

**GENERAL NOTES**

- THE SUBJECT PROPERTY IS ZONED R-SC PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NO. 476D AND 476E WERE USED FOR THIS PROJECT.
- DISTANCES SHOWN ON THESE PLANS ARE BASED ON MARYLAND STATE PLANE ZONE, U.S. SURVEY FOOT.
- TRACT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT JANUARY, 2015 BY BENCHMARK ENGINEERING, INC. THE SUBDIVISION PLAT #23963-64 WAS RECORDED ON NOVEMBER 18, 2016.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE TRAFFIC STUDY WAS PREPARED BY MARS GROUP, INC. IN APRIL, 2015 AND APPROVED UNDER S-15-004.
- THE FOREST STAND DELINEATION AND WETLAND DELINEATION WAS PERFORMED BY ECO-SCIENTE PROFESSIONALS, INC. IN NOVEMBER, 2014. THERE IS NO FOREST STANDS OR WETLANDS LOCATED ON THIS SITE.
- THE GEOTECHNICAL REPORT WAS PREPARED BY GEOTECHNICAL LABORATORIES, INC. IN OCTOBER, 2015.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE WATER AND SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-4952-D.
- THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF, EFFECTIVE DATE TO BE DETERMINED, ON WHICH DATE DEVELOPERS AGREEMENT NUMBER F-16-030/24-4952 WAS FILED AND ACCEPTED.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON-SITE.
- THERE ARE NO HISTORIC SITES/STRUCTURES LOCATED ON THIS SITE.
- THERE ARE NO WETLANDS, WETLANDS BUFFERS, STREAMS, 100YR FLOODPLAIN OR STEEP SLOPES 25% OR GREATER LOCATED ON THIS SITE WITH THE EXCEPTION OF A SMALL PORTION OF A 75' STREAM BUFFER FROM AN OFF-SITE STREAM WHICH IS LOCATED ON AN ADJACENT SUBDIVISION. THIS SMALL BUFFER IS LOCATED IN THE SOUTHWEST CORNER OF OPEN SPACE LOT 6.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF THE STREAM BUFFER.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE).
  - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN).
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING RADIUS.
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
  - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
  - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- THE PRIVATE USE-IN-COMMON MAINTENANCE ACCESS AGREEMENT FOR LOTS 2-8 WAS RECORDED SIMULTANEOUSLY WITH THE RECORDATION OF THE SUBDIVISION PLAT.
- STORMWATER MANAGEMENT ENVIRONMENTAL SITE DESIGN (ESD) HAS BEEN PROVIDED IN ACCORDANCE WITH THE "MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT ACT OF 2007" AND THE "HOWARD COUNTY DESIGN MANUAL VOLUME I, CHAPTER 5" TO THE MAXIMUM EXTENT PRACTICAL. ALL PRACTICES ARE PRIVATELY OWNED AND MAINTAINED.
- LANDSCAPING IS PROVIDED WITH A CERTIFIED LANDSCAPE PLAN IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$6,000.00 FOR THE REQUIRED PERIMETER LANDSCAPING AND ADDITIONAL TREES PER WP-16-059 SHALL BE POSTED AS PART OF THE GRADING PERMIT UNDER THIS SITE DEVELOPMENT PLAN.
- THE FOREST CONSERVATION OBLIGATION FOR THESE LOTS WAS PROVIDED UNDER F-16-030.
- WP-16-008, A REQUEST TO WAIVE SECTION 16.146(a)(1) WAS APPROVED ON AUGUST 24, 2015 SUBJECT TO THE FOLLOWING CONDITIONS:
  - THE FINAL PLAN MUST BE SUBMITTED ON OR BEFORE NOVEMBER 6, 2015 (THE SAME APFO DATE IN THE ALLOCATIONS LETTER DATED JULY 6, 2015).
  - COMPLIANCE WITH SECTION 16.132 THRU 16.136 (PROVISIONS FOR ROAD IMPROVEMENTS ALONG SCAGGSVILLE ROAD).
- WP-16-059, A REQUEST TO WAIVE SECTION 16.1205(a)(7) WAS APPROVED ON DECEMBER 21, 2015 SUBJECT TO THE FOLLOWING CONDITIONS:
  - THE REMOVAL OF THE NORWAY MAPLE WILL REQUIRE MITIGATION WITH THE PLANTING OF 2:1 REPLACEMENT TREES (2 TOTAL) WITH A MINIMUM 3" CALIPER TRUNK. THE REPLACEMENT TREES SHALL BE BONDED AND SHOWN ON THE LANDSCAPE PLAN WITH THIS FINAL PLAN.
  - SPECIMEN TREE 'A' ON LOT 1 MUST REMAIN UNDISTURBED AND PROTECTED DURING THE DEMOLITION OF THE EXISTING HOUSE, THE INSTALLATION OF THE PROPOSED DRIVEWAY, AND THE CONSTRUCTION OF THE NEW HOUSE UNLESS IT CAN BE SUFFICIENTLY DEMONSTRATED THAT SPECIMEN TREE 'A' CANNOT BE SAVED.
  - PROVIDE THIS NOTE ON THE FUTURE SITE DEVELOPMENT PLAN.
- THE MODERATE INCOME HOUSING UNIT REQUIREMENT (COUNCIL BILL 35-2013) SHALL BE FULFILLED BY PAYMENT OF A FEE-IN-LIEU IN AN AMOUNT THAT IS TO BE CALCULATED BY THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT. THE FEE-IN-LIEU SHALL BE PAID FOR ALL LOTS/RESIDENTIAL UNITS WITHIN THIS SUBDIVISION AT TIME OF BUILDING PERMIT ISSUANCE.
- A FEE-IN-LIEU PAYMENT IN THE AMOUNT OF \$11,696.98 FOR THE REQUIRED ROAD IMPROVEMENTS ALONG OLD SCAGGSVILLE ROAD RIGHT-OF-WAY SHALL BE PAID AS PART OF CAPITAL PROJECT K-5061 AS APPROVED UNDER F-16-030.
- A PRIVATE STREET NAME SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
- IN ACCORDANCE WITH THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED, MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- THE EXISTING STRUCTURES LOCATED ON THIS SITE WERE DEMOLISHED ON OCTOBER 17, 2016 PRIOR TO PLAT RECORDATION.

# HIGH RIDGE ESTATES

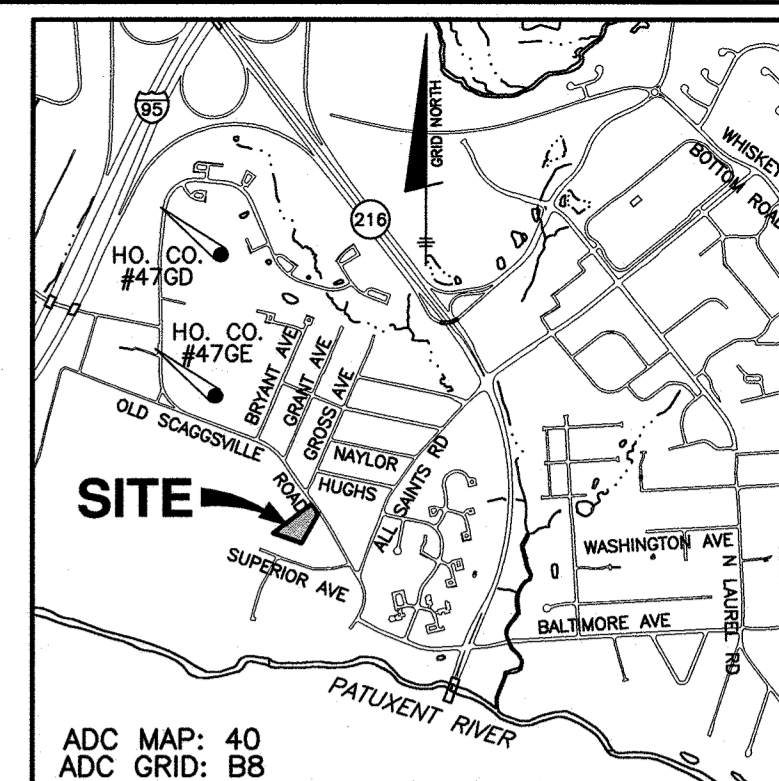
## LOTS 1 thru 7 and OPEN SPACE LOT 8

# SITE DEVELOPMENT PLAN

**BENCH MARKS (NAD83)**

HO. CO. No. 476D ELEV. 312.32'  
NEAR 9028 OLD SCAGGSVILLE ROAD  
6 FEET FROM FIRE HYDRANT  
33.9 FEET FROM BGE 315258  
N 530494.447 E 1350872.301

HO. CO. No. 476E ELEV. 335.756'  
BY 9160 OLD SCAGGSVILLE ROAD  
19.8 FEET FROM WATER METER  
76.5 FEET FROM BGE 31000  
N 529044.964 E 1350854.953

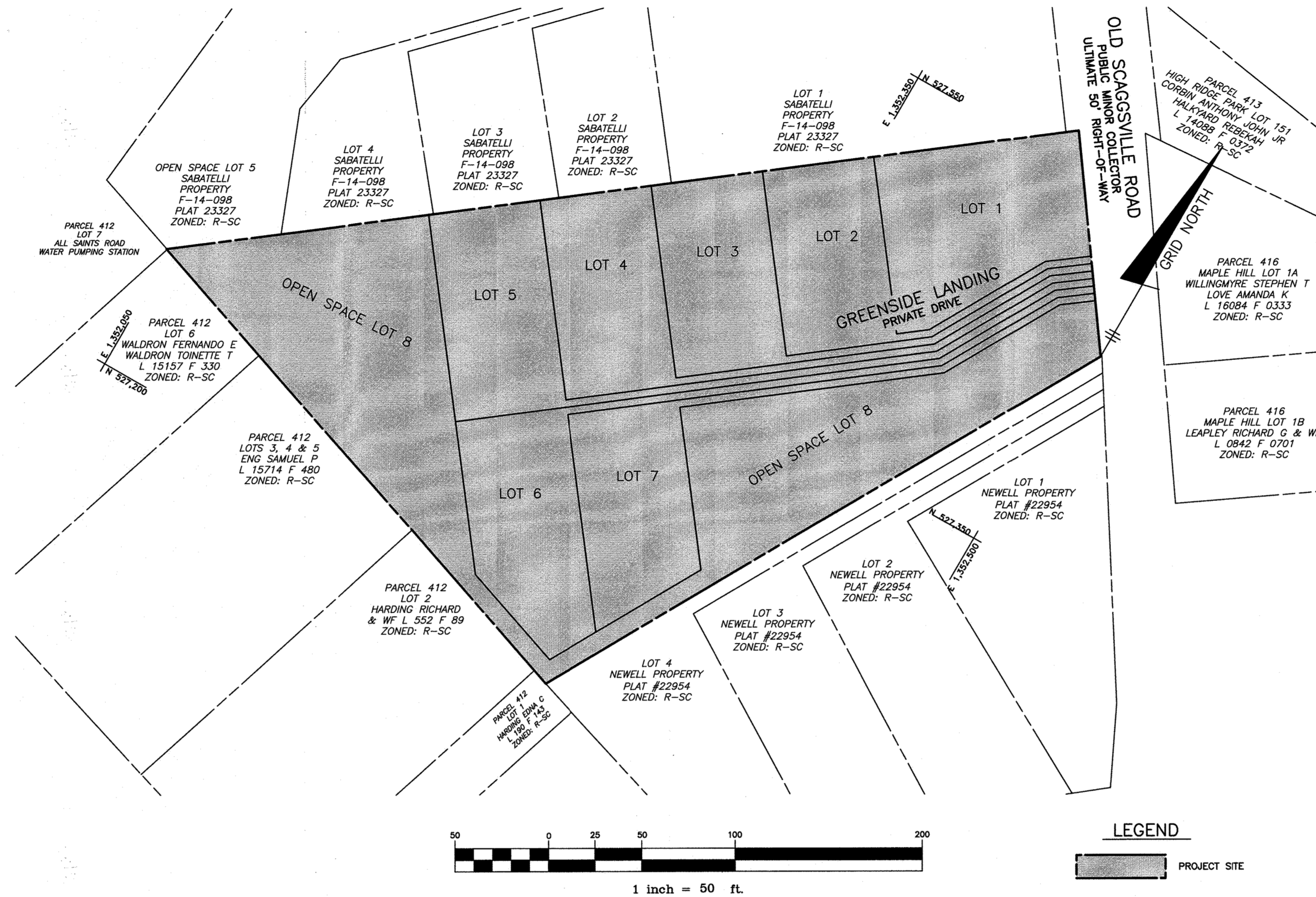


LOT	STREET ADDRESS
1	9304 OLD SCAGGSVILLE ROAD
2	9206 GREENSIDE LANDING
3	9210 GREENSIDE LANDING
4	9214 GREENSIDE LANDING
5	9218 GREENSIDE LANDING
6	9219 GREENSIDE LANDING
7	9215 GREENSIDE LANDING

SHEET INDEX	
NO.	TITLE
1	TITLE SHEET
2	SITE DEVELOPMENT AND GRADING PLAN
3	STORMWATER MANAGEMENT DETAILS
4	STORMWATER MANAGEMENT NOTES, CHARTS, DETAILS AND SOIL BORING LOGS
5	STORM DRAIN DRAINAGE MAP, PROFILES, AND DETAILS
6	LANDSCAPE PLAN
7	ESD TO THE MEP STORMWATER MANAGEMENT DRAINAGE AREA MAP
8	SEDIMENT AND EROSION CONTROL PLAN
9	SEDIMENT AND EROSION CONTROL NOTES
10	SEDIMENT AND EROSION CONTROL DETAILS

**SITE ANALYSIS DATA CHART**

- TOTAL PROJECT AREA 1.90 acres
- AREA OF PLAN SUBMISSION 1.90 acres
- LIMIT OF DISTURBED AREA 1.88 acres
- PRESENT ZONING: R-SC
- PROPOSED USE OF SITE: RESIDENTIAL SINGLE FAMILY DETACHED
- FLOOR SPACE ON EACH LEVEL OF BLDG PER USE: N/A
- TOTAL NUMBER OF UNITS ALLOWED AS SHOWN ON FINAL PLAT(S): 7
- TOTAL NUMBER OF UNITS PROPOSED: 7
- MAXIMUM NUMBER OF EMPLOYEES, TENANTS OR SITE PER USE: N/A
- NUMBER OF PARKING SPACES REQUIRED BY HO. CO. ZONING REGS AND/OR FDP CRITERIA: 17.5 (7 UNITS x 2.5)
- NUMBER OF PARKING SPACES PROVIDED ON-SITE (INCLUDES HANDICAPPED SPACES): 28 (2 PER GARAGE & 2 PER DRIVEWAY)
- OPEN SPACE ON-SITE: 0.68 AC. (PLAT 23963-64)
- AREA OF RECREATIONAL OPEN SPACE REQUIRED: N/A  
AREA OF RECREATIONAL OPEN SPACE PROVIDED: N/A
- BUILDING COVERAGE OF SITE: N/A  
PERCENTAGE OF GROSS AREA: N/A
- APPLICABLE DPZ FILE REFERENCES: ECP-15-063, S-15-004, WP-16-008, WP-16-059, F-16-030



**LEGEND**

PROJECT SITE

**MINIMUM LOT SIZE CHART**

LOT	GROSS	PIPESTEM	MINIMUM LOT SIZE
2	6,456	456	6,000
3	6,936	696	6,240
4	7,415	935	6,480
5	7,895	1,175	6,720
6	8,207	1,174	7,033
7	7,263	934	6,329

MINIMUM LOT SIZE ALLOWED PER ZONING (SECTION 110.0.D.2): 6,000 SF

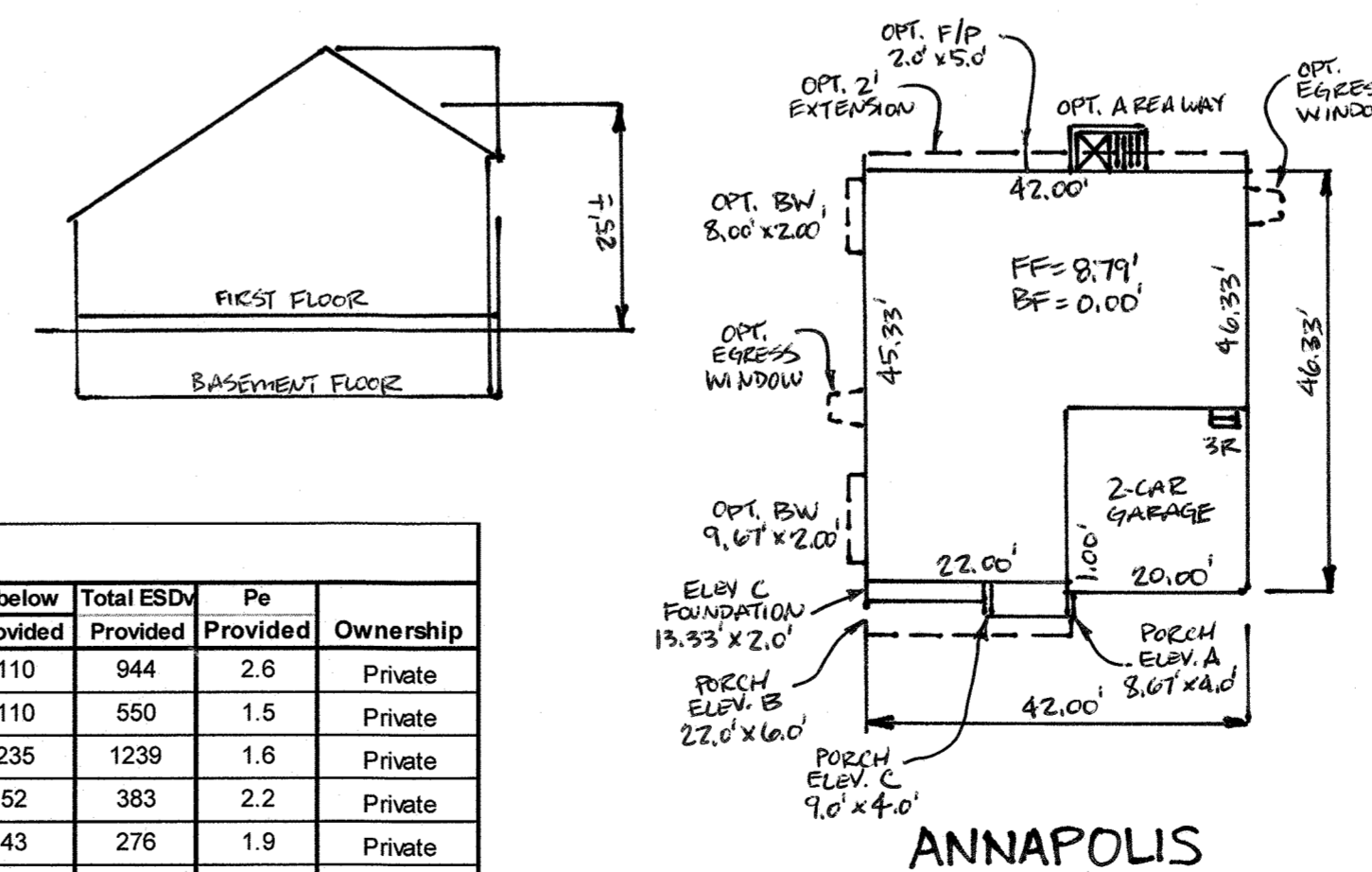
THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.

THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

Specimen Tree Chart					
Specimen Tree	Scientific Name	Common Name	DBH	Condition	Notes
A	Picea abies	Norway Spruce	36"	good	to remain
B	Acer platanoides	Norway Maple	36"	poor	to be removed (WP-16-059)

STORMWATER MANAGEMENT SUMMARY TABLE																
Practice	DA (sf)	Imp Area (sf)	% Imp	Rv	Pe Required	A <sub>f</sub> (sf)		Total ESD <sub>v</sub> Required	75% ESD <sub>v</sub> ponding		25% ESD <sub>v</sub> (cf) below		Total ESD <sub>v</sub> Provided	Pe Provided	Ownership	
						Required	Provided		Required	Provided	Required	Provided				
(M-6) Micro Bio-Retention	#1	16,748	3,939	24%	0.26	1.2	335	537	438	329	834	110	110	944	2.6	Private
(M-6) Micro Bio-Retention	#2	14,632	4,060	28%	0.30	1.2	283	563	439	329	440	110	110	550	1.5	Private
(M-6) Micro Bio-Retention	#3	16,063	9,554	59%	0.59	1.2	321	788	940	705	1004	235	235	1239	1.6	Private
(M-6) Micro Bio-Retention	#4	10,710	1,738	16%	0.20	1.2	214	215	210	157	331	52	52	383	2.2	Private
(M-6) Micro Bio-Retention	#5	2,588	1,762	68%	0.66	1.2	52	119	172	129	233	43	43	276	1.9	Private
(N-2) Disconnection of Non-Rooftop	#1	3,816	1,812	47%	0.48	1.2			152	NA	NA	NA	NA	152	1.0	Private
<b>Totals per individual Drainage Area</b>		64,557	22,865				1215	2222	2350					3543	cf	
<b>Totals per Overall Site</b>		82,567	23,457	30%	0.32	1.2			2642						cf	

Notes:  
1. The Pe required column is based on total site Pe calculation. The Rv is based on individual drainage area percent impervious (per DED)  
2. The 592 sf of impervious area not treated is a portion of the driveway for Lot 1 and the portion of the use-in-common driveway within the public ROW of Old Scaggsville Road. However, total ESD<sub>v</sub> provided exceeds total ESD<sub>v</sub> Required



**PERMIT INFORMATION CHART**

SUBDIVISION NAME:		SECTION/AREA:	LOT/PARCEL #		
HIGH RIDGE ESTATES		N/A	LOTS 1 thru 7		
PLAT No.	GRID No.	ZONE	TAX MAP NO	ELECTION DISTRICT	CENSUS TRACT
23963-64	2	R-SC	50	6th	6069.06

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 3-16-18 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 3-22-18 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 3-22-18 DATE  
DIRECTOR

Professional Certification, I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 22390, Expiration Date: 12/31/2019

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELICOTT CITY, MARYLAND 21043  
(P) 410-465-4169 (F) 410-465-4168  
WWW.BE-CMENGINEERING.COM

RESIDENTIAL - SINGLE FAMILY DETACHED  
**HIGH RIDGE ESTATES**  
LOTS 1 thru 7 and OPEN SPACE LOT 8

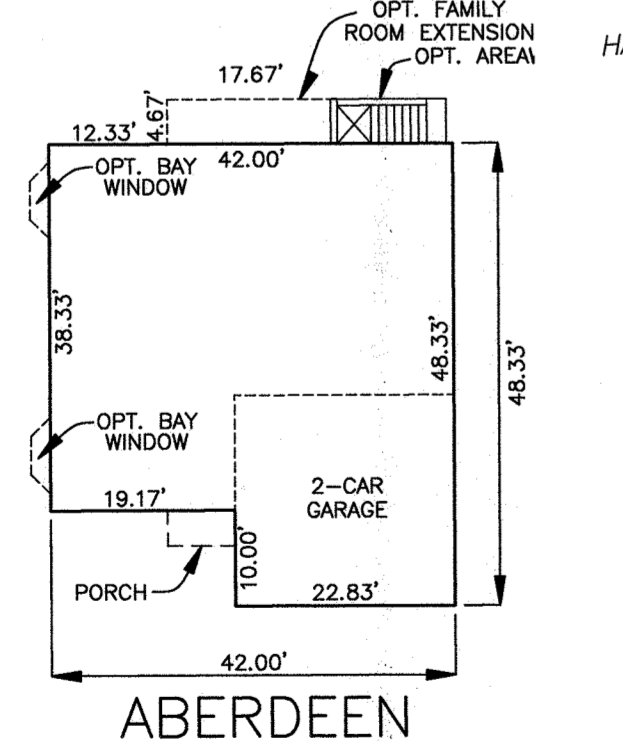
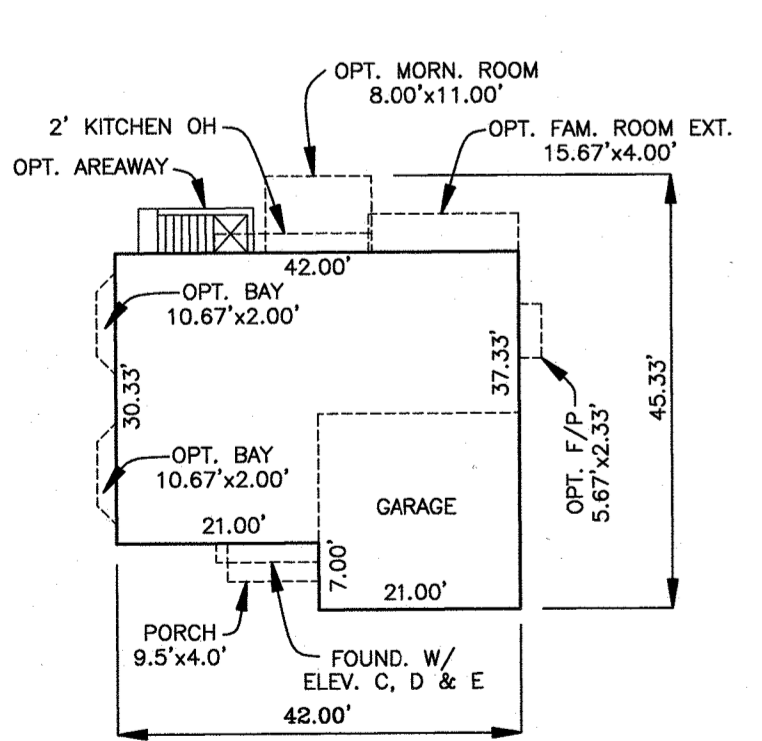
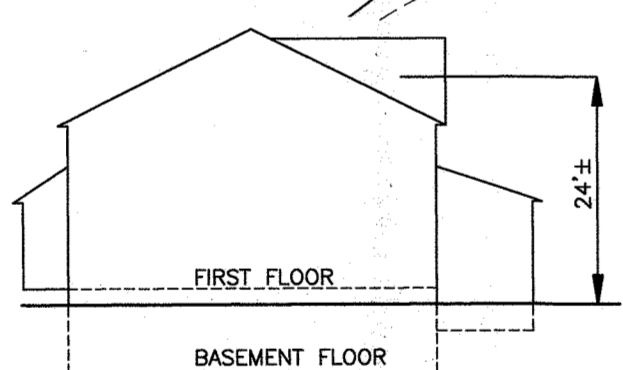
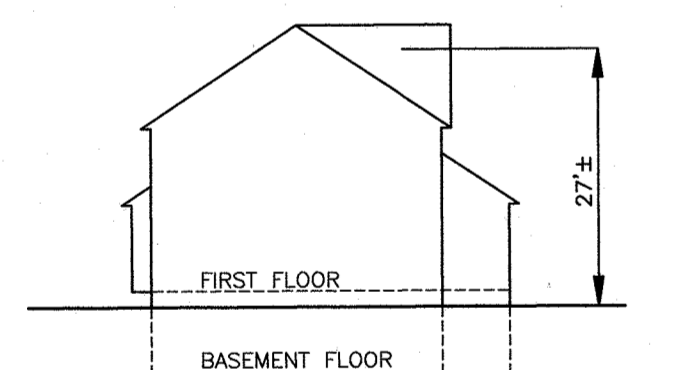
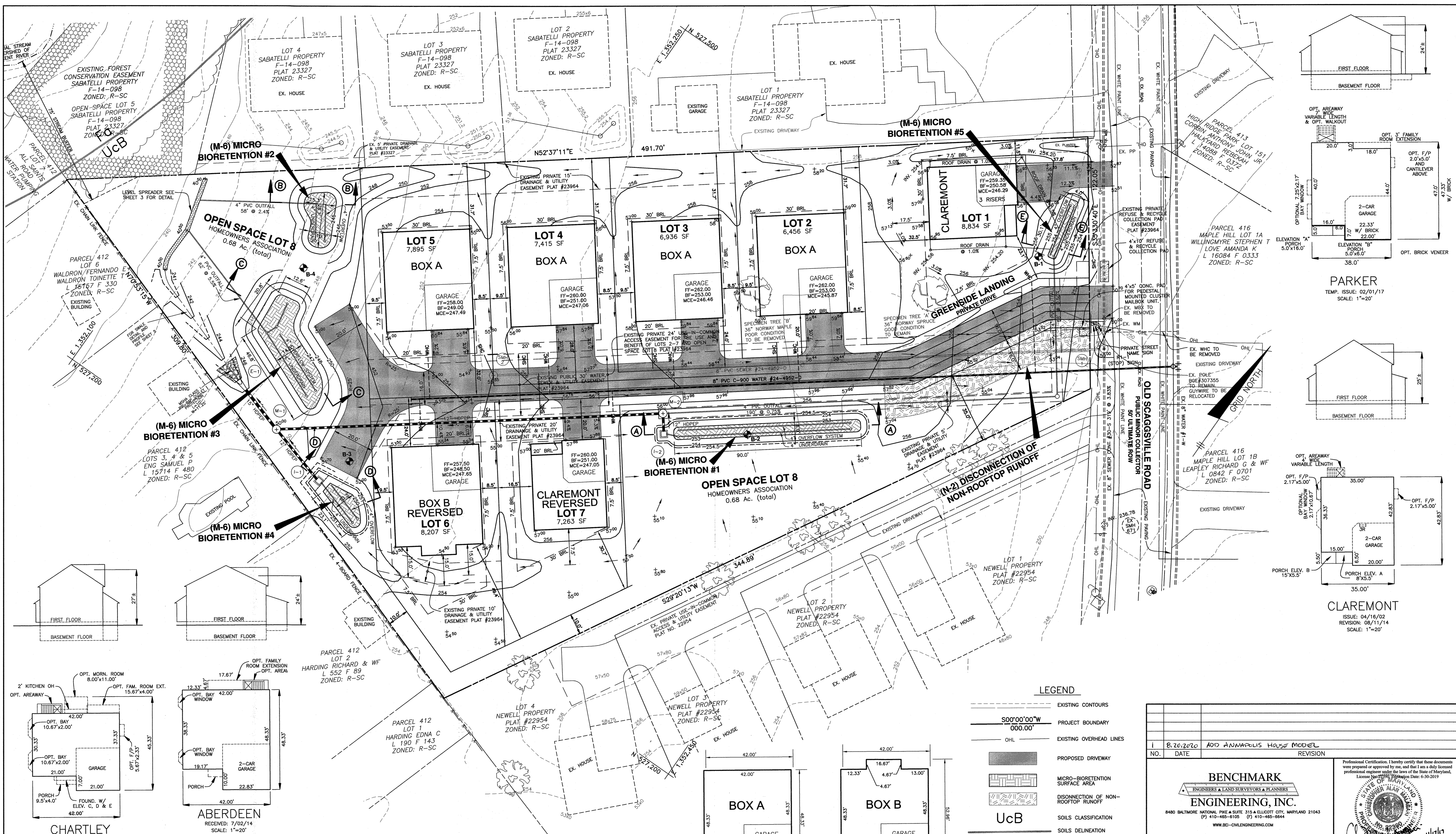
OWNER / DEVELOPER:  
DEVELOPMENT PARTNERS, LLC  
9693 GERWIG LANE, SUITE L  
COLUMBIA, MD 21046  
410-792-2565

TAX MAP: 50 GRID: 2 PARCEL: 452 ZONED: R-SC  
OLD SCAGGSVILLE ROAD  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY, MARYLAND

**SITE DEVELOPMENT PLAN**  
TITLE SHEET

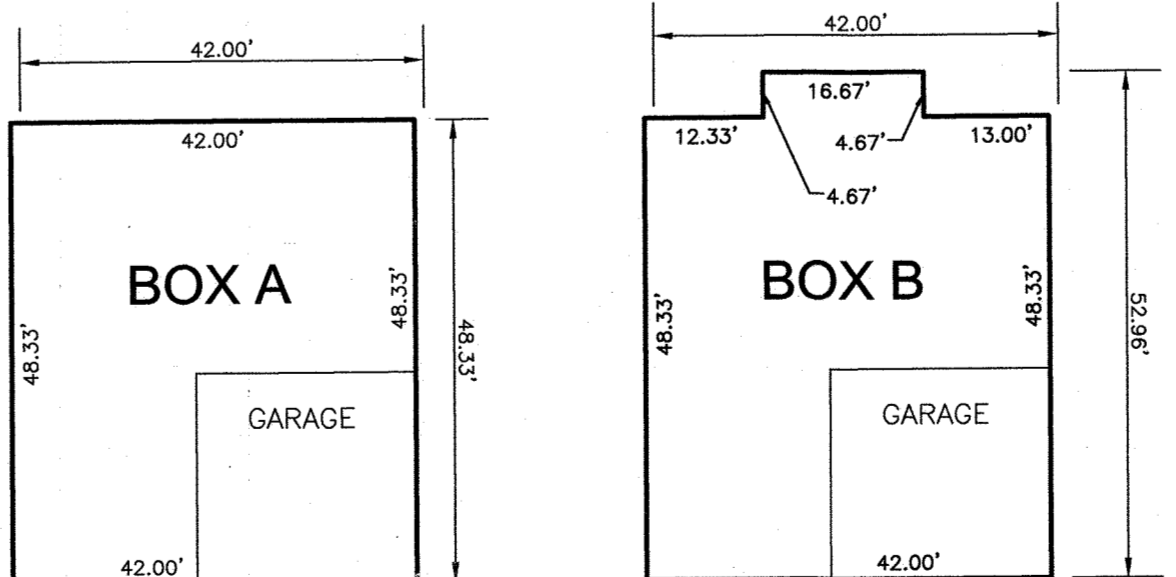
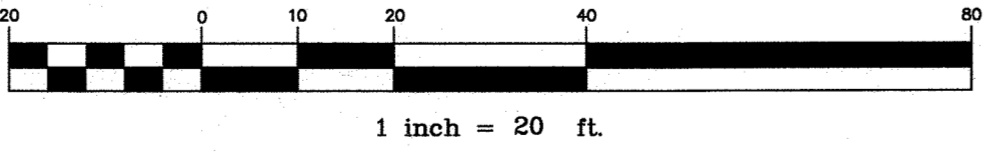
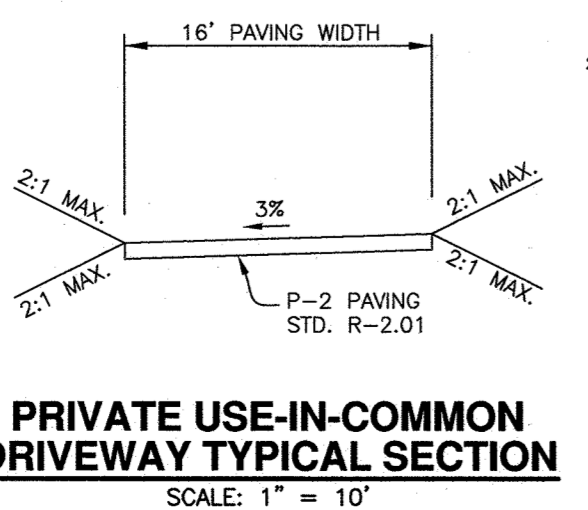
DATE: NOVEMBER 7, 2017 BEI PROJECT NO: 2667  
SCALE: AS SHOWN SHEET 1 OF 10

DESIGN: DBT DRAWN: DBT



**CHARTLEY**  
 ISSUE: 5/6/97  
 REVISION: 4/1/98  
 SCALE: 1"=20'

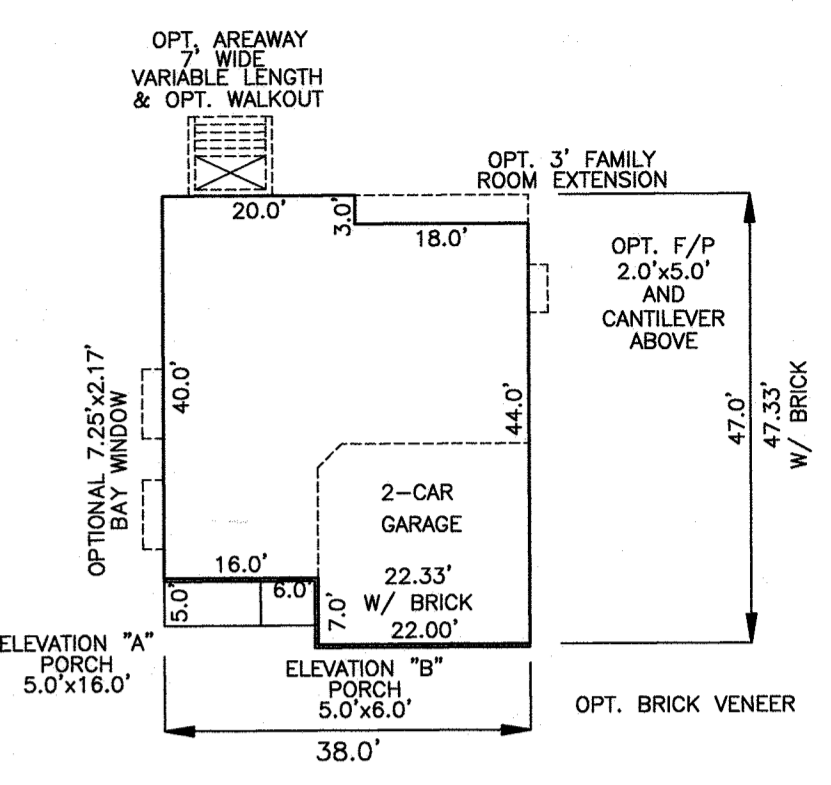
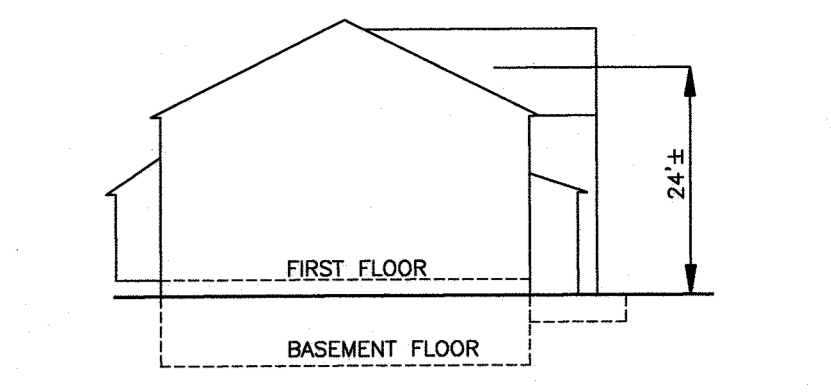
**ABERDEEN**  
 RECEIVED: 7/02/14  
 SCALE: 1"=20'



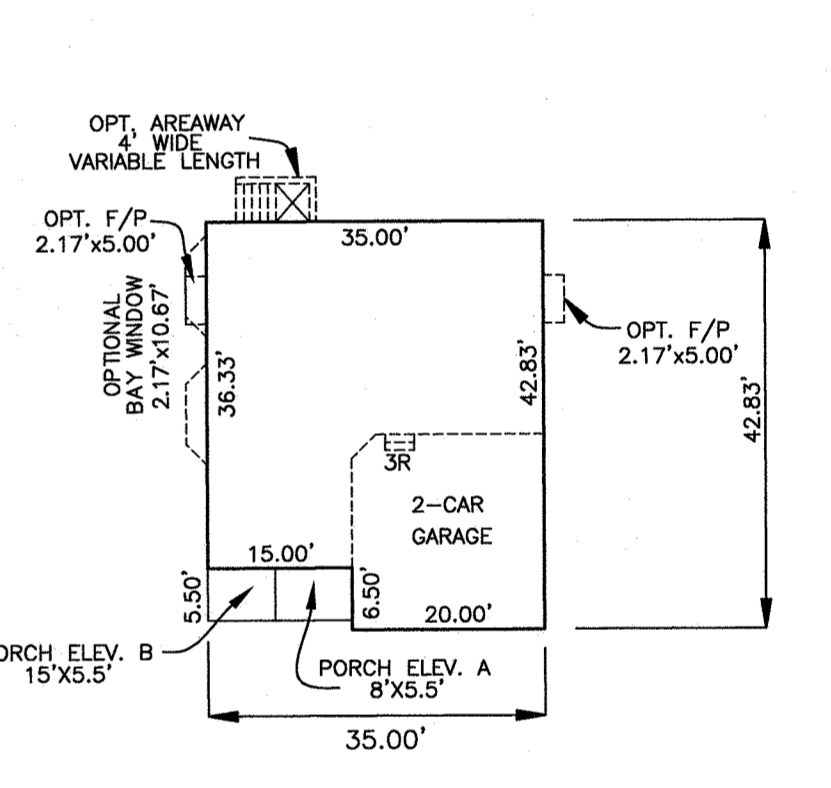
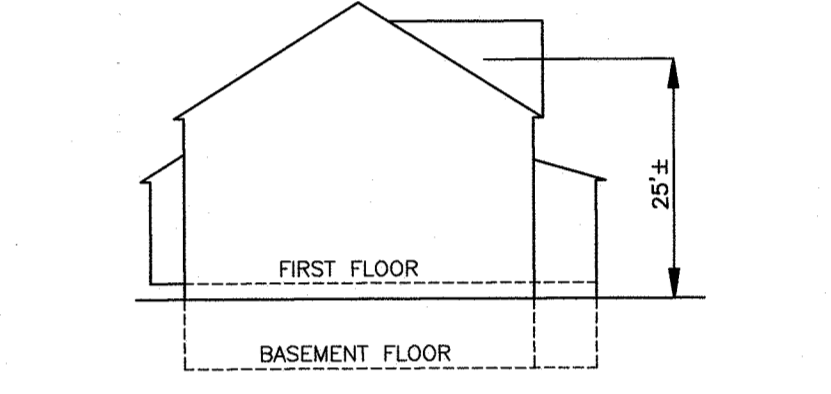
**BOX A**  
 CLAREMONT ALL OPTIONS  
 CHARTLEY ALL OPTIONS  
 PARKER ALL OPTIONS  
 ABERDEEN ALL OPTIONS

**BOX B**  
 CLAREMONT ALL OPTIONS  
 CHARTLEY ALL OPTIONS  
 PARKER ALL OPTIONS  
 ABERDEEN ALL OPTIONS

- LEGEND**
- EXISTING CONTOURS
  - PROJECT BOUNDARY
  - EXISTING OVERHEAD LINES
  - PROPOSED DRIVEWAY
  - MICRO-BIORETENTION SURFACE AREA
  - DISCONNECTION OF NON-ROOFTOP RUNOFF
  - SOILS CLASSIFICATION
  - SOILS DELINEATION
  - SOIL BORING TEST LOCATION
  - ESD PRACTICE CROSS-SECTION
  - INDICATES WATER OR SEWER HOUSE CONNECTION



**PARKER**  
 TEMP. ISSUE: 02/01/17  
 SCALE: 1"=20'



**CLAREMONT**  
 ISSUE: 04/16/02  
 REVISION: 08/11/14  
 SCALE: 1"=20'

NO.	DATE	REVISION
1	8.26.2020	ADD ANNAPOLIS HOUSE MODEL

**BENCHMARK ENGINEERING, INC.**  
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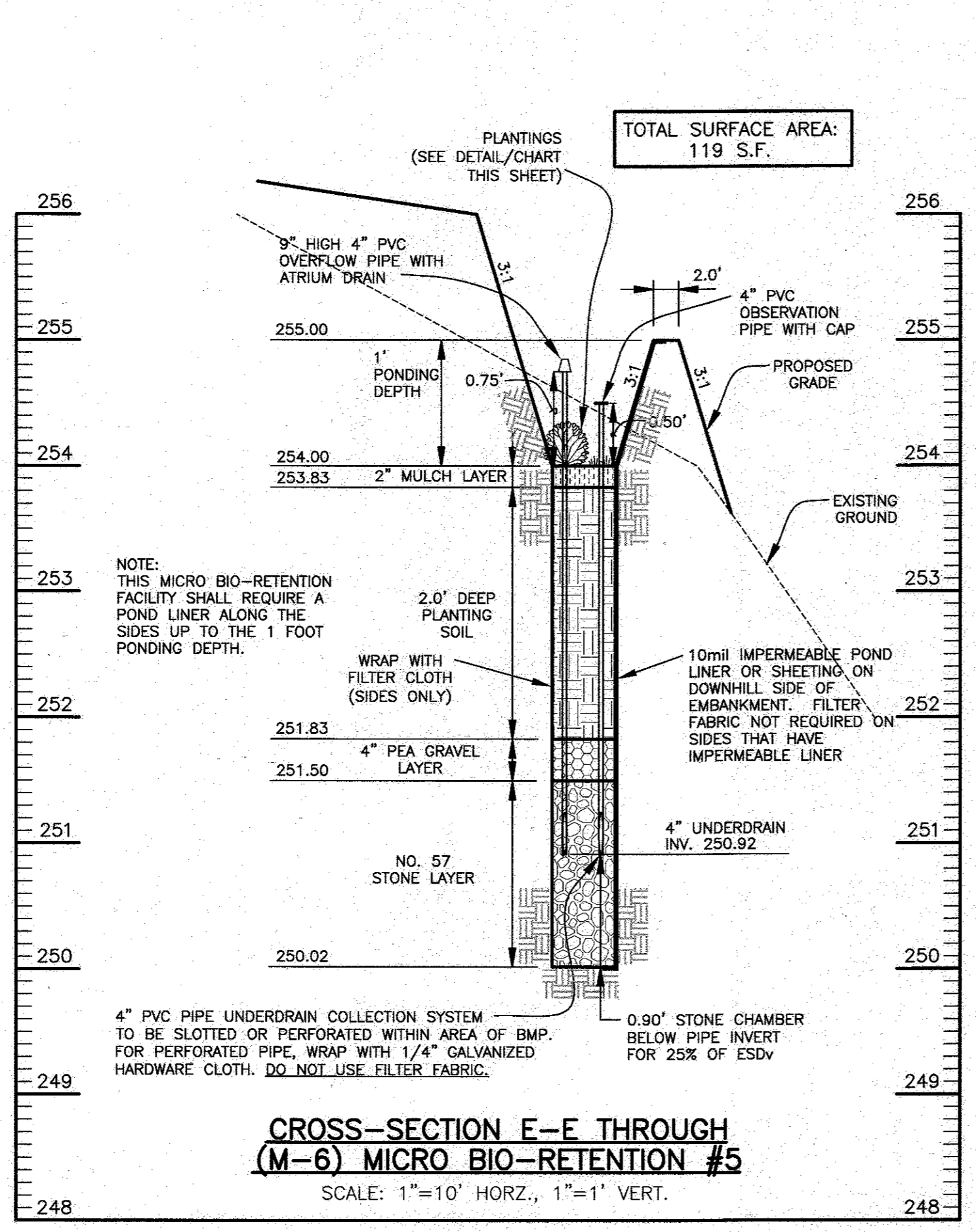
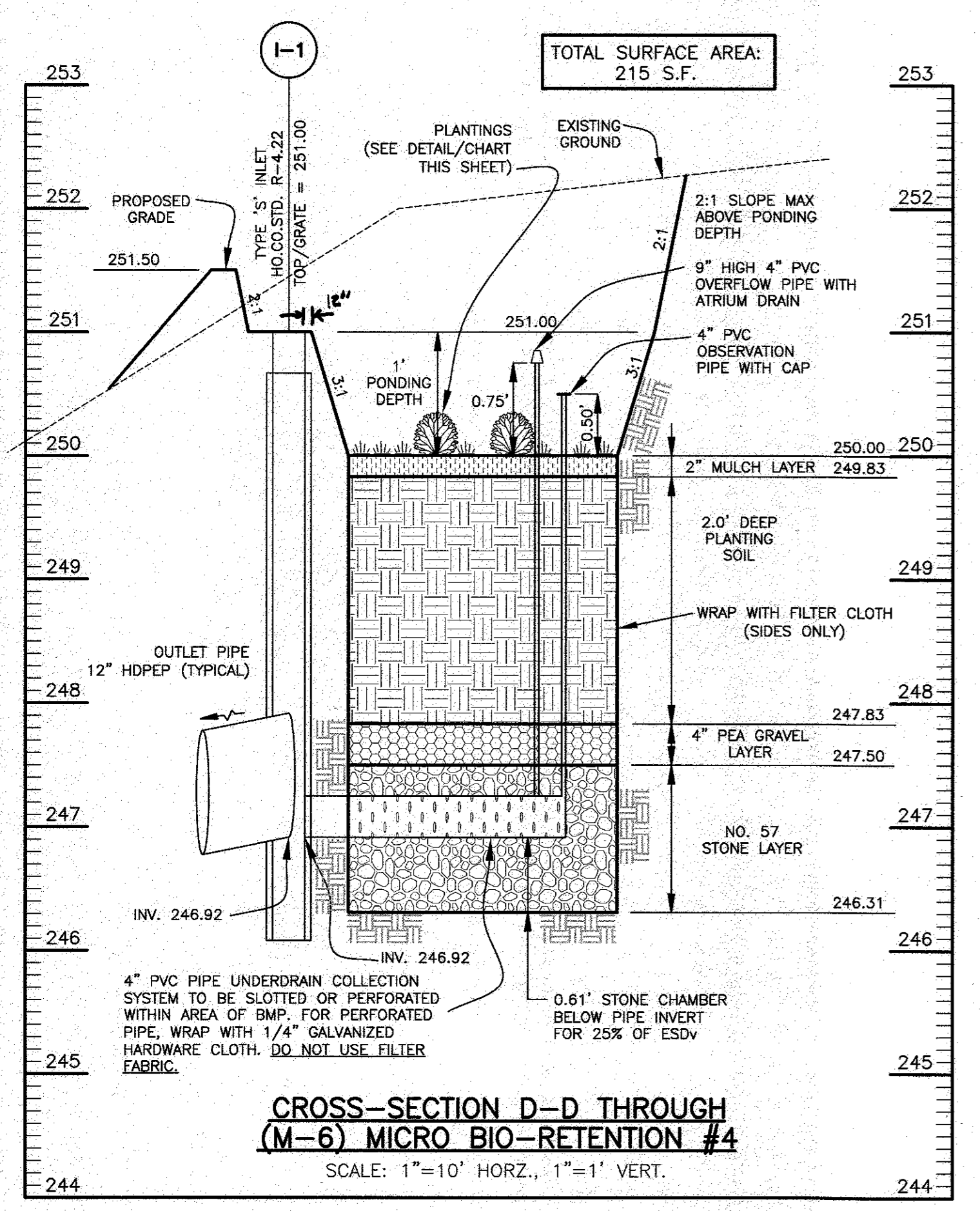
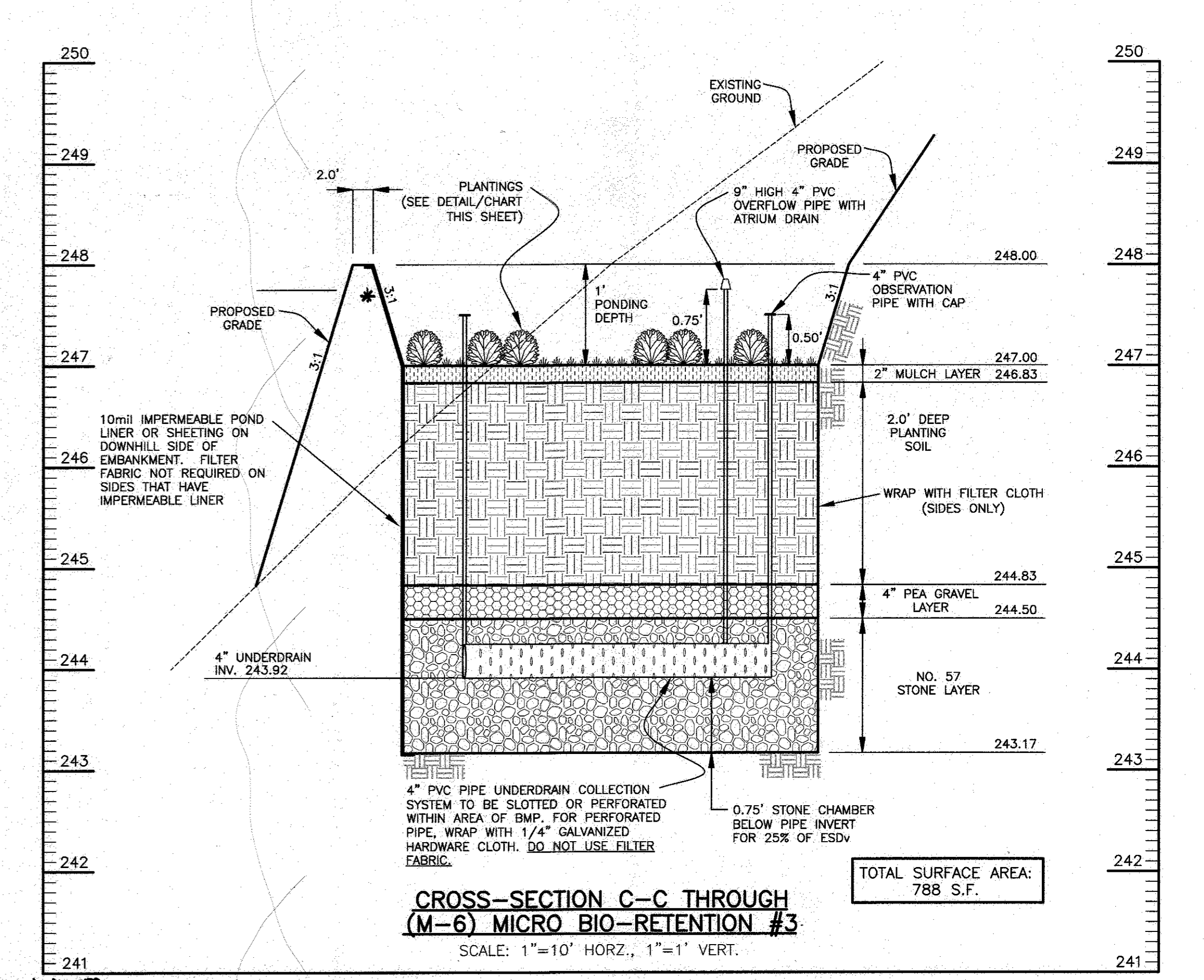
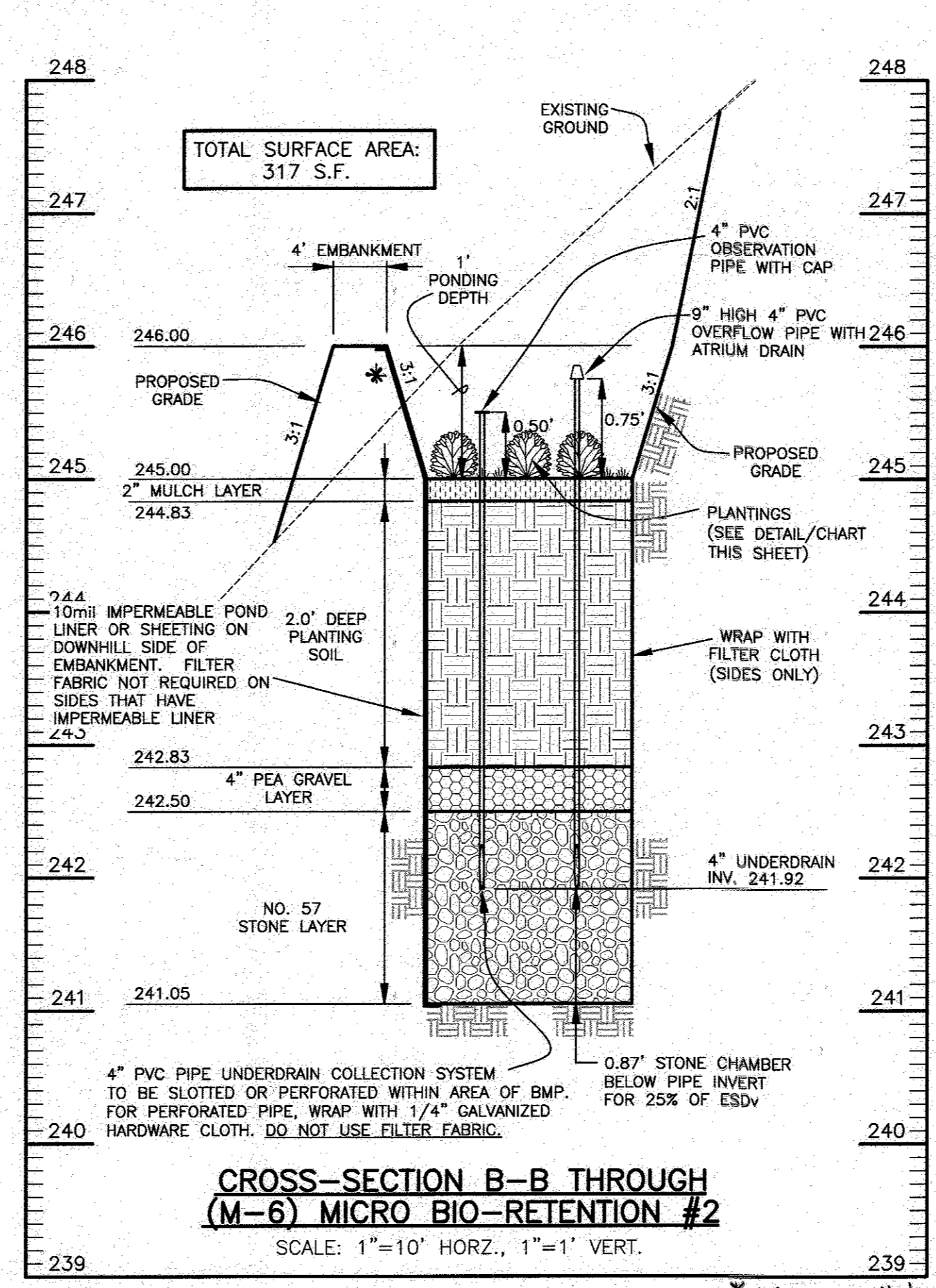
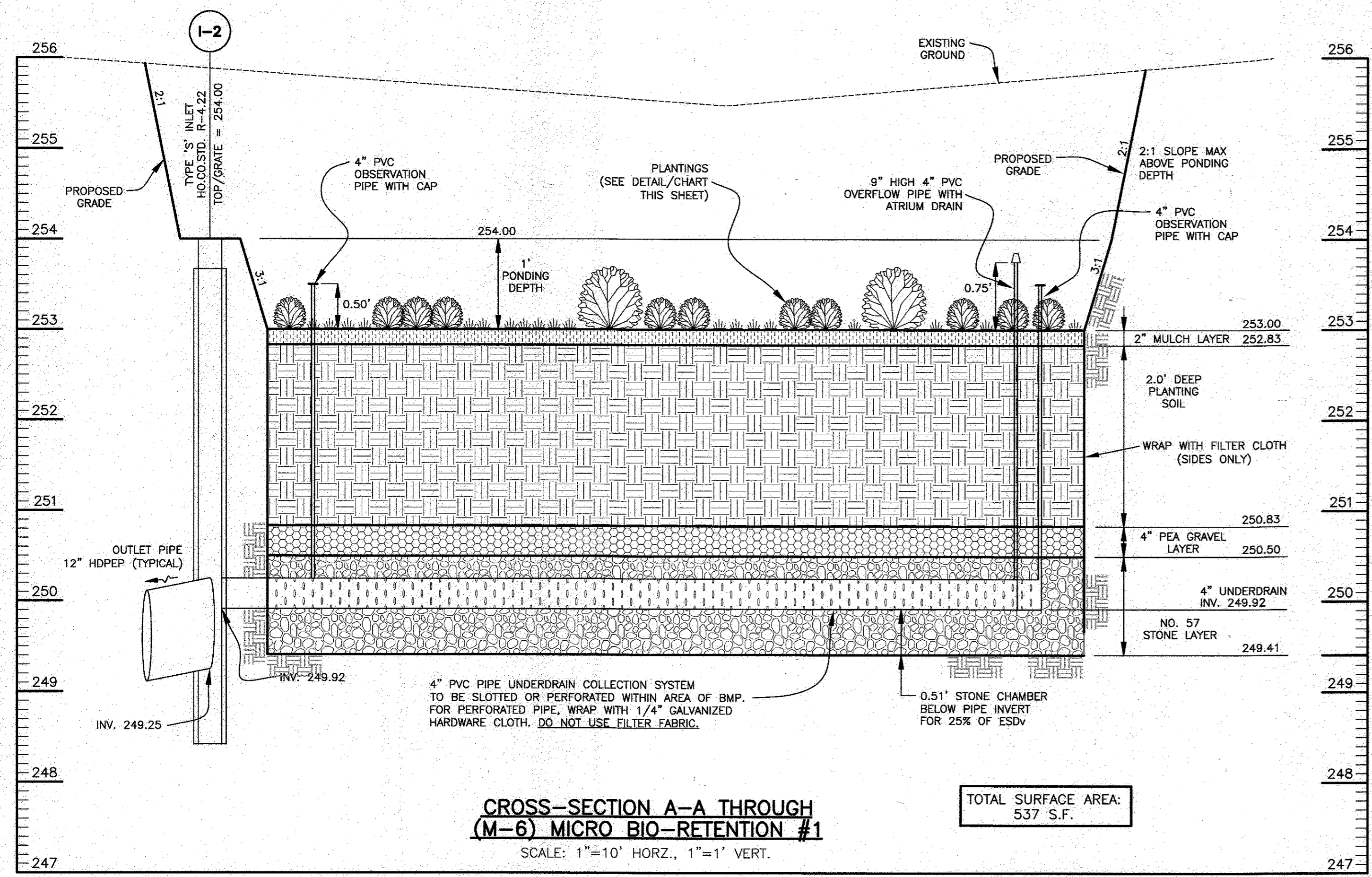
**HIGH RIDGE ESTATES**  
 LOTS 1 thru 7 and OPEN SPACE LOT 8

OWNER / DEVELOPER:  
 DEVELOPMENT PARTNERS, LLC  
 9693 GERMIG LANE, SUITE L  
 COLUMBIA, MD 21046  
 410-792-2565

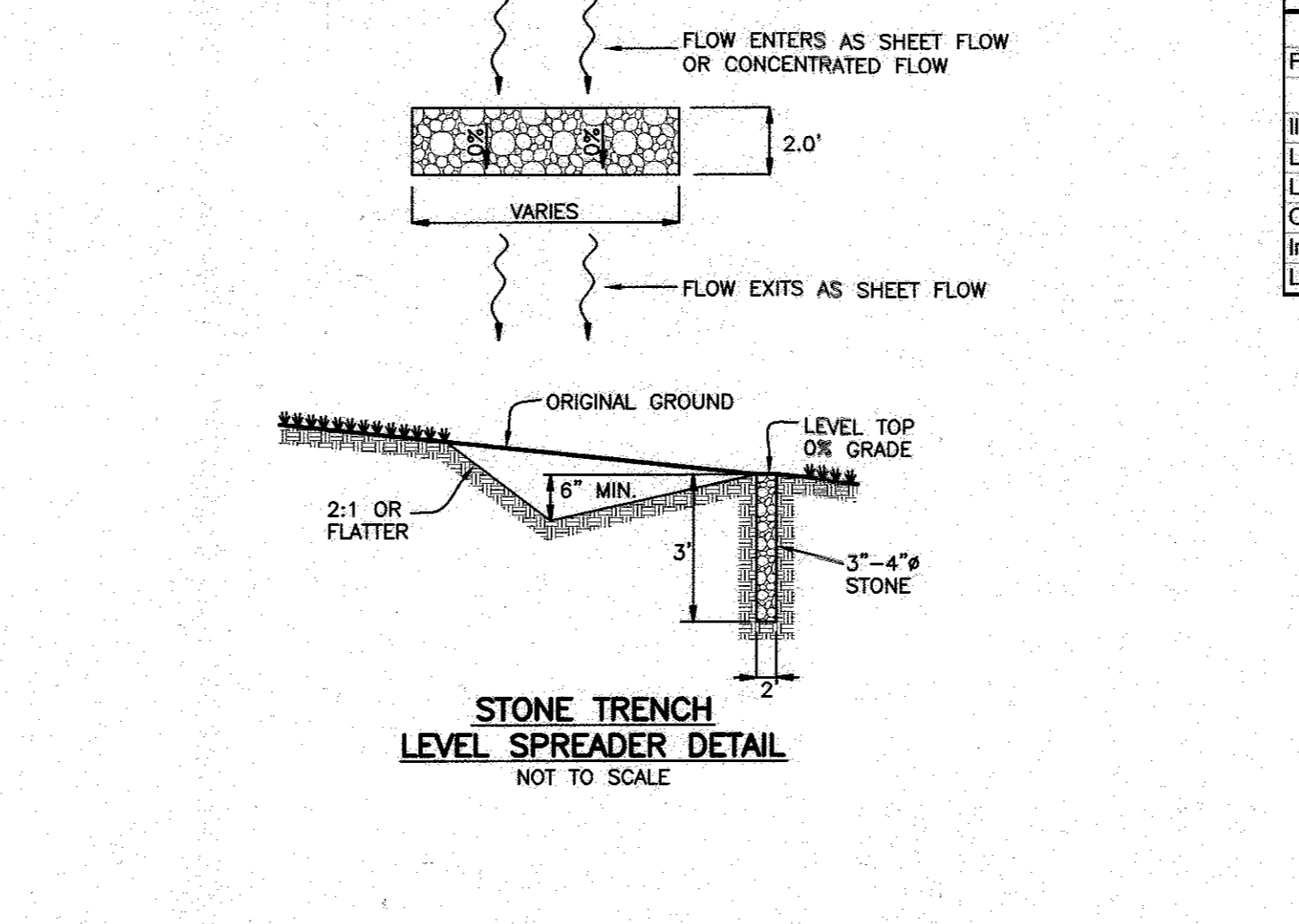
TAX MAP: 50 GRID: 2 PARCEL: 452 ZONED: R-SC  
 OLD SCAGGSVILLE ROAD  
 ELECTION DISTRICT NO. 6  
 HOWARD COUNTY, MARYLAND

**SITE DEVELOPMENT AND GRADING PLAN**

DATE: NOVEMBER 7, 2017 BEI PROJECT NO: 2667  
 SCALE: AS SHOWN SHEET 2 OF 10



\*Liner shall have minimum 6" COVER FOR TOP SOIL

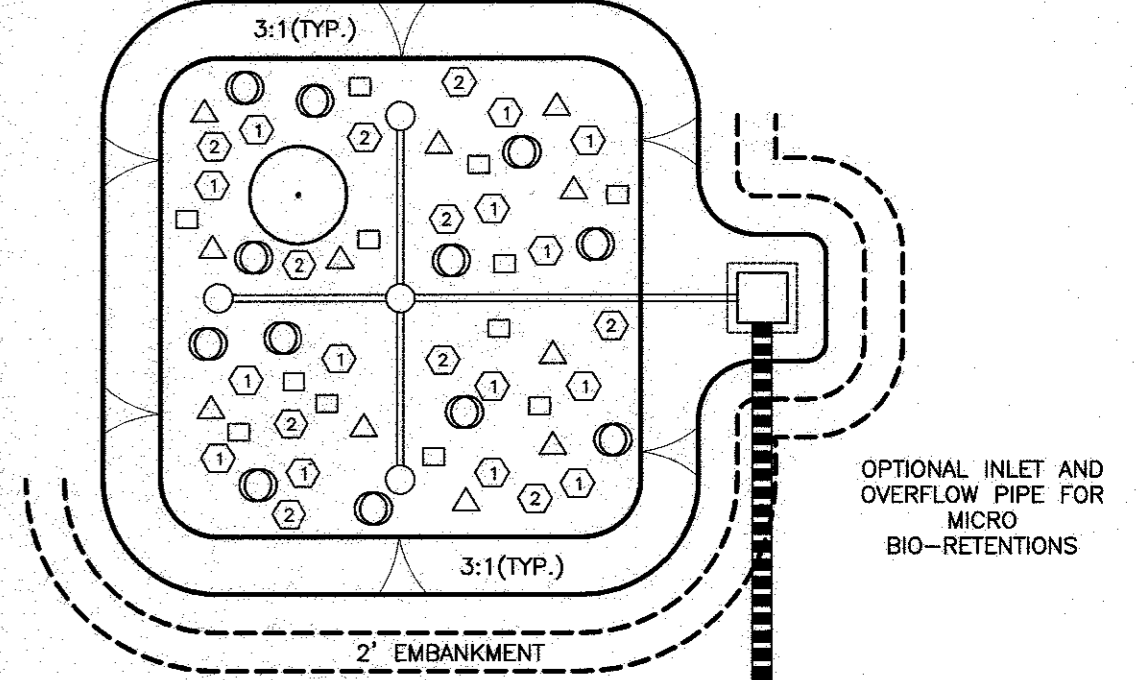


**(M-6) MICRO BIO-RETENTION LANDSCAPING CHART**

Facility square footage	COMMON NAME	TYPE	SIZE	MB #1 317	MB #2 788	MB #3 215	MB #4 119	MB #5 1976	TOTAL
				QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
	Ilex verticillata	Common Winterberry	shrub	5	3	8	2	1	20
	Lobelia cardinalis	Cardinal flower	perennial herbaceous plant	36	21	53	14	8	132
	Lobelia siphilitica	Great Blue Lobelia	perennial herbaceous plant	36	21	53	14	8	132
	Carex stricta	Uplight Sedge	grass	36	21	53	14	8	132
	Iris versicolor	Blue Water Iris	perennial herbaceous plant	36	21	53	14	8	132
	Liatris spicata	Prairie Gay Feather	perennial herbaceous plant	36	21	53	14	8	132

**PLANTING LEGEND**

SYMBOL	NAME
①	LOBELIA CARDINALIS
②	LOBELIA SIPHILITICA
□	CAREX STRICTA
△	IRIS VERSICOLOR
○	LIATRIS SPICATA
●	ILEX VERTICILLATA



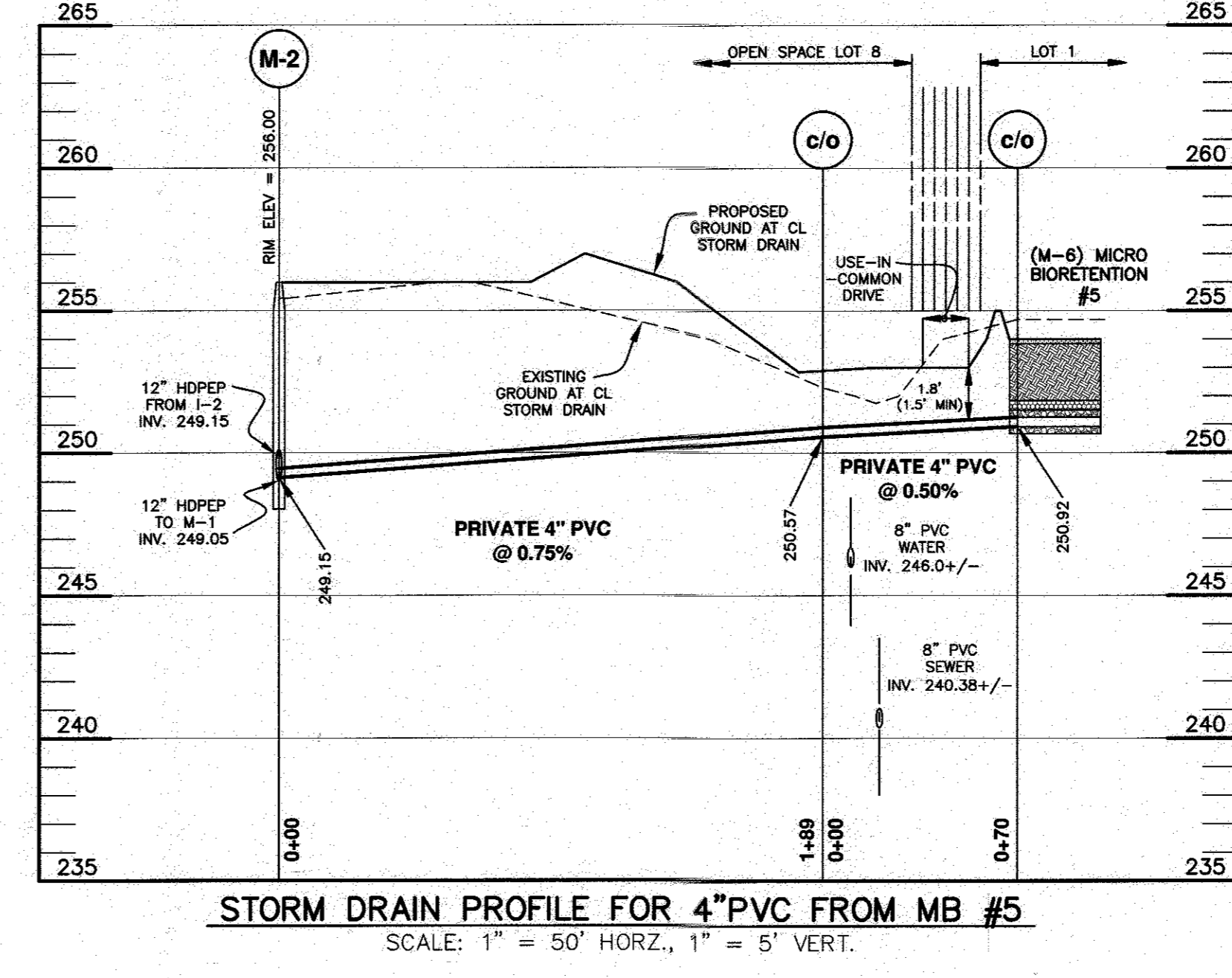
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *Howard KSP* 3-16-18 DATE

Chief, Division of Land Development: *J. Manuka for KS* 3-22-18 DATE

Director: *Valerie Joffe* 3-22-18 DATE

NOTE:  
SEE SHEET 2 FOR PLAN VIEW DIMENSIONS OF MICRO BIO-RETENTION PRACTICES.  
SEE SHEET 4 FOR STANDARD DETAIL FOR MICRO BIO-RETENTION PRACTICES



**BENCHMARK ENGINEERING, INC.**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
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(P) 410-465-6105 (F) 410-465-8644  
WWW.BE-ONLINEENGINEERING.COM

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 2009115 (Expiring Date: 6-30-2019)

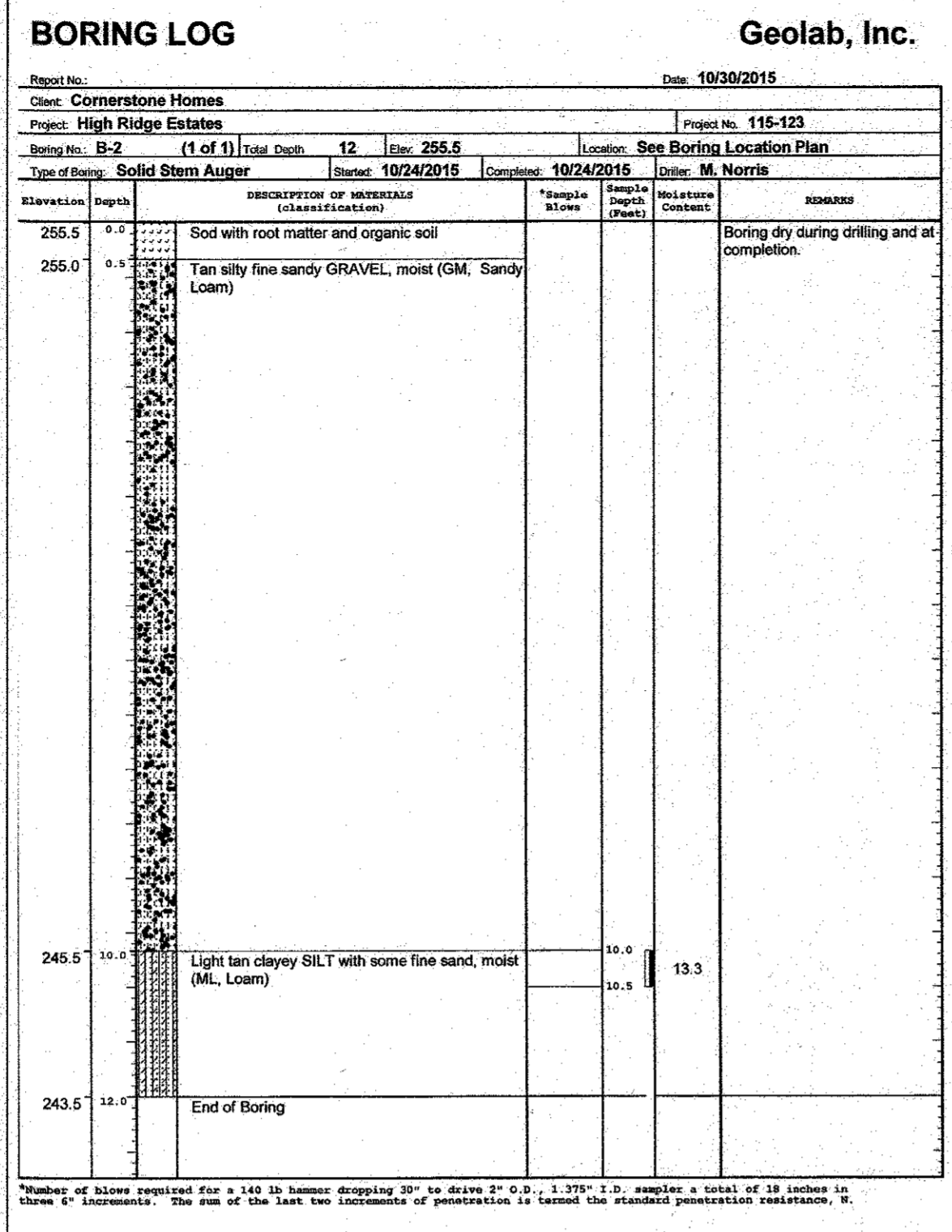
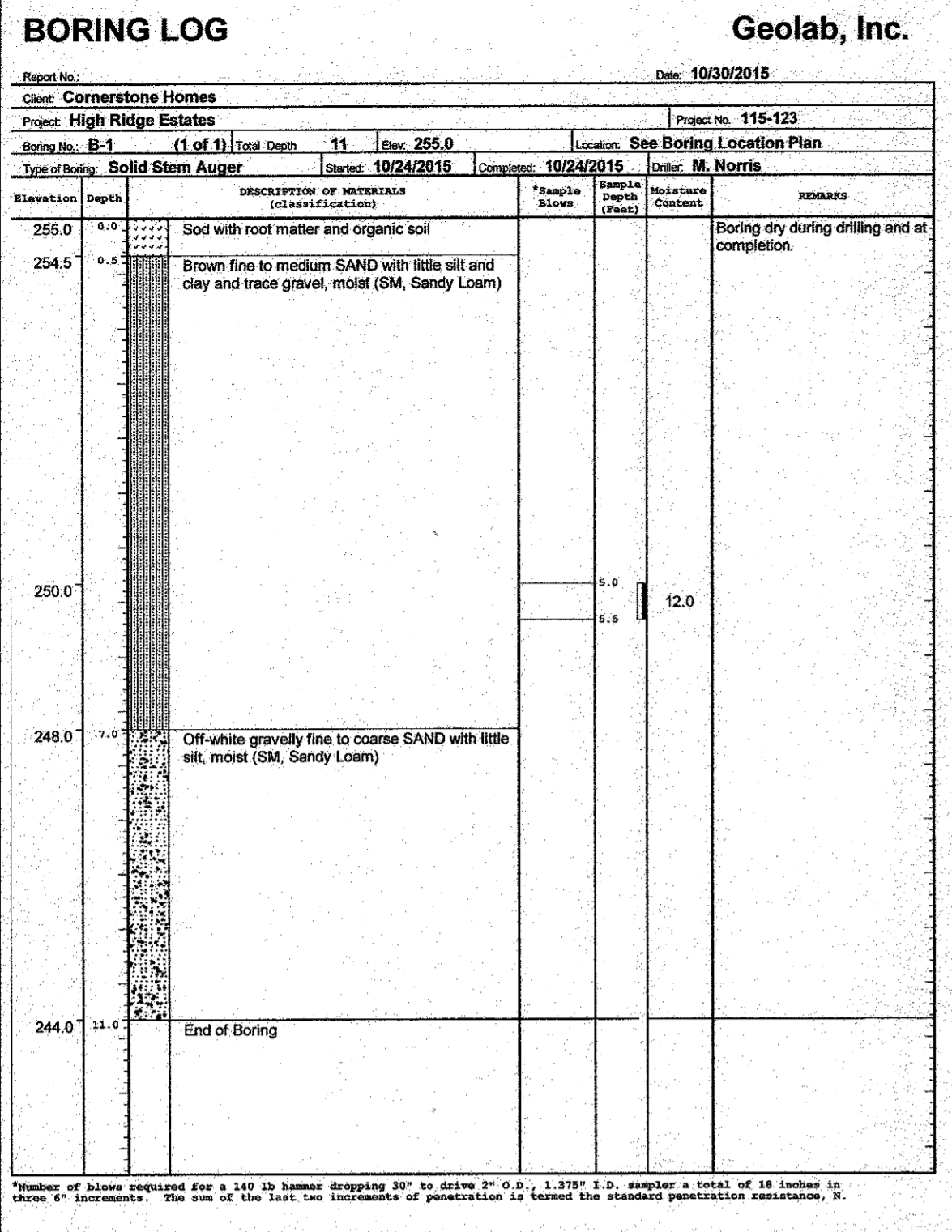
**HIGH RIDGE ESTATES**  
LOTS 1 thru 7 and OPEN SPACE LOT 8

OWNER / DEVELOPER:  
DEVELOPMENT PARTNERS, LLC  
9693 GERWIG LANE, SUITE L  
COLUMBIA, MD 21046  
410-792-2565

TAX MAP: 50 GRID: 2 PARCEL: 452 ZONED: R-SC  
OLD SCAGSVILLE ROAD  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY, MARYLAND

**STORMWATER MANAGEMENT DETAILS**

DATE: NOVEMBER 7, 2017 BEI PROJECT NO: 2667  
DESIGN: DBT DRAWN: DBT SCALE: AS SHOWN SHEET 3 OF 10



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

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

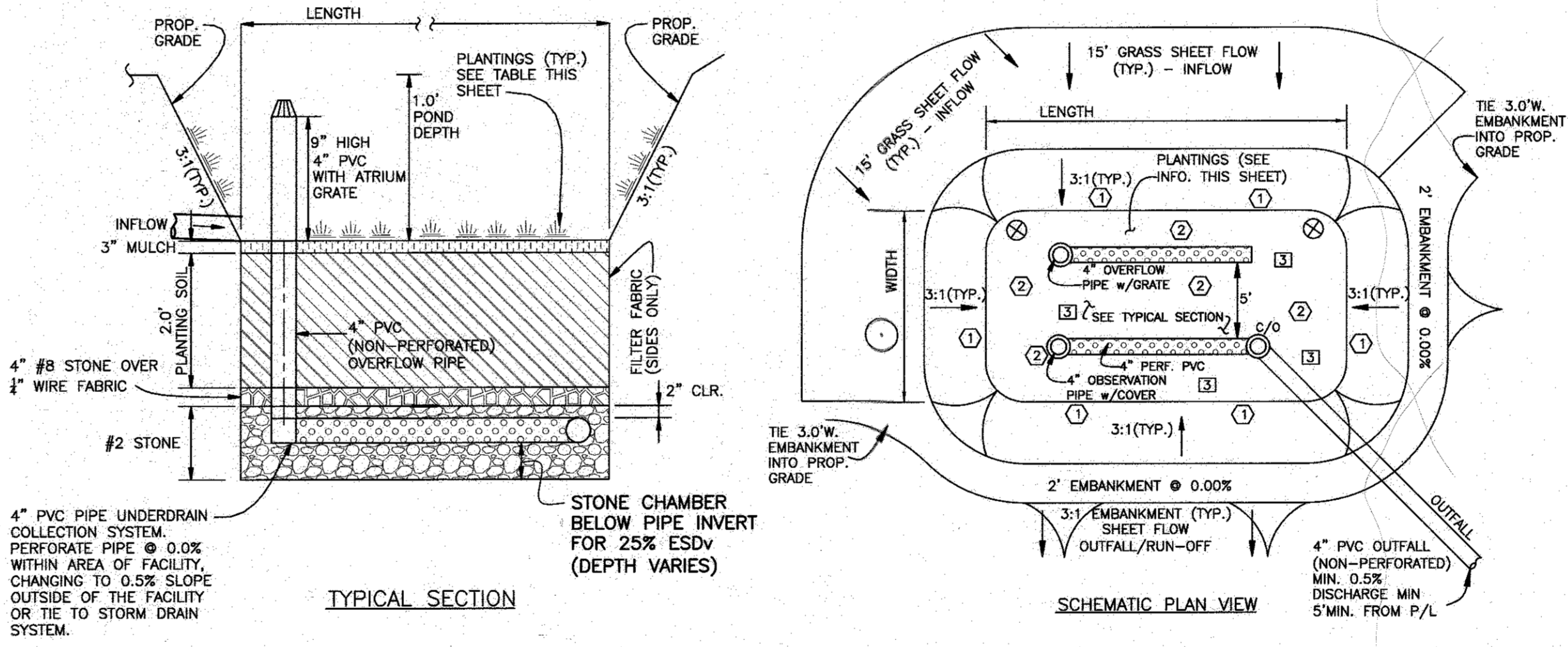
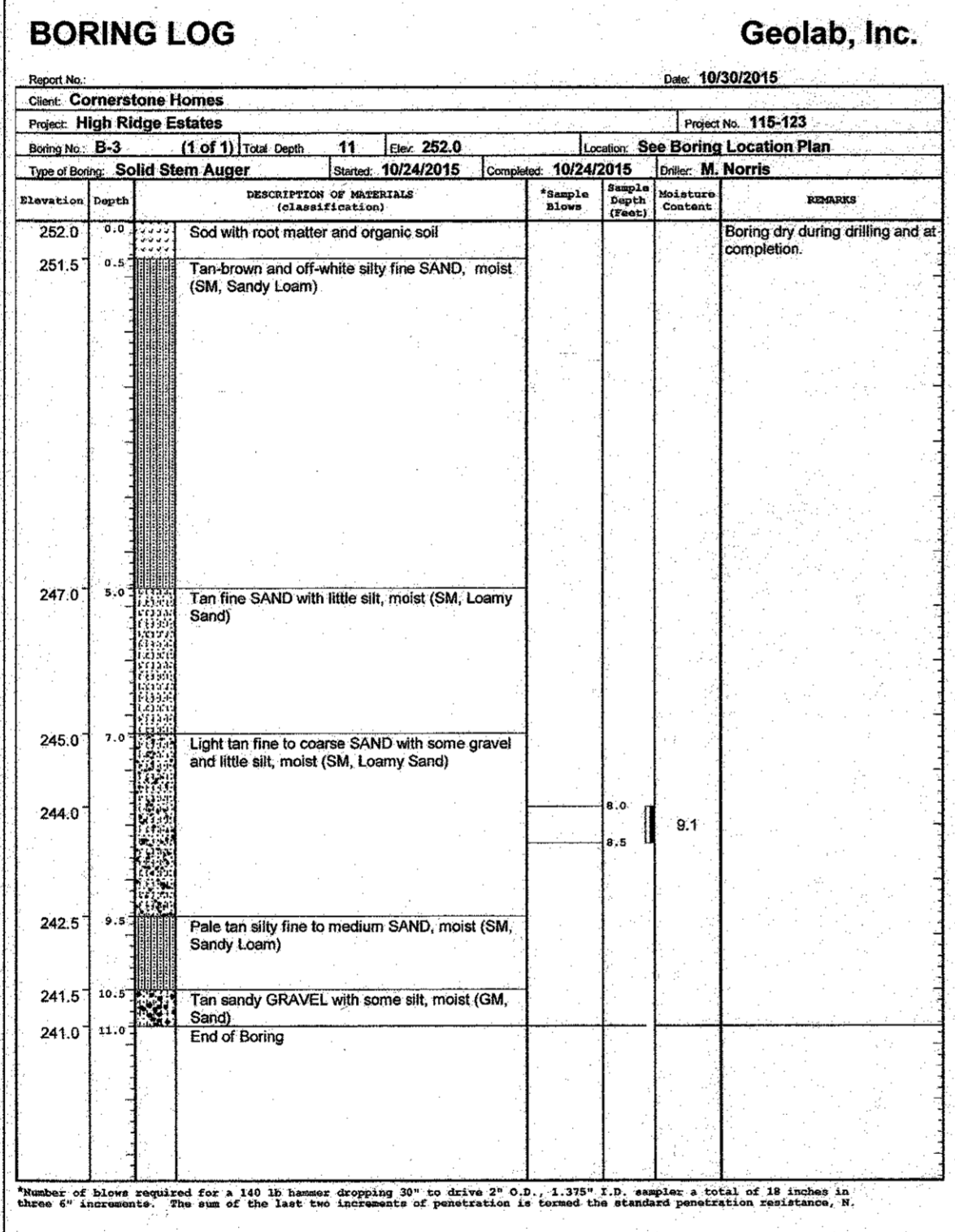
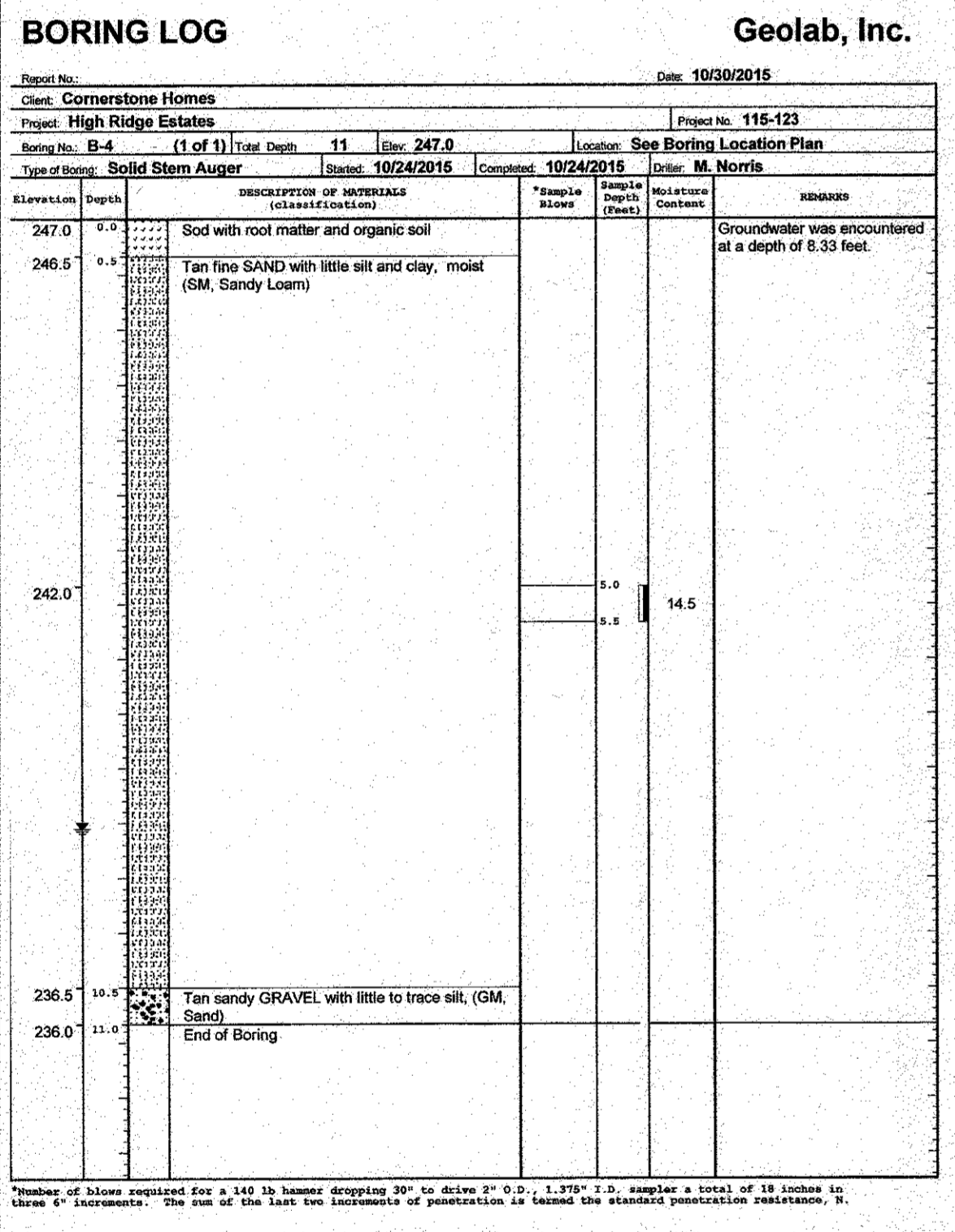
Material	Specifications	Notes
Plantings	see Appendix A, Table A.4	plantings are site-specific
Planting soil	loamy sand (60-65%) & compost (35-40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	USDA soil types loamy sand or sandy loam; clay content < 5%
Match	shredded hardwood	aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	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		PE Type I nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35
Poured in place concrete (if required)	MSHA Mix No. 3; f'c = 3500 psi @ 28 days, normal weight, air-entrained, reinforcing to meet ASTM-C115-00	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/2-inch galvanized hardware cloth.
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04" Sand substitutions such as Diabase and Gneiss (AASHTO) #10 are not acceptable. No calcium carbide or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

#### OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- The Owner shall maintain the plant material, mulch layer and soil layer annually. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II, Table A.4.1 and 2.
- The Owner shall perform a plant inspection in the spring and in the fall of each year. During the inspection, the Owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material, treat diseased trees and shrubs, and replace all deficient stakes and wires.
- The Owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed the new layer is applied.
- The Owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.

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

- Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas. The areas receiving runoff should be protected from future compaction or development of impervious area. In commercial areas, foot traffic should be discouraged as well.



#### UNDERDRAIN, OVERFLOW AND OUTFALL NOTES

- THE LAST CLEAN-OUT LOCATION WITHIN EACH MICRO-BIORETENTION FACILITY SHALL BE FITTED WITH A NON-CLOGGING SURFACE DRAIN (EXAMPLE: 4" ABS ROOF DRAIN W/CAST ALUMINUM DOME) AT THE POND SURFACE ELEVATION INDICATED IN THE CORRESPONDING TABLE ELEV. 2.
- THE PVC WITHIN THE FACILITY SHALL BE PERFORATED.
- THE UNDER-DRAIN AND PIPE TO OUTFALL SHALL BE INSTALLED TO A MINIMUM DEPTH OF 2' BELOW FINISHED GRADE AND SHALL MAINTAIN A MINIMUM 1% SLOPE AND MAINTAIN A MINIMUM OF 1' OF SEPARATION AT ALL CROSSINGS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard County Department of Planning and Zoning  
3-16-18  
3-22-18  
3-22-18

NO.	DATE	REVISION

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 22390, Expiration Date: 6-30-2019

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-8105 (F) 410-465-8644  
WWW.BEI-ONLINEENGINEERING.COM

**HIGH RIDGE ESTATES**  
LOTS 1 thru 7 and OPEN SPACE LOT 8  
A SUBDIVISION OF PARCEL 452

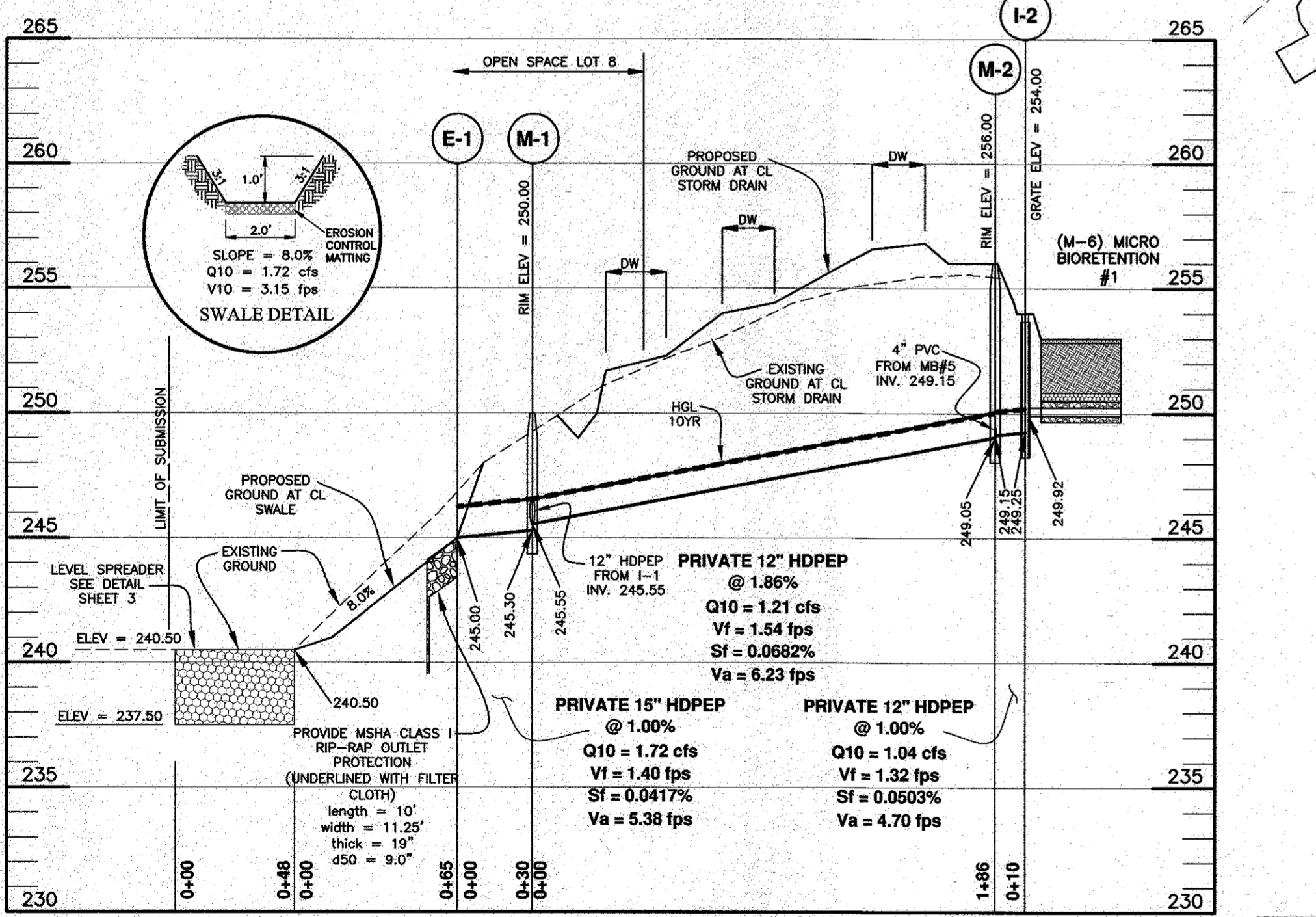
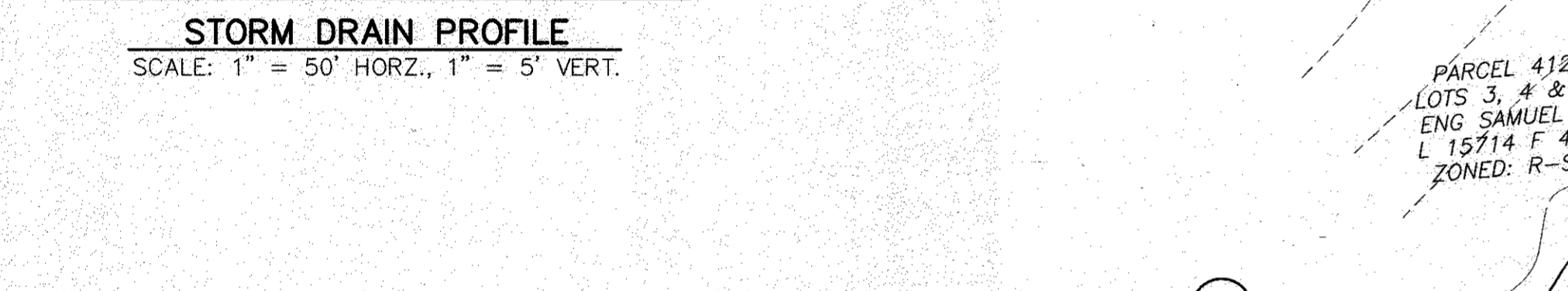
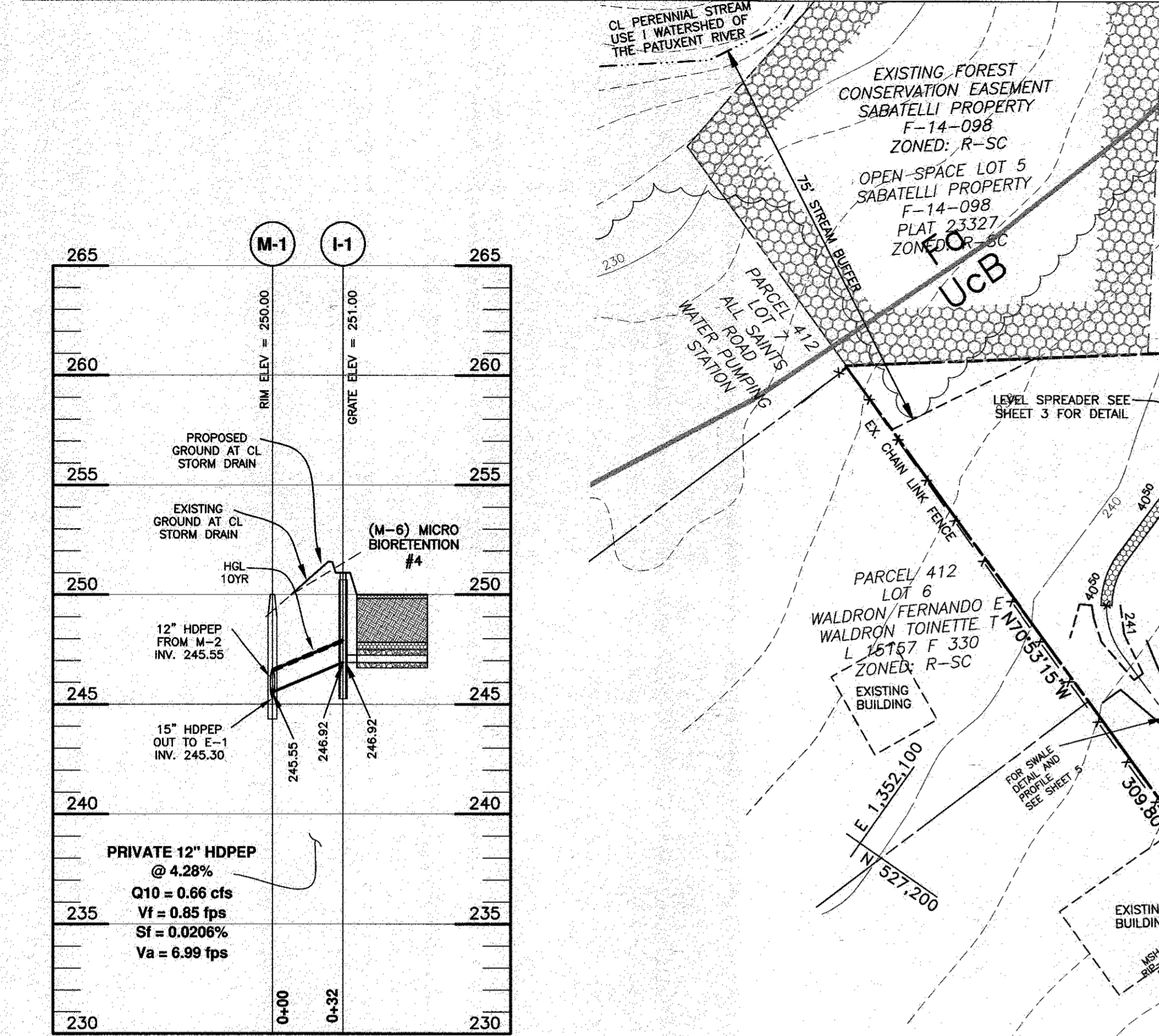
OWNER / DEVELOPER:  
DEVELOPMENT PARTNERS, LLC  
9893 GERWIG LANE, SUITE L  
COLUMBIA, MD 21046  
410-792-2565

STORMWATER MANAGEMENT  
NOTES, CHARTS, DETAILS AND SOIL BORING LOGS

DATE: NOVEMBER 7, 2017  
SCALE: AS SHOWN  
DESIGN: DBT  
DRAWN: DBT

BEI PROJECT NO: 2667  
SHEET 4 OF 10

NRCS SOILS CHART - Map No. 28				
SYMBOL	HYDRIC	HYDROLOGIC GROUP	Kw erodibility Factor	NAME
Fa	YES	D	0.20	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT
Ucb		D	0.37	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX 0 TO 5 PERCENT SLOPES

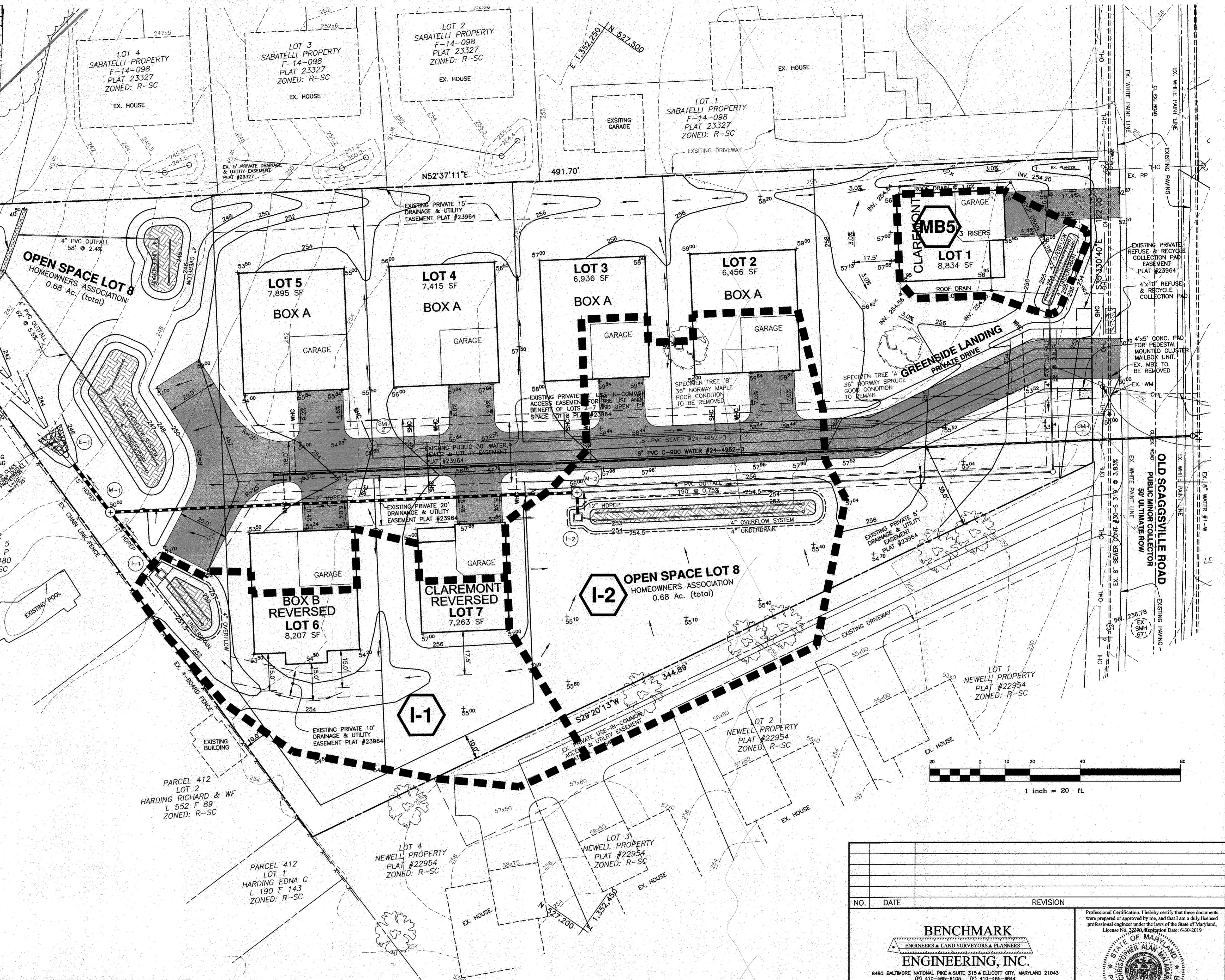


**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

3-16-18 DATE

3-22-18 DATE

3-22-18 DATE



INLET#	ZONING (Z)	AREA (A)	"C" FACTOR (C)-25	% IMPERVIOUS (P)-25
I-1	PGCC	0.25	0.36	65.0
I-2	PGCC	0.36	0.36	65.0
MB #5	PGCC	0.07	0.36	65.0

SIZE	TYPE	LENGTH (L.F.)	MAINTENANCE
4"	PVC (MB outfall pipes)	351	PRIVATE
6"	PVC (roof manifold)	151	PRIVATE
12"	HDPEP	228	PRIVATE
15"	HDPEP	30	PRIVATE

All pipes shall have smooth interior. No interior corrugations.

STRUCTURE	TYPE	LOCATION	INVERTS		TOP ELEV.	THROAT ELEV.	STD. DETAIL	MAINTENANCE
			INVERT IN	INVERT OUT				
I-1	S	N 527219.92 E 1352230.87	246.92 (4")	246.92 (12")	251.00	NA	HO.CO.STD. D-4.22	PRIVATE
I-2	S	N 527333.66 E 1352353.80	249.92 (4")	249.25 (12")	254.00	NA	HO.CO.STD. D-4.22	PRIVATE
M-1	4" DIA	N 527228.84 E 1352199.87	245.55 (12")	245.55 (12")	250.00	NA	HO.CO.STD. G-6.12	PRIVATE
M-2	4" DIA	N 527341.61 E 1352347.73	249.15 (12")	249.05 (12")	256.00	NA	HO.CO.STD. G-6.12	PRIVATE
E-1	15" HDPEP	N 527237.60 E 1352171.23	245.00	NA	NA	NA	PRIVATE	PRIVATE

STRUCTURE LOCATION FOR MANHOLES IS AT THE CENTER OF THE MANHOLE RIM.  
STRUCTURE LOCATION FOR 'S' INLETS IS AT THE CENTER OF THE GRATE.  
STRUCTURE LOCATION FOR END SECTIONS IS AT THE MIDPOINT OF THE END OF THE STRUCTURE  
PRECAST STRUCTURES MEETING HS-20 LOADING MAY BE USED.

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WWW.BEI-CVLENGINEERING.COM

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 22980, Expiration Date: 6-30-2019

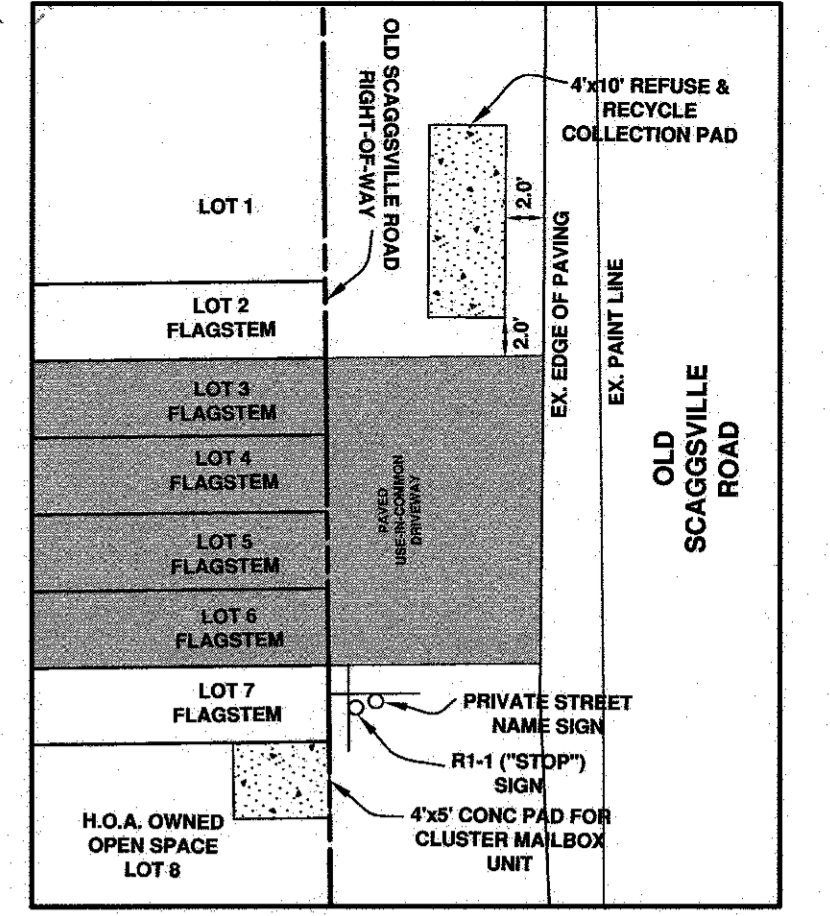
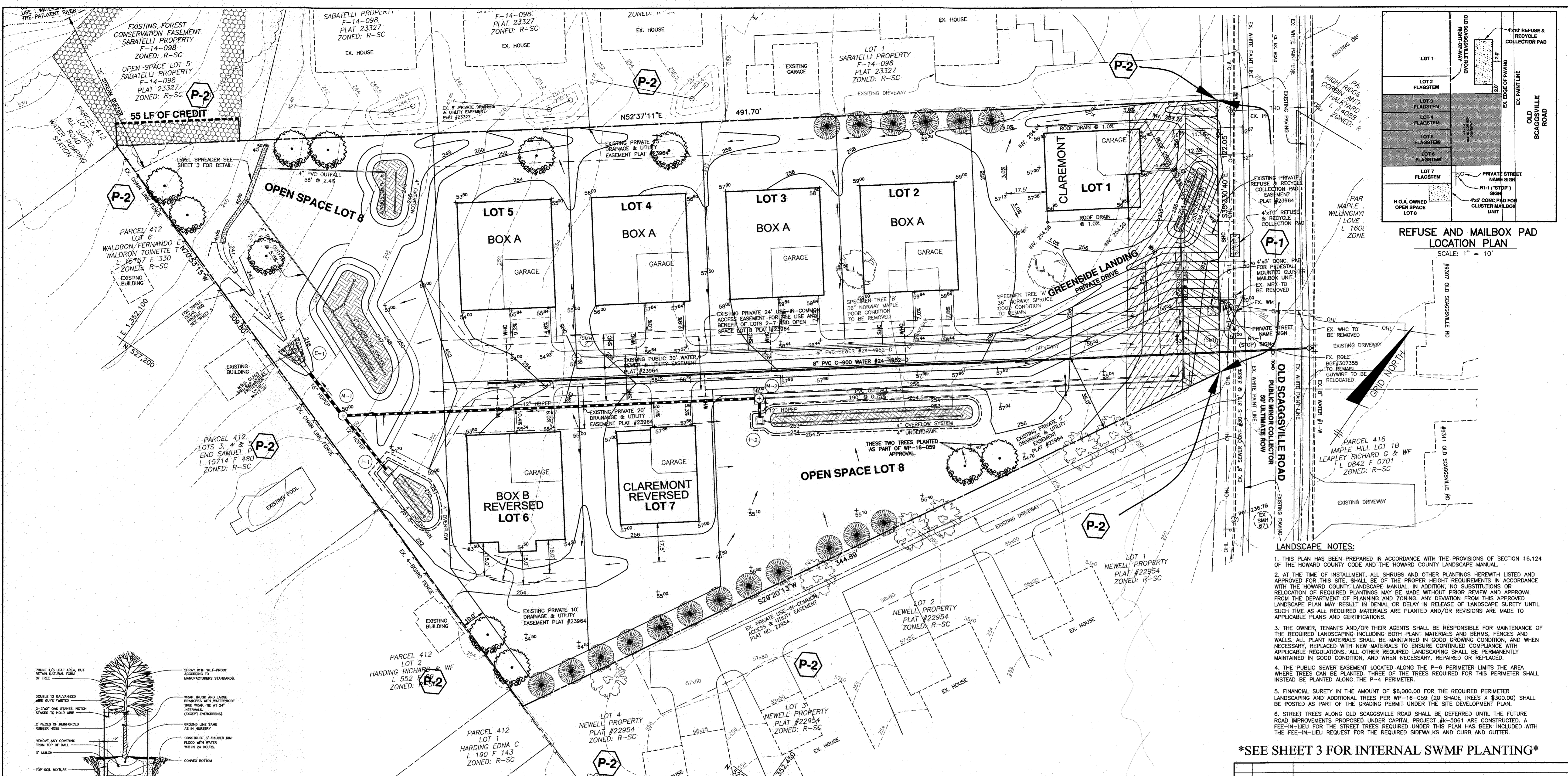
OWNER / DEVELOPER:  
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9893 GERWIG LANE, SUITE L  
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410-792-2565

**HIGH RIDGE ESTATES**  
LOTS 1 thru 7 and OPEN SPACE LOT 8  
A SUBDIVISION OF PARCEL 452

TAX MAP: 50 GRID: 2 PARCEL: 452 ZONED: R-SC  
OLD SCAGSVILLE ROAD  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY, MARYLAND

**STORM DRAIN DRAINAGE MAP, PROFILES, & DETAILS**

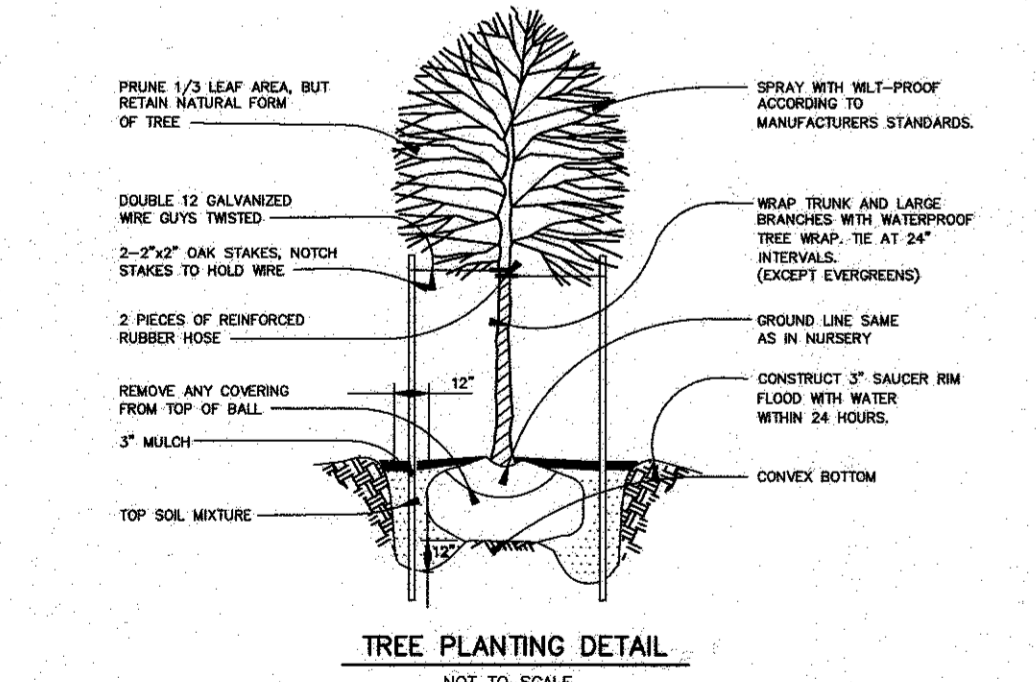
DATE: NOVEMBER 7, 2017 BEI PROJECT NO: 2667  
SCALE: AS SHOWN SHEET 5 OF 10



REFUSE AND MAILBOX PAD LOCATION PLAN  
SCALE: 1" = 10'

- LANDSCAPE NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
  - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HERewith LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.
  - THE OWNER, TENANTS 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.
  - THE PUBLIC SEWER EASEMENT LOCATED ALONG THE P-6 PERIMETER LIMITS THE AREA WHERE TREES CAN BE PLANTED. THREE OF THE TREES REQUIRED FOR THIS PERIMETER SHALL INSTEAD BE PLANTED ALONG THE P-4 PERIMETER.
  - FINANCIAL SURETY IN THE AMOUNT OF \$8,000.00 FOR THE REQUIRED PERIMETER LANDSCAPING AND ADDITIONAL TREES PER WP-16-059 (20 SHADE TREES X \$300.00) SHALL BE POSTED AS PART OF THE GRADING PERMIT UNDER THE SITE DEVELOPMENT PLAN.
  - STREET TREES ALONG OLD SCAGSVILLE ROAD SHALL BE DEFERRED UNTIL THE FUTURE ROAD IMPROVEMENTS PROPOSED UNDER CAPITAL PROJECT #K-5061 ARE CONSTRUCTED. A FEE-IN-LIEU FOR THE STREET TREES REQUIRED UNDER THIS PLAN HAS BEEN INCLUDED WITH THE FEE-IN-LIEU REQUEST FOR THE REQUIRED SIDEWALKS AND CURB AND GUTTER.

**\*SEE SHEET 3 FOR INTERNAL SWMF PLANTING\***



**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 SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF 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.

*Justin M. Boy* 2/7/18  
JUSTIN M. BOY  
DEVELOPMENT PARTNERS, LLC

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chad E. Smith* 3-16-18  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*L. M. ...* 3-22-18  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Valdis J. ...* 3-22-18  
DIRECTOR

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAY		ADJACENT TO PERM. PROPERTY		TOTALS
	①	②	A - LIGHT 1:80 shade	B - MODERATE	
LANDSCAPE TYPE	N/A				
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	122 LF	1,149 LF			
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)			YES, 55 LF*		
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO			
NUMBER OF PLANTS REQUIRED	N/A	1,094 LF			18
SHADE TREES	0	18			0
EVERGREEN TREES	0	0			0
OTHER TREES (2:1 SUBSTITUTE)	0	0			0
SHRUBS	0	0			0
NUMBER OF PLANTS PROVIDED			9		9
SHADE TREES	0	9			18
EVERGREEN TREES	0	0			0
OTHER TREES (2:1 SUBSTITUTE)	0	0			0
SHRUBS (10:1 SUBSTITUTE)	0	0			0

\* CREDIT BASED ON EXISTING FOREST CONSERVATION EASEMENT ON SABATELLI SUBDIVISION. ~ EVERGREEN TREES HAVE BEEN SUBSTITUTED FOR THE SHADE TREE REQUIREMENT AT A 2:1 RATIO.

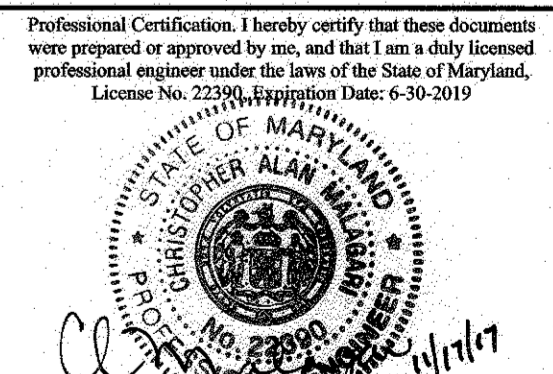
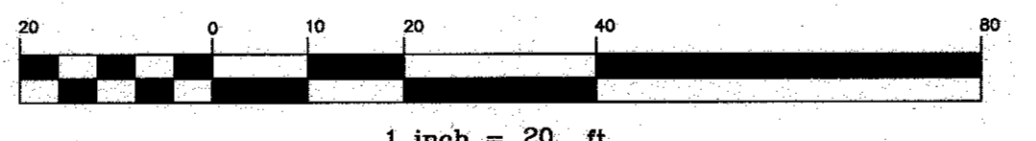
**PERIMETER LANDSCAPE PLANTING LIST**

SYMBOL	QUANTITY	NAME	REMARKS	DESCRIPTION
	11*	TILIA CORDATA 'GREENSPIRE' (Greenspire Littleleaf Linden)	2.5" - 3" col.	SHADE TREES ALONG PERIMETER EDGES TO BE PROVIDED BY THE BUILDER.
	18	ILEX OPACA (American Holly)	5' - 6' ht.	EVERGREEN TREES ALONG PERIMETER EDGES TO BE PROVIDED BY THE BUILDER.

\* 2 OF THESE 11 TREES HAVE BEEN PROVIDED AS A CONDITION OF THE APPROVAL OF WP-16-059 FOR THE REMOVAL SPECIMEN TREE 'B'.

**LEGEND**

- EXISTING CONTOURS
- PROJECT BOUNDARY SITE FOR PE CALCULATION
- OHL - EXISTING OVERHEAD LINES
- BGE "GREEN ZONE" 20' FROM OVERHEAD LINES (TREES LESS THAN 25 FEET TALL)
- BGE "YELLOW ZONE" 25' WIDE (TREES 25-40 FEET TALL)
- P-2 PERIMETER DESIGNATION
- PERIMETER TREES PLANTED UNDER SDP-14-084



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**HIGH RIDGE ESTATES**  
LOTS 1 thru 7 and OPEN SPACE LOT 8

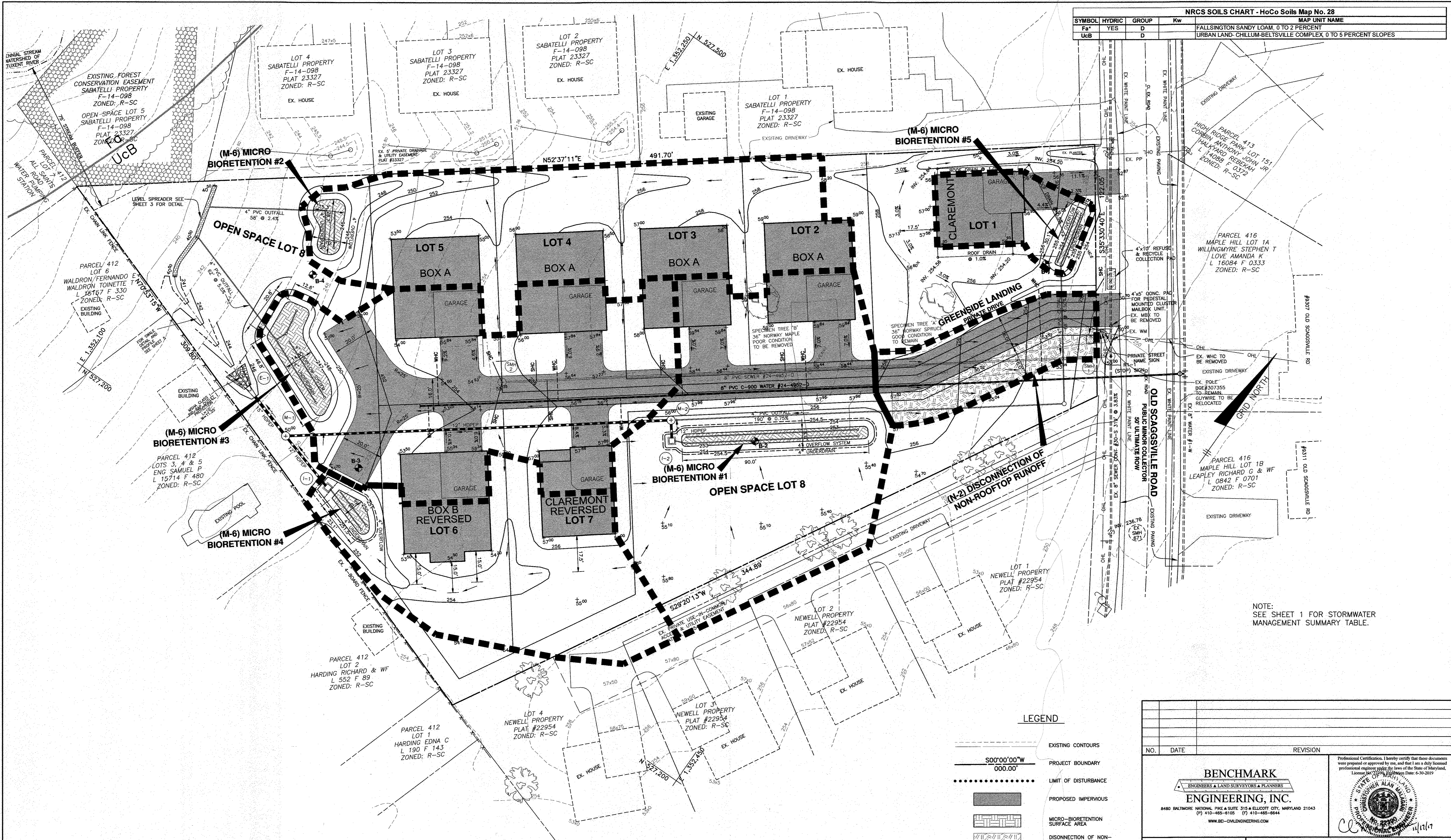
OWNER / DEVELOPER:  
DEVELOPMENT PARTNERS, LLC  
9693 GERWIG LANE, SUITE L  
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410-792-2565

TAX MAP: 50 GRID: 2 PARCEL: 452 ZONED: R-SC  
OLD SCAGSVILLE ROAD  
ELECTION DISTRICT NO. 8  
HOWARD COUNTY, MARYLAND

**LANDSCAPE PLAN**

DATE: NOVEMBER 7, 2017 BEI PROJECT NO: 2667  
SCALE: AS SHOWN SHEET 6 OF 10

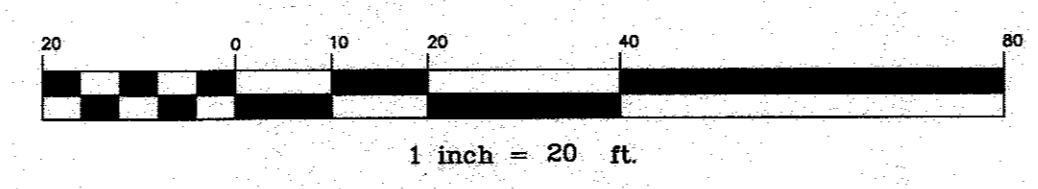
NRCS SOILS CHART - HoCo Soils Map No. 28			
SYMBOL	HYDRIC	GROUP	Kw
Fa*	YES	D	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT
UcB	D	D	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX 0 TO 5 PERCENT SLOPES



NOTE:  
SEE SHEET 1 FOR STORMWATER  
MANAGEMENT SUMMARY TABLE.

**LEGEND**

- EXISTING CONTOURS
- PROJECT BOUNDARY
- LIMIT OF DISTURBANCE
- PROPOSED IMPERVIOUS
- MICRO-BIORETENTION SURFACE AREA
- DISCONNECTION OF NON-ROOFTOP RUNOFF
- SOILS CLASSIFICATION
- SOILS DELINEATION
- SOIL BORING TEST LOCATION
- DRAINAGE DIVIDE



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Paul P. ...* 3-16-18  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*J. ...* 3-22-18  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Val ...* 3-22-18  
DIRECTOR

NO.	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
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WWW.BEG-ENGINEERING.COM

OWNER / DEVELOPER:		<b>HIGH RIDGE ESTATES</b> LOTS 1 thru 7 and OPEN SPACE LOT 8	
DEVELOPMENT PARTNERS, LLC 9693 GERWIG LANE, SUITE L COLUMBIA, MD 21046 410-792-2565		TAX MAP: 50	GRID: 2 PARCEL: 452 ZONED: R-SC OLD SCAGSVILLE ROAD ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND
<b>ESD to the MEP STORMWATER MANAGEMENT DRAINAGE AREA MAP</b>		DATE: NOVEMBER 7, 2017	BEI PROJECT NO: 2667
DESIGN: DBT	DRAWN: DBT	SCALE: AS SHOWN	SHEET 7 OF 10

NRCS SOILS CHART - HoCo Soils Map No. 28			
SYMBOL	HYDRIC	GROUP	Kw
Fa*	YES	D	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT
UcB	YES	D	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES

**LEGEND**

	EXISTING CONTOURS
	PROJECT BOUNDARY
	EXISTING OVERHEAD LINES
	MICRO-BIORETENTION SURFACE AREA
	DISCONNECTION OF NON-ROOFTOP RUNOFF
<b>UcB</b>	SOILS CLASSIFICATION
	SOILS DELINEATION
	SOIL BORING TEST LOCATION
	INDICATES WATER OR SEWER HOUSE CONNECTION
	STABILIZED CONSTRUCTION ENTRANCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	SUPER SILT FENCE
	SILT FENCE
	DRAINAGE AREA DIVIDE
	AT-GRADE INLET PROTECTION

**ENGINEER'S CERTIFICATE**

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

*Cl. Malagan* 11-17-17  
ENGINEER 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 A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

*J. M. Bay* 2/7/18  
DEVELOPER DATE

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

*John B. Blanton* 2/7/18  
HOWARD SOIL CONSERVATION DISTRICT DATE

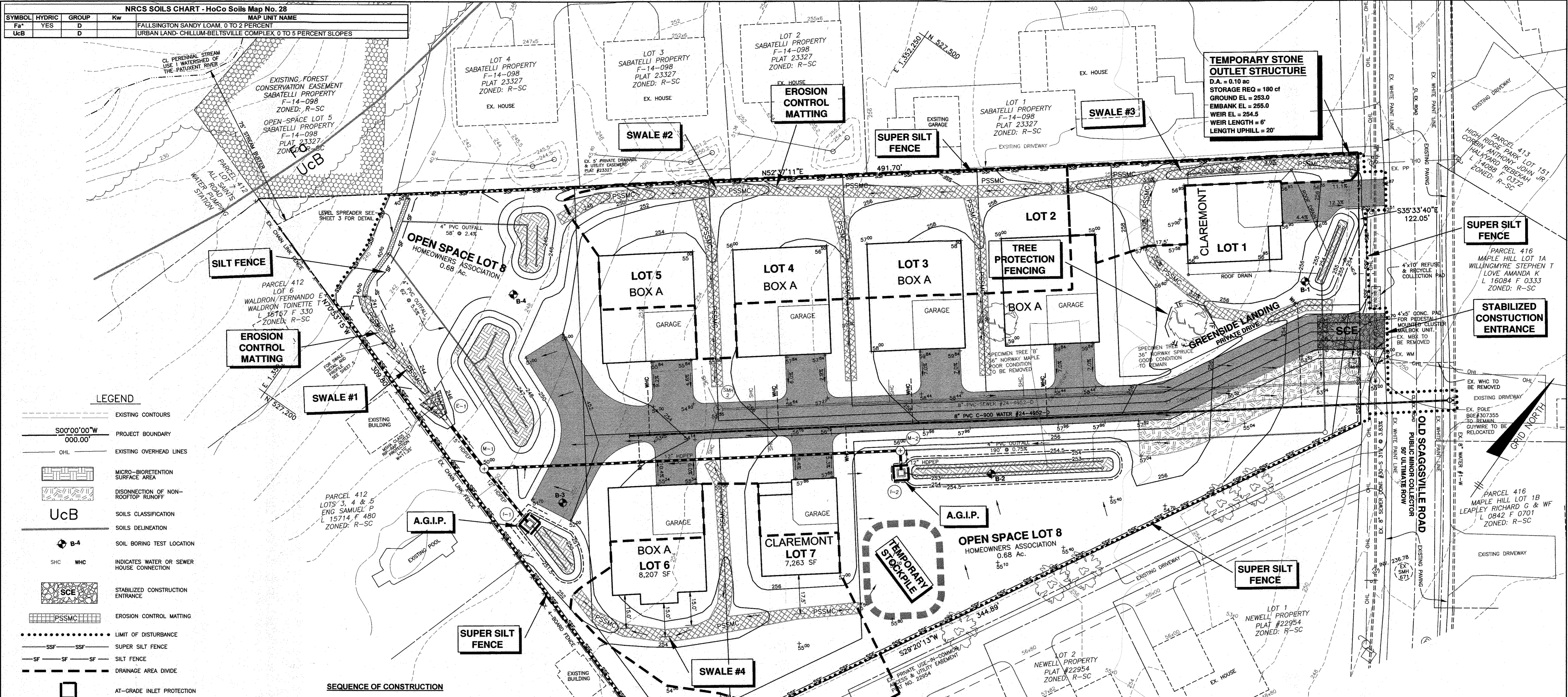
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Ch. Elms* 3-16-18  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*J. M. Bay* 3-22-18  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Valeria J. J. J.* 3-22-18  
DIRECTOR DATE

- SEQUENCE OF CONSTRUCTION**
- NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK
- PHASE 1 - SITE CONSTRUCTION**
1. Obtain grading permit. (day 1)
  2. Hold on-site pre-construction meeting. (day 2)
  3. Clear and Grub as necessary to install stabilized construction entrance and perimeter controls.
  4. Upon approval from the Howard County Sediment Control Inspector, proceed to clear, grub, and grade within the perimeter. (day 3-10)
  5. Install water and sewer mains and house connections up to the easement line. (day 11-18)
  6. Install base paving of the use-in-common driveway.
  7. Install the level spreader and silt fence directly uphill. Construct ESD practices complete with underdrains and the related storm drain system but do not install plantings at this time. Grade in the swale from E-1 to the level spreader. Cover surface area of all MB's with filter fabric and utilize AGIP at inlets.
- PHASE 2 - PER LOT HOUSE CONSTRUCTION**
1. Obtain building permit. (day 1)
  2. Hold on-site preconstruction meeting. (day 2)
  3. Install individual lot perimeter controls, if any (i.e. wrap lot in silt fence). (day 3)
  4. Excavate for foundation, rough grade and stabilize in accordance with the temporary seedbed notes. (day 4-10)
  5. Construct house, install water and sewer house connections from easement up to house, backfill and construct driveway. (day 11-90)
  6. Construct on-lot SWM practice\* with underdrains and plantings. Construct roof leader underdrains to the practice\*. Final grade lot and stabilize in accordance with the PERMANENT seedbed notes. (day 91-9)
  7. Upon approval from the Howard County Sediment Control Inspector, remove all sediment control devices and stabilize any remaining disturbed areas in accordance with the permanent seedbed notes. Install MB plantings. (day 96-100)
- \* Refers to Lot 1 ONLY



**NOTES:**

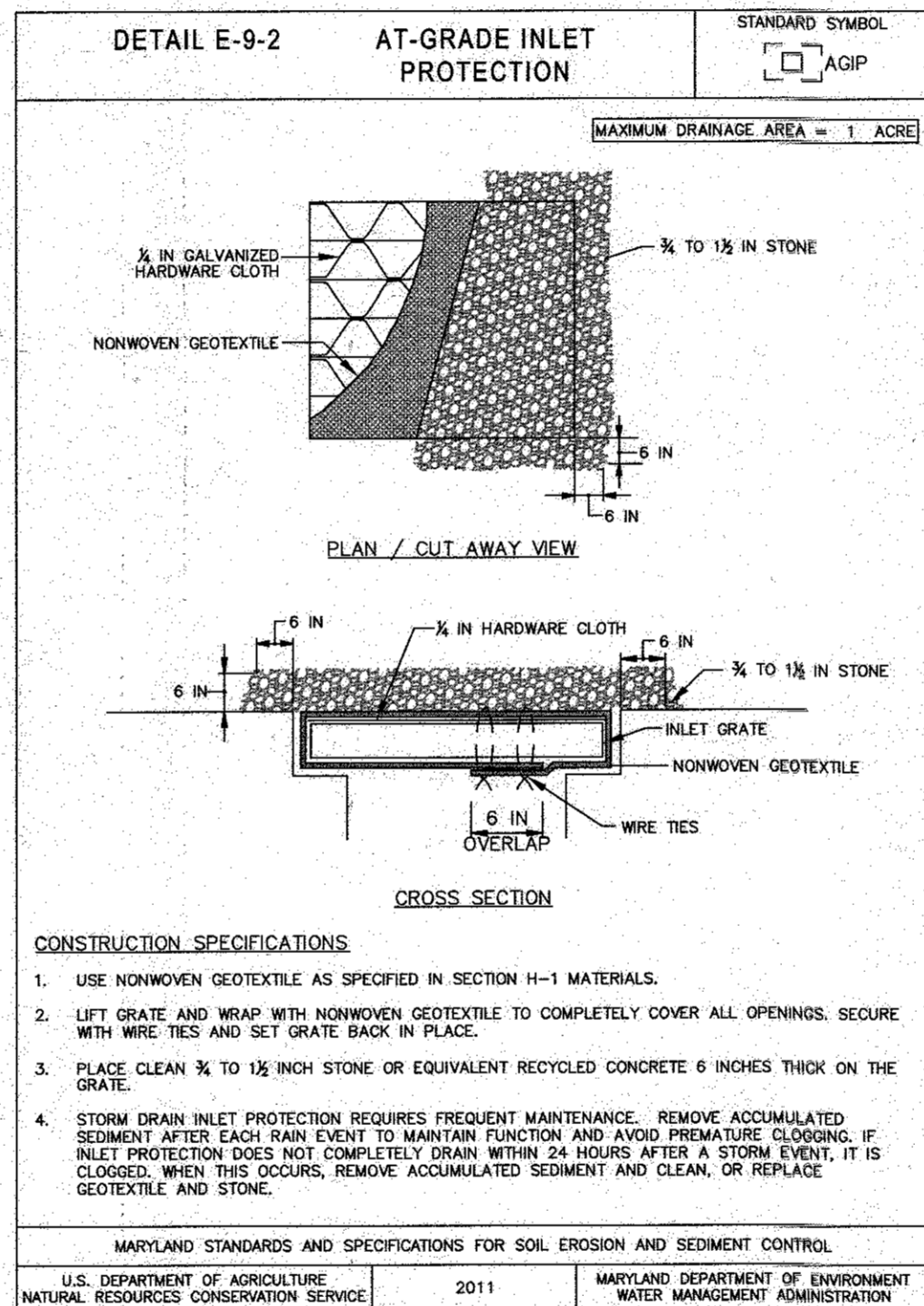
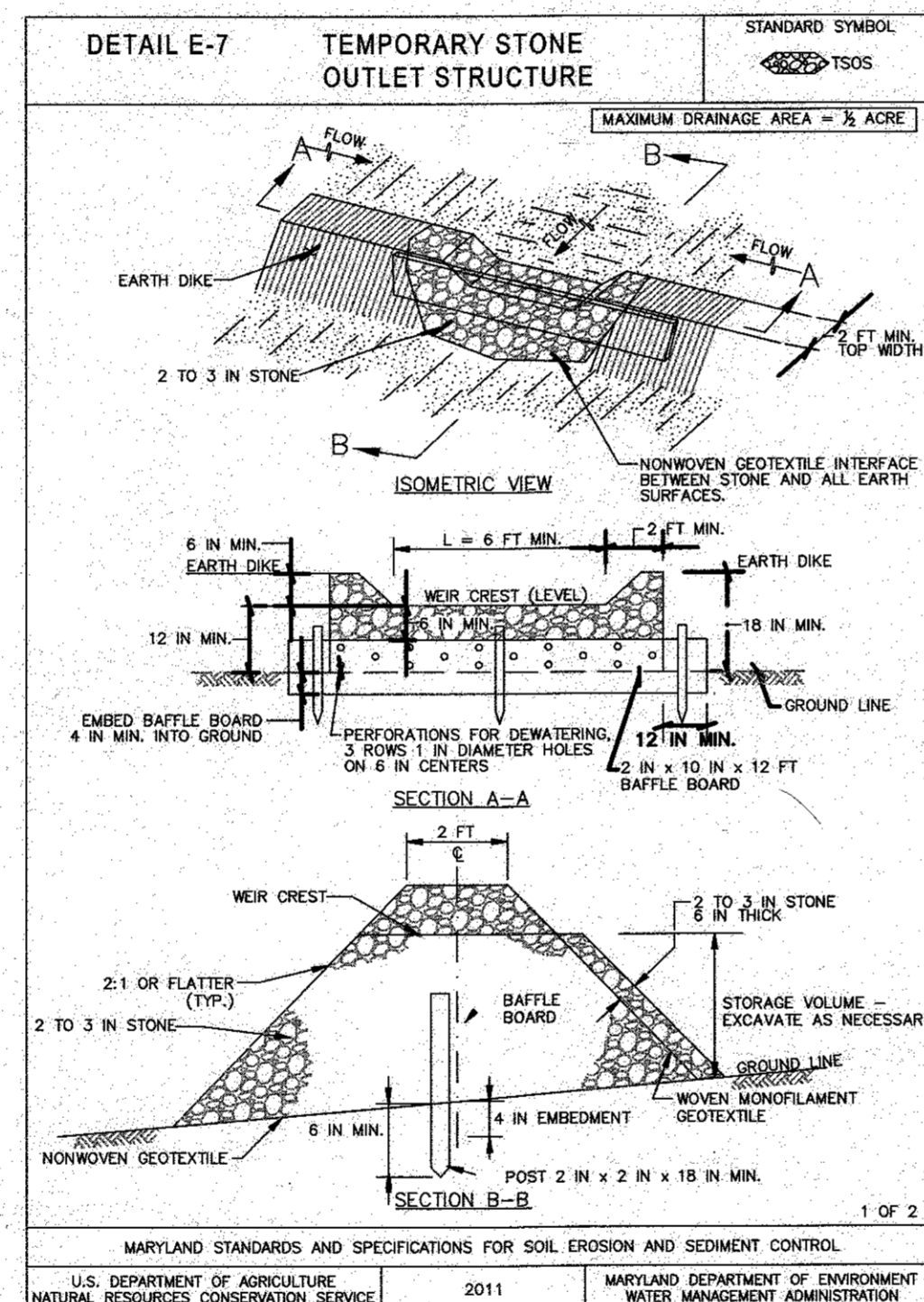
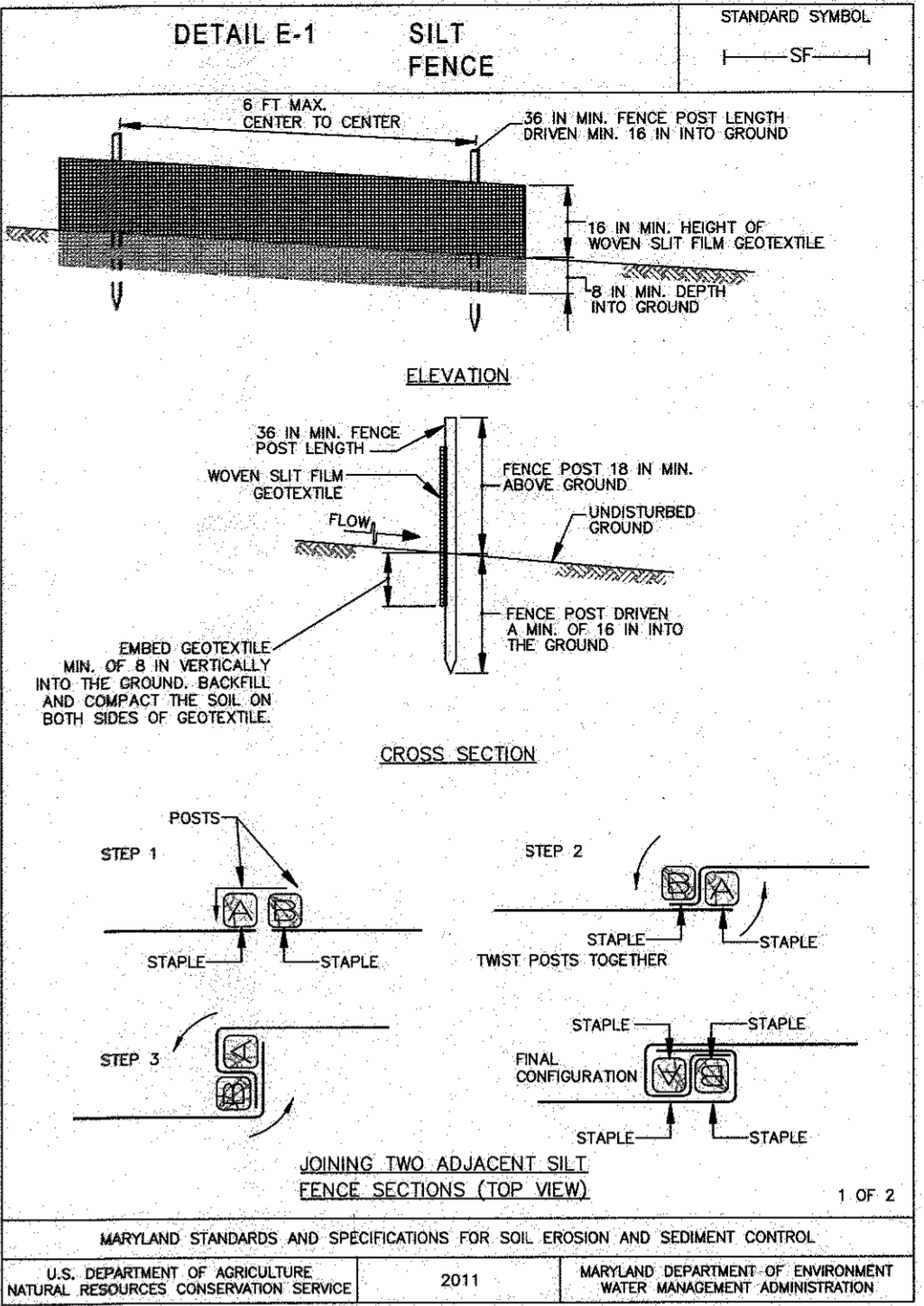
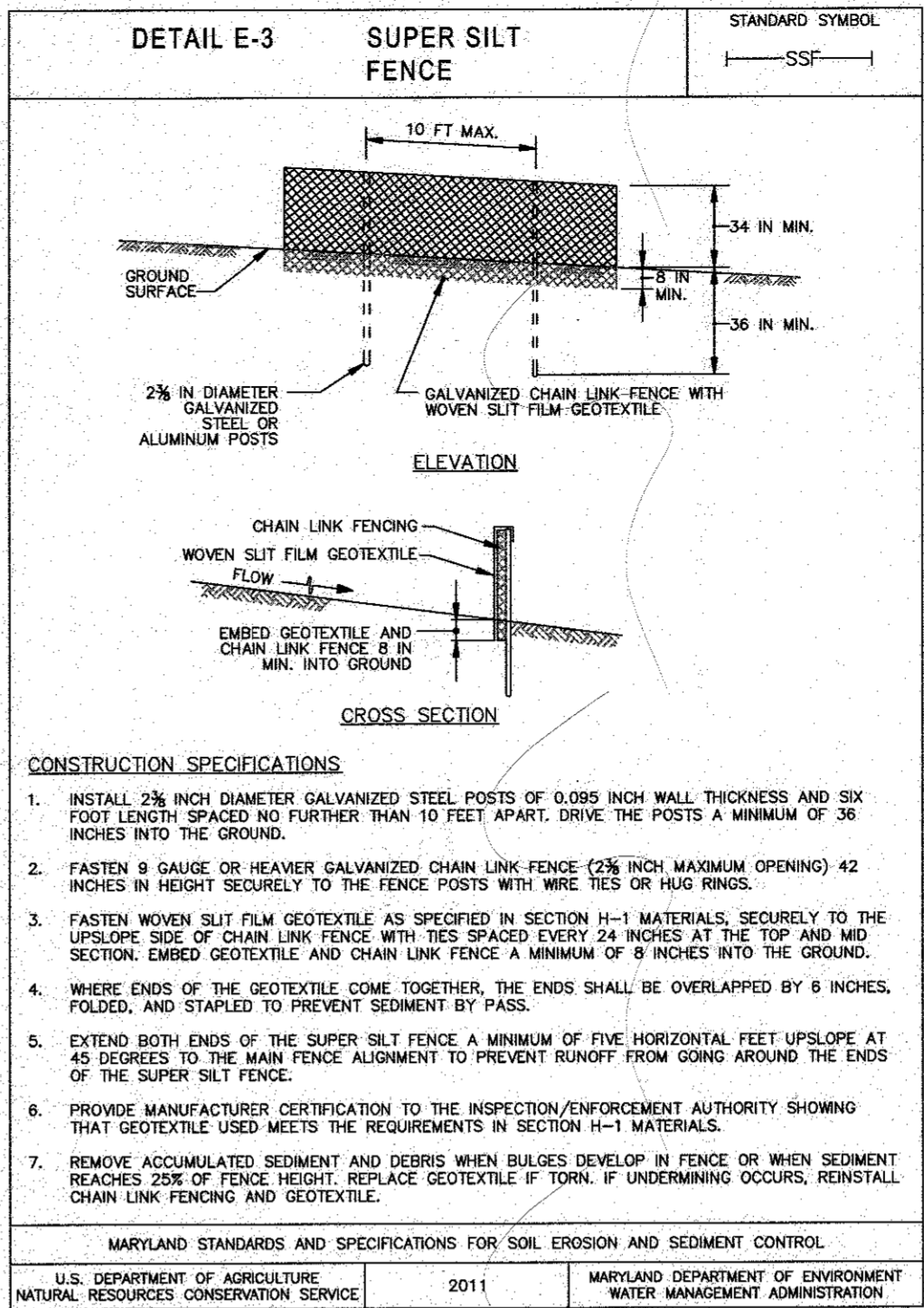
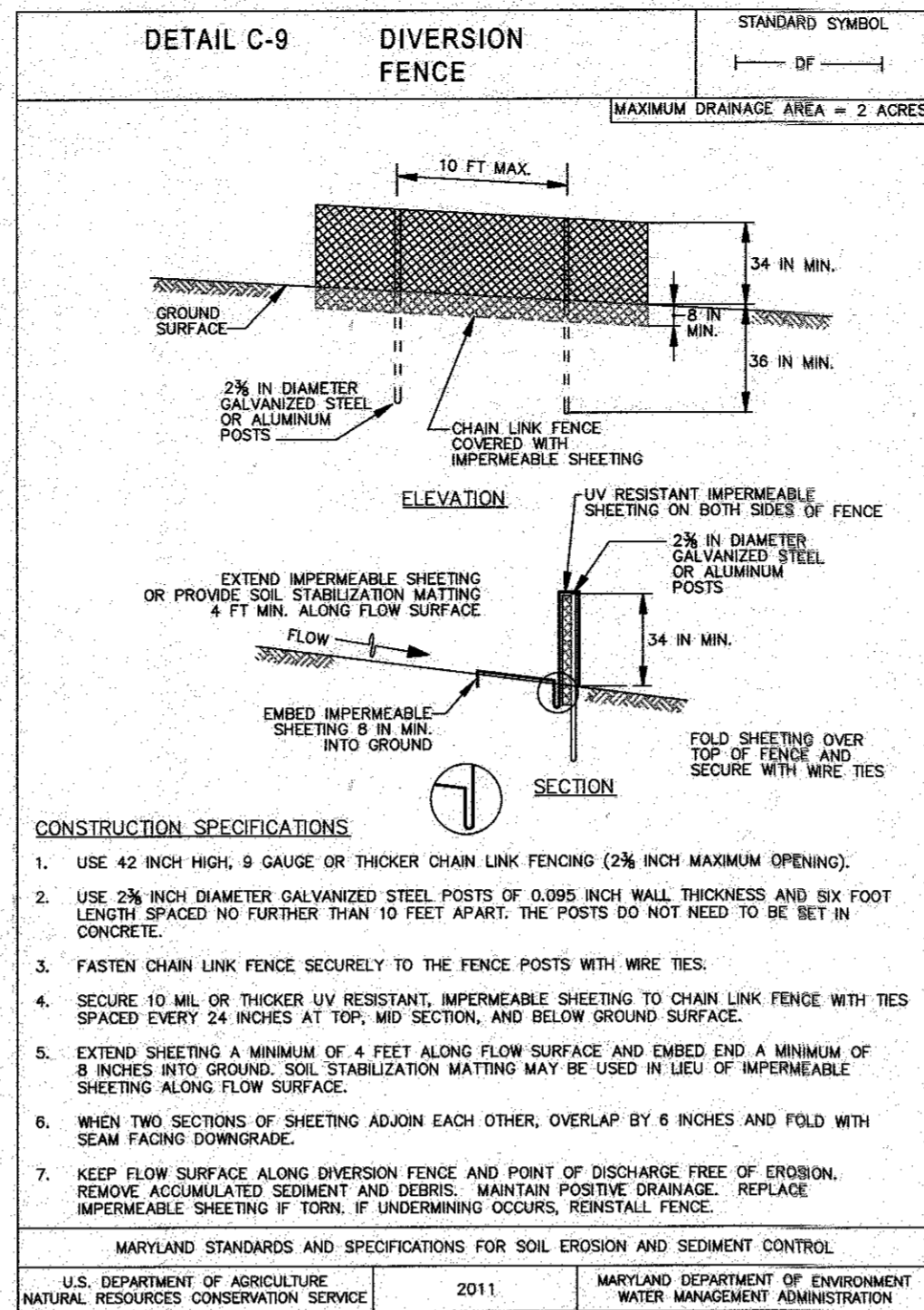
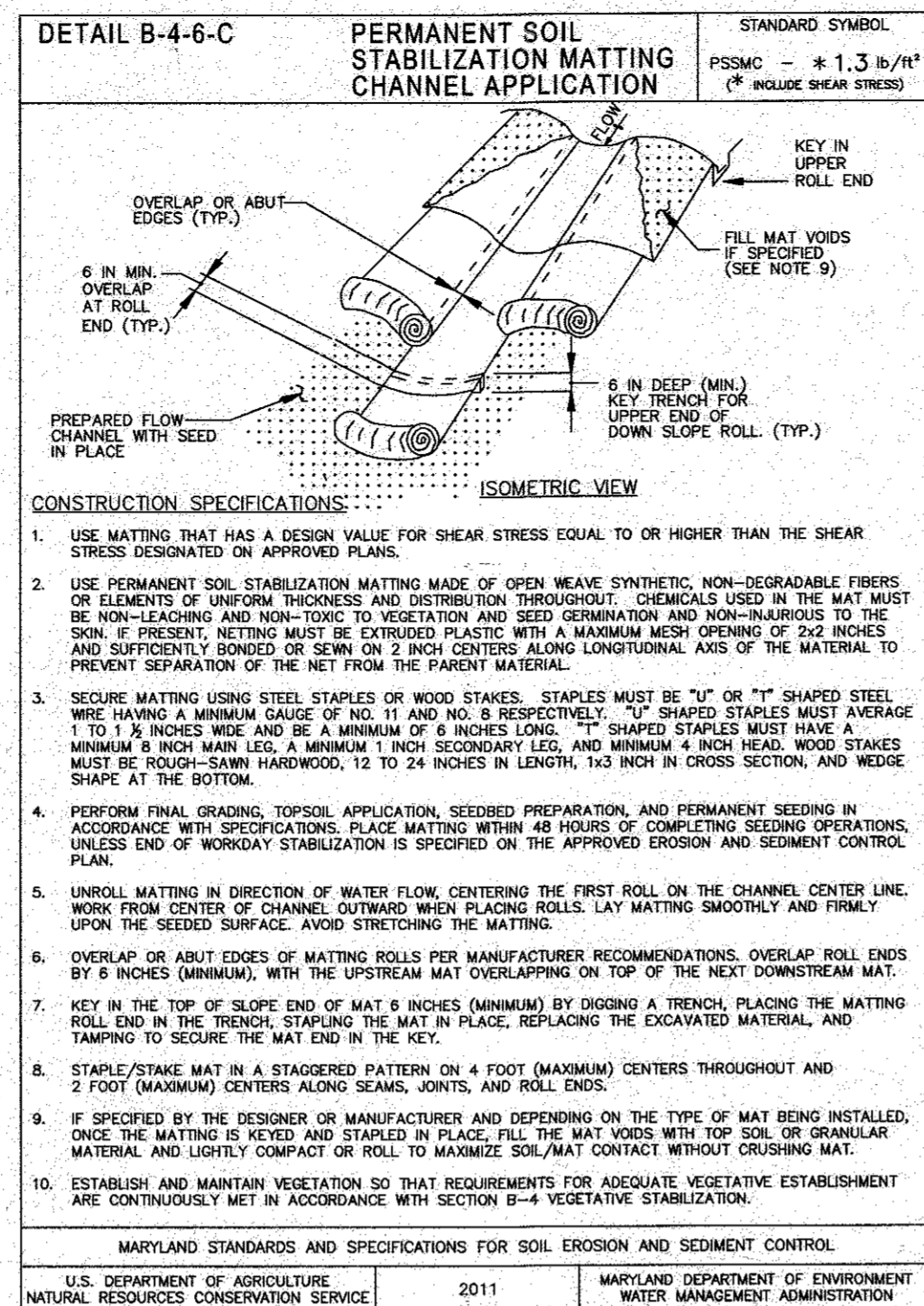
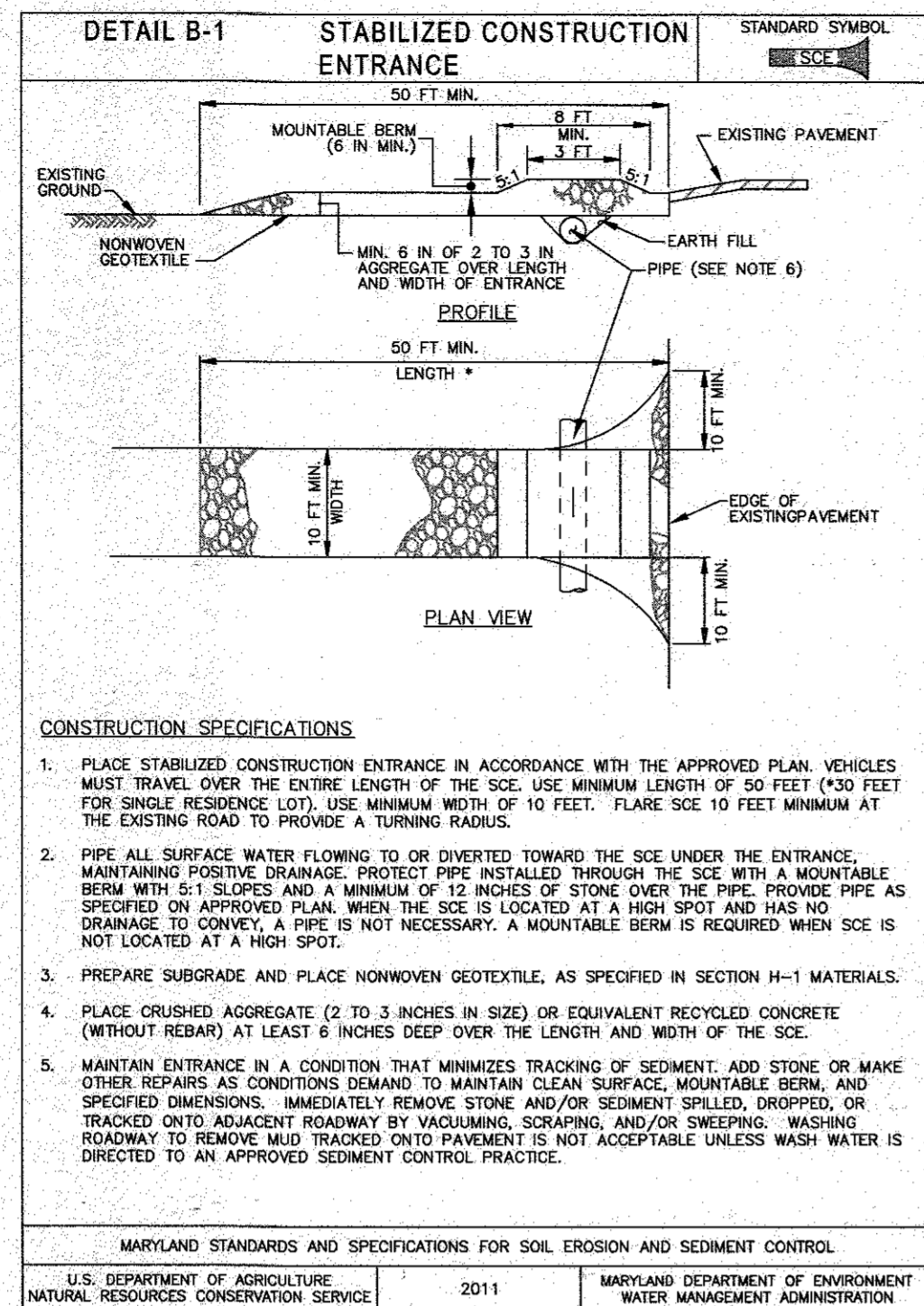
1. SUPER SILT FENCING TO BE CURLED UPHILL EVERY 6 FEET IN ELEVATION FORMING A 'J' SHAPE WHERE FENCING RUNS DOWNHILL.

**THIS PLAN IS FOR SEDIMENT AND EROSION CONTROL ONLY**

NO. DATE REVISION	
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 22389 (Resurveyor). Exp. Date: 6-30-2019	
<p align="center"><b>BENCHMARK</b> ENGINEERS &amp; LAND SURVEYORS &amp; PLANNERS <b>ENGINEERING, INC.</b></p> <p align="center">8480 BALTIMORE NATIONAL PIKE SUITE 315 A ELICOTT CITY, MARYLAND 21043 (P) 410-465-8105 (F) 410-465-8844 WWW.BM-CIVILENGINEERING.COM</p>	
OWNER / DEVELOPER:	<p align="center"><b>HIGH RIDGE ESTATES</b> LOTS 1 thru 7 and OPEN SPACE LOT 8 A SUBDIVISION OF PARCEL 452</p>
DEVELOPMENT PARTNERS, LLC 9693 GERWIG LANE, SUITE L COLUMBIA, MD 21046 410-792-2565	TAX MAP: 50 GRID: 2 PARCEL: 452 ZONED: R-SC ELECTION DISTRICT NO. 6 OLD SCAGGSVILLE ROAD HOWARD COUNTY, MARYLAND
SEDIMENT & EROSION CONTROL PLAN	
DATE: NOVEMBER 7, 2017	BEI PROJECT NO: 2667
DESIGN: DBT	DRAWN: DBT
SCALE: AS SHOWN	SHEET 8 OF 10







**ENGINEER'S CERTIFICATE**

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

*C. Malagan* 11-17-17  
ENGINEER 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 A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

*J. M. Bay* 2/7/18  
DEVELOPER DATE

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

*John C. Blanton* 2/27/18  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Ch. Colman* 3-22-18  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*P. M. ...* 3-22-18  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Val ...* 3-22-18  
DIRECTOR DATE

NO.	DATE	REVISION
<b>BENCHMARK</b> ENGINEERS • LAND SURVEYORS • PLANNERS <b>ENGINEERING, INC.</b> 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLOTT COTT, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEG-CAVLEENGINEERING.COM		
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 23887, Expiration Date: 6-30-2019.		
<b>HIGH RIDGE ESTATES</b> LOTS 1 thru 7 and OPEN SPACE LOT 8 A SUBDIVISION OF PARCEL 452		
OWNER / DEVELOPER: DEVELOPMENT PARTNERS, LLC 9693 GERWIG LANE, SUITE L COLUMBIA, MD 21046 410-792-2565		
<b>SEDIMENT AND EROSION CONTROL DETAILS</b>		
DESIGN: DBT	DRAWN: DBT	DATE: NOVEMBER 7, 2017
SCALE: AS SHOWN		SHEET 10 OF 10 BEI PROJECT NO: 2667