

# ENVIRONMENTAL CONCEPT PLAN

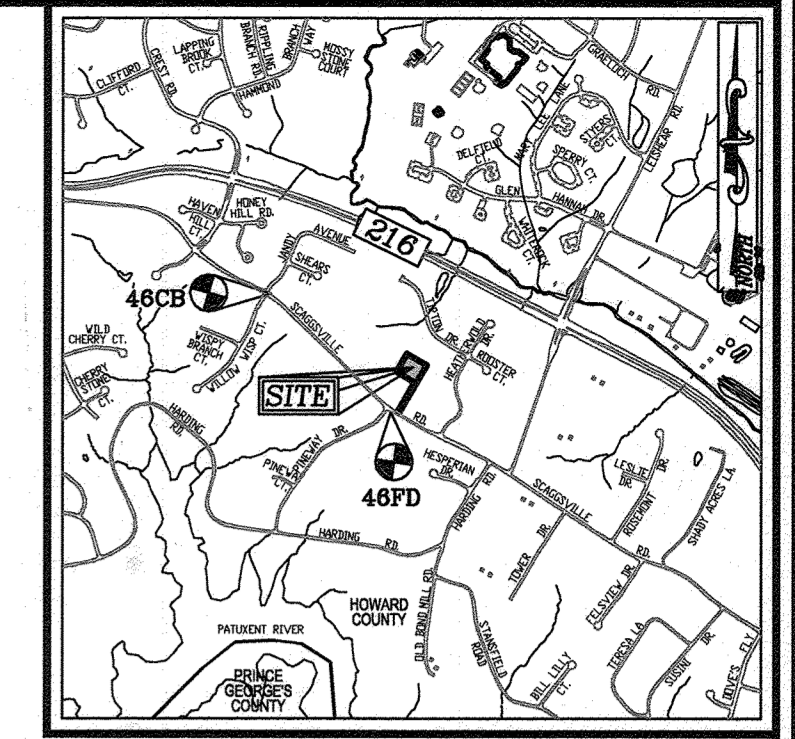
## CIANFLONE PROPERTY

10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723

### BENCHMARKS

HOWARD COUNTY BENCHMARK 46CB (CONC. MON.)  
N 537123.04 E 1344291.42 ELEV. 394.63  
LOCATION: SCAGGSVILLE RD. AND JANDY AVE.

HOWARD COUNTY BENCHMARK 46FD (CONC. MON.)  
N 535892.90 E 1345540.06 ELEV. 379.93  
LOCATION: SCAGGSVILLE RD. AND PINEWAY DR.



VICINITY MAP  
SCALE: 1"=2000'  
ADC MAP/GRID NO. 39-E4

### GENERAL NOTES

- STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY ENVIRONMENTAL SITE DESIGN UTILIZING A MICRO-BIORETENTION FACILITY (M-6) AND NON-ROOFTOP DISCONNECTION (N-2). THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER. REFERENCE 2010 MDE STORMWATER DESIGN MANUAL (CHAPTER 5).
- THE SUBJECT PROPERTY IS ZONED R-20 IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THIS PROPERTY IS NOT LOCATED IN A HISTORIC DISTRICT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- 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. 46CB AND 46FD WERE USED FOR THIS PROJECT.
- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED ON THE PROPERTY.
- SEEDING AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- A PERENNIAL STREAM, AND ITS ASSOCIATED BUFFERS, ARE PRESENT ON THE SUBJECT PROPERTY. NO FOREST, WETLANDS, FLOODPLAINS OR ANY OTHER NATURAL RESOURCES ARE PRESENT.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON FILED RUN TOPOGRAPHICAL SURVEY PERFORMED BY VOGEL ENGINEERING & TIMMONS GROUP, INC., DATED OCTOBER 10, 2022, AND IS SUPPLEMENTED WITH CURRENT HOWARD COUNTY GIS DATA.
- THE PROJECT BOUNDARY SHOWN HEREON IS BASE ON L. 18519 / F. 495.
- EXISTING UTILITIES ARE LOCATED FROM TOPOGRAPHIC SURVEY, AS-BUILT DRAWINGS AND HOWARD COUNTY GIS DATA. 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.
- WATER SERVICE FOR THIS PROJECT IS TO BE PROVIDED BY SERVICE CONNECTIONS FROM CONTRACT NO. 354-W.
- SEWER SERVICE FOR THIS PROJECT IS TO BE PROVIDED BY SERVICE CONNECTIONS FROM CONTRACT NO. 529-S.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN 200' OF ANY EXISTING, OR PROPOSED, MINOR ARTERIAL, RIGHT OF WAY LINE (OR HEIGHT CLASSIFICATION).
- SCAGGSVILLE ROAD IS CLASSIFIED AS A MINOR COLLECTOR. SITE ACCESS SHALL BE VIA A USE-IN-COMMON DRIVEWAY.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THE EXISTING DWELLING LOCATED ON THIS PROPERTY IS TO BE RAZED.
- NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
- APPROVAL OF THIS 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 SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES 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.
- AN ALTERNATIVE COMPLIANCE PETITION WILL BE PROCESSED WITH THE SDP FOR THE REMOVAL OF THE EXISTING HOUSE LOCATED WITHIN THE STREET BUFFER.
- A NECESSARY DISTURBANCE REQUEST WILL BE PROCESSED WITH THE SDP FOR THE INSTALLATION OF THE SEWER HOUSE CONNECTION AND THE OUTFALL FOR THE BIO RETENTION FACILITY.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS FOR FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202.B.1.VI OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH FILINGS OF A DECLARATION OF INTENT WITH THE OWNER'S BUILDING PERMIT.
- LANDSCAPING WILL BE ADDRESSED AT THE SDP PHASE OF THE DEVELOPMENT PROCESS.
- A 24' PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR THE BENEFIT OF PARCELS 14, 15 & 100 WAS GRANTED UNDER LIBER 1434, FOLIO 18 ON OCTOBER 16, 2019.
- REFERENCE WP-19-005, APPROVED ON AUGUST 28, 2018 AN ALTERNATIVE COMPLIANCE OF SECTION 16.147. FINAL SUBDIVISION PLAN AND FINAL PLAT WHICH REQUIRES THE SUBMISSION OF A FINAL SUBDIVISION PLAN FOR ALL DIVISIONS OF LAND IN HOWARD COUNTY TO BE APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING AND RECORDED IN THE LAND RECORDS OFFICE. THE APPLICANT IS PROPOSING TO RECONFIGURE TWO (2) EXISTING DEEDED PARCELS OF LAND, PARCELS 14 AND 15, TO ESTABLISH AS BUILDABLE PARCELS AROUND TWO EXISTING DWELLINGS.

### APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:

- APPROVAL FOR THIS ALTERNATIVE COMPLIANCE REQUEST IS FOR THE RECONFIGURATION OF TWO ADJOINING DEEDED PARCELS UNDER THE SAME OWNERSHIP AS DESCRIBED IN LIBER 286, FOLIO 130 DATED MARCH 19, 1956 AND LIBER 270, FOLIO 75 DATED JULY 16, 1955. NO OTHER PARCELS ARE BEING ENDORSED AND NO OTHER PARCELS WILL BE CREATED.
- THE TWO PARCELS SHALL BE RECONFIGURED BY UTILIZATION OF THE ADJOINER DEED PROCESS. THE ADJOINER DEED SHALL BE RECORDED AT LAND RECORDS OF HOWARD COUNTY, MARYLAND WITHIN 120 DAYS OF THE DATE OF THIS ALTERNATIVE COMPLIANCE REQUEST APPROVAL (ON, OR BEFORE, DECEMBER 26, 2018).
- A RECORDED COPY OF THE ADJOINER DEED SHALL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING FOR FILE RETENTION PURPOSES WITHIN 140 DAYS OF THE DATE OF THE ALTERNATIVE COMPLIANCE REQUEST APPROVAL (ON, OR BEFORE, JANUARY 15, 2019).
- THE ADJOINER DEED SHALL REFERENCE THIS ALTERNATIVE COMPLIANCE REQUEST FILE NUMBER, WP-19-005, AND ITS APPROVAL DATE. THE ADDITION OF THIS REFERENCE HELPS ANYONE WHO MAY BE REVIEWING THE DEED TO READILY DETERMINE THAT THE DEED ADJOINER WAS DONE WITH THE ACKNOWLEDGMENT OF THE DEPARTMENT OF PLANNING AND ZONING.
- A SIMILAR ALTERNATIVE COMPLIANCE REQUEST EXHIBIT (SMALLER SIZE) SHALL BE RECORDED WITH THE ADJOINER DEED.
- COMPLIANCE WITH ALL APPLICABLE COUNTY AND STATE REGULATIONS IS REQUIRED.
- SUBJECT TO COMPLIANCE WITH THE ATTACHED COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION COMMENTS 1, 3 AND 4 AND HOWARD COUNTY DEPARTMENT OF FIRE AND RESCUE SERVICES, BOTH DATED AUGUST 15, 2018.
- PLEASE MAKE CORRECTIONS TO THE ALTERNATIVE COMPLIANCE REQUEST EXHIBIT BASED ON DIVISION OF LAND DEVELOPMENT COMMENTS, DATED AUGUST 20TH, AND RESUBMIT TO THE OFFICE WITHIN TWO WEEKS OF THE APPROVAL DATE FOR FILE RETENTION PURPOSES.
- THE RECONFIGURED PARCELS SHALL COMPLY WITH THE MINIMUM "R"-20 LOT SIZE REQUIRED AND THE EXISTING HOUSES SHALL COMPLY WITH THE SETBACK REQUIREMENTS.
- REFERENCE DESIGN MANUAL VOLUME II, APPROVED SEPTEMBER 10, 2018, REQUESTING A WAYNER TO DESIGN MANUAL, VOLUME III, SECTION 2.6.B AND TABLE 2.10, WHICH REQUIRES A 16' MINIMUM DRIVEWAY WIDTH FOR DRIVEWAYS SERVING 2 TO 6 LOTS. THE REQUEST IS TO MAINTAIN THE EXISTING DRIVEWAY WHICH VARIES IN WIDTH FROM 12' TO 20'. THIS DIVISION HAS DECIDED TO APPROVE THE REQUEST BASED ON THE JUSTIFICATION SUBMITTED AND SUBJECT TO REORDINATION OF A 24' PRIVATE USE-IN-COMMON ACCESS AND UTILITY EASEMENT FOR THE USE AND BENEFIT OF PARCEL 14, 15 AND 100, ALONG WITH THE DEED OF RECONFIGURATION UNDER WP-19-005.

### CIANFLONE PROPERTY ENVIRONMENTAL CONCEPT PLAN

### INTRODUCTION

THE SUBJECT PROPERTY IS ZONED R-20 AND IS LOCATED ON THE NORTH SIDE OF SCAGGSVILLE ROAD IN LAUREL, MARYLAND. THERE IS AN EXISTING DWELLING, CIRCA 1912, LOCATED ON THE PROPERTY. THIS DWELLING IS TO BE RAZED PRIOR TO CONSTRUCTION OF THE NEW RESIDENCE. ACCESS TO THIS PROPERTY IS VIA AN EXISTING USE-IN-COMMON DRIVEWAY THAT FRONTS ALONG SCAGGSVILLE ROAD. THE LOT SLOPES FROM SOUTH TO NORTH. THERE ARE SEVERAL LANDSCAPE TREES LOCATED THROUGHOUT THE LAWN AREA, AND A WOOD LINE LOCATED ALONG THE NORTHWEST AND NORTHEAST PERIMETER. CLEARING ASSOCIATED WITH THIS PROJECT WILL BE MINIMAL AND THEREFORE THE OWNER WILL EXECUTE A DECLARATION OF INTENT FOR SINGLE LOT CLEARING LESS THAN 20,000 SF. THERE IS A PERENNIAL STREAM, AND THE REMNANTS OF A BLOCK SPRING HOUSE, LOCATED ALONG THE NORTHWEST PROPERTY LINE.

THE SUBJECT PROPERTY IS PROPOSED TO BE IMPROVED BY A NEW SFD RESIDENTIAL STRUCTURE, DRIVEWAY, AND ASSOCIATED GRADING. THE EXISTING DWELLING AND SERVICE DRIVEWAY ARE TO BE RAZED AND REMOVED PRIOR TO CONSTRUCTION OF THE NEW HOUSE AND DRIVEWAY. THE NEW RESIDENCE WILL UTILIZE THE EXISTING SEWER HOUSE CONNECTION. THE EXISTING WATER HOUSE CONNECTION WILL BE ABANDONED AND A NEW 1.5" W/C WITH 1" METER W/M NEED TO BE INSTALLED TO PROVIDE ADEQUATE FIRE PROTECTION. THE PROPOSED NEW IMPERVIOUS COVER IS 4,959 SF.

THE SOILS ARE GLENMILLE-BALE SILT LOAMS WHICH ARE CLASSIFIED AS HSG 'C' SOILS. THE PROJECT IS DESIGNED UTILIZING THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, CHAPTER 5 ENVIRONMENTAL SITE DESIGN REQUIREMENTS.

THE ESDV IS COMPUTED FOR THE DISTURBED AREA. THE HOUSE IS TREATED BY UTILIZING ONE MICRO-BIORETENTION FACILITY WHICH ARE PERMITTED IN HSG 'C' SOILS. THE MICRO-BIORETENTION FACILITY UTILIZES A P<sub>e</sub> OF 1.80 TO FULFILL THE OVERALL P<sub>e</sub> REQUIREMENT OF 1.07.

LOT AREA: 1.37 AC.  
DISTURBED AREA: 29,849 SF  
HOUSE FOOTPRINT: 3,859 SF  
SIDEWALK AND DRIVEWAY: 1,100 SF  
IMPERVIOUS % = 17%  
R<sub>v</sub> = (0.009)/0.05 = 0.20  
P<sub>e</sub> REQUIRED: 1.07  
REV: 65 CF  
ESDV REQUIRED = (P<sub>e</sub>)(R<sub>v</sub>)(A)/12 = 497 CF

THE EXISTING DRAINAGE PATTERNS HAVE BEEN RETAINED. THE ESDV REQUIRED IS 497 CF, AND 517 CF IS PROVIDED BY A COMBINATION OF ONE MICRO-BIORETENTION FACILITY AND NON-ROOFTOP DISCONNECTION CREDITS.

### CONCLUSION AND RECOMMENDATIONS

THE REQUIRED ESDV IS PROVIDED BY A COMBINATION OF ONE MICRO-BIORETENTION FACILITY AND NON-ROOFTOP DISCONNECTION PRACTICES. THE PROPOSED ESD PRACTICES AND THE PROPOSED GRADING RESOLVE THE EXISTING DRAINAGE PATTERNS. THE 2011 SEDIMENT EROSION CONTROL STANDARDS WILL BE UTILIZED AND ADDRESSED AS PART OF THE GRADING AND SEDIMENT CONTROL DESIGN AND PERMITTING.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 7.10.23  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*[Signature]* 7/10/23  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

### WHC NOTE:

EXISTING 1" W/C AND 3/4" METER TO BE ABANDONED AND A NEW 1.5" W/C AND 1" VALVE ARE TO BE INSTALLED OFF OF THE EXISTING 12" WATER MAIN (CONV. 354-M) LOCATED IN SCAGGSVILLE ROAD. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF THE EXISTING W/C, VALVE AND METER ASSOCIATED WITH THE SUBJECT PROPERTY.



### LEGEND:

---	PROPERTY LINE
---	RIGHT-OF-WAY LINE
---	ADJACENT PROPERTY LINE
---	EXISTING EDGE OF PAVING
---	EXISTING TREELINE
---	EXISTING WOOD FENCE
---	EXISTING METAL FENCE
---	EXISTING UTILITY POLES
---	EXISTING LIGHT
---	EXISTING OVERHEAD WIRES
---	EXISTING SEWER
---	RIGHT-OF-WAY (L. 658 / F. 716)
---	EXISTING 12" USE-IN-COMMON EASEMENT (L. 270 / F. 76)
---	LOD
---	LIMIT OF DISTURBANCE FOR SITE DEMOLITION

### SITE ANALYSIS DATA CHART

A. TOTAL AREA:	1.37 AC.±
B. AREA OF PLAN SUBMISSION:	1.37 AC.±
C. AREA OF WETLANDS AND BUFFERS:	0.00 AC.±
D. AREA OF STREAM BUFFERS:	0.33 AC.±
E. AREA OF FLOODPLAIN:	0.00 AC.±
F. AREA OF FOREST:	0.00 AC.±
G. AREA OF STEEP SLOPES (15% & GREATER):	0.00 AC.±
H. AREA OF ERODIBLE SOILS:	1.37 AC.±
I. LIMIT OF DISTURBED AREA:	0.69 AC.±
J. PROPOSED USES FOR SITE AND STRUCTURES:	SFD RESIDENTIAL
K. GREEN OPEN AREA:	1.08 AC.
L. PROPOSED IMPERVIOUS AREA:	0.29 AC.
M. PRESENT ZONING DESIGNATION:	R-20
N. OPEN SPACE REQUIRED:	N/A
O. TOTAL NUMBER OF UNITS ALLOWED:	2 SFD (2 DWELLING UNITS PER NET ACRE)
P. TOTAL NUMBER OF UNITS PROPOSED:	1 SFD
Q. DPZ FILE REFERENCES:	L. 18519 / F. 495, L. 18434 / F. 18 & WP-19-005

### OWNER/DEVELOPER

ANTONIO CIANFLONE  
YOSD CIANFLONE  
10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723  
(301) 919-2518

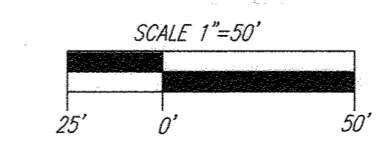
### SHEET INDEX

DESCRIPTION	SHEET NO.
DEMOLITION PLAN	1 OF 4
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SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN	3 OF 4
STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS	4 OF 4

ADDRESS	DISCONNECTION OF NON-ROOFTOP RUNOFF	MICRO-BIORETENTION
10682 SCAGGSVILLE ROAD	N-2 (Y/N)	M-6 (NUMBER)
	YES	1

### DEMOLITION PLAN

SCALE: 1"=50'



### ENVIRONMENTAL CONCEPT PLAN

#### DEMOLITION PLAN

## CIANFLONE PROPERTY

10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723

6TH ELECTION DISTRICT  
TAX MAP: 46 GRID: 12  
PARCEL: 406 (RECONFIGURED PARCEL 15)

ZONED: R-20  
L. 18519 / F. 495  
HOWARD COUNTY, MARYLAND

## VOGEL ENGINEERING

### TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV  
DRAWN BY: JMR  
CHECKED BY: RHV  
DATE: JUNE 2023  
SCALE: AS SHOWN  
W.O. NO.: 55863

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 18183 EXPIRATION DATE: 09-27-2024

1 SHEET OF 4



**LEGEND:**

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING EDGE OF PAVING
	PROPOSED TREELINE
	EXISTING TREELINE
	EXISTING WOOD FENCE
	EXISTING METAL FENCE
	EXISTING UTILITY POLE
	EXISTING OVERHEAD WIRES
	EXISTING SEWER RIGHT-OF-WAY (L. 658 / F. 716)
	EXISTING 12' USE-IN-COMMON EASEMENT (L. 270 / F. 76)
	PROPOSED MICRO-BIORETENTION FACILITY (M-B)

Maryland State Grid Meridian

E 1345300  
N 536600

E 1346050  
N 536600

E 1345300  
N 535800

**OWNER/DEVELOPER**  
ANTONIO CIANFLONE  
YISED CIANFLONE  
10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723  
(301) 919-2518

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN  
SITE LAYOUT PLAN  
CIANFLONE PROPERTY  
10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723

6TH ELECTION DISTRICT  
TAX MAP: 46 GRID: 12  
PARCEL: 406 (RECONFIGURED PARCEL 15)

ZONED: R-20  
L. 18519 / F. 495  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
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**PROFESSIONAL CERTIFICATE**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY APPROVED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183, EXPIRATION DATE: 09-27-2024

DESIGN BY: RHY  
DRAWN BY: JMR  
CHECKED BY: RHY  
DATE: JUNE 2023  
SCALE: AS SHOWN  
W.O. NO.: 55863

2 SHEET OF 4

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 7.10.23  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 7.6.23  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**SITE LAYOUT**  
SCALE: 1"=50'  
SCALE 1"=50'  
25' 0' 50'

SOILS LEGEND					
SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	ERODIBLE
GhB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	.37	NO	YES
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B	.43	NO	YES
GhB	GLENEVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C/D	.35	YES	YES
GhB	GLENEVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	.49	YES	YES
Mac	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	.32	NO	NO

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
-HOWARD COUNTY SOILS MAP NUMBER 23 - CLARKSVILLE SE

NOTE:  
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

LEGEND:	
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING EDGE OF PAVING
	PROPOSED TREELINE
	EXISTING TREELINE
	EXISTING WOOD FENCE
	EXISTING METAL FENCE
	EXISTING UTILITY POLE
	EXISTING OVERHEAD WIRES
	EXISTING SEWER RIGHT-OF-WAY (L. 658 / F. 716)
	EXISTING 12' USE-IN-COMMON EASEMENT (L. 270 / F. 76)
	PROPOSED MICRO-BIORETENTION FACILITY (M-6)
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	SOILS
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE
	SUPER SILT FENCE
	DIVERSION FENCE



E 1346300  
N 536600

E 1346050  
N 536600

E 1345300  
N 535800

Maryland State Grid Meridian

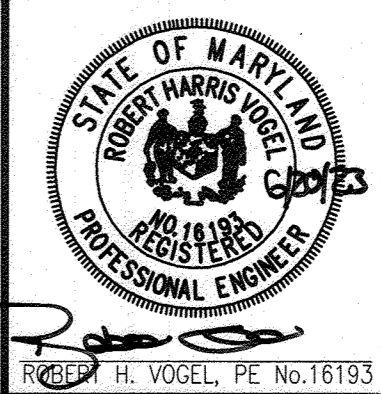
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10682 SCAGGSVILLE ROAD  
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(301) 919-2518

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN  
SOILS MAP, GRADING, EROSION AND  
SEDIMENT CONTROL PLAN  
CIANFLONE PROPERTY  
10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723

6TH ELECTION DISTRICT TAX MAP: 48 GRID: 12 PARCEL: 406 (RECONFIGURED PARCEL 15) ZONED: R-20 L. 18519 / F. 495 HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
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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: 08-27-2024

DESIGN BY: RHW  
DRAWN BY: JMR  
CHECKED BY: RHW  
DATE: JUNE 2023  
SCALE: AS SHOWN  
W.O. NO.: 55863

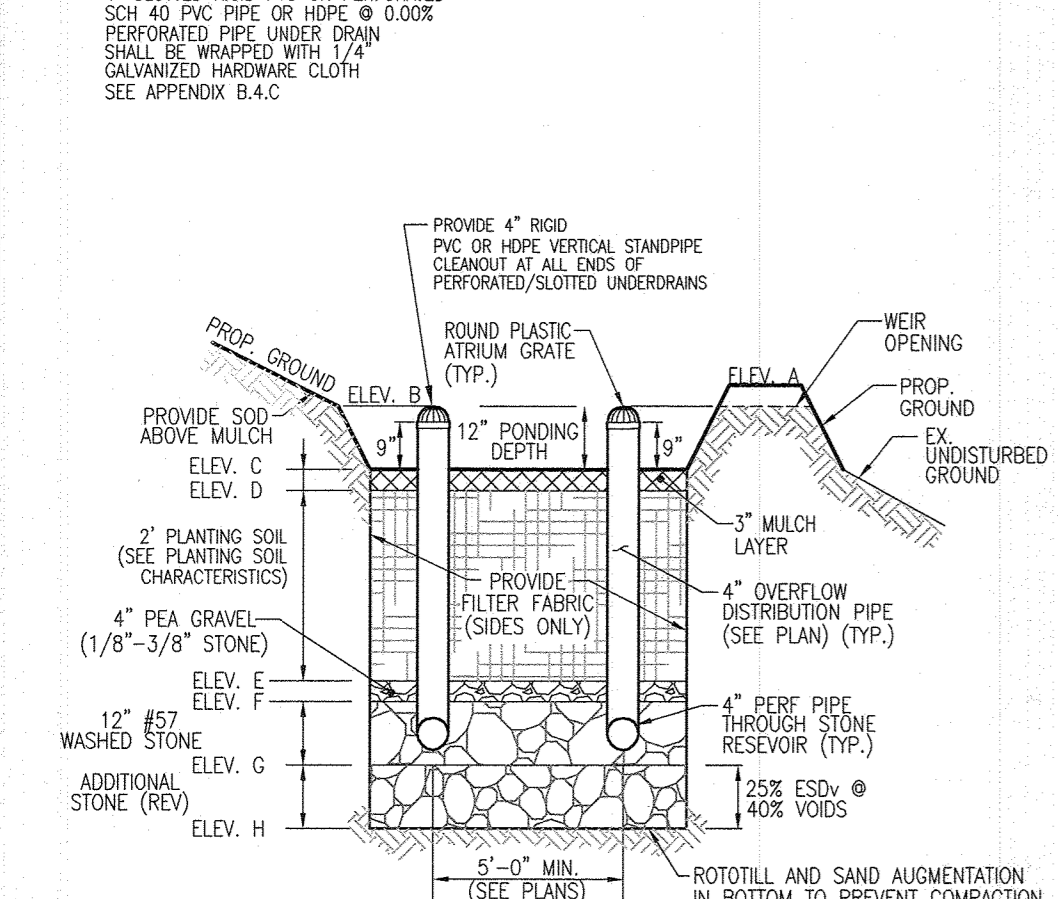
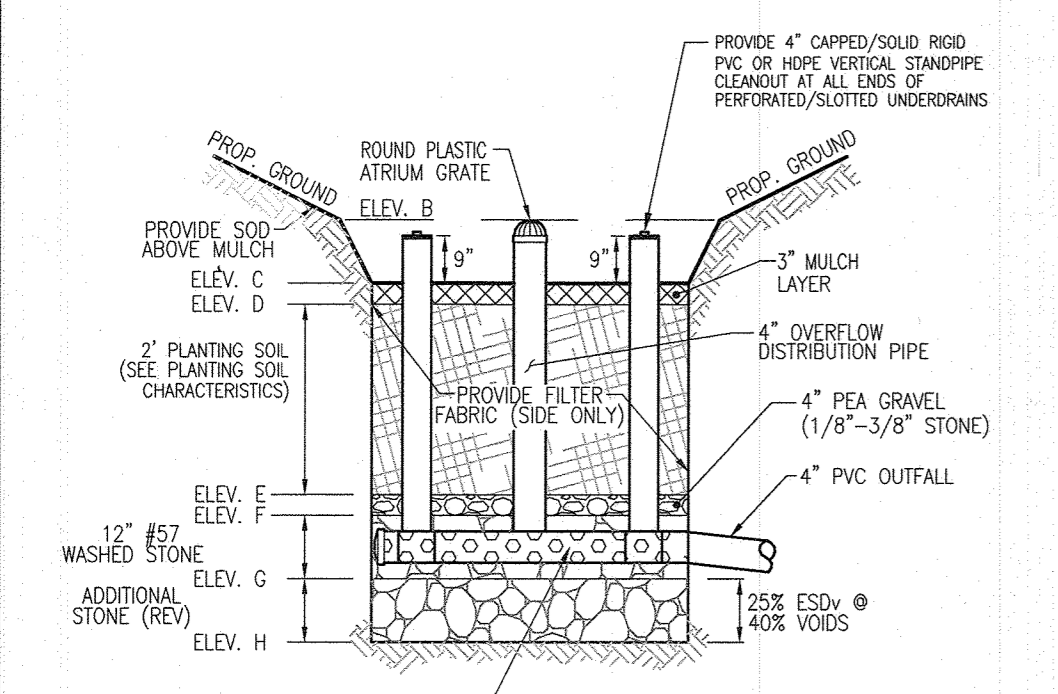
3 SHEET OF 4

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
M. H. [Signature]  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 7/10/23  
R. [Signature]  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 7/16/23

**GRADING PLAN**  
SCALE: 1"=50'  
SCALE 1"=50'  
25' 0' 50'

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

- MATERIAL SPECIFICATIONS**  
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
- FILTERING MEDIA OR PLANTING SOIL**  
THE SOIL SHALL BE A UNIFORM MIX. FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DAMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVIDE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.  
THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:  
• SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (LOEA SOIL TEXTURAL CLASSIFICATION)  
• ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (40% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).  
• CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.  
• PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR DECREASE PH.  
THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.
- COMPACTION**  
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR WASH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.  
COMPACTION CAN BE AVOIDED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACATURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.  
ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING ROTOTILLING BASE.  
WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.  
WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
- PLANT MATERIAL**  
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A2.3.
- PLANT INSTALLATION**  
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.  
FOOTCROCK OF THE PLANT MATERIAL SHALL BE KEPT MOST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.  
GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.  
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFERS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
- UNDERDRAINS**  
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:  
• PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 758, TYPE PS 28, OR ASH/TO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE).  
• PERFORATIONS - IF PERFORATED PIPES IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 174" (NO. 4 OR 4x4) GALVANIZED HARDWARE CLOTH.  
• GRAVEL - THE GRAVEL (NO. 57 STONE) PREFERRED SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.  
• THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.  
• A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.  
• A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES IN TO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".  
THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MAIN PIPE PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
- MISCELLANEOUS**  
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.



**MICRO-BIORETENTION W/ WEIR AND UNDERDRAIN OUTFALL**  
NOT TO SCALE

FACILITY	A	B	C	D	E	F	G	H	WEIR	UNDERDRAIN	OUTFALL	FACILITY
MBR-1	349.80	349.50	348.50	348.25	346.25	345.92	344.92	344.09	349.50	345.25	344.00	430.50

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 7/16/23

DATE: 7/16/23

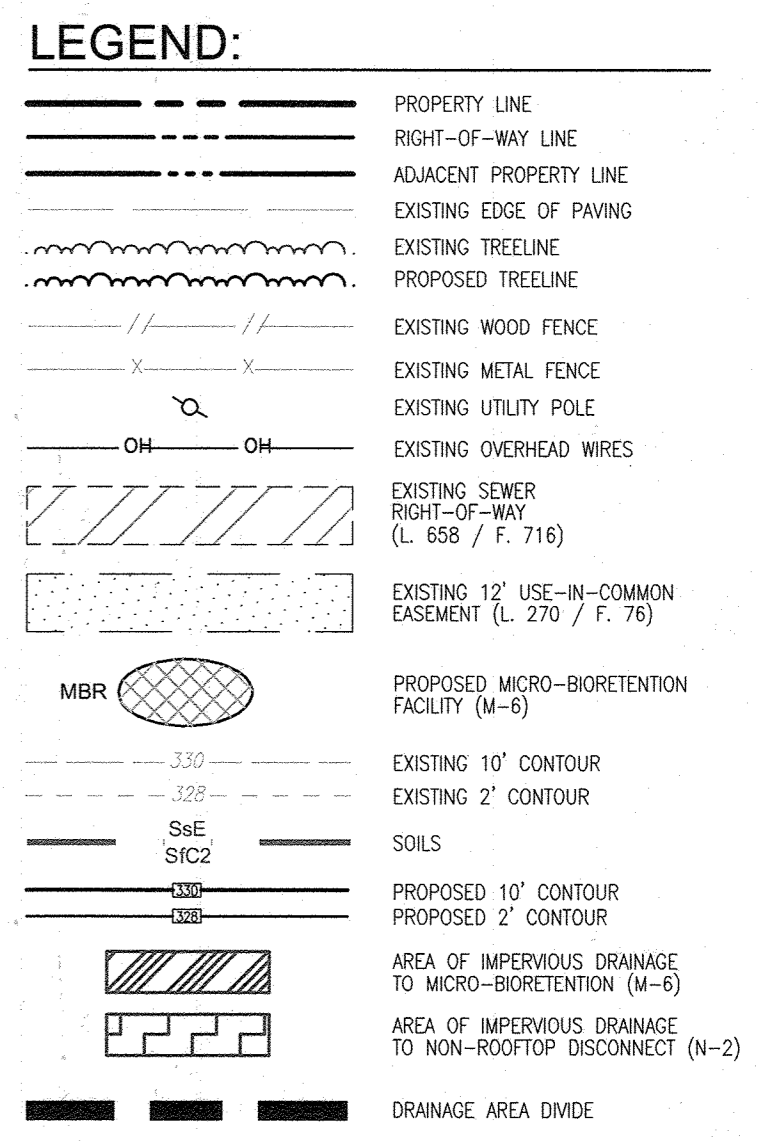
SYMBOL	NAME/DESCRIPTION	GROUP	K-FACTOR	HYDRIC	ERODIBLE
Gsb	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	.37	NO	YES
Gsb	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B	.43	NO	YES
Gmb	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C/D	.55	YES	YES
Gmb	GLENVILLE-SHALE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	.49	YES	YES
Msc	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	.32	NO	NO

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE - HOWARD COUNTY SOILS MAP NUMBER 23 - CLARKSVILLE SE

NOTE: 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

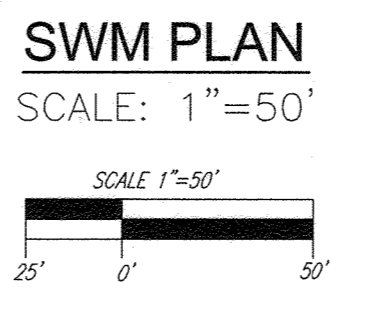
**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1) AND DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)**

- 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, COMPACTED OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



- MICROBIORETENTION NOTES:**
- ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
  - WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
  - PROVIDE 5' MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

- OPERATION AND MAINTENANCE SCHEDULE FOR (M-6) MICROBIORETENTION AREAS**
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. 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 VOL. II, TABLE A.4.1 AND 2.
  - SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
  - MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
  - SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



ENVIRONMENTAL CONCEPT PLAN  
STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS  
CIANFLONE PROPERTY  
10682 SCAGGSVILLE ROAD  
LAUREL, MD 20723

6TH ELECTION DISTRICT  
TAX MAP: 46 GRID: 12  
PARCEL: 406 (RECONFIGURED PARCEL 15)

ZONED: R-20  
L. 18519 / F. 495  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
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3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV  
DRAWN BY: JMR  
CHECKED BY: RHV  
DATE: JUNE 2023  
SCALE: AS SHOWN  
W.O. NO.: 55863

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10193, EXPIRATION DATE: 08-27-2024

4 SHEET OF 4