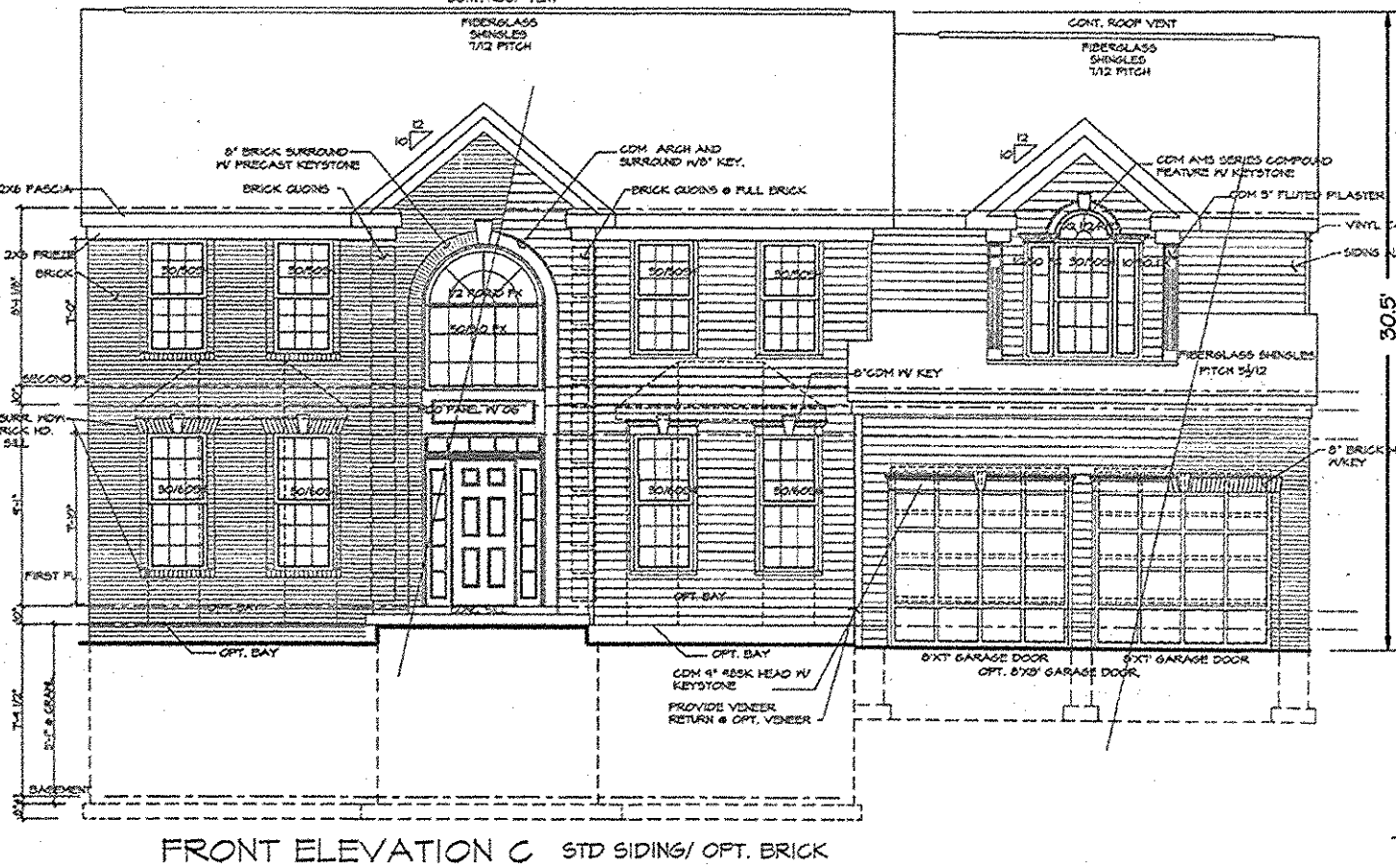


SOILS INFORMATION TABLE (HOWARD SOIL SURVEY MAP #5)

MAP SYMBOL	MAP UNIT NAME & SERIES	HYDROLOGIC SOIL GROUP
BcB	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	HATBORO CORDURUS SILT LOAM 0% TO 3% SLOPES	D
MaD	MANOR LOAM 15% TO 25% SLOPES	B

TAKEN FROM PLANS RECEIVED: 3/7/03
Total Base Finished Area: 3,073 s.f.
Total Finished Area with all options:
above-grade finished area: 3,073 s.f.
below-grade finished area: 1,405 s.f.
Lot Coverage = 1,830 S.F. +/-
HEIGHT: 28' +/-

HOUSE DETAIL



HOUSE ELEVATION

NOTE: PUBLIC WATER METER PROPOSED TO BE OUTSIDE OF BUILDING

Specimen/Significant Trees

No.	Botanical Name	Common Name	D.B.H.	Condition	Status
3	Nyssa sylvatica	Black Gum	26"	Good	Save
9	Gleditsia triacanthos	Honey Locust	30"	Good	Save
10	Nyssa sylvatica	Black Gum	28"	Good	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
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

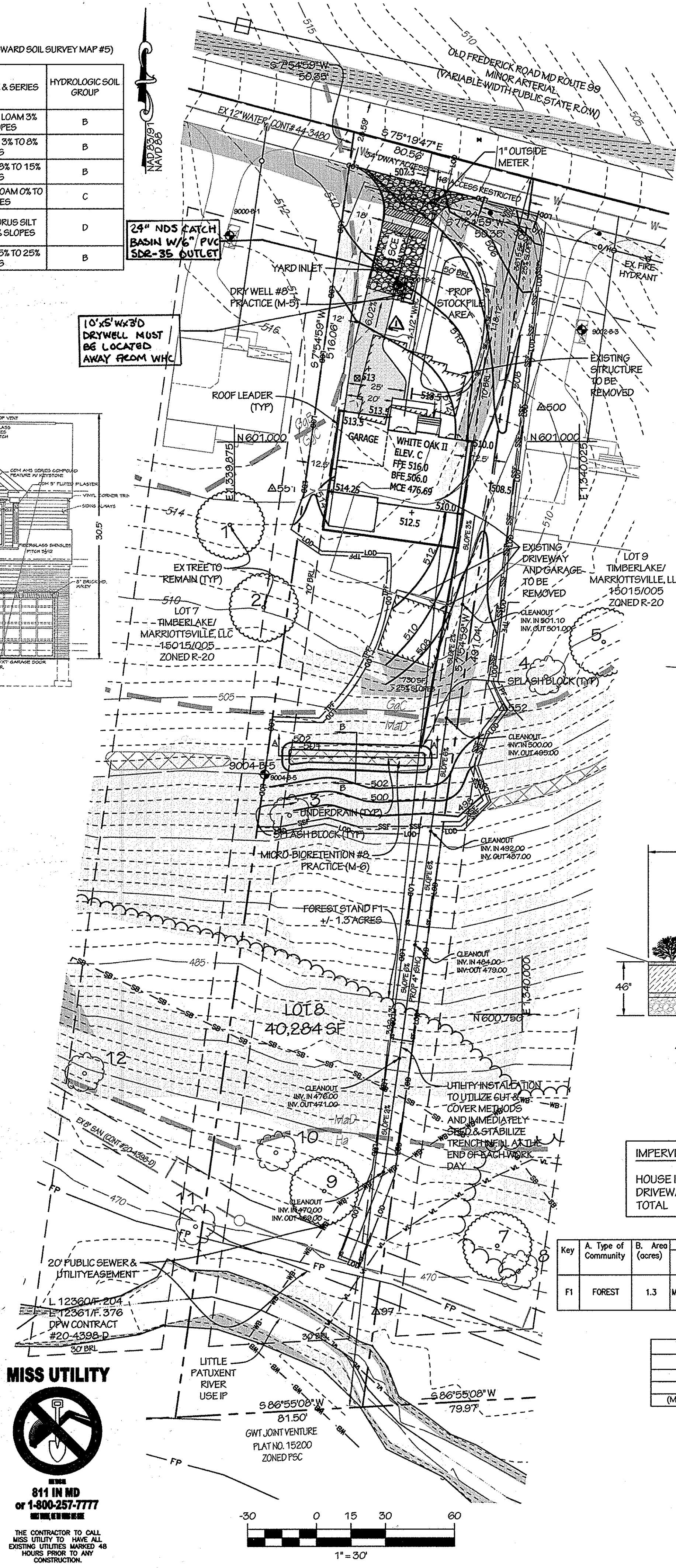
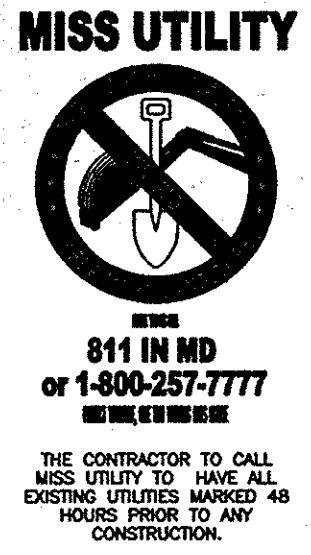
John R. Roberts 2/27/14
DATE
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 3-24-14
DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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

March D. Wylch 3/24/14
DATE
DIRECTOR



GENERAL NOTES
1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. THE EXISTING TOPOGRAPHY IS TAKE FROM FIELD RUN SURVEY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY AXIOM ENGINEERING DESIGN DATED JUNE 14, 2013.
4. 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. 10HS AND 10HA WERE USED FOR THIS PROJECT.
5. 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.
6. 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.
7. ANY DAMAGE TO COUNTY RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
8. SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
9. FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD DETAIL R-6.05.
10. THE SUBJECT PROPERTY IS ZONED R-20 PER THE 2013 HOWARD COUNTY COMPREHENSIVE ZONING PLAN APPROVED OCTOBER 6, 2013.
11. 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 EASMENT AREAS AND 100 YEAR FLOODPLAIN EXCEPT AS NOTED IN MORE THAN 15 AS EMBODIED DISTURBANCE.
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. THERE IS A HISTORIC STRUCTURE LOCATED ON LOT 8, THAT WILL BE REMOVED FOR THIS PROJECT. THIS PLAN CAME BEFORE THE HISTORIC DISTRICT COMMISSION ON SEPTEMBER 12, 2013 FOR ADVISORY COMMENTS AS CASE HDC-13-44.
14. THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION PER SECTION 16.122 (2)(a) 12-16-2013.
15. 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).
16. THE 65DBA NOISE LINE ESTABLISHED BY HOWARD COUNTY HAS BEEN WAIVED BY DED 12/16/13. LOTS 7-10 WERE SUBDIVIDED BY A DEED PRIOR TO 1960 AND BY SURVEY PLAT IS 1956 PER LIBER 198 / FOLIO 337 AND ARE THEREBY GRANDFATHERED AS AN EXISTING LOT.
17. 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

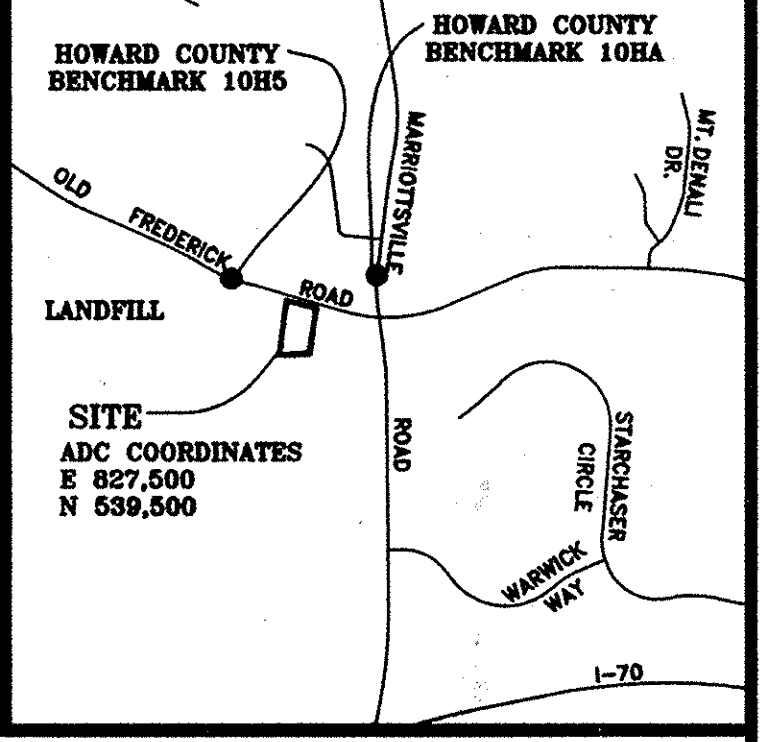
TEST PIT	EX GROUND	DEPTH	BOTTOM	GROUNDWATER
19001-B-2	513.74	9'	504.74	NONE ENCOUNTERED
19004-B-5	499.72	9'	490.72	NONE ENCOUNTERED

HOWARD COUNTY CONTROL POINTS

NO.	NORTHING	EASTING	ELEVATION
10HS	183246.69376	408322.37246	159.302
10HA	183248.14815	408710.89035	147.494

SITE ANALYSIS DATA CHART

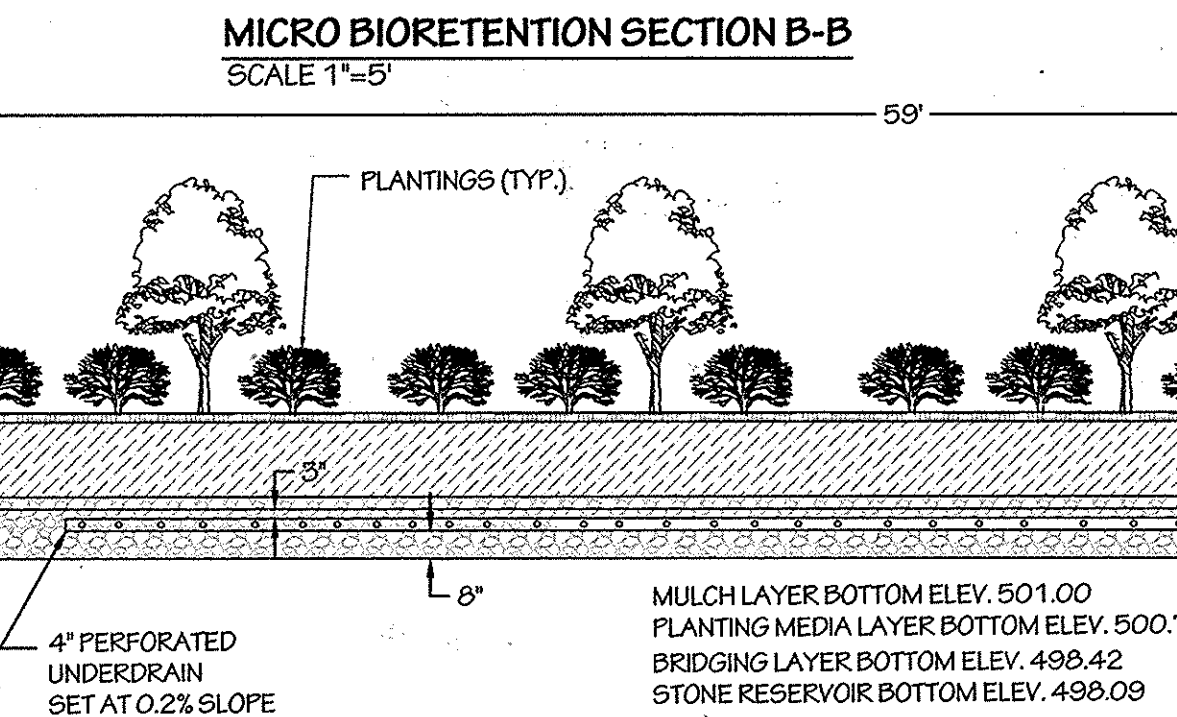
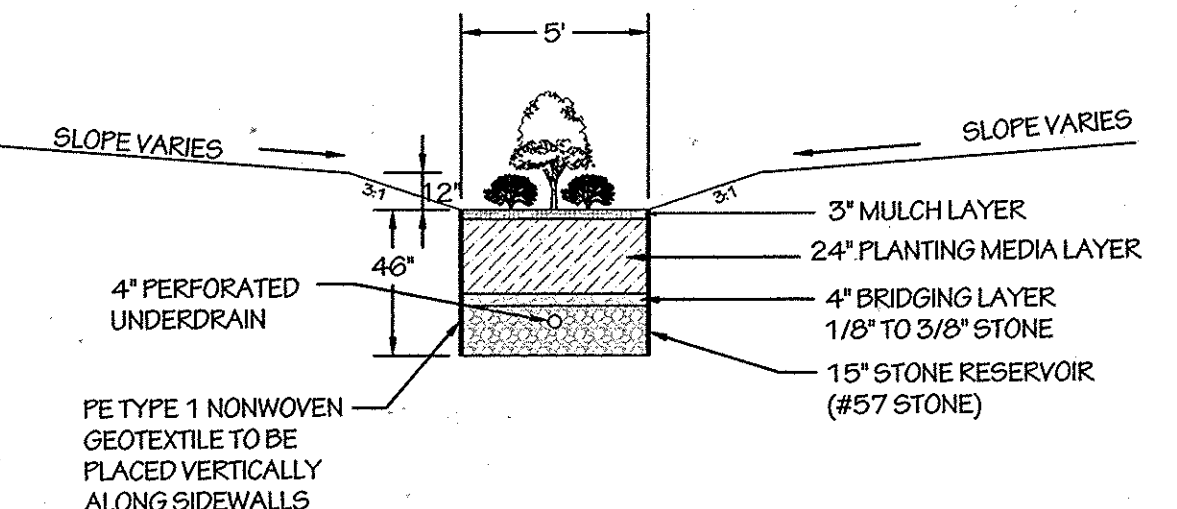
SITE AREA:	0.925 AC +/-
LIMIT OF DISTURBANCE AREA:	40,284 SF +/-
PRESENT ZONING:	R-20
PROPOSED USE:	RESIDENTIAL
TOTAL NUMBER OF UNITS:	1



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 RIGHT OF WAY
	EX LOT LINE
	LIMIT OF DISTURBANCE
	SILT FENCE
	SUPER SILT FENCE
	TREE PROTECTION FENCE
	DRAINAGE AREA DIVIDE (ESD)
	PROP PAVING
	PROP STABILIZED CONSTRUCTION ENTRANCE
	PROP MICRO-BIORETENTION
	EX SLOPES > 25%
	EX SLOPES 15% TO 25%
	WETLAND
	WETLAND BUFFER



IMPERVIOUS AREA CALCULATIONS

HOUSE IMPERVIOUS AREA	2140 SF
DRIVEWAY IMPERVIOUS AREA	1618 SF
TOTAL	3758 SF

ESDv SUMMARY TABLE

DRY WELL #8:	Pe TREATED: 1.03 IN Rev PROVIDED: 60 CF
MICRO BIORETENTION #8:	Pe TREATED: 2.18 IN Rev PROVIDED: 413 CF

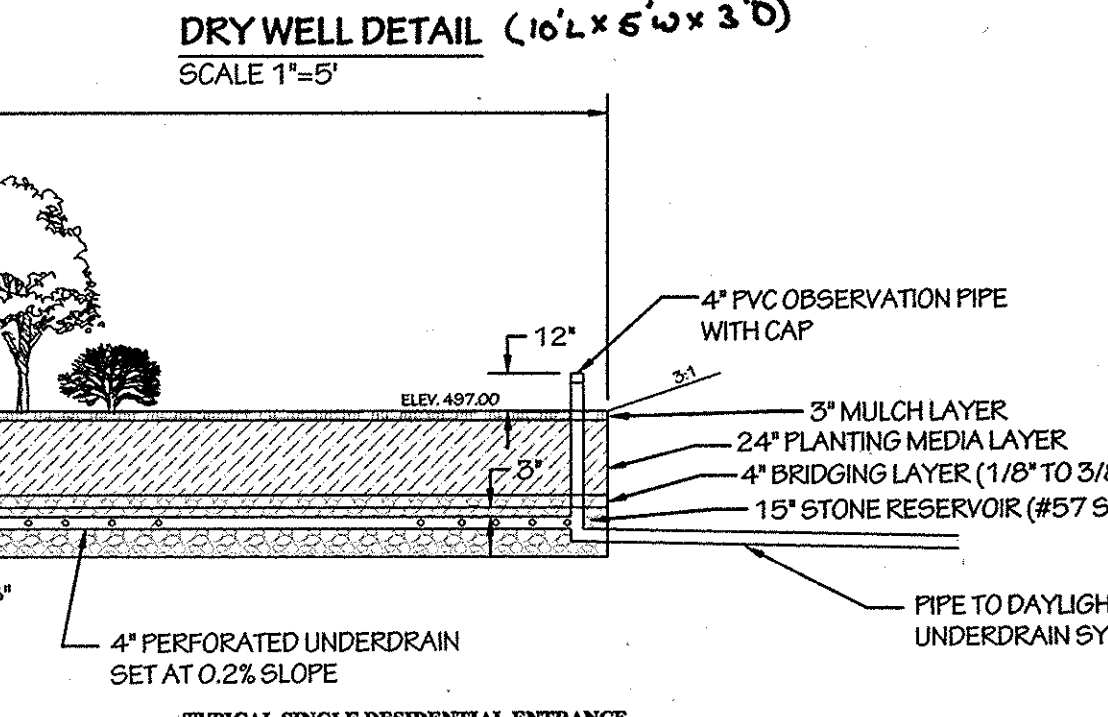
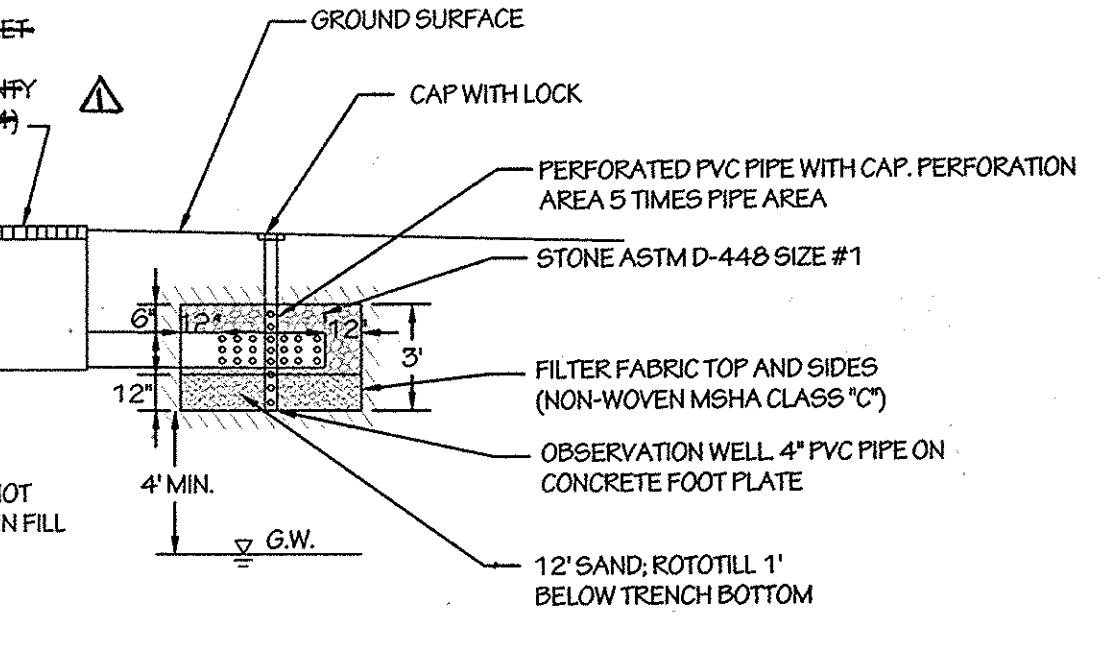
Key	A. Type of Community	B. Area (acres)	C. Soil Information	D. Existing Vegetation (Dominant Species Approximate %)	E. Stand Characteristics	F. Forest Area in Sensitive Environments (acres)	G. Habitat Value	H. Specimen Trees
F1	FOREST	1.3	MaD, Ha	MIXED UPLAND HARDWOODS MAINLY TULIP POPLAR	30 BLACK LOCUST	18"-29" 40 6000	0.65	1 2 AND LOCUST

11267 OLD FREDERICK ROAD
SWM/ESD

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

REVISION

DATE	BY	REASON
8/29/14	LDD	RELOCATED DRYWELL AND CHANGED INLET TO CATCH BASIN



APPLICANT/OWNER:

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

ADDRESS CHART

LOT/PARCEL #:	8	STREET ADDRESS	11267 OLD FREDERICK RD
PROPOSED SITE IMPROVEMENT:	SINGLE FAMILY HOME		

PERMIT INFORMATION CHART

PROJECT	SECTION/AREA	LOT/PARCEL NO.
PATUXENT VIEW - LOT 8	N/A	8/85
PLAT # OR L/F	GRID#	ZONING
15015/005	22	R20
TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
10	10	6030.00
WATER CODE:	SEWER CODE:	
44-4380	20-4398-D	

SITE PLAN / SEDIMENT AND EROSION PLAN

PATUXENT VIEW LOT 8 11267 OLD FREDERICK ROAD MARRIOTTVILLE, MD 21104 TAX MAP 10, PARCEL 65	Drawn: ADT Checked: DP/NZ Date: FEB 11, 2014 Project No.: 130028 Scale: AS SHOWN Sheet: 1 OF 4
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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

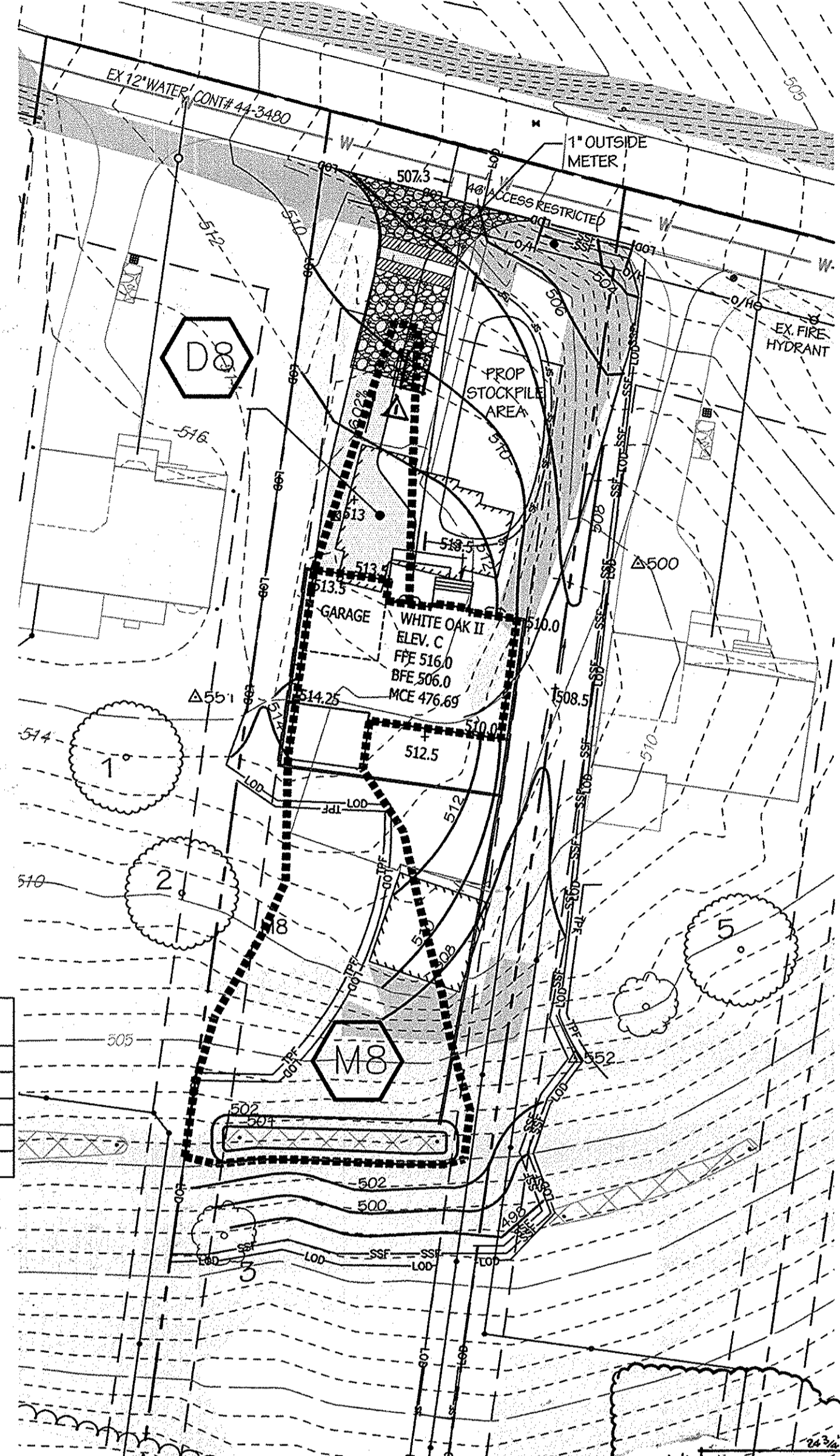
WALTER G. ZAWISLAK, P.E.
Professional Engineer
6950 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046
Ph: 443-276-8220 Fax: 443-276-8221 W.Zawislak@axiom-ed.com
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 32033, EXPIRATION DATE 06/20/2015

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 THERE TO.
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, B) 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 40284 SF (0.925 AC)
AREA DISTURBED 24885 SF (0.571 AC)
AREA TO BE ROOFED OR PAVED 3758 SF (0.086 AC)
AREA TO BE VEG. STABILIZED 2127 SF (0.485 AC)
TOTAL CUT 1076 CY
TOTAL FILL 395 CY
OFFSITE WASTE/BORROW LOCATION
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 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 WORKDAY, 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.

PROPOSED DRAINAGE AREA SUMMARY

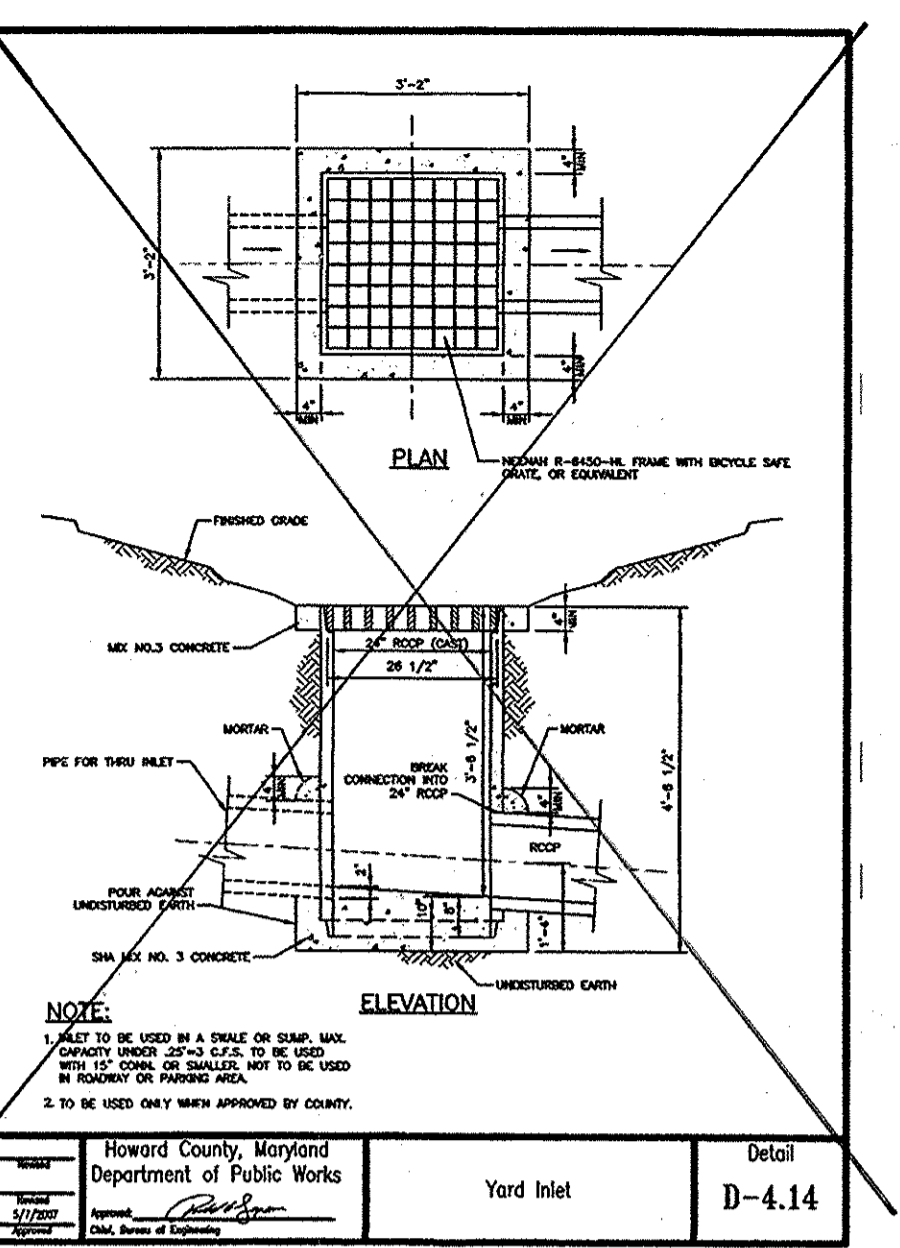
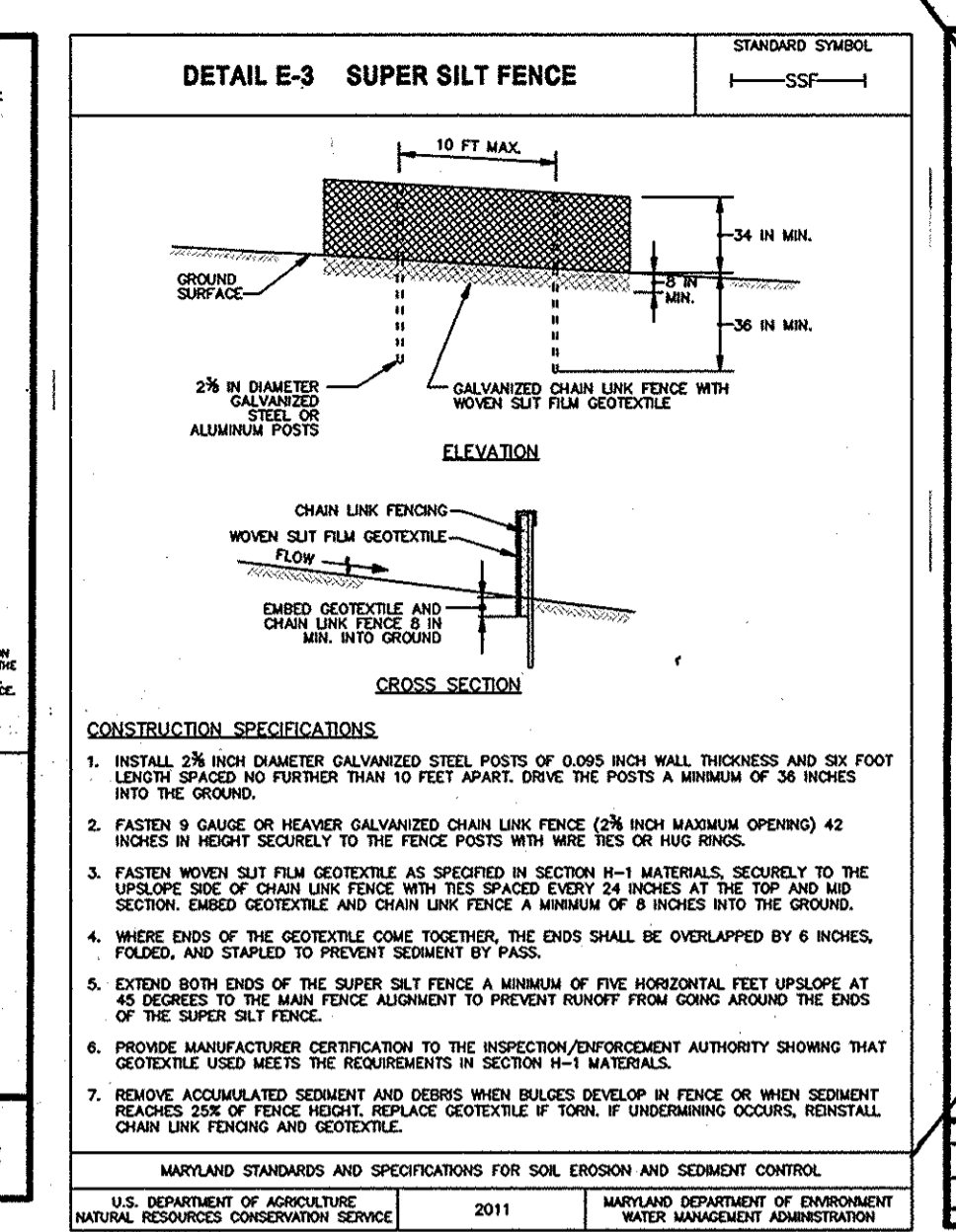
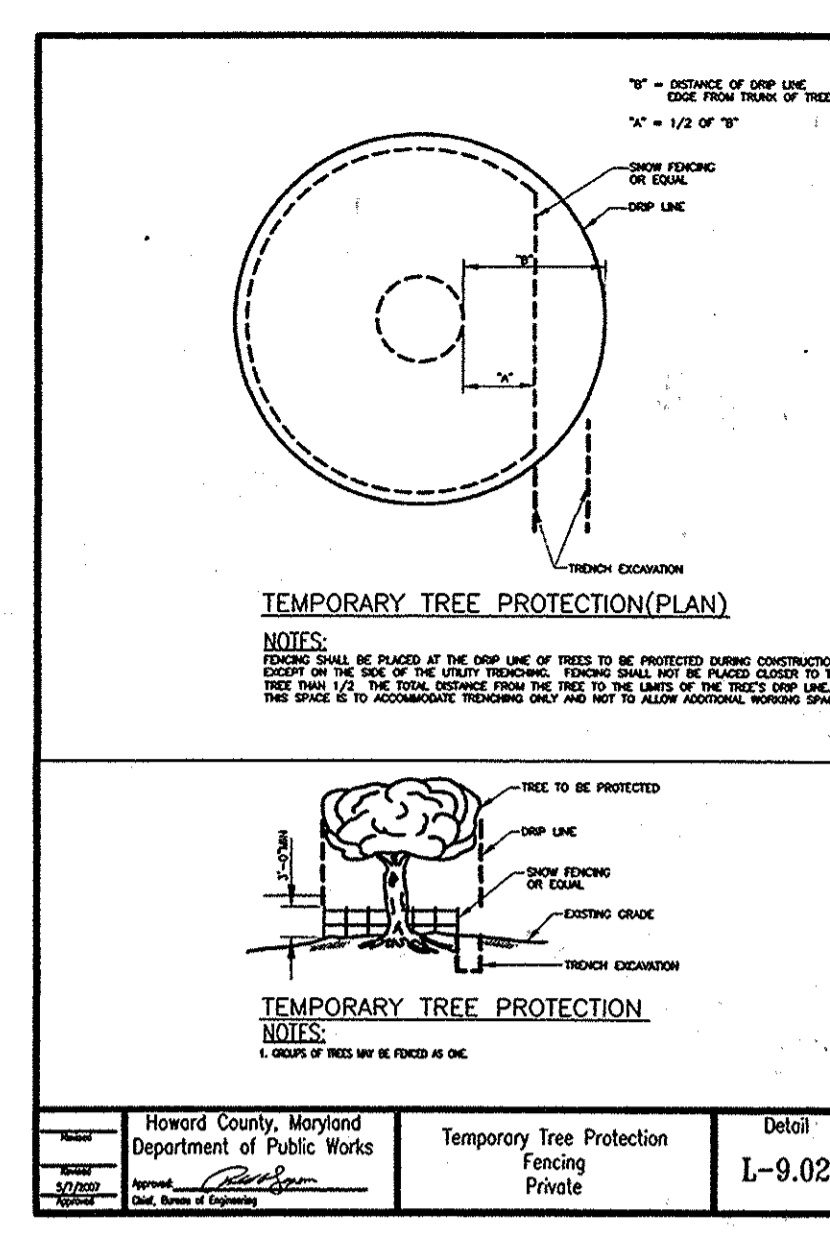
DRAINAGE AREA	ACREAGE	RCN	% IMPERVIOUS	SOIL TYPE
DB	0.02 AC	92	84.64%	100% TYPE B SOILS
MB	0.17 AC	72	28.95%	100% TYPE B SOILS



Summary Table Lot 8

Practice	DA Acres	IMP Acres	Previous Acres	Woods Acres	ESDv Req CF	ESDv Prov CF
Micro-Bioretentation Area (MB)	0.17 ac	0.05 ac	0.11 ac	0 ac	191 cf	413 cf
Drywell (DB)	0.02 ac	0.02 ac	0.01 ac	0 ac	58 cf	60 cf
Total	0.19 ac	0.07 ac	0.12 ac	0.00 ac	249.0 cf	473.0 cf

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



17.0 STANDARDS AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE

Definition
A stabilized layer of aggregate that is underlain by 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 feet 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 mounable 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 having 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 shall 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.

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

WZ
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.

John R. Robertson 2/24/14
DATE

John R. Robertson
SIGNATURE OF DEVELOPER

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

John R. Robertson 2/24/14
DATE

John R. Robertson
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Andrzej Chmura 3-24-14
DATE

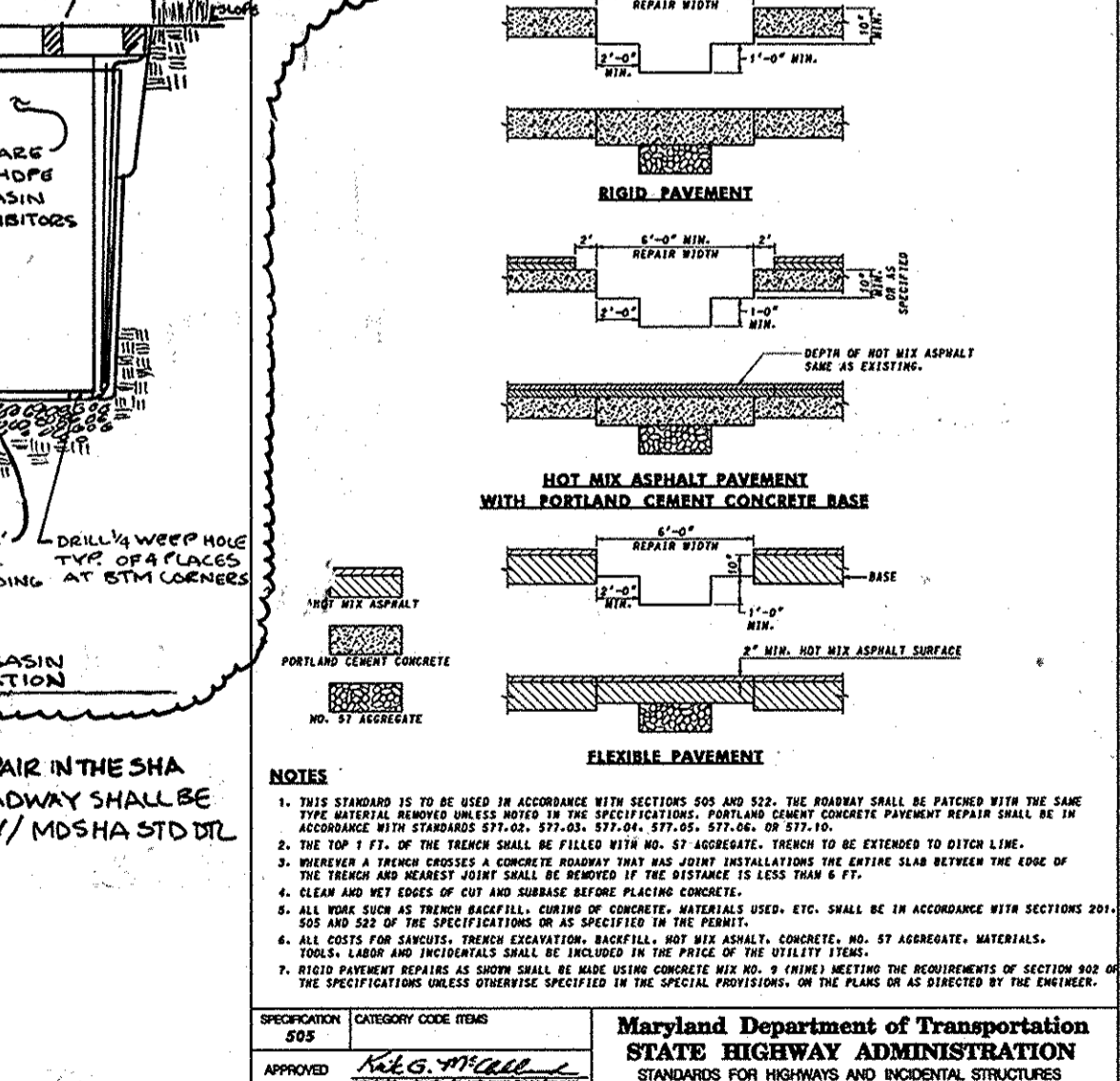
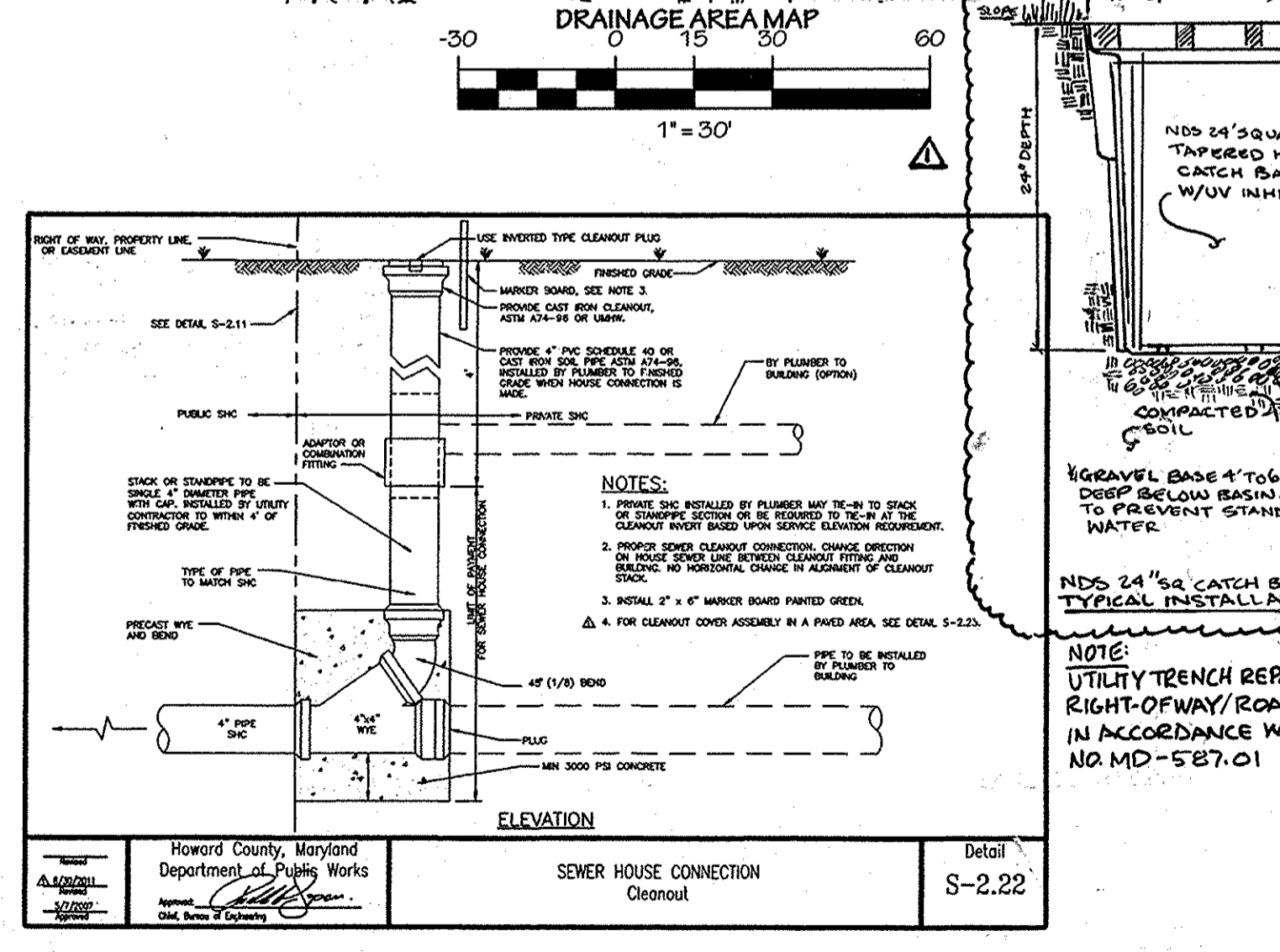
Andrzej Chmura
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Kate DeLuca 3-24-14
DATE

Kate DeLuca
CHIEF, DIVISION OF LAND DEVELOPMENT

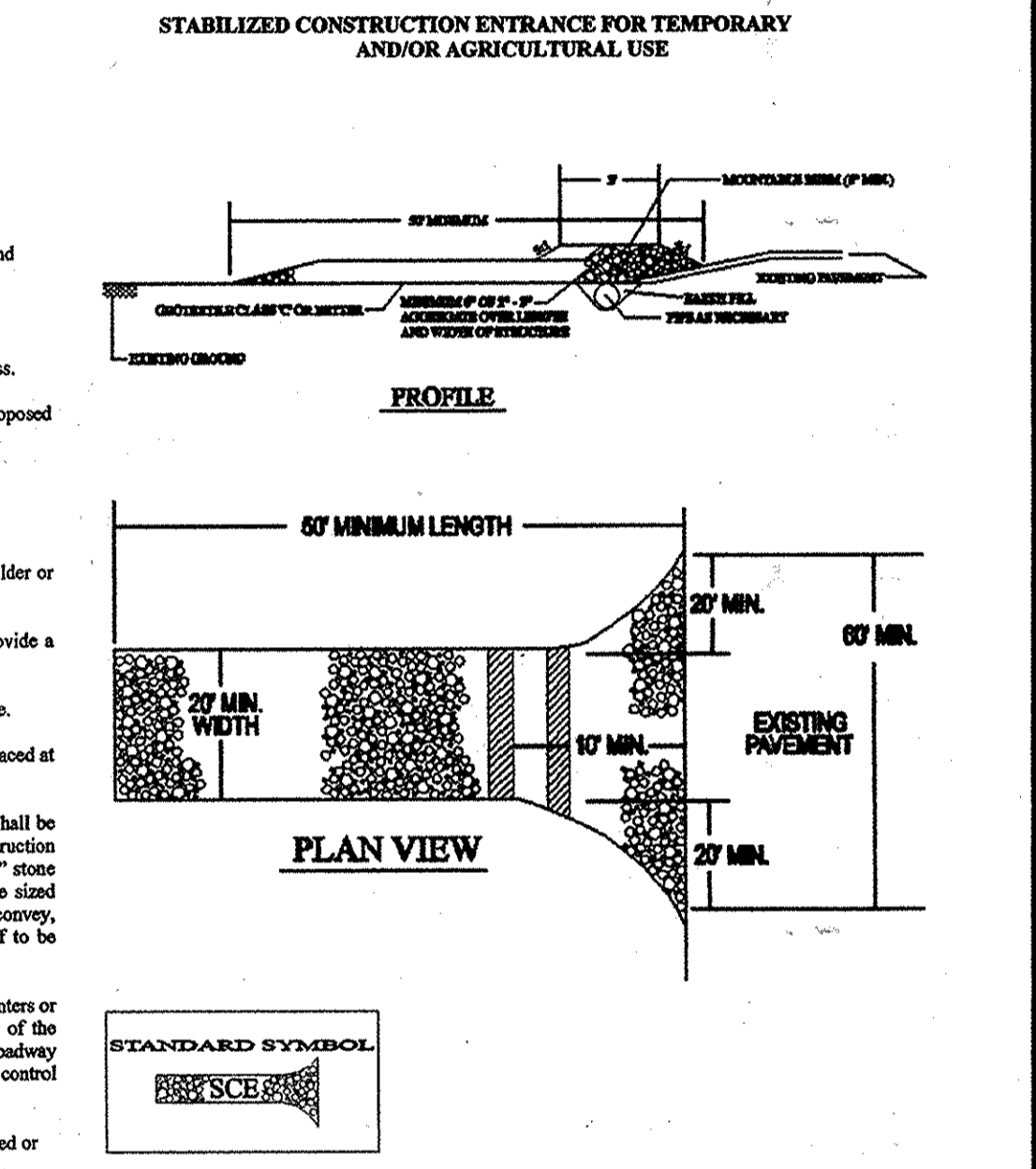
David A. Long 3/24/14
DATE

David A. Long
DIRECTOR



PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)		LIME RATE
					N	P ₂ O ₅	
1	SWITCH GRASS	10	MARCH 1 TO MAY 15 MAY 16 TO JUNE 15	0.25 to 0.5"			
	CREeping RED FESCUE	15	MARCH 1 TO MAY 15 MAY 16 TO JUNE 15	0.25 to 0.5"			
	BUSH CLOVER	2	MARCH 1 TO MAY 15 MAY 16 TO JUNE 15	0.25 to 0.5"			
	TALL FESCUE	4	MARCH 1 TO MAY 15 MAY 16 TO JUNE 15	0.25 to 0.5"			
6	PERENNIAL RYE GRASS	25	MARCH 1 TO MAY 15 MAY 16 TO JUNE 15	0.25 to 0.5"	45 lb/af (1 lb/1000 sf)	90 lb/af (2 lb/1000 sf)	90 lb/af (2 lb/1000 sf)
	WHITE CLOVER	5	MARCH 1 TO MAY 15 MAY 16 TO JUNE 15	0.25 to 0.5"			2 tons/ac (90 lb/1000 sf)



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)

APPLICANT/OWNER:

TIMBERLAKE/MARRIOTTVILLE, LLC

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

DATE: 8/29/14 BY: MDC/LDD
REVISION: 1. CALCULATED DRYWELL AND CHANGE INLET TO CATCH BASIN

ADDRESS CHART

LOT/PARCEL #: 8
STREET ADDRESS: 11265 OLD FREDERICK RD
PROPOSED SITE IMPROVEMENT: SINGLE FAMILY HOME

PERMIT INFORMATION CHART

PROJECT	SECTION/AREA	LOT/PARCEL NO.
PATUXENT VIEW - LOT 8	N/A	8/65
PLAT # OR L/F GRID#	ZONING	TAX MAP NO.
15015/005	R20	10
ELECT. DIST.	CENSUS TRACT	
THIRD	6030.00	
WATER CODE:	SEWER CODE:	
44-4380	20-4398-0	

NOTES AND DETAILS

PATUXENT VIEW
LOT 8
11265 OLD FREDERICK ROAD
MARRIOTTVILLE, MD 21104
TAX MAP 10, PARCEL 65

3rd Election District, Howard County, Maryland

Drawn: ADT
Checked: DP/WZ
Date: FEB. 11, 2014
Project No.: 13-0028
Scale: AS SHOWN
Sheet: 2 OF 4

Axiom Engineering Design

Civil Engineering • Land Surveying • Landscape Architecture • Land Planning

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Columbia, Maryland 21046
www.axiom-ed.com

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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

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY 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 BUILD UP 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 BIODRETENTION 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 SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME 1, TABLE A.4.1 AND 2.
- 2. THE OWNER SHALL PERFORM A PLAN 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 REPAIR ALL DEFECTIVE STAKES 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.

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

Material	Specification	Notes
Planting soil (2" to 4" deep)	loamy sand (60-85%) & compost (35-40%) sandy loam (30%) sandy clay (10%) 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 no pine or wood chips
Post gravel displacement	post gravel ASTM-D-448	NO. 10 OR NO. 9 (1/8" to 3/8")
Curbs and curbside	conventional stone: washed cobble	size: 2" to 5"
Openings	ASASTM M-43	NO. 37 OR NO. 6 (3/8" to 1/2") NO. 10 (3/8" to 3/4")
Underdrain piping	P 751, Type P28 or AASHTO M-67B	4" to 6" rigid subscale 40 PVC or HDPE
Infiltration in place concrete (if required)	MISMA Mix No. 3, F, 2-3500 psi (28 days, normal weight, air-entrained, reinforcing to meet ASTM-615-40)	
Sand	ASASTM M-64 or ASTM-C-33	0.075 to 0.04"

Table B.A.4.1 Materials Specifications for Micro-Bioretenation, Rain Gardens & Landscape Infiltrations

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)

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 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.

John M. King 2/24/14
DATE
SIGNATURE OF DEVELOPER

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

GENERAL: (M-6) MICRO-BIODRETENTION CONSTRUCTION NOTES

CONSTRUCTION CRITERIA: THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING CONSTRUCTION OF PROJECTS WITH MICRO-BIODRETENTION

UNDER DRAIN INSTALLATION: GRAVEL FOR THE UNDERDRAIN SYSTEM SHOULD BE CLEAN, WASHED, AND FREE OF FINES. UNDERDRAIN PIPES SHOULD BE CHECKED TO ENSURE THAT BOTH THE MATERIAL AND THE FININGS MEET SPECIFICATIONS.

LANDSCAPE INSTALLATION: THE OPTIMUM PLANTING TIME IS DURING THE FALL. SPRING PLANTING IS ALSO ACCEPTABLE BUT MAY REQUIRE WATERING.

INSPECT OR: REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

DURING EXCAVATION TO SUBGRADE AND PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS, DURING PLACEMENT OF FILTER MEDIA.

MAINTENANCE CRITERIA: THE FOLLOWING ITEMS SHOULD BE ADDRESSED TO ENSURE PROPER MAINTENANCE AND LONG-TERM PERFORMANCE OF MICRO-BIODRETENTION PRACTICES

THE TOP FEW INCHES OF FILTER MEDIA SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE FILTER BED WHEN ACCUMULATION EXCEEDS ONE INCH.

WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (E.G., PARKING LOTS, ROADS), MULCH SHOULD BE REPLACED ANNUALLY, OTHERWISE, THE TOP TWO TO THREE INCHES SHOULD BE REPLACED AS NECESSARY.

OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE SPECIES SHOULD BE USED.

CONTACT: HOWARD COUNTY DPW SHM INSPECTIONS DEPARTMENT PRIOR TO ANY REPAIRS.

GENERAL: (M-6) MICRO-BIODRETENTION LANDSCAPING NOTES:

A.2.3 BIODRETENTION SOIL BED CHARACTERISTICS

THE CHARACTERISTICS OF THE SOIL FOR THE BIODRETENTION FACILITY ARE PERHAPS AS IMPORTANT AS THE FACILITY LOCATION, SIZE, AND TREATMENT VOLUME. THE SOIL MUST BE PERMEABLE ENOUGH TO ALLOW RAINFALL TO FILTER THROUGH THE MEDIA, WHILE HAVING CHARACTERISTICS SUITABLE TO PROTECT AND SUSTAIN A ROBUST VEGETATIVE COVER. IN ADDITION, MUCH OF THE NUTRIENT FLOW IS UPTAKE (NITROGEN AND PHOSPHORUS) IS ACCOMPLISHED THROUGH ABSORPTION AND MICROBIA. ACTIVITY WITHIN THE SOIL PROFILE. THEREFORE, SOILS MUST BALANCE THEIR CHEMICAL AND PHYSICAL PROPERTIES TO SUPPORT BOTH COMPONENTS ABOVE AND BELOW GROUND.

THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM OF 10% SAND BY VOLUME). THE CLAY CONTENT FOR THE SOILS SHOULD BE LESS THAN 25% BY VOLUME (ENVIRONMENTAL QUALITY STANDARDS (EQS), 1996).

PLANTING SOIL CHARACTERISTICS (ADAPTED FROM EQS, 1996; ETAB, 1993)

PARAMETER ORGANIC MATTER 5.0 TO 10.0% (BY WEIGHT)

GENERAL (M-6) MICRO-BIODRETENTION SPECIFICATIONS

B.4.1: SPECIFICATIONS FOR MICRO-BIODRETENTION, RAIN GARDENS, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS

5. TOPSOILING

1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, OR CONTAIN TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAIN SIZES.

3. COMPACTION

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIODRETENTION PRACTICES AND THE REQUIRED BACKFILL WHEN POSSIBLE. USE EXCAVATION TOOLS TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MASH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYRE TIRES.

ROTOTILL TO 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIODRETENTION FACILITY BEFORE BACKFILLING THE OPTIMAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.

4. PLANT MATERIAL

COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE CENTER AND OTHER LOW AREAS. MULCH SHOULD BE LAYERED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. FINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIODRETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHEEP-DROP MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

6. UNDERDRAINS

UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

PERFORATED PIPE: SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F758, TYPE P28, OR ASTM M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED 4" RIGID PIPE (E.G., PVC OR HDPE).

GRAVEL AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASSES AND LEGUME PLANTS SHOULD BE PLANTED FOLLOWING THE NON-GRASS-GROUND COVER PLANTING SPECIFICATIONS.

THE TROPICAL SUBSOILS ARE HEAVILY ACIDIC OR COMPOSED OF SILT CLAYS.

7. MISCELLANEOUS

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

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, 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.

CRITERIA: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

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.

2. PERMANENT STABILIZATION

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE.

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 SECTION B.4.1 AND MUST NOT BE MUSTY, MOLLY, CANKY, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE EXTRACT MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS.

3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

a. THE TEXTURE OF THE EXPOSED SUBSOIL/PLANT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

6. TOPSOIL APPLICATION

a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

2. APPLICATION

a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

3. ANCHORING

a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR EROSION. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EXPOSURE HAZARD.

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.

CRITERIA: CONDITIONS WHERE PRACTICE APPLIES

A. SEEDING

1. SPECIFICATIONS

a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW.

2. APPLICATION

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION: TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE: TO USE LONG-LIVED PERENNIAL GRASSES LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CRITERIA: EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

A. SEED MIXTURES

1. GENERAL USE

a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2.

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.

3. ANCHORING

a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR EROSION. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EXPOSURE HAZARD.

B. SOIL TO PROVIDE QUICK COVER ON DISTURBED AREA (2:1 GRADE OR FLATTER).

1. GENERAL USE

a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.

2. STANDARDIZATION

a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY PARALLEL TILLS, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

3. SOIL AMENDMENTS

a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES.

ADDRESS CHART

LOT/PARCEL #:

STREET ADDRESS

PROPOSED SITE IMPROVEMENT: SINGLE FAMILY HOME

PERMIT INFORMATION CHART

PROJECT: PATUXENT VIEW - LOT 8

DEFINITION: TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE: TO USE LONG-LIVED PERENNIAL GRASSES LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

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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.

3. ANCHORING

a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR EROSION. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EXPOSURE HAZARD.

B. SOIL TO PROVIDE QUICK COVER ON DISTURBED AREA (2:1 GRADE OR FLATTER).

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ADDRESS CHART

LOT/PARCEL #:

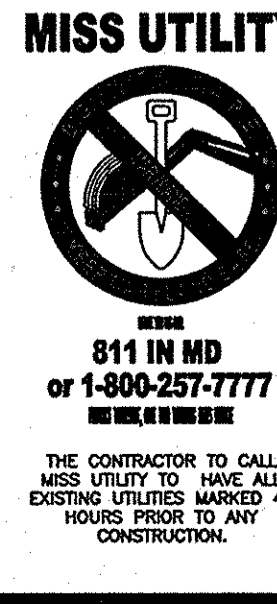
STREET ADDRESS

PROPOSED SITE IMPROVEMENT: SINGLE FAMILY HOME

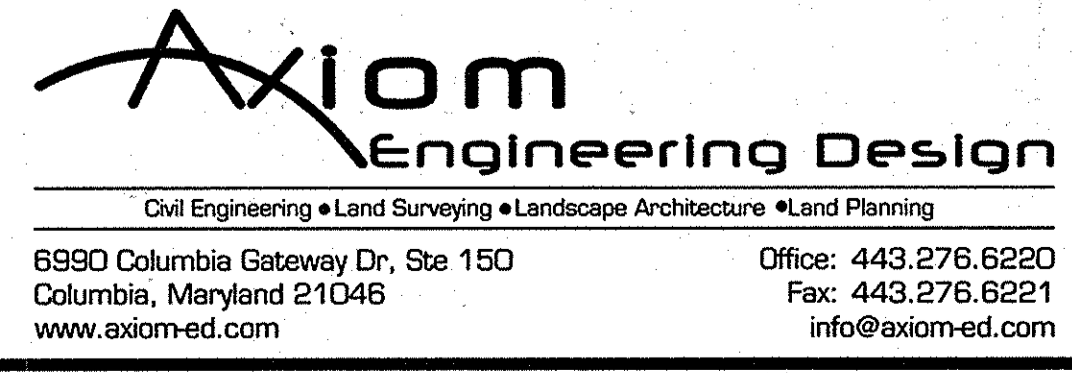
PERMIT INFORMATION CHART

PROJECT: PATUXENT VIEW - LOT 8

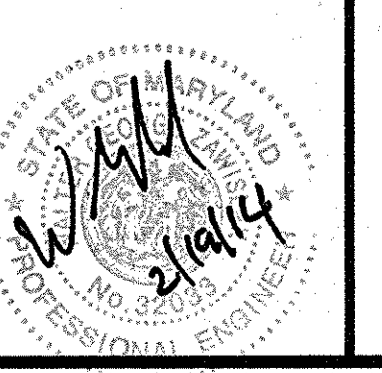
WATER CODE: 44-4380



811 IN MD OR 1-800-257-7777



WALTER G. ZAWISLAK, P.E. Professional Engineer



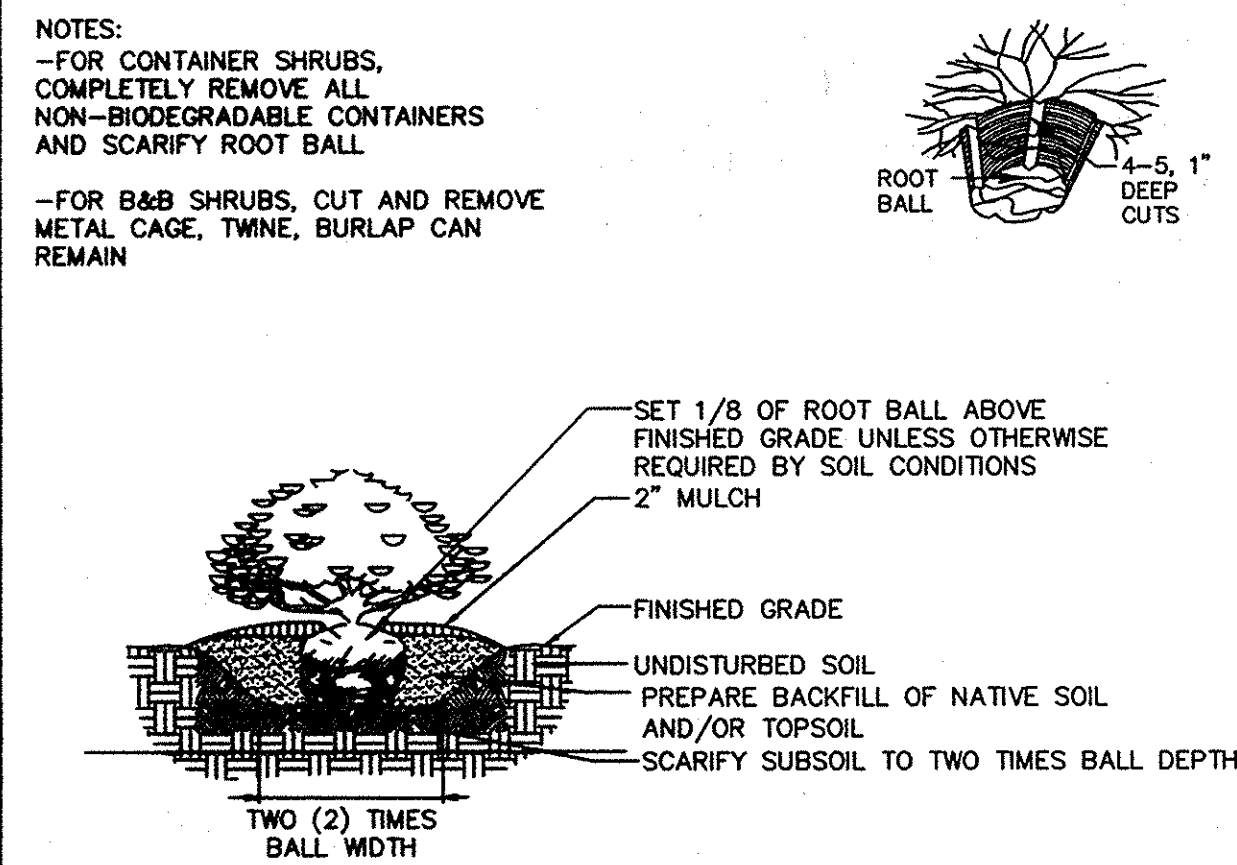
6930 Columbia Gateway Dr, Ste 150 Columbia, Maryland 21046

Office: 443.276.6220 Fax: 443.276.6221

3rd Election District: Howard County, Maryland

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 LCAMW.
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. SOD 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 GROUND COVER 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.



SHRUB PLANTING DETAIL

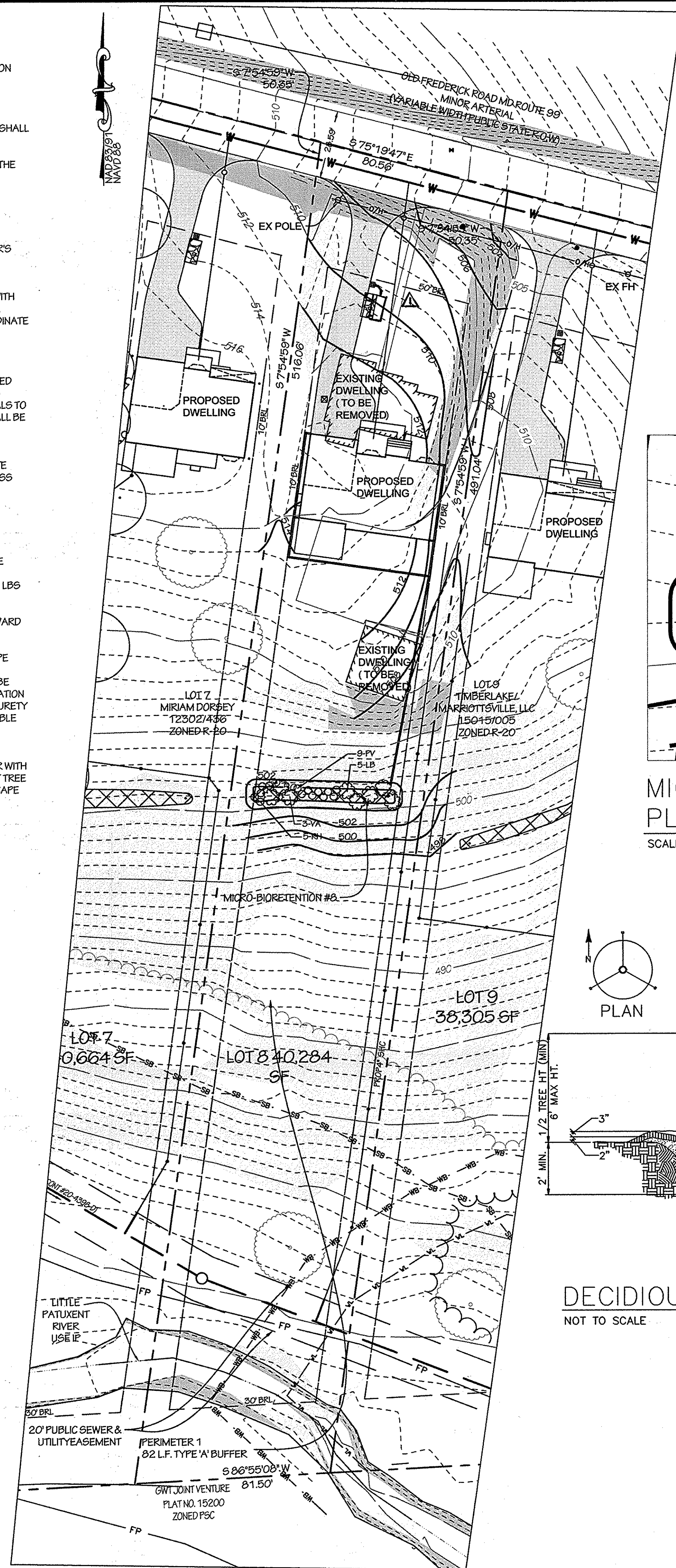
NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Schuch 3-24-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

Paula M. Angelle 3/24/14
 DIRECTOR DATE

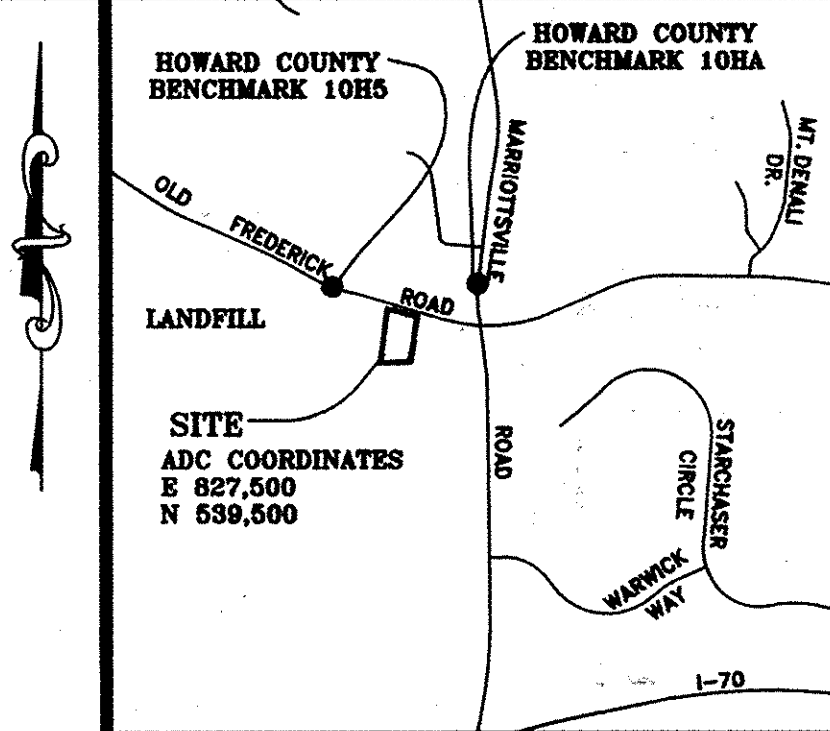


Planting Schedule

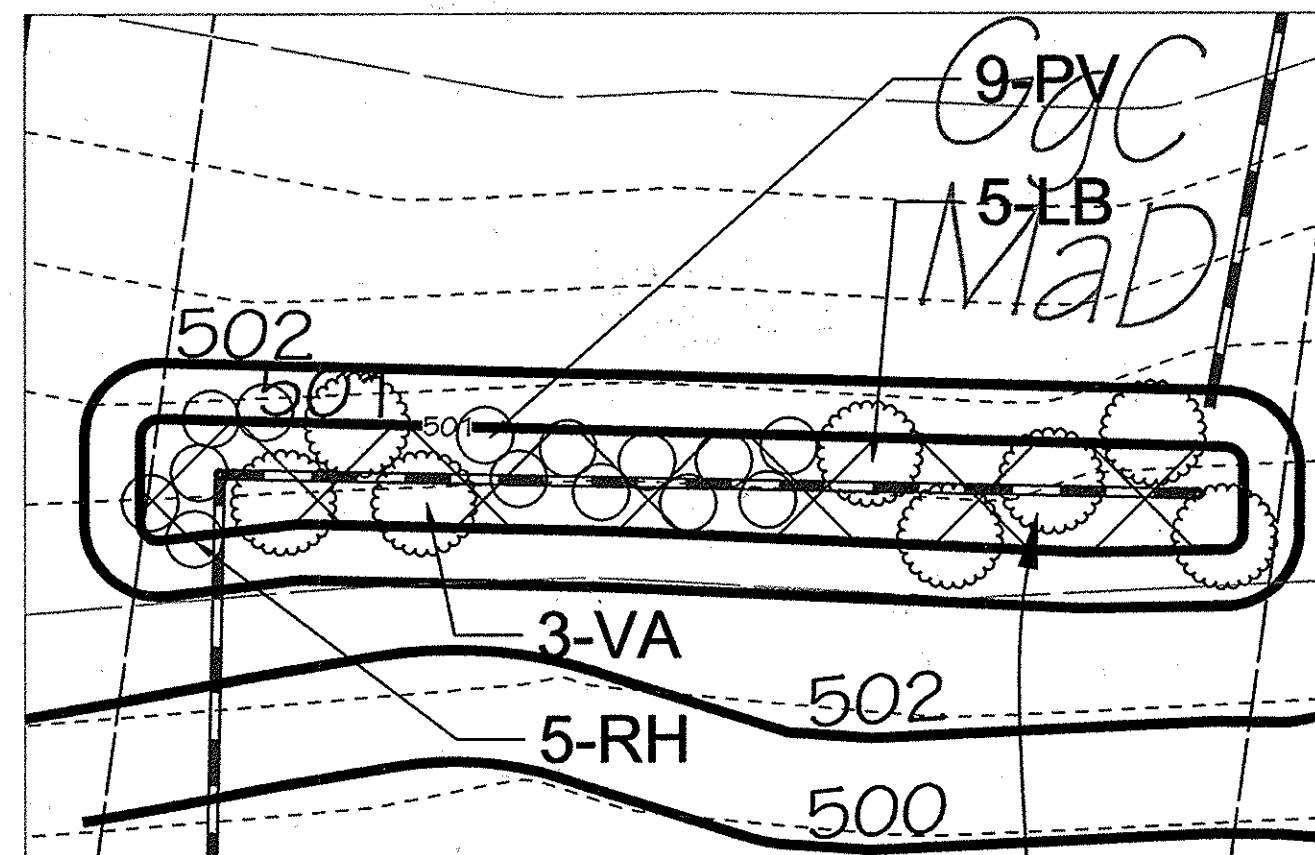
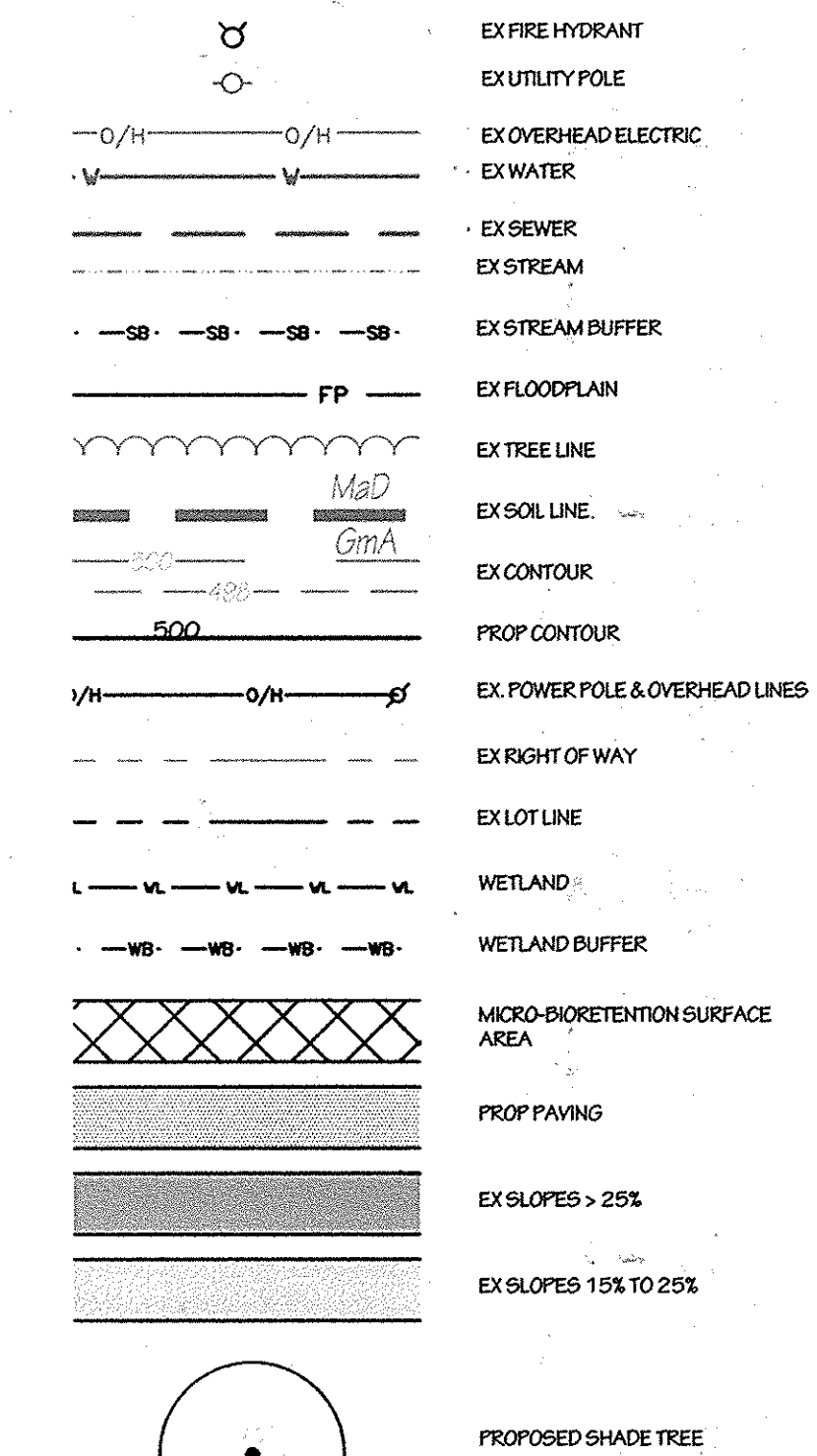
Tree Symbol	Quantity	Botanical Name	Common Name	Size	Comments
VA	3	Viburnum acerifolia	Mapleleaf Viburnum	3 Gal.	5' o.c., Cont.
LB	5	Lindera benzoin	Spicebush	3 Gal.	3' o.c.
PV	9	Panicum virgatum	Switchgrass	3 Gal.	24" o.c.
RH	5	Rudbeckia hirta	Black Eyed Susan	1 Gal.	18" o.c.

Micro Bioretention Plant List

VA	3	Viburnum acerifolia	Mapleleaf Viburnum	3 Gal.	5' o.c., Cont.
LB	5	Lindera benzoin	Spicebush	3 Gal.	3' o.c.
PV	9	Panicum virgatum	Switchgrass	3 Gal.	24" o.c.
RH	5	Rudbeckia hirta	Black Eyed Susan	1 Gal.	18" o.c.



VICINITY MAP
 1"=2000'
LEGEND

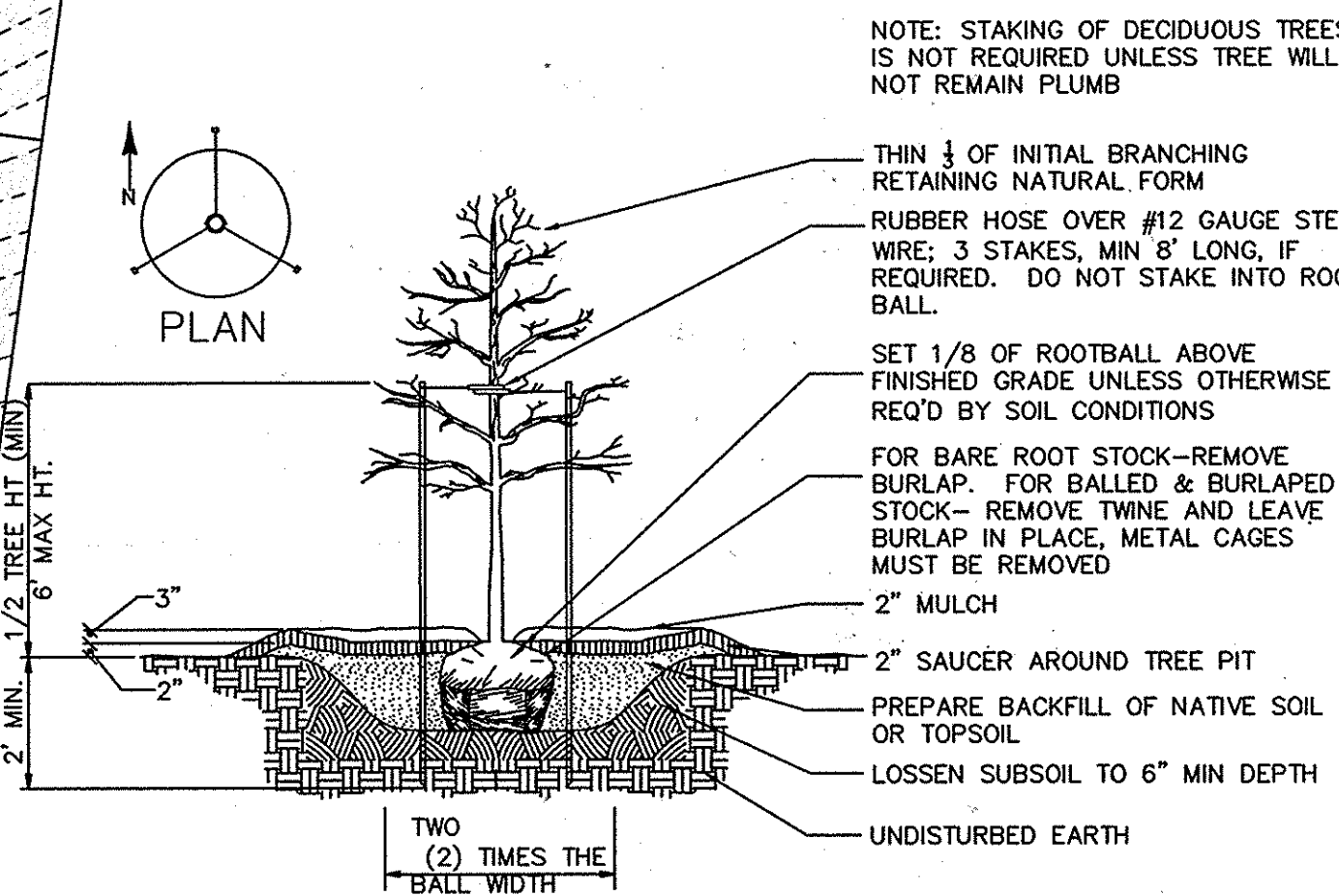


MICRO BIO-RETENTION PLANTING DETAIL

SCALE: 1" = 1'-10"

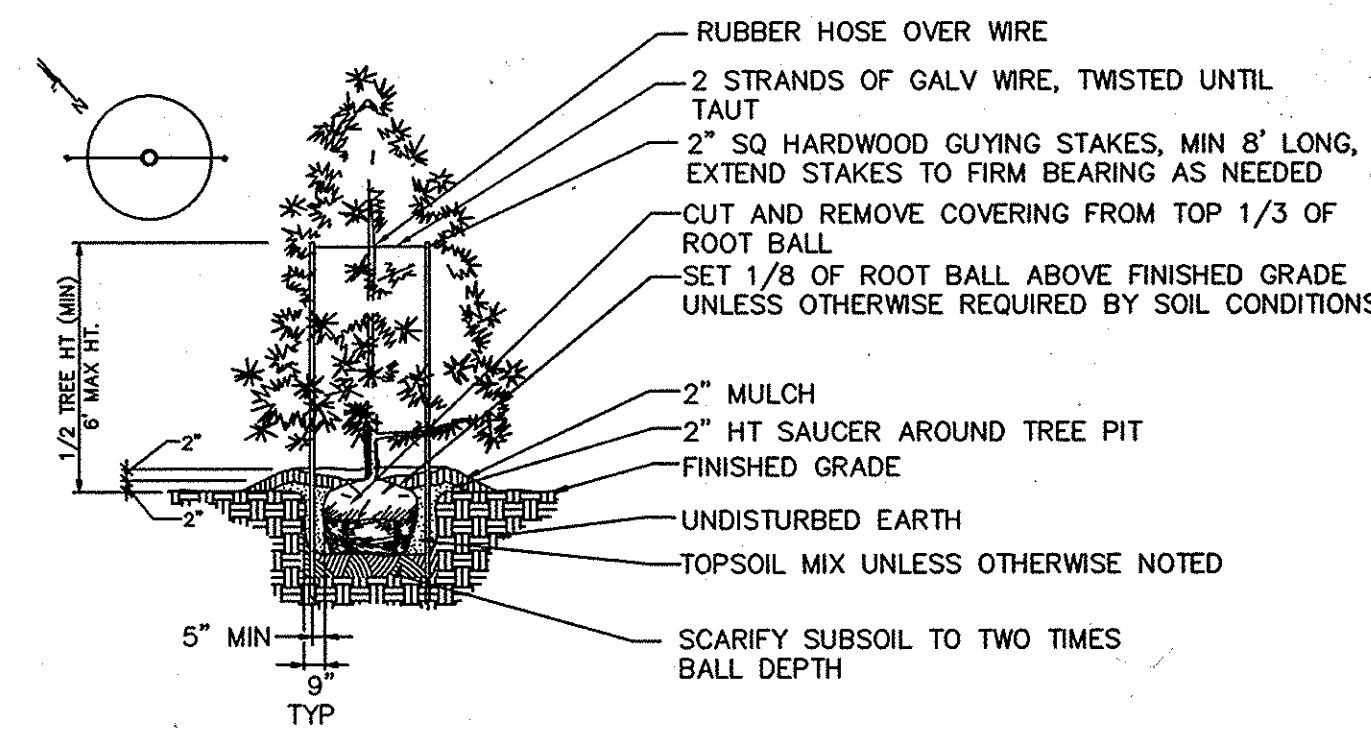
Schedule A - Perimeter Landscape Edge

Category	Adjacent to Perimeter Properties	Plant Totals:
Perimeter	1	
Landscape Type 'A' 1 Shade Tree Per 60 L.F.	82 L.F.	
Credit for Ex. Vegetation (Yes, No, Linear Feet) (Describe Below if Needed)	YES, 82 L.F.	
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe Below if Needed)	No	
No. of Plants Required:		Plant Totals:
Shade Trees	0	0 Shade Trees
Evergreen Trees	0	0 Evg. Trees
Shrubs	0	0 Shrubs
No. of Plants Provided:		
Shade Trees	0	0 Shade Trees
Evergreen Trees	0	0 Evg. Trees
Other Trees	0	0 Other Trees
Shrubs	0	0 Shrubs



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 TREES 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

REVISION			
DATE	BY	REASON	
8/29/14	LDD	RELOCATED DRYWELL AND CHANGE INLET TO CATCH BASIN	

APPLICANT/OWNER:

TIMBERLAKE/MARRIOTTVILLE, LLC

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

ADDRESS CHART

LOT/PARCEL #:	STREET ADDRESS				
8	11267 OLD FREDERICK RD				
PROPOSED SITE IMPROVEMENT: SINGLE FAMILY HOME					
PERMIT INFORMATION CHART					
PROJECT	SECTION/AREA	LOT/PARCEL NO.			
PATUXENT VIEW - LOT 8	N/A	8/65			
PLAT # OR L/F	GRID#	ZONING	TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
15015/005	22	R20	10	THRD	6030.00
WATER CODE:	SEWER CODE:				
44-4398-0	20-4398-0				

LANDSCAPE PLAN & DETAILS

PATUXENT VIEW
 LOT 8
 11267 OLD FREDERICK ROAD
 MARRIOTTVILLE, MD 21104
 TAX MAP 10, PARCEL 65

3rd Election District: Howard County, Maryland

Drawn: LNK
 Checked: WZ
 Date: 2.11.14
 Project No.: 130028
 Scale: 1" = 30'
 Sheet: 4 OF 4

Axiom
 Engineering Design

Civil Engineering Land Surveying Landscape Architecture Land Planning

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[Signature]
 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. 3446, EXPIRATION DATE 12/31/2015

