

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN
3	PRELIMINARY EROSION & SEDIMENT CONTROL PLAN
4	SWM NOTES & DETAILS SHEET

SOILS LEGEND			
SOIL	NAME	CLASS	KV
GgA	Glenelg loam, 0 to 3 percent slopes	B	0.37
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.37
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.49

STORMWATER MANAGEMENT DESIGN NARRATIVE

INTRODUCTION:
THIS REPORT WILL DEMONSTRATE HOW THE CRITERIA SET FORTH IN THE MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II (EFFECTIVE OCTOBER 200, REVISED MAY 2009) WILL BE SATISFIED FOR THIS PROJECT. THE GOAL OF CREATING HYDROLOGY SIMILAR TO THAT OF "WOODS IN GOOD CONDITION" WILL BE ACCOMPLISHED THROUGH THE USE OF DRY WELLS, MICRO BIO-RETENTION, AND NON-ROOFTOP RUNOFF AS SUGGESTED WITHIN CHAPTER 5 OF PREVIOUSLY MENTIONED MANUAL. THE ACHIEVEMENT OF THIS GOAL WILL REMOVE THE REQUIREMENT OF PROVIDING CHANNEL PROTECTION VOLUME.

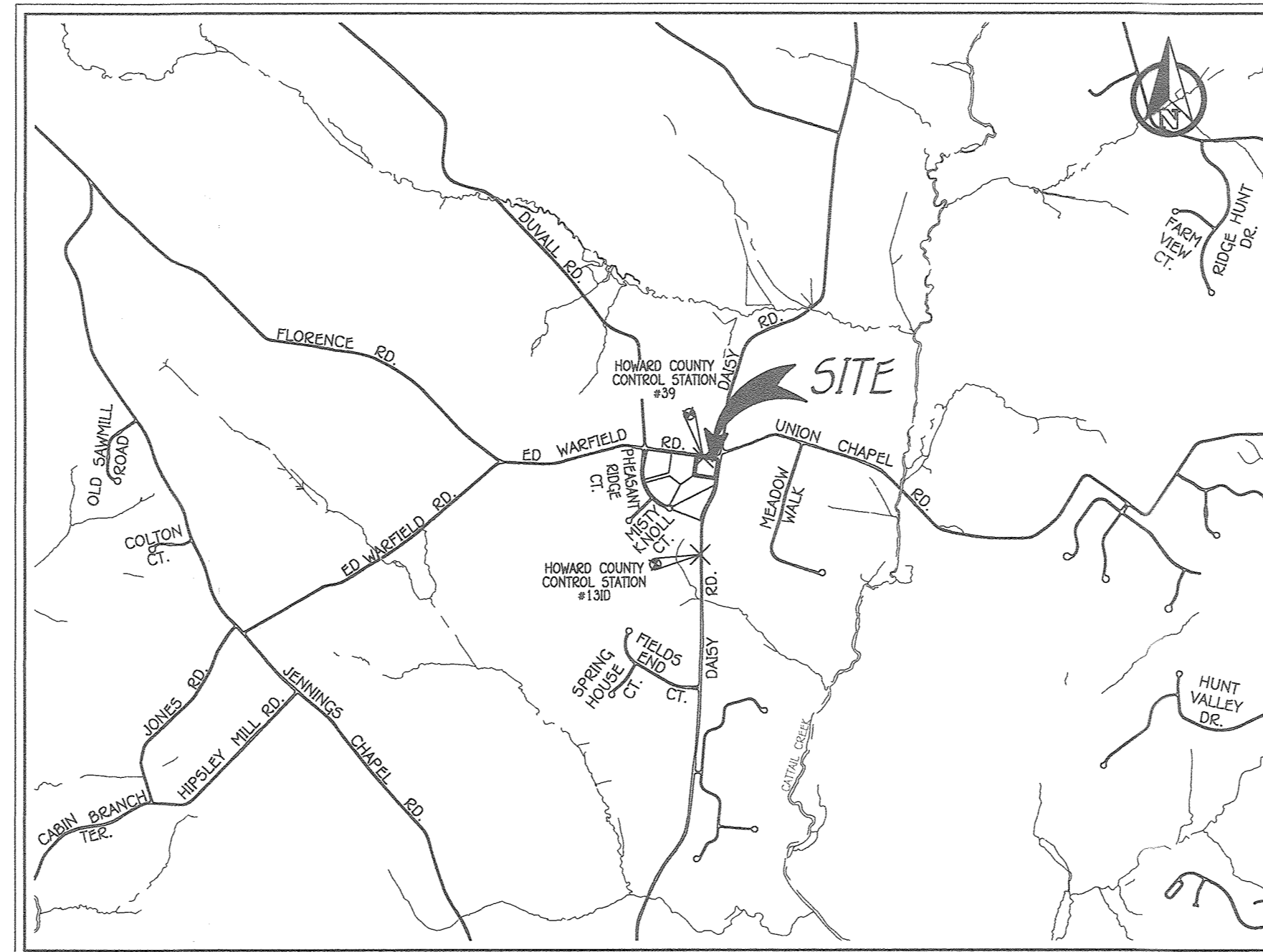
GENERAL SITE CONDITIONS:
THE MCWHORTER PROPERTY IS ZONED B-2 AND LOCATED ON TAX MAP 13, PART OF PARCEL NO. 334, OF THE HOWARD COUNTY, MARYLAND TAX MAP DATABASE SYSTEM. THIS PARCEL IS LOCATED IN THE WOODBINE AND RECORDED AS PARCEL 'A' IN THE LAND RECORDS OF HOWARD COUNTY (PLAT NO. 9801). THE PROPERTY IS PART OF THE SECTION 1, AREA 1, OF THE WARFIELD'S GRANT SUBDIVISION (F-90-56). THE SUBJECT PROPERTY CONSISTS OF 1.99 ACRES AND IS RELATIVELY RECTANGULAR IN SHAPE AND BORDERED BY RESIDENTIAL LOTS TO THE SOUTH, AND WEST (CURRENTLY ZONED RC-DEO). ED WARFIELD ROAD BORDERS THIS PROPERTY TO THE NORTH AND DASH ROAD BORDERS THE PROPERTY TO THE EAST. THIS PROJECT PROPOSES THE USE OF THE EXISTING LOT WITH NO MODIFICATIONS TO PROPERTY LINES FROM THE EXISTING PLAT. THERE ARE NO EXISTING BUILDINGS OR DRIVEWAYS ON THIS PROPERTY AND WILL NOT REQUIRE THE DEMOLITION OF ANY EXISTING STRUCTURE. THE PROPERTY DRAINS TO THE WEST AND IS LOCATED WITHIN THE BRIGHTON DAM (02131100) PORTION OF THE PATUXENT RIVER WATERSHED (021311). THE RUNOFF FROM THE ROOFS AND DRIVEWAYS OF THE PROPOSED BUILDING WILL BE TREATED BY FOUR (4) MICRO-BIORETENTION (M-B) FACILITIES. THE WEB SOIL SURVEY SHOWS SOILS ON THE SITE CONSIST OF GLENELG LOAM (GGA), GLENELG LOAM (GGB), BOTH TYPE "B" SOILS, AND GLENVILLE (GMA) SILT LOAM A TYPE "C" SOIL.

- I. NATURAL RESOURCE PROTECTION:**
NO STEEP SLOPES, FLOODPLAIN, FOREST, WETLANDS, STREAMS, OR ASSOCIATED BUFFERS EXIST ON-SITE.
- II. MAINTENANCE OF NATURAL FLOW PATTERNS:**
IT IS THE INTENT OF THE PROPOSED DESIGN TO DISCHARGE RUNOFF SIMILAR TO THE CHARACTERISTICS AND DIRECTION OF THIS SITE PRIOR TO ANY OF THE PROPOSED IMPROVEMENTS.
- III. PROTECTION OF IMPERVIOUS AREAS THROUGH BETTER SITE DESIGN ALTERNATIVE SURFACES AND NONSTRUCTURAL PRACTICES:**
ONLY THE MINIMUM AMOUNT OF PAVING NECESSARY FOR THIS TYPE OF "USE" IS BEING PROPOSED. A SECOND ACCESS FROM ED WARFIELD ROAD FOR THE USE OF LARGER VEHICLES, DELIVERIES AND EMPLOYEE USE IS BEING PROPOSED. IT IS EXPECTED THAT THIS ACCESS AND THE SURFACE BETWEEN THE TWO BUILDINGS WILL BE SUBJECT TO POSSIBLE TRACT EQUIPMENT THAT WILL LOAD OR UNLOAD SUPPLIES. TO REDUCE THE NEED FOR EXTENSIVE MAINTENANCE AND REPAIR THIS AREA IS BEING PROPOSED AS GRAVEL AND WILL BE TREATED AS AN IMPERVIOUS SURFACE.
- IV. INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO STORMWATER STRATEGY:**
THIS PROJECT UTILIZES BIO-RETENTION FACILITY IN LOCATIONS THAT COULD WORK IN CONCERT WITH SEDIMENT TRAPPING, IF REQUIRED.
- V. IMPLEMENTATION OF ESD PLANNING TECHNIQUES AND PRACTICES TO THE MAXIMUM EXTENT PRACTICABLE (MEP):**
THIS SUBMISSION PROPOSES SEVERAL MARYLAND STORMWATER DESIGN MANUAL, CHAPTER 5 DEVICES TO MEET AND EXCEED THE REQUIRED ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICABLE (ESD TO THE MEP).
- VI. REQUEST FOR DESIGN MANUAL WAIVER:**
NO WAIVERS ARE BEING REQUESTED AT THIS TIME.

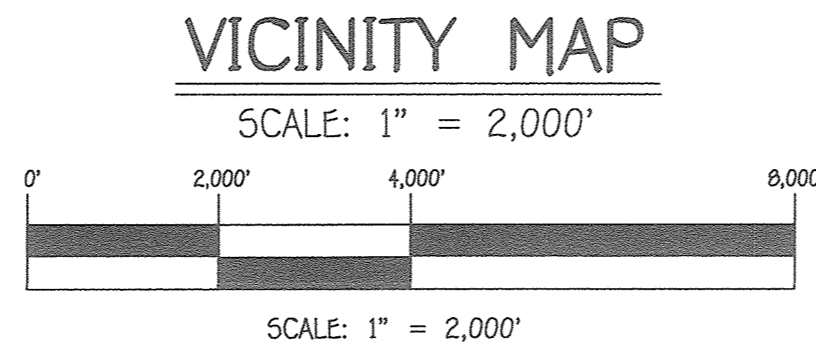
ENVIRONMENTAL CONCEPT PLAN MCWHORTER PROPERTY

PARCEL 'A'
16031 ED WARFIELD ROAD
ZONED: B-2 BUSINESS GENERAL

TAX MAP No. 13 GRID No. 23 PART OF PARCEL NO. 334



HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 131D N 591,125.324 E 1,292,599.242 ELEVATION: 533.483'
HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 39 N 592,525.730 E 1,292,640.130 ELEVATION: 545.862'
REFER TO HOWARD CO. ADC MAP 4011-J4



GENERAL NOTES

1. THE SUBJECT PROPERTY IS ZONED B-2 (PER 10/06/13 COMPREHENSIVE ZONING PLAN).
2. BOUNDARY IS TAKEN FROM PLATS #9800-9802 (WARFIELD'S GRANT, SECTION 1, AREA 1) AND FIELD VERIFIED ON BY FISHER, COLLINS & CARTER ON OR ABOUT MAY, 2019.
3. CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, ON OR ABOUT MAY, 2019.
4. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 131D AND NO. 39:
HOWARD COUNTY MONUMENT NO. 131D N 591,125.324 E 1,292,599.242 ELEV. 533.483'
HOWARD COUNTY MONUMENT NO. 39 N 592,525.730 E 1,292,640.130 ELEV. 545.862'
5. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. THIS PLAN PROPOSES THE USE OF ONE (1) M-B MICRO-BIORETENTION FACILITY AND THREE (3) M-S DRYWELLS.
6. THIS PROPERTY WILL UTILIZE PRIVATE WELL AND SEPTIC FOR THIS PROJECT.
7. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
8. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
9. THERE ARE NO WETLANDS, STREAMS OR THEIR BUFFERS LOCATED WITHIN THE BOUNDARY OF THIS SITE.
10. LANDSCAPING WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE OF THIS PROJECT.
11. FOREST CONSERVATION WILL BE ADDRESSED AT THE SITE DEVELOPMENT PLAN STAGE OF THIS PROJECT.
12. SOIL BORING INFORMATION WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE OF THIS PROJECT.
13. APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR RED-LINE REVISION PROCESSES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

SITE ANALYSIS DATA CHART

- A. TOTAL AREA OF THIS SUBMISSION = 1.99 AC.±
- B. LIMIT OF DISTURBED AREA = 1.27 AC.± (SWM BASED ON LOD)
- C. PRESENT ZONING DESIGNATION = B-2 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- D. PROPOSED USE: BUSINESS GENERAL
- E. PREVIOUS HOWARD COUNTY FILES: F-90-56
- F. TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0 AC.±
- G. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0 AC.±
- H. TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0 AC.±
- I. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC.±
- J. TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0 AC.±
- K. TOTAL AREA OF EXISTING FOREST = 0 AC.±
- L. TOTAL AREA OF FOREST TO BE RETAINED = 0 AC.±
- M. TOTAL AREA OF LOTS / BUILDABLE PARCELS = 1.99 AC.±
- N. TOTAL IMPERVIOUS AREA = 0.51 AC.± (WITHIN LOD)
- O. TOTAL AREA OF ERODIBLE SOILS = 1.07 AC.±

FISHER, COLLINS & CARTER, INC.
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APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chad Edinger / 1.24.20 DATE
Dina Mauer / 11.17.20 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT

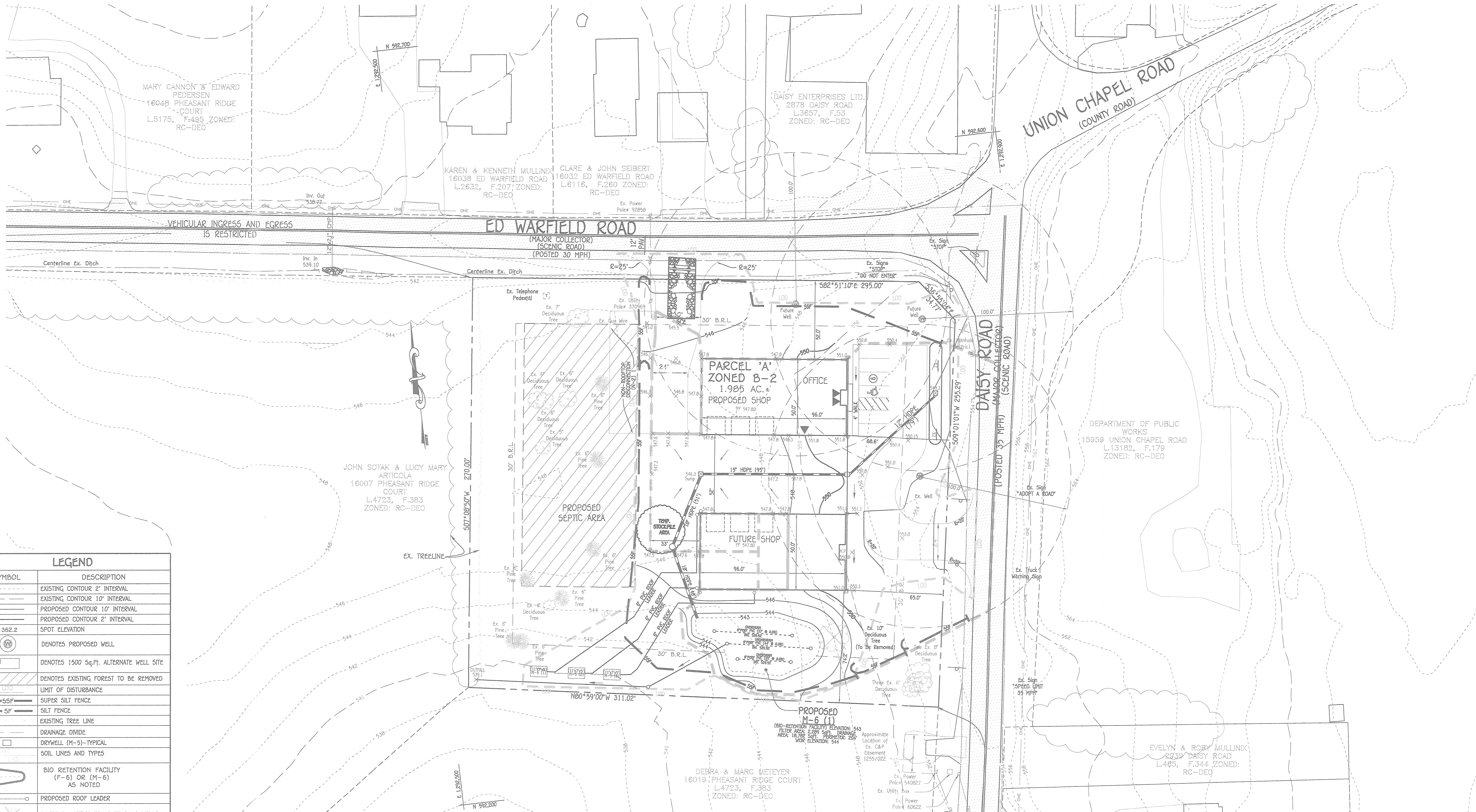


PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.
Frank Mavalansan, II / 12/21/19 DATE

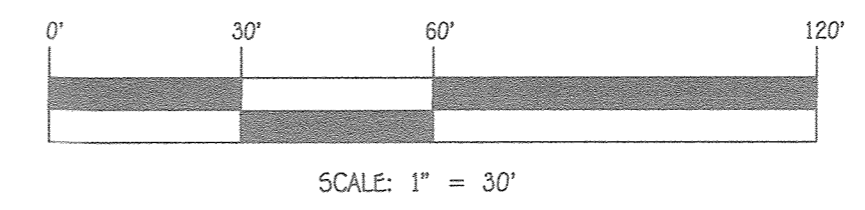
OWNER
DAISY CROSSROADS LLC
16135 ED WARFIELD ROAD
WOODBINE, MD 21797-7011

DEVELOPER
RYAN MCWHORTER
6851 REDBERRY ROAD
CLARKSVILLE, MD 21029
(410)-984-5013

TITLE SHEET
MCWHORTER PROPERTY
PARCEL 'A'
16031 ED WARFIELD ROAD
TAX MAP NO.: 13 GRID NO.: 23 PART OF PARCEL NO.: 334
ZONED B-2
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2019
SHEET 1 OF 4
ECP-19-062



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
	SPOT ELEVATION
	DENOTES PROPOSED WELL
	DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
	DENOTES EXISTING FOREST TO BE REMOVED
	LIMIT OF DISTURBANCE
	SUPER SILT FENCE
	SILT FENCE
	EXISTING TREE LINE
	DRAINAGE DVIDE
	DRYWELL (M-5)-TYPICAL
	SOIL LINES AND TYPES
	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
	PROPOSED ROOF LEADER
	DENOTES EXISTING TREES TO BE REMOVED
	DENOTES EXISTING TREES TO REMAIN
	PROPOSED SEPTIC FIELD
	EXISTING SEPTIC FIELD
	ERODIBLE SOILS
	INGRESS ENTRANCE
	EGRESS EXIT



APPROVED: DEPARTMENT OF PLANNING AND ZONING

David Clark
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 1/24/20
 DATE

John J. McNeil
 CHIEF, PLANNING AND ZONING DEPARTMENT
 1/21/20
 DATE



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Frank Mavalansky, II
 12/27/19
 DATE

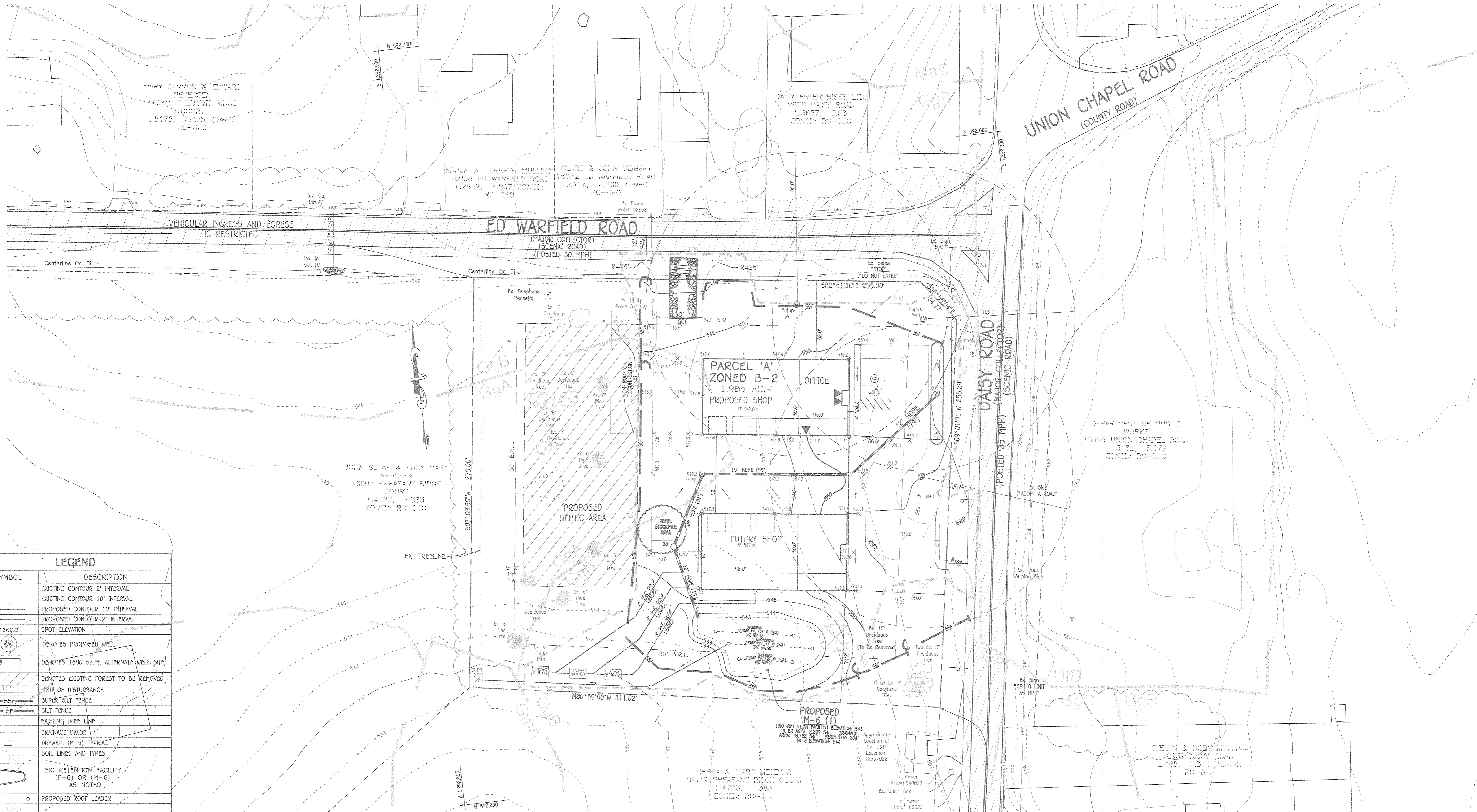
OWNER

DAISY CROSSROADS LLC
 16135 ED WARFIELD ROAD
 WOODBINE, MD 21797-7811

DEVELOPER

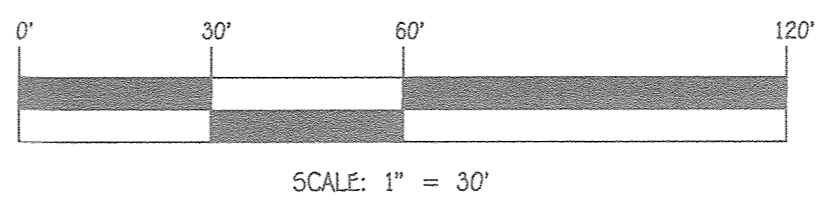
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ENVIRONMENTAL CONCEPT PLAN
MCWHORTER PROPERTY
 PARCEL 'A'
 16031 ED WARFIELD ROAD
 TAX MAP NO.: 13 GRID NO.: 23 PART OF PARCEL NO.: 334
 ZONED B-2
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2019
 SHEET 2 OF 4



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
	SPOT ELEVATION
	DENOTES PROPOSED WELL
	DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
	DENOTES EXISTING FOREST TO BE REMOVED
	LIMIT OF DISTURBANCE
	SUPER SILT FENCE
	SILT FENCE
	EXISTING TREE LINE
	DRAINAGE DIVIDE
	DRYWELL (M-5)-TYPICAL
	SOIL LINES AND TYPES
	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
	PROPOSED ROOF LEADER
	DENOTES EXISTING TREES TO BE REMOVED
	DENOTES EXISTING TREES TO REMAIN
	PROPOSED SEPTIC FIELD
	EXISTING SEPTIC FIELD
	ERODIBLE SOILS
	INGRESS ENTRANCE
	EGRESS EXIT

SOILS LEGEND			
SOIL	NAME	CLASS	K _v
GgA	Glenelig loam, 0 to 3 percent slopes	B	0.37
GgB	Glenelig loam, 3 to 8 percent slopes	B	0.37
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.49



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12178, EXPIRATION DATE: 7/14/21.
 Frank Mavalansan, II 12/27/19
 DATE

OWNER
 DAISY CROSSROADS LLC
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DEVELOPER
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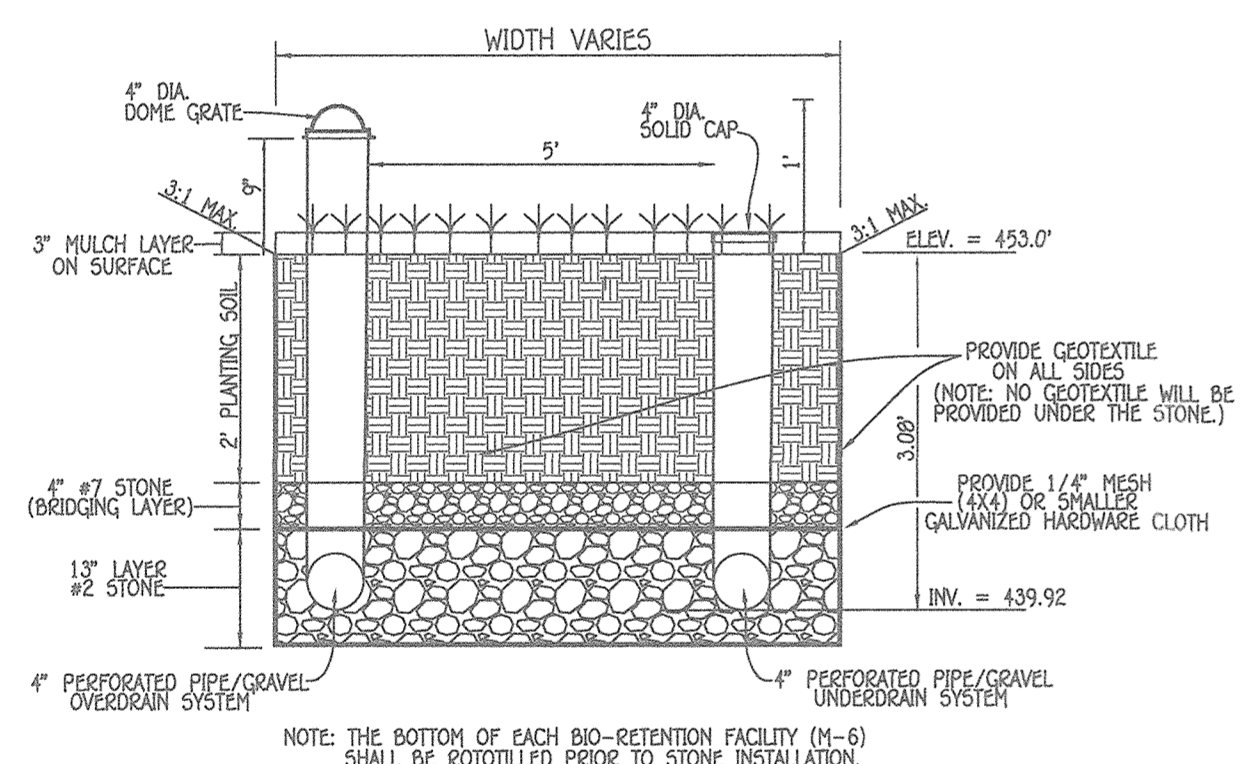
PRELIMINARY SEDIMENT EROSION CONTROL PLAN
MCWHORTER PROPERTY
 PARCEL 'A'
 16031 ED WARFIELD ROAD
 TAX MAP NO.: 13 GRID NO.: 23 PART OF PARCEL NO.: 334
 ZONED B-2
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2019
 SHEET 3 OF 4 ECP-19-062

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
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APPROVED: DEPARTMENT OF PLANNING AND ZONING

 David Mann 1/24/20
 CHIEF, DIVISION OF LAND DEVELOPMENT 19
 DATE
 1/8/20
 DATE

STORMWATER MANAGEMENT PRACTICES									
AREA ID	LOCATION	DRAINAGE AREA	% IMPERVIOUS	ESDV REQUIRED Cuft.	ESDV PROVIDED Cuft.	DRY WELLS M-5 (Y/N)	MICRO-BIORETENTION M-6 (Y/N)	NON-ROOFTOP DISCONNECT M-6 (Y/N)	PERMEABLE A-2 (Y/N)
M-5(1)	PARCEL 'A'	1,000	100%	143	194	Y			
M-5(2)	PARCEL 'A'	1,000	100%	143	194	Y			
M-5(3)	PARCEL 'A'	1,000	100%	143	194	Y			
M-6(1)	PARCEL 'A'	39,953	58%	3,412	3,460		Y		
N-2(1)	PARCEL 'A'	2,342	67%	1,865	2,306			Y	



TYPICAL SECTION MICRO-BIORETENTION FACILITY (M-6)
NO NOT SCALE

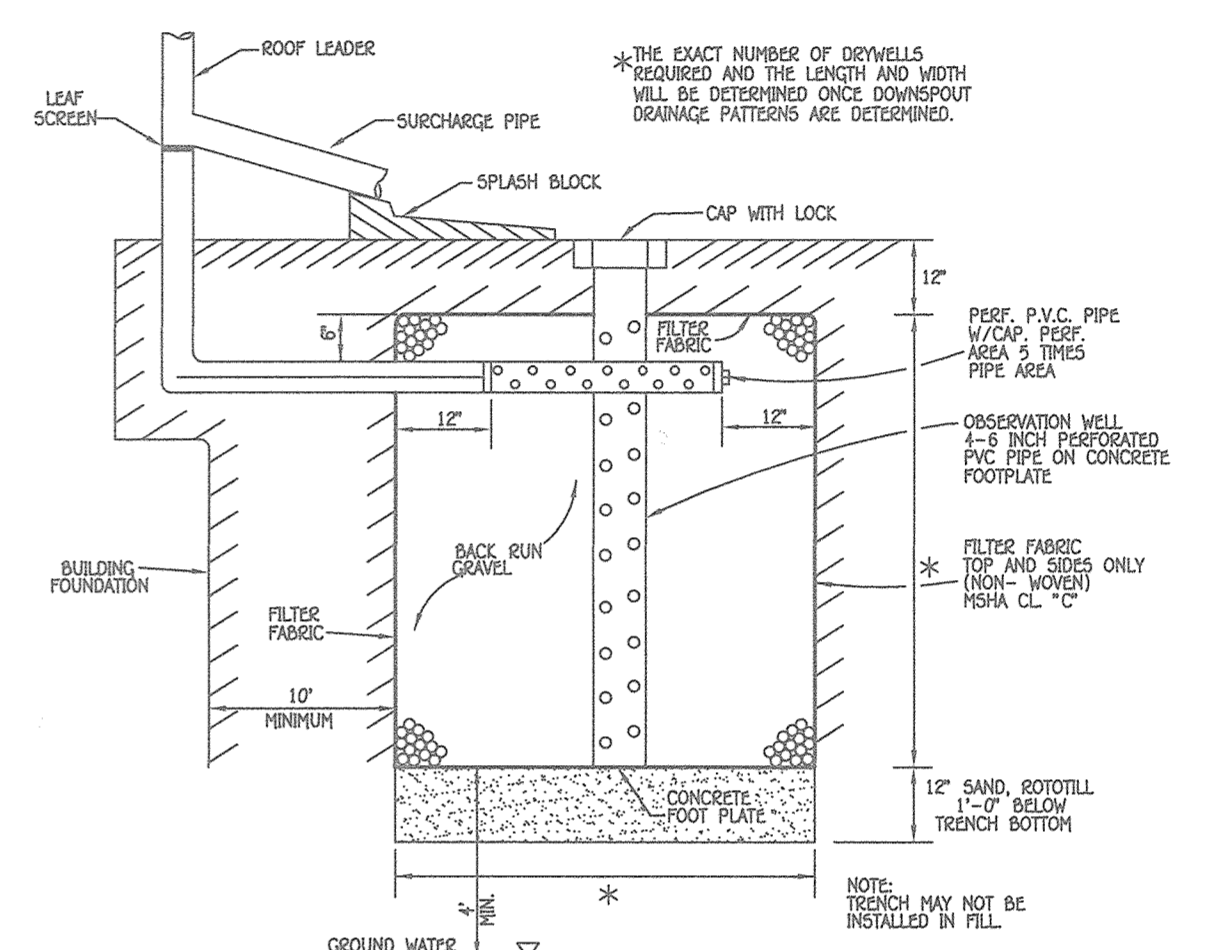
OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- 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 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 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.

STORMWATER MANAGEMENT PRACTICES BY LOT		
AREA ID	MICRO-BIO (M-6) NUMBER	REMARKS
PARCEL A	1	COMMERCIAL BUILDING, PARKING AND PART OF SHOP DRAINS TO BIO

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 (2" to 4" deep)	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%
Organic Content	Min. 10% by dry weight (ASTM D 893)		
Mulch	shredded hardwood		aged 6 months, minimum
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		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 29 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center. 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA M&E No. 3; f = 3500 psi @ 28 days, normal weight; 6% entrained, reinforcing to meet ASTM-615-60	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 308.2R99; vertical loading 0.1-10 or H-20; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
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 chlorinated or diatomite sand substitutions are acceptable. No "rock dust" can be used for sand.



DRY WELL DETAIL (M-5)
NOT TO SCALE


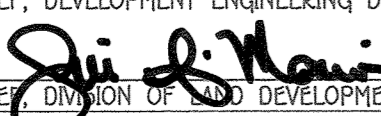
OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- 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 RATE 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.


DRY WELL CHART						
DRYWELL No.	AREA OF ROOF PER DRYWELL	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W D
1	1000 SQ.FT.	127 CU.FT.	154 CU.FT.	77 SQ.FT.	11'	7' x 5'
2	1000 SQ.FT.	127 CU.FT.	154 CU.FT.	77 SQ.FT.	11'	7' x 5'
3	1000 SQ.FT.	127 CU.FT.	154 CU.FT.	77 SQ.FT.	11'	7' x 5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

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(410) 461-2095

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 1/24/20

 CHIEF, DIVISION OF PLANNING AND ZONING
 DATE: 1/18/20



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

 FRANK MANULANSAN, II
 DATE: 1/22/20

OWNER
 DAISY CROSSROADS LLC
 16135 ED WARFIELD ROAD
 WOODBINE, MD 21797-7811

DEVELOPER
 SWAN MCWHORTER
 6951 REDBERRY ROAD
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 (410)-984-5813

SWM NOTES AND DETAILS
 MCWHORTER PROPERTY
 PARCEL 'A'
 16031 ED WARFIELD ROAD
 TAX MAP NO.: 13 GRID NO.: 23 PART OF PARCEL NO.: 334
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 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2019
 SHEET 4 OF 4 ECP-19-062