

**GENERAL NOTES**

- THE PROJECT SHALL BE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY REQUIREMENTS UNLESS WAIVERS OR ALTERNATIVE COMPLIANCE PETITIONS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY HEREON IS BASED ON FIELD RUN TOPOGRAPHICAL SURVEY PERFORMED BY ROBERT H. VOGEL, ENGINEERING, INC. ON JANUARY 2017 AND OFFSITE TOPOGRAPHY IS BASED ON HOWARD COUNTY GIS.
- THE PROJECT SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL, ENGINEERING, INC., DATED JANUARY, 2017.
- THE SUBJECT PROPERTY IS ZONED "R-12" IN ACCORDANCE WITH THE 10/6/2013 COMPREHENSIVE ZONING PLAN.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
- 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 NOS. 0056 AND 37GB WERE USED FOR THIS PROJECT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER FOR THIS PROJECT IS TO BE SERVICE CONNECTIONS FROM CONTRACT NO. 671-W.
- SEWER FOR THIS PROJECT IS TO BE SERVICE CONNECTIONS FROM CONTRACT NO. 20-1264.
- EXISTING UTILITIES LOCATED FROM CONTRACT AND AS-BUILT DRAWINGS, CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
- THERE ARE NO WETLANDS, STREAMS OR THEIR BUFFERS PRESENT ON THE PROPERTY. NO 100 YEAR FLOODPLAIN IS PRESENT ON THE SITE. NO STEEP SLOPES OVER 20,000 SF OF CONTIGUOUS AREA ARE PRESENT ON THE SITE.
- FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY A FOREST CONSERVATION PLAN SUBMITTED WITH THE FUTURE SITE DEVELOPMENT PLAN.
- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITAT WERE OBSERVED ON THE PROPERTY.
- GEOTECHNICAL INVESTIGATIONS SHALL BE COMPLETED AS PART OF THE SITE DEVELOPMENT PLAN PACKAGE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, ON MARCH 2017.
- MRS. CANOLES IDENTIFIED 4 SPECIMEN TREES ON THE PROJECT SITE. THIS PLAN PROPOSAL REQUIRES THE REMOVAL OF 2 SPECIMEN TREES. THE REQUIRED PETITION SHALL BE REQUESTED WITH A FUTURE SUBDIVISION PLAN.
- ALLEN LANE IS CLASSIFIED AS A LOCAL ROAD.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THERE ARE TWO EXISTING STRUCTURES ON THIS SITE TO BE REMAINED.
- THE PROPOSED LIMITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-BIORETENTIONS (M-6) FACILITIES AND DRYWELLS (M-5) IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.
- THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/ GRADING PERMIT APPLICATIONS.
- PERIMETER LANDSCAPING WILL BE PROVIDED AT THE FINAL SUBDIVISION PLAN STAGE.
- THERE ARE ERODIBLE SOILS ON THE PROPERTY.

**ENVIRONMENTAL SITE DESIGN NARRATIVE:**

- THERE ARE NO WETLANDS OR STREAMS LOCATED ON OR IN CLOSE PROXIMITY TO THE LOTS. THERE ARE FOUR SPECIMEN TREES. SPECIMEN TREE #2 IS LOCATED JUST OUTSIDE THE PROPERTY LINE. THERE ARE THREE SPECIMEN TREES LOCATED ON SITE. ONE WILL BE RETAINED AND TWO WILL BE REMOVED. AN ALTERNATIVE COMPLIANCE PETITION WILL BE REQUIRED FOR THE REMOVAL OF TWO TREES.
- THE PROPOSED GRADING DOES NOT ALTER THE EXISTING DRAINAGE PATTERNS.
- THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT. THE ESD CONCEPT UTILIZES MICRO-SCALE PRACTICES INCLUDING MICRO-BIORETENTION FACILITIES (M-6), RAIN GARDEN (M-7), AND DRYWELLS (M-5). THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF SUPER SILT FENCE AND CLEAR WATER EARTHDIKE PERIMETER CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF THE MICRO-SCALE PRACTICES INCLUDING MICRO-BIORETENTION (M-6) FACILITIES, RAIN GARDEN (M-7), AND DRYWELLS (M-5). THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION".  
TARGET PE = 1.45" PROVIDED PE = 1.45"  
TARGET ESDv = 1.903 CF PROVIDED = 1.911 CF
- AT THE SUBDIVISION PHASE, AN ALTERNATIVE COMPLIANCE PETITION WILL BE REQUIRED FOR SPECIMEN TREE REMOVAL. THERE ARE NO OTHER DEVIATIONS ANTICIPATED AT THIS STAGE.
- ANY FOREST CONSERVATION REQUIREMENTS WILL BE PROVIDED IN AN OFFSITE FOREST BANK OR BY PAYMENT OF A FEE IN LIEU OF FOREST CONSERVATION.
- THERE ARE NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS AREA. THERE IS NO FOREST OR FLOODPLAIN WITHIN THE SITE. SOILS PRESENTED ON SITE ARE TYPE 'B' AND 'D'.

**SITE ANALYSIS DATA CHART**

A. TOTAL PROJECT AREA:	2.26 AC.±
B. AREA OF PLAN SUBMISSION:	2.26 AC.±
C. AREA OF WETLANDS AND BUFFERS:	0.00 SF
D. AREA OF FLOODPLAIN:	0.00 AC.
E. AREA OF FOREST:	0.00 AC.
F. AREA OF STEEP SLOPES (15% & GREATER):	0.00 AC.
G. AREA OF ERODIBLE SOILS:	2.26 AC.
H. LIMIT OF DISTURBED AREA:	1.15 AC.
I. PROPOSED USES FOR SITE AND STRUCTURES:	RESIDENTIAL SINGLE FAMILY DETACHED (SFD) HOMES
J. GREEN OPEN AREA:	1.945 AC.
K. PROPOSED IMPERVIOUS AREA:	0.34 AC.
L. PRESENT ZONING DESIGNATION:	R-12
M. OPEN SPACE REQUIRED:	0 AC.
N. TOTAL NUMBER OF UNITS ALLOWED:	N/A
O. TOTAL NUMBER OF UNITS PROPOSED:	6
P. DPZ FILE REFERENCES:	L/8 / F.20, L/8 / F.67

Project: Larrick Property  
Date: March 7, 2017

NET TRACT AREA		
A. Total tract area	2.3	
B. Area within 100 Year Floodplain	0	
C. Area of existing impervious surfaces/unchanged use	0	
D. Net Tract Area	2.3	
LAND USE CATEGORY: (from table 3-2.1, page 40, Manual)		
ARA MDR IDA HDR MPD CIA	R-12	
E. Attenuation Threshold (percentage)	1.15	0.3
F. Conservation Threshold (percentage)	1.20	0.5
EXISTING FOREST COVER:		
C. Existing forest cover (excluding floodplain)	0	
H. Area of forest above attenuation threshold	0	
I. Area of forest above conservation threshold	0	
BREAK EVEN POINT:		
J. Forest retention above threshold with no mitigation	NA	
K. Clearing permitted without mitigation	Break-Even Point	
PROPOSED FOREST CLEARING		
L. Total area of forest to be Cleared or Retained Outside FCE	0	
M. Total area of forest to be Retained in FCE	0	
PLANTING REQUIREMENTS		
N. Reforestation for clearing above Conservation Threshold	0	
O. Reforestation for clearing below Conservation Threshold	0	
P. Credit for retention above conservation threshold	0	
Q. Total reforestation required	0	
R. Total reforestation required	0	
S. Total afforestation required	0.3	
T. Total reforestation and afforestation required	0.3	

**SPECIMEN TREE CHART**

NO.	SIZE	CRP	COMMON NAME	CONDITION	COMMENTS
ST 1	34.5	51.75	BLACK OAK	GOOD CONDITION	TO BE REMOVED
ST 2	32.5	48.75	WHITE OAK	FAIR CONDITION, LIMITED CANOPY	TO REMAIN
ST 3	31	46.5	SILVER MAPLE	TWIN SEMS	TO BE REMOVED
ST 4	30	45	SILVER MAPLE	TWIN SEMS	TO REMAIN

**MINIMUM LOT SIZE CHART**

LOT #	GROSS AREA	PIPESTEM AREA	NET AREA
2	13,797 SF	834 SF	12,963 SF
3	14,814 SF	1,445 SF	13,369 SF
4	15,607 SF	1,405 SF	14,202 SF
5	14,181 SF	860 SF	13,321 SF

# ENVIRONMENTAL CONCEPT PLAN

## LARRICK SUBDIVISION

### LOTS 1 - 6

#### A RESUBDIVISION OF LOT 3, "ANNETTA GARDENS-SECTION 1" AND LOT 4, "ANNETTA GARDENS-SECTION 2" HOWARD COUNTY, MD



**PLAN VIEW**  
SCALE: 1" = 50'



**SOILS LEGEND**  
HOWARD COUNTY SOILS MAP #19

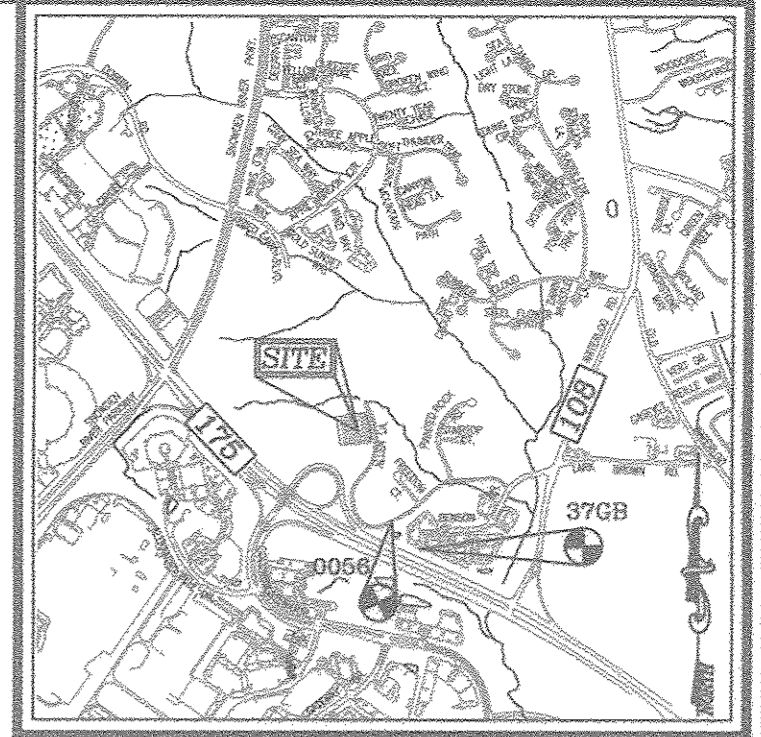
SYMBOL / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	HYDRIC
SrC SASSAFRAS AND CROOM SOILS, 5 TO 10 PERCENT SLOPES	B	0.37	YES	NO
UsD URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	D	0.37	YES	NO
CeB CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	B	0.37	YES	NO
FoA FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	0.02	NO	YES

**NOTE:**  
TAKEN FROM: USDA, SCS-WE8 SOIL SURVEY, HOWARD COUNTY  
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

**NOTES:**

- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

**BENCHMARKS**  
HOWARD COUNTY BENCHMARK - 0056  
N 553723.18 E 1368212.59 ELEV.: 328.57  
HOWARD COUNTY BENCHMARK - 37GB  
N 553452.82 E 1368503.19 ELEV.: 325.23



**VICINITY MAP**  
SCALE: 1"=2,000'  
ADC MAP COORDINATE: PAGE: 34, B-4

**SHEET INDEX**

DESCRIPTION	SHEET NO.
COVER SHEET AND ESDv CONCEPT PLAN	1 OF 2
STORMWATER MANAGEMENT DRAINAGE AREA MAP & DETAILS	2 OF 2

**LEGEND**

- EXISTING PAVING
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN LINE
- EXISTING WOOD FENCE
- EXISTING OVER HEAD LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MICRO-BIORETENTION (M-6) / RAIN GARDEN (M-7)
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED STORM DRAIN
- PROP. 24' USE IN COMMON ACCESS EASEMENT
- EXISTING VEGETATION
- EXISTING SPECIMEN TREE
- PROPOSED DRYWELL
- PROPOSED ADDRESS SIGN

**OWNER/DEVELOPER**

MICHAEL LARRICK  
6604 ALLEN LANE  
COLUMBIA, MD 21045  
(443)-506-0197

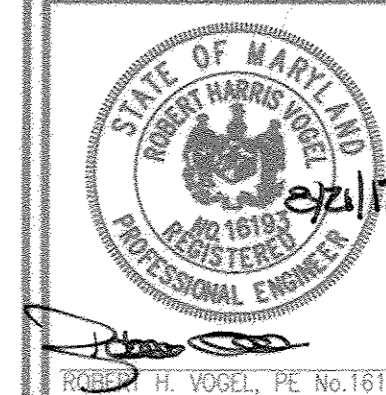
NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**COVER SHEET AND**  
**ESDv CONCEPT PLAN**  
**LARRICK SUBDIVISION**  
**LOTS 1 - 6**

A RESUBDIVISION OF  
LOT 3, "ANNETTA GARDENS-SECTION 1"  
AND LOT 4, "ANNETTA GARDENS-SECTION 2"

TAX MAP: 37 PARCELS: 475 & 485  
6TH ELECTION DISTRICT

**ROBERT H. VOGEL**  
**ENGINEERS • SURVEYORS • PLANNERS**  
8407 MAIN STREET  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961



**PROFESSIONAL CERTIFICATE**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018.

DESIGN BY:	RHV
DRAWN BY:	KG
CHECKED BY:	RHV
DATE:	AUGUST 2017
SCALE:	AS SHOWN
W.O. NO.:	16-38

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/28/17  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 9/11/17  
CHIEF DIVISION OF LAND DEVELOPMENT



PROJECT: LARRICK/ANNETTA GARDENS

AREA: 2.25 AC GROSS AREA

AREA: 1.13 AC LIMIT OF DISTURBANCE

IMPERVIOUS: 0.33 AC

TARGET P: 1.45 IN

Rv: 0.32

ESDV: 1003 CF

TOTAL ESDV TARGET

DRAINAGE AREA #	AREA	PERCENT IMPERVIOUS	TOTAL AREA	PERCENT IMPERVIOUS	Rv	ESDV	ESDV	ESDV	ESDV	PROVIDED
LOT 1	2000	0	2000	1.00	0.55	158	432	230	328	
LOT 2	2000	0	2000	1.00	0.55	79	206	115	164	
DA 1	1000	1100	2100	0.48	0.48	84	218	135	218	
LOT 5	2500	0	2500	1.00	0.55	119	309	172	246	
DA 2	1500	1000	2500	0.41	0.42	563	1463	816	827	
	0	0	0	0.00	0.00	0	0	0	0	
	0	0	0	0.00	0.00	0	0	0	0	

TOTAL ESDV PROVIDED

PROJECT: LARRICK/ANNETTA GARDENS

DESIGNER: RHY

DATE: 08/19/17

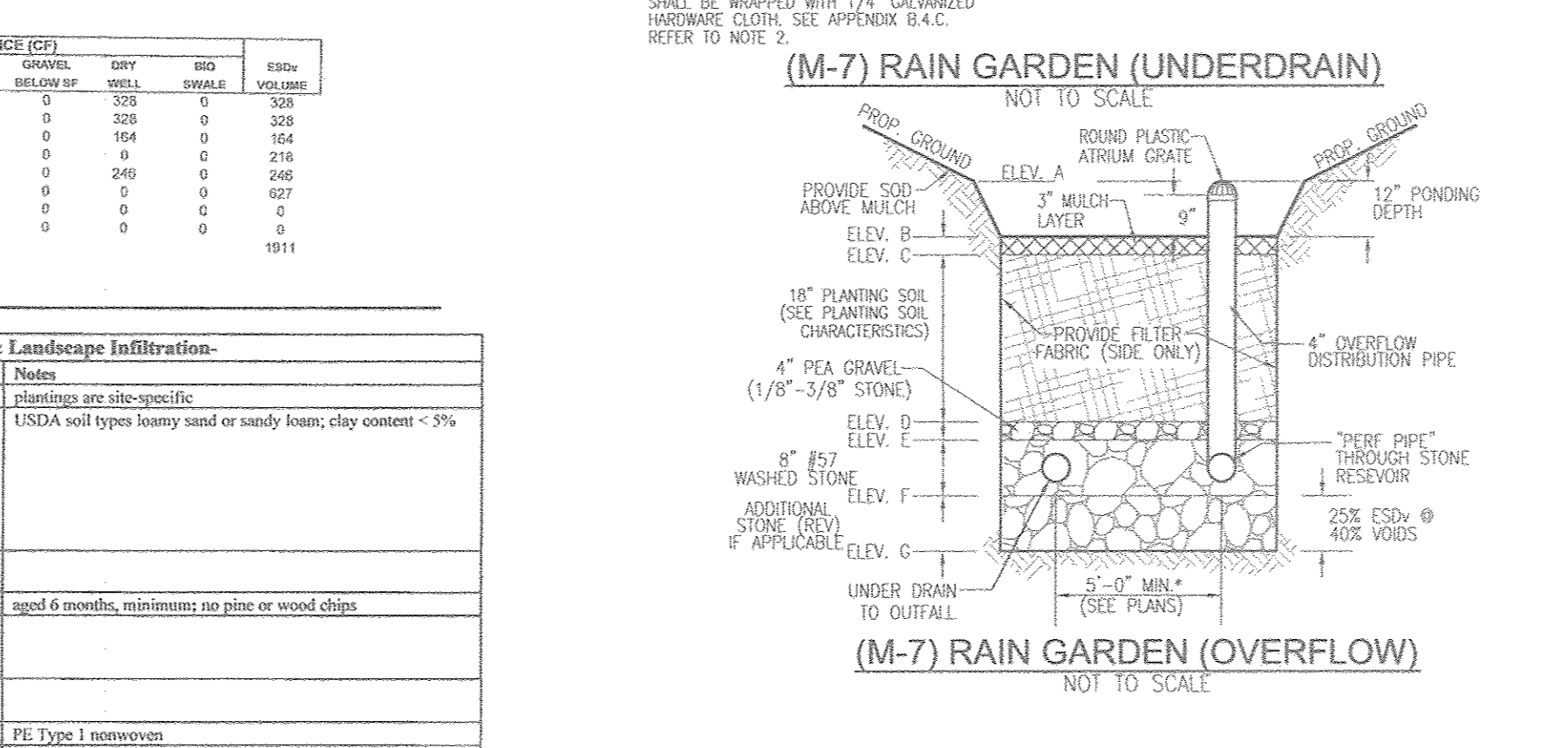
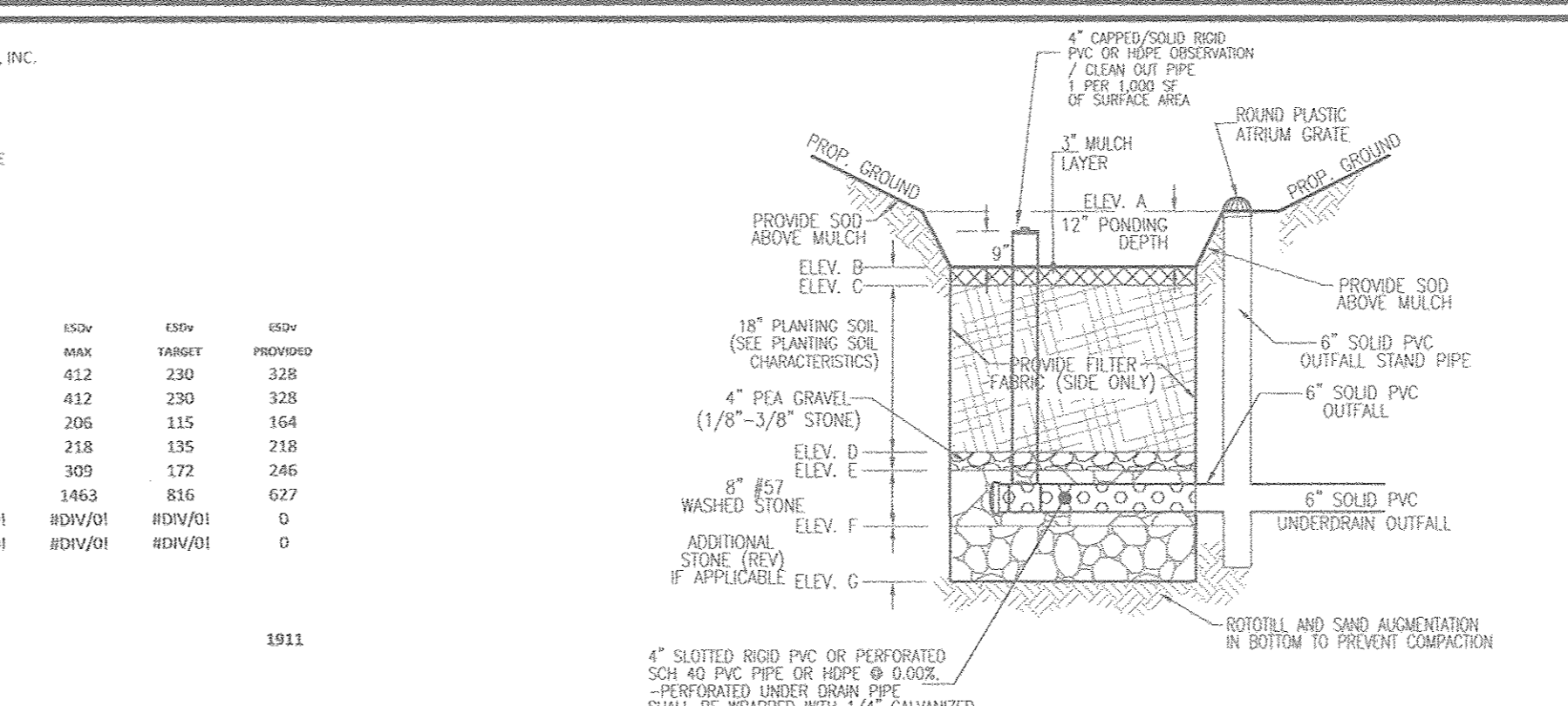
ROBERT H. VOGEL ENGINEERING, INC.

ENVIRONMENTAL SITE DESIGN PRACTICES

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

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

Material	Specification	Size	Notes
Planting soil	see Appendix A, Table A.4	n/a	plantings are site-specific
Fillage soil	heavy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%) & coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5% [2" to 4" deep]
Organic content	Min. 10% by dry weight		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel	ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE	PE Type 1 nonwoven
Gravel (underdrain and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipe; not necessary underdrain pipes. Perforated pipe shall be wrapped with 1/4" galvanized hardware cloth. See Appendix B.4.C.
Poured in place concrete (if required)	MSSA Min. No. 3, f'c = 3500 psi @ 28 days, normal weight, air-entrained, conforming to meet ASTM A611-00	n/a	voids testing of poured-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - designs to include meeting ACI Code 318.1R/SP, vertical loading (16-10 or 16-20), allowable torsional loading (based on soil properties), and analysis of potential cracking.
Sand	AASHTO M-6 or ASTM-C-33	0.075" to 0.04"	Sand substitutions such as Diabase and Gneiss (AASHTO M-6) are not acceptable. No calcium sulfonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



MICRO-BIORETENTION / RAIN GARDEN NOTES:

- ONLY THE SIDES OF RAIN GARDENS ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE FACILITY WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
- PERFORATED PVC/HOPE UNDER DRAIN TO BE WRAPPED WITH 1/4" GALVANIZED HARDWARE CLOTH OR EQUAL SEE APPENDIX B.4.C.
- PROVIDE 5" MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE, RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

RAIN GARDEN DATA CHART

NO	TOP	REV A2	Ponding Depth (ft)	Ponding Depth (ft)	Top of Bottom of Stone (ft)	Bottom of Bottom of Stone (ft)	Depth of Stone (ft)	Invert of Bottom of Stone (ft)	Invert of Bottom of Stone (ft)
1	350.30	350.75	1.00	350.00	350.00	350.75	1.50	350.25	350.25
7	350.30	350.75	1.00	350.00	350.00	350.75	1.50	350.25	350.25

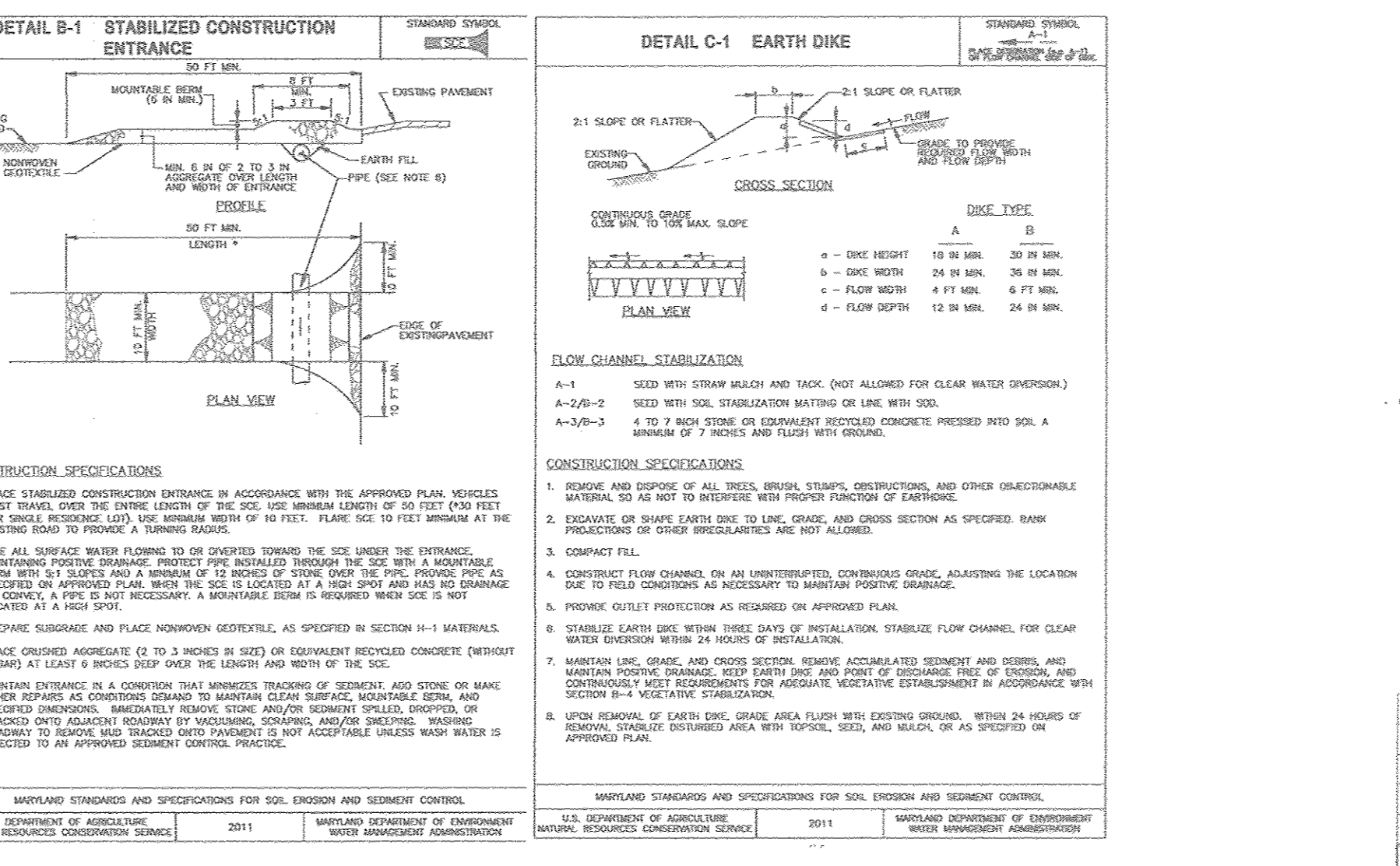
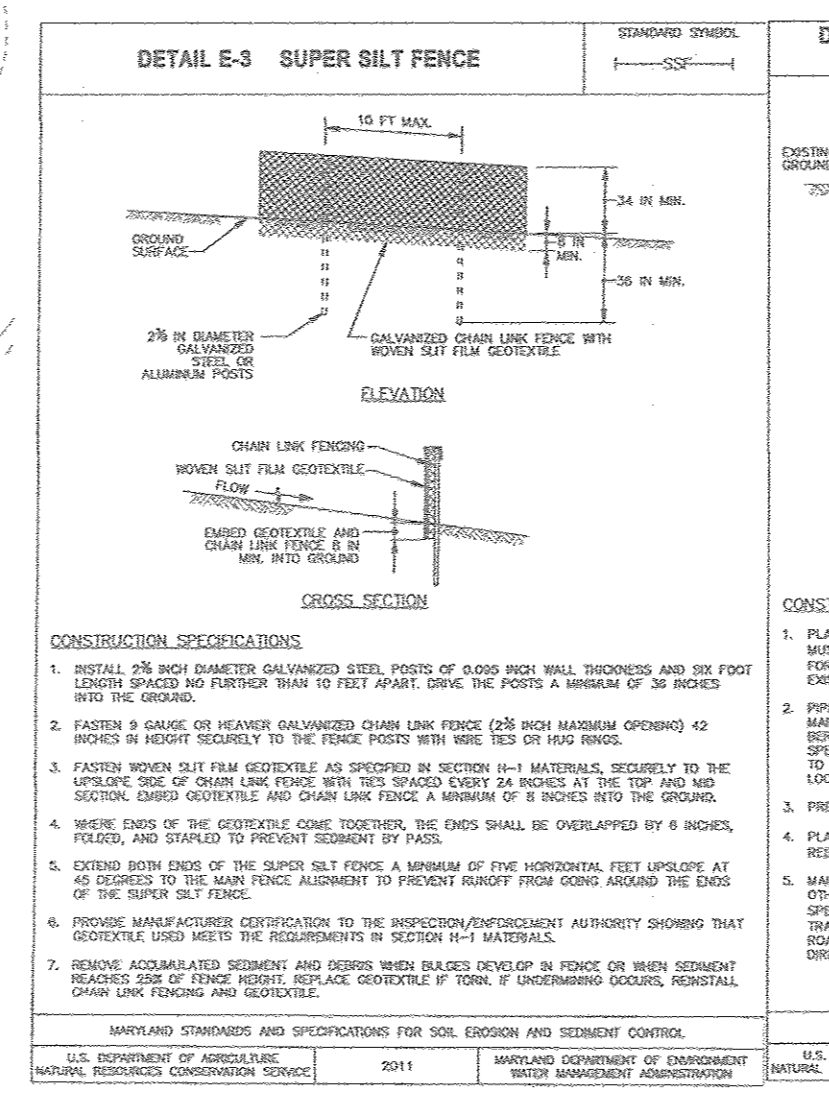
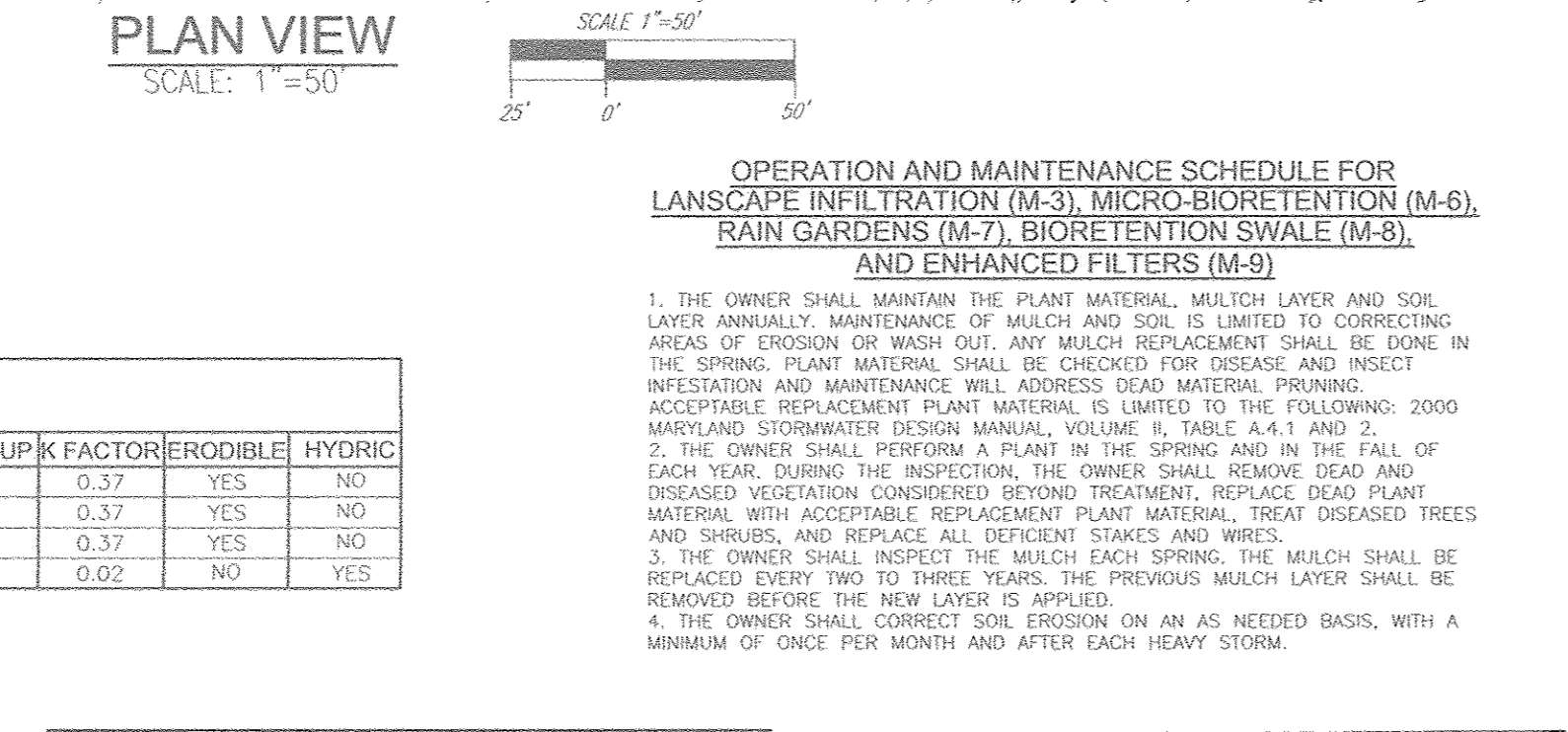
NOTES:

- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMITS.
- REVIEW OF THIS PLAN FOR COMPLIANCE WITH ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE PERMIT STAGES, AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
- THERE ARE NO STREAMS, WETLANDS, AND THEIR BUFFERS LOCATED ON THE SITE. THERE IS NO 100YR FLOODPLAIN LOCATED ON THIS PROPERTY.

SOILS LEGEND  
HOWARD COUNTY SOILS MAP #19

SYMBOL	NAME/DESCRIPTION	GROUP	K	F	ERODIBLE	HYDRO
SC	SASSAFRAS AND CROWM SOILS, 5 TO 10 PERCENT SLOPES	B	0.37	YES	NO	
Ud	URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	D	0.37	YES	NO	
Ch	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	B	0.37	YES	NO	
Fa	FALLSING SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	0.02	NO	YES	

NOTE:  
TAKEN FROM USDA, SCS-WE8 SOIL SURVEY, HOWARD COUNTY  
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

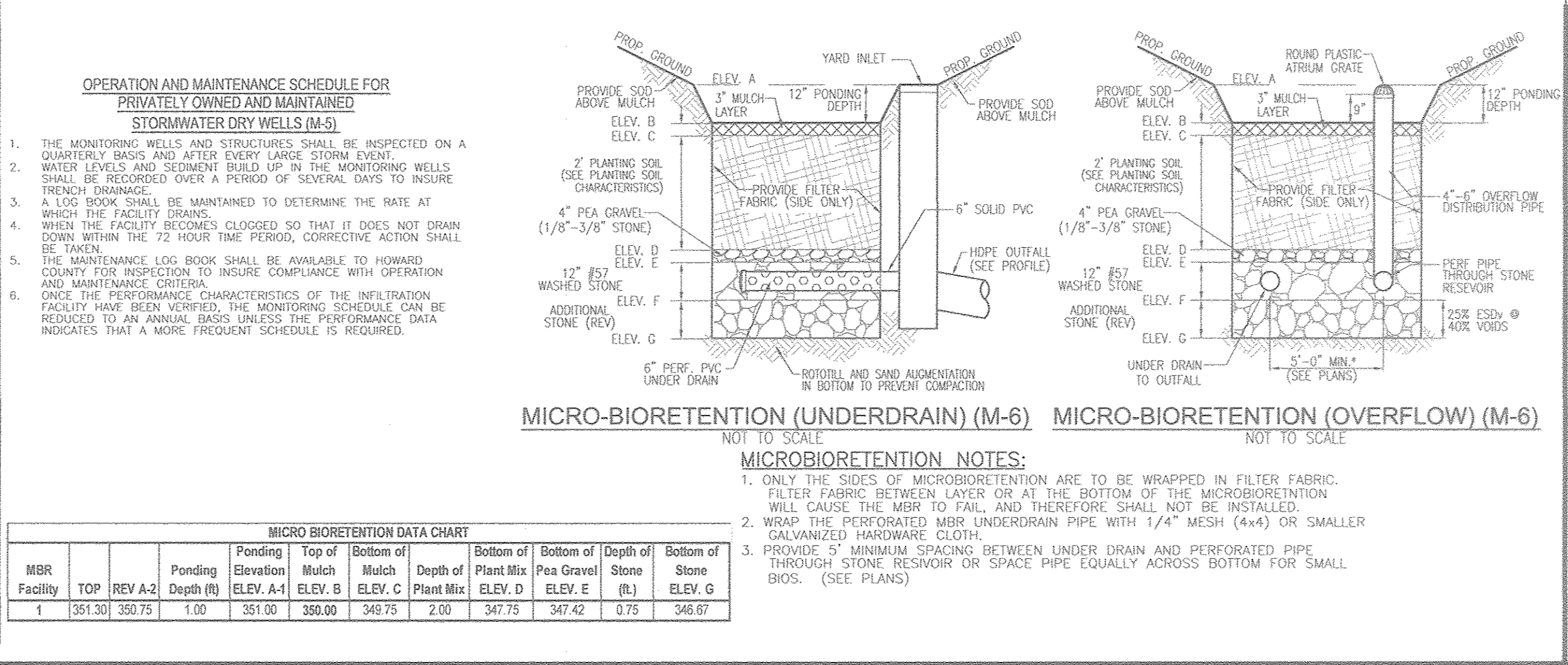
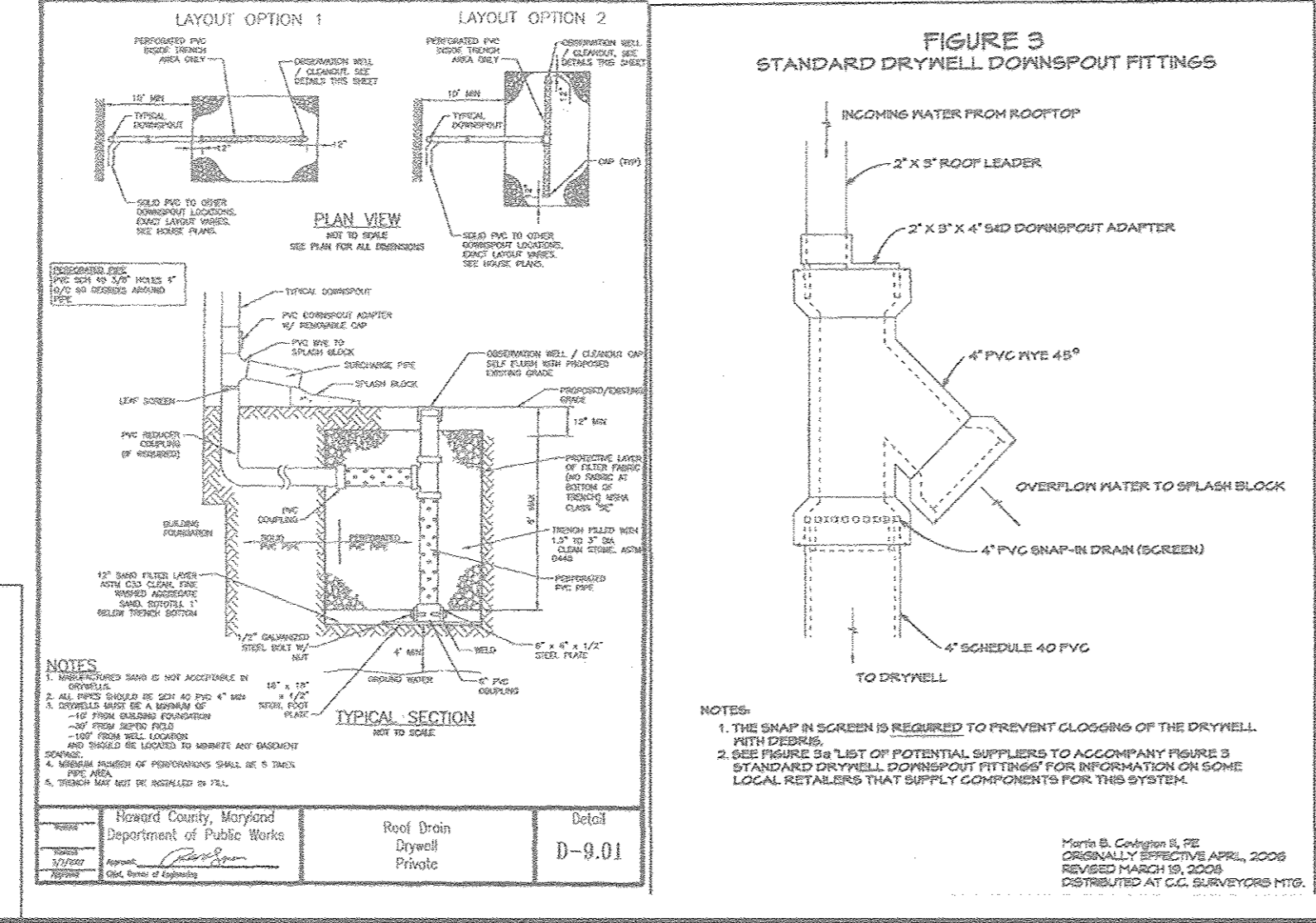
DATE: 9/28/17

DATE: 9/1/17

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 9/1/17

DATE: 9/1/17



APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS

2. FILTERING MEDIA OR PLANTING SOIL

3. COMPACTION

4. PLANT MATERIAL

5. PLANT INSTALLATION

6. UNDERDRAINS

7. MISCELLANEOUS

LEGEND:

OWNER/DEVELOPER  
MICHAEL LARRICK  
6004 ALLEN LANE  
COLUMBIA, MD 21045  
(443)-506-0197

ENVIRONMENTAL CONCEPT PLAN  
STORMWATER MANAGEMENT  
DRAINAGE AREA MAP; SWM DETAILS  
LARRICK SUBDIVISION  
LOTS 1-6  
A RESUBDIVISION OF  
LOT 3, "ANNETTA GARDENS-SECTION 1"  
AND LOT 4, "ANNETTA GARDENS-SECTION 2"

DATE: 08/19/2017

DATE: AS SHOWN

W.O. NO.: 16-38

2 SHEET OF 2

PROFESSIONAL CERTIFICATE

DESIGN BY: RHY

DRAWN BY: KG

CHECKED BY: RHY

DATE: AUGUST 2017

SCALE: AS SHOWN

W.O. NO.: 16-38

2 SHEET OF 2

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
ROBERT H. VOGEL, P.E. No. 16193