

SOILS INFORMATION TABLE (HOWARD SOIL SURVEY MAP #5)

MAP SYMBOL	MAP UNIT NAME & SERIES	HYDROLOGIC SOIL GROUP
BeD	BENEVOLE SILT LOAM 3% TO 8% SLOPES	B
GgB	GLENELG LOAM 3% TO 8% SLOPES	B
GgC	GLENELG LOAM 8% TO 15% SLOPES	B
GmA	GLENVILLE SILT LOAM 0% TO 3% SLOPES	C
Ha	HARBOR COBORUS SILT LOAM 0% TO 3% SLOPES	D
MaD	MANOR LOAM 15% TO 25% SLOPES	B

NOTE: PUBLIC WATER METER PROPOSED TO BE OUTSIDE OF BUILDING

Specimen/Significant Trees

No.	Botanical Name	Common Name	D.B.H.	Condition	Status
4	Acer Rubrum	Red Maple	28"	Fair	Save
5	Nyssa Sylvatica	Black Gum	34"	Good	Save
6	Liriodendron Tulipifera	Tulip Poplar	24"	Good	Save
7	Liriodendron Tulipifera	Tulip Poplar	34"	Good	Save
8	Liriodendron Tulipifera	Tulip Poplar	26"	Dead	Save

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PROFESSIONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Walter G. Zawislak 2/19/14
 Signature of Engineer (PRINT NAME BELOW) DATE

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 THE 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.

Signature of Developer DATE

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

Signature of Approver DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature of Chief, Development Engineering Division DATE

Signature of Chief, Division of Land Development DATE

Signature of Director DATE

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1850 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.
- THE EXISTING TOPOGRAPHY IS TAKE FROM FIELD SURVEY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY AXIOM ENGINEERING DESIGN DATED JUNE 14, 2013.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NO. 10H5 AND 10HA WERE USED FOR THIS PROJECT.
- DRY WELLS (M-5) AND MICRO BIORETENTION (M-6) ARE TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER. REFERENCE ENVIRONMENTAL CONCEPT PLAN APPROVAL #13-078.
- EXISTING UTILITIES ARE BASED ON THE ALPHA RIDGE WATER SUPPLY AS-BUILT CAPITAL PROJECT NUMBER W-8203, CONTRACT NUMBER 44-3480 DATED MARCH 1996 AND MARYLAND ROUTE 99 SEWER MAIN EXTENSION, CONTRACT NUMBER 20-4398-D DATED APRIL 2008.
- ANY DAMAGE TO COUNTY RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- SMC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.05.
- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 2013 HOWARD COUNTY COMPREHENSIVE ZONING PLAN APPROVED OCTOBER 6, 2013.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING OR NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST OR EASEMENT AREAS AND PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR FOREST CONSERVATION PER SECTION 16.1202 (D)(2)(i)(A).
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1202 (D)(2)(i)(A) FOR FOREST CONSERVATION PER SECTION 16.1202 (D)(2)(i)(a) 12-6-2013.
- THE SEWER TRENCHING AND PIPE INSTALLATION WORK BEING DONE WITHIN THE STREAM BUFFER AND STEEP SLOPES AS NECESSARY DISTURBANCE UNDER SECTION 16.116(C)(1)(i).
- THE 65DBA NOISE LINE ESTABLISHED BY HOWARD COUNTY HAS BEEN WAIVED BY DEED 12/16/13. LOTS 7-10 WERE SUBDIVIDED BY A DEED PRIOR TO 1980 AND BY SURVEY PLAT IS 1956 PER LIBER 1987 FOLIO 3377 AND ARE HEREBY GRANDFATHERED AS AN EXISTING LOT.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLING TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 A. WIDTH - 12 FEET (14 SERVING MORE THAN 1 RESIDENCE)
 B. SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH 1-1/2" MIN. TAR AND CHIP COATING.
 C. GEOMETRY - MAX 14% GRADE, MAX 10% GRADE CHANGE, AND A 45 FOOT TURNING RADIUS.
 D. STRUCTURES (BRIDGE/CULVERTS) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING).
 E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YR FLOOD WITH NO MORE THAN ONE FOOT DEPTH OVER DRIVEWAY SURFACE.
 F. STRUCTURE CLEARANCE - MINIMUM 12 FEET.
 G. MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.

SHEET INDEX

SITE PLAN/SEDIMENT AND EROSION PLAN	SHEET 1
NOTES AND DETAILS	SHEET 2
NOTES AND DETAILS	SHEET 3
LANDSCAPE PLAN AND DETAILS	SHEET 4

TEST PIT	EX GROUND	DEPTH	BOTTOM	GROUNDWATER
19002-B-3	506.26	9'	497.26	NONE ENCOUNTERED
19005-B-6	496.07	9'	487.07	NONE ENCOUNTERED

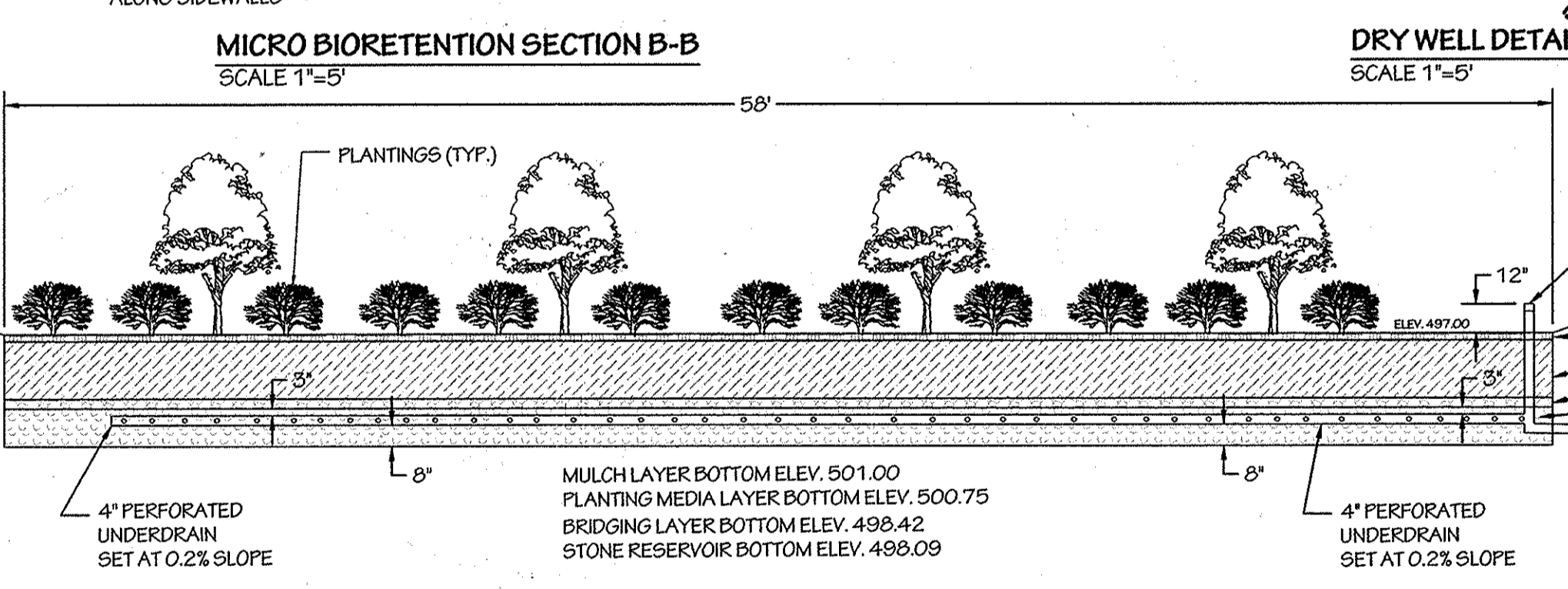
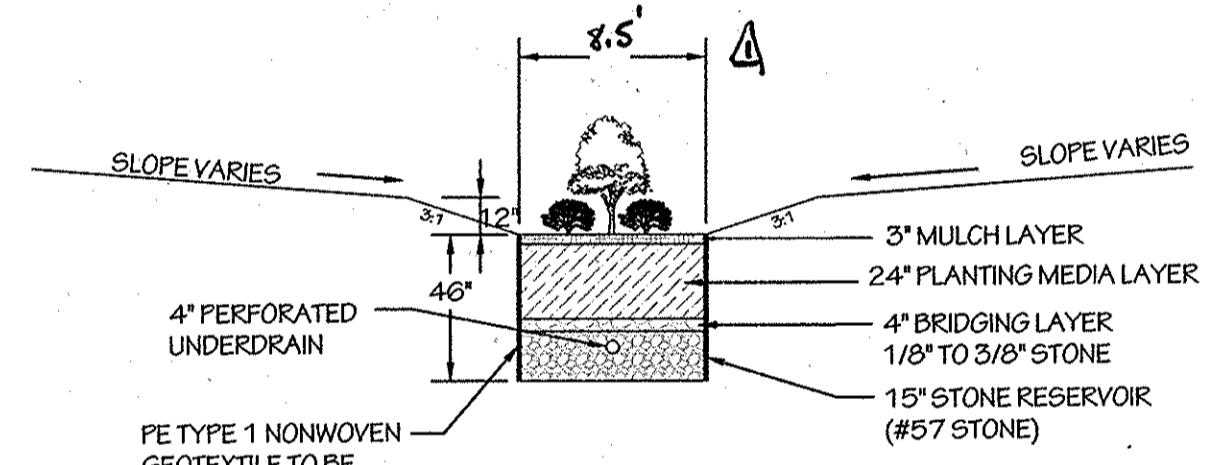
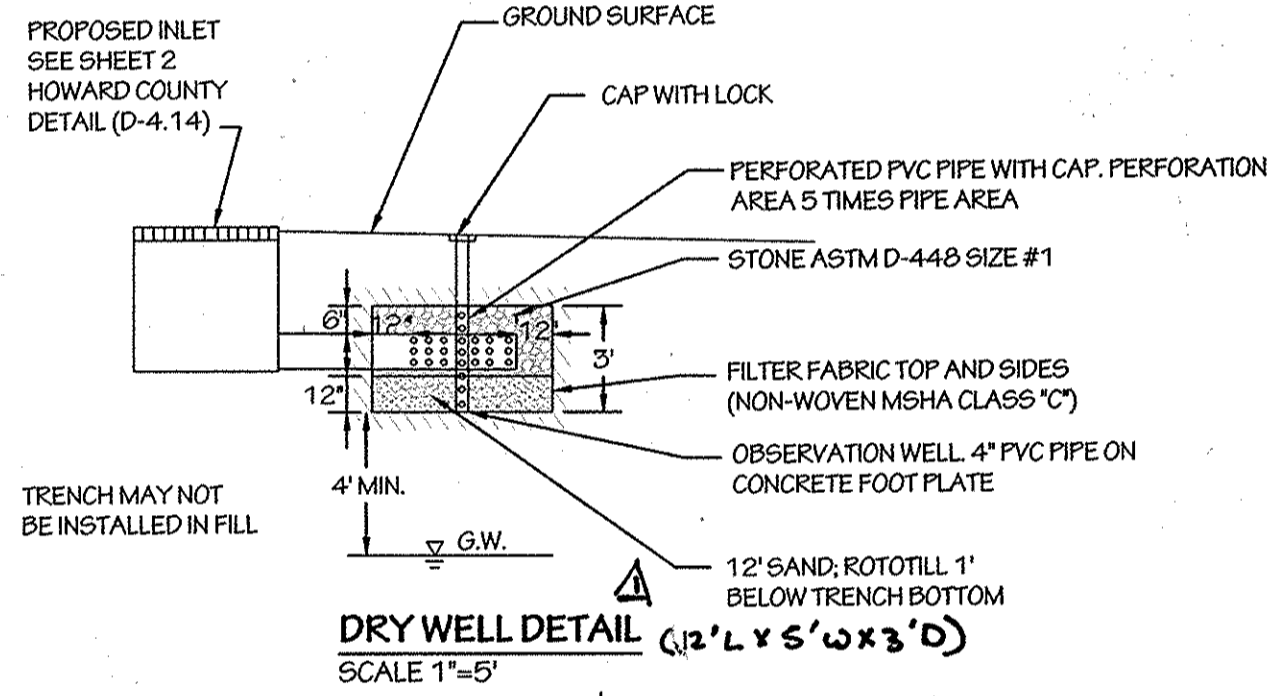
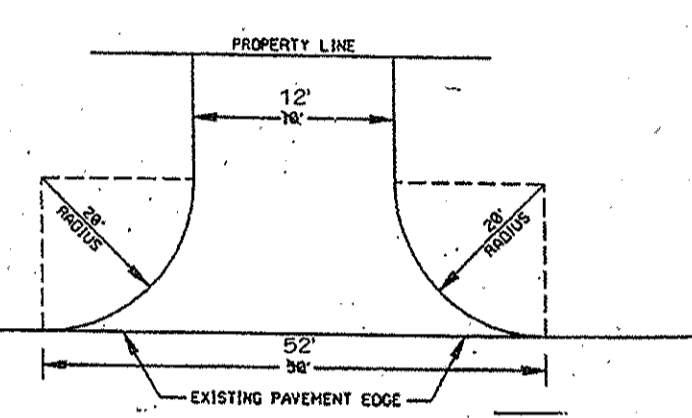
HOWARD COUNTY CONTROL POINTS

NO.	NORTHING	EASTING	ELEVATION
10H5	183246.89376	408322.37246	159.302
10HA	183246.14815	408710.88035	147.494

SITE ANALYSIS DATA CHART

SITE AREA:	0.879 AC +/-
	38,305 SF +/-
LIMIT OF DISTURBANCE AREA:	0.539 AC +/-
	23,500 SF +/-
PRESENT ZONING:	R-20
PROPOSED USE:	RESIDENTIAL
TOTAL NUMBER OF UNITS:	1

TYPICAL SINGLE RESIDENTIAL ENTRANCE



IMPERVIOUS AREA CALCULATIONS

HOUSE IMPERVIOUS AREA	2607 SF
DRIVEWAY IMPERVIOUS AREA	1071 SF
TOTAL	4485 SF

ESDv SUMMARY TABLE

DRY WELL #7:	Pe TREATED: 0.13 IN
	Rev PROVIDED: 17 CF
MICRO BIORETENTION #7:	Pe TREATED: 2.46 IN
	Rev PROVIDED: 112 CF

Key	A. Type of Community	B. Area (acres)	C. Soil Information	D. Existing Vegetation	E. Stand Characteristics	F. Forest Area in Sensitive Environments	G. Habitat Value	H. Specimen Trees	
FI	FOREST	1.3	Md, Hg	BLACK LOCUST	18"-29"	40	GOOD	0.65	1 AND LOCUST

ESD PRACTICE	QUANTITY
(M-5) DRYWELL	1
(M-6) MICRO-BIORETENTION	1

APPLICANT/OWNER:

TIMBERLAKE/MARRIOTTVILLE, LLC
 888 BESTGATE ROAD
 SUITE 411
 ANNAPOLIS, MD 21401
 240-388-0873

ADDRESS CHART

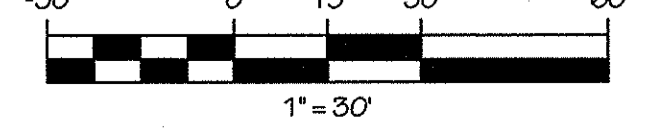
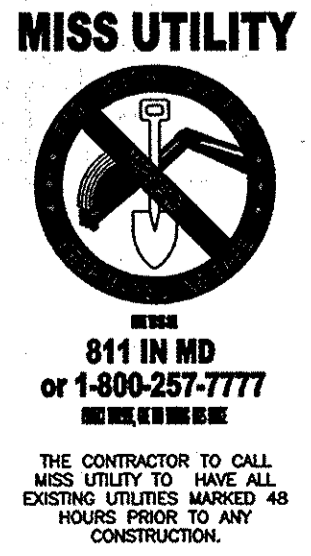
LOT/PARCEL #:	STREET ADDRESS
9	11265 OLD FREDERICK RD

PERMIT INFORMATION CHART

PROJECT	SECTION/AREA	LOT/PARCEL NO.
PATUXENT VIEW - LOT 9	N/A	9/65
PLAT # OR L/F	GRID#	ZONING
15015/005	22	R20
TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
10	THRD	8030.00
WATER CODE:	SEWER CODE:	
44-4380	20-4398-D	

SITE PLAN / SEDIMENT AND EROSION PLAN

Drawn: ADT
Checked: DP/VZ
Date: FEB 11, 2014
Project No.: 13-0028
Scale: AS SHOWN
Sheet: 1 OF 4



Axiom Engineering Design
 Civil Engineering • Land Surveying • Landscape Architecture • Land Planning
 6950 Columbia Gateway Dr. Ste 150 Office: 443.276.6220
 Columbia, Maryland 21046 Fax: 443.276.6221
 www.axiom-ed.com info@axiom-ed.com

WALTER G. ZAWISLAK, P.E.
 Professional Engineer
 6990 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046
 Ph: 443-276-6220 Fax: 443-276-6221 W.Zawislak@axiom-ed.com



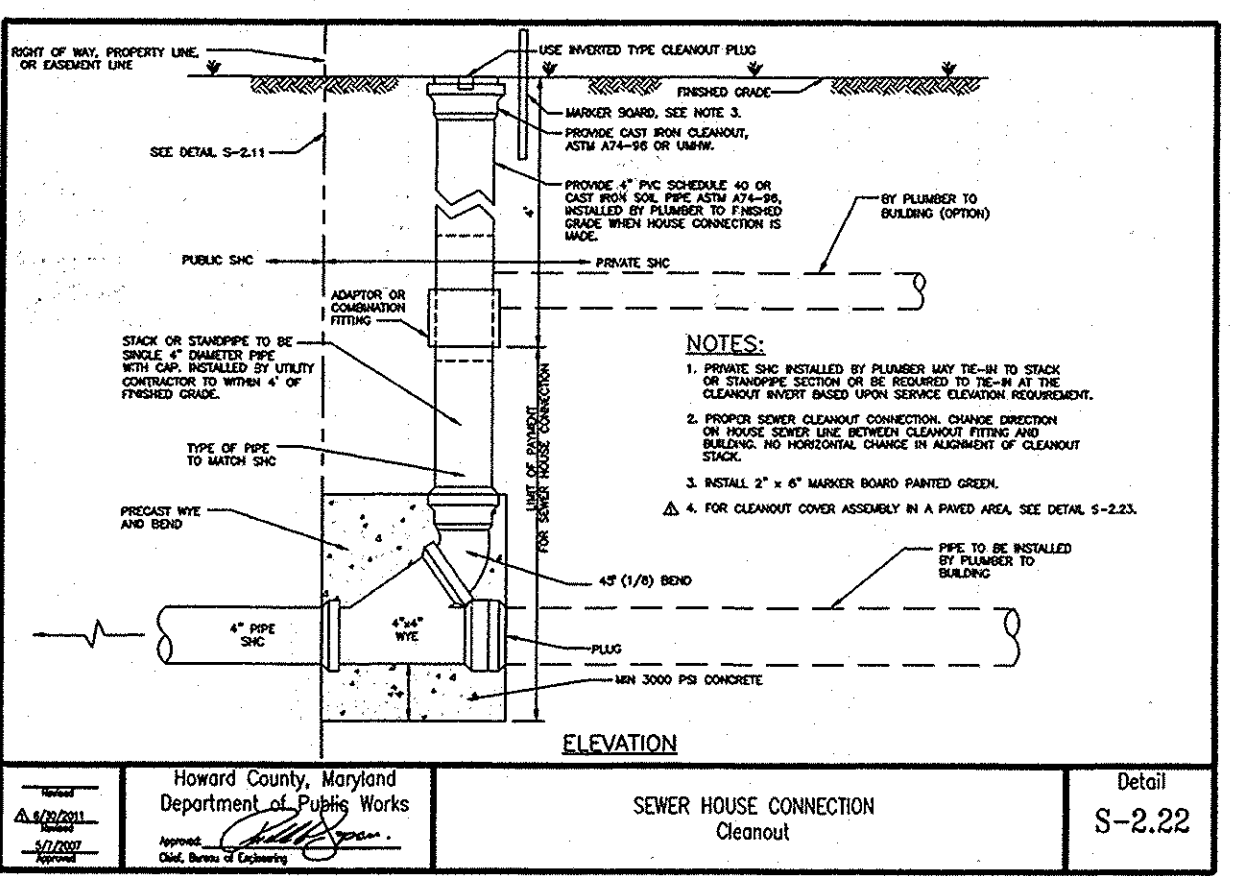
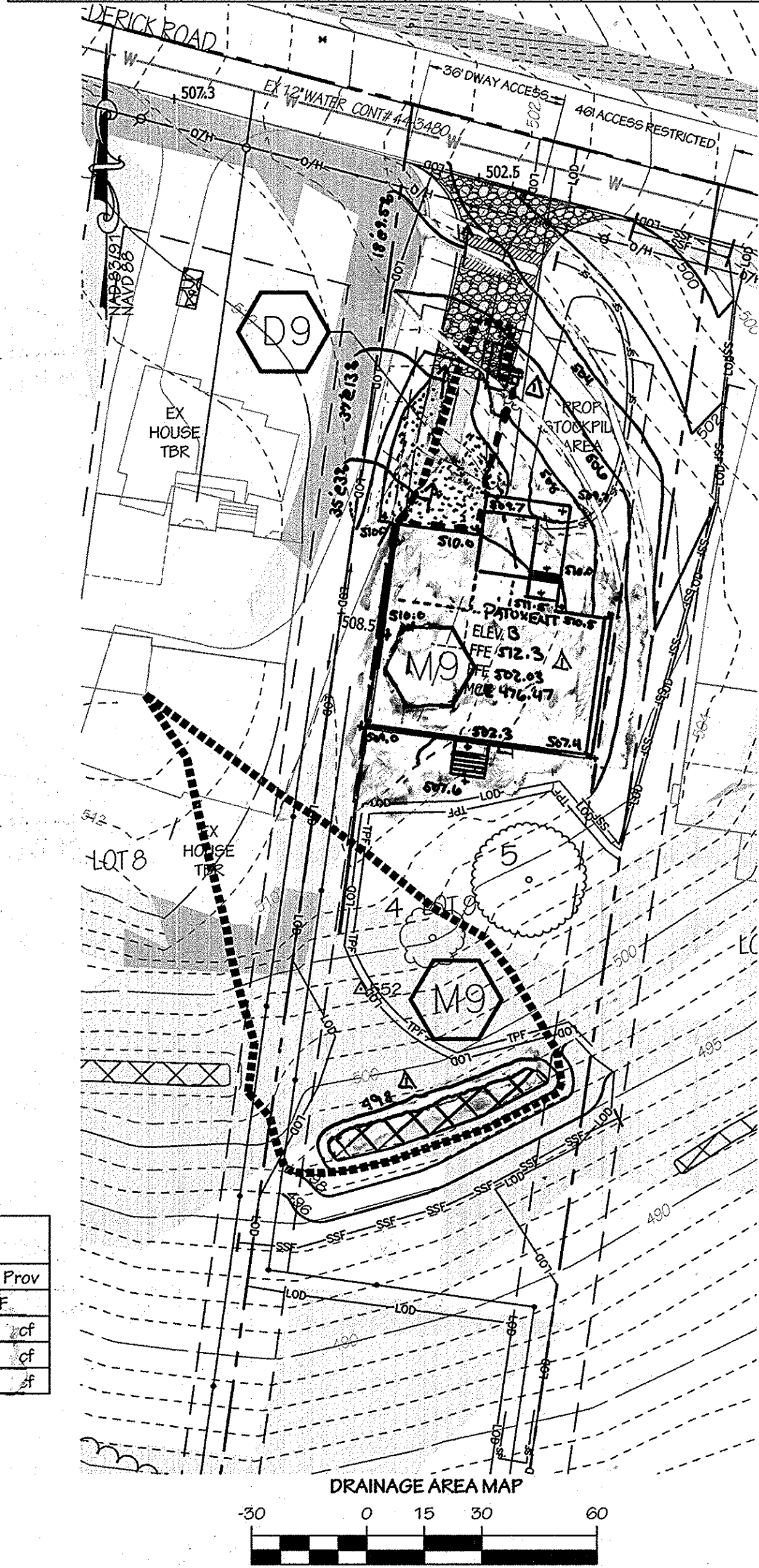
3rd Election District: Howard County, Maryland

EROSION AND 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 DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE 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 AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITH THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), 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 ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. SITE ANALYSIS:
 - TOTAL AREA OF SITE: 38305 SF (0.879 AC)
 - AREA DISTURBED: 23500 SF (0.539 AC)
 - AREA TO BE ROOFED OR PAVED: 3765 SF (0.086 AC)
 - AREA TO BE VEG. STABILIZED: 19735 SF (0.453 AC)
 - TOTAL CUT: 1007 CY +/-
 - TOTAL FILL: 379 CY +/-
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 PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
10. TRENCHES 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 WORK DAY, WHICH EVER 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 AC. 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.
13. A DOUBLE ROW OF "SUPER" SILT FENCE IS TO BE PROVIDED AT THE FRONT OF THE LOT AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
14. EITHER TEMPORARY OR PERMANENT STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE TIME INTERVALS REQUIRED BY THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, WHICHEVER IS MORE RESTRICTIVE.
15. THE CONTRACTOR SHALL CONSTRUCT THE DRAINAGE ABOVE THE INLET TO DRAIN INTO THE INLET, REMOVING ADJACENT TO THE INLET SHALL NOT EXCEED 2".

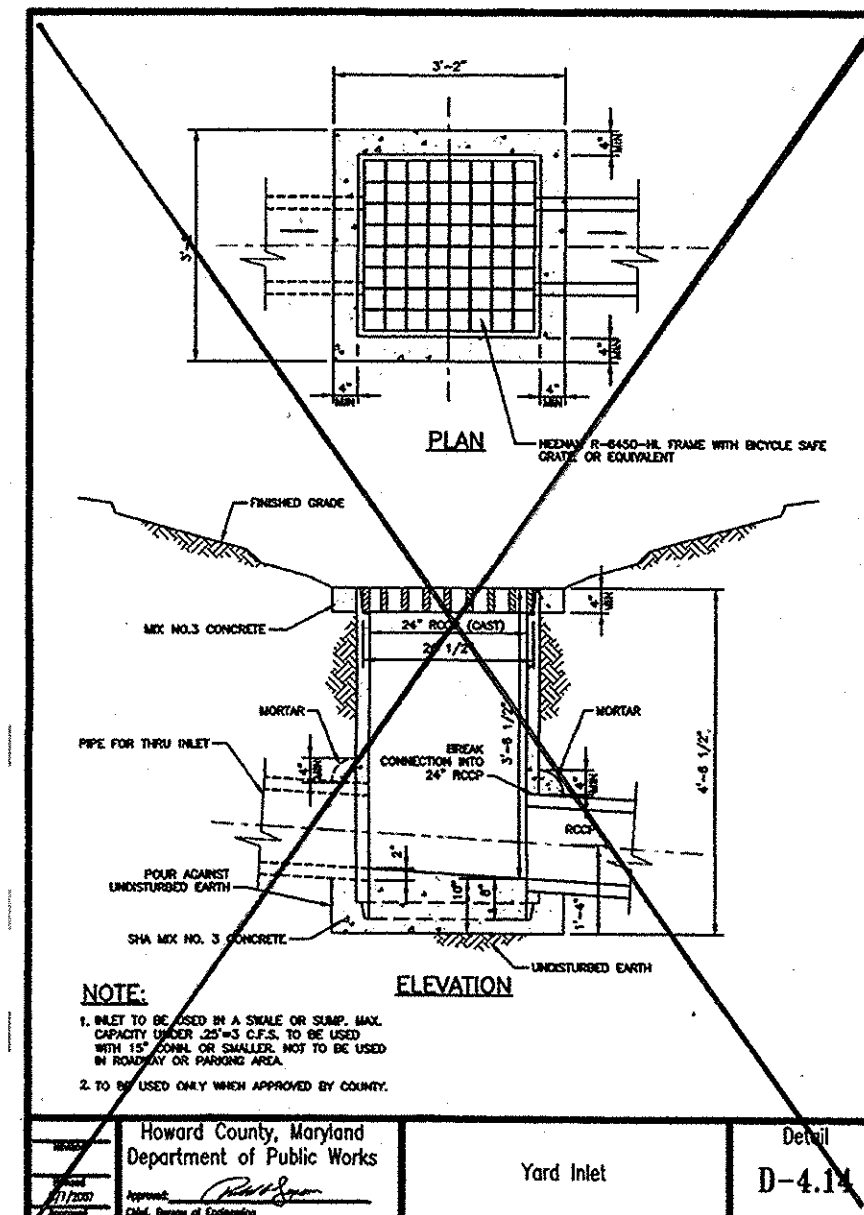
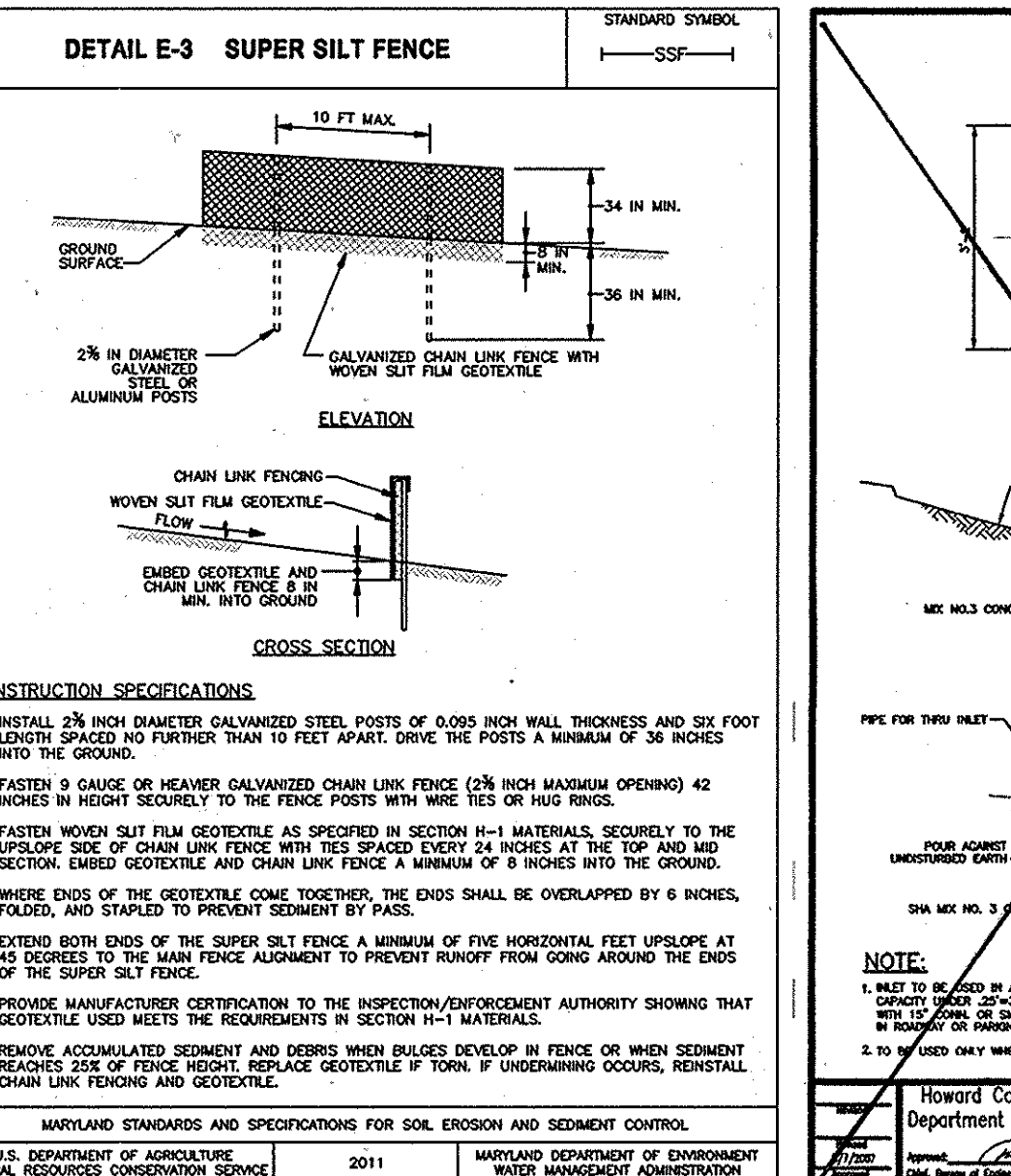
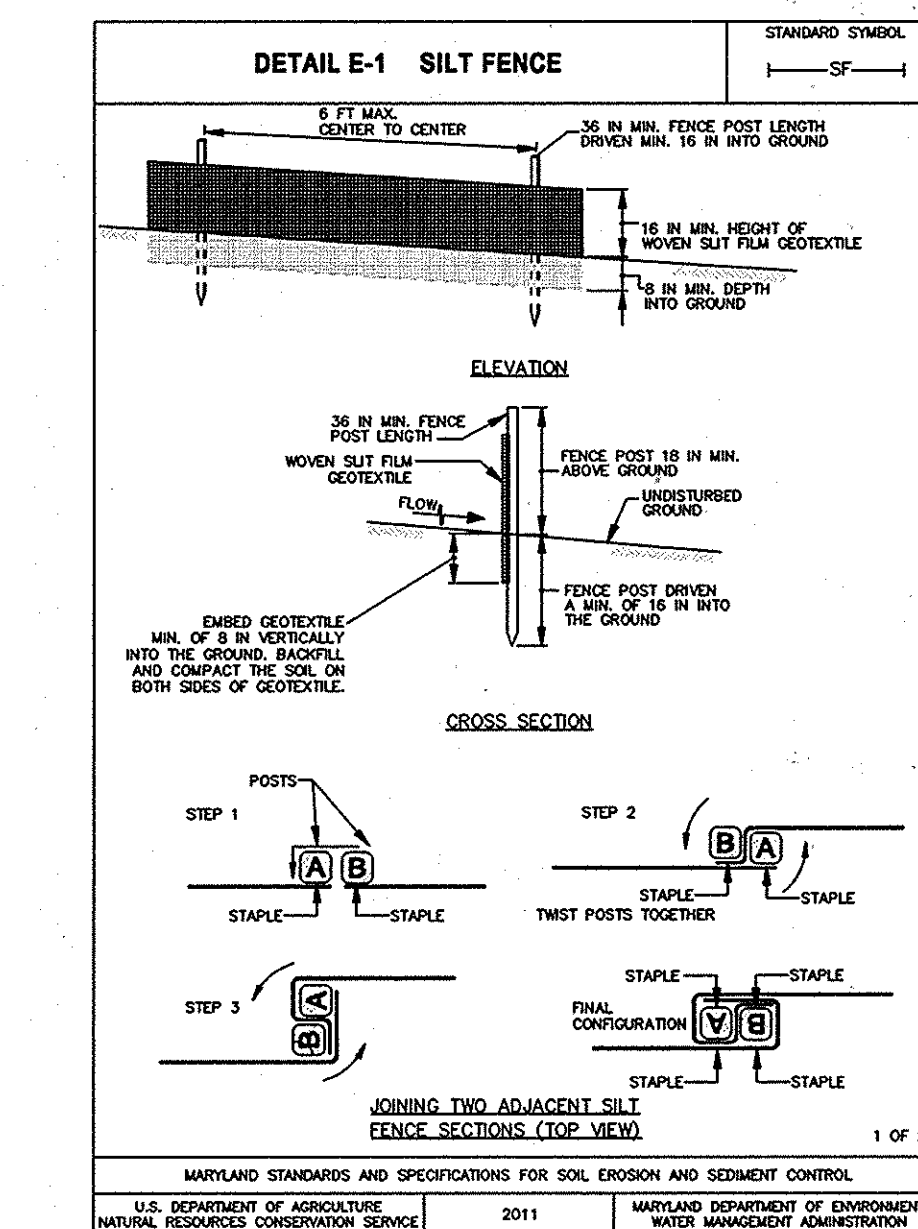
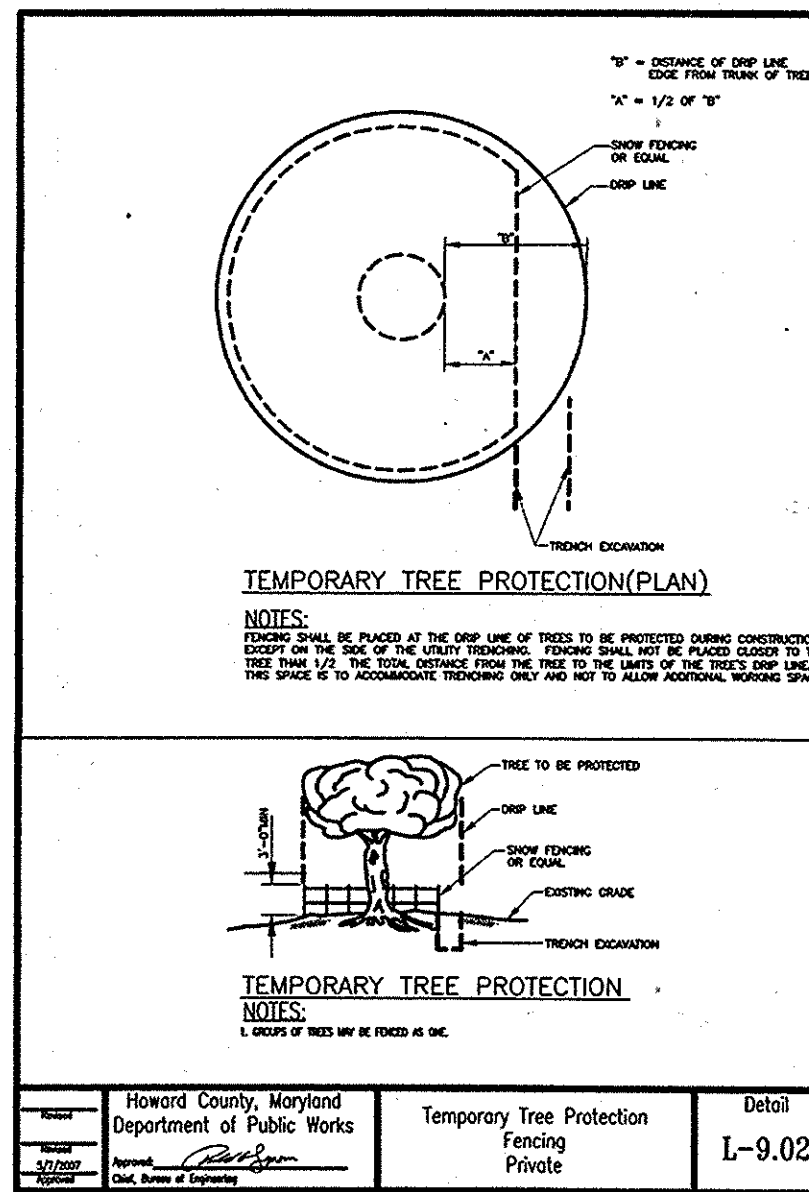
PROPOSED DRAINAGE AREA SUMMARY

DRAINAGE AREA	ACREAGE	RCN	% IMPERVIOUS	SOIL TYPE
D9	0.02 AC	90	78.62%	100% TYPE B SOILS
M9	0.19 AC	71	27.71%	100% TYPE B SOILS



SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT (7 DAYS)
2. INSTALL TREE PROTECTIVE FENCING AS SHOWN ON PLAN (2 DAYS)
3. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN (7 DAYS)
4. CLEAR AND GRUB WITHIN LIMITS OF DISTURBANCE (5 DAYS)
5. APPLY TEMPORARY SEEDING (2 DAYS)
6. CONSTRUCT BUILDING, UTILITIES, AND PAVEMENT (60 DAYS)
7. INSTALL PERMANENT STORMWATER MEASURES OTHER THAN THE MICRO-BIORETENTION (14 DAYS)
8. FINE GRADE SITE (5 DAYS)
9. APPLY PERMANENT SEEDING (2 DAYS)
10. INSTALL MICRO-BIORETENTION (3 DAYS)
11. INSTALL PROPOSED LANDSCAPING (7 DAYS)
12. REMOVE EROSION AND SEDIMENT CONTROL DEVICES AS AREAS ARE STABILIZED AND PERMISSION IS GRANTED FROM SEDIMENT CONTROL INSPECTOR. (7 DAYS)



17.0 STANDARDS AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE

- Definition**
A stabilized layer of aggregate that is underlain with Geotextile Class C2. Stabilized entrances are located at any point where traffic enters or leaves a construction site.
- Purpose**
Stabilized construction entrances reduce tracking of sediment onto streets or public right-of-ways and provide a stable area for entrance or exit from the construction site.
- Conditions Where Practice Applies**
1. Stabilized construction entrances shall be located at points of construction ingress and egress.
 2. For residential construction, the stabilized construction entrance should be located at the proposed driveway/entrance apron location.
 3. Stabilized construction entrances should not be used on existing pavement.
- Design Criteria**
1. Length - minimum of 50 feet from the existing edge of pavement which could be a shoulder or travel lane.
 2. Width - 20 feet minimum with 20 foot radii which are flared at the existing road to provide a turning radius.
 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone.
 4. Stone - crushed aggregate (2" to 3") or reclaimed/recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped under the entrance to maintain positive drainage. Pipe installed through the construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" stone over the pipe. End sections must be placed on both ends of the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey, a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
 6. Location - a stabilized entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance. All mud and debris tracked and/or spilled on the state roadway must be removed immediately to eliminate potential hazards and comply with sediment control requirements.
 7. Stabilized/Temporary construction entrances are to be removed, graded, seeded and mulched or removed and replaced with the proposed driveway/entrance apron.

18.4 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

- Definition**
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.
- Purpose**
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.
- Conditions Where Practice Applies**
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. Benching 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 upgrade side.
 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary embankment or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
 6. Where runoff concentrates along the top 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 37 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 construction material must be covered with impervious sheeting.
- Maintenance**
The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

Summary Table Lot 9

Practice	DA		IMP		Pervious		Woods		ESDv Req		ESDv Prov	
	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.	Sq. Ft.	CF	Sq. Ft.	CF
Micro-Bioretenstion Area (M9)	0.20	5,280	0.06	1,632	0.13	3,552	0.00	0	322	0	1,570	0
Driveway (D9)	0.03	810	0.02	540	0.04	1,080	0.00	0	64	0	72	0
Total	0.23	6,090	0.08	2,172	0.17	4,632	0.00	0	386	0	1,642	0

* ESDv is met therefore CFv, Q10 and Q100 is not required

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PROFESSIONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Walter G. Zawislak 2/19/14
DATE
SIGNATURE OF ENGINEER (PRINT NAME BELOW)

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 THE 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.

2/24/14
DATE
SIGNATURE OF DEVELOPER

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

2/22/14
DATE
HOWARD SOIL CONSERVATION DISTRICT

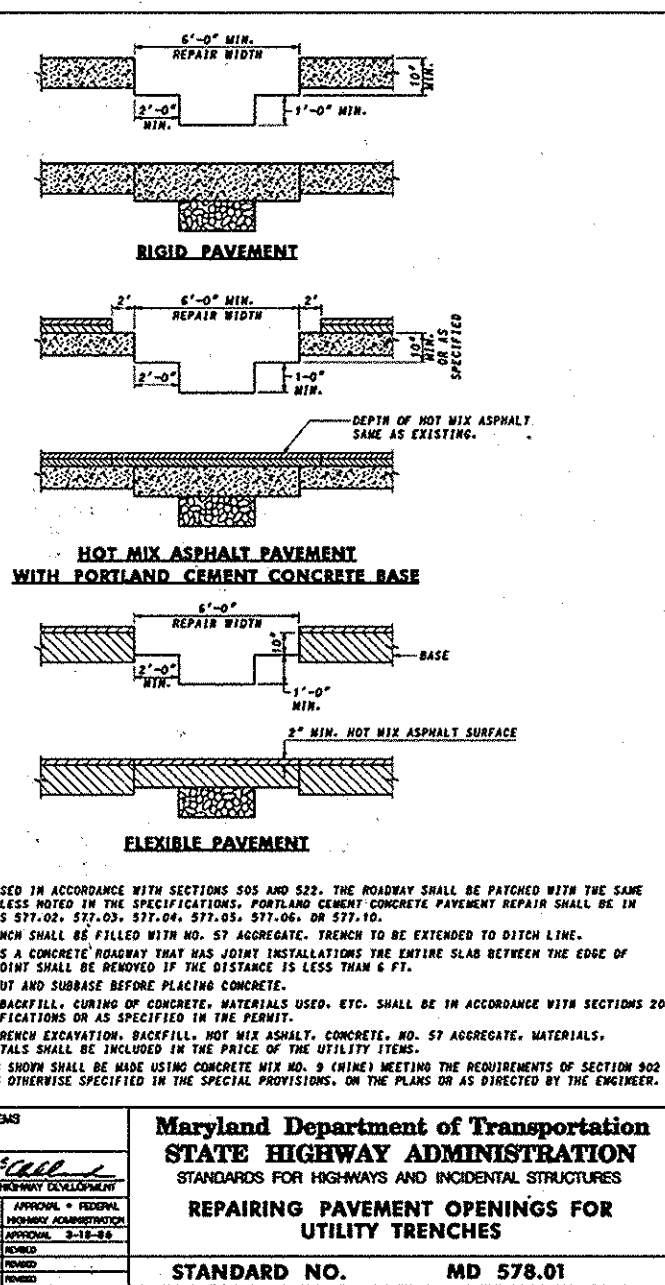
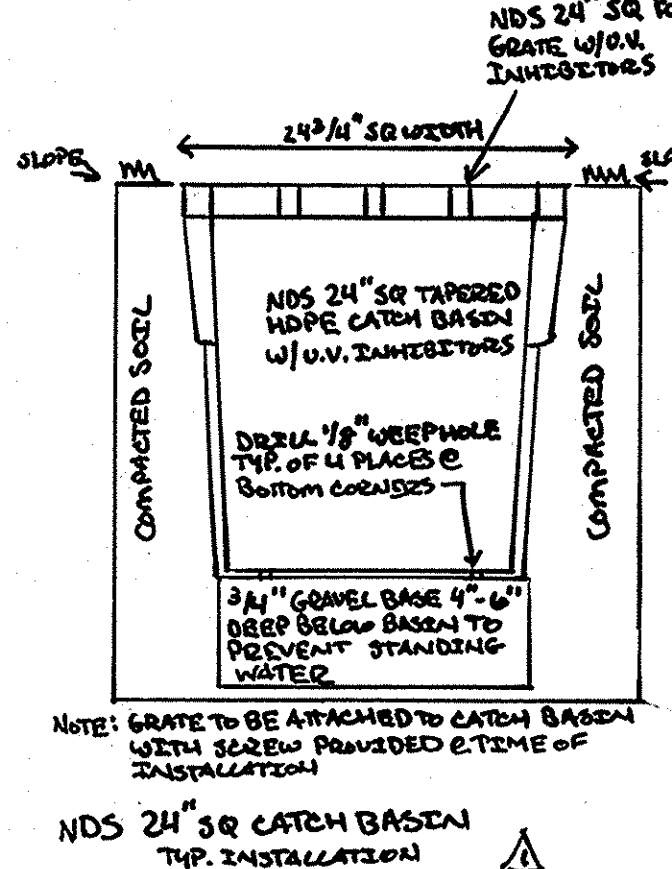
APPROVED: DEPARTMENT OF PLANNING AND ZONING

3-24-14
DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

3-24-14
DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

3-24-14
DATE
DIRECTOR

NOTE: UTILITY TRENCH REPAIR IN THE SHA RIGHT-OF-WAY/ROADWAY SHALL BE IN ACCORDANCE WITH MD SHA STD DTL NO. MD-587.01



HARDNESS ZONE: 6a

NO.	SPECIES	APPLICATION RATE (lb/1000)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
1	ANNUAL RYEGRASS	40	MARCH 1 TO MAY 15	0.5"	436 lb/af (1.0 lb/1000 sf)	2 tons/af (30 lb/1000 sf)
2	PEARL MILLET	20	MAY 16 TO JULY 31	0.5"		

HARDNESS ZONE: 6a

NO.	SPECIES	APPLICATION RATE (lb/1000)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)				LIME RATE
					N	P ₂ O ₅	K ₂ O		
1	SWITCH GRASS	10	MARCH 1 TO MAY 15	0.25 to 0.5"					
	CREeping RED FESCUE	15	MAY 16 TO JUNE 15	0.25 to 0.5"					
	BUSH CLOVER	2	MARCH 1 TO MAY 15	0.25 to 0.5"					
6	TALL FESCUE	40	MAY 16 TO JUNE 15	0.25 to 0.5"					
	PERENNIAL RYE GRASS	25	AUGUST 1 TO OCTOBER 15	0.25 to 0.5"	45 lb/af (1 lb/1000 sf)	80 lb/af (2 lb/1000 sf)	80 lb/af (2 lb/1000 sf)	2 tons/af (30 lb/1000 sf)	
6	WHITE CLOVER	5	MARCH 1 TO MAY 15	0.25 to 0.5"					
			AUGUST 1 TO OCTOBER 15	0.25 to 0.5"					

APPLICANT/OWNER:

TIMBERLAKE/MARRIOTTVILLE, LLC
888 BESTGATE ROAD
SUITE 411
ANNAPOLIS, MD 21401
240-388-0873

ADDRESS CHART

LOT/PARCEL #:	9	STREET ADDRESS:	11265 OLD FREDERICK RD
PROPOSED SITE IMPROVEMENT:	SINGLE FAMILY HOME	PERMIT INFORMATION CHART	
PROJECT:	PATUXENT VIEW - LOT 9	SECTION/AREA:	N/A
PLAT # OR L/F:	22	TAX MAP NO.:	R20
WATER CODE:	44-4380	ELECT. DIST.:	THRD
		SEWER CODE:	20-4398-D
		LOT/PARCEL NO.:	9/65
		CENSUS TRACT:	6030.00

NOTES AND DETAILS

PATUXENT VIEW LOT 9
11265 OLD FREDERICK ROAD
MARRIOTTVILLE, MD 21104
TAX MAP 10, PARCEL 65

3rd Election District, Howard County, Maryland

Drawn: ADT
Checked: OP/WZ
Date: FEB 11, 2014
Project No.: 130028
Scale: AS SHOWN
Sheet: 2 OF 4

Axiom Engineering Design
Civil Engineering • Land Surveying • Landscape Architecture • Land Planning

6950 Columbia Gateway Dr, Ste 150
Columbia, Maryland 21046
www.axiom-ed.com

Office: 443.276.8220
Fax: 443.276.8221
Info@axiom-ed.com

WALTER G. ZAWISLAK, P.E.
Professional Engineer
6950 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046
Ph: 443-276-8220 Fax: 443-276-8221 W.Zawislak@axiom-ed.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32033, EXPIRATION DATE 06/20/2015

- (M-5) DRY WELL OPERATION AND MAINTENANCE
1. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
2. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILDUP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE DRAINAGE.
3. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
4. 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.
5. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
6. 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.

- (M-6) MICRO BIOTREATION OPERATION AND MAINTENANCE
1. 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 SPRINGS. 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 II, TABLE 4.1, 1 AND 2.
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 STAINS AND WIRES.
3. 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.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

- GENERAL (M-6) MICRO BIOTREATION CONSTRUCTION NOTES
CONSTRUCTION CRITERIA: THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING CONSTRUCTION OF PROJECTS WITH MICRO BIOTREATION:
EROSION AND SEDIMENT CONTROL: MICRO-BIOTREATION PRACTICES SHOULD NOT BE CONSTRUCTED UNTIL THE CONTRIBUTING DRAINAGE AREA IS STABILIZED. IF THIS IS IMPRACTICAL, RUNOFF FROM THE PRACTICE AND THE PRACTICE SHALL BE USED NEAR THE PROPOSED LOCATION.
SOIL COMPACTION: EXCAVATION SHOULD BE CONDUCTED IN FINE CONDITIONS WITH EQUIPMENT LOCATED OUTSIDE OF THE PRACTICE TO MINIMIZE BOTTOM AND SIDEWALL COMPACTION. ONLY LIGHTWEIGHT, LOW-GROUND CONTACT EQUIPMENT SHOULD BE USED WITH MICRO-BIOTREATION PRACTICES AND THE BOTTOM SCARIFIED BEFORE INSTALLING UNDERDRAINS AND FILTERING MEDIA.
UNDERDRAIN INSTALLATION: GRAVEL FOR THE UNDERDRAIN SYSTEM SHOULD BE CLEAN, WASHED, AND FREE OF FINE PARTICLES. UNDERDRAIN PIPES SHOULD BE CHECKED TO ENSURE THAT BOTH THE MATERIAL AND PERFORATIONS MEET SPECIFICATIONS. THE UPSTREAM ENDS OF THE UNDERDRAIN PIPE SHOULD BE CAPPED PRIOR TO INSTALLATION.
FILTER MEDIA INSTALLATION: BIOTREATION SOLS MAY BE MIXED ON-SITE BEFORE PLACEMENT. HOWEVER, SOLS SHOULD NOT BE PLACED UNDER SATURATED CONDITIONS. THE FILTER MEDIA SHOULD BE PLACED AND GRADED USING EXCAVATORS OR BACKHOES OPERATING ADJACENT TO THE PRACTICE AND BE PLACED IN HORIZONTAL LAYERS (12 INCHES PER FT MAXIMUM). TROTTER COMPACTION OF THE MEDIA WILL OCCUR NATURALLY. SPRAYING OR SPRINKLING WATER ON EACH LIFT UNTIL SATURATED MAY OCCUR SETTLING TIMES.
LANDSCAPE INSTALLATION: THE OPTIMUM PLANTING TIME IS DURING THE FALL. SPRING PLANTING IS ALSO ACCEPTABLE BUT MAY REQUIRE WATERING.
INSPECTION: REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
O DURING EXCAVATION TO SUBGRADE AND PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS.
O DURING PLACEMENT OF FILTER MEDIA.
O DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
O UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Biotreatment, Rain Gardens & Landscape Infiltration. Columns include Material, Specification, and Notes. Rows include: Planting, Mulch, Fine gravel, Geotextile, Underdrain piping, Poured in place concrete, Sand.

Table B.4.7 Supp. 1. Columns include Parameter (e.g., PHRANGE, ORGANIC MATTER, MAGNESIUM), Value, and Unit.

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PROFESSIONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Walter G. Zawislak, 2/24/14, DATE
SIGNATURE OF ENGINEER (PRINT NAME BELOW)
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 THE DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEGGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of John D. Robertson, 2/27/14, DATE
HOWARD SOIL CONSERVATION DISTRICT
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature of Chad E. ... 3/24/14, DATE

MISS UTILITY logo and text: 811 IN MD or 1-800-257-7777

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature of Chad E. ... 3/24/14, DATE
Signature of ... 3/24/14, DATE
DIRECTOR

- TOPSOLING
1. TOPSOL 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. TOPSOL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOLING 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 FRESH CONTAINING 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.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOL SPECIFICATIONS: SOIL TO BE USED AS TOPSOL MUST MEET THE FOLLOWING CRITERIA:
a. TOPSOL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY LOAM OR CLAY LOAM. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPLICANT APPROVAL AUTHORITY. TOPSOL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPLICANT APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOL.

- 6. TOPSOL APPLICATION
a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOL.
b. UNIFORMITY DISTRIBUTE TOPSOL AT 5 TO 10 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE ACCOMPLISHED IN SUCH A MANNER THAT CONTROL OF SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE RESULTING SURFACE FROM TOPSOLING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
c. TOPSOL MUST NOT BE PLACED IF THE TOPSOL OR SUBSOIL IS A FROZEN OR HARDY CONDITION WHEN THE SUBSOIL IS WET OR THE TOPSOL IS WET OR A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.
7. 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 FOR EACH DISTURBED AREA AND SOIL TYPE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPLICANT APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAT THE NAME, TRADE OR TRADEMARK, AND WARRANTY OF THE PRODUCER.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM PLUS MAGNESIUM OXIDES). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #200 MESH SIEVE.
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISK OR OTHER SUITABLE MEANS.

- 5. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
PIPE: SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIB PLASTIC PIPE (ASTM F758, TYPE P20, OR ASAHTO A-2127) IN GRAVEL LAYER. THE PREFERRED MATERIAL IS 4" X 4" RIBD PIPE (E.G. PVC OR HDPE).
PERFORATIONS: IF PERFORATED PIPES IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED BY CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" X 4" OR 4" X 4" GRASS HAY HARROW CLOTH.
GRAVEL: THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN. THE MAIN COLLECTOR PIPE SHALL BE AT LEAST 3" THICK ABOVE THE 57 M. S.C. CLASSIFICATION OR THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS).
PERFORATION OF AT LEAST 1 INCH IS REQUIRED (A ONE INCH PERFORATION WILL ALLOW 0.5 FEET PORE WATER) USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER DAILY MATERIAL OVER 1" IN DIAMETER. BRUSH OR SEEDS FROM NOXIOUS WEEDS (E.G. JOHNSON GRASS, MAD DOG, MUSTARD, AND CANADA THISTLE OR OTHER WEEDS) SHOULD BE SPECIFIED UNDER COMAR 15.06.01.05. SHOULD NOT BE PRESENT IN THE SOILS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN 12" TO 18" LIFTS THAT ARE LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET OR TRAVERSED BY DOZER TRACKS). THE SPECIFIC CHARACTERISTICS ARE PRESENTED IN BELOW.
PLANTING SOIL CHARACTERISTICS (ADAPTED FROM ECR, 1999; ETAB, 1993)
PARAMETER VALUE
PH RANGE 5.2 TO 7.0
CATION EXCHANGE CAPACITY (CEC) 15 TO 40 CMBS (BY WEIGHT)
ORGANIC MATTER 35 LBS. PER ACRE, MINIMUM
MAGNESIUM 75 LBS. PER ACRE, MINIMUM
PHOSPHORUS (PHOSPHATE - P205) 65 LBS. PER ACRE, MINIMUM
POTASSIUM (POTASH - K2O) 500 PPM
SOLUBLE SALTS 10 TO 25%
CLAY 50 TO 65%
SILT 35 TO 60%
SAND

MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOLING, AND SOIL AMENDMENTS

DEFINITION: THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.
PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
CONDITIONS WHERE PRACTICE APPLIES: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.
CRITERIA:
A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
a. SEEDBED 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 FLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR GRAGGED SMOOTH BUT LEFT IN THE REQUIRED 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 VEGETATIVE ESTABLISHMENT:
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 20 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MOISTURE. AN EXCEPTION IF LOW GRASS IS TO BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WILL BE ACCEPTABLE.
iv. SOIL CONTAINS SUFFICIENT ORGANIC MATTER BY WEIGHT.
v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
b. APPLICATION OF AMENDMENTS OR TOPSOL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CRITERIA.
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 LEAVY BRUSHES TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN.

- B. MULCHING
1. MULCHER 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 WEEDS AND OTHER PLANTS. STRAW IS TO BE CLEAN AND NOT MOLDY, MILDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STRIPPER STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY SELECTED WOOD CELLULOSE FIBER CONTAINED INTO A UNIFORM FIBROUS PHYSICAL STATE.
i. 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 WCFM SPREAD SLURRY.
ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
iii. 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 ADJUTIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER ON APPLICATION HAVING MOSTLY FRESH AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASSES IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO TOXIC.
v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, MAXIMUM WATER HOLDING CAPACITY OF 1.6 PERCENT, MAXIMUM PH RANGES OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT, MAXIMUM RAIN WATERING CAPACITY OF 50 PERCENT MINIMUM.
2. APPLICATION
a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO AREAS WHERE EQUIPMENT CANNOT OPERATE BY USING 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 USED AS MULCH MUST BE APPLIED AT 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 RISK:
i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE AT A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS NOT SUITABLE FOR USE ON SLOPES WHERE EQUIPMENT CANNOT OPERATE. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER 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 UREA (DAGR-DCA), TOCQ, 70, PERMETEK, TERRA TAXI, TERRA TACK, OR OTHER APPROVED EQUALS, 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 VALLEYS AND CREEKS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS AND IS 15 FEET WIDE AND 500 TO 3,000 FEET LONG.
B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION
DEFINITION: TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.
PURPOSE: TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.
CONDITIONS WHERE PRACTICE APPLIES: 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.
CRITERIA:
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES, SEEDING METHODS, IF THIS SUMMARY IS NOT PART OF THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
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.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS DESCRIBED IN SECTION B-4-2-A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

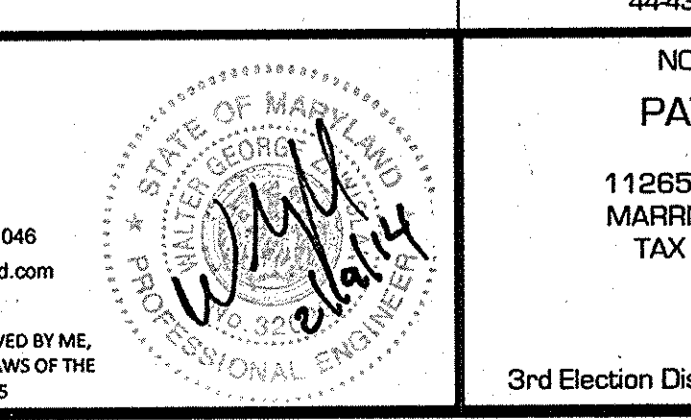
- B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING
DEFINITION: THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.
PURPOSE: TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.
CONDITIONS WHERE PRACTICE APPLIES: TO THE SURFACE OF ALL PERMITTER CONTROL, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.
CRITERIA:
A. SEEDING
1. SPECIFICATIONS
a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED MUST BE STORED IN BAGS THAT HAVE BEEN TESTED WITHIN 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE ATTACHED TO EACH BAG AND REQUESTED TO THE INSPECTOR TO VERIFY THE TYPE AND SEEDING RATE.
b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MOISTURE MUST BE APPLIED WHEN THE GROUND THAW.
c. INOCULANTS: THE INOCULANTS FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANTS LESS EFFECTIVE.
d. SOO OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (4 DAYS MIN) TO PERMIT OSSPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1. PERMANENT SEEDING TABLE B.3, OR SITE SPECIFIC SEEDING SUMMARY TABLE.
ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
i. CULTIPACKING SEEDERS ARE REQUIRED TO BURRY THE SEED IN SUCH A MANNER AS TO PROVIDE AT LEAST 1/2 INCH OF SOIL COVERING. SEEDS MUST BE FIRM AFTER PLANTING.
ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THAT LISTED IN TABLE B.3.
ii. 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN P205 (PHOSPHOROUS), 200 POUNDS PER ACRE K2O (POTASSIUM), 200 POUNDS PER ACRE.
iii. 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.

NOTE: THE TEMPORARY & PERMANENT SEEDING SUMMARY TABLES ARE LOCATED ON SHEET 2 OF 4.

STORMWATER MAINTENANCE SCHEDULE
INSPECTION ITEM MICRO-BIOTREATION
FREQUENCY OF INSPECTION SEASONALLY AND AFTER A MAJOR RAIN
VEGETATION AS NEEDED
PLANT COMPOSITION AND HEALTH YEARLY
VEGETATIVE COVER AND EROSION YEARLY
DEBRIS AND TRASH CLEANOUT MONTHLY
ADDRESS CHART: LOT/PARCEL # 9, STREET ADDRESS 11265 OLD FREDERICK RD, PROPOSED SITE IMPROVEMENT: SINGLE FAMILY HOME, PERMIT INFORMATION CHART: PROJECT PATHTOWN VIEW - LOT 9, SECTION/AREA N/A, LOT/PARCEL NO. 9/55, PLAT # OR/F W GRID# 15015/005 22, ZONING R20, TAX MAP NO. 10, ELECT. DIST. THRD, CENSUS TRACT 6030.00, WATER CODE 44-4380, SEWER CODE 20-43980

APPLICANT/OWNER: TIMBERLAKE/MARRIOTTVILLE, LLC
888 BESTGATE ROAD SUITE 411 ANNAPOLIS, MD 21401 240-388-0873
NOTES AND DETAILS: PATVIEW LOT 9, 11265 OLD FREDERICK ROAD MARRIOTTVILLE, MD 21104 TAX MAP 10, PARCEL 65
DRAWN: ADT, CHECKED: DP/VW, DATE: 13.01.2014, PROJECT NO.: 19808N, SCALE: AS SHOWN, SHEET: 3 OF 4

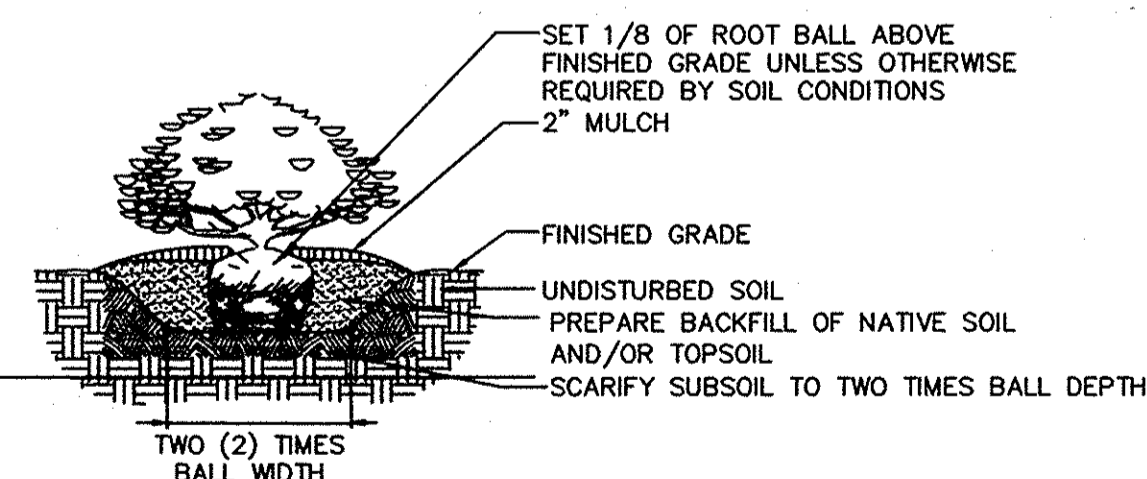
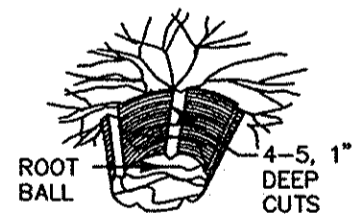
Axiom Engineering Design logo and text: 6990 Columbia Gateway Dr, Ste 150 Columbia, Maryland 21046. Phone: 410.276.6220. Fax: 410.276.6221. Email: info@axiom-ed.com



GENERAL PLANTING NOTES

1. ALL PLANT MATERIAL TO MEET A.A.N. STANDARDS.
2. LANDSCAPE CONTRACTOR TO FOLLOW LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE WASHINGTON METRO APPROVED BY LCAMM.
3. NO SUBSTITUTIONS TO BE MADE WITHOUT CONSENT OF LANDSCAPE ARCHITECT OR OWNER.
4. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. 50% QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN THE PLANT LIST.
5. ALL BEDS TO BE TOPPED WITH THREE INCHES OF HARDWOOD MULCH.
6. LANDSCAPE CONTRACTOR TO VERIFY LOCATION OF UTILITIES WITH OWNERS BEFORE PLANTING.
7. LANDSCAPE ARCHITECT/OWNER SHALL SELECT, VERIFY AND/OR APPROVE ALL PLANT MATERIAL. AT OWNER'S DISCRETION, SPECIMEN AND OTHER PLANT MATERIAL WILL BE SELECTED.
8. LANDSCAPE CONTRACTOR SHALL COORDINATE PLANT BED FILLING OPERATIONS AND PLANT MATERIAL INSTALLATION WITH GENERAL CONTRACTOR AND UTILITIES CONTRACTOR. AT THE TIME OF FINAL INSPECTION WITH ACCEPTANCE, ALL ELECTRIC, WATER, DRAINAGE, AND FOUNTAIN UTILITIES, AS WELL AS ALL PLANT MATERIALS, SHALL REMAIN UNDAMAGED. LIKEWISE, LANDSCAPE CONTRACTOR AND UTILITIES CONTRACTOR SHALL COORDINATE EFFORTS TO ENSURE THAT SURFACE UTILITIES ARE AT THE PROPER ELEVATION RELATIVE TO FINAL GRADES.
9. CONTRACTOR SHALL NOTIFY MISS UTILITY 72 HOURS PRIOR TO CONSTRUCTION.
10. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING 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.
11. TOPSOIL MIX
 - A. PLANTING MIX SHALL BE PREPARED AT APPROVED ON-SITE STAGING AREA USING APPROVED ON-SITE EXISTING SOIL. MIX MINIMUM QUANTITIES OF 20 CUBIC YARDS OR SUFFICIENT MIX FOR ENTIRE JOB IF LESS THAN 20 CUBIC YARDS IS REQUIRED.
 - B. THOROUGHLY MIXED IN THE FOLLOWING PROPORTIONS FOR TREE AND SHRUB PLANTING MIX: .5 CY EXISTING SOIL, .2 CY SHARP SAND, .3 CY WOOD RESIDUALS, 4.5 LBS TREBLE SUPERPHOSPHATE, 5 LBS DOLOMITE LIMESTONE (ELIMINATE FOR ACID LOVING PLANTS).
 - C. FOR BED PLANTING, SHRUBS AND GROUNDCOVER SPACES 24 INCHES OR CLOSER, INCORPORATE THE FOLLOWING INGREDIENTS ER 20 SF AND INCORPORATE INTO TOP 8 INCHES OF EXISTING SOILS BY ROTOTILLING OR SIMILAR METHOD OF INCORPORATION. 2 CY SHARP SAND, .3 CY ORGANIC MATERIAL, 4.5 LBS TREBLE SUPERPHOSPHATE, 5 LBS DOLOMITE LIMESTONE (ELIMINATE FOR ACID LOVING PLANTS).
12. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
13. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
14. SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.

NOTES:
 -FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-BIODEGRADABLE CONTAINERS AND SCARIFY ROOT BALL
 -FOR B&B SHRUBS, CUT AND REMOVE METAL CAGE, TWINE, BURLAP CAN REMAIN

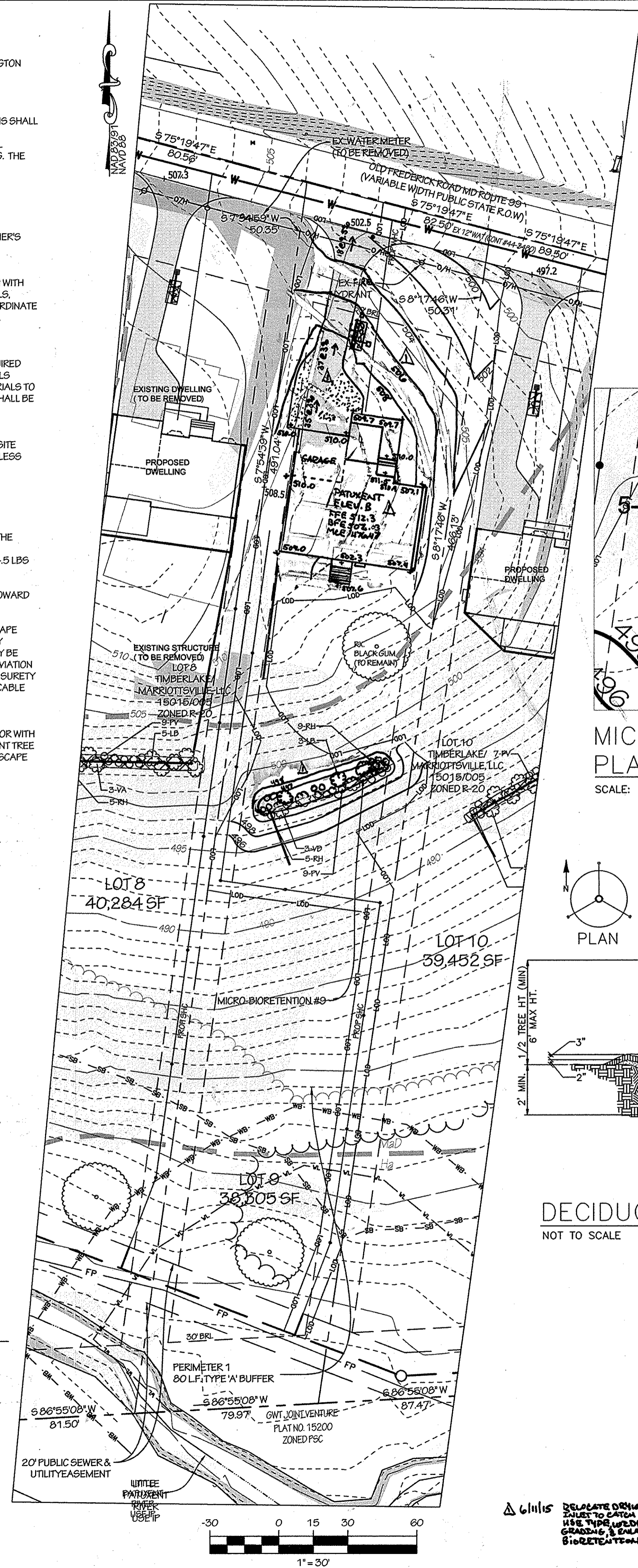


SHRUB PLANTING DETAIL

NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-24-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 [Signature] 3-24-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 [Signature] 3/24/14
 DIRECTOR DATE

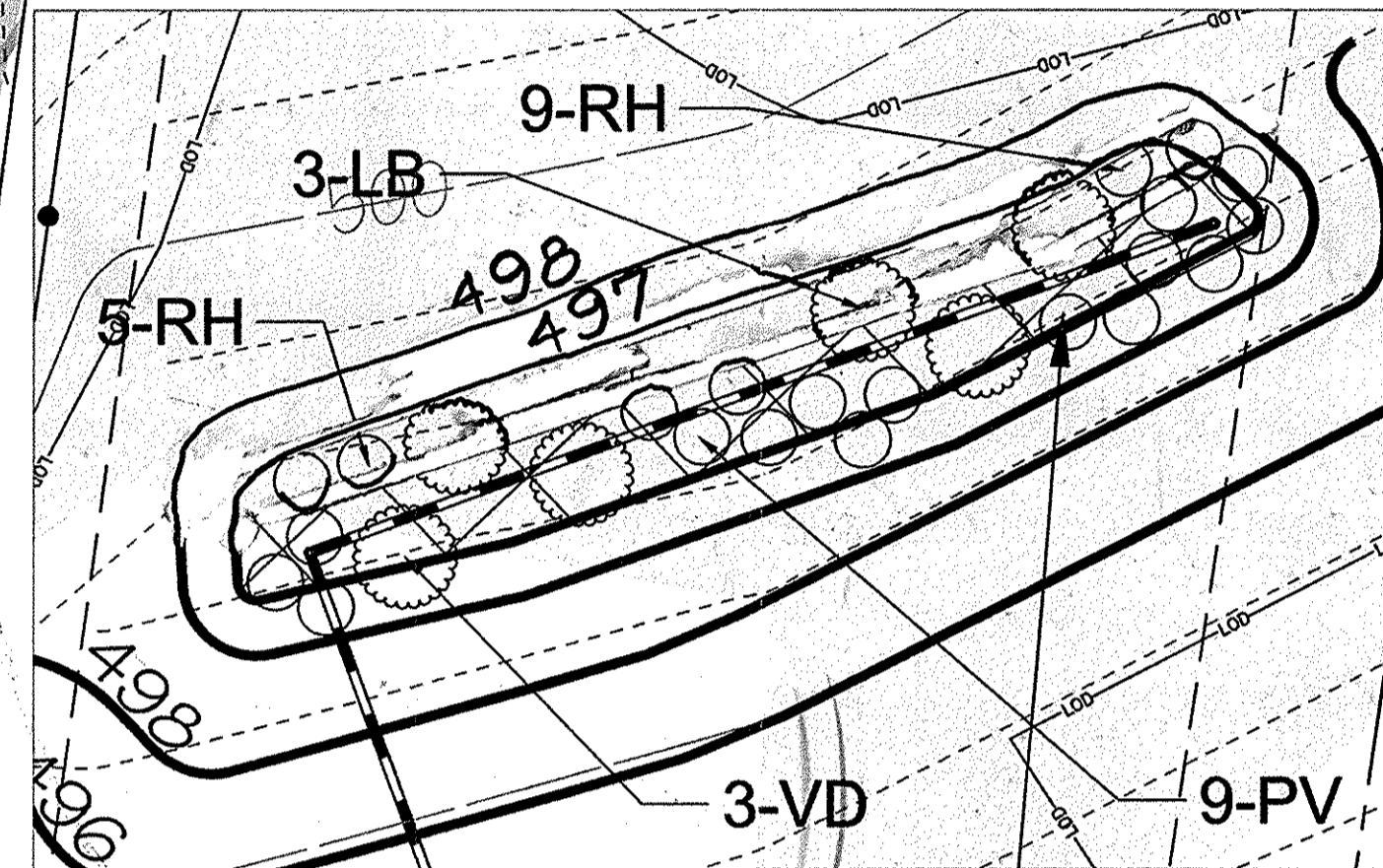


Planting Schedule

Tree Symbol	Quantity	Botanical Name	Common Name	Size	Comments
VD	3	Viburnum dentatum	Arrowwood Viburnum	3 Gal.	5' o.c., Cont.
LB	3	Lindera benzoin	Spicebush	3 Gal.	3' o.c.
PV	9	Panicum virgatum	Switchgrass	3 Gal.	24" o.c.
RH	14	Rudbeckia hirta	Black Eyed Susan	1 Gal.	18" o.c.

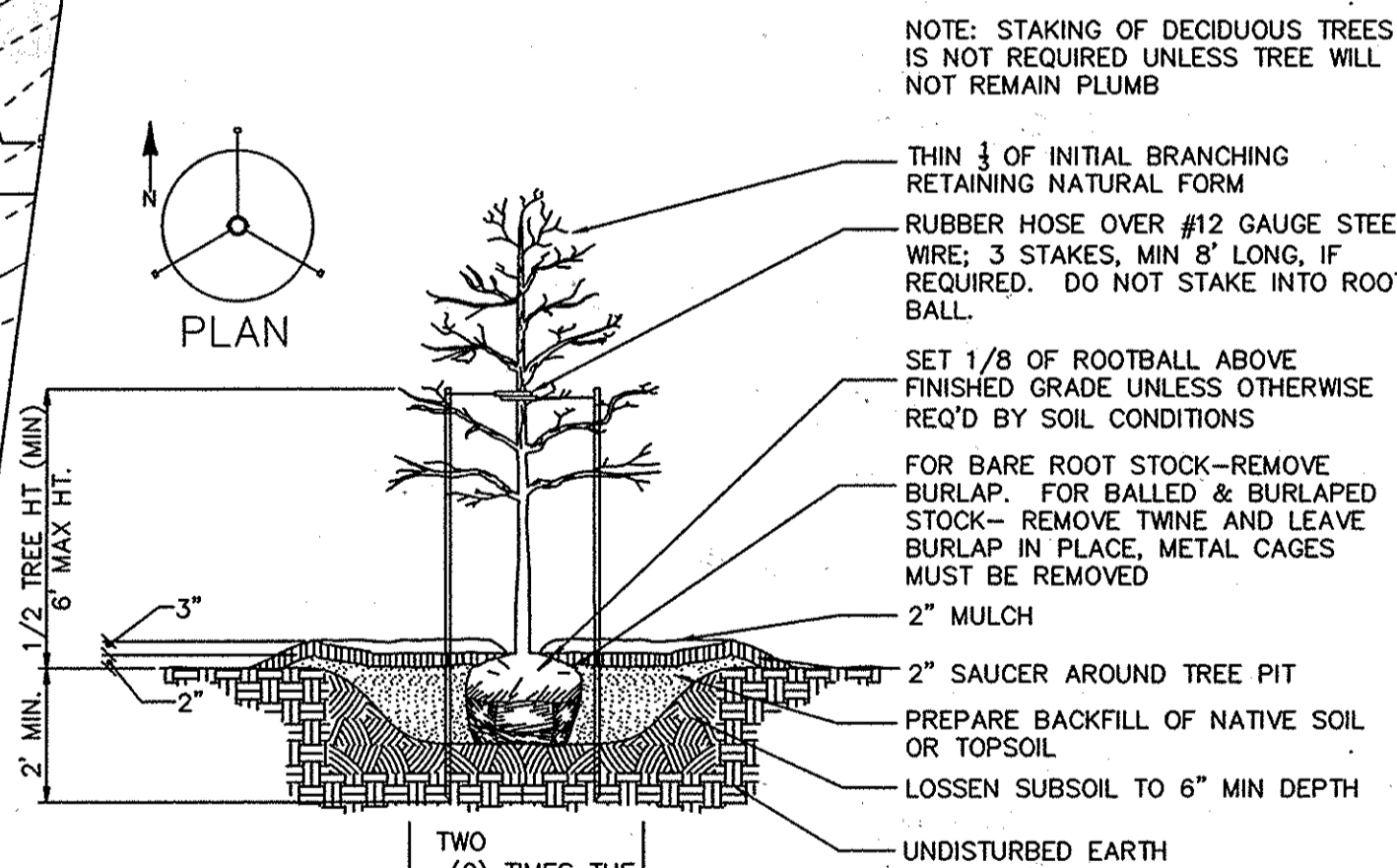
Micro Bioretention Plant List

Tree Symbol	Quantity	Botanical Name	Common Name	Size	Comments
VD	3	Viburnum dentatum	Arrowwood Viburnum	3 Gal.	5' o.c., Cont.
LB	3	Lindera benzoin	Spicebush	3 Gal.	3' o.c.
PV	9	Panicum virgatum	Switchgrass	3 Gal.	24" o.c.
RH	14	Rudbeckia hirta	Black Eyed Susan	1 Gal.	18" o.c.



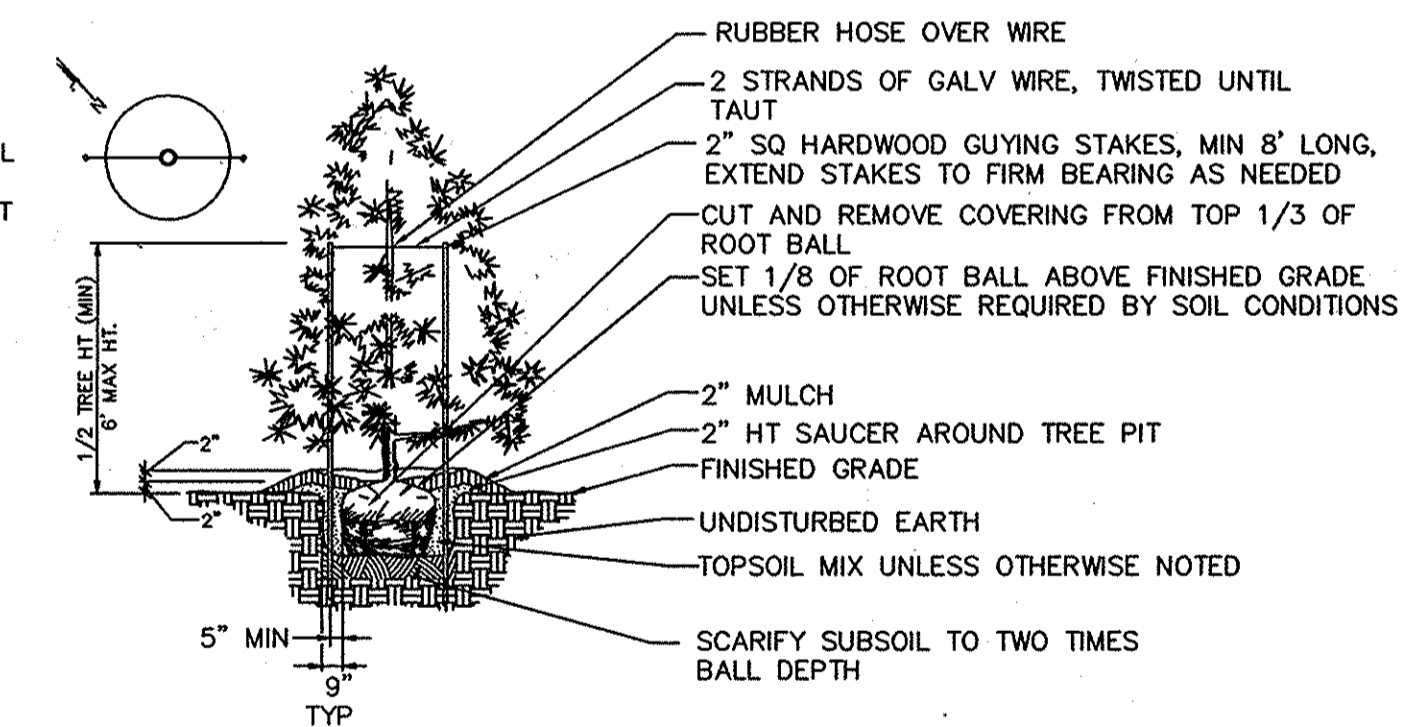
MICRO BIORETENTION PLANTING DETAIL

SCALE: 1" = 1'-0"



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

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 TREE 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.

[Signature] 2/24/14
 NAME DATE

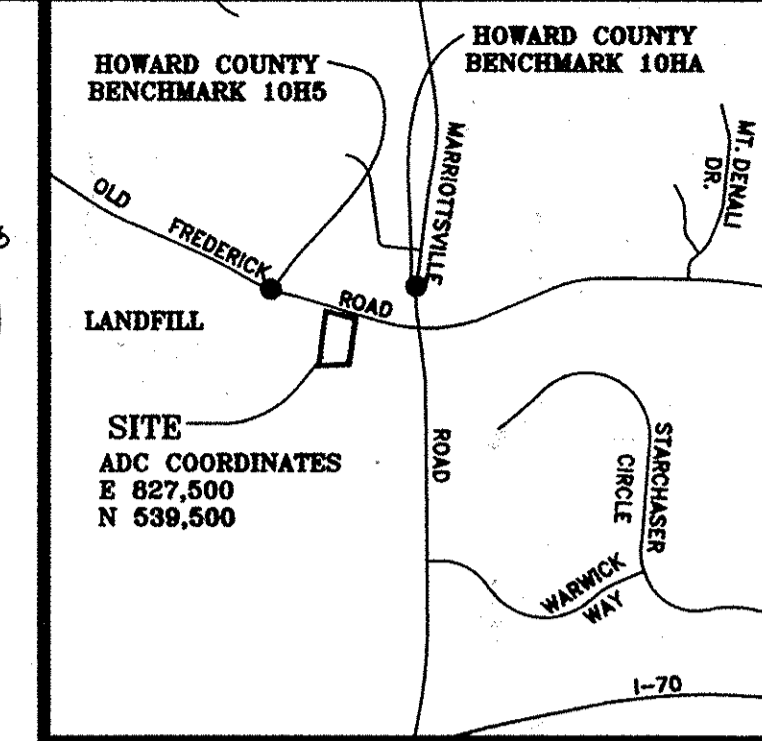
Axiom Engineering Design
 Civil Engineering • Land Surveying • Landscape Architecture • Land Planning
 6990 Columbia Gateway Dr, Ste 150 Office: 443.276.6220
 Columbia, Maryland 21046 Fax: 443.276.6221
 www.axiom-ed.com info@axiom-ed.com

LeShanda N. Gibbs, RLA
 Registered Landscape Architect
 6990 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046
 Ph: 443-276-6220 Fax: 443-276-6221 S.Gibbs@axiom-ed.com
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND/OR APPROVED BY ME, AND THAT I AM DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 3444, EXPIRATION DATE 12/31/2015

LANDSCAPE ARCHITECT
 LICENSE NO. 3444
 LEShANDA N. GIBBS
 STATE OF MARYLAND

LANDSCAPE PLAN
 PATUXENT VIEW LOT 9
 11265 OLD FREDERICK ROAD
 MARRIOTTVILLE, MD 21104
 TAX MAP 10, PARCEL 65
 3rd Election District: Howard County, Maryland

Drawn: LNS
 Checked: DP/WZ
 Date: 2.6.14
 Project No.: 13-0028
 Scale: AS SHOWN
 Sheet: 4 OF 4



VICINITY MAP
 1"=2000'

LEGEND

- EX FIRE HYDRANT
- EX UTILITY POLE
- EX OVERHEAD ELECTRIC
- EX WATER
- EX SEWER
- EX STREAM
- EX STREAM BUFFER
- EX FLOODPLAIN
- EX TREE LINE
- EX SOIL LINE
- EX CONTOUR
- PROP CONTOUR
- EX POWER POLE & OVERHEAD LINES
- EX RIGHT OF WAY
- EX LOT LINE
- WETLAND
- WETLAND BUFFER
- MICRO-BIORETENTION SURFACE AREA
- PROP PAVING
- EX SLOPES > 25%
- EX SLOPES 15% TO 25%
- PROPOSED SHADE TREE
- WETLAND
- WETLAND BUFFER

APPLICANT/OWNER:

TIMBERLAKE/MARRIOTTVILLE, LLC

888 BESTGATE ROAD
 SUITE 411
 ANNAPOLIS, MD 21401
 240-388-0873

ADDRESS CHART			
LOT/PARCEL #:	STREET ADDRESS		
9	11265 OLD FREDERICK RD		
PROPOSED SITE IMPROVEMENT: SINGLE FAMILY HOME			
PERMIT INFORMATION CHART			
PROJECT	SECTION/AREA	LOT/PARCEL NO.	
PATUXENT VIEW - LOT 9	N/A	9/65	
PLAT # OR L/F	GRID#	ZONING	TAX MAP NO.
15015/005	22	R20	10
WATER CODE:	SEWER CODE:	ELECT. DIST.	CENSUS TRACT
44-4980	20-4398-D	THRD	6030.00