

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
26-A	2940 Southview Road

ENVIRONMENTAL CONCEPT PLAN HOWARD HEIGHTS LOT 26A

TAX MAP No. 17 GRID No. 22 PARCEL NO. 211
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BaB	Baile Silt Loam, 0 to 3 percent slope	D	.32
GhB	Glenelg-Urban Land Complex, 0 to 6 percent slope	B	.20

Soil Map Number: 13 (Ellicott City, SW)

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDV REQUIRED CU.FT.	ESDV PROVIDED CU.FT.	REMARKS
SITE	962	1,052	DRYWELLS (M-5) & MICRO-BIORETENTION (M-6) PERMEABLE PAVEMENT (A-2)
TOTAL	962	1,052	

GROSS AREA = 0.52 AC. (TOTAL)
 LOD = 0.30 ACRES
 RCN = 57.0
 TARGET Pe = 1.0"
 Pe PROVIDED = 2.6"
 Rv = 0.05 + (0.009) (I); I = 49%
 S = 0.45
 S = 0.26 (87% 'B' Soils, 13% 'D' Soils)
 Rev = (S) (Rv) (A)/12
 = (0.26) (0.45) (0.14)/12
 = 0.0015 ac-ft or 65 cu-ft
 STORM OF RECORD MANAGEMENT
 NOTE THAT THE ELLICOTT CITY STORM OF RECORD
 CONSISTS OF 6.6" OVER A 3.5 HOUR PERIOD.
 Q PRE = 0.59 cfs
 Q POST = 0.41 cfs
 10-YEAR AND 100-YEAR MANAGEMENT
 WILL ALSO BE PROVIDED.

SITE ANALYSIS DATA CHART

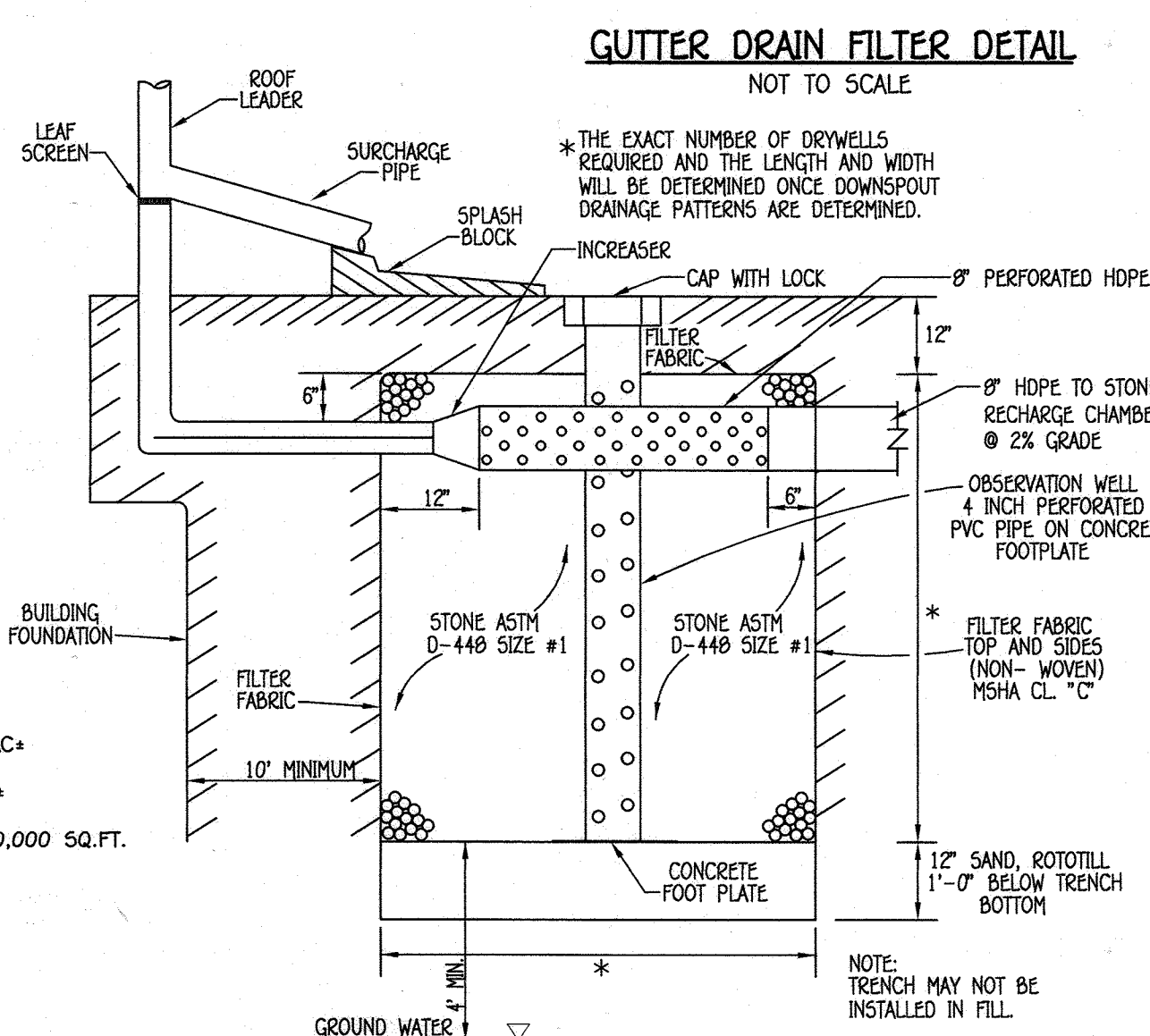
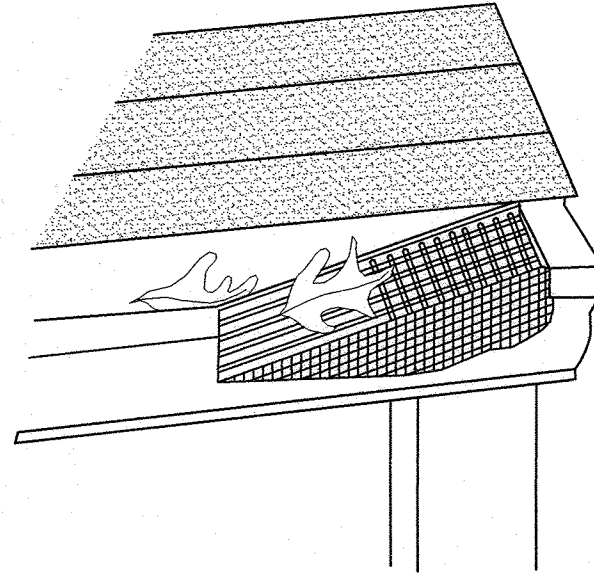
- TOTAL AREA OF THIS SUBMISSION = 0.52 AC. (LOT 26-A)
- LIMIT OF DISTURBED AREA = 13,051 S.F. OR 0.30 AC.
- PRESENT ZONING DESIGNATION = R-20
- PROPOSED USE - RESIDENTIAL (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.00 AC.
- TOTAL AREA OF STEEP SLOPES:
 MODERATED STEEP SLOPES: 15%-24.9% = 0.00 AC.
 STEEP SLOPES: 25% OR GREATER = 0.00 AC.
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.28 AC.
- TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.27 AC.
- TOTAL AREA OF EXISTING FOREST = 0.00 AC. EXEMPT < 40,000 SQ.FT.
- TOTAL AREA OF FOREST TO BE RETAINED = N/A
- TOTAL AREA OF LOTS / BUILDABLE PARCELS = 0.52 AC.
- TOTAL GREEN OPEN AREA = 0.30 AC.
- TOTAL IMPERVIOUS AREA = 0.14 AC.
- TOTAL AREA OF ERODIBLE SOILS = 0.00 AC.
- TOTAL AREA OF ROAD DEDICATION = 0.00 AC.

STORMWATER MANAGEMENT NOTES

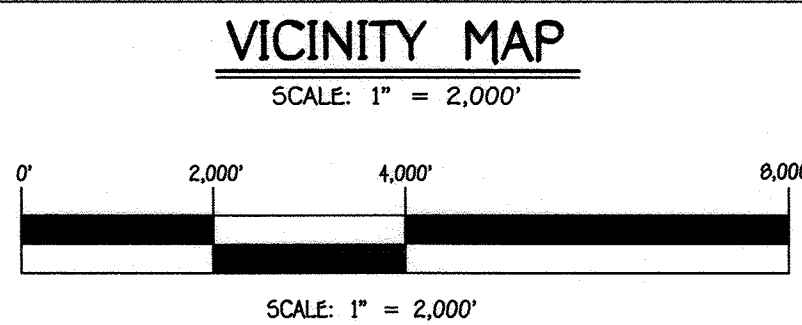
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS ENVIRONMENTAL CONCEPT PLAN.

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

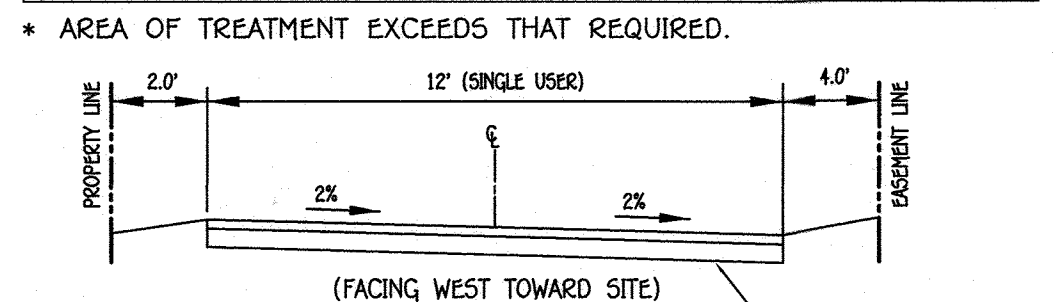
Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil (12" to 4" deep)	loamy sand 60-65% compost 35-40% or sandy loam 30% compost and 30%	n/a	USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)	n/a	
Mulch	aged hardwood	n/a	aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-446	No. 8 or No. 9 (1/8" to 3/8")	
Curbside drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile	n/a	n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	ASHTO H-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 75B, Type P5 2B or ASHTO H-27B	4" to 6" rigid schedule 40 PVC or 50K35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipe; not necessary if underdrain pipe is perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3, f = 3500 psi at 28 days, normal weight, air-entrained; reinforcing to meet ASTM-C15-10	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved state or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.8/89; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressure); and analysis of potential cracking
Sand	ASHTO H-6 or ASTM-C-33	0.02" to 0.04"	sand substitutions such as Diabase and Gneiss (ASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



BENCH MARK INFORMATION	
HOWARD COUNTY CONTROL STATION - 17EF	ELEV. = 473.651
N 594,243.080 FEET	E 1,350,578.640 FEET
HOWARD COUNTY CONTROL STATION - 17HA	ELEV. = 437.548
N 590,619.892 FEET	E 1,360,433.437 FEET



DRY WELL CHART					
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L W D
DW#1	655 Sq. Ft.	94 C.F.	96 C.F.	100%*	8 x 6 x 5
DW#2	637 Sq. Ft.	91 C.F.	96 C.F.	100%*	8 x 6 x 5
DW#3	453 Sq. Ft.	65 C.F.	80 C.F.	100%*	8 x 5 x 5



NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

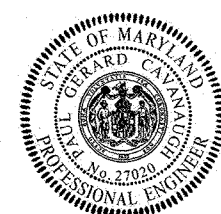
SLOPE THE DRIVEWAY SO THAT WATER DOES NOT FLOW DIRECTLY ONTO THE ADJACENT SOUTHERN PARCEL.

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. 27020, EXPIRATION DATE: 01/25/2028.

Lawrence C. Williams
Signature of Professional Engineer

Jan 25, 2022
DATE



PROPOSED IMPERVIOUS SWM DRAINAGE AREAS



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

NON-ROUTINE MAINTENANCE

- STRUCTURAL COMPONENTS OF THE UNDERGROUND FACILITY SUCH AS THE MANHOLES, PIPES AND/OR ORIFICE SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS. INSPECTION REPORTS SHALL BE KEPT UNTIL THE NEXT SUBSEQUENT INSPECTION.
- PROBLEMS IDENTIFIED DURING INSPECTION WILL BE PROMPTLY CORRECTED. MAJOR PROBLEMS SHALL ALSO BE BROUGHT TO THE ATTENTION OF THE HOWARD COUNTY DEPT. OF PUBLIC WORKS TO INSURE THAT PUBLIC SAFETY IS MAINTAINED. BLOCKED DURING SAID MAINTENANCE OPERATION.

OPERATION AND MAINTENANCE SCHEDULE FOR OWNED AND MAINTAINED UNDERGROUND SWM FACILITY (STONE RECHARGE CHAMBER) ROUTINE MAINTENANCE RESPONSIBILITIES:

- THE UNDERGROUND S.W.M. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- MAINTENANCE OF THE 48-INCH PIPES SHALL BE PERFORMED BY FLUSHING THE SYSTEM THROUGH THE CLEAN-OUTS PROVIDED AND BY VACUUMING AT MANHOLE ACCESS. THE DISCHARGE / ORIFICE OF THE UNDERGROUND S.W.M. FACILITY SHALL BE TEMPORARILY BLOCKED DURING SAID MAINTENANCE OPERATION.
- DISPOSAL OF MATERIAL SHALL BE IN ACCORDANCE WITH SIMILAR B.M.P. THAT RANGE FROM DISPOSAL IN A SANITARY LANDFILL TO INCINERATION IN A LICENSED FACILITY. PETROLEUM WASTE PRODUCTS SHOULD BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY.
- FLOW SPLITTER AT INLET I-1 SHALL BE CHECKED AND COMPLETELY CLEANED OUT TWICE PER YEAR.

TITLE SHEET HOWARD HEIGHTS - LOT 26A

2940 SOUTHVIEW ROAD
 ZONED: R-20
 TAX MAP NO.: 17 GRID NO.: 22 PARCEL NO.: 211
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: A5 5'X10" DATE: JANUARY, 2022
 SHEET 1 OF 2

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- BOUNDARY SHOWN HEREON IS BASED ON FIELD ROUNDMONUMENTED BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED JUNE, 2018. TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. IN MAY 2018 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 5' CONTOUR INTERVAL INTERPOLATED FOR 2' CONTOUR INTERVAL.
- 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. 171A AND 171D WERE USED FOR THIS PROJECT.
- PREVIOUS DPZ FILE NUMBERS: PLAT BOOK 5, PAGE 19; D-1150
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE H.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009.
- NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED.
- THIS PROPERTY IS LOCATED INSIDE THE METROPOLITAN DISTRICT. LOTS TO BE SERVED PUBLIC WATER AND SEWER, CONTRACT #11-W & #32-5.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- THE SUBJECT PROPERTY IS ZONED R-20 PER DATE 10/06/2013 COMPREHENSIVE ZONING PLAN.
- NO STEEP SLOPES EXIST ON-SITE, HOWEVER THE SITE CONTAINS WETLANDS, STREAM(S) AND/OR THEIR BUFFERS. SEE ENVIRONMENTAL FINDINGS LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JUNE 14, 2018
- LANDSCAPING WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE OF THIS PROJECT.
- THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS BECAUSE THE AREA OF THE PARCEL IS LESS THAN 40,000 SQUARE FEET PER SECTION 16.1202(b)(1)(iv) OF THE COUNTY CODE.
- A SOIL BORING REPORT IS PROVIDED FOR THIS PROJECT SINCE DRYWELLS, PERMEABLE PAVEMENT, AND A MICRO-BIORETENTION FACILITY IS BEING UTILIZED.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT SUBMISSION, FOREST CONSERVATION, OR SITE DEVELOPMENT PLANS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS THAT MAY ALTER THE SITE DESIGN, HOUSE LOCATION, DRIVEWAY LOCATION, GRADING, TREE CLEARING, AND/OR OTHER REQUIREMENTS AS THE DEVELOPMENT PLAN PROGRESSES THROUGH THE PLAN REVIEW PROCESS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS AND THE FOREST CONSERVATION REQUIREMENTS.
- APPROVAL OF THIS ECP BY THE HOWARD COUNTY ELECTION DISTRICT DOES NOT PROVIDE APPROVAL OF THE SHOWN SEDIMENT CONTROLS.
- A SMALL SHED EXISTS ON THE PROPERTY AND WILL BE REMOVED.
- SOILS SHOWN HEREON ARE BASED ON THE NCS WESBOL SURVEY AND HOWARD COUNTY SOIL MAP #13.
- NO HISTORICAL FEATURES OR CEMETERIES ARE ON-SITE.
- ON JULY 10, 2019, THE DIVISION OF PUBLIC SERVICE AND ZONING DEPARTMENT, DETERMINED THAT THE PROPERTY (LOT 26-A) IS A VALID BUILD-ABLE LOT.
- SUBJECT TO ALTERNATIVE COMPLIANCE FOR REMOVAL OF DRIVEWAY WIDTH AND TEMPORARY IMPACT TO WETLAND.
- THE PROPERTY IS WITHIN THE PLUMTREE BRANCH WATERSHED, REQUIRING STORM OF RECORD TO BE ADDRESSED. THE ELLICOTT STORM OF RECORD 6.6" OVER A 3.5 HOUR PERIOD IS BEING USED FOR THIS SITE. 10-YEAR AND 100-YEAR MANAGEMENT WILL ALSO BE PROVIDED.

DESIGN NARRATIVE

Introduction:
 This report will demonstrate how the criteria set forth in the Maryland Stormwater Design Manual, Volumes I and II (effective October 2000, revised May 2009) will be satisfied on this project. The goal of creating hydrology similar to that of "Woods in Good Condition" will be accomplished through the use of the practices contained within Chapter 5 of said manual. The achievement of this goal will remove the requirement of providing Channel Protection Volume.

General Site Conditions:

2940 Southview Road is zoned R-20 and is located on Tax Map 17, however the parcel is inaccurately shown as one parcel with lot 21 (Parcel 211) of the Howard County, Maryland Tax Map Database System. The property is directly behind Lot 21 of a subdivision entitled "Howard Heights, Section 2" as Recorded in Plat Book 5, Page 19, dated December, 1955. The site is currently a vacant lot that is maintained generally as a lawn for the benefit of the adjacent lot; the lawn area includes numerous landscape and shade trees. This subdivision is exempt from the requirements of Section 16.1202 of the Howard County Code for Forest Conservation, because the Parcel is less than 40,000 square feet in accordance with Section 16.1202(b)(1)(iv) of the Howard County Code. The proposed house will be served by public water and public sewer. The runoff from the lot is mostly from east to west, with said runoff going towards a stream in the rear of the property. Micro-Bioretenion and Drywells will be utilized to treat the rooftop. Permeable Pavement will address the proposed driveway. Per the 2004 Web Soil Survey, soils on-site consist of "BaB" Baile Silt Loam, Type D soil and "GhB" Glenelg-Urban Land Complex, Type B Soil.

- Natural Resource Protection:**
 Environmentally sensitive features such as a stream and its buffer, wetlands and their buffers, do exist on-site. Stream, wetlands, wetland buffer will have super silt fence provided to protect them during construction.
- Maintenance of Natural Flow Patterns:**
 Natural flow patterns will be maintained. Existing and proposed runoff flows mostly toward the West portion of the site.
- Reduction of Impervious Areas through better site design, alternative surfaces and Nonstructural Practices:**
 A single driveway will be utilized to provide access to the proposed house. The pavement will consist of A-2 Permeable Pavement.
- Integration of Erosion and Sediment Controls into Stormwater Strategy:**
 Diversion Fence and Super Silt Fence will be utilized to provide erosion and sediment control.
- Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP):**
 The full required ESD volume is being provided along with storm of record management.
- Request for a Design Manual Waiver:**
 No waivers related to stormwater management are required. There are no additional SWM requirements due to the environmental waivers. Alternative Compliance will be requested for driveway width and impact to wetland buffer.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

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

OPERATION AND MAINTENANCE SCHEDULE FOR OWNED AND MAINTAINED UNDERGROUND SWM FACILITY (STONE RECHARGE CHAMBER) ROUTINE MAINTENANCE RESPONSIBILITIES:

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NON-ROUTINE MAINTENANCE

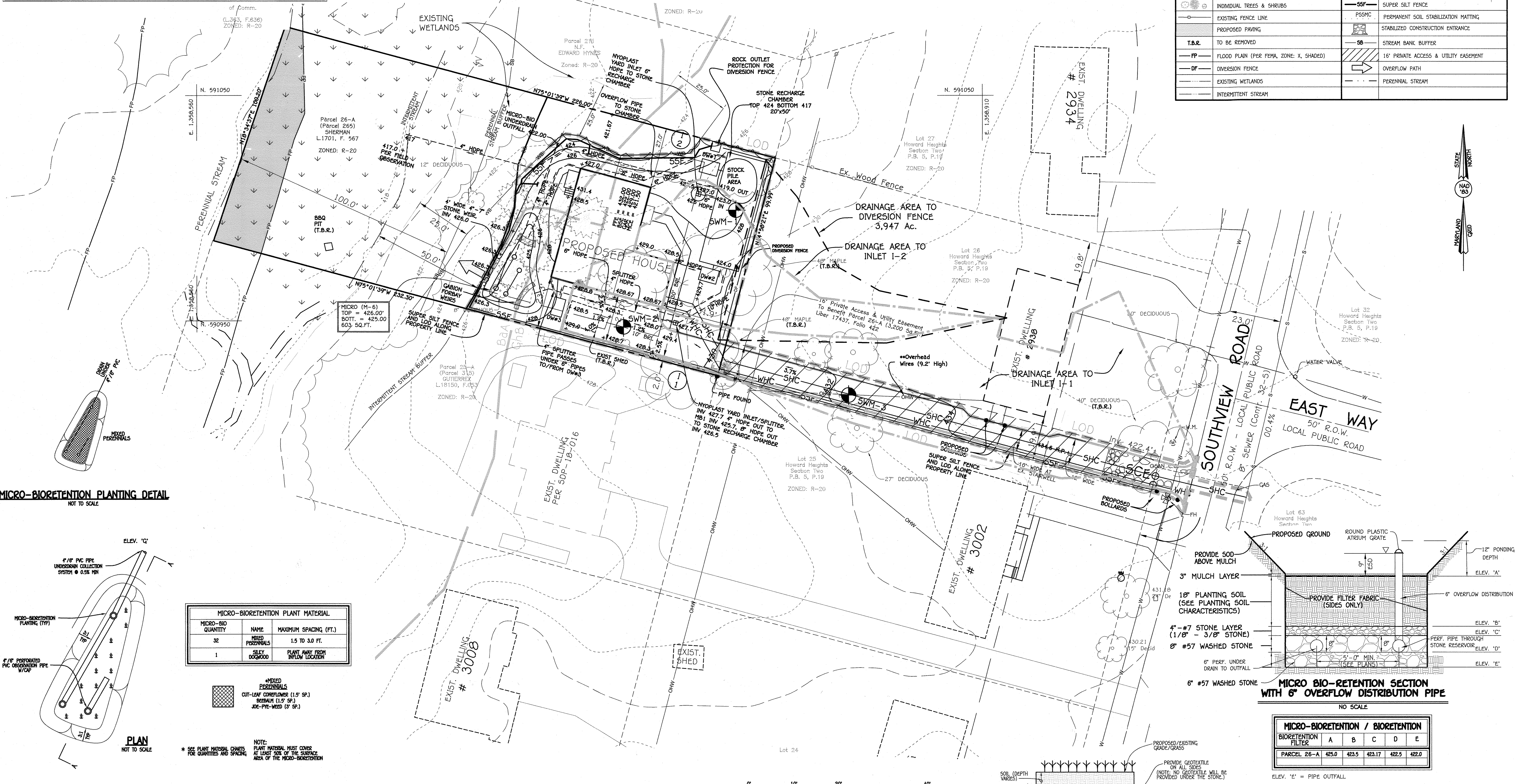
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SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BAA	Baile Silt Loam, 0 to 3 percent slope	D	.32
GhB	Glenc-Urban Land Complex, 0 to 8 percent slope	B	.20

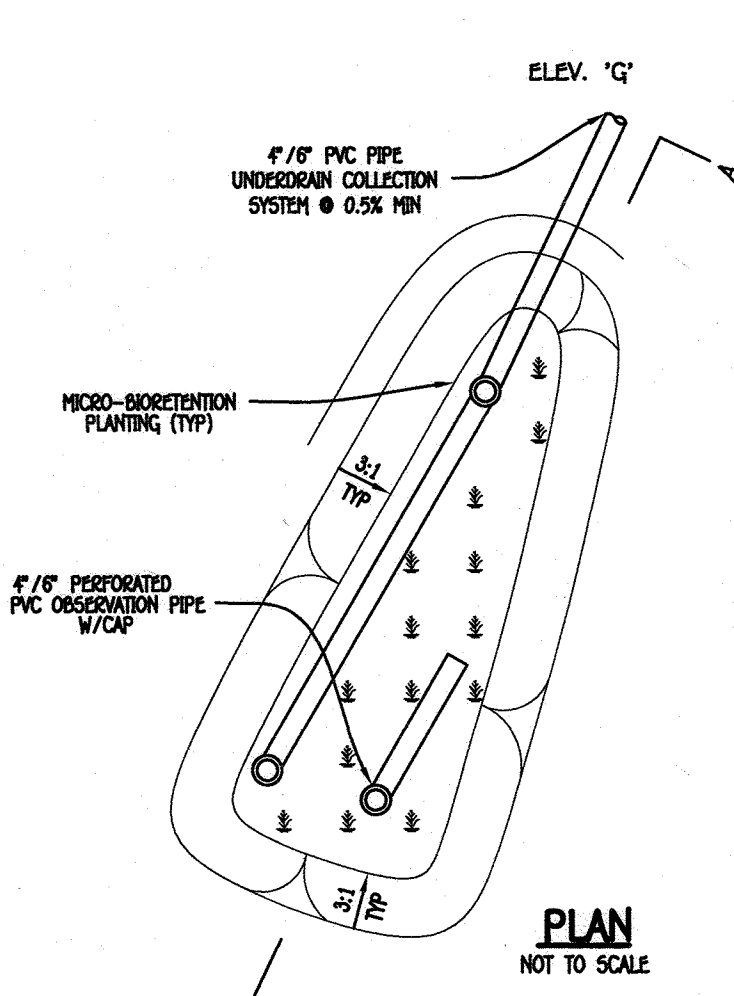
Soil Map Number: 13 (Ellicott City, SW)

STORMWATER MANAGEMENT PRACTICES			
LOT NO.	DRY WELLS (N-5) Y/N, NUMBER	MICRO-BIORETENTION (N-5) Y/N, NUMBER	STONE RECHARGE CHAMBER (N-5) Y/N, NUMBER
Parcel 26-A	YES (3)	YES (1)	YES (1)

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---42'---	EXISTING 2' CONTOURS	---	PROPOSED CONTOUR
---42'---	EXISTING 10' CONTOURS	+362.5	SPOT ELEVATION
---	SOILS LINES AND TYPE	---	LIMITS OF DISTURBANCE
---	EXISTING TREELINE	---	DRAINAGE AREA DIVIDE
---	PROPOSED TREELINE	---	SILT FENCE
---	INDIVIDUAL TREES & SHRUBS	---	SUPER SILT FENCE
---	EXISTING FENCE LINE	---	PERMANENT SOIL STABILIZATION MATTING
---	PROPOSED PAVING	---	STABILIZED CONSTRUCTION ENTRANCE
T.B.R.	TO BE REMOVED	---	STREAM BANK BUFFER
FP	FLOOD PLAIN (PER FEMA, ZONE: X, SHADED)	---	16' PRIVATE ACCESS & UTILITY EASEMENT
DF	DIVERSION FENCE	---	OVERFLOW PATH
---	EXISTING WETLANDS	---	PERENNIAL STREAM
---	INTERMITTENT STREAM		



MICRO-BIURETENTION PLANTING DETAIL
NOT TO SCALE

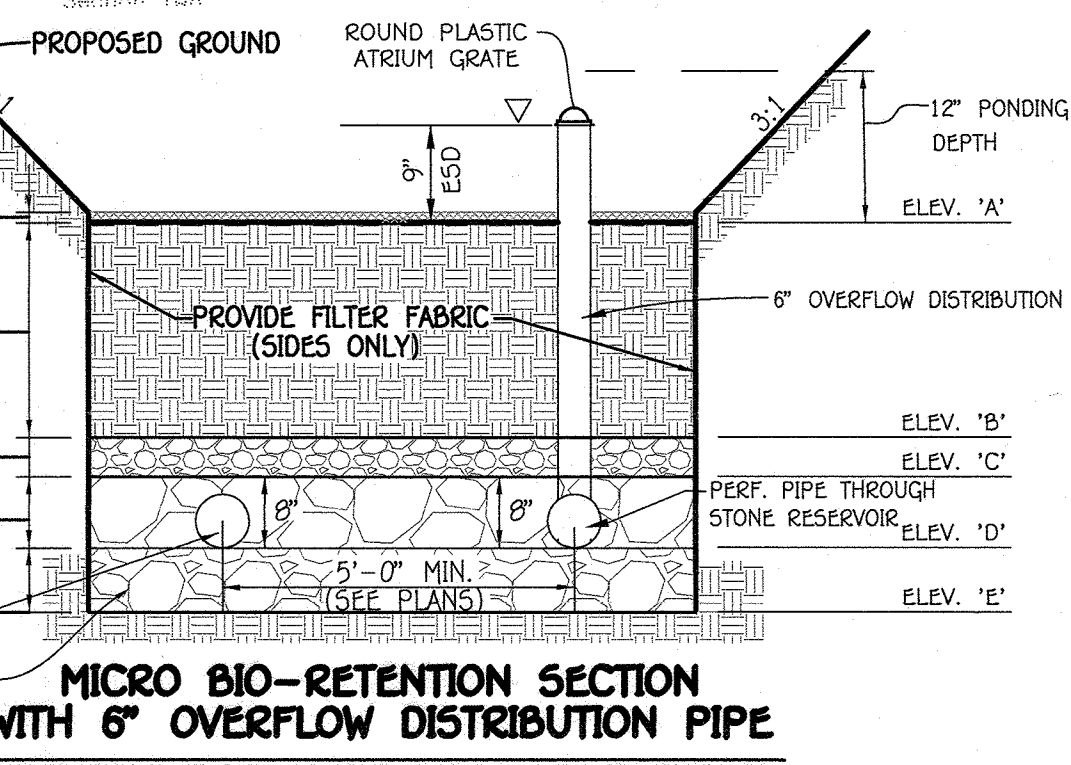


MICRO-BIURETENTION PLANT MATERIAL		
MICRO-BIO QUANTITY	NAME	MAXIMUM SPACING (FT.)
32	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILEY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

MIXED PERENNIALS
CUT-LEAF CONIFER (1.5' SP.)
BEZELUM (1.5' SP.)
JOC-PYE-WEED (3' SP.)

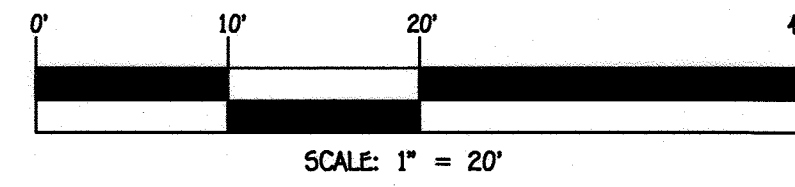
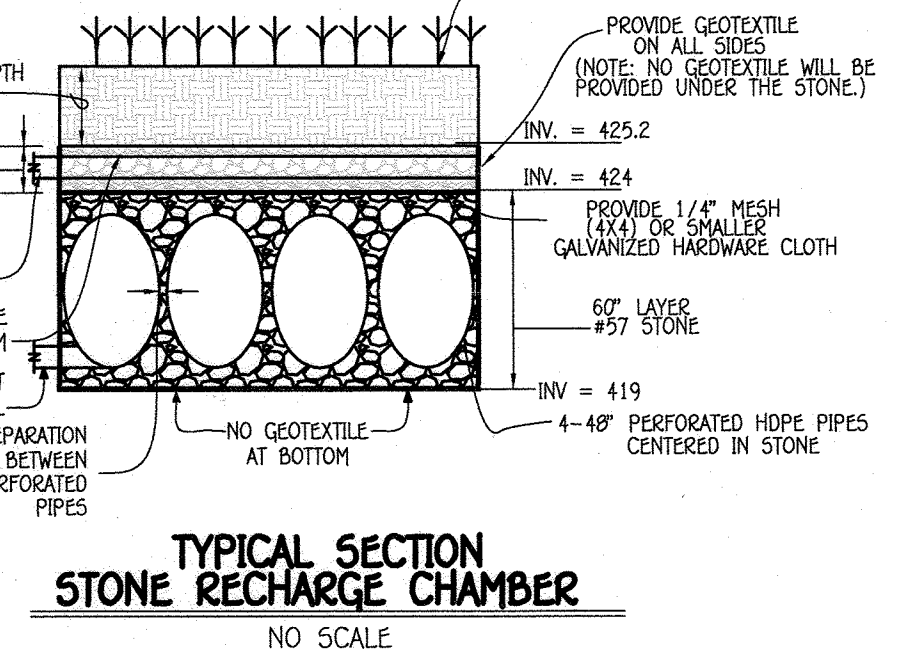
NOTE:
PLANT MATERIAL MUST COVER AT LEAST 50% OF THE SURFACE AREA OF THE MICRO-BIURETENTION

* SEE PLANT MATERIAL SHEETS FOR QUANTITIES AND SPACING



MICRO-BIURETENTION / BIURETENTION					
BIURETENTION FILTER	A	B	C	D	E
PARCEL 26-A	425.0	423.5	423.17	422.5	422.0

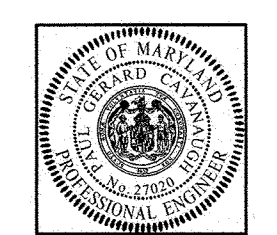
ELEV. 'E' = PIPE OUTFALL



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. 27020, EXPIRATION DATE: 01/25/2028.

Signature of Professional Engineer: *[Signature]* DATE: *Jan 25, 2022*



Approved: Department Of Planning And Zoning

Chief, Development Engineering Division: *[Signature]* DATE: *2/28/22*

Chief, Division Of Land Development: *[Signature]* DATE: *2/28/22*

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 1072 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2899

OWNER / DEVELOPER
MR. SURINDER SINGH
C/O BABBU HOMES LLC
10610 WARBURTON CT.
ELICOTT CITY, MARYLAND 21042
410-350-6333

ENVIRONMENTAL CONCEPT PLAN
HOWARD HEIGHTS - LOT 26A
2940 SOUTHVIEW ROAD
ZONED: R-20
TAX MAP NO.: 17 GRID NO.: 22 PARCEL NO.: 211
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: A5 SHOWN DATE: JANUARY, 2022
SHEET 2 OF 2