(6)(iv) To Reduce The Required 10 Foot Setback Between The Project Boundary And The Common Driveway, and Section 16.120(c)(2)(ii) To Reduce The Collective Frontage Required For The Driveway Easement In The Design Manual. Approval Is Subject To The Following Conditions:
 - An Environmental Setback On The Final Plat Shall Be Provided As A 35' Setback From All Environmental Features And Buffers On The Forthcoming Final Plat.
 - No Grading, Removal Of Vegetative Cover And Trees, Paving, And New Structures Are Permitted Within The 100 Year Floodplain, 25-Foot Wetland Buffer, And 100 Foot Streambank Buffer, Except For The Existing Use-In-Common Driveway.
 - The Submission And Approval Of An Environmental Concept Plan (ECP) And A Final Subdivision Plat (Final).
 - Each Of The Newly Created Pipestem Lots Must Equally Share Public Road Frontage (Collectively) At Brighton Dam Road.
 - A Use-In-Common Driveway Easement And Maintenance Agreement For Proposed Lots 1, 2, And 3 Must Be Prepared And Recorded With The Forthcoming Plat.
 - The Use-In-Common Driveway Entrance Onto Brighton Dam Road, A Major Collector Road, Shall Comply With The Design Manual Minimum Sight Distance Requirements As Approved By The Development Engineering Division.
 - Lots 1 Thru 3 Shall Be Designed As A Minimum Lot Size Of 3 Acres Excluding The Pipestem Areas In Accordance With Section 16.120(b)(iii) Of The Subdivision And Land Development Regulations And Section 103.2(L) Of The Zoning Regulations.
 - Water Approval Is Conditioned On Approval Of The Required Perc Testing Well And Septic Requirements Of The Health Department.
 - Include This Waiver Decision As A General Note On The Final Plat. This Note Shall Include The Waiver File Number, The Sections Waived, Decision Date, And The Conditions Of Approval.
 - Subdivision Is Subject To Section 104.0.F Of The Zoning Regulations. At Least 10% Of The Dwelling Units Shall Be Moderate Income Housing Units (M.I.H.U.) Or An Alternative Compliance Will Be Provided. The Developer Shall Execute A M.I.H.U. Agreement With The Department Of Housing To Indicate How The M.I.H.U. Requirement Will Be Met. The M.I.H.U. Agreement And Covenants Will Be Recorded Simultaneously With This Plat In The Land Records Office Of Howard County, Maryland. This Development Will Meet M.I.H.U. Alternative Compliance By A Payment Of A Fee-In-Lieu To The Department Of Housing For Each Required Unit.
 - M.I.H.U. Required = (2 Lots x 10%) = 0.2 M.I.H.U.
 - M.I.H.U. Proposed = Developer Will Pursue Alternative Compliance By Paying A Fee-In-Lieu To The Howard County Housing Department For The Units Required By The Development.
 - An Executed M.I.H.U. Agreement With The Howard County Housing Department Will Be Completed Prior To Plat Recordation.

OWNER: RENE EPHI, ANETTA GRABOWSKA, 13000 BRIGHTON DAM RD, CLARKSVILLE, MD 21029-1410, 240-381-3388

SUPPLEMENTAL PLAN - TITLE SHEET
 BRIGHTON ESTATES
 LOTS 1 THRU 3
 ZONED RR-DEO
 TAX MAP No. 34 GRID No. 12 PARCEL Nos. 432 & 308
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY, 2016
 SHEET 1 OF 5

F16-019

SOIL	NAME	CLASS	K FACTOR
GpB	Glenelig loam, 3 to 8 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
GnB	Glenville-Balle silt loams, 0 to 8 percent slopes	C	0.43
Hs	Hatboro-Codorus silt loams, 0 to 3 percent slopes	D	0.37
MAC	Major loam, 8 to 15 percent slopes	B	0.28
MAD	Major loam, 15 to 25 percent slopes	B	0.28



- LEGEND**
- EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - EXISTING TREE LINE
 - SOIL LINES AND TYPES
 - DENOTES PROPOSED WELL
 - DENOTES FAILED PERC
 - DENOTES PASSED PERC
 - DENOTES PROPOSED SEPTIC EASEMENT
 - DENOTES EXISTING SEPTIC EASEMENTS
 - DENOTES 15% TO 25% SLOPES
 - DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
 - DENOTES EXISTING PERCS FROM 5/6/92
 - DENOTES PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE & UTILITY EASEMENT

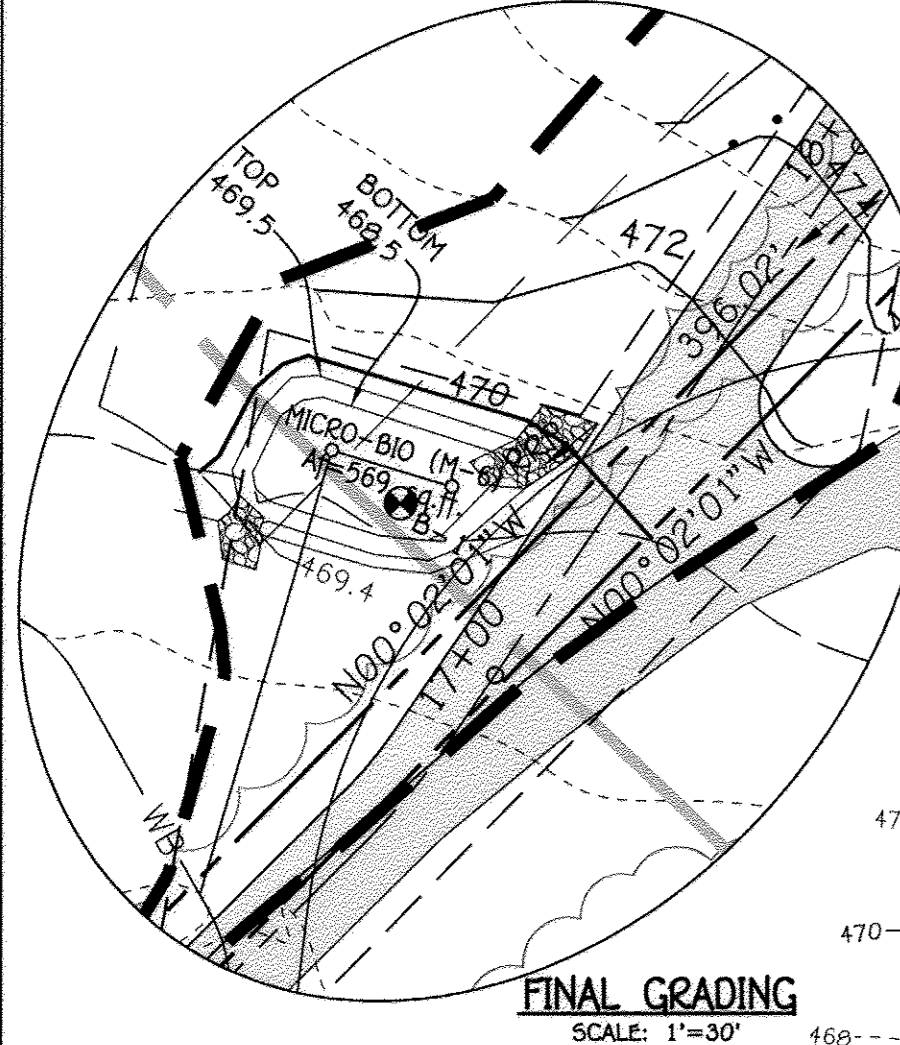
OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

A. 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 NAKLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A-4.1 AND 2.

B. 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.

C. 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.

D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



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 all 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 periodic on-site inspection by the Howard Soil Conservation District."

Anette Grabowski 08/01/2016
Signature of Developer Date

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

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

Ken Stalder 08/01/2016
Signature of Professional Engineer Date

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Ambrami Jute 7/31/16
Signature of Engineer 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 NO. 38036, EXPIRATION DATE: 01/12/2018.

John K. Bluto 8/2/16
Signature of Professional Engineer Date

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PKWY
ELICOTT CITY, MARYLAND 21042
(410) 461-2295

Ken Stalder
Chief, Development Engineering Division
Date: 8/3/16

Ambrami Jute
Professional Engineer
Date: 7/31/16

John K. Bluto
Professional Engineer
Date: 8/2/16

PERIMETER CATEGORY	SCHEDULE A - PERIMETER LANDSCAPE EDGE					
	P-1 ADJACENT TO ROADWAY	P-2 ADJACENT TO PERIMETER PROPERTIES	P-3 ADJACENT TO PERIMETER PROPERTIES	P-4 ADJACENT TO PERIMETER PROPERTIES	P-5 ADJACENT TO PERIMETER PROPERTIES	P-6 ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	A*	A*	A*	A	A
LINEAR FEET OF PERIMETER	20 L.F.	482 L.F.	240 L.F.	1,151 L.F.	207 L.F.	243 L.F.
CREDIT FOR EXISTING TREES TO REMAIN	N/A, DRIVEWAY ENTRANCE	240 LF OF EX. DRIVE 0 LF REMAINING	240 LF OF EX. DRIVE 0 LF REMAINING	899 LF OF EX. DRIVE & 292 LF OF EX. TREELINE 0 LF REMAINING	207 LF OF EX. TREELINE 0 LF REMAINING	243 LF OF EX. TREELINE 0 LF REMAINING
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	0	N/A	N/A	N/A	0	0
CREDIT FOR EXISTING VEGETATION SHADE TREES SMALL/MEDIUM DECIDUOUS TREES (E.I. SUBSTITUTION)	0	0	0	0	0	0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES	0	0	0	0	0	0
PERIMETER CATEGORY	P-7	P-8	P-9	TOTAL		
LANDSCAPE TYPE	A	A	A			
LINEAR FEET OF PERIMETER	981 L.F.	623 L.F.	116 L.F.			
CREDIT FOR EXISTING TREES TO REMAIN	734 LF OF EX. TREELINE 247 LF REMAINING	623 LF OF EX. TREELINE 0 LF REMAINING	116 LF OF EX. TREELINE 0 LF REMAINING			
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	4 (247/60' = 4.1 OR 4)	0	0	4		
CREDIT FOR EXISTING VEGETATION SHADE TREES SMALL/MEDIUM DECIDUOUS TREES (E.I. SUBSTITUTION)	0	0	0	0		
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES	2	0	0	2		

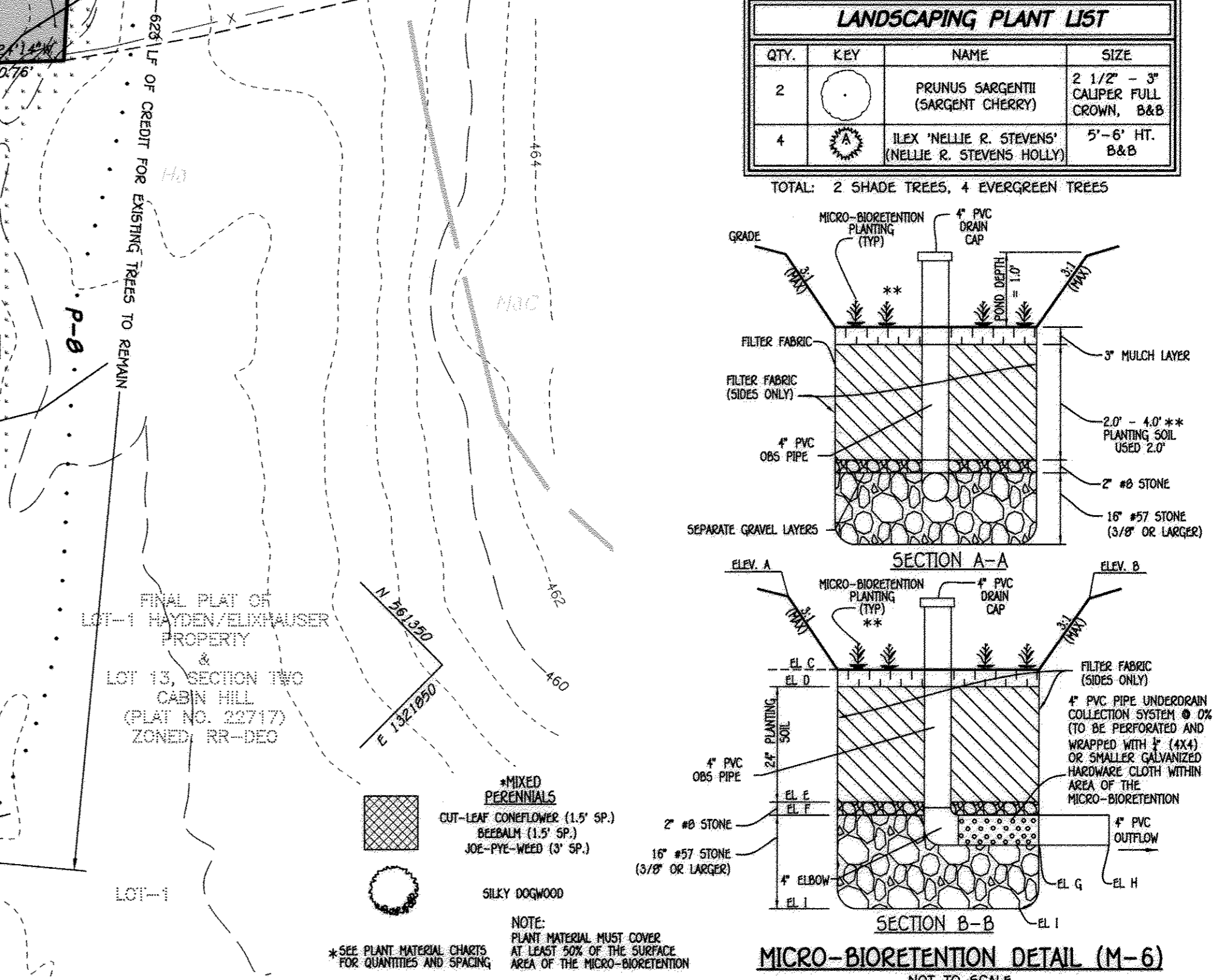
NOTES:

1. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BARRIERS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED BY GROWING CONDICTION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED. SHOULD ANY TREE DIE OR BE DAMAGED FOR ANY REASON, THE OWNER SHALL BE RESPONSIBLE FOR REPLACING THE TREE WITH A TREE OF THE SAME SPECIES, SIZE, HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.

2. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL GUARANTEE FOR THE REQUIRED PERIMETER LANDSCAPING WILL BE POSTED AS PART OF THE BUILDERS GRADING PERMIT IN THE AMOUNT OF \$1,200.00 (4 SHADE TREES, BASED ON THE TOTAL NUMBER OF REQUIRED TREES, @ \$300.00 EACH).

QTY.	KEY	NAME	SIZE
2	(Symbol)	PRINUS SARGENTI (SARGENT CHERRY)	2 1/2" - 3" CALIPER FULL CROWN, B&B
4	(Symbol)	ILEX 'NELLIE R. STEVENS' (NELLIE R. STEVENS HOLLY)	5" - 8" HT. B&B

TOTAL: 2 SHADE TREES, 4 EVERGREEN TREES



QUANTITY	NAME	MAXIMUM SPACING (FT.)
57	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILEY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

DEVELOPER'S / BUILDER'S CERTIFICATE

"I/We certify that the landscaping shown on this plan will be done according to the plan, SECTION 16.124 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."

Anette Grabowski 08/01/2016
Signature Date

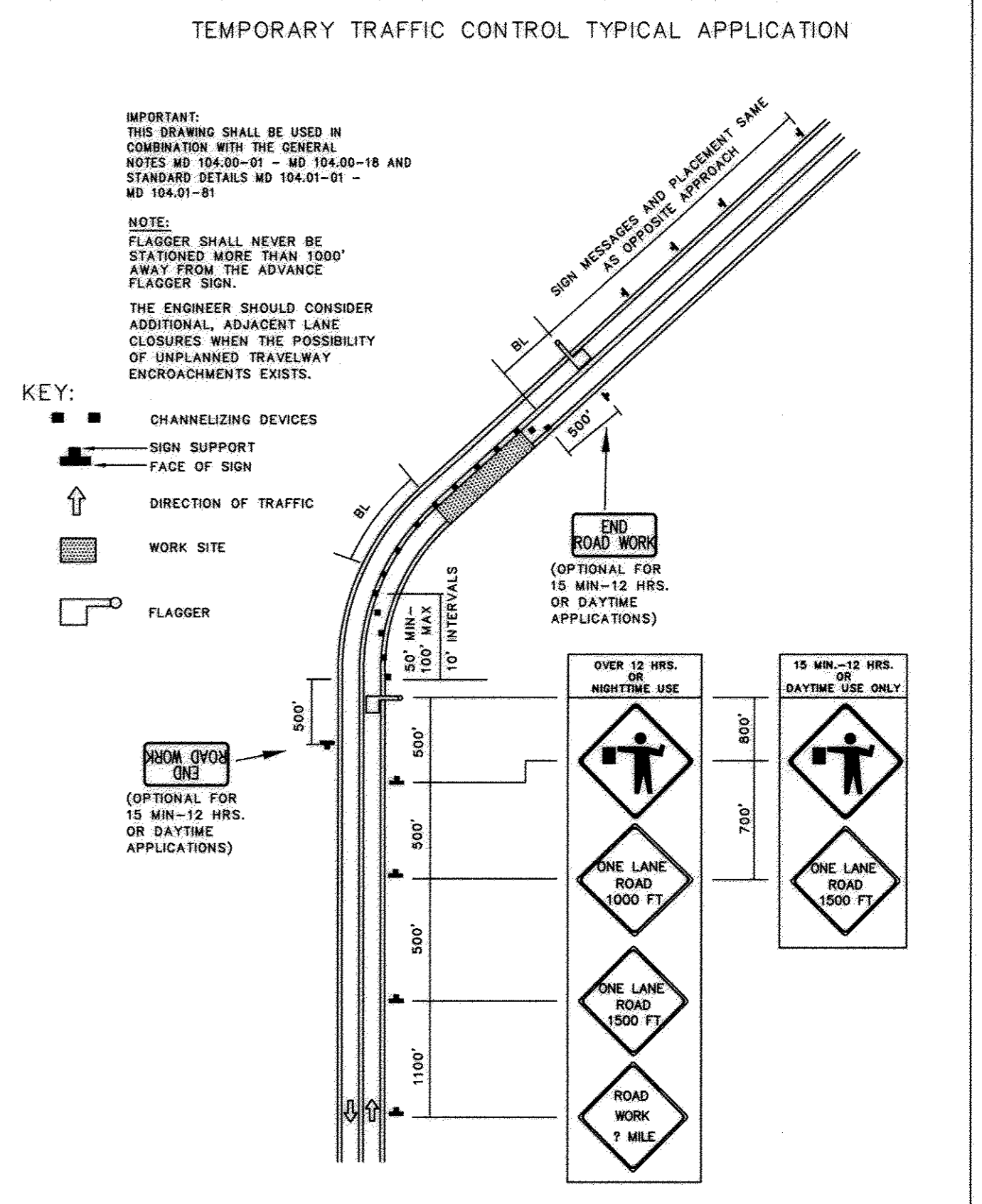
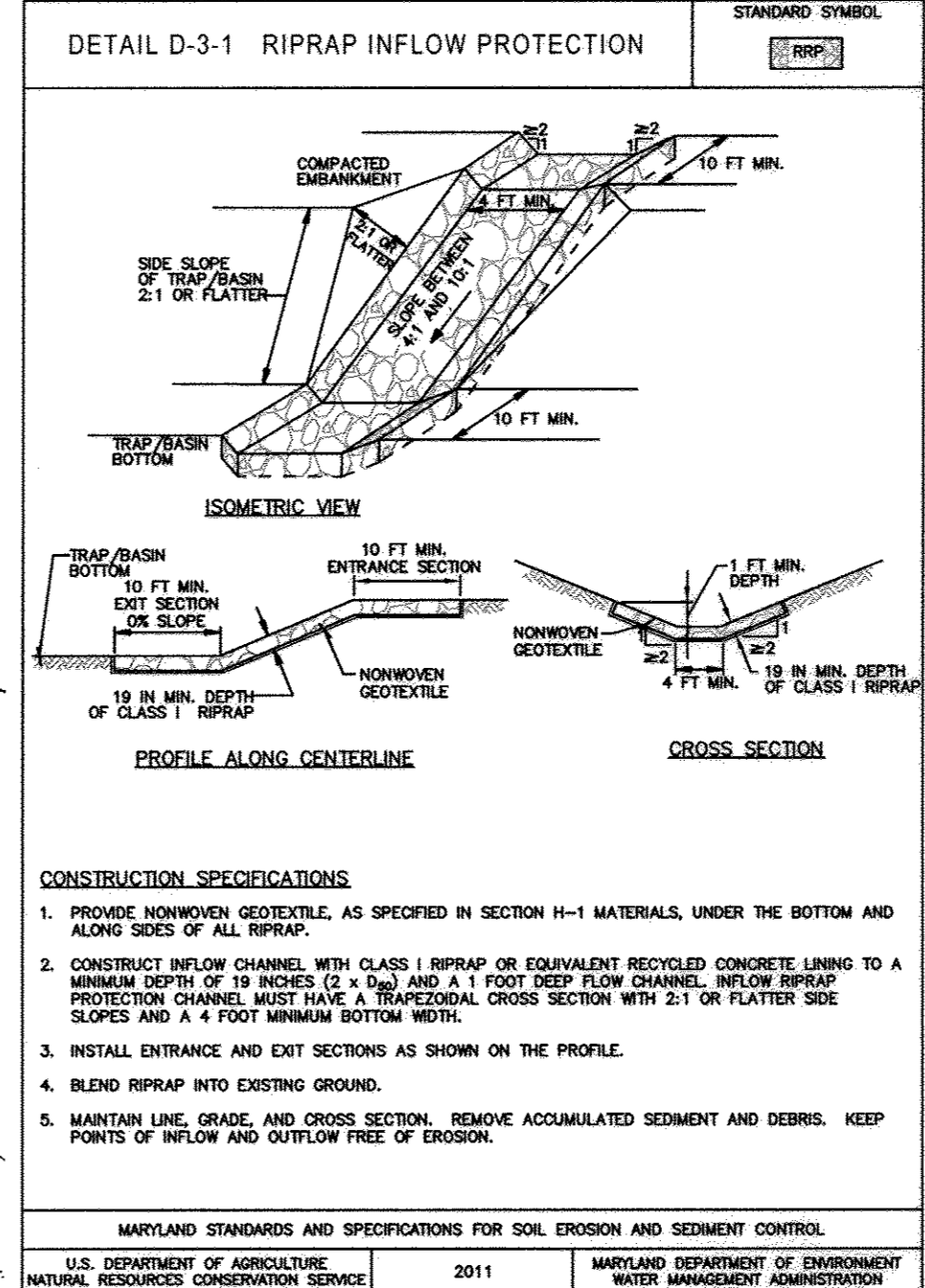
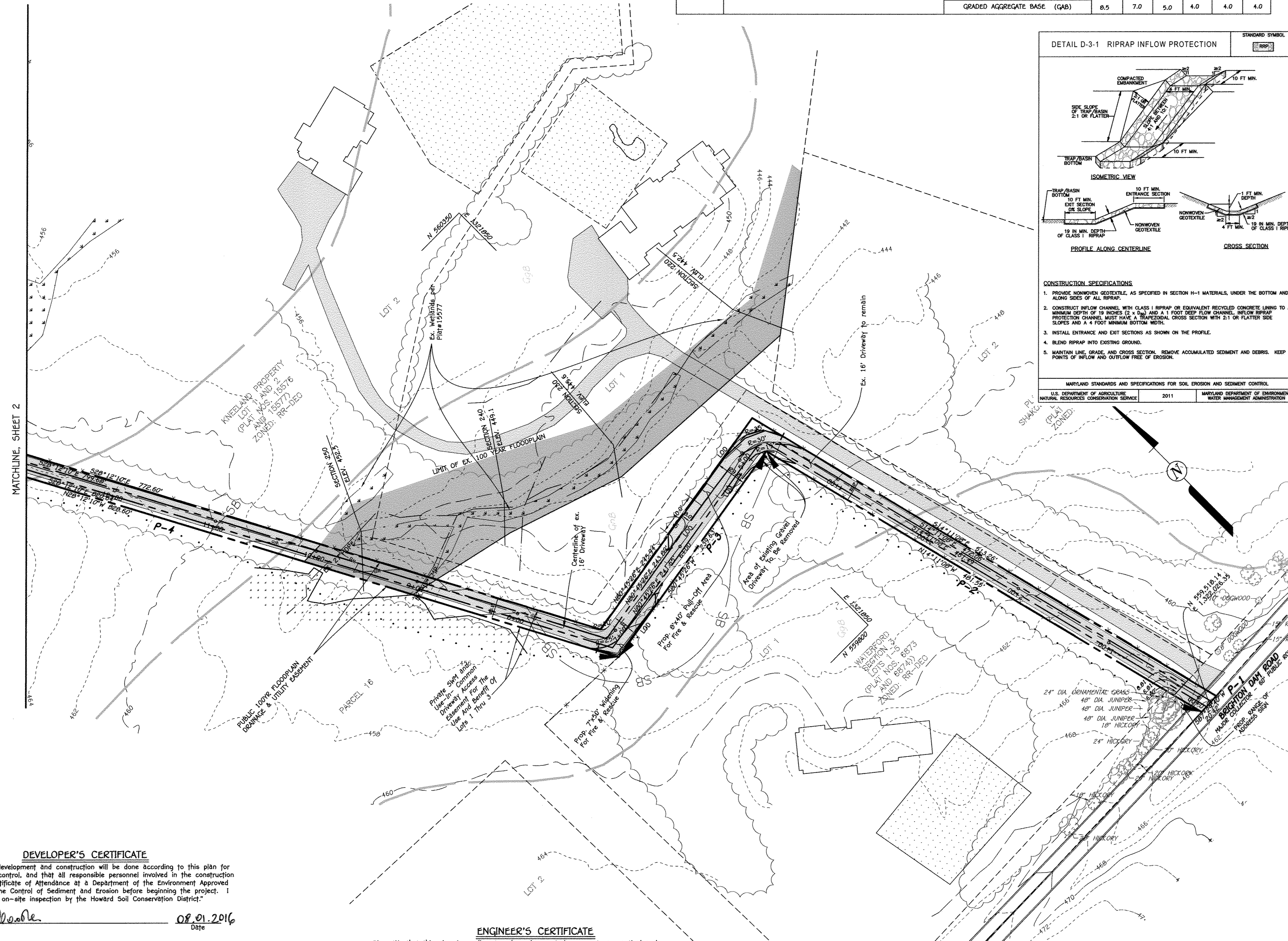
SUPPLEMENTAL PLAN - TOPOGRAPHY, SOILS, STORMWATER MANAGEMENT & LANDSCAPING

BRIGHTON ESTATES
LOTS 1 THRU 3
ZONED RR-DEO
TAX MAP No. 34 GRID No. 12 PARCEL Nos. 432 & 308
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2016
SHEET 2 OF 5

DRIVEWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
13000-13020 BRIGHTON DAM ROAD	USE-IN-COMMON	15 M.P.H.	RR-DEO	0+00 TO 19+15	TAR & CHIP OR P-1 PAVING

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)					
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	PAVEMENT MATERIAL (INCHES)					
		HMA SUPERPAVE FINAL SURFACE					
		9.5 MM. PG 64-22, LEVEL 1 (ESAL)					
		HMA SUPERPAVE INTERMEDIATE SURFACE N/A					
		HMA SUPERPAVE BASE					
		19.0 MM. PG 64-22, LEVEL 1 (ESAL)					
		GRADED AGGREGATE BASE (GAB)					
		1.5	1.5	1.5	1.5	1.5	1.5
		N/A	N/A	N/A	N/A	N/A	N/A
		2.0	2.0	2.0	3.5	3.0	2.5
		8.5	7.0	5.0	4.0	4.0	4.0



MATCHLINE, SHEET 2

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 all 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 periodic on-site inspection by the Howard Soil Conservation District."
 Anette Grabowska
 Signature of Developer
 08.01.2016
 Date

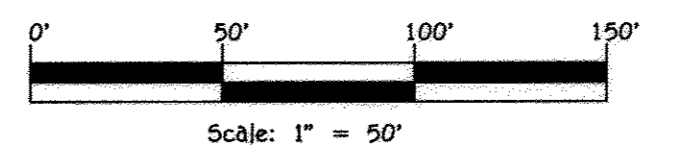
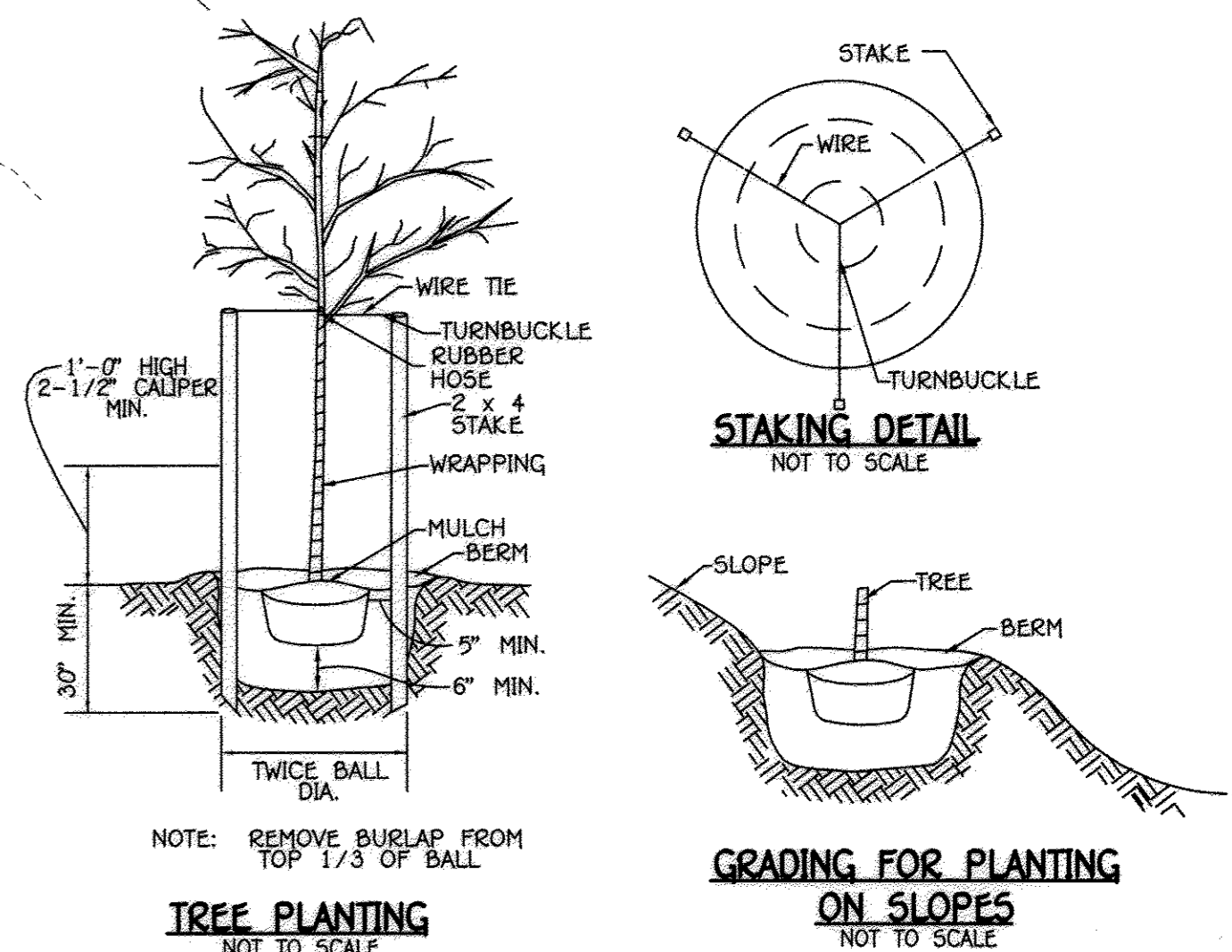
ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Stephen J. Jute
 Signature of Engineer
 7/31/16
 Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Approved: Howard County Department of Planning and Zoning
 John L. Whiston
 Signature
 8/2/16
 Date
 Chief, Development Engineering Division

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. 36386, EXPIRATION DATE: 01/12/2018.
 Stephen J. Jute
 Signature of Professional Engineer
 7/31/16
 DATE

SOILS LEGEND

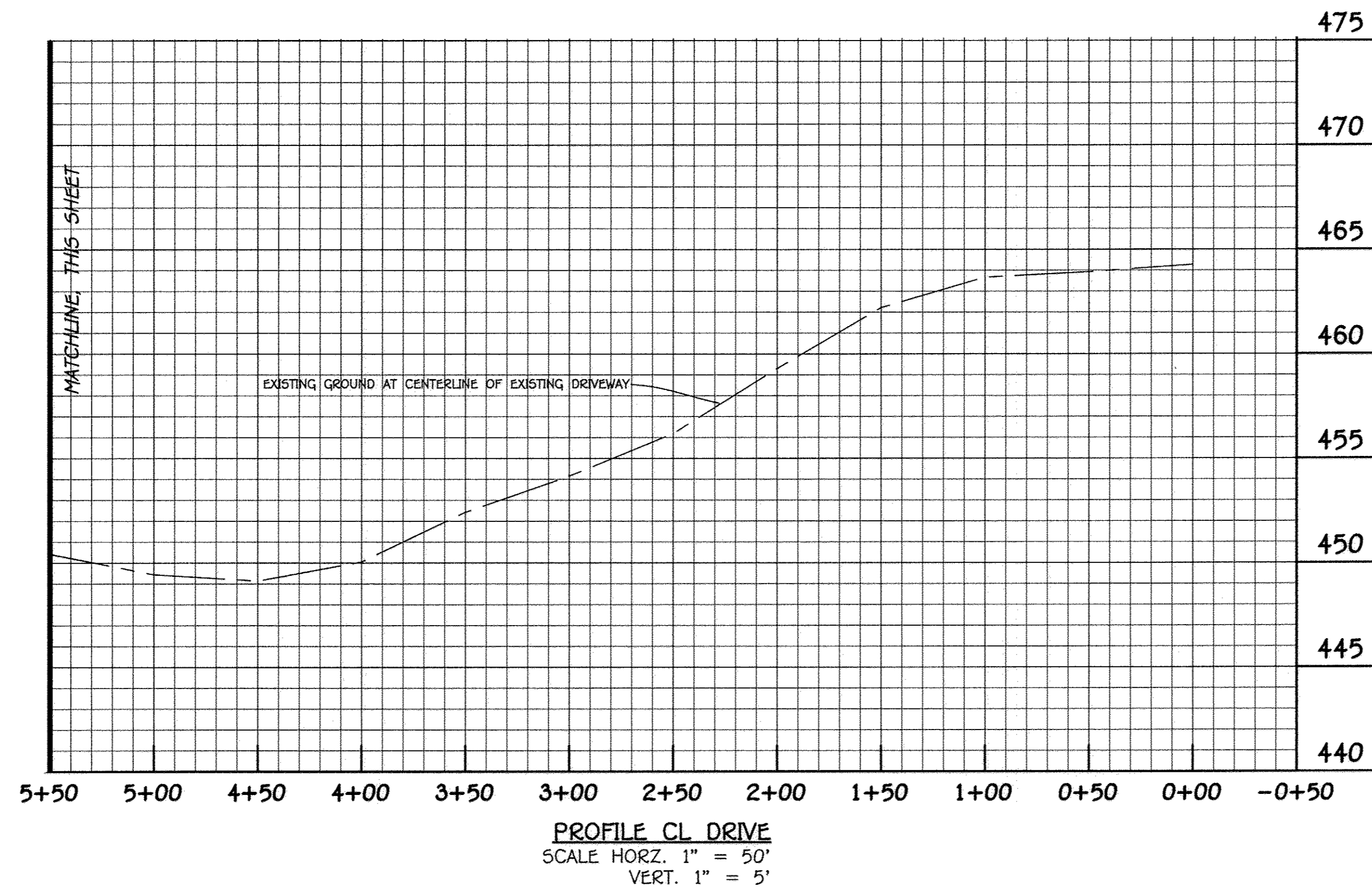
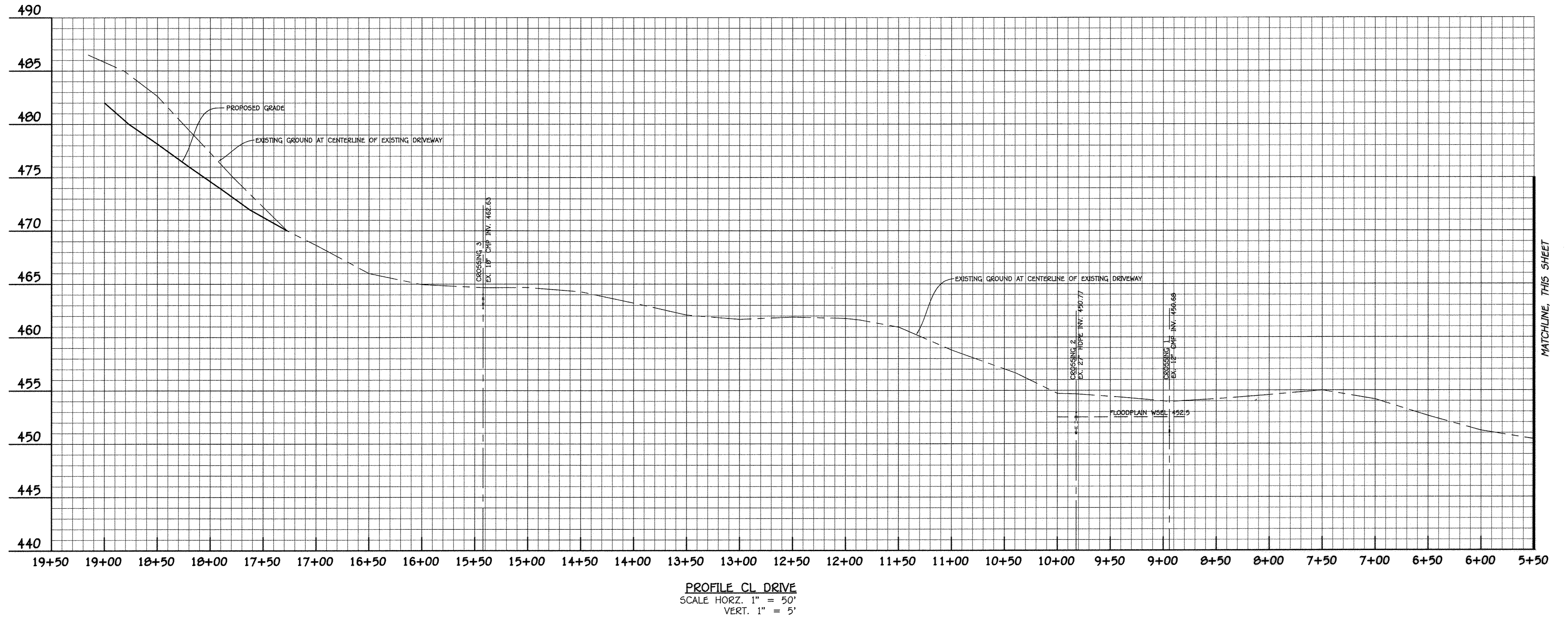
SOIL	NAME	CLASS	Kc FACTOR
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
GnB	Glenville-Balle silt loams, 0 to 8 percent slopes	C	0.43
Ha	Hatboro-Codorus silt loams, 0 to 3 percent slopes	D	0.37
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28



OWNER
 RENE EPP
 ANETTA GRABOWSKA
 13000 BRIGHTON DAM RD
 CLARKSVILLE, MD 21029-1410
 240-381-3386

SUPPLEMENTAL PLAN - TOPOGRAPHY, SOILS, STORMWATER MANAGEMENT & LANDSCAPING
BRIGHTON ESTATES
 LOTS 1 THRU 3
 ZONED RR-DEO
 TAX MAP No. 34 GRID No. 12 PARCEL Nos. 432 & 308
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY, 2016
 SHEET 3 OF 5

E:\3024\14010\dwg\14010-3001_13000 Supplement Plan.dwg, 7/31/2016 3:16:38 PM, 11



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2295

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 5/18/16
Chief, Division of Land Development Date

[Signature] f
Chief, Development Engineering Division 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 NO. 30396, EXPIRATION DATE: 01/12/2018.

[Signature] 5/25/16
Signature Of Professional Engineer DATE

OWNER
RENE EPPI
ANETTA GRABOWSKA
13000 BRIGHTON DAM RD
CLARKSVILLE, MD 21029-1410
240-381-3386

SUPPLEMENTAL PLAN -
EXISTING/PROPOSED DRIVEWAY PROFILE
BRIGHTON ESTATES
LOTS 1 THRU 3
ZONED RR-DEO
TAX MAP No. 34 GRID No. 12 PARCEL Nos. 432 & 30B
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2016
SHEET 4 OF 5

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

- A. 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...
b. Apply fertilizer and lime as prescribed on the plans.

- B. 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...
2. Topsoil salvaged from an existing site may be used provided it meets the standards set forth in these specifications...

- C. Soil Amendments (Fertilizer and Lime Specifications)
1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more...
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment...

- D. Soil Amendments (Fertilizer and Lime Specifications)
1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more...
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment...

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

- A. Seeding
1. All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory...
2. Application
a. Dry Seeding: This includes use of conventional drill or broadcast spreaders...

- B. Mulching
1. Mulch materials (in order of preference)
a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not rusty, moldy, caked, decayed, or excessively dirty...

- 1. WCMF 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 uniform spread slurry.
2. WCMF, including dye, must contain no germination or growth inhibiting factors.
3. WCMF materials are to be manufactured and processed in 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...

TEMPORARY SEEDING NOTES (B-4-4)

- To stabilize disturbed soils with vegetation for up to 6 months.
Purpose: To use fast growing vegetation that provides cover on disturbed soils.
Criteria: 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 application rates, seeding dates and seeding depths...

Table with 4 columns: Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths. Lists species like Turfgrass, Fescue, and Kentucky Bluegrass with their respective application rates and seeding instructions.

PERMANENT SEEDING NOTES (B-4-5)

- A. Seed Mixtures
1. General Use
Figure B.3) and based on the site condition or purpose shown on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
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...

Table with 4 columns: No., Species, Application Rate (lb/ac), Seeding. Lists permanent seeding mixtures like Turfgrass, Fescue, and Kentucky Bluegrass with their application rates and seeding instructions.

Table with 4 columns: Hardiness Zone, Species, Application Rate (lb/ac), Seeding. Lists permanent seeding mixtures with their application rates and seeding instructions.

ENGINEER'S CERTIFICATE
I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

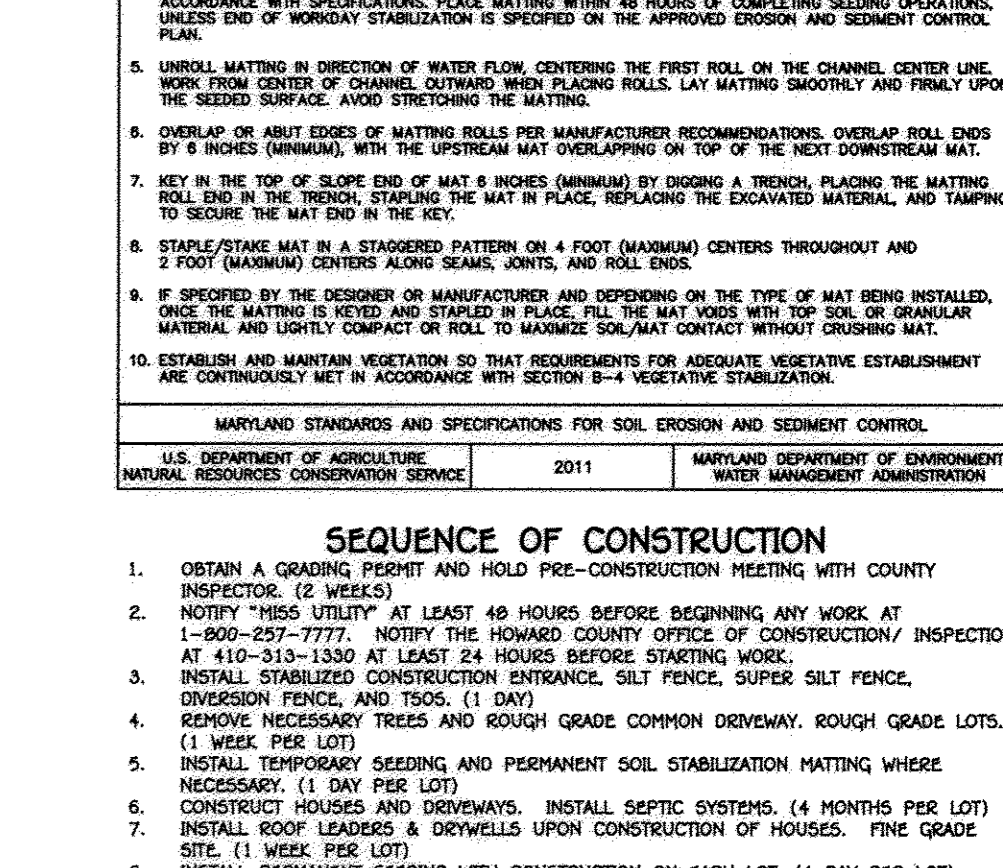
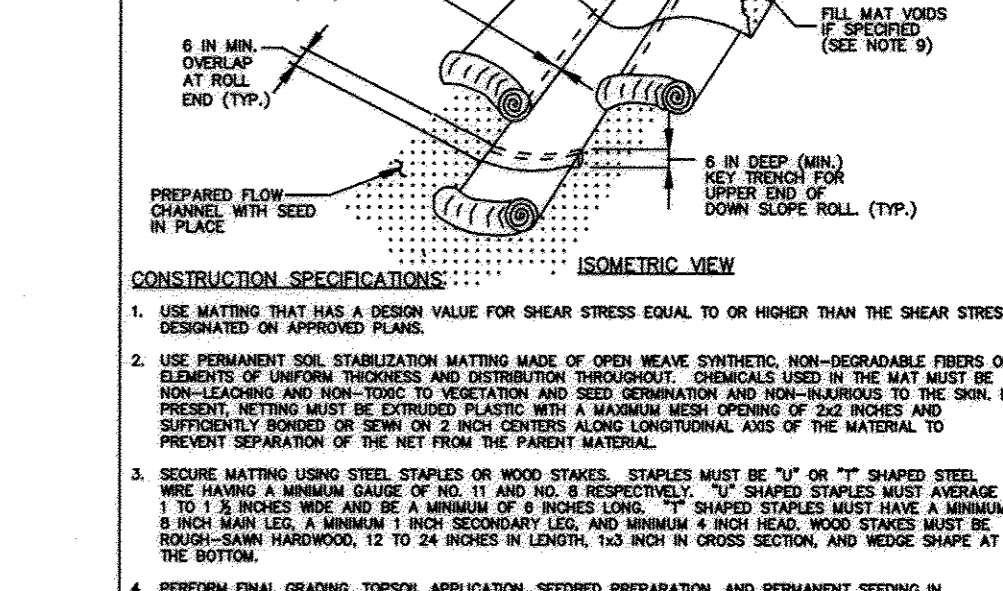
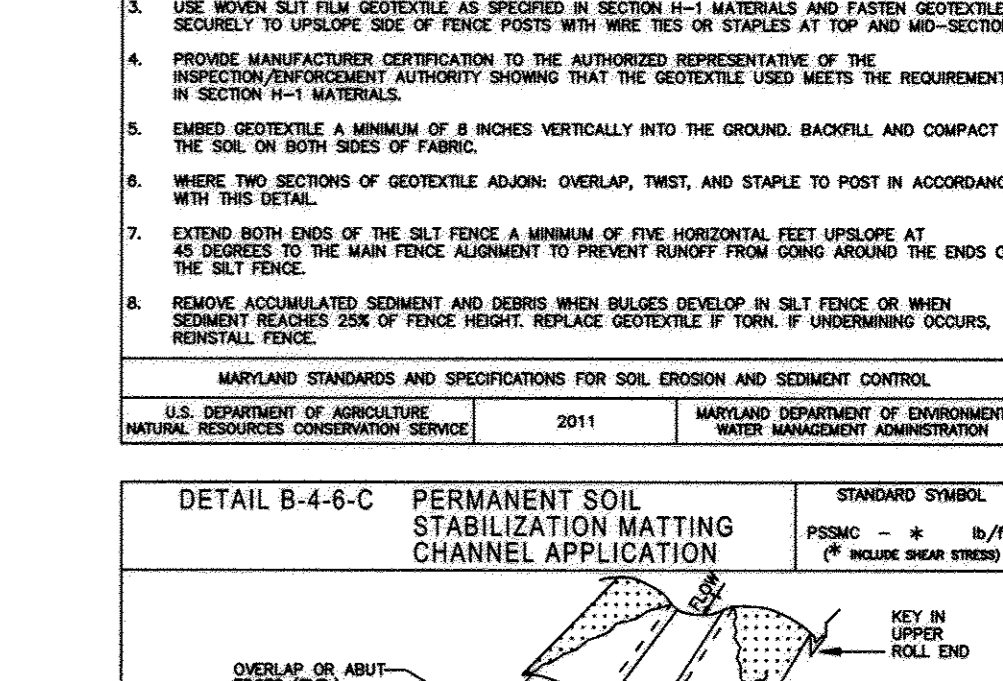
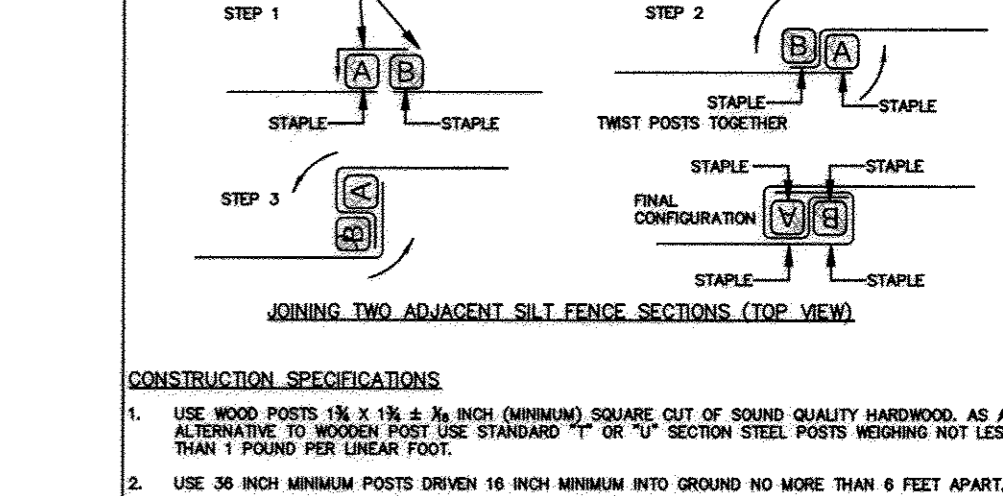
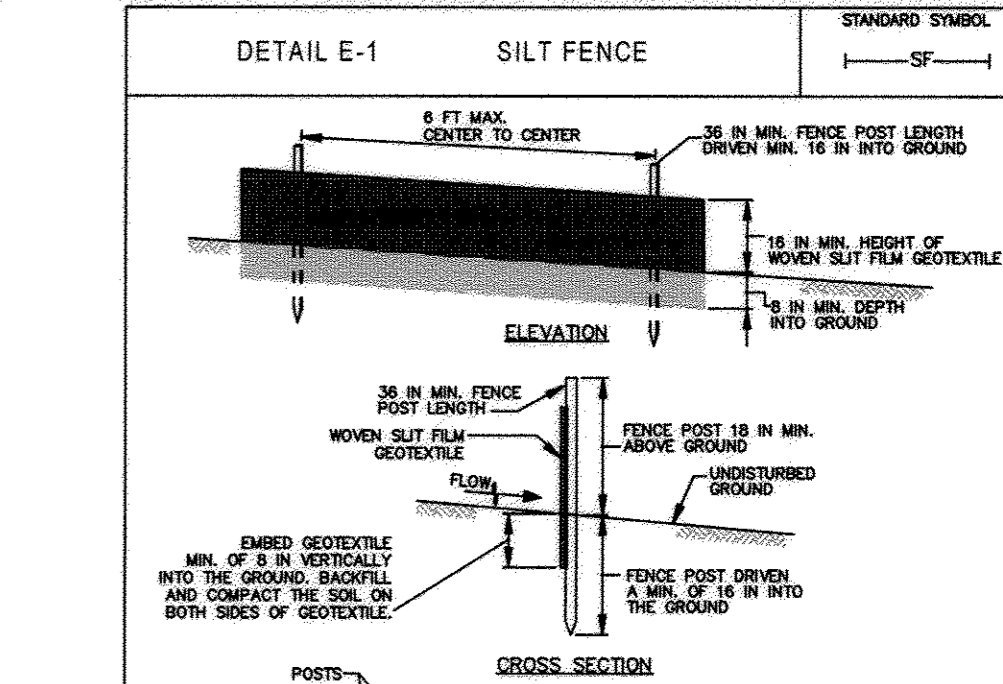
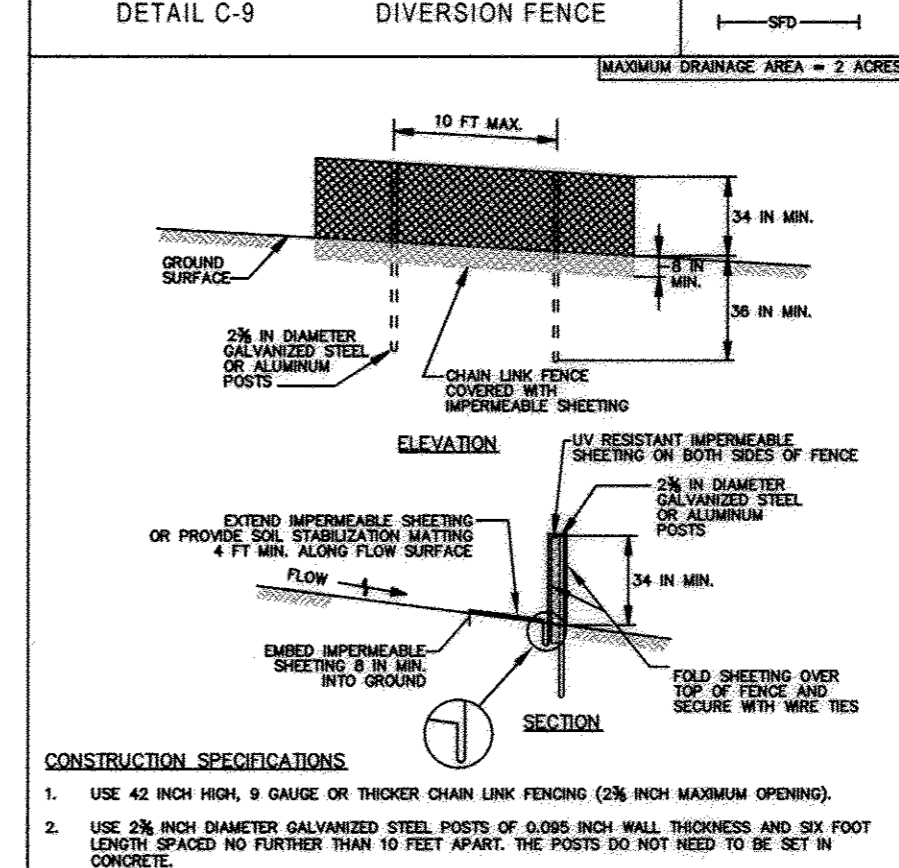
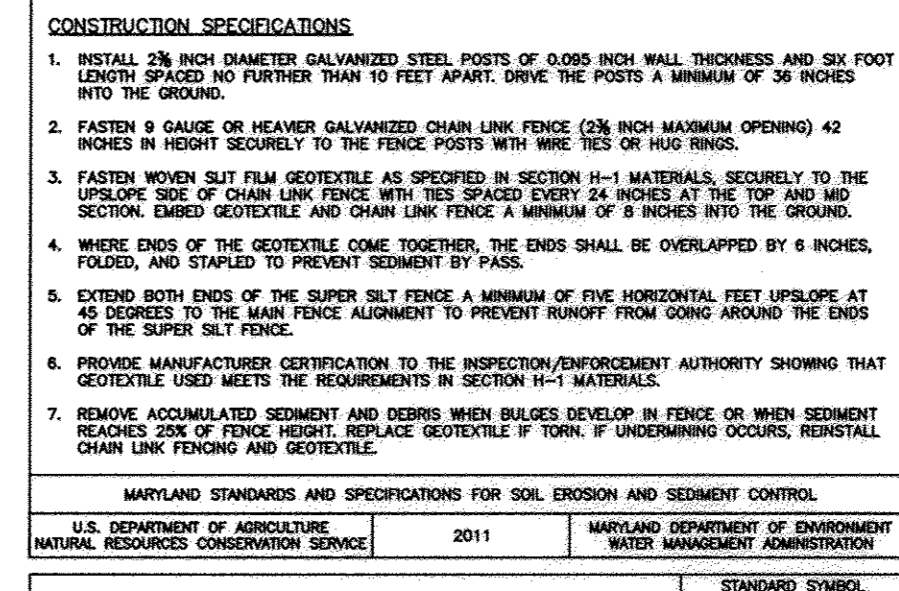
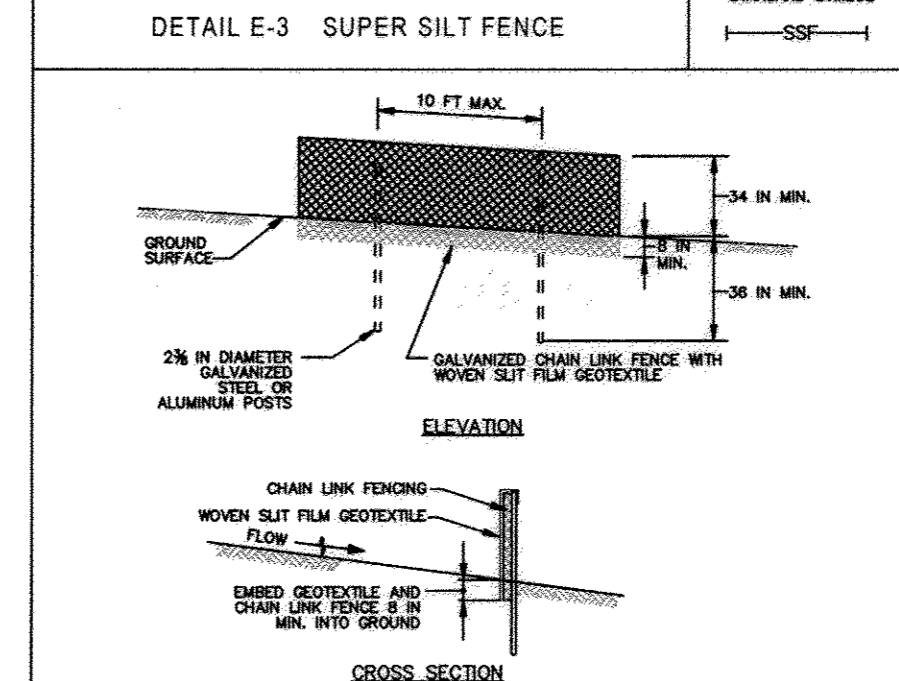
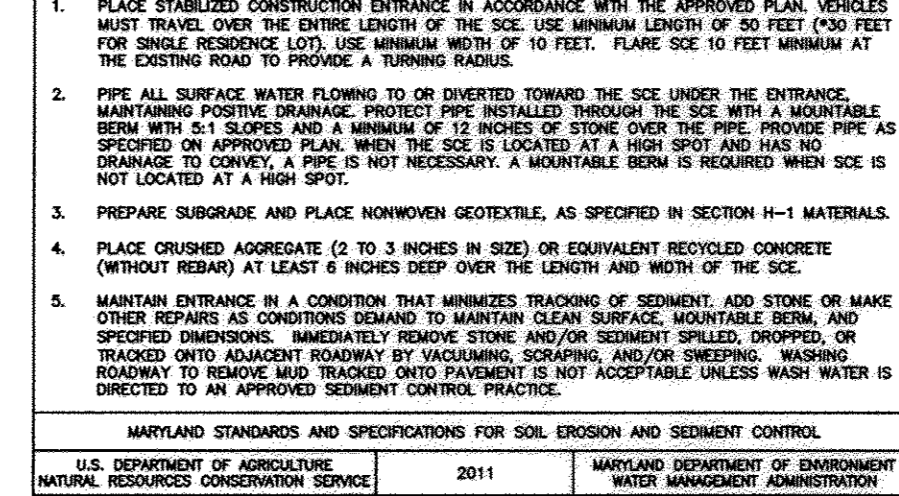
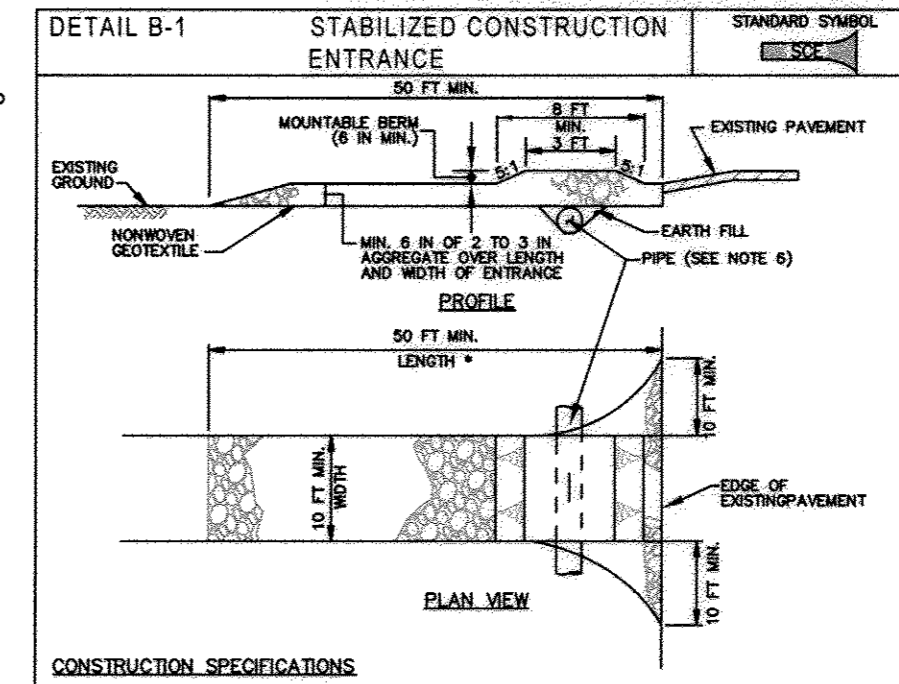
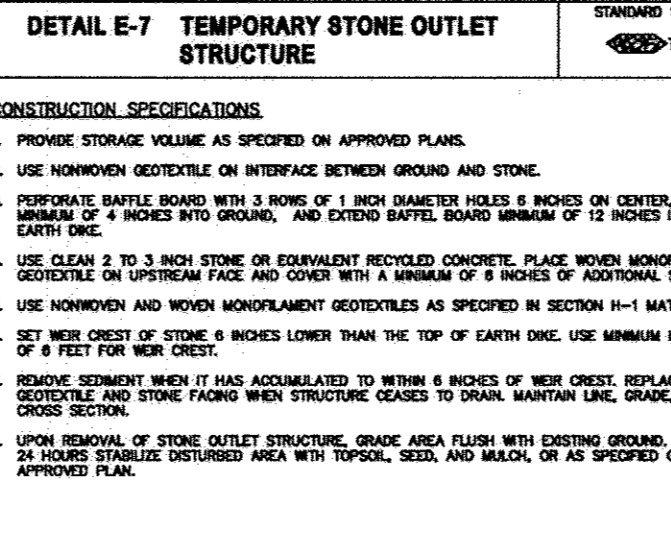
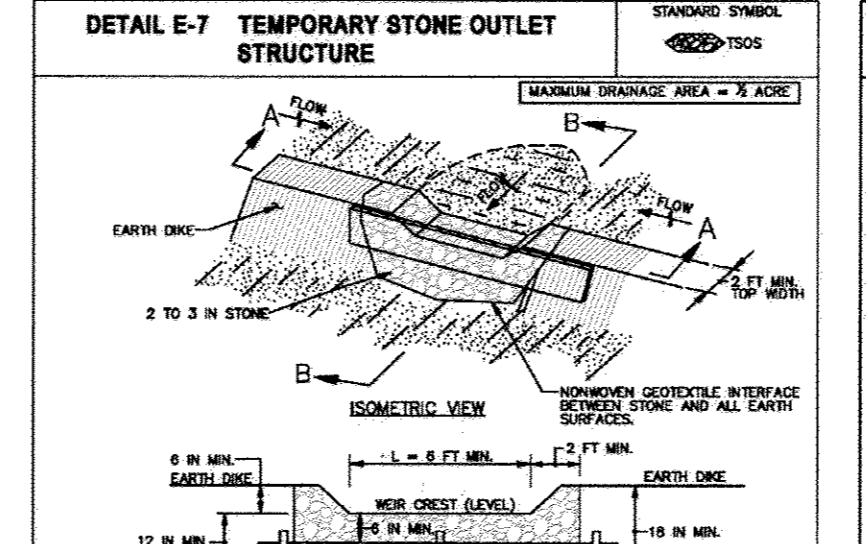
- B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).
1. Sod Installation
a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
b. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/8 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch...

B-4-6 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

- A mound or pile of soil protected by appropriately designed erosion and sediment control measures.
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. Benching slopes must be provided in accordance with Section B-3 Land Grading...

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

- 1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LDD and protected areas are marked clearly on the plan.
2. Prior to the start of earth disturbance.
3. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
4. Prior to the start of another phase of construction or opening of another grading unit.
5. Prior to removal or modification of sediment and stabilization measures.
6. After building or grading inspection approvals may not be authorized until the initial approval by the inspection agency is made.



SEQUENCE OF CONSTRUCTION
1. OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS)
2. NOTIFY "NEEDS" UTILITY AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.

SEDIMENT & EROSION CONTROL NOTES & DETAILS
BRIGHTON ESTATES
LOTS 1 THRU 3
ZONED RR-DEO
TAX MAP No. 34 GRID No. 12 PARCEL Nos. 432 & 308
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2016
SHEET 5 OF 5