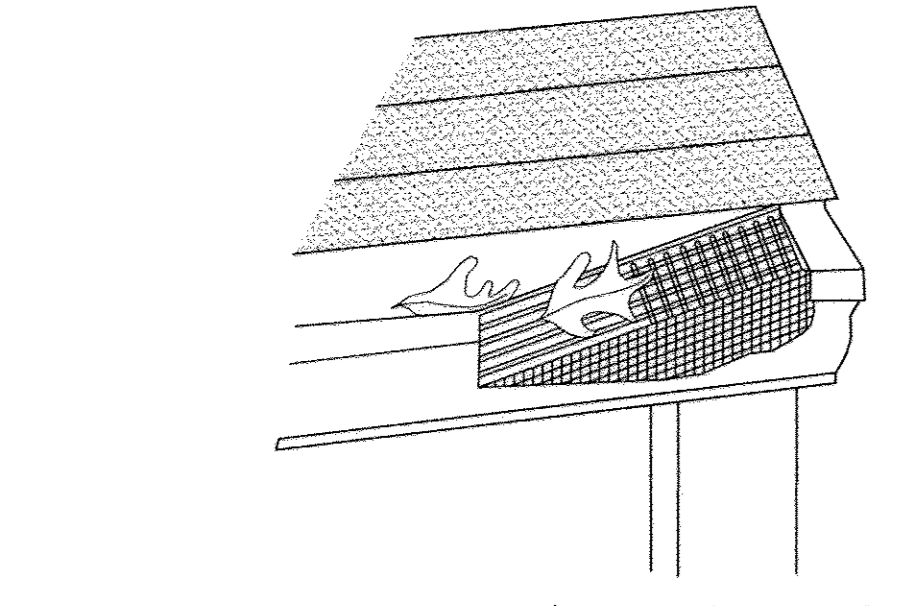
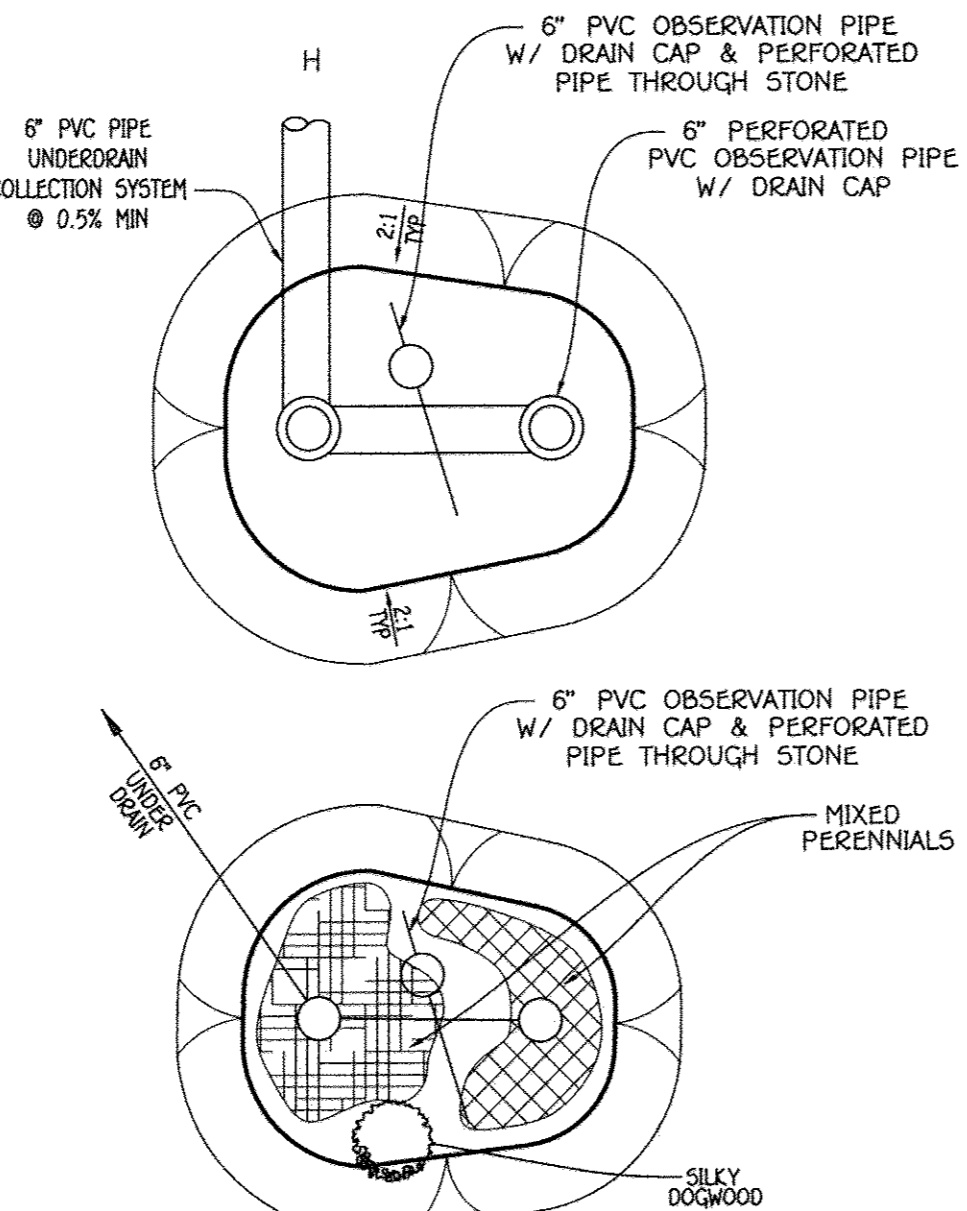
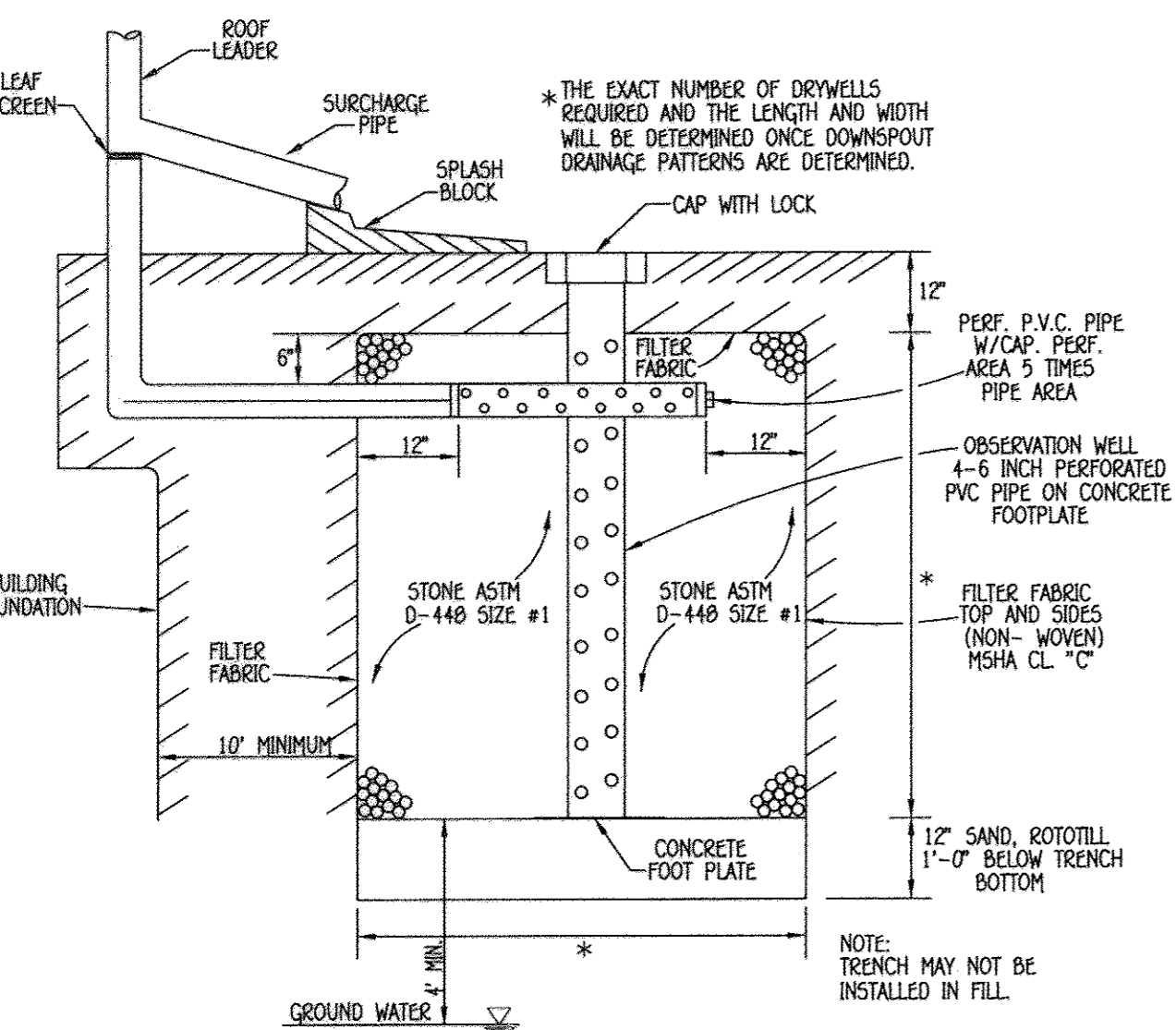


SHEET INDEX	
SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDV REQUIRED CU.FT.	ESDV PROVIDED CU.FT.	REMARKS
SITE	1,154	1,210	DRYWELLS (M-5) & MICRO-BIORETENTION (M-6)
TOTAL	1,154	1,210	

GROSS AREA = 1.76 ACRES
 LOD = 0.93 ACRES (SITE)
 RCN = 60.0
 TACQET Pe = 1.33"



STORMWATER MANAGEMENT NOTES

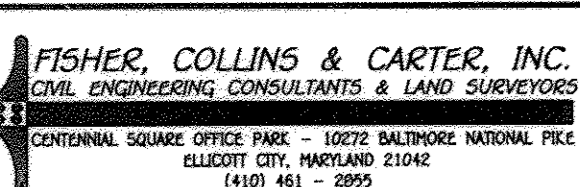
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS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

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 ID.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W	D
LOT 2 (RR LT)	473 SQ. FT.	43 C.F.	162 C.F.	100%+	9'	9'	5'
LOT 2 (RR RT)	505 SQ. FT.	53 C.F.	162 C.F.	100%+	9'	9'	5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.



ENVIRONMENTAL CONCEPT PLAN

PINE VALLEY SECTION ONE

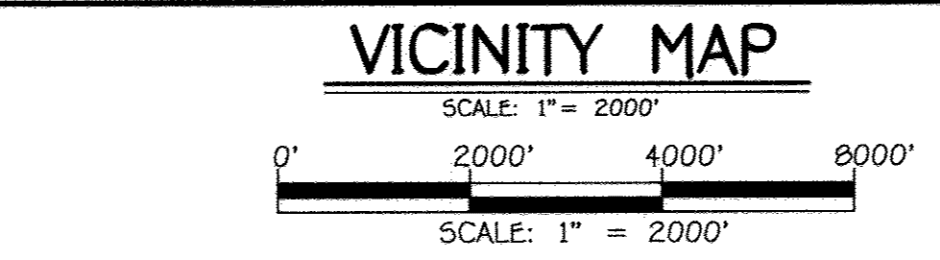
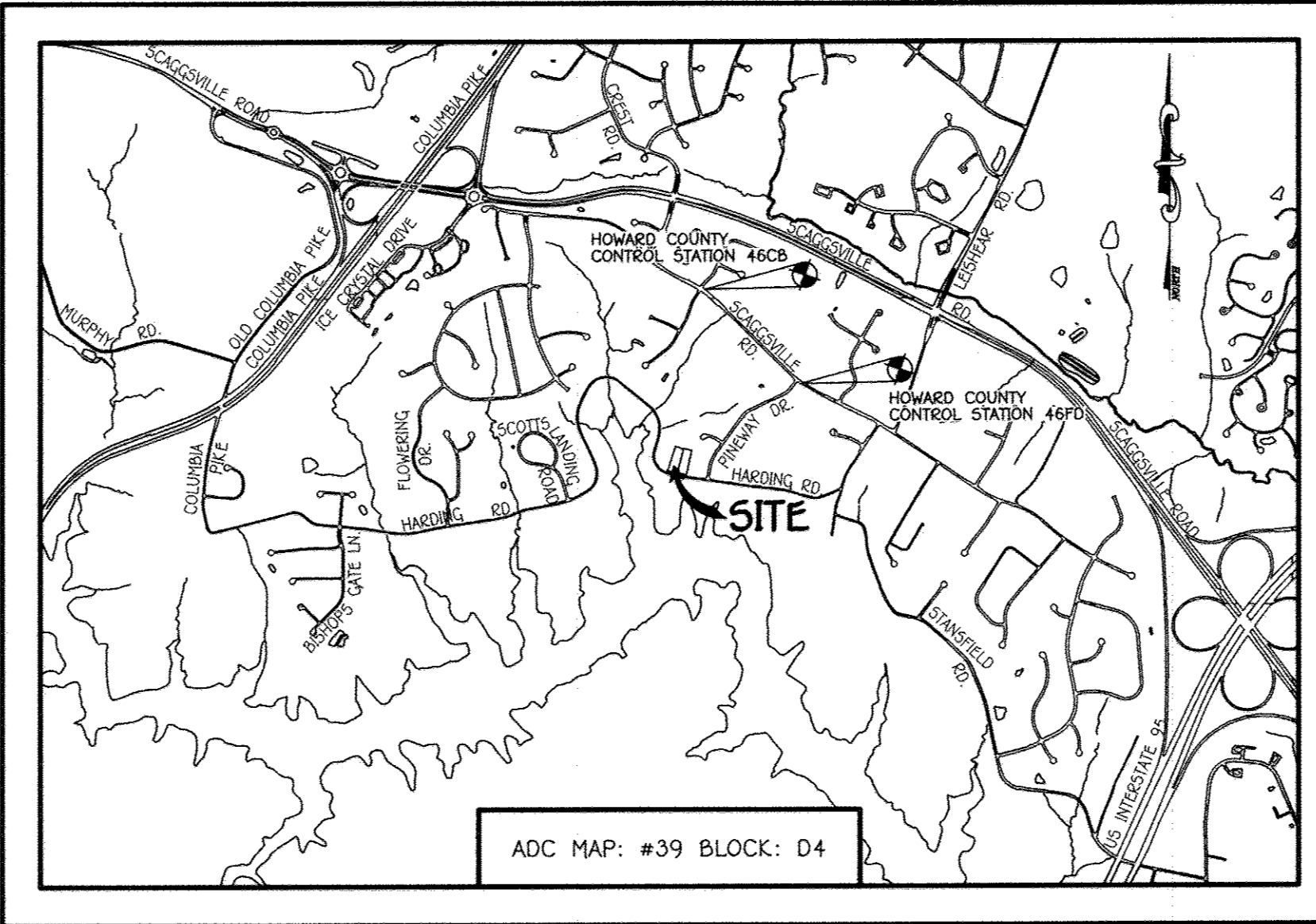
LOTS 1 AND 2

TAX MAP No.: 46, GRID No: 11, PARCEL No.: 242
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

LEGEND	
SYMBOL	DESCRIPTION
--- 342 ---	EXISTING CONTOUR 2' INTERVAL
--- 340 ---	EXISTING CONTOUR 10' INTERVAL
X	EXISTING FENCE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	STEEP SLOPES 15%-24.9%
---	STEEP SLOPES 25% OR GREATER
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
x 329.14	SPOT ELEVATION
---	PROPOSED PAVING
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE
---	LIMIT OF DISTURBANCE
---	SUPER SILT FENCE
---	SILT FENCE
---	SCE
---	STABILIZED CONSTRUCTION ENTRANCE
---	PERMANENT SOIL STABILIZATION MATTING
---	DRAINAGE AREA DIVIDE
---	EARTH DIKE
---	TEMPORARY CHECK DAM

GENERAL NOTES

- 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.
- BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED MARCH 2017. TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. IN MARCH 2017 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 5' CONTOUR INTERVAL. INTERPOLATED FOR 2' CONTOUR INTERVAL.
- COORDINATES ARE BASED ON NAD 83 MARYLAND COORDINATES SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
 46FD N 535,892.901 E 1,345,540.050 ELEV. 379.934
 46CB N 537,123.037 E 1,344,291.422 ELEV. 394.632
- PREVIOUS DPE FILE NUMBERS: 24-4999-D.
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED. TWO DRYWELLS AND TWO MICRO-BIORETENTIONS ARE PROPOSED.
- THIS PROPERTY IS LOCATED INSIDE THE METROPOLITAN DISTRICT. LOTS TO BE SERVED BY PUBLIC WATER AND SEWER.
- 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).
- STEEP SLOPES EXIST ON-SITE.
- WETLANDS, STREAMS) AND/OR THEIR BUFFERS, AND FLOODPLAIN DO NOT EXIST ON-SITE. SEE ENVIRONMENTAL FINDINGS LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED APRIL 2017.
- LANDSCAPING WILL NOT BE REQUIRED FOR THESE EXISTING LOTS SINCE THEY ARE EXISTING.
- LOT 1 IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS SINCE IT IS LESS THAN 40,000 SQ.FT. LOT 2 WILL BE SUBJECT TO A DECLARATION OF INTENT (DOI) FOR CLEARING LESS THAN 20,000 SQ.FT. OF FOREST. DOI WILL BE SUBMITTED WITH SDP.
- SOIL BORINGS WILL BE REQUIRED FOR THIS PROJECT SINCE DRYWELLS AND MICRO-BIORETENTIONS ARE BEING UTILIZED.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT SUBDIVISION, 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 SOIL CONSERVATION DISTRICT DOES NOT PROVIDE APPROVAL OF THE SHOWN SEDIMENT CONTROLS.
- NO STRUCTURES EXIST ON THE LOTS.
- SOILS SHOWN HEREON ARE BASED ON THE NRCS WEBSOIL SURVEY AND HOWARD COUNTY SOIL MAP #23.
- THERE ARE NO CEMETERIES OR HISTORICAL FEATURES ON SITE.

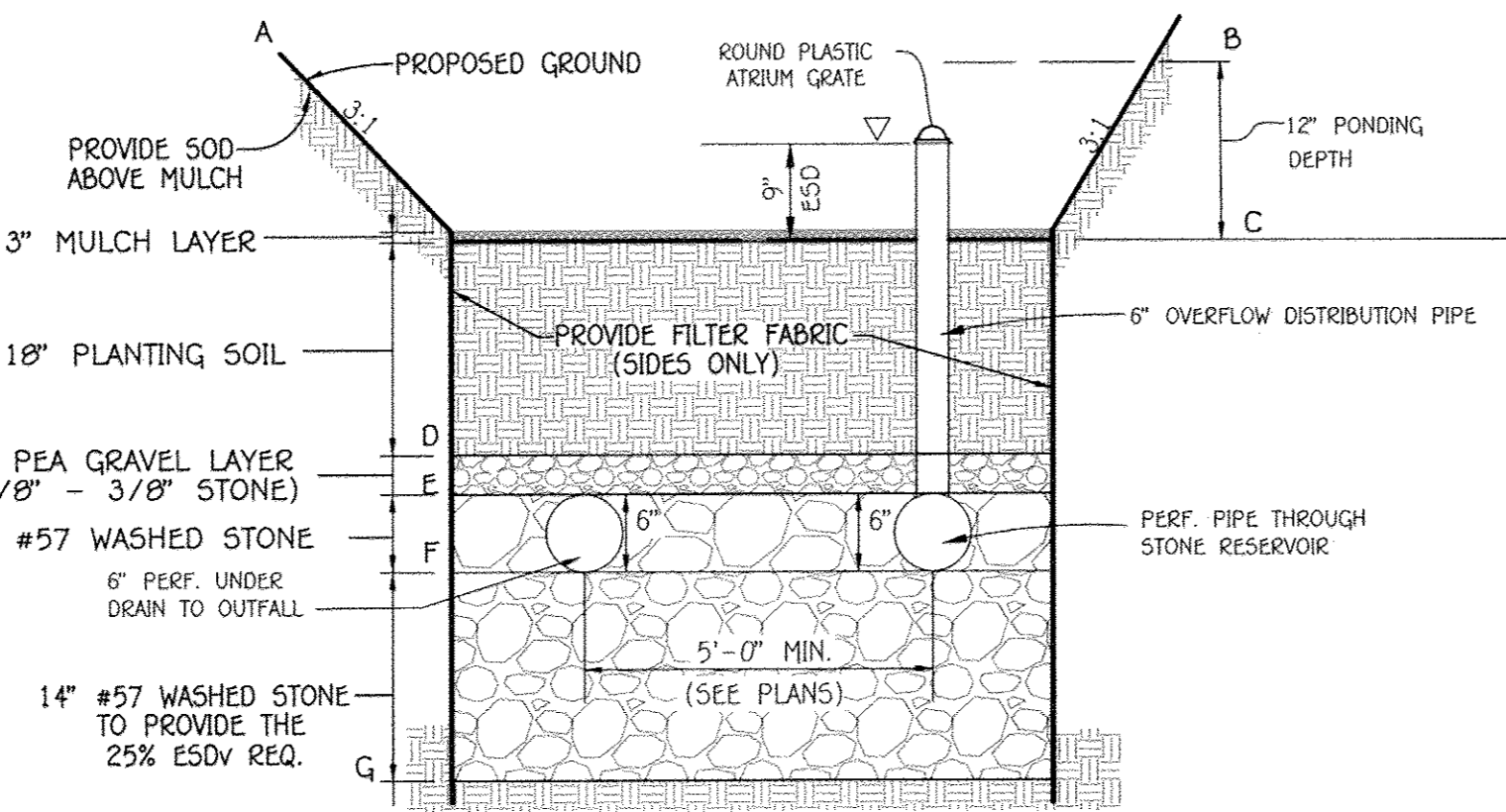


OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (M-6)

- 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 2, table A.4.1 and 2.
- The owner shall perform a plant inspection in the spring and in the fall 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 like shrubs and replace all deficient shrubs and trees.
- 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.

SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION = 1.76 AC.
- LIMIT OF DISTURBED AREA = 0.93 AC* (SITE)
- PRESENT ZONING DESIGNATION = R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- PROPOSED USE: RESIDENTIAL
- PREVIOUS HOWARD COUNTY FILES: 24-4999-D
- F. TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.00 AC
- G. TOTAL AREA OF STEEP SLOPES = 0.31 AC* (MODERATED STEEP SLOPES: 15%-24.9% = 0.30 AC*) (STEEP SLOPES: 25% OR GREATER = 0.01 AC*)
- H. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC
- I. TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0 AC
- J. TOTAL AREA OF FOREST TO BE RETAINED = 0 AC (LOT 1 IS EXEMPT SINCE IT IS LESS THAN 40,000 SQ.FT. AND A DECLARATION OF INTENT FOR CLEARING OF LESS THAN 20,000 SQ.FT. OF FOREST WILL BE UTILIZED FOR LOT 2)
- K. TOTAL GREEN OPEN AREA = 1.55 AC*
- L. TOTAL IMPERVIOUS AREA = 0.21 AC*
- N. TOTAL AREA OF ERODIBLE SOILS = 0.31 AC.*

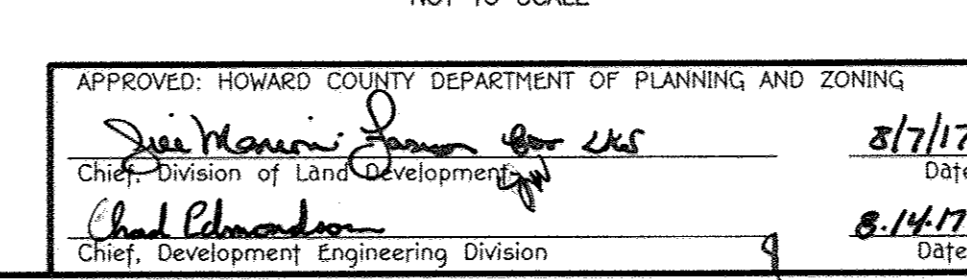


MICRO BIO-RETENTION SECTION WITH 6" OVERFLOW DISTRIBUTION PIPE
 NO SCALE

MICRO-BIORETENTIONS								
MICRO-BIO FILTER	A	B	C	D	E	F	G	H
#1	319.00	319.00	318.00	316.50	316.25	315.75	314.50	315.47
#2	319.00	319.00	318.00	316.50	316.25	315.75	314.50	314.70

MICRO-BIORETENTION PLANT MATERIAL			
MICRO-BIO 1 QUANTITY	MICRO-BIO 2 QUANTITY	NAME	MAXIMUM SPACING (FT.)
30	15	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION
 NOT TO SCALE



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Date: 8/17/17
 Date: 8/14/17
 Chief, Division of Land Development
 Chief, Planning Engineering Division

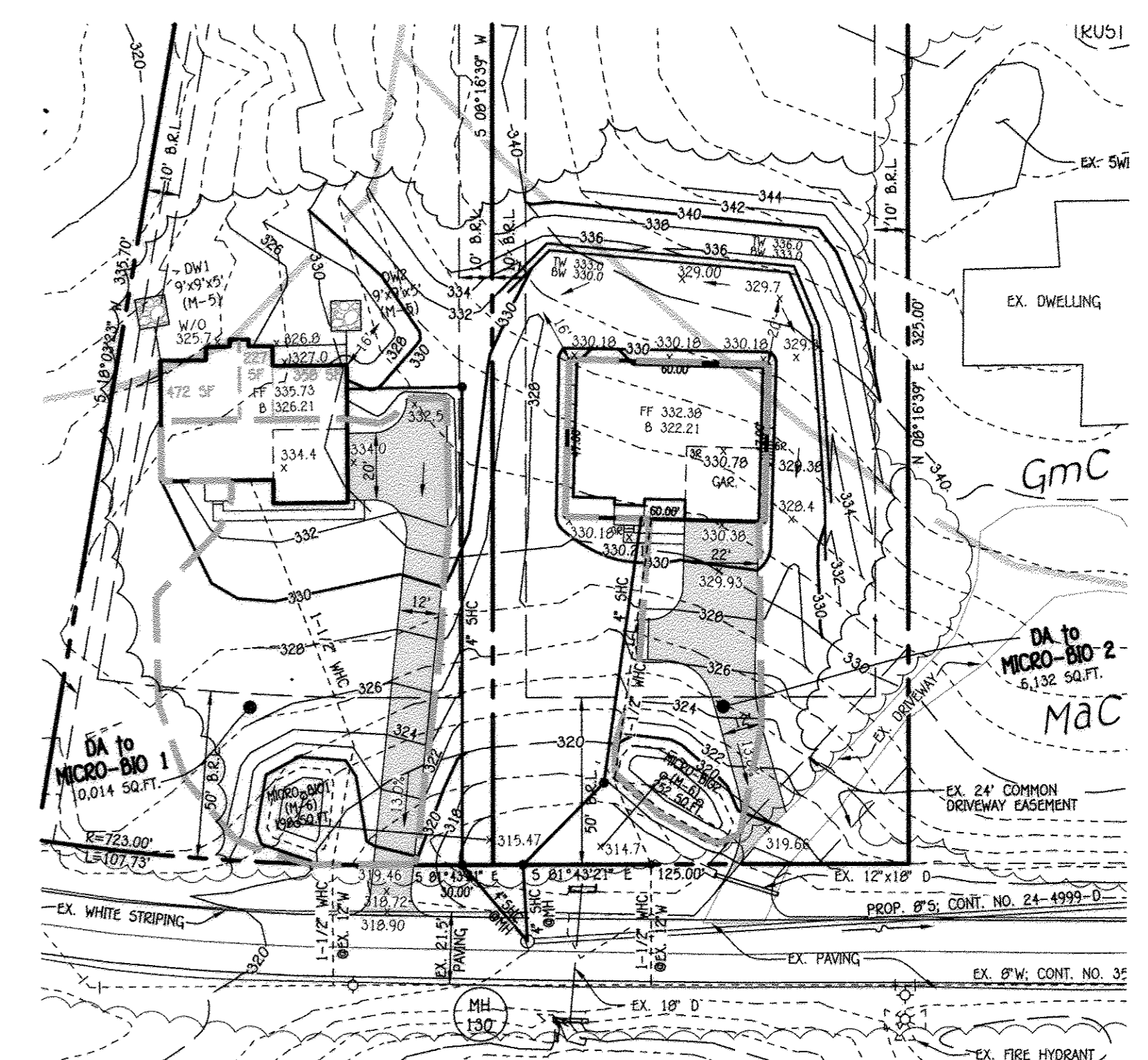
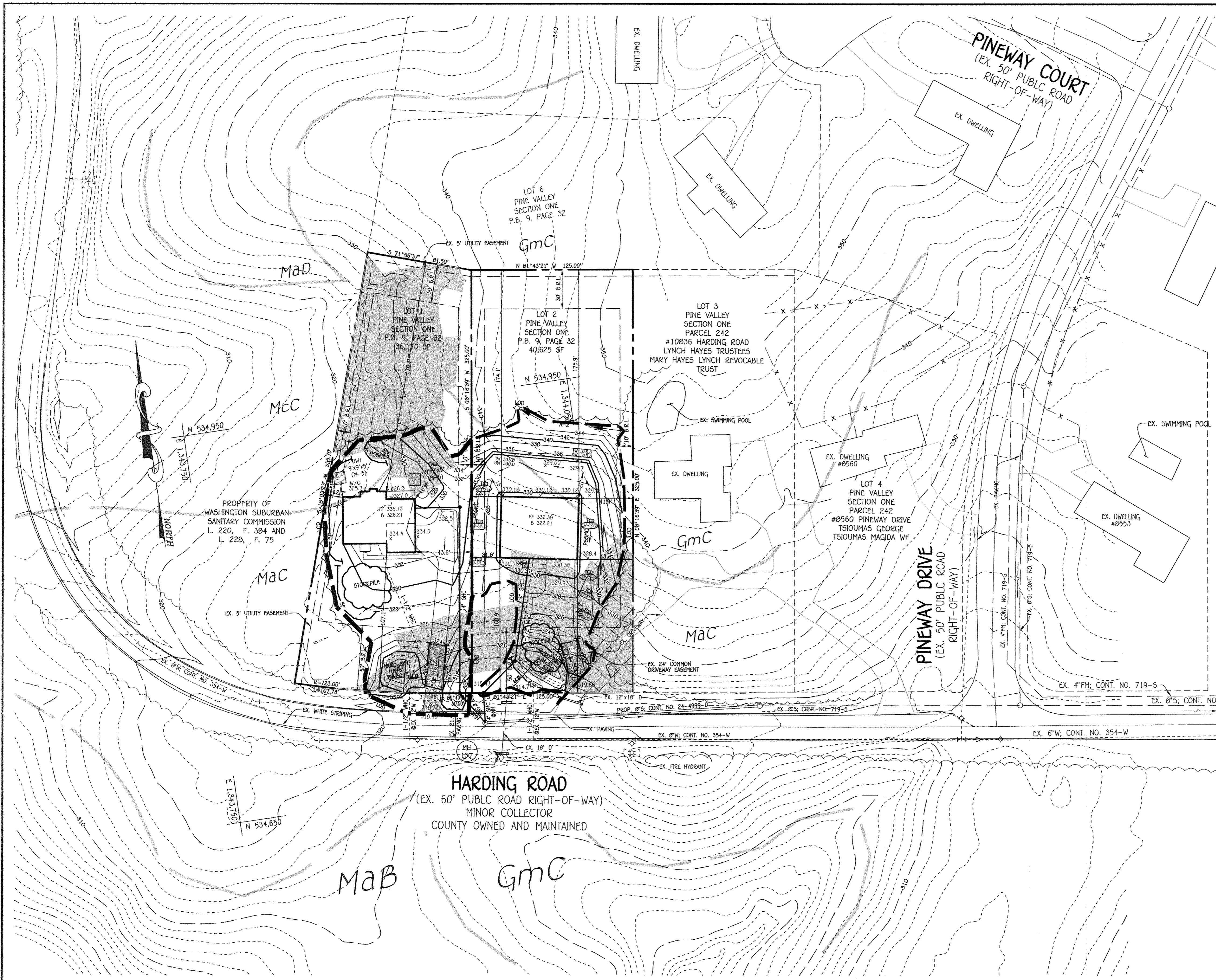
"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: JANUARY 12, 2018."
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 STEPHANIE J. TUTE, R.L.E., P.E., LEED AP BC&D

Address Chart	
Lot Number	Street Address
1	10844 HARDING ROAD
2	10840 HARDING ROAD

TITLE SHEET			
PINE VALLEY SECTION ONE LOTS 1 AND 2			
ZONED: R-20		PARCEL No.: 242	
TAX MAP No.: 46		GRID No.: 11	
SIXTH ELECTION DISTRICT		HOWARD COUNTY, MARYLAND	
SCALE: AS SHOWN		DATE: JULY, 2017	
SHEET 1 OF 2		ECP-17-051	

OWNER
 THOMAS LYNCH, TRUSTEE
 MARY HAYES LYNCH REVOCABLE TRUST
 8420 ICE CRYSTAL DRIVE
 LAUREL, MARYLAND 20723
 c/o JAMES GREENFIELD (443-324-4732)

DEVELOPER
 B. JAMES GREENFIELD, MANAGING MEMBER
 IN CAPACITY AS TRUSTEE
 THE COLUMBIA BUILDER GROUP, LLC
 6420 AUTUMN SKY WAY
 COLUMBIA, MARYLAND 21044
 443-324-4732



LEGEND	
SYMBOL	DESCRIPTION
---342---	EXISTING CONTOUR 2' INTERVAL
---340---	EXISTING CONTOUR 10' INTERVAL
X	EXISTING FENCE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	STEEP SLOPES 15%-24.9%
---	STEEP SLOPES 25% OR GREATER
---342---	PROPOSED CONTOUR 2' INTERVAL
---340---	PROPOSED CONTOUR 10' INTERVAL
x 329.14	SPOT ELEVATION
---	PROPOSED PAVING
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE
---	B.R.L.
---	LIMIT OF DISTURBANCE
---	SSP SUPER SILT FENCE
---	SF SILT FENCE
---	SCE STABILIZED CONSTRUCTION ENTRANCE
---	PERMANENT SOIL STABILIZATION MATTING
---	DRAINAGE AREA DIVIDE
---	EARTH DIKE
---	A-2
---	TEMPORARY CHECK DAM

HARDING ROAD
(EX. 60' PUBLIC ROAD RIGHT-OF-WAY)
MINOR COLLECTOR
COUNTY OWNED AND MAINTAINED

HARDING ROAD
(EX. 60' PUBLIC ROAD RIGHT-OF-WAY)
MINOR COLLECTOR
COUNTY OWNED AND MAINTAINED

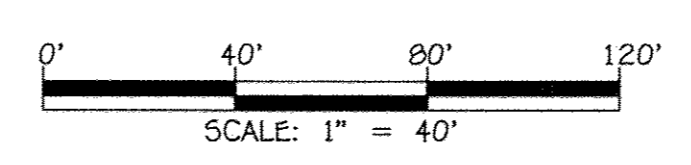
DRAINAGE AREA - DRYWELLS & MICRO-BIOS
SCALE: 1" = 40'

NOTE: LIMIT OF TREE CLEARING ON LOT 2 IS 19,570 SQ.FT.

GRADING & SEDIMENT CONTROL
SCALE: 1" = 40'

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GmC	Glenville silt loam, 0 to 15 percent slopes, HIGHLY ERODIBLE SOIL	C	0.43
MaC	Manor loam, 0 to 15 percent slopes	B	0.24
McC	Manor loam, 0 to 15 percent slopes, very rocky	B	0.24

Soil Map Number: 23



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Stephanie J. Tuite Date: 8/17/17
Chief, Development Engineering Division

Stephanie J. Tuite Date: 8/17/17
Professional Engineer

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY 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. 38306, EXPIRATION DATE: JANUARY 12, 2018."

STATE OF MARYLAND
STEPHANIE J. TUITE
No. 38306
PROFESSIONAL ENGINEER

Address Chart	
Lot Number	Street Address
1	10844 HARDING ROAD
2	10840 HARDING ROAD

PROJECT	SECTION/AREA	PARCEL
PINE VALLEY	SECTION ONE	242

PLAT NOS.	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
PB. 9, F. 32	11	R-20	46	SIXTH	606805

ENVIRONMENTAL CONCEPT PLAN

PINE VALLEY SECTION ONE LOTS 1 AND 2

ZONED: R-20
TAX MAP No.: 46 GRID No.: 11 PARCEL No.: 242
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY, 2017

SHEET 2 OF 2

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
10712 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 431-2000