

**GENERAL NOTES**

- SUBJECT PROPERTY ZONED R-20 IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. PER SECTION 108.0 G.3 THIS PROJECT WILL BE DEVELOPED UTILIZING THE R-ED REGULATIONS.
- PROPERTY ADDRESS: 8600 DOVES FLY WAY, LAUREL, MD 20723
- GROSS AREA OF PROPERTY = 8.2834 AC ±
- NET AREA OF PROJECT = 8.2834 AC ±
- NUMBER OF PROPOSED LOTS = 16
- AREA OF PROPOSED BULDBLE LOTS = 2.9866 AC ±
- NUMBER OF PROPOSED OPEN SPACE LOTS = 3
- AREA OF PROPOSED OPEN SPACE LOTS = 4.2921 AC ±
- NUMBER OF PROPOSED NON-BULDBLE BULK PARCELS = 1
- AREA OF PROPOSED NON-BULDBLE BULK PARCELS = 0.1472 AC ±
- AREA OF PROPOSED ROAD RIGHT-OF-WAY = 0.8546 AC ±
- RECREATIONAL OPEN SPACE PROVIDED AS PER 16.121 (a)(4)(v): 16x300 SF/UNIT (R-ED) = 4,880 SF.
- RECREATIONAL OPEN SPACE PROVIDED = 4,880 SF.
- OPEN SPACE PROVIDED: 8.2834 x 50% = 4.1417 AC ±
- TOTAL OPEN SPACE PROVIDED: 4.2921 AC ±
- REFERENCE: LIBER 2004, FOLIO 666
- PREVIOUS HOWARD COUNTY FILE NUMBERS: #142-W, #529-S, #850-D, ECP-14-064, WP-15-029, PB-410, 24-4874-D, SP-15-004, AA-15-002
- PUBLIC WATER AND SEWER WILL BE USED WITHIN THIS SITE.
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ADCOCK & ASSOCIATES, LLC IN APRIL 2014.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PREPARED BY ADCOCK & ASSOCIATES, LLC IN APRIL 2014 AND UPDATED AUGUST 2016.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NUMBERS 46FC AND 47DB WERE USED FOR THIS PROJECT.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE.
- A WETLAND INVESTIGATION FOR THIS PROPERTY WAS COMPLETED BY ECO-SERVICE PROFESSIONALS, INC DATED JANUARY 13, 2014. THERE ARE NO WETLANDS, STREAMS OR THEIR BUFFERS LOCATED ON THIS SITE.
- THERE ARE NO FLOOD PLAINS, HISTORIC RESOURCES, CEMETERIES OR CONTIGUOUS SLOPES OF 25% OR GREATER WITHIN THE PROJECT BOUNDARY.
- A NOISE STUDY HAS BEEN PREPARED BY MARS GROUP INC IN NOVEMBER 2013 AND APPROVED AS PART OF THE PRELIMINARY EQUIVALENT SKETCH PLAN, LOTS 1, 2, 3, 7, AND 17 FALL WITHIN THE 65 DBA THRESHOLD. AN ANALYSIS OF BUILDING MATERIALS TO BE USED TO MITIGATE INDOOR-TO-OUTDOOR STC BUILDING ELEMENT RATING WILL BE IDENTIFIED AND VERIFIED IN A POST-CONSTRUCTION SOUND INSULATION TEST REPORT.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. 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. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- GEOTECHNICAL INFORMATION HAS BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE AND FIELD INVESTIGATIONS. A GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES WAS SUBMITTED UNDER ECP-14-064 AND ADDITIONAL SOIL INFORMATION CAN BE FOUND WITHIN THIS PROJECT'S STORMWATER MANAGEMENT REPORT.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
- THIS PROJECT IS REQUIRED TO PROVIDE MODERATE INCOME HOUSING UNITS (MIHU) PER SECTION 13.402 OF THE HOWARD COUNTY CODE. PLEASE NOTE THAT ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT.
- THE FOREST CONSERVATION ACT REQUIREMENTS FOR THIS PROJECT WILL BE MET THROUGH THE 1.74 ACRES OF RETENTION AND 0.44 ACRES OF PLANTING THIS PLANTING WILL BE PERFORMED ON SITE AND A SURETY OF \$9,583.00 (\$0.50/SQ.FT.) IS REQUIRED FOR THE ON SITE REFORESTATION. NO SURETY IS REQUIRED FOR THE FOREST RETENTION AREA.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 04 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$3,500 FOR THE REQUIRED LANDSCAPING (29 SHADE TREES AND 1 EVERGREEN).
- ALL SWALES TO HAVE STABILIZATION MITTING.
- THIS PROJECT IS IN CONFORMANCE WITH THE CURRENT HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- PER SECTION 108.0 G.2 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS THIS PROJECT IS ABLE TO BE DEVELOPED AS A RECEIVING PARCEL UNDER THE NEIGHBORHOOD PRESERVATION DENSITY EXCHANGE OPTION AT A BONUS OF UP TO 10% MORE DWELLING UNITS THAN WOULD BE ACHIEVABLE BASED ON NET DENSITY IN THE R-ED DISTRICT.
  - BASE DENSITY: 8.28 ACRES ± = 16 LOTS
  - BONUS DENSITY: 16 LOTS x 10% = 1 LOT
  - TOTAL DENSITY: 16 LOTS + 1 LOT = 17 LOTS
- ONE DENSITY UNIT WILL BE REPORTED FROM BELMONT MANOR.
- COMMUNITY INPUT MEETINGS HAVE BEEN HELD ON APRIL 10, 2014 AND AUGUST 26, 2014.
- EXISTING WELLS ON SITE TO BE PROPERLY ABANDONED AS PER HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS.
- A TRAFFIC STUDY WAS PREPARED BY MARS GROUP IN APRIL 2014.
- THE ADMINISTRATIVE ADJUSTMENT PETITION AA-15-002 TO REDUCE THE REQUIRED SETBACK FROM THE PROPERTY LINE ON THE SOUTHERN SIDE OF THE PARCEL FROM 75 FEET TO 60 FEET TO PRESERVE FORESTED AND OPEN SPACE AREAS WAS GRANTED ON APRIL 20, 2015, SUBJECT TO THE FOLLOWING CONDITIONS:
  - THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND COUNTY LAWS AND REGULATIONS.
  - THE GRANTED ADMINISTRATIVE ADJUSTMENT SHALL APPLY SOLELY TO THE SINGLE FAMILY DETACHED DWELLINGS SHOWN ON PROPOSED LOTS 5, 11, AND 12, AS DEPICTED ON THE ADMINISTRATIVE ADJUSTMENT PLAN SUBMITTED BY THE PETITIONER AND NOT TO ANY OTHER STRUCTURE, ADDITION, BUILDING OR USE.
  - THIS DECISION AND ORDER SHALL BE MAINTAINED IN THE OWNERS PROPERTY RECORDS AND SHALL BE TRANSFERRED TO ANY SUCCEEDING OWNER OF THE PROPERTY.
- PER SECTION 108.0 G.3 OF THE HOWARD COUNTY ZONING REGULATIONS, THIS PROJECT IS DEVELOPED PURSUANT TO THE R-ED ZONING REQUIREMENTS. THIS PLAN WAS PRESENTED TO THE HOWARD COUNTY PLANNING BOARD AS PS CASE #410 AND RECEIVED APPROVAL APRIL 16, 2015, SUBJECT TO THE FOLLOWING CONDITIONS:
  - ALL REMAINING DRAFTING COMMENTS IN PROJECTDOX MARKUPS ARE ADDRESSED.
  - IF APPROVED, THAT THE APPLICANT SHALL UTILIZE THE SETBACK REDUCTION FROM 75 TO 60' ON THE SOUTHWEST SIDE OF THE PROPERTY AS PROPOSED IN AA-15-002 TO MAXIMIZE THE AMOUNT OF EXISTING TREES TO BE RETAINED ON THE NORTHEAST SIDE OF THE PROPERTY.
  - THE APPLICANT SHALL INCORPORATE A MORE AGGRESSIVE PLAN TO ADDRESS RUN-OFF AND SEDIMENT EROSION CONTROL DURING CONSTRUCTION.
  - THE APPLICANT SHOULD WORK WITH THE DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF PUBLIC WORKS TO DESIGN STORMWATER MANAGEMENT FOR HIGHER INTENSITY STORM CLASSIFICATION.
- ON APRIL 16, 2015 A RECONSIDERATION REQUEST OF WP-15-029 TO WAIVE SECTION 16.1205(a)(7) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WHICH OUTLINES THE FOREST RETENTION PRIORITIES WHEN ADHERING TO THE FOREST CONSERVATION ACT, ALLOWING REMOVAL OF UP TO TWO (2) SPECIMEN TREES OR TREES THIRTY (30) INCHES IN DIAMETER OR LARGER, WHICH IS AN ON-SITE FOREST RETENTION PRIORITY. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
  - REMOVAL OF SPECIMEN TREE ST#7 WILL REQUIRE MITIGATION WITH THE PLANTING OF TWO (2) NEW NATIVE SHADE TREES, PREFERABLY OF THE SAME SPECIES (QUERCUS VELUTINA OR SIMILAR). SURETY OF THESE SHADE TREES SHALL BE INCORPORATED INTO THE LANDSCAPE SURETY AS PART OF THE FINAL PLAN.
  - IF AA-15-002 IS APPROVED, THE APPLICANT SHALL MAKE EVERY EFFORT TO PRESERVE ST#9. THE DEVELOPER IS FURTHER ENCOURAGED TO INVESTIGATE ANY POSSIBLE ADDITIONAL SAFEGUARDS TO LIMIT THE IMPACTS TO ST#9.
  - IF SPECIMEN TREE ST#9 IS REMOVED, OR IF THE TREE IS LOST DUE TO CONSTRUCTION IMPACTS PRIOR TO THE FINAL RELEASE OF SURETY FOR FOREST CONSERVATION, MITIGATION PLANTING OF TWO (2) ADDITIONAL NATIVE SHADE TREES, PREFERABLY OF THE SAME SPECIES (QUERCUS RUBRA OR SIMILAR), WILL BE REQUIRED. THE MITIGATION MAY BE COMPLETED WITH THE FINAL AT WHICH TIME A REDLINE REVISION TO THE FOREST AND LANDSCAPE PLANS MAY BE COMPLETED.
  - PLEASE ADD A PROMINENT NOTE TO THE PRELIMINARY AND FINAL FOREST CONSERVATION PLAN NEAR THE RETENTION AND PLANTING REQUIREMENTS THAT REPORTS ON ALL INITIAL 2 YEAR MAINTENANCE INSPECTIONS AND FINAL FOREST CONSERVATION INSPECTIONS MUST NOTE THE EXISTENCE AND CONDITION OF SPECIMEN TREE ST#9. LOSS OF THE TREE WITHOUT MITIGATION PER CONDITION #4 WOULD DELAY THE RELEASE OF THE FOREST CONSERVATION SURETY.
  - BE ADVISED THAT THIS WAIVER PETITION IS ONLY FOR THE TWO (2) SPECIMEN TREES NOTED ON THE PLAN, ST#7 AND ST#9. ALL APPROVAL PRELIMINARY AND FINAL CONSERVATION PLANS MUST HAVE THE SPECIMEN TREE TABLE CORRECTED TO NOTE THAT ST#6, A 30" CHESTNUT OAK IN GOOD CONDITION, WILL REMAIN (SEE SPECIMEN TREE TABLE ALTERNATIVE LAYOUT PLAN).
  - THE WAIVER PETITION NUMBER, THE SECTIONS BEING WAIVER, AND THE DATE AND CONDITIONS OF APPROVAL SHALL BE ADDED TO THE PLAT AND SUPPLEMENTAL PLAN AS A GENERAL NOTE. ADD A REFERENCE TO THIS NOTE ON THE PRELIMINARY AND FINAL FOREST CONSERVATION PLANS.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2008), SECTION 5.5A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- PRIVATE RANGE OF ADDRESS SIGN ASSEMBLIES (FOR THE TWO USE-IN-COMMON DRIVEWAYS) 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.
- STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET BY TWO BIORETENTION FACILITIES (M-6) FOR THE ROADS AND A MICRO BIORETENTION (M-8), OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION, AND DRYWELLS (M-5) ON THE LOTS. ON LOT FACILITIES SHALL BE OWNED AND MAINTAINED BY THE LOT OWNER.
- PLEASE NOTE THAT ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT.
- OPEN SPACE LOTS 8, 18 AND 19 WILL BE CONVEYED TO THE HOMEOWNERS ASSOCIATION.
- THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY TRAFFIC CONTROL DEVICES.
- ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD).
- ALL SIGN POSTS FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED "QUICK PUNCH", SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THE OFFSITE DRAINAGE SWALE HAS BEEN PROVIDED AS REQUESTED BY DPW TO ADDRESS AN EXISTING OFFSITE DRAINAGE PROBLEM. NOTE THAT THE ONSITE DEVELOPMENT WILL NOT INCREASE OR AFFECT THE DRAINAGE FOR OFFSITE LOTS 8 AND 9.
- "NON BUILDABLE BULK PARCEL A" CONTAINS AN ACCESS AND MAINTENANCE EASEMENT INTENDED TO BE RECORDED FOR ACCESS TO AND FROM THE ADJACENT "NON BUILDABLE BULK PARCEL B". EASEMENT OF DRIVEWAY, RESTRICTIONS AND MAINTENANCE COVENANTS: THE HOA SHALL MAINTAIN NON BUILDABLE BULK PARCEL A UNTIL SUCH TIME AS THE OWNERS OF PARCEL 125 REQUIRE FEE SIMPLE OWNERSHIP OF NON BUILDABLE BULK PARCEL A FOR PARCEL 125 SUBDIVISION. THE HOA SHALL BE REQUIRED TO CONVEY NON BUILDABLE BULK PARCEL A TO THE PARCEL 125 OWNERS AT THAT TIME FOR NO CONSIDERATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

5-16-17  
 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT

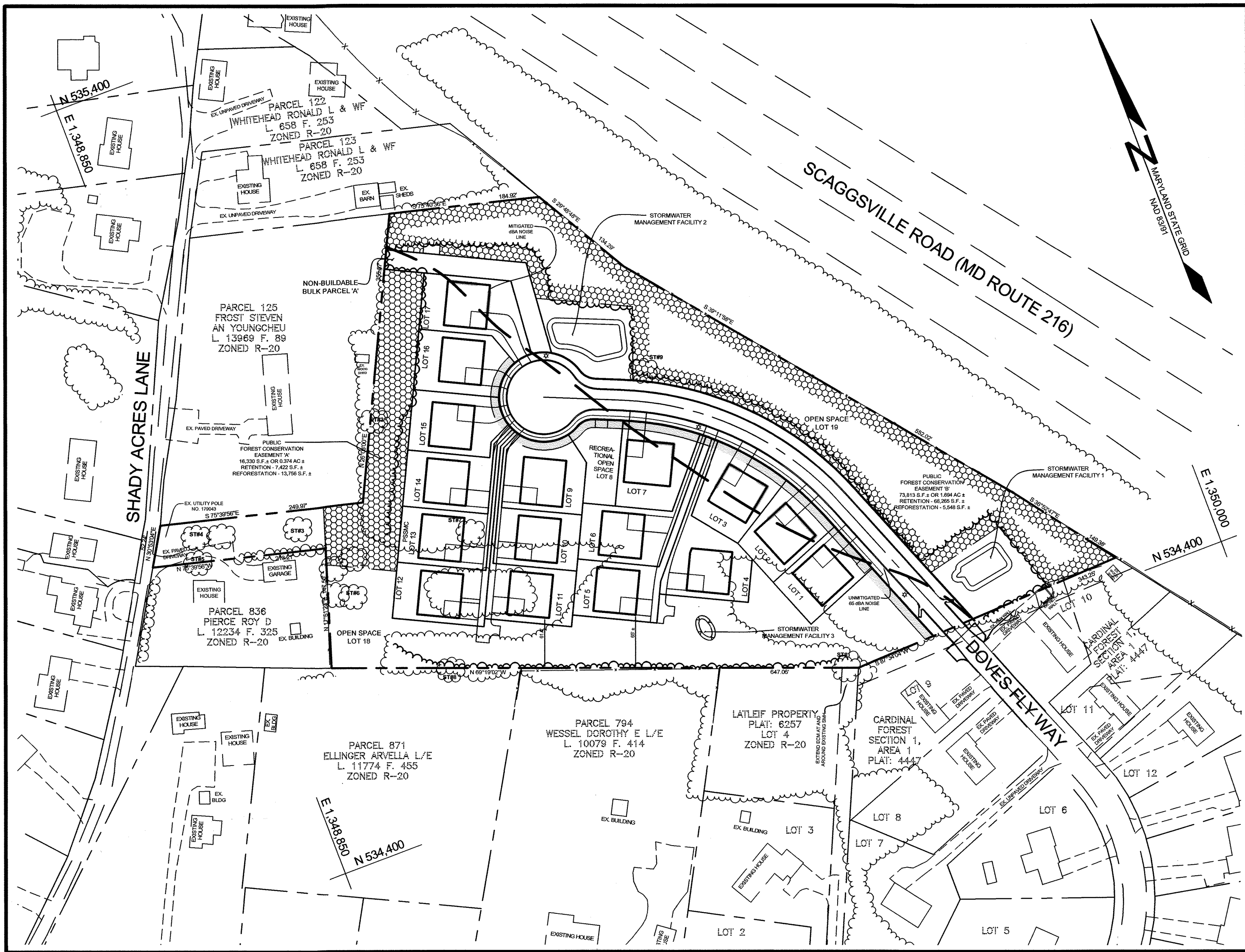
5-11-17  
 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

4/16/2017  
 DATE  
 CHIEF, BUREAU OF HIGHWAYS

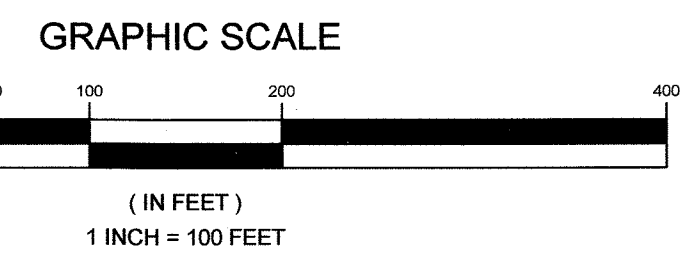
# FINAL ROAD CONSTRUCTION PLANS DOVES FLY HOWARD COUNTY, MARYLAND

AS-BUILT CERTIFICATION  
 THERE IS NO AS-BUILT INFORMATION ON THIS SHEET

10/28/2010  
 DATE  
 MICHAEL B. ADCOCK, PROFESSIONAL LAND SURVEYOR  
 MD REG. NO. 21527, EXPIRATION DATE:



LOCATION MAP  
 SCALE: 1"=100'



ROAD CLASSIFICATION				
ROAD NAME	CLASSIFICATION	PAVING TYPE	DESIGN SPEED	LIMITS OF CONSTRUCTION
DOVES FLY WAY	LOCAL ROAD (ACCESS PLACE)	P-2	25	9+00 TO 15+62.00

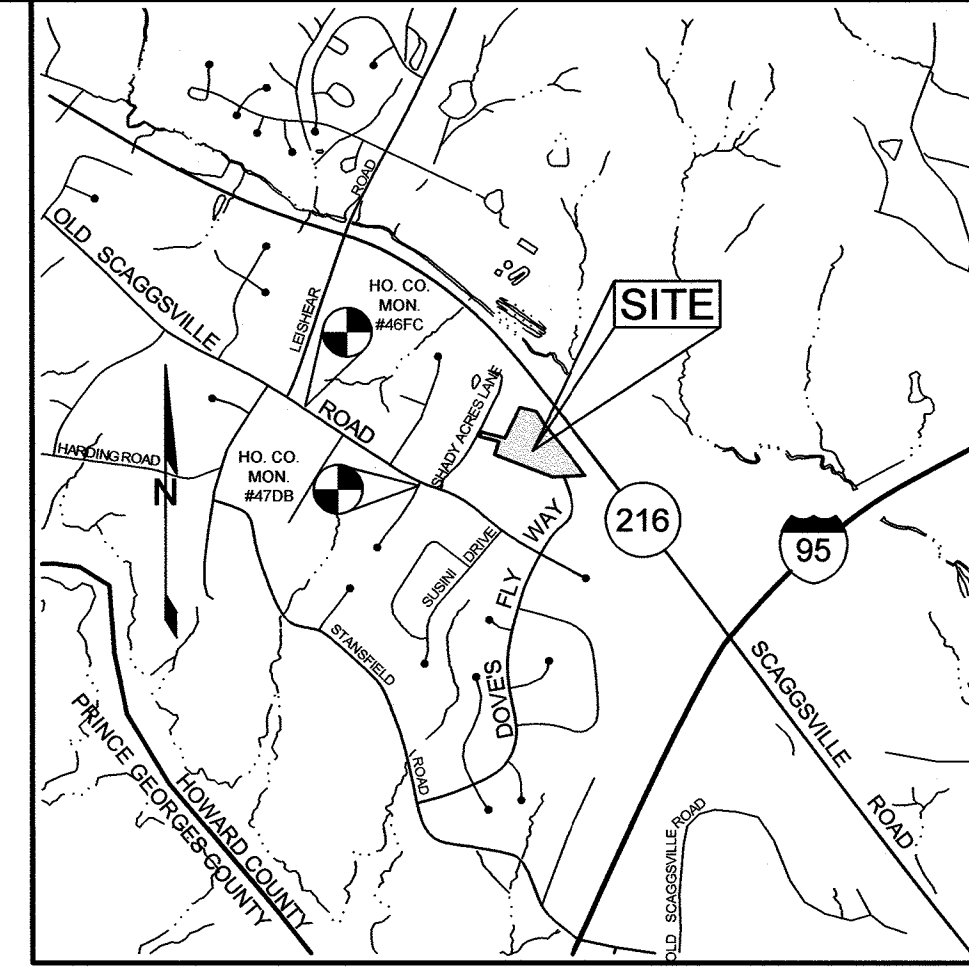
STORMWATER MANAGEMENT PRACTICES		
LOT #	ADDRESS	DRYWELLS (M-5) NUMBER
1	8640 DOVES FLY WAY	3
2	8636 DOVES FLY WAY	3
3	8632 DOVES FLY WAY	3
4	8628 DOVES FLY WAY	3
5	8624 DOVES FLY WAY	3
6	8620 DOVES FLY WAY	3
7	8616 DOVES FLY WAY	3
9	8612 DOVES FLY WAY	3
10	8608 DOVES FLY WAY	3
11	8604 DOVES FLY WAY	3
12	8598 DOVES FLY WAY	3
13	8594 DOVES FLY WAY	3
14	8590 DOVES FLY WAY	3
15	8586 DOVES FLY WAY	3
16	8582 DOVES FLY WAY	3
17	8581 DOVES FLY WAY	3

STREET LIGHT TABLE			
FIXTURE TYPE	POLE TYPE	LOCATION	STREET
LED100 COLONIAL POST TOP FIXTURE MOUNTED	14" BLACK FIBERGLASS	@ STA. 10+25.59, 17' LEFT	DOVES FLY WAY
LED100 COLONIAL POST TOP FIXTURE MOUNTED	14" BLACK FIBERGLASS	@ STA. 13+65.38, 17' LEFT	DOVES FLY WAY
LED100 COLONIAL POST TOP FIXTURE MOUNTED	14" BLACK FIBERGLASS	N 534.906.17 E 1,349.305.47	DOVES FLY WAY

MINIMUM LOT SIZE CHART			
LOT NUMBER	GROSS AREA (SF)	PIPESTEM AREA (SF)	MINIMUM LOT SIZE (SF)
4	9,181 ±	780 ±	8,401 ±
5	8,567 ±	1,359 ±	7,208 ±
6	8,338 ±	804 ±	7,469 ±
10	7,493 ±	386 ±	7,107 ±
11	8,000 ±	671 ±	7,329 ±
12	8,516 ±	719 ±	7,797 ±
13	7,975 ±	454 ±	7,521 ±
14	7,435 ±	190 ±	7,245 ±

**LEGEND**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREETLINE
- PROPOSED TREETLINE
- EXISTING SPECIMEN TREE
- EXISTING FENCE
- PROPOSED STREET LIGHT
- FOREST CONSERVATION EASEMENT



BENCHMARKS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
46FC	535145.93	1346954.79	403.70	20.5' SE OF G&E POLE #840720, 175' SE OF C OF L&E
47DB	534316.90	1348131.23	398.49	3' SW OF END OF CURB ON FELSVIEW DR., 2,603.7' FROM C OF LEISHEAR RD.

VICINITY MAP  
 SCALE: 1"=2000'

PAVING SECTIONS						
SEC. NO.	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <9 TO <7	27	3 TO <9 TO <7	27
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ASBLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE (NA)	NA	NA	NA	NA
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5
P-2	PARKING DRIVE ASBLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET, CUL-DE-SACS, RESIDENTIAL	GRADED AGGREGATE BASE (GAB)	8.5	7.0	5.0	4.0
		HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	ROAD PLAN AND PROFILE
4	FINAL SITE LAYOUT PLAN
5	FINAL GRADING, SEDIMENT AND EROSION CONTROL PLAN PHASE I, OFFSITE GRADING SWALE
6	FINAL GRADING, SEDIMENT AND EROSION CONTROL PLAN PHASE II
7	SEDIMENT & EROSION CONTROL NOTES & DETAILS
8	SEDIMENT & EROSION CONTROL NOTES & DETAILS
9	FINAL STORM DRAIN DRAINAGE AREA MAP
10	STORM DRAIN AND OFF-SITE DRAINAGE SWALE PROFILES
11	FINAL STORMWATER MANAGEMENT DRAINAGE AREA MAP
12	PROPOSED DRYWELL PLAN
13	FINAL BIORETENTION PLAN, PROFILES & DETAILS
14	BORING PLAN
15	FOREST CONSERVATION AND LANDSCAPE PLAN
16	FOREST CONSERVATION NOTES AND DETAILS

SITE ANALYSIS DATA SHEET	
ENVIRONMENTAL AREA	SIZE OR USE
TOTAL PROJECT AREA	8.28 ACRES ±
LIMIT OF DISTURBANCE	5.68 ACRES ±
GREEN OPEN AREA (LAWN)	2.04 ACRES ±
IMPERVIOUS AREA	1.91 ACRES ±
PROPOSED SITE USES	RESIDENTIAL
WETLANDS	0.00 ACRES ±
FLOODPLAINS	0.00 ACRES ±
FLOODPLAIN BUFFERS	0.00 ACRES ±
EXISTING FOREST	4.33 ACRES ±
SLOPES GREATER THAN 15%	0.16 ACRES ±
HIGHLY ERODIBLE SOILS	0.32 ACRES ± (1)

NOTE: (1) 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.

**OWNER**  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 DOVES FLY WAY  
 LAUREL, MD 20723

**DEVELOPER**  
 WILLIAMSBURG GROUP  
 5485 HARRPERS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410.997.8800

**AS-BUILT**

**COVER SHEET**  
**DOVES FLY**  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A TAX MAP 47 GRID 7  
 6TH ELECTION DISTRICT

PARCEL 126  
 HOWARD COUNTY, MARYLAND

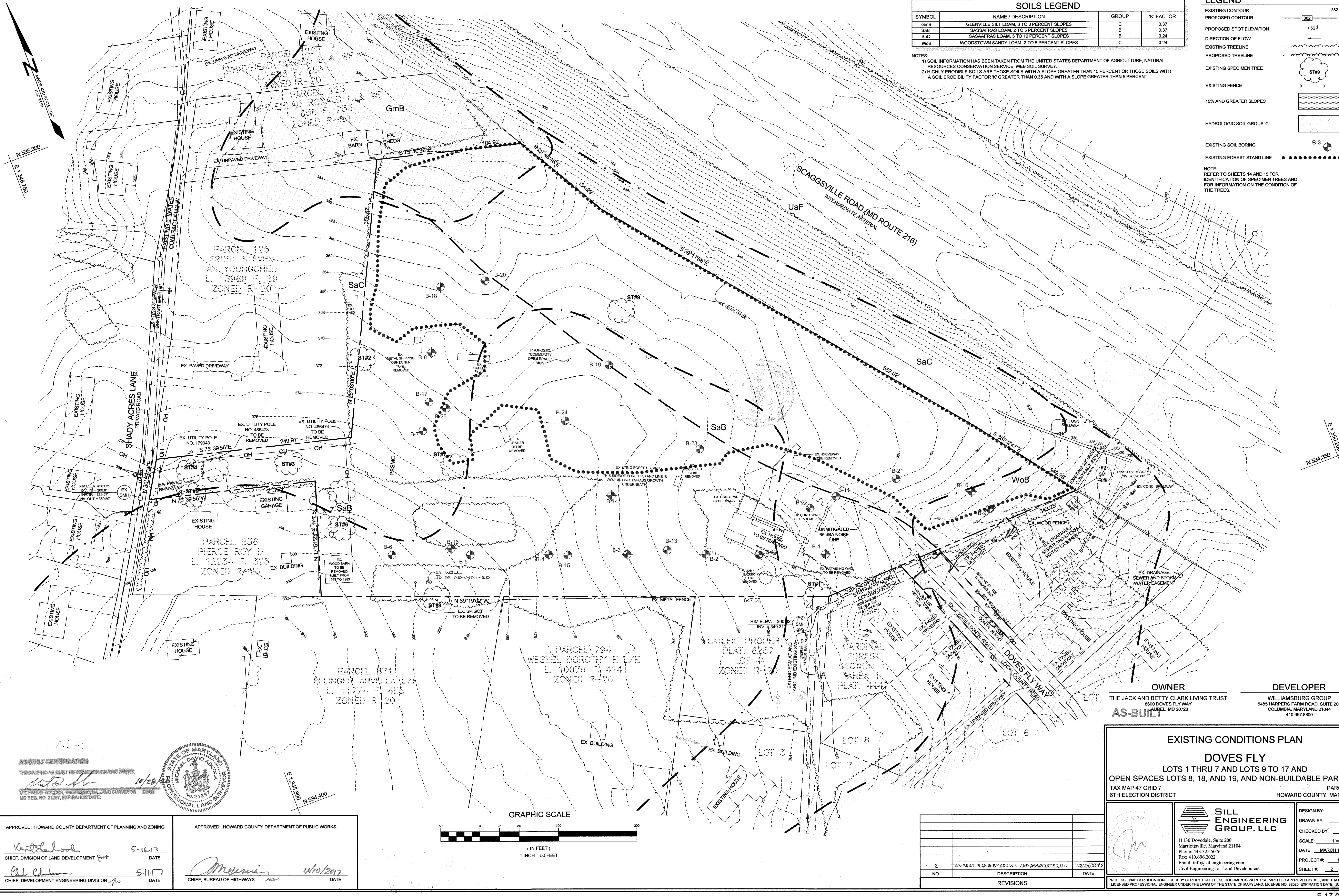
**SILL ENGINEERING, LLC**  
 11130 Dovesdale, Suite 200  
 Mannevilleville, Maryland 21044  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: JCV  
 CHECKED BY: PS  
 SCALE: AS SHOWN  
 DATE: MARCH 15, 2017  
 PROJECT #: 14-010  
 SHEET #: 1 of 16

NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCOCK AND ASSOCIATES, LLC	10/28/2010

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. 33025, EXPIRATION DATE: JUNE 20, 2017





SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
SaB	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	B	0.37
SaC	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES	B	0.24
WoB	WOODSTOWN SANDY LOAM, 2 TO 5 PERCENT SLOPES	C	0.24

NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY  
 2) 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	
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
PROPOSED SPOT ELEVATION	+56.4
DIRECTION OF FLOW	→
EXISTING TREELINE	~
PROPOSED TREELINE	~
EXISTING SPECIMEN TREE	ST#9
EXISTING FENCE	---
15% AND GREATER SLOPES	▨
HYDROLOGIC SOIL GROUP 'C'	▨
EXISTING SOIL BORING	B-3
EXISTING FOREST STAND LINE	•••••

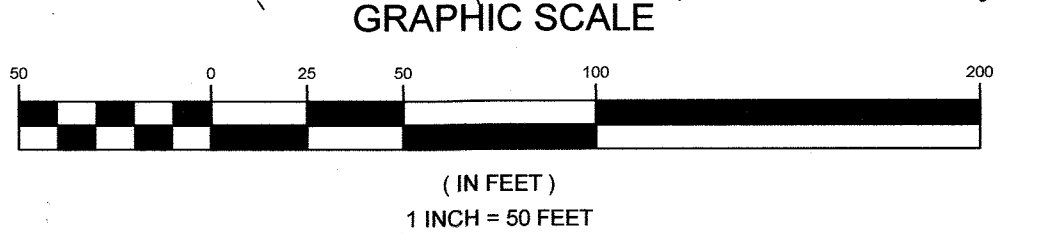
NOTE:  
 REFER TO SHEETS 14 AND 15 FOR IDENTIFICATION OF SPECIMEN TREES AND FOR INFORMATION ON THE CONDITION OF THE TREES.

AS-BUILT CERTIFICATION  
 THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.  
 MICHAEL D. JOYCE, PROFESSIONAL LAND SURVEYOR  
 MD REG. NO. 21287, EXPIRATION DATE: 10/29/2017



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 DATE: 5-16-17  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE: 4/10/2017  
 CHIEF, BUREAU OF HIGHWAYS



NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCOCK AND ASSOCIATES, LLC	10/28/2010

OWNER  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 DOVES FLY WAY  
 LAUREL, MD 20723

DEVELOPER  
 WILLIAMSBURG GROUP  
 5485 HARPERS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410 997 8800

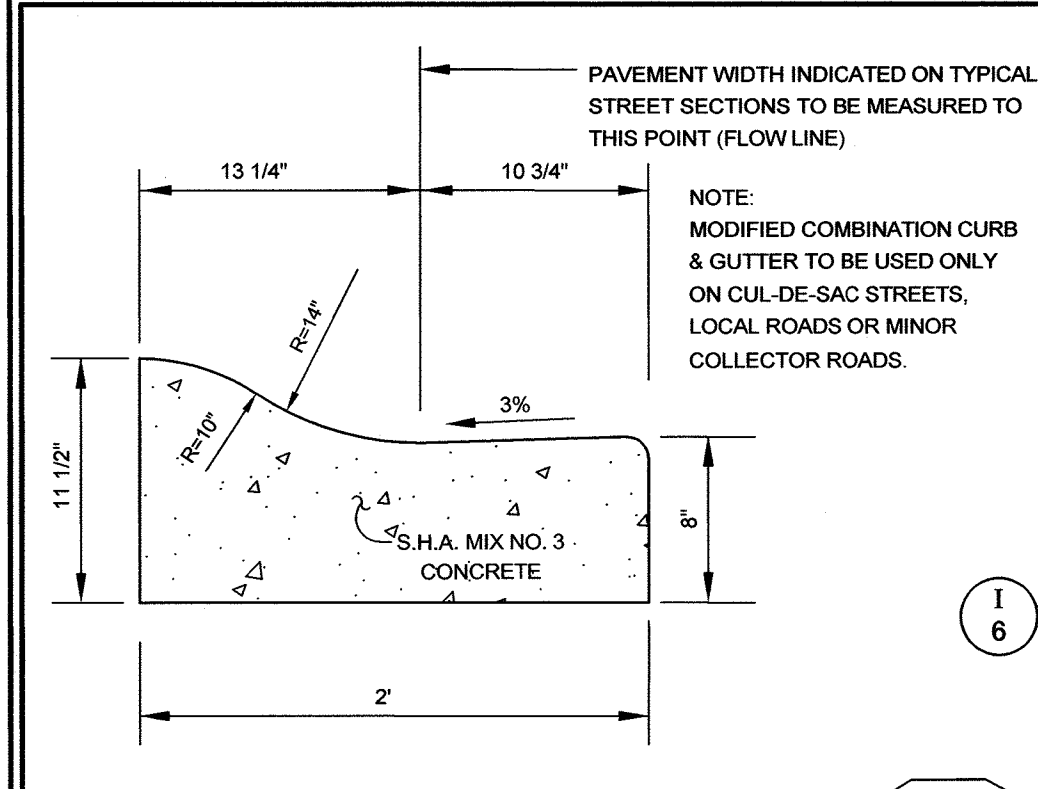
EXISTING CONDITIONS PLAN  
 DOVES FLY  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
 OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7 PARCEL 126  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

AS-BUILT

DESIGN BY: PS  
 DRAWN BY: JCV  
 CHECKED BY: PS  
 SCALE: 1"=50'  
 DATE: MARCH 15, 2017  
 PROJECT #: 14-010  
 SHEET #: 2 of 16

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. 32025, EXPIRATION DATE: JUNE 20, 2017.





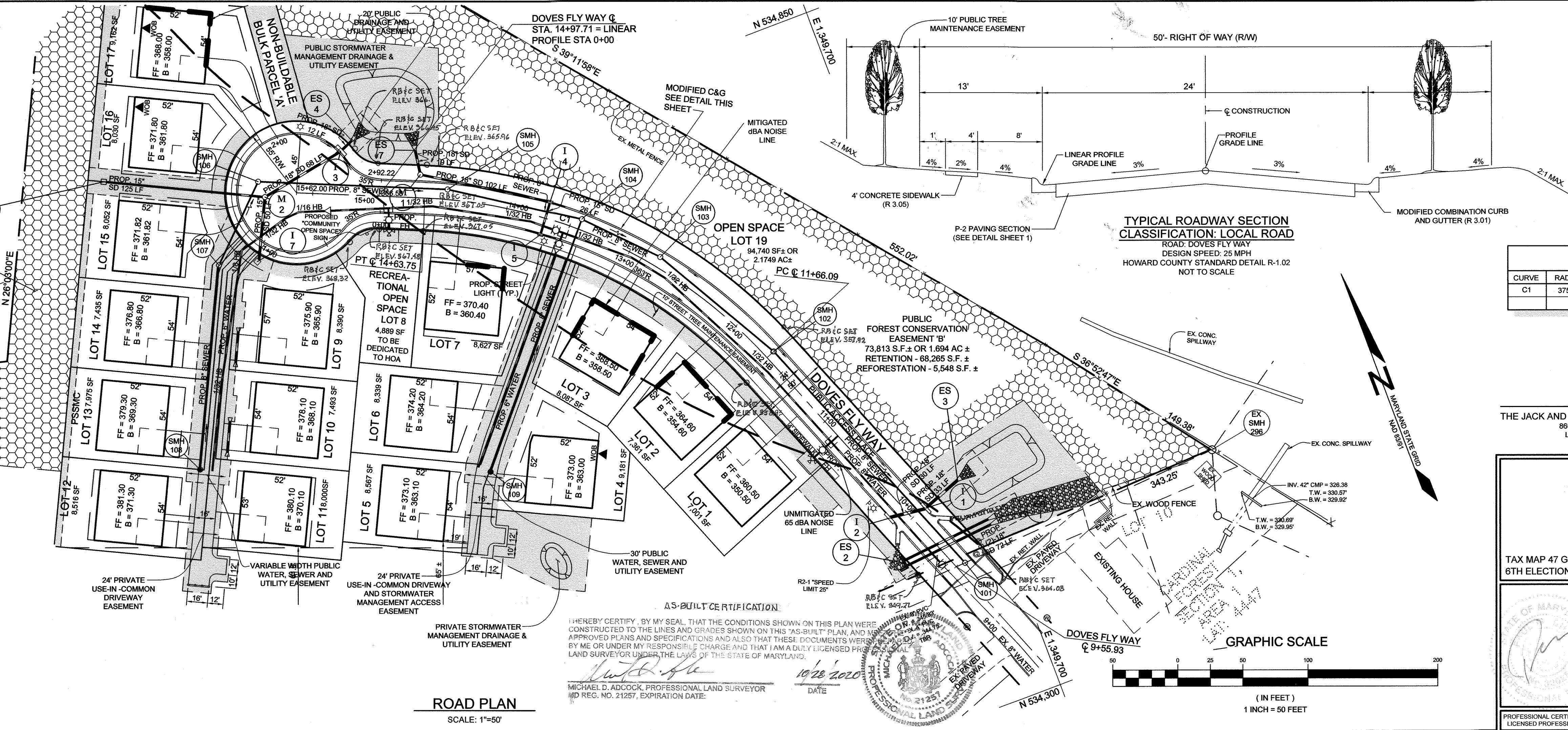
**MODIFIED CURB & GUTTER**  
HOWARD COUNTY STANDARD R3.01  
NOT TO SCALE

**PUBLIC FOREST CONSERVATION EASEMENT 'A'**  
16,330 S.F. ± OR 0.374 AC ±  
RETENTION - 7,422 S.F. ±  
REFORESTATION - 13,756 S.F. ±

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Kurtz* 5-16-17  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Chen* 5-11-17  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Munn* 4/10/2017  
 CHIEF, BUREAU OF HIGHWAYS DATE



**CURB TRANSITION LOCATIONS AT INLETS**

INLET NUMBER	START STATION LOCATION	END STATION LOCATION
1	9+86.76	10+10.76
2	9+86.76	10+10.76
3	2+38.61	2+64.49
4	13+58.02	13+81.28
5	13+57.25	13+82.05

NOTE: SEE HC DETAIL R-3.02, 7" C & G TO MODIFIED C & G DETAIL

**CENTERLINE ROAD CURVE TABLE**

CURVE	RADIUS	ARC LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD LENGTH
C1	375.00'	297.66'	45°28'42"	157.17'	N44°16'38"W	289.90'

**OWNER**  
THE JACK AND BETTY CLARK LIVING TRUST  
8600 DOVES FLY WAY  
LAUREL, MD 20723

**DEVELOPER**  
WILLIAMS GROUP  
5485 HARPERS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

**AS-BUILT**

**ROAD PLAN AND PROFILE**  
DOVES FLY  
LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
OPEN SPACES LOTS 8, 18 AND 19

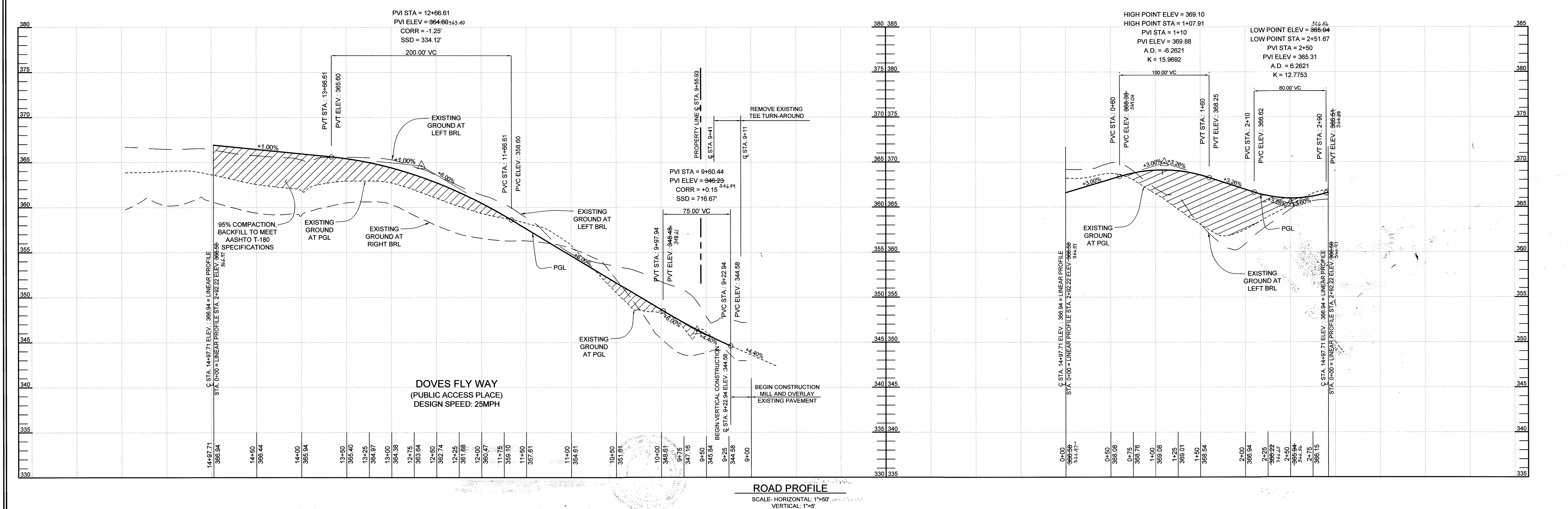
TAX MAP 47 GRID 7  
6TH ELECTION DISTRICT

PARCEL 126  
HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**  
11130 Doveclay Ct, Suite 200  
Marriottsville, MD 21104  
Phone: 410.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

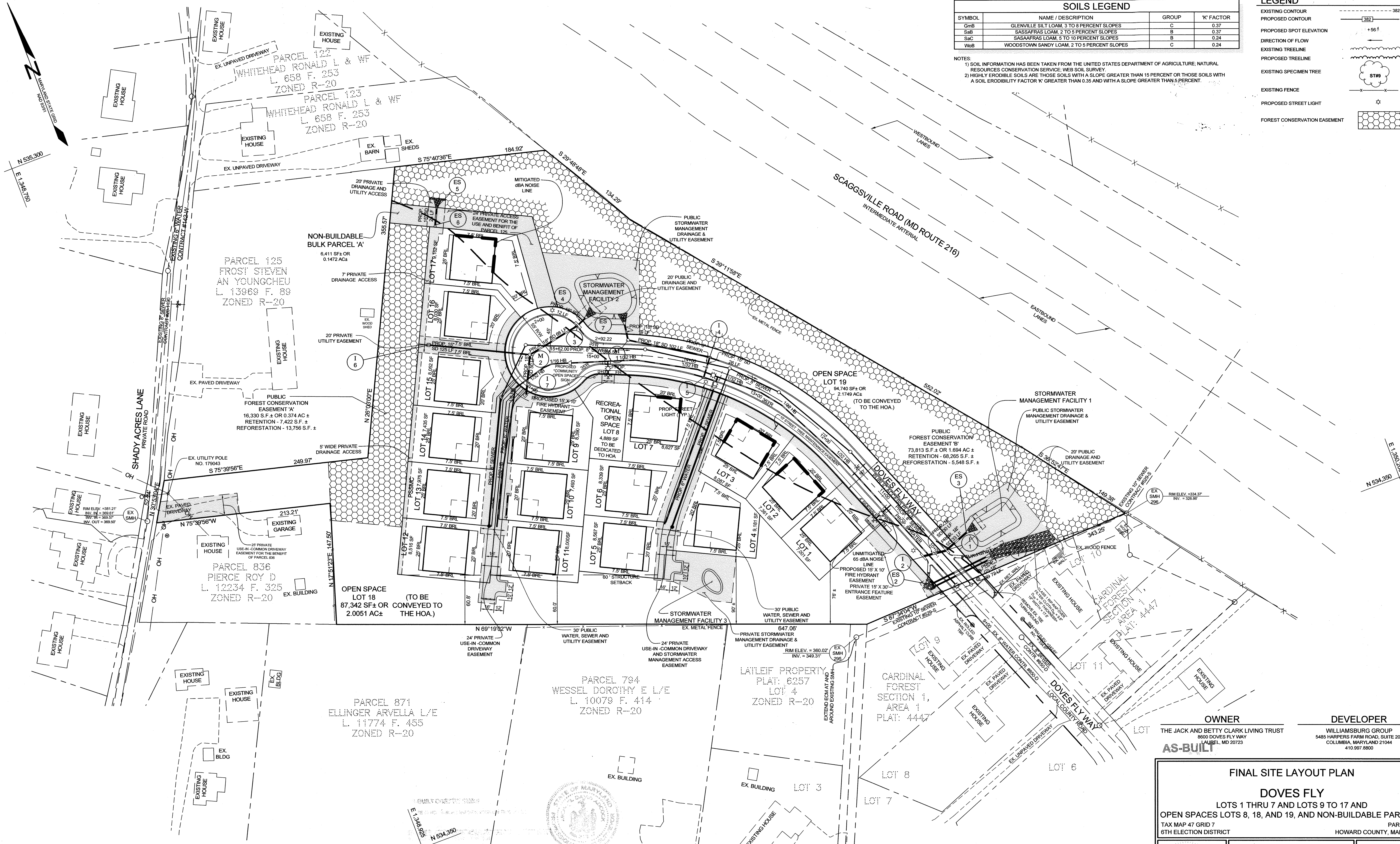
DESIGN BY: PS  
DRAWN BY: JCV  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: DECEMBER 7, 2016  
PROJECT #: 14-010  
SHEET #: 3 OF 16

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. 30225, EXPIRATION DATE: JUNE 20, 2017



**ROAD PROFILE**  
SCALE: HORIZONTAL: 1"=50'  
VERTICAL: 1"=5'





SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmB	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
SaB	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	B	0.37
SaC	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES	B	0.24
WmB	WOODSTOWN SANDY LOAM, 2 TO 5 PERCENT SLOPES	C	0.24

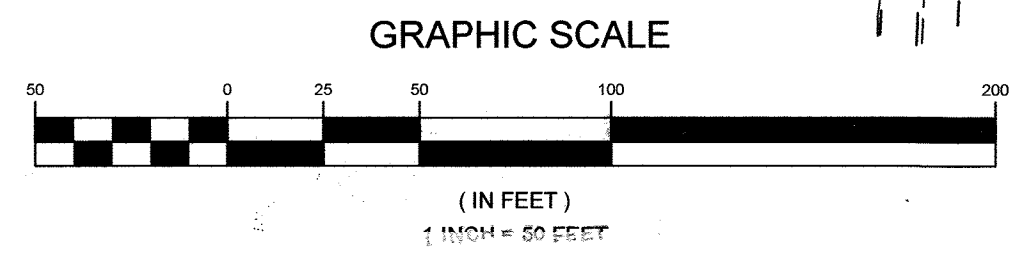
NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY  
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

LEGEND	
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
PROPOSED SPOT ELEVATION	+58.1
DIRECTION OF FLOW	→
EXISTING TREELINE	~
PROPOSED TREELINE	~
EXISTING SPECIMEN TREE	ST#9
EXISTING FENCE	---
PROPOSED STREET LIGHT	*
FOREST CONSERVATION EASEMENT	▨

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 5-11-17  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 [Signature] 4/10/2017  
 CHIEF, BUREAU OF HIGHWAYS

AS-BUILT CERTIFICATION  
 THERE IS NO AS-BUILT INFORMATION ON THIS SHEET  
 [Signature] 10/26/2017  
 MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR, DATE: 10/26/2017, MD REG. NO. 21257, EXPIRATION DATE:



NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCKO AND ASSOCIATES, LLC	10/28/2017

**FINAL SITE LAYOUT PLAN**  
**DOVES FLY**  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
 OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7 PARCEL 126  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**  
 11130 Dovesdale, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: JCV  
 CHECKED BY: PS  
 SCALE: 1"=50'  
 DATE: MARCH 15, 2017  
 PROJECT #: 14-010  
 SHEET #: 4 of 16

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. 32025, EXPIRATION DATE: JUNE 20, 2017

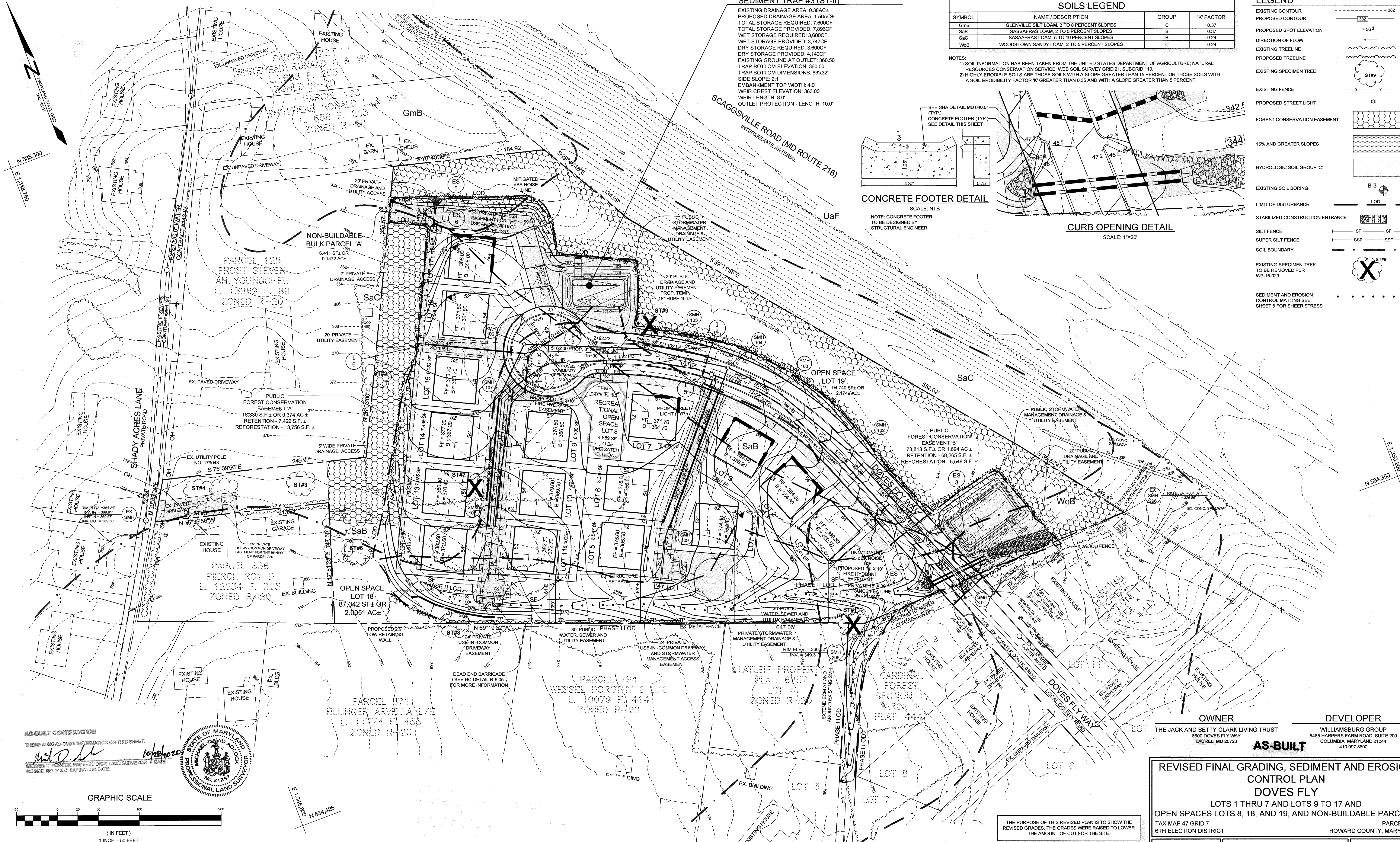
**OWNER**  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 DOVES FLY WAY  
 LAUREL, MD 20723

**DEVELOPER**  
 WILLIAMSBURG GROUP  
 5485 HARPERS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410.997.8800







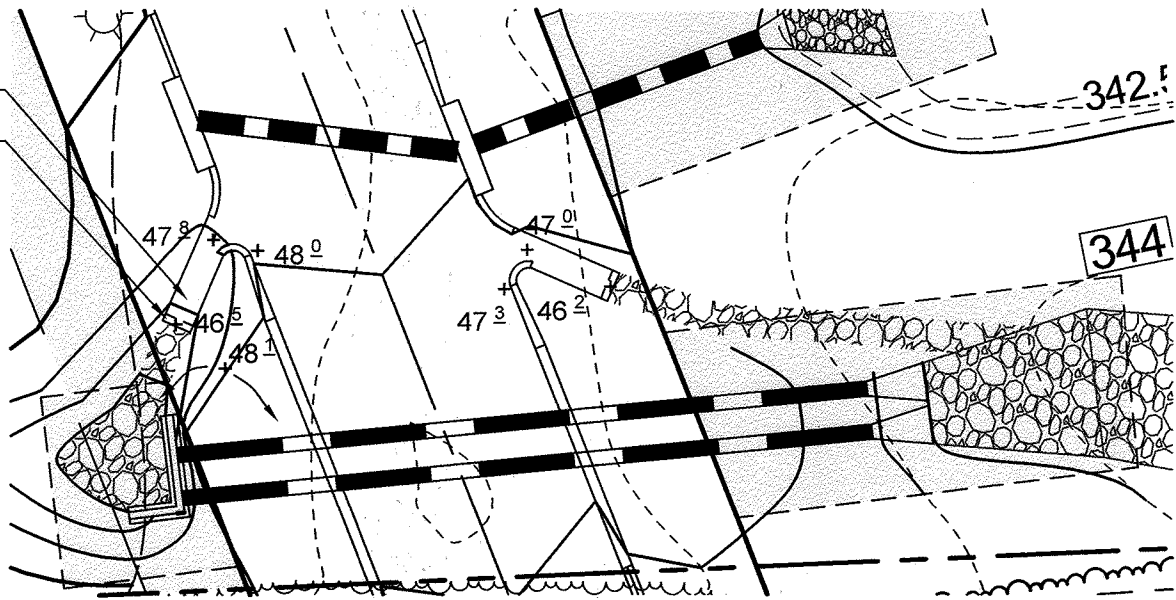
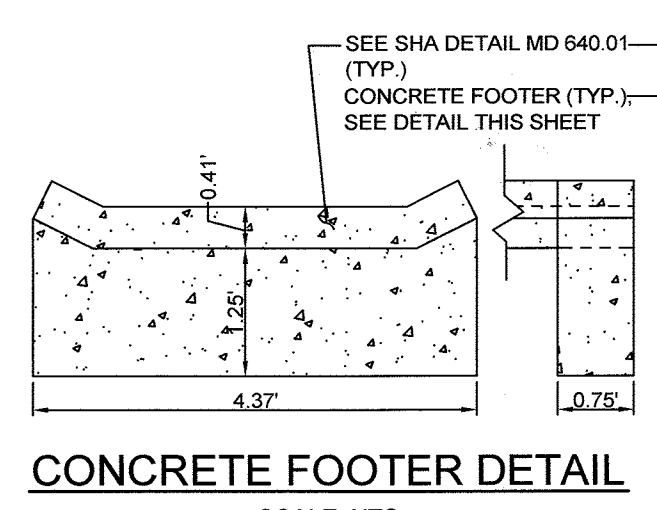


**SEDIMENT TRAP #3 (ST-II)**

EXISTING DRAINAGE AREA: 0.38AC±  
 PROPOSED DRAINAGE AREA: 1.56AC±  
 TOTAL STORAGE REQUIRED: 7,600CF  
 TOTAL STORAGE PROVIDED: 7,696CF  
 WET STORAGE REQUIRED: 3,600CF  
 WET STORAGE PROVIDED: 3,747CF  
 DRY STORAGE REQUIRED: 4,140CF  
 DRY STORAGE PROVIDED: 4,140CF  
 EXISTING GROUND AT OUTLET: 360.50  
 TRAP BOTTOM ELEVATION: 360.00  
 TRAP BOTTOM DIMENSIONS: 63'x32'  
 SIDE SLOPE: 2:1  
 EMBANKMENT TOP WIDTH: 4.0'  
 WEIR CREST ELEVATION: 363.00  
 WEIR LENGTH: 8.0'  
 OUTLET PROTECTION - LENGTH: 10.0'

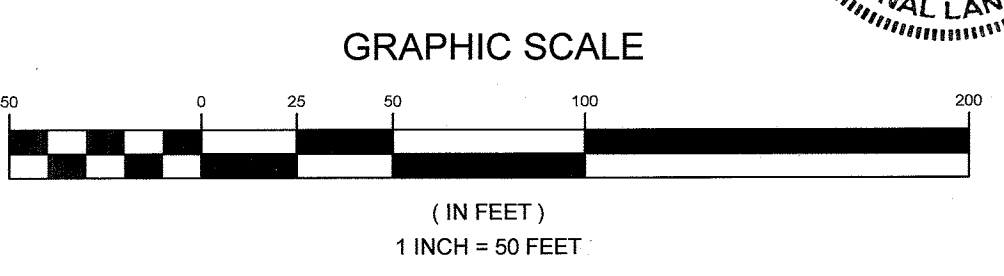
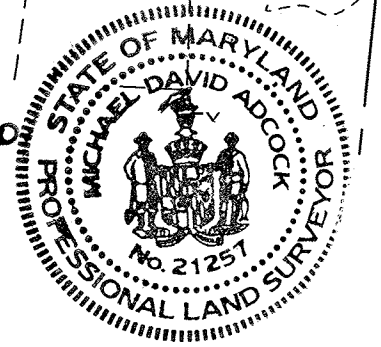
SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
SaB	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	B	0.37
SaC	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES	B	0.24
WoB	WOODSTOWN SANDY LOAM, 2 TO 5 PERCENT SLOPES	C	0.24

NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEBB SOIL SURVEY GRID 21, SUBGRID 110.  
 2) 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	
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
PROPOSED SPOT ELEVATION	+56.5
DIRECTION OF FLOW	---
EXISTING TREELINE	---
PROPOSED TREELINE	---
EXISTING SPECIMEN TREE	ST#9
EXISTING FENCE	---
PROPOSED STREET LIGHT	---
FOREST CONSERVATION EASEMENT	---
15% AND GREATER SLOPES	---
HYDROLOGIC SOIL GROUP 'C'	---
EXISTING SOIL BORING	B-3
LIMIT OF DISTURBANCE	LOD
STABILIZED CONSTRUCTION ENTRANCE	---
SILT FENCE	SF
SUPER SILT FENCE	SSF
SOIL BOUNDARY	---
EXISTING SPECIMEN TREE TO BE REMOVED PER WP-15-029	ST#9
SEDIMENT AND EROSION CONTROL MATING SEE SHEET 6 FOR SHEAR STRESS	---

**AS-BUILT CERTIFICATION**  
 THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.  
 [Signature]  
 REGISTERED PROFESSIONAL LAND SURVEYOR  
 NO. 21257, EXPIRATION DATE: [Date]



**OWNER**  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 DOVES FLY WAY  
 LAUREL, MD 20723

**DEVELOPER**  
 WILLIAMSBURG GROUP  
 5485 HARRPERS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410.997.8800

**AS-BUILT**

**REVISED FINAL GRADING, SEDIMENT AND EROSION CONTROL PLAN**  
**DOVES FLY**  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
 OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7 PARCEL 128  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

THE PURPOSE OF THIS REVISED PLAN IS TO SHOW THE REVISED GRADES. THE GRADES WERE RAISED TO LOWER THE AMOUNT OF CUT FOR THE SITE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature]  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 7/13/17

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 [Signature]  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 7/19/17

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 [Signature]  
 HOWARD SCD  
 DATE: 7/12/17

**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.  
 [Signature]  
 SIGNATURE OF ENGINEER  
 PAUL M. SILL, P.E.  
 DATE: 6/27/17

**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 SEDIMC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 [Signature]  
 SIGNATURE OF DEVELOPER  
 DATE: 6-27-17

NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY AD COCK AND ASSOCIATES, LLC	10/28/2010
	REVISIONS	

**SILL ENGINEERING GROUP, LLC**  
 11130 Dovedale, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 410.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: JCV/AEA  
 CHECKED BY: PS  
 SCALE: 1"=50'  
 DATE: JUNE 27, 2017  
 PROJECT #: 14-010  
 SHEET #: 6 of 16

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. 32025, EXPIRATION DATE: JUNE 20, 2019.



SEDIMENT CONTROL NOTES

- 1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS...
2. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE...
3. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID, THE SITE AND ALL CONTROLLED AREAS...

B-4 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

- 1. A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES...
2. TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS...
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE...

STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

- 1. TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS...
2. TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS...
3. TO PROVIDE A SUITABLE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY...

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
Signature and date fields for approval.

STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

- 1. TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION...
2. TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER...
3. TO PROVIDE A SUITABLE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY...

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS...
1. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE...

DEVELOPER'S CERTIFICATE
ENGINEER'S CERTIFICATE
Signature and date fields for developer and engineer.

STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

- 1. THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION...
2. TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH...
3. TO SOIL AMENDMENTS...
4. TO TOPSOILING...

TABLE B.1: TEMPORARY SEEDING FOR SITE STABILIZATION

Table with columns: PLANT SPECIES, SEEDING RATE (LB/AC, LB/1000 FT²), SEEDING DEPTH (INCHES), RECOMMENDED SEEDING DATES BY PLANT HARDNESS ZONE (5b & 6a, 6b, 7a & 7b).

TABLE B.5: RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND

Table with columns: TYPE OF PLANT MATERIAL, PLANT HARDNESS ZONES (5b & 6a, 6b, 7a & 7b), and SEEDING DATES.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT...
2. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT (410) 313-1880 AT LEAST 24 HOURS BEFORE STARTING ANY WORK...
3. INSTALL TREE PROTECTION FENCE ON ALL SPECIEM TREES TO REMAIN...
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SUPER SILT FENCE ASSOCIATED WITH PHASE I LOD (1 WEEK)...

NOTE PLANNING BOARD CONDITIONS OF APPROVAL:

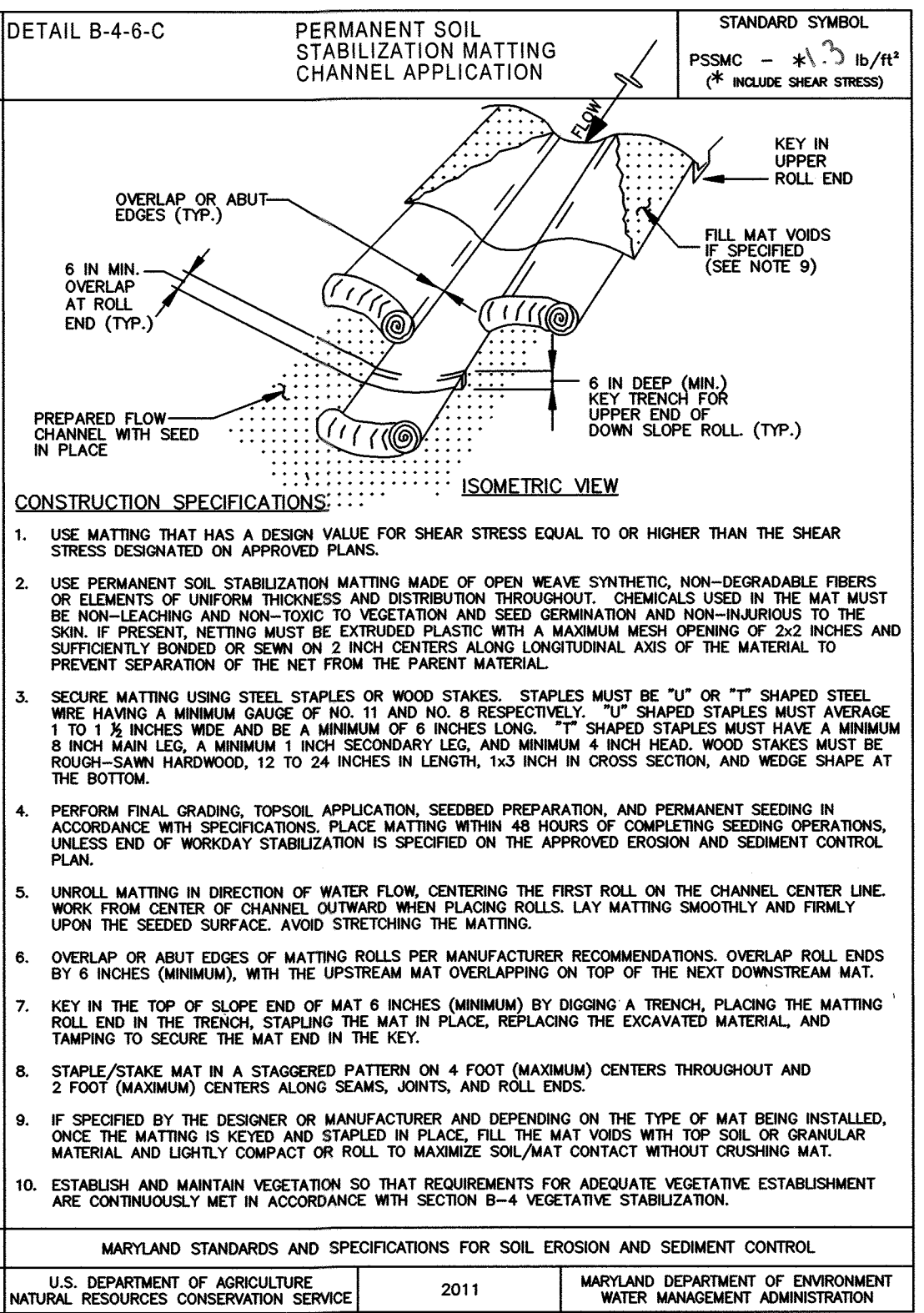
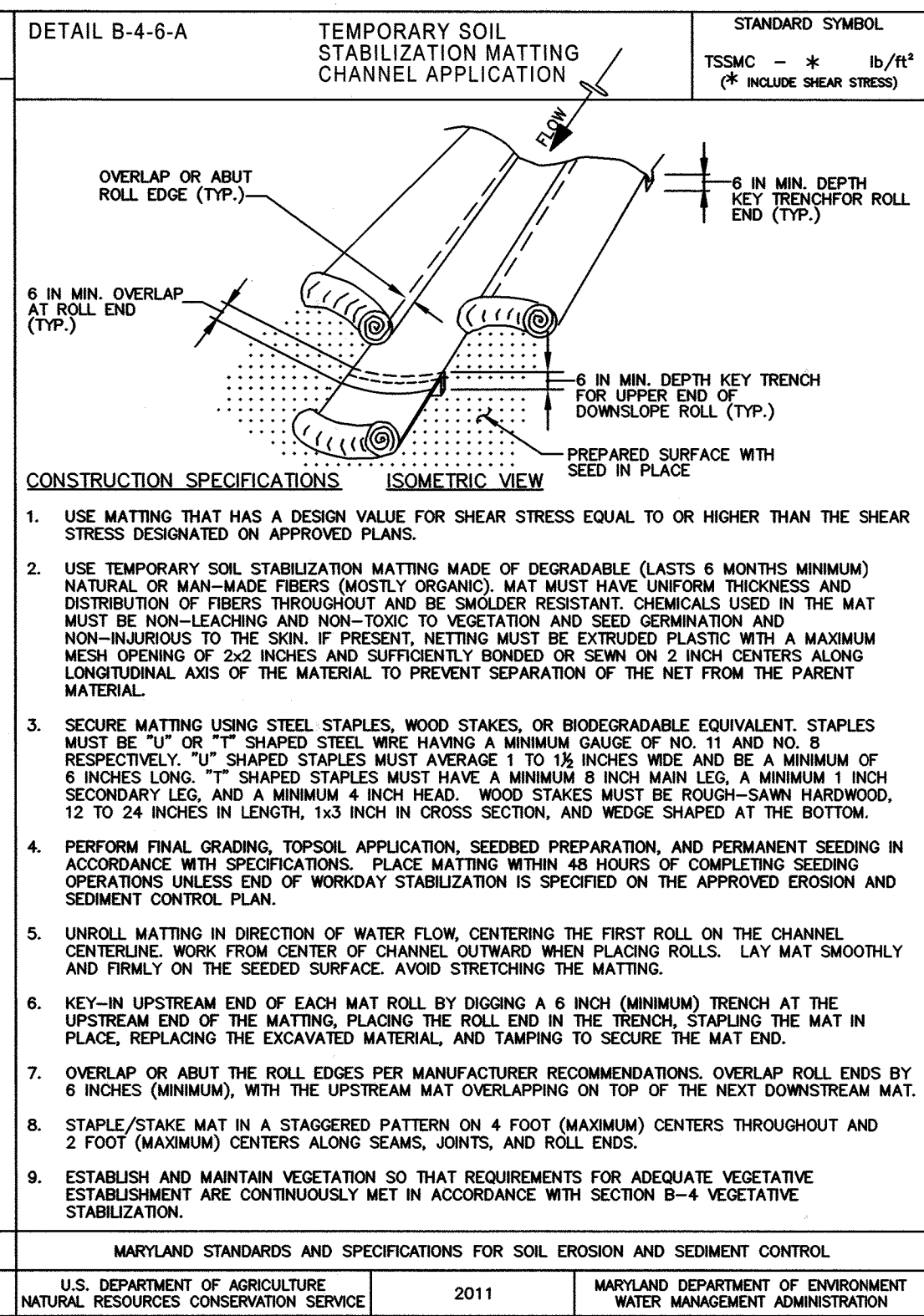
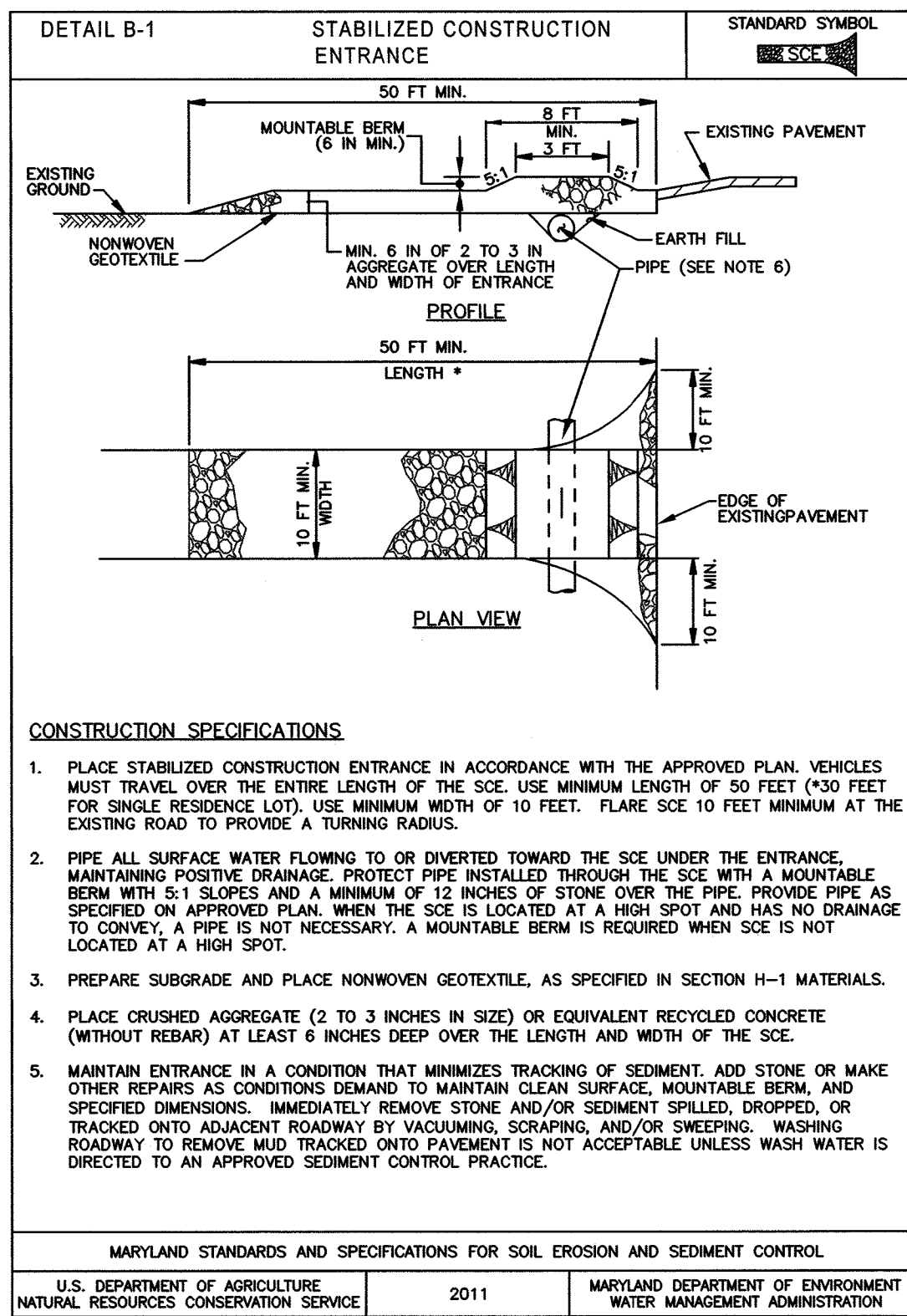
PROPOSED 3 TEMPORARY SEDIMENT TRAP LOCATIONS...
ADDRESS RUNOFF DURING CONSTRUCTION, USING SEDIMENT AND EROSION CONTROL MATTING IN THE SWALES AND USING SILT FENCE AND SUPER SILT FENCE TO PREVENT SEDIMENT RUNOFF AND SOIL CONTROL EROSION...
DESIGNED FOR A 10 YEAR STORM EVENT, AND ON-SITE SWALES ARE DESIGNED FOR A 10 YEAR, 25 YEAR, AND 100 YEAR EVENT...

AS-BUILT CERTIFICATION
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...
Signature and date: 10/28/2022

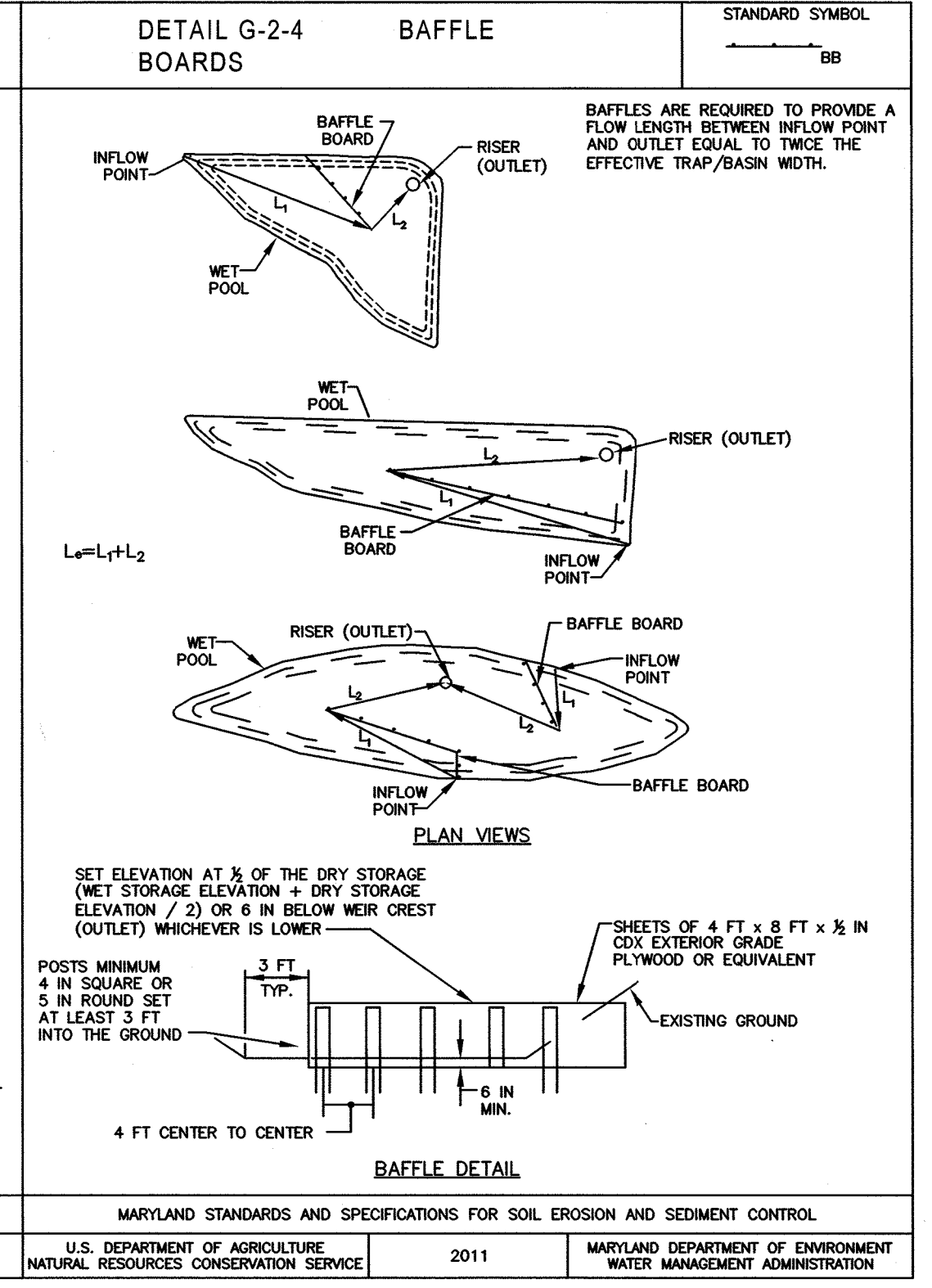
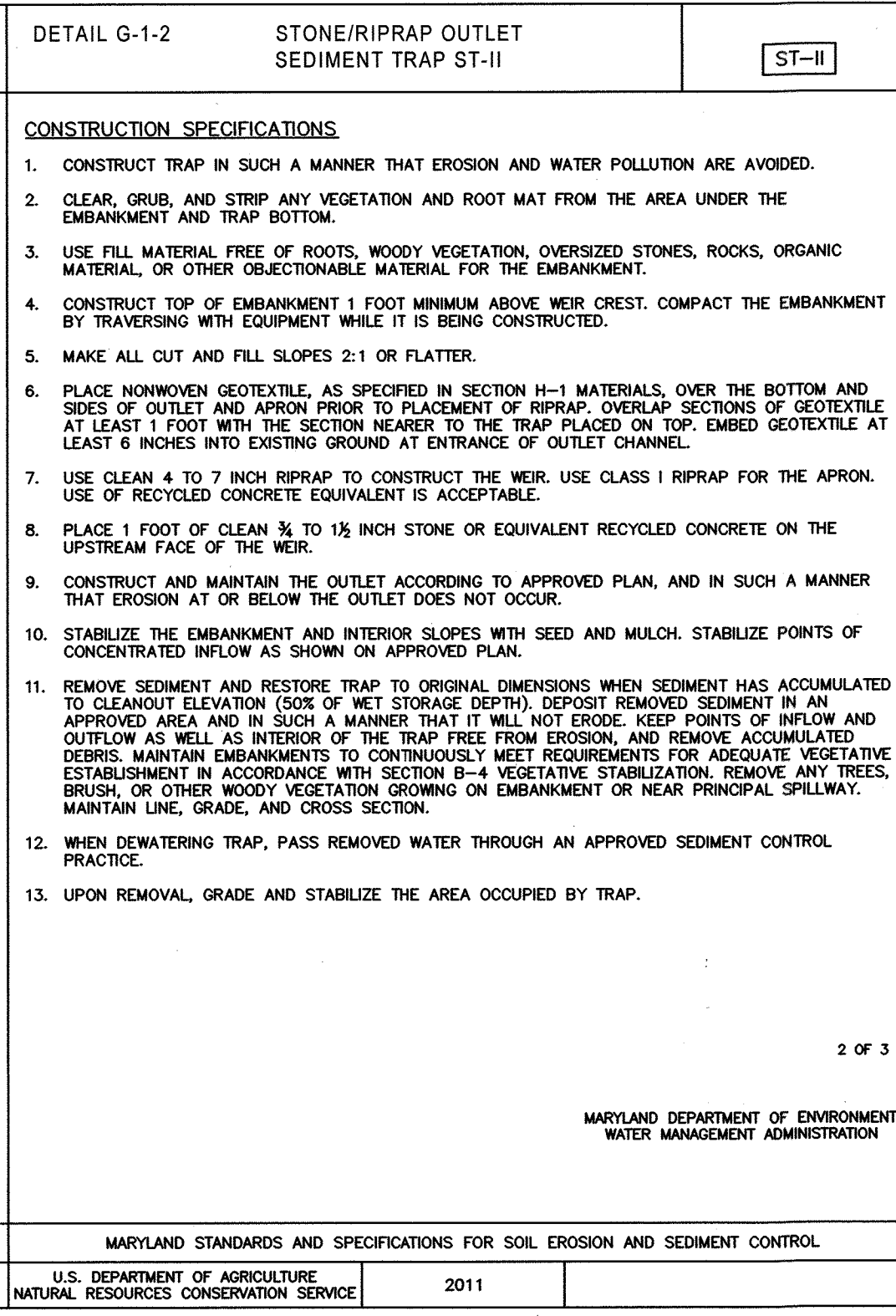
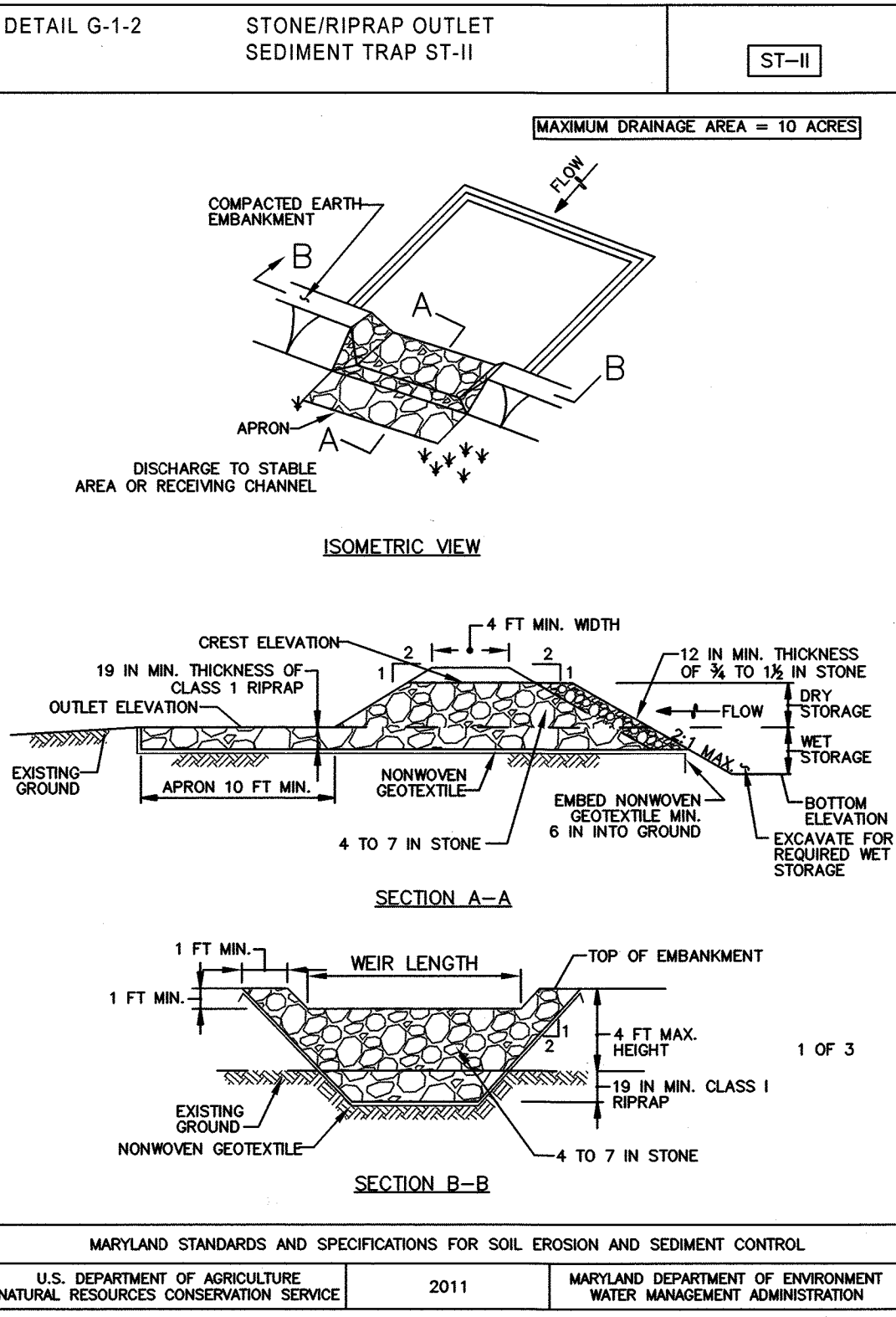
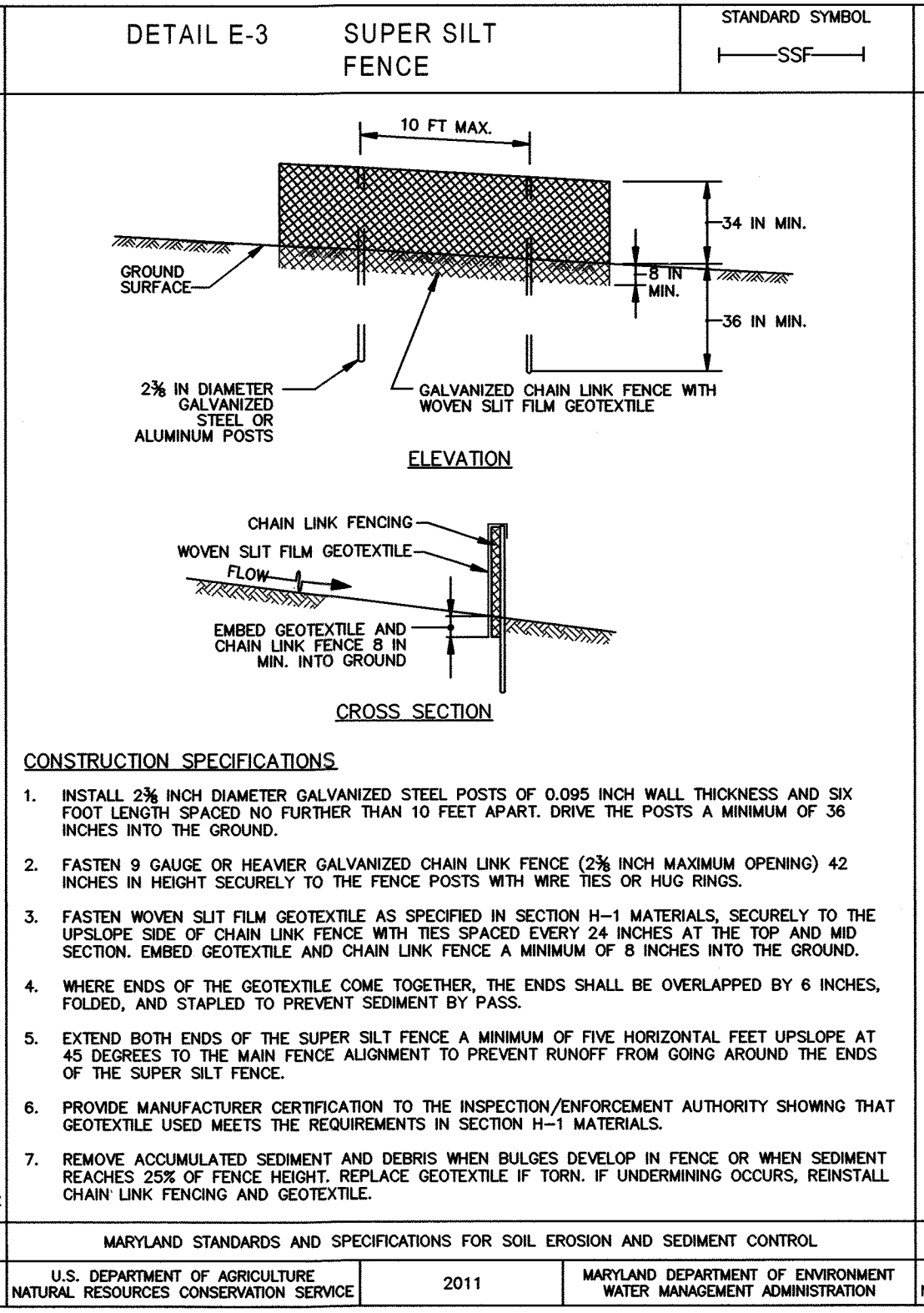
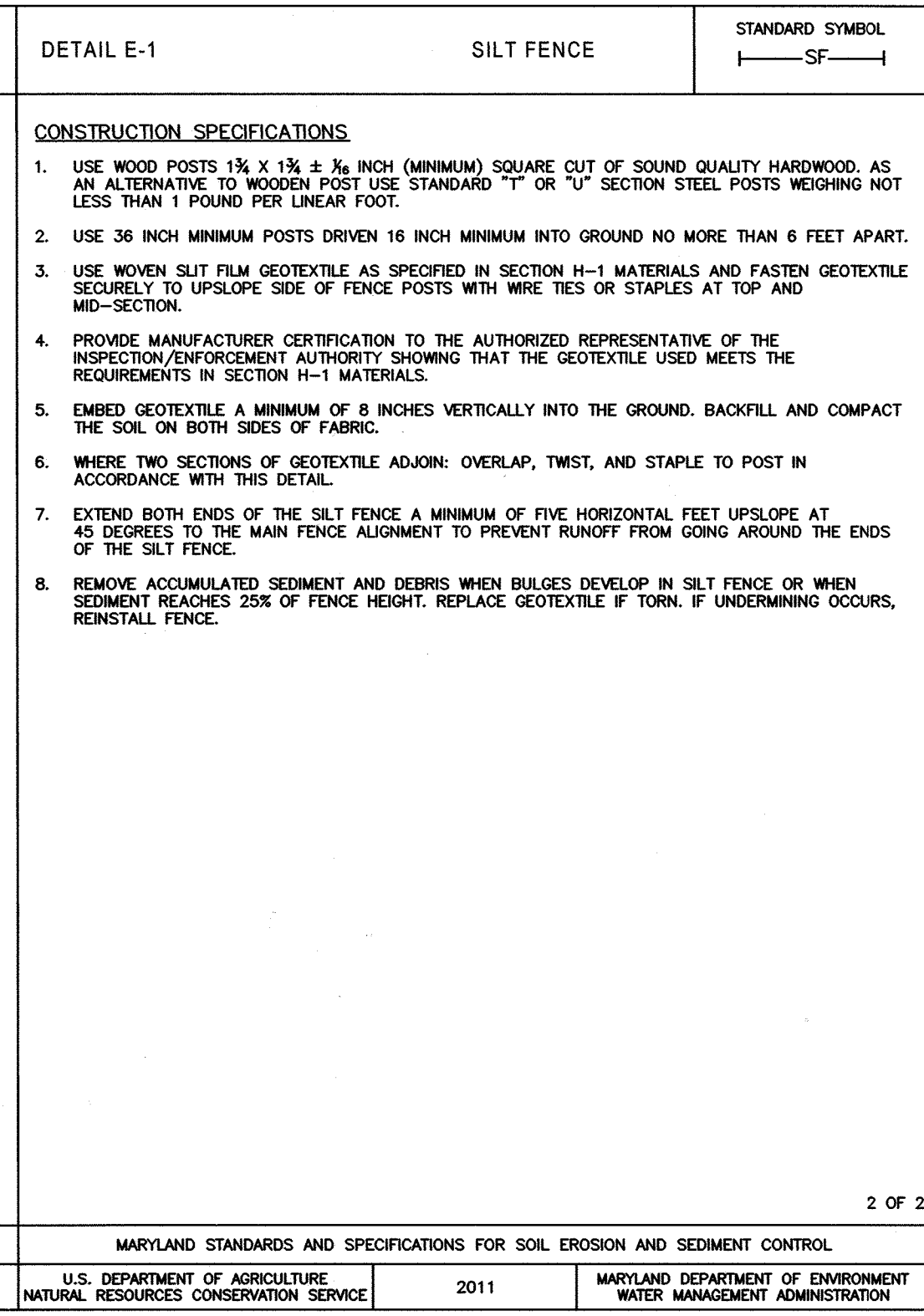
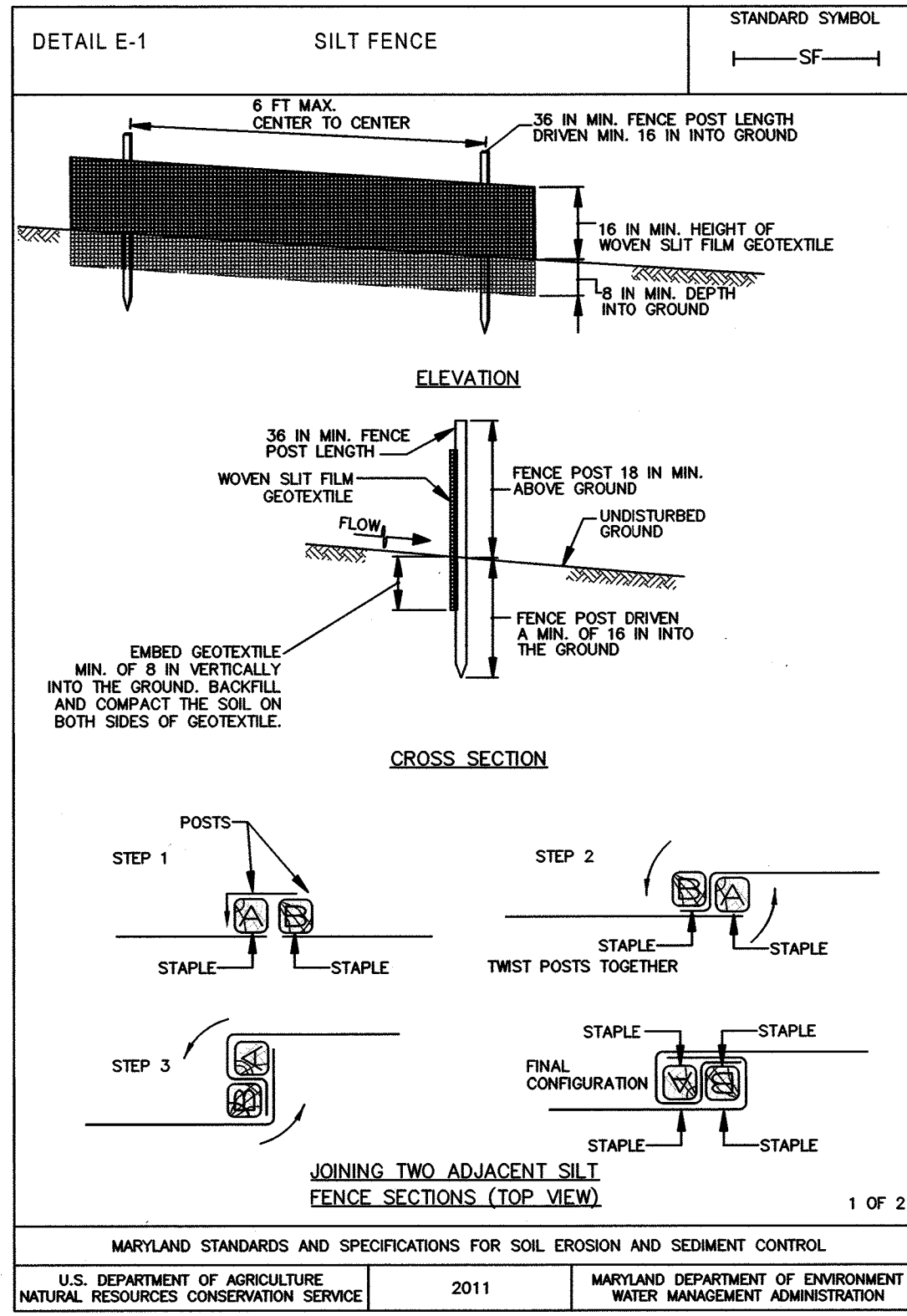
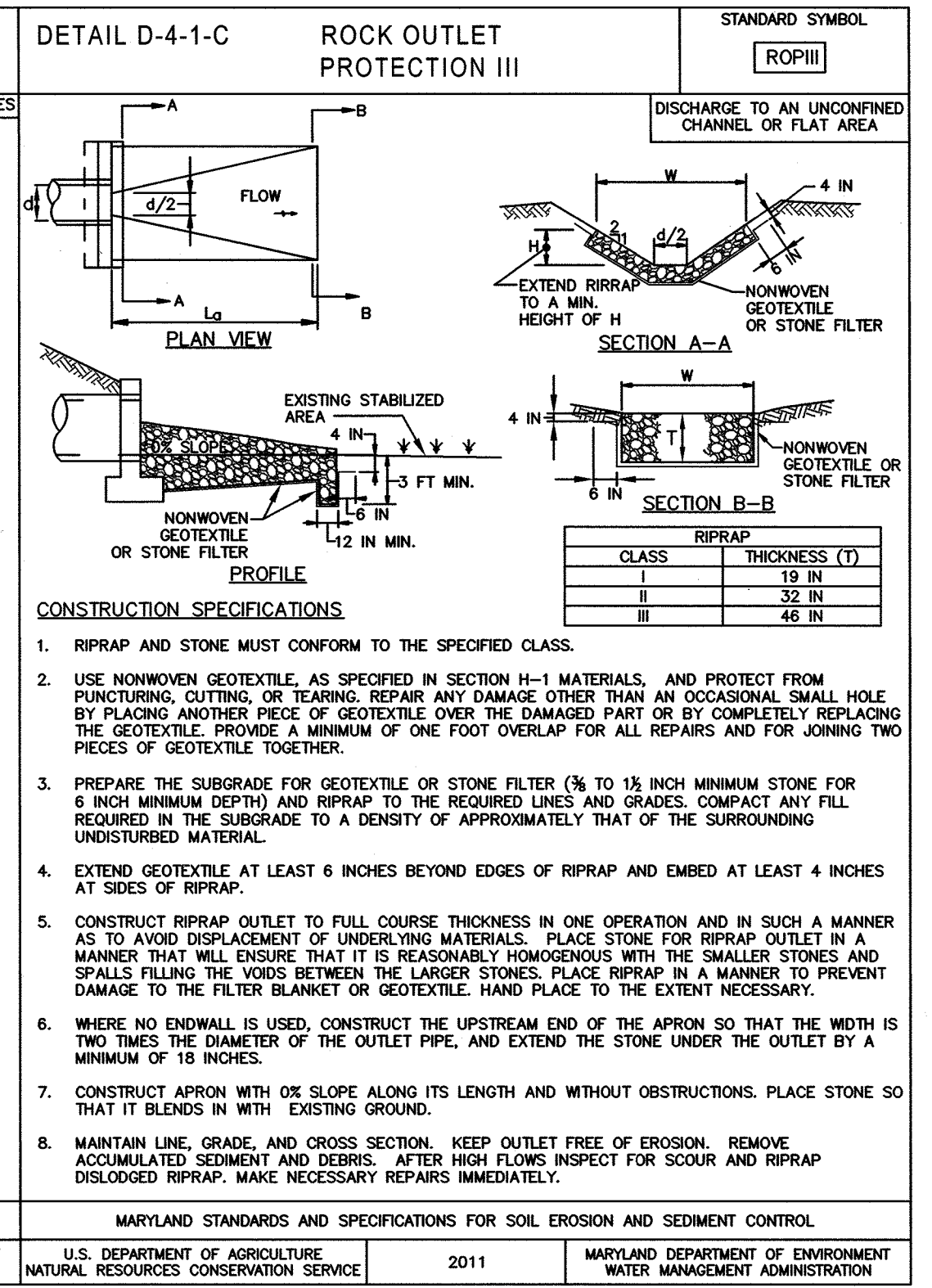
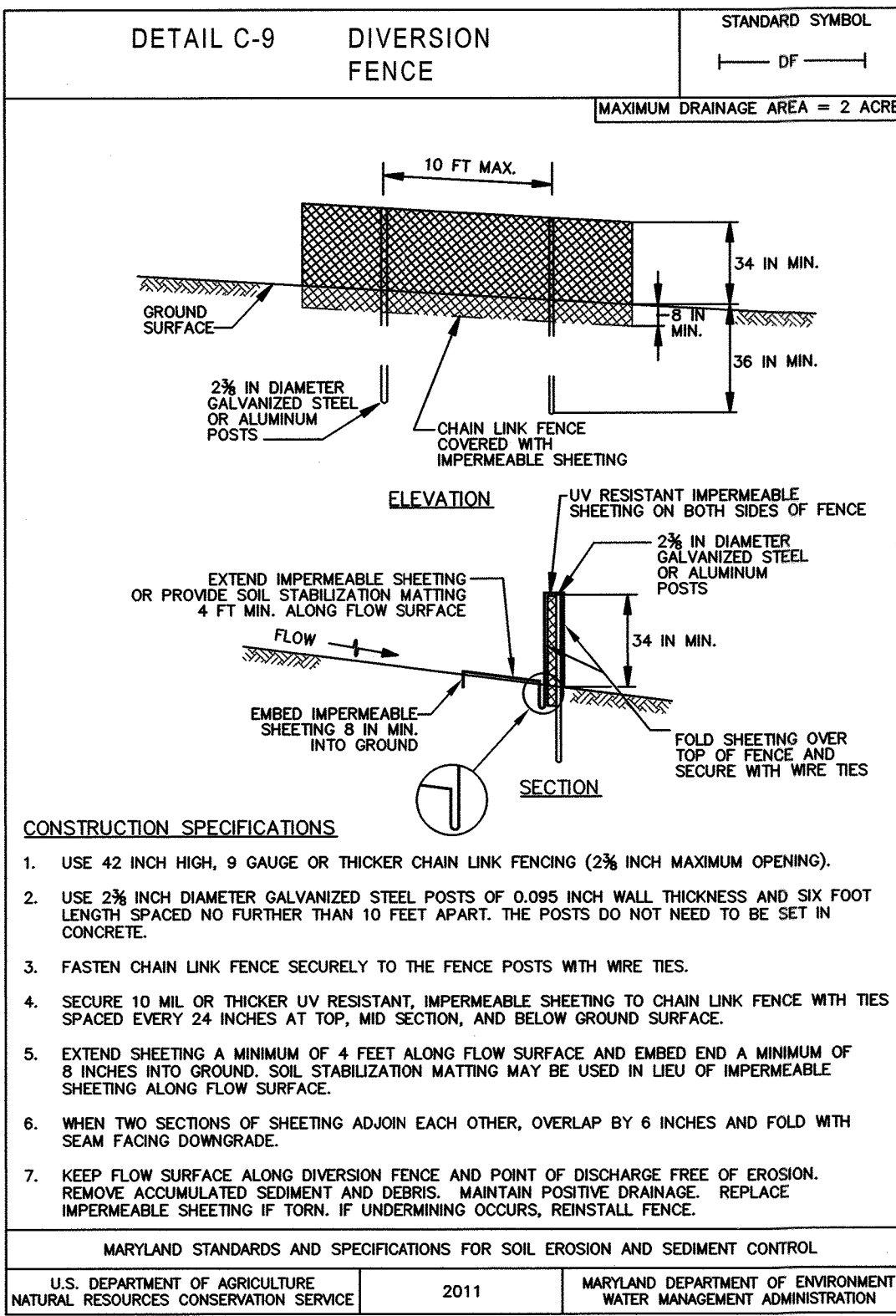
SEDIMENT & EROSION CONTROL NOTES & DETAILS
DOVES FLY
LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A...
SILL ENGINEERING GROUP, LLC
11130 Dovedale, Suite 200, Marriottsville, Maryland 21104

OWNER: THE JACK AND BETTY CLARK LIVING TRUST
DEVELOPER: WILLIAMSBURG GROUP
AS-BUILT
SEDIMENT & EROSION CONTROL NOTES & DETAILS
DOVES FLY
LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A
TAX MAP 47 GRID 7
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND





SWALE	SHEAR STRESS LB/FT <sup>2</sup>
A	0.8054
A-1	0.2648
B	1.1093
A+B	1.5542
LOT 12 THRU LOT 17	1.8363



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

AS-BUILT CERTIFICATION  
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR  
10/28/2020

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Kurtzke  
5-16-17  
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
M...  
4/10/2017  
CHIEF, BUREAU OF HIGHWAYS

DEVELOPER'S CERTIFICATE  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL...  
3/22/17

TRAP	FLOW LENGTHS	BAFFLE ELEVATION
1	L1 = 20.20' L2 = 55.15' L3 = 50.65'	361.5
2	N/A	N/A
3	N/A	N/A

OWNER: THE JACK AND BETTY CLARK LIVING TRUST  
DEVELOPER: WILLIAMSBURG GROUP  
SEDIMENT & EROSION CONTROL NOTES & DETAILS  
DOVES FLY  
LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
TAX MAP 47 GRID 7  
6TH ELECTION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Kurtzke  
5-16-17  
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
M...  
4/10/2017  
CHIEF, BUREAU OF HIGHWAYS

DEVELOPER'S CERTIFICATE  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL...  
3/22/17

ENGINEERS 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.  
3/16/17

NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCOCK AND ASSOCIATES, LLC	10/28/2020

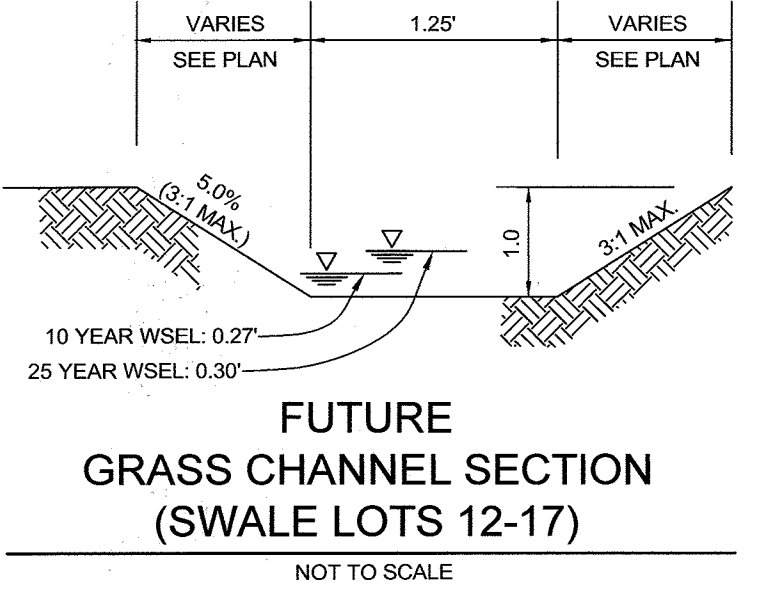
SILL ENGINEERING GROUP, LLC  
11130 Dovedale, Suite 200  
Marrattsville, Maryland 21104  
Phone: 443.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development  
DESIGN BY: PS  
DRAWN BY: JCV  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: MARCH 15, 2017  
PROJECT #: 14-010  
SHEET #: 8 of 16





SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
SaB	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	B	0.37
SaC	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES	B	0.24
WoB	WOODSTOWN SANDY LOAM, 2 TO 5 PERCENT SLOPES	C	0.24

NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.  
 2) 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	
EXISTING CONTOUR	--- 382
PROPOSED CONTOUR	--- 382
PROPOSED SPOT ELEVATION	+56.5
DIRECTION OF FLOW	→
EXISTING TREELINE	~
PROPOSED TREELINE	~
EXISTING SPECIMEN TREE	ST#9
EXISTING FENCE	—
FOREST CONSERVATION EASEMENT	▨
15% AND GREATER SLOPES	▨
HYDROLOGIC SOIL GROUP 'C'	▨
PROPOSED DRAINAGE AREA LINE	—

SOIL DATA CALLOUTS:  
 A=0.41 Ac. C=0.62 I-3 'B' SOIL Z=R-20 P=71%  
 A=0.07 Ac. I-4 'B' SOIL Z=R-20 P=100%  
 A=0.47 Ac. I-5 'B' SOIL Z=R-20 P=49%  
 A=0.65 Ac. I-2 'B' SOIL Z=R-20 P=56%  
 A=0.21 Ac. I-1 'B' SOIL Z=R-20 P=100%  
 A=0.37 Ac. ES6 'B' SOIL Z=R-20 P=22%  
 A=0.49 Ac. I-7 'B' SOIL Z=R-20 P=38%  
 A=0.44 Ac. I-6 'B' SOIL Z=R-20 P=29%  
 A=0.50 Ac. A-1 'B' SOIL Z=R-20 P=17%

**AS-BUILT CERTIFICATION**  
 THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.  
 MICHAEL B. ARCOCK, PROFESSIONAL LAND SURVEYOR, DATE 10/28/2020, MD REG. NO. 21257, EXPIRATION DATE: 10/28/2025

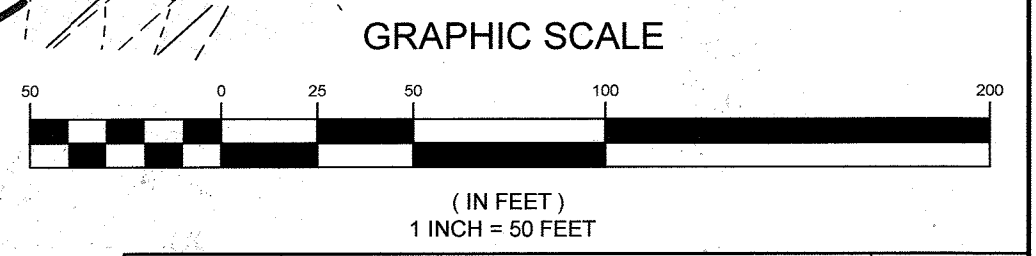


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 DATE 7/31/17  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE 7/19/2017  
 CHIEF, BUREAU OF HIGHWAYS

THE PURPOSE OF THIS REVISED PLAN IS TO SHOW THE REVISED GRADES. THE GRADES WERE RAISED TO LOWER THE AMOUNT OF CUT FOR THE SITE.

NOTE: DRAINAGE AREA 'B' IS PART OF DRAINAGE AREA FOR ES2. SEE SHEET 5 FOR FULL DRAINAGE AREA.



NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ARCOCK AND ASSOCIATES, LLC	10/28/2020

**OWNER**  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 DOVES FLY WAY  
 LAUREL, MD 20723

**DEVELOPER**  
 WILLIAMSBURG GROUP  
 5485 HARPERS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410.997.8800

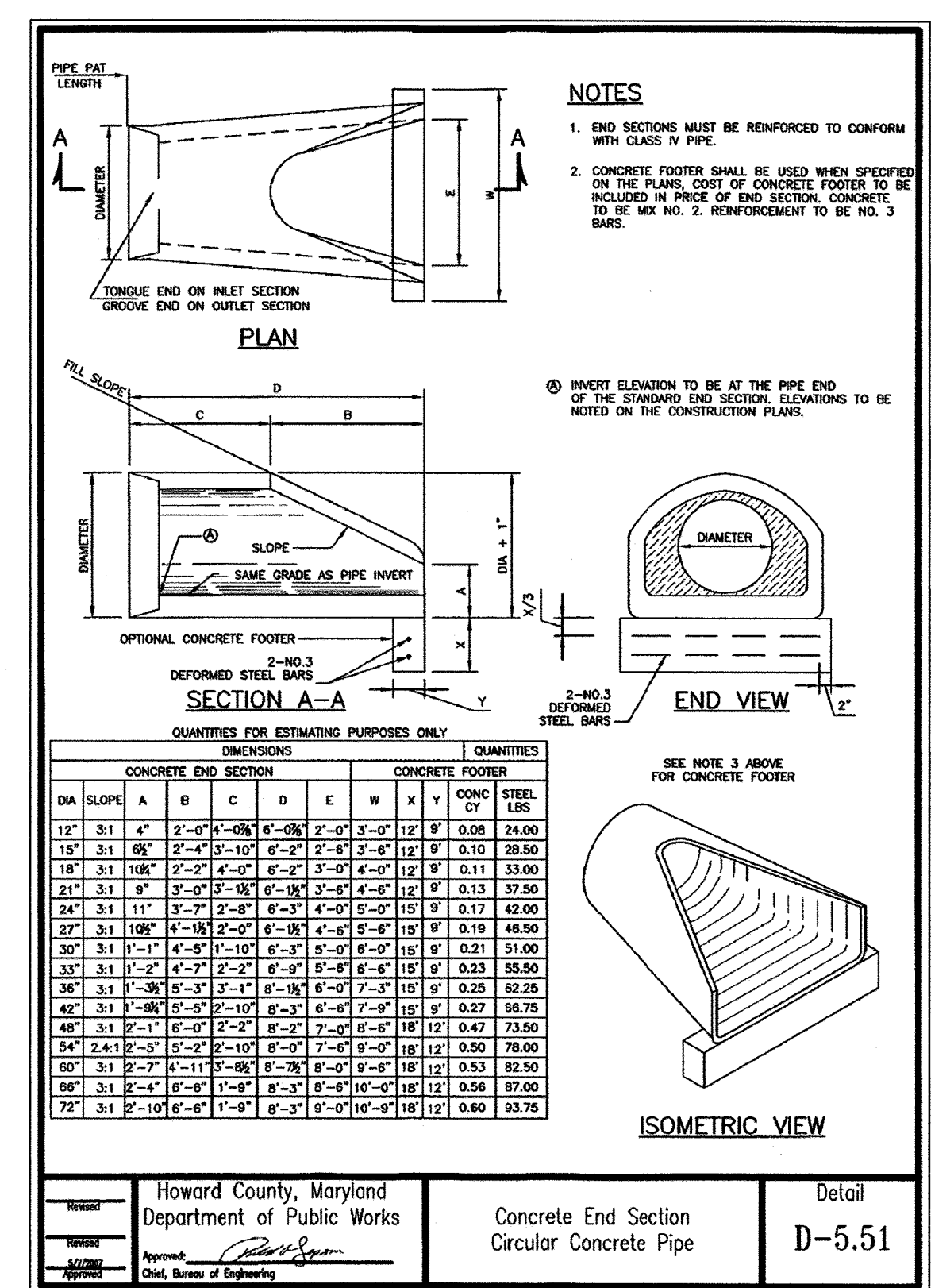
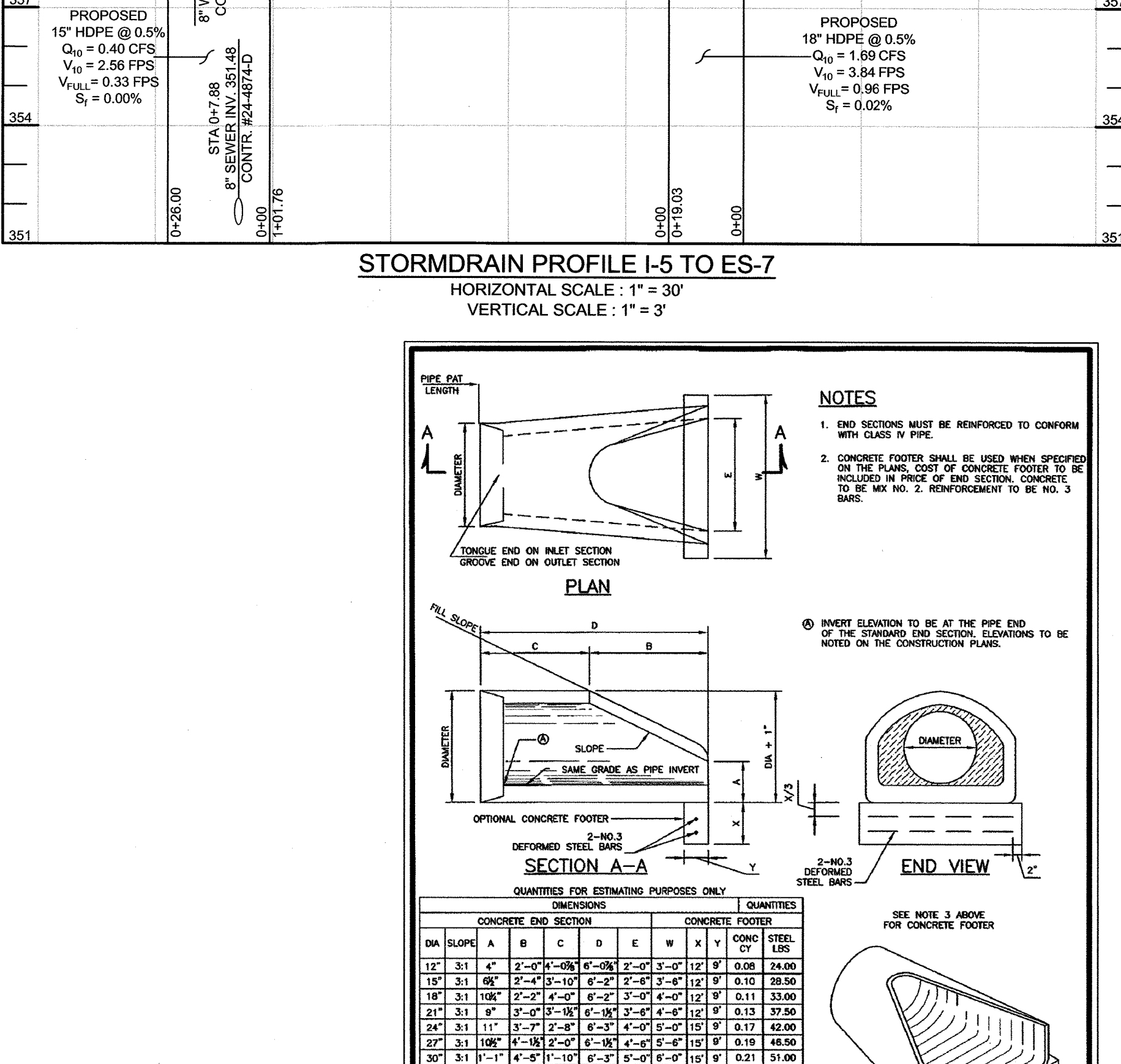
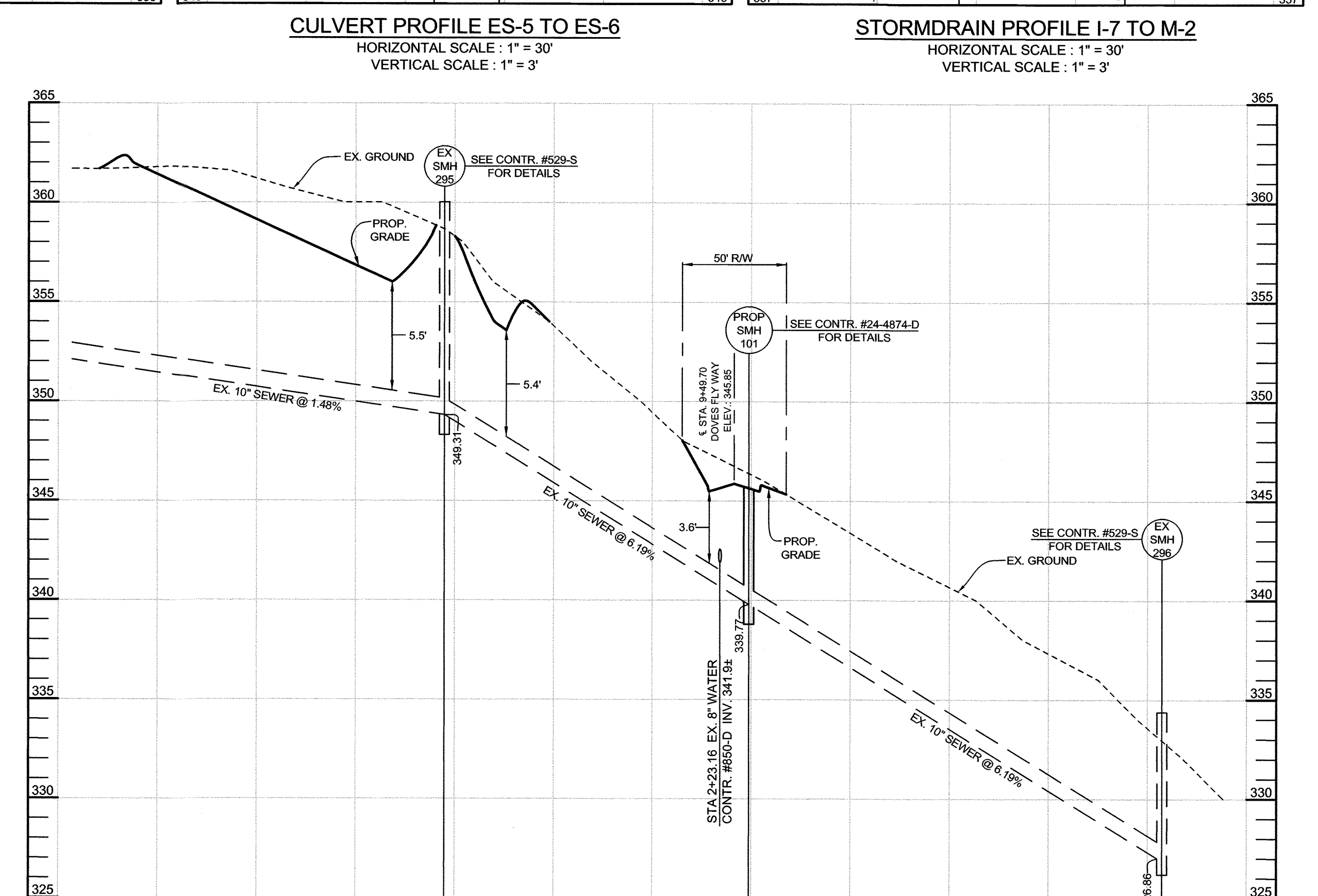
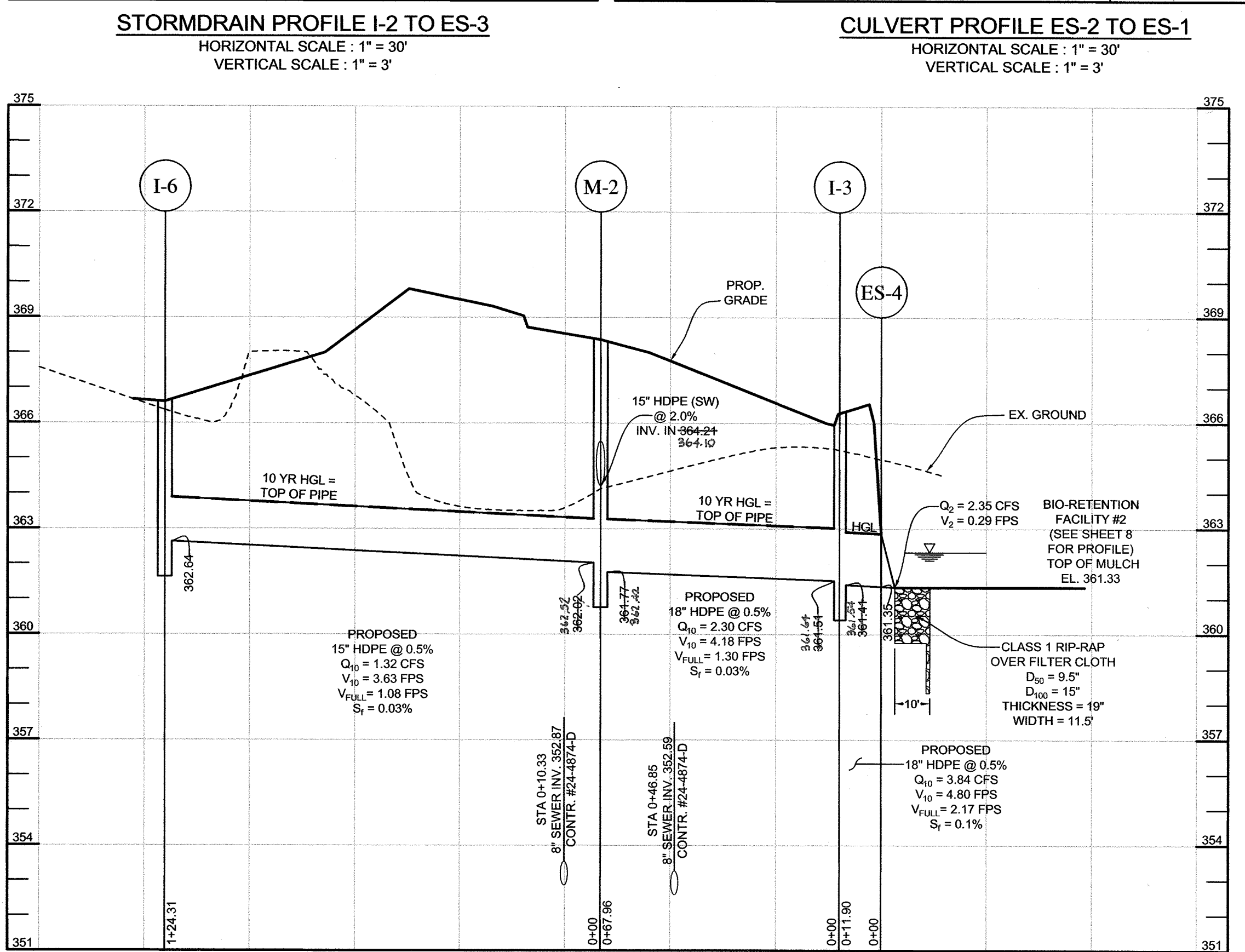
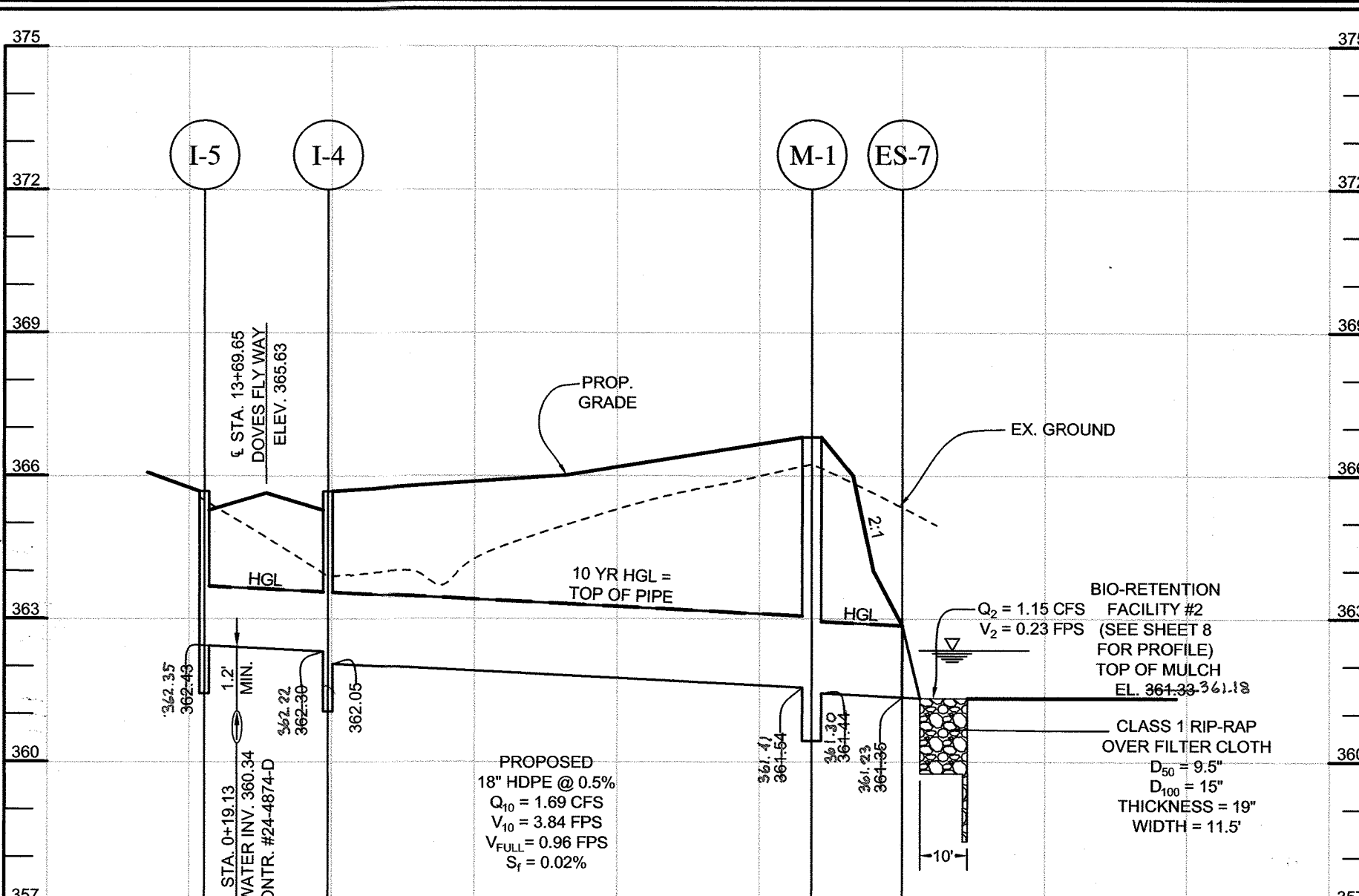
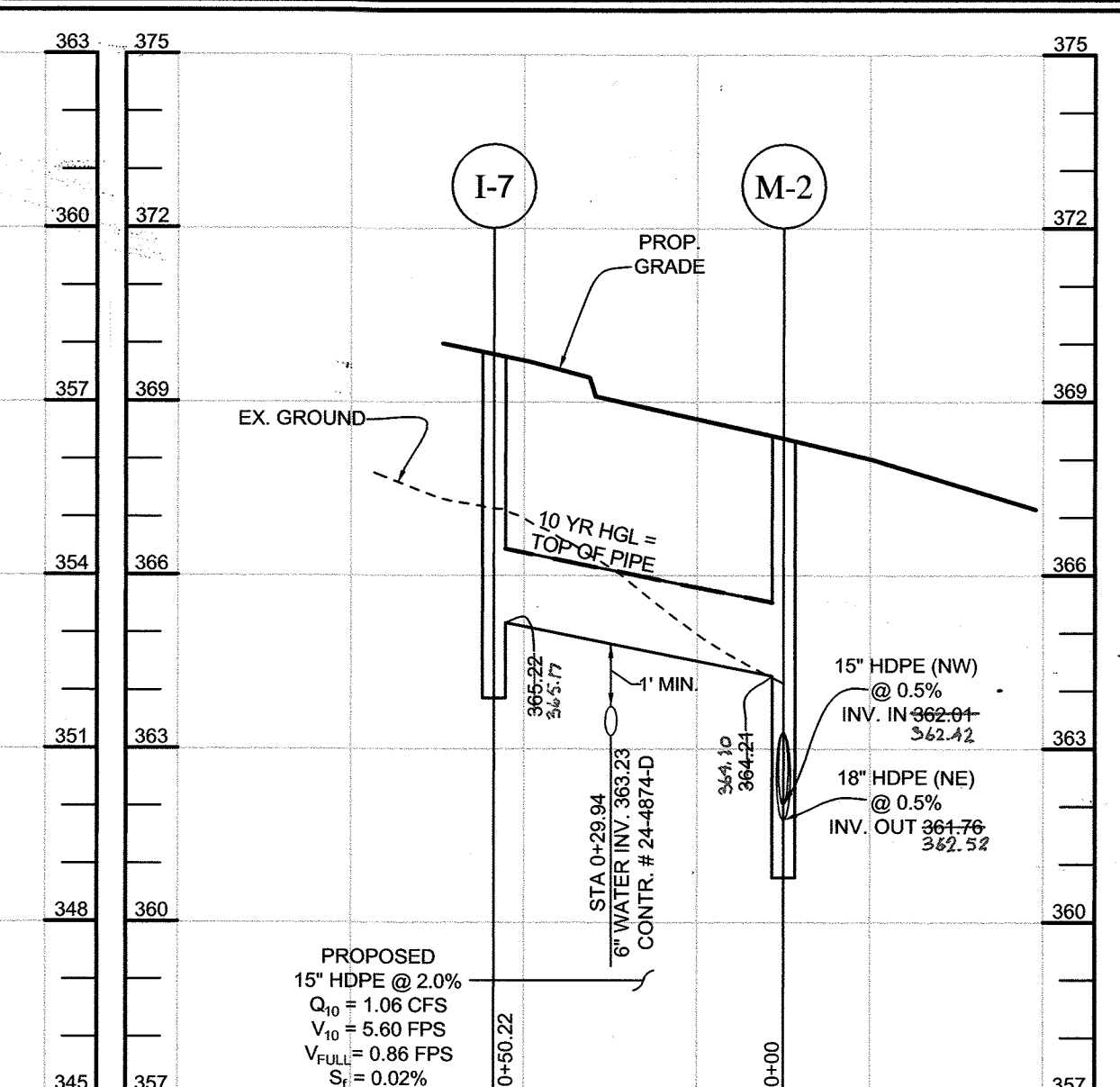
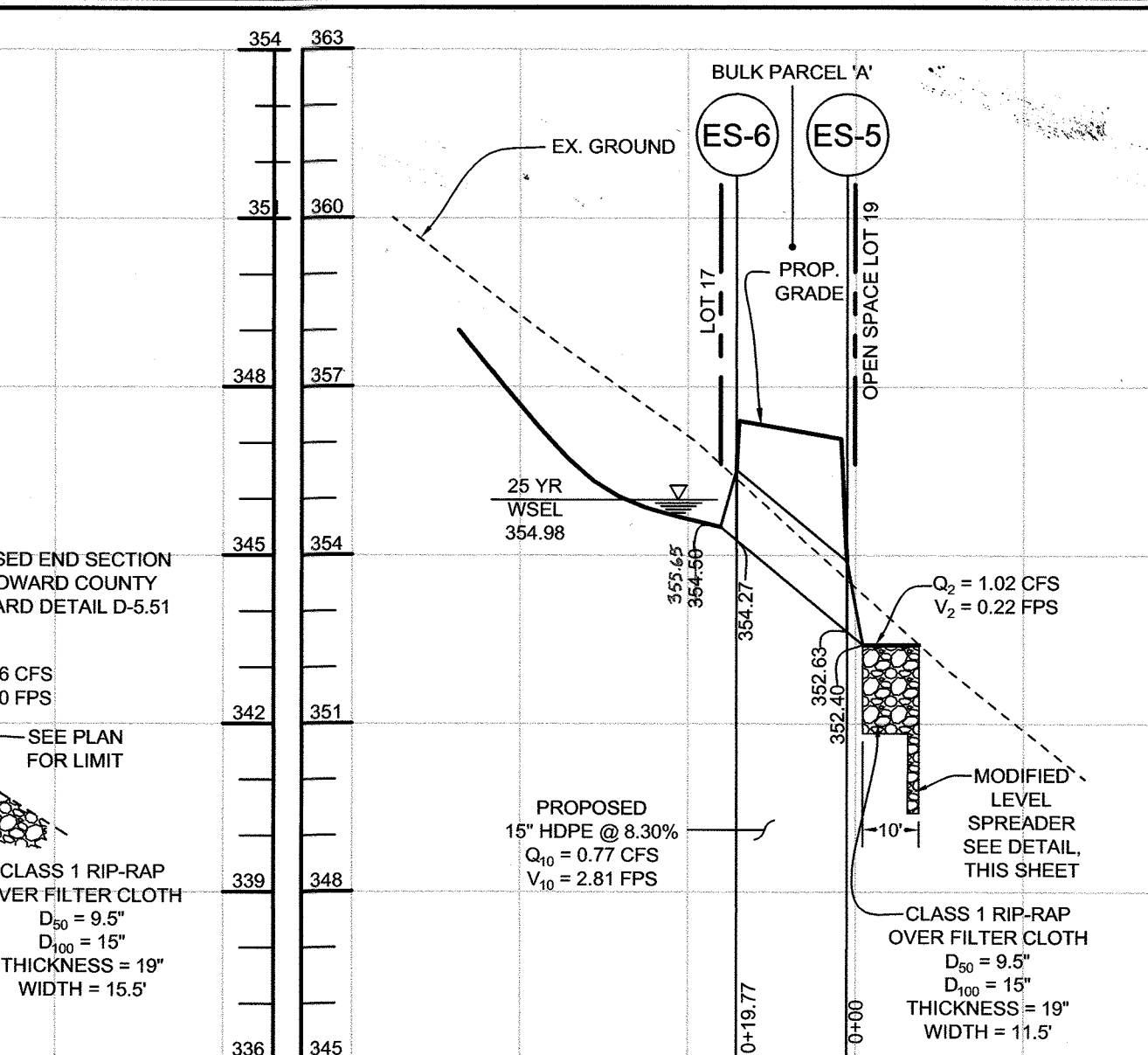
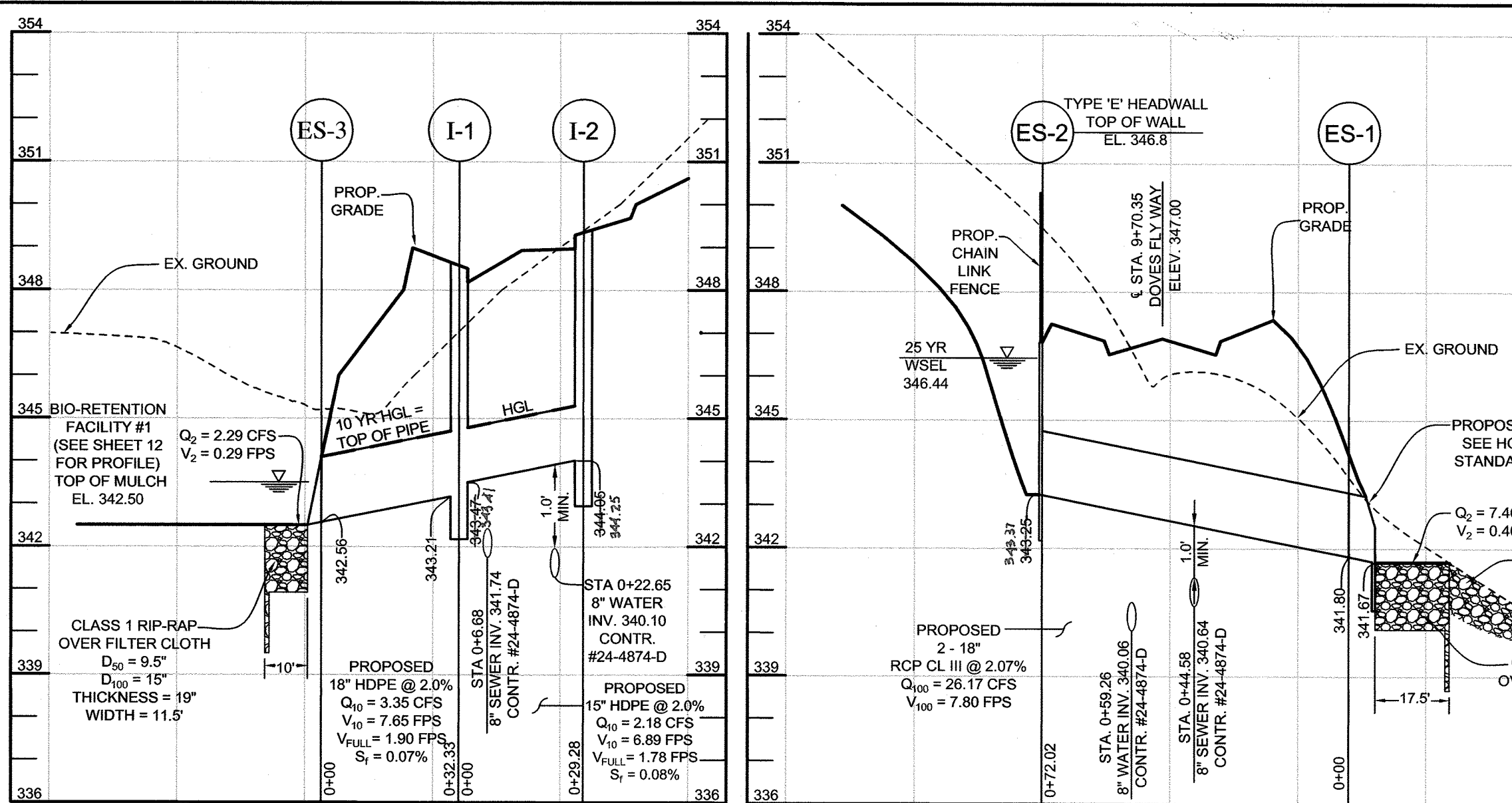
**AS-BUILT**

**REVISED FINAL STORM DRAIN DRAINAGE AREA MAP DOVES FLY**  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7 PARCEL 128  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**  
 11130 Dovedale, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: JCV/AEA  
 CHECKED BY: PS  
 SCALE: 1"=50'  
 DATE: JUNE 27, 2017  
 PROJECT #: 14-010  
 SHEET #: 9 of 16





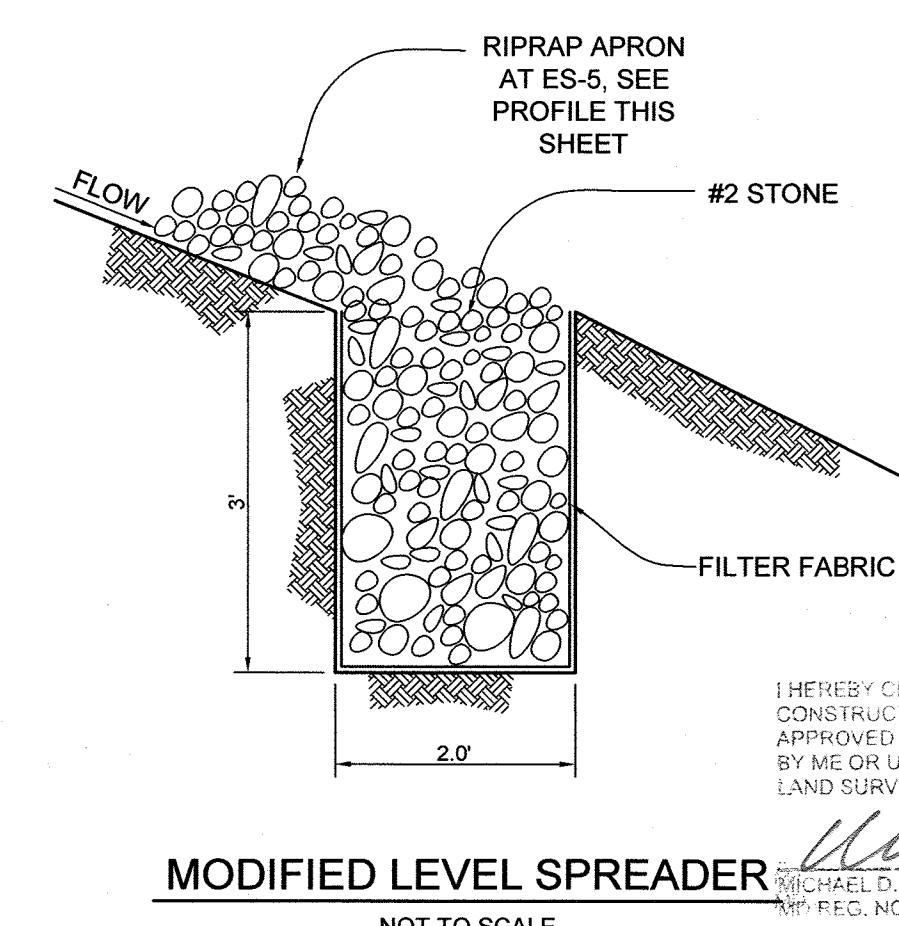
**STRUCTURE SCHEDULE**

NO.	TYPE & OWNERSHIP	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
ES-1	(2)18" RCP END SECTION PUBLIC	N 534.435.59 E 1,349.693.31	343.30	341.80	341.67	HO CO DTL. D-5.51
ES-2	TYPE 'E' HEADWALL PUBLIC (NOTE 8)	N 534.428.79 E 1,349.621.61	346.81	343.25	343.97	SHA STD NO. MD 356.01
ES-3	18" HDPE END SECTION PUBLIC	N 534.474.12 E 1,349.681.18	344.09	342.56	342.50	HANCOR OR EQUIVALENT
ES-4	18" HDPE END SECTION PUBLIC	N 534.882.27 E 1,349.338.64	362.85	361.35	361.33	HANCOR OR EQUIVALENT
ES-5	15" HDPE END SECTION PRIVATE	N 535.071.46 E 1,349.217.19	353.88	352.63	352.40	HANCOR OR EQUIVALENT
ES-6	15" HDPE END SECTION PRIVATE	N 535.053.70 E 1,349.208.15	366.62	364.60	364.55	HANCOR OR EQUIVALENT
ES-7	18" HDPE END SECTION PUBLIC	N 534.858.07 E 1,349.381.64	362.85	361.35	361.33	HANCOR OR EQUIVALENT
I-1	TYPE "A-10" INLET PUBLIC	Q STATION 9+98.76, 12.00' R	348.17	348.343	343.21	HO CO DTL. D-4.03
I-2	TYPE "A-10" INLET PUBLIC	Q STATION 10+11.76, 12.00' L	348.95	349.291	344.09	HO CO DTL. D-4.03
I-3	TYPE "A-10" INLET PUBLIC	LP STATION 2+51.63	365.943	361.513	361.41	HO CO DTL. D-4.03
I-4	TYPE "A-5" INLET PUBLIC	Q STATION 13+69.65, 12.00' R	365.273	362.302	362.05	HO CO DTL. D-4.01
I-5	TYPE "A-5" INLET PUBLIC	Q STATION 13+69.65, 12.00' L	365.273	362.302	362.05	HO CO DTL. D-4.01
I-6	TYPE "S" INLET PRIVATE	N 534.919.89 E 1,349.149.18	366.60	364.40	362.64	HO CO DTL. D-4.22
I-7	TYPE "S" INLET PUBLIC	N 534.821.13 E 1,349.237.87	369.82	367.47	365.22	HO CO DTL. D-4.22
M-1	PRECAST 4' MANHOLE	Q STATION 14+67.75, 17.79' R	366.80	361.54	361.44	HO CO DTL. G-5.12
M-2	PRECAST 4' MANHOLE	N 534.865.30 E 1,349.280.85	368.36	362.99	361.77	HO CO DTL. G-5.12

- NOTES:**
- TOP ELEVATIONS AND LOCATION COORDINATES FOR "S" INLETS ARE TO THE CENTER OF THE INLET TOP OF GRATE.
  - TOP ELEVATIONS AND LOCATION COORDINATES FOR "A" INLETS ARE TO THE FLOWLINE, CENTER OF INLET.
  - TOP ELEVATIONS AND LOCATION COORDINATES FOR PRECAST MANHOLES ARE TO THE CENTER, TOP OF MANHOLE COVER.
  - LOCATION COORDINATES FOR END SECTIONS ARE TO THE JUNCTION OF THE END SECTION WITH THE PIPING.
  - LOCATION COORDINATES FOR TYPE 'E' END WALL ARE AT THE INVERT OF THE PIPE, Q OF THE DUAL PIPES AT THE FACE OF WALL.
  - TOP SLOPE OF STRUCTURES TO CONFORM TO SLOPE OF PAVING/GRADING.
  - PROVIDE CHAIN LINK FENCE ON TOP OF HEAD WALL AT ES-2.
  - TYPE 'E' HEADWALL DETAIL TO BE MODIFIED FOR (2) 18" PIPES. STRUCTURAL ENGINEER TO APPROVE DESIGN PRIOR TO CONSTRUCTION.

**PIPE SCHEDULE**

SIZE	TYPE	LENGTH
15" PUBLIC	HDPE	230 LF
15" PRIVATE	HDPE	20 LF
18" PUBLIC	HDPE	233 LF
18" PUBLIC	RCP CL III	144 LF



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

5-16-17  
 DATE

5-11-17  
 DATE

4/10/2017  
 DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN, AS-BUILT, CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ARCOCK, PROFESSIONAL LAND SURVEYOR  
 M.D. No. 21257, EXPIRATION DATE: 10/28/2020

**REVISIONS**

NO.	DESCRIPTION	DATE
2	AS-BUILT PLAN BY ADCOCK AND ASSOCIATES, LLC	10/28/2020

**OWNER**  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 Doves Fly Way  
 Gaithersburg, MD 20878

**DEVELOPER**  
 WILLIAMSBURG GROUP  
 5485 HARRIS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410.997.8800

**AS-BUILT**

**STORM DRAIN AND OFF-SITE DRAINAGE SWALE PROFILES Doves Fly**

LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7  
 6TH ELECTION DISTRICT

PARCEL 126  
 HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**  
 11130 Dovesdale, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 410.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: JCV  
 CHECKED BY: PS  
 SCALE: AS SHOWN  
 DATE: MARCH 15, 2017  
 PROJECT #: 14-010  
 SHEET #: 10 of 16

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. 32025, EXPIRATION DATE: JUNE 20, 2017



**LEGEND**

EXISTING CONTOUR		382	'B' SOIL GROUP	
PROPOSED CONTOUR		382	'C' SOIL GROUP	
PROPOSED SPOT ELEVATION		+56.1	OPEN SPACE/ GRASS	
DIRECTION OF FLOW			IMPERVIOUS BEING TREATED IN DRY WELL	
EXISTING TREELINE			IMPERVIOUS BEING TREATED IN BIORETENTION FACILITY	
PROPOSED TREELINE			FOREST CONSERVATION EASEMENT	
SOIL BOUNDARY				
PROPOSED DRAINAGE AREA LINE				

NOTE:  
IMPERVIOUS SURFACE OF HOUSES ARE BEING TREATED BY DRY WELLS.  
EXCEPT FOR LOT12 AND LOT 13 WHICH ARE BEING TREATED BY BIORETENTION FACILITY #2.  
SEE SHEET 12.

**STORMWATER MANAGEMENT SUMMARY TABLE**

D.A.	Pe		ESDV	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED
A	1.8"	1.8"	1777.5 CF	1802.96 CF
B	1.8"	1.8"	2299 CF	3022 CF
C	1.8"	1.8"	441 CF	449.85 CF

- NOTES:
- TREATMENT FOR THE ENVIRONMENTAL SITE DESIGN VOLUMES (ESDV) WILL BE PROVIDED FOR AS FOLLOWS:
    - DRAINAGE AREA A: BIORETENTION FACILITY (F-6) AND DRY WELL
    - DRAINAGE AREA B: BIORETENTION FACILITY (F-6) AND DRY WELL
    - DRAINAGE AREA C: DRY WELL
    - DRAINAGE AREA D: DRY WELL
    - DRAINAGE AREA E: BIORETENTION FACILITY (F-6) AND DRY WELL
    - ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICABLE HAS BEEN PROVIDED FOR THIS SITE.
  - CHANNEL PROTECTION (CPV) IS NOT REQUIRED SINCE ALL ESDV HAVE BEEN TREATED TO THE MAXIMUM EXTENT PRACTICABLE.
  - OVERBANK FLOOD PROTECTION VOLUME (OP) AND EXTREME FLOOD VOLUME (EF) ARE NOT REQUIRED FOR THIS SITE.

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
SaB	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	B	0.37
SaC	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES	B	0.24
WoB	WOODTOWN SANDY LOAM, 2 TO 5 PERCENT SLOPES	C	0.24

- NOTES:
- SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.
  - 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.

**OWNER**  
THE JACK AND BETTY CLARK LIVING TRUST  
8600 DOVES FLY WAY  
LAUREL, MD 20723

**DEVELOPER**  
WILLIAMSBURG GROUP  
5485 HARPERS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

**AS-BUILT**

**REVISED FINAL STORMWATER MANAGEMENT DRAINAGE AREA MAP DOVES FLY**

LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
TAX MAP 47 GRID 7 PARCEL 128  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**  
11130 Dovesdale, Suite 200  
Mantoloking, Maryland 21104  
Phone: 443.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

DESIGN BY: PS  
DRAWN BY: JCV/AEA  
CHECKED BY: PS  
SCALE: 1" = 50'  
DATE: JUNE 27, 2017  
PROJECT#: 14-010  
SHEET#: 11 of 16



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
7/13/17  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
7/19/17  
DATE

A=0.33 Ac. Pe=1.8" Z=R-20 P=32.88%  
'B' SOIL

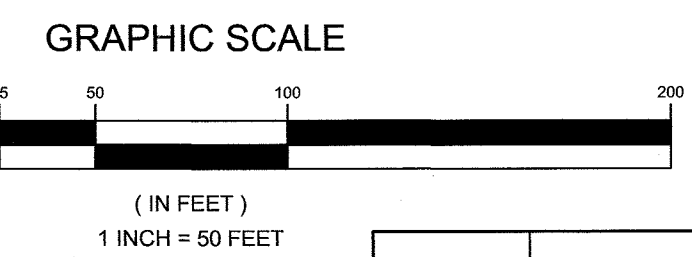
**AS-BUILT CERTIFICATION**

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS 'AS-BUILT' PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR  
MD REG. NO. 21257, EXPIRATION DATE: 10/26/2020



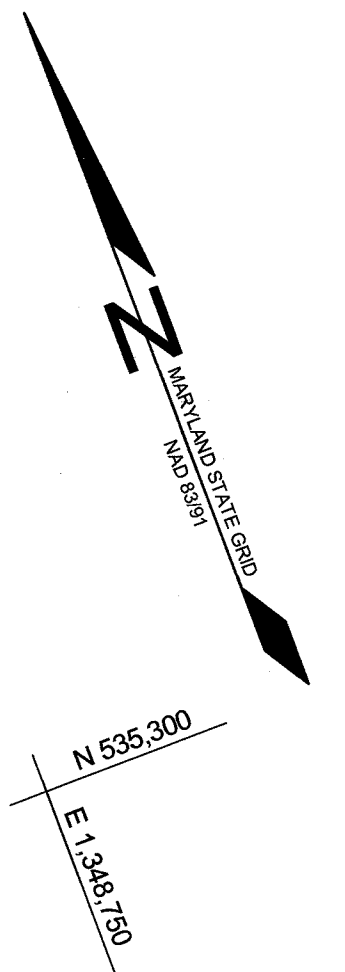
THE PURPOSE OF THIS REVISED PLAN IS TO SHOW THE REVISED GRADES. THE GRADES WERE RAISED TO LOWER THE AMOUNT OF CUT FOR THE SITE.



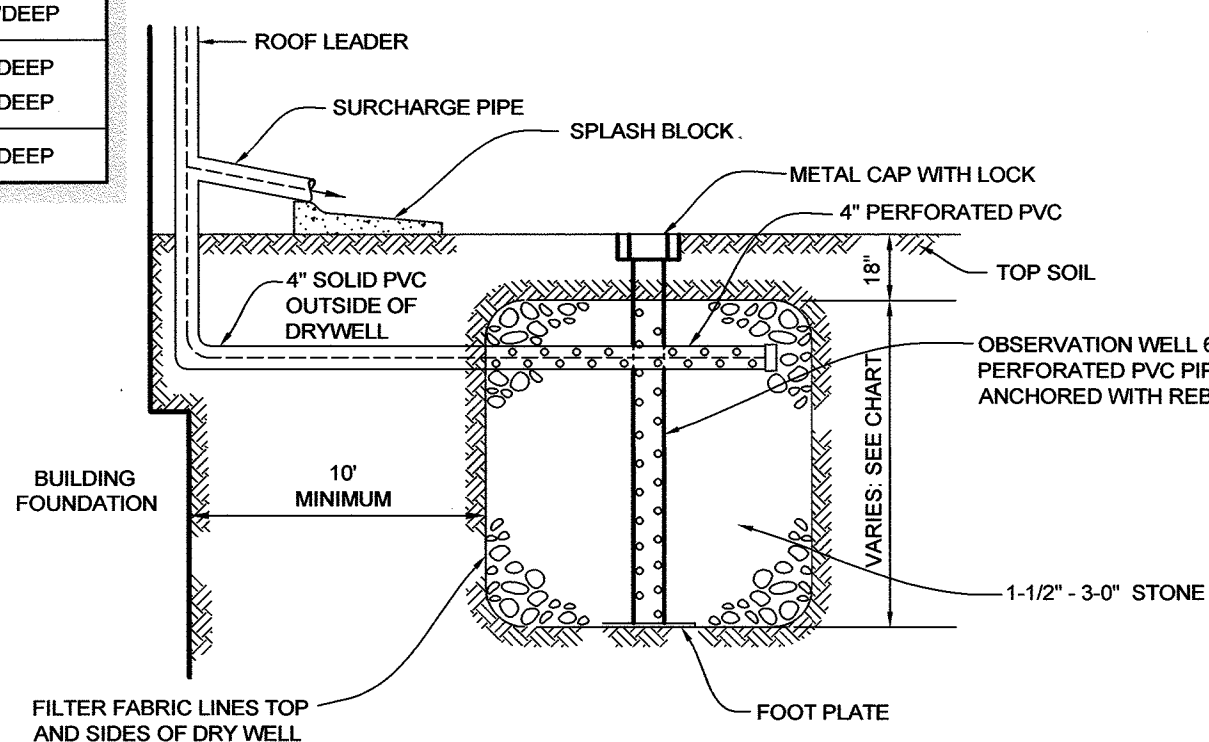
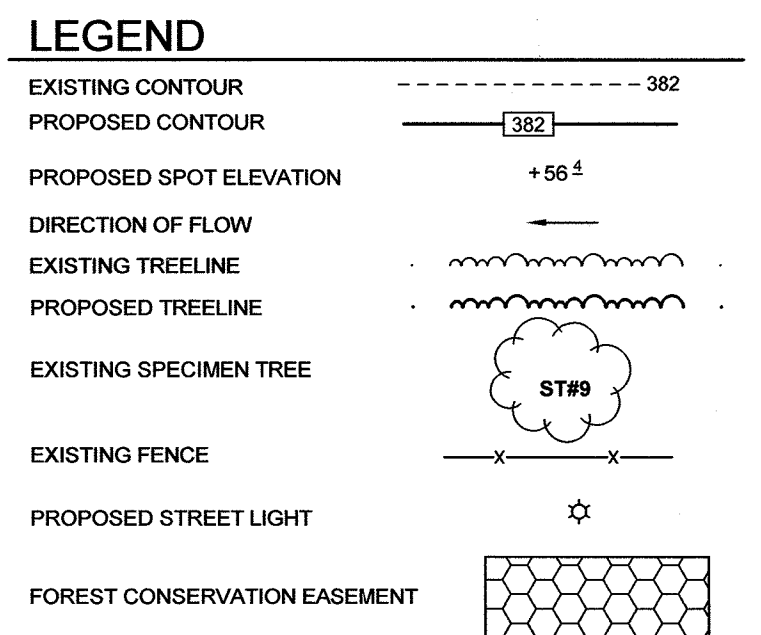
NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCOCK AND ASSOCIATES, LLC	10/26/2020
1	REVISE LOTS 12 & 13 TREATMENT TYPE	11/04/2017

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. 30225, EXPIRATION DATE: JUNE 20, 2019



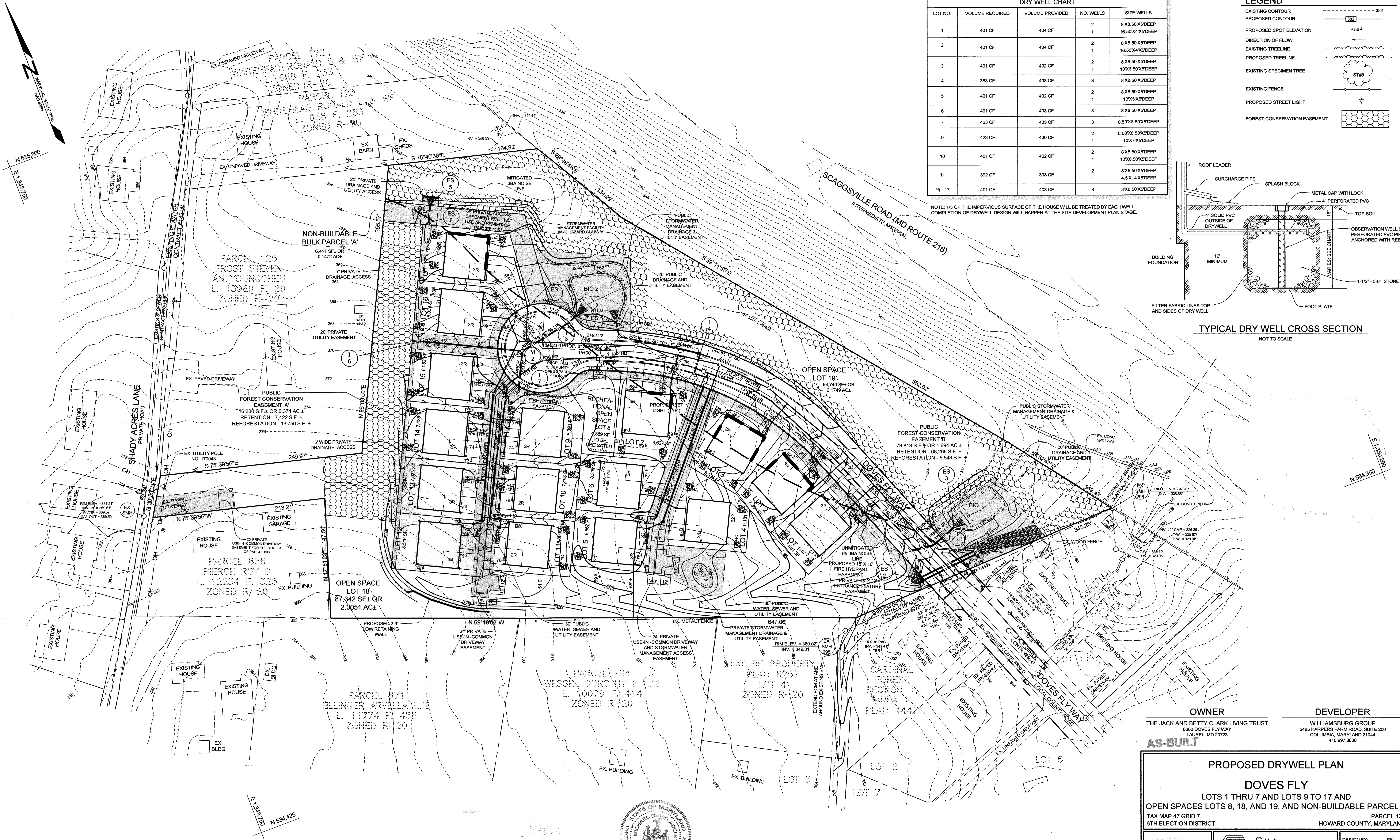


DRY WELL CHART				
LOT NO.	VOLUME REQUIRED	VOLUME PROVIDED	NO. WELLS	SIZE WELLS
1	401 CF	404 CF	2	8'X8.50'X5'DEEP 16.50'X4'X5'DEEP
2	401 CF	404 CF	2	8'X8.50'X5'DEEP 16.50'X4'X5'DEEP
3	401 CF	402 CF	2	8'X8.50'X5'DEEP 10'X8.50'X5'DEEP
4	388 CF	408 CF	3	8'X8.50'X5'DEEP
5	401 CF	402 CF	2	8'X8.50'X5'DEEP 13'X5'X5'DEEP
6	401 CF	408 CF	3	8'X8.50'X5'DEEP
7	423 CF	435 CF	3	8.50'X8.50'X5'DEEP
9	423 CF	430 CF	2	8.50'X8.50'X5'DEEP 10'X7'X5'DEEP
10	401 CF	402 CF	2	8'X8.50'X5'DEEP 10'X8.50'X5'DEEP
11	392 CF	398 CF	2	8'X8.50'X5'DEEP 4.5'X14'X5'DEEP
17	401 CF	408 CF	3	8'X8.50'X5'DEEP



NOTE: 1/3 OF THE IMPERVIOUS SURFACE OF THE HOUSE WILL BE TREATED BY EACH WELL. COMPLETION OF DRYWELL DESIGN WILL HAPPEN AT THE SITE DEVELOPMENT PLAN STAGE.

TYPICAL DRY WELL CROSS SECTION  
NOT TO SCALE



**OWNER**  
THE JACK AND BETTY CLARK LIVING TRUST  
8600 DOVES FLY WAY  
LAUREL, MD 20723

**DEVELOPER**  
WILLIAMSBURG GROUP  
5485 HARRERS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

**AS-BUILT**

**PROPOSED DRYWELL PLAN**

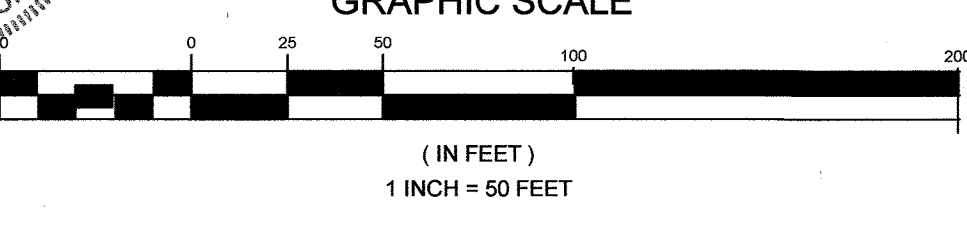
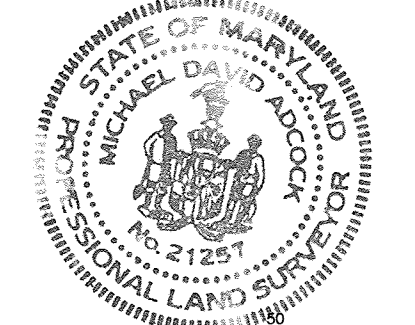
**DOVES FLY**

LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A

TAX MAP 47 GRID 7 PARCEL 126  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
K. S. [Signature] 5-16-17 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
M. [Signature] 4/10/2017 DATE  
CHIEF, BUREAU OF HIGHWAYS



NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY AD/COCK AND ASSOCIATES, LLC	10/28/2017
1	REMOVE LOT 9 DRYWELL	11/01/17

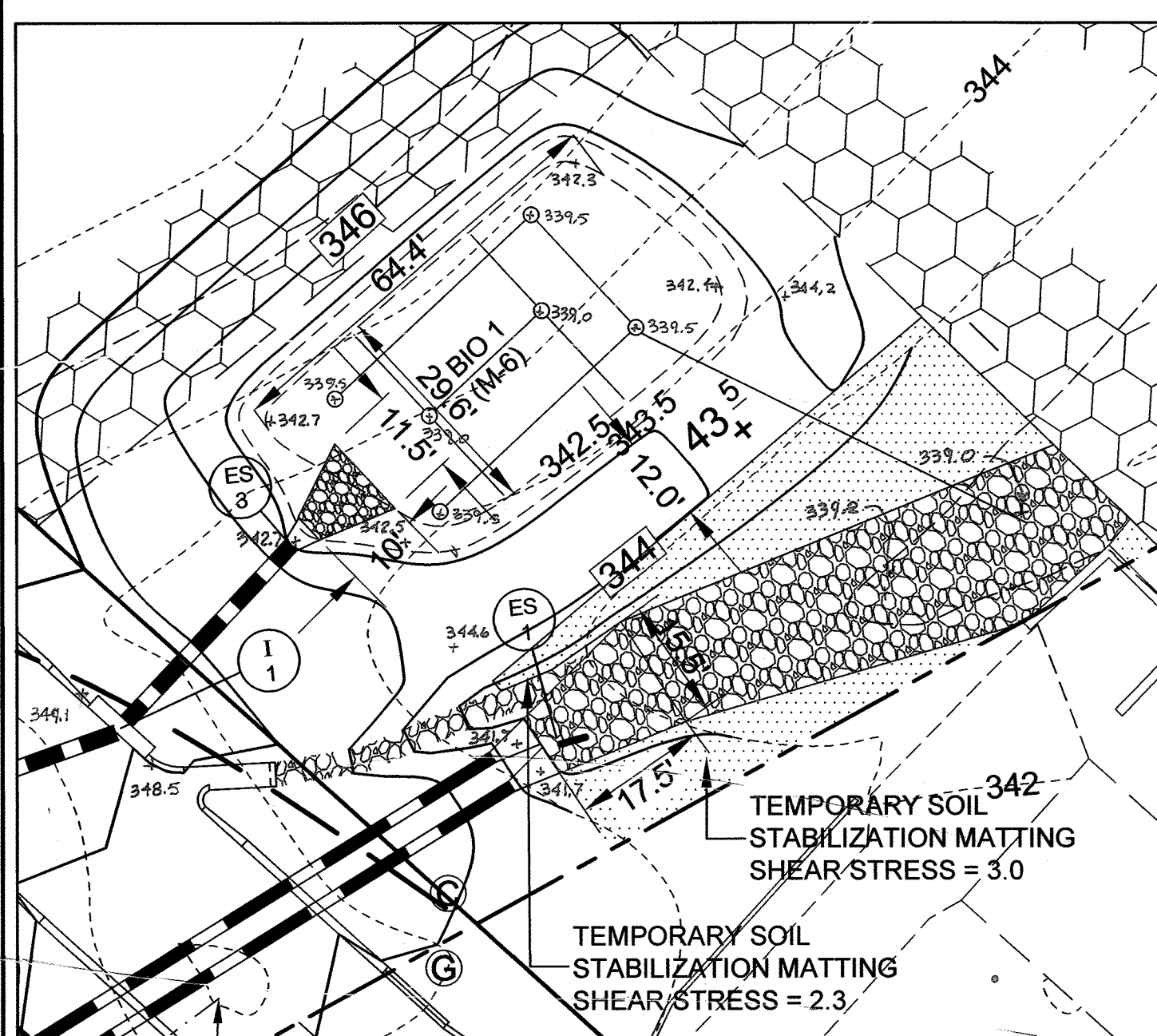
**SILL ENGINEERING GROUP, LLC**

11130 Dovesdale, Suite 200  
Marristown, Maryland 21104  
Phone: 443.325.5076  
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Civil Engineering for Land Development

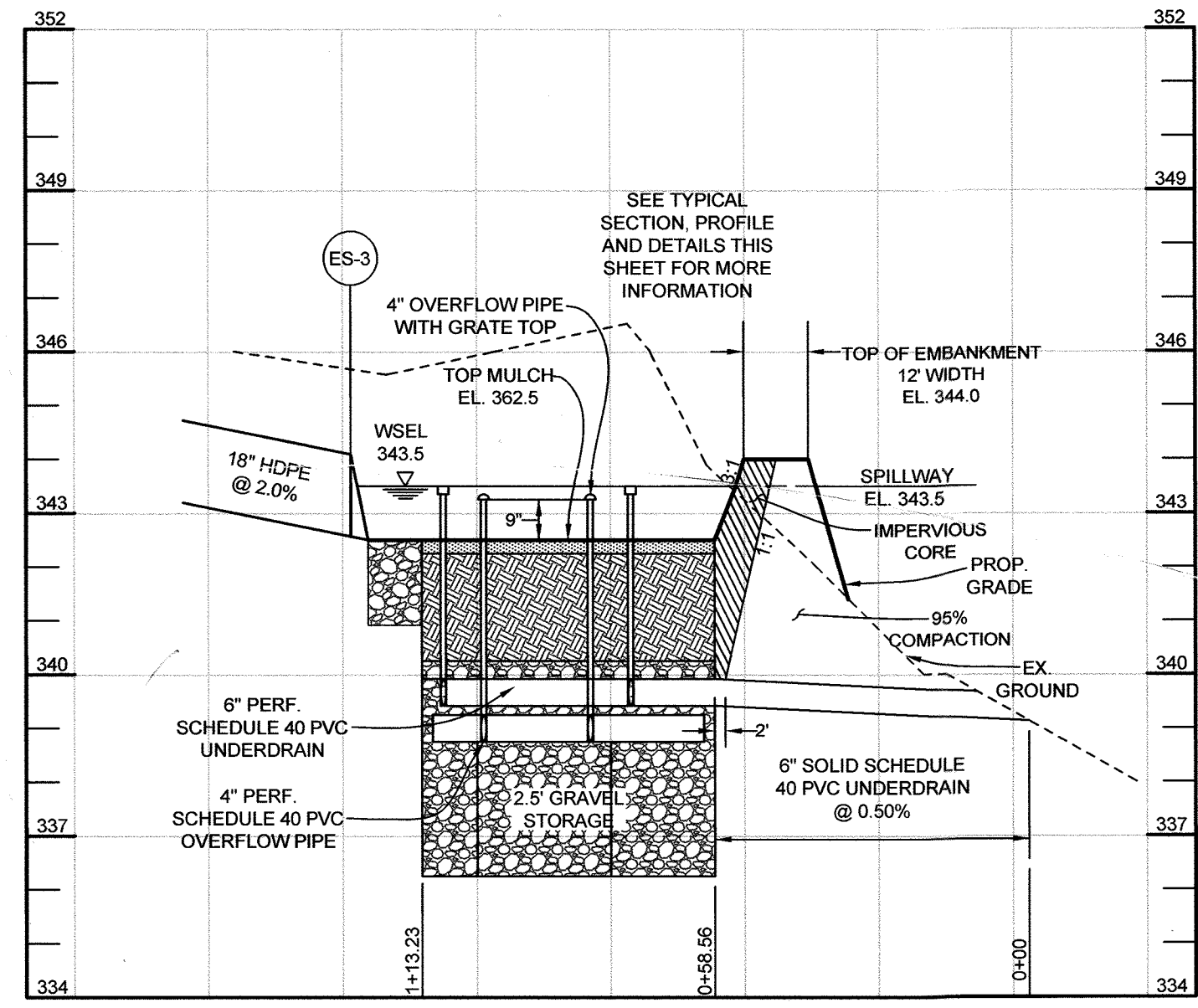
DESIGN BY: PS  
DRAWN BY: JCV  
CHECKED BY: PS  
SCALE: 1"=50'  
DATE: MARCH 15, 2017  
PROJECT #: 14-010  
SHEET #: 12 of 18

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. 32025, EXPIRATION DATE: JUNE 20, 2017

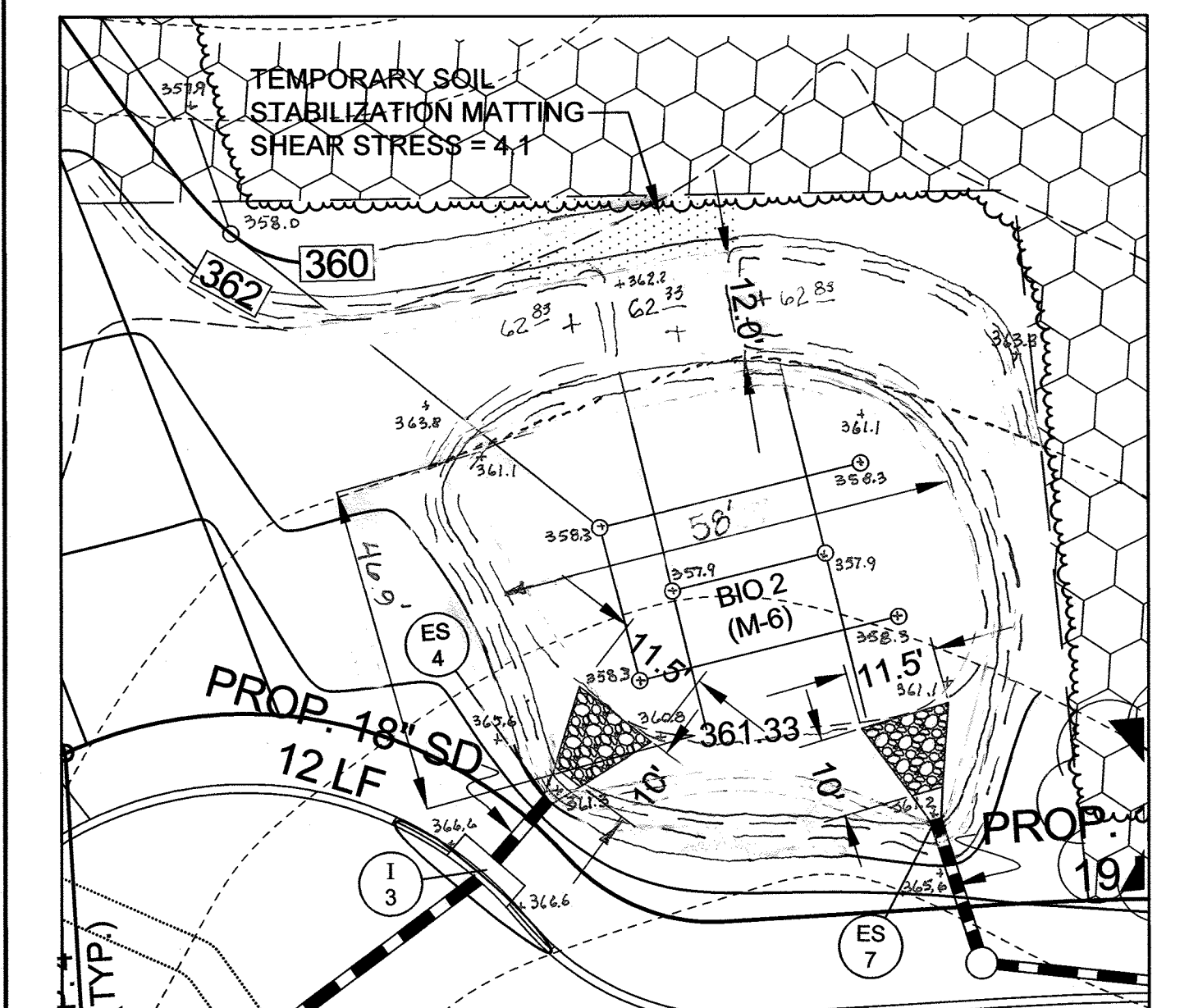




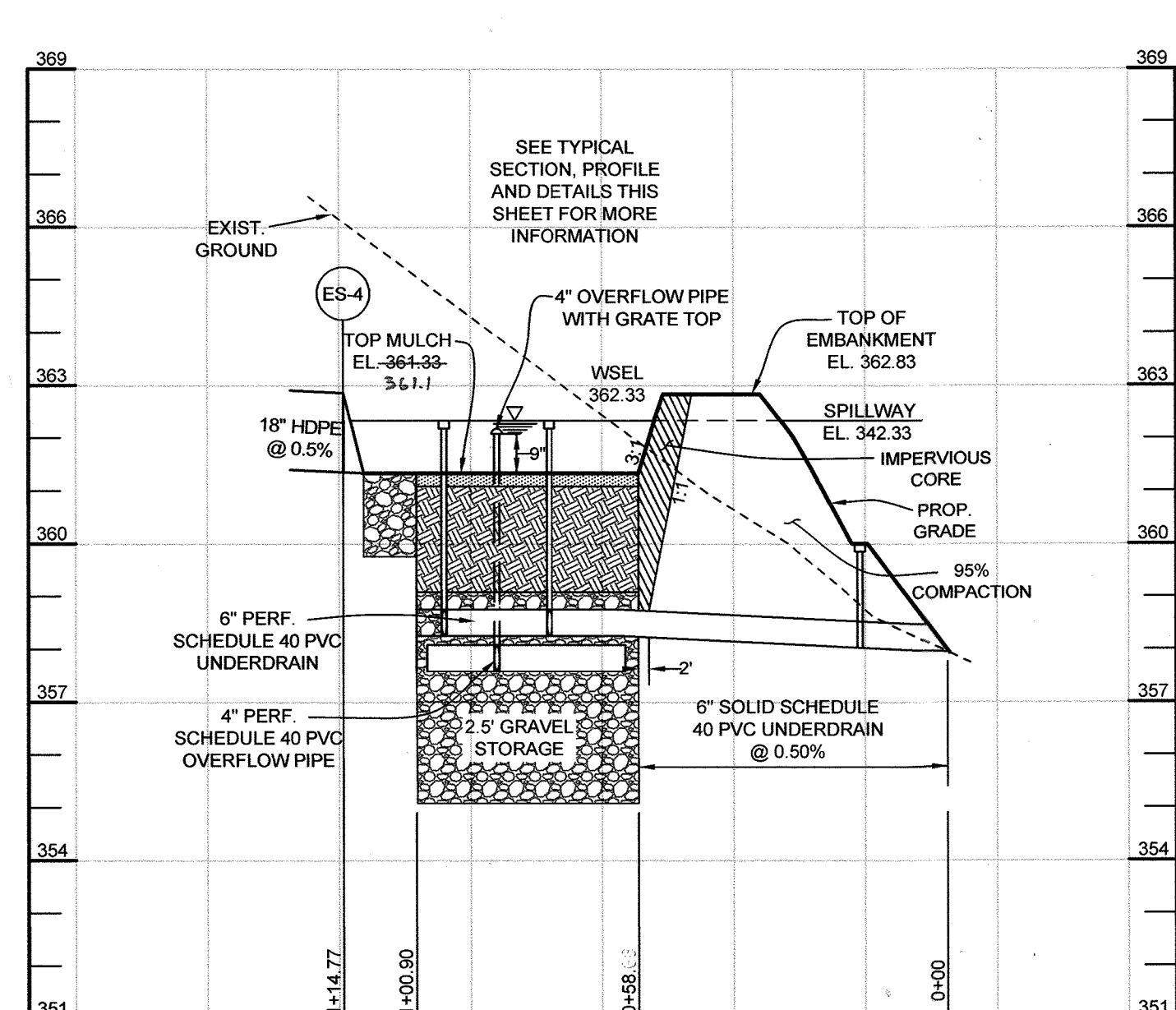
PLAN VIEW - BIORETENTION FACILITY #1 (M-6)  
SCALE: 1"=20'



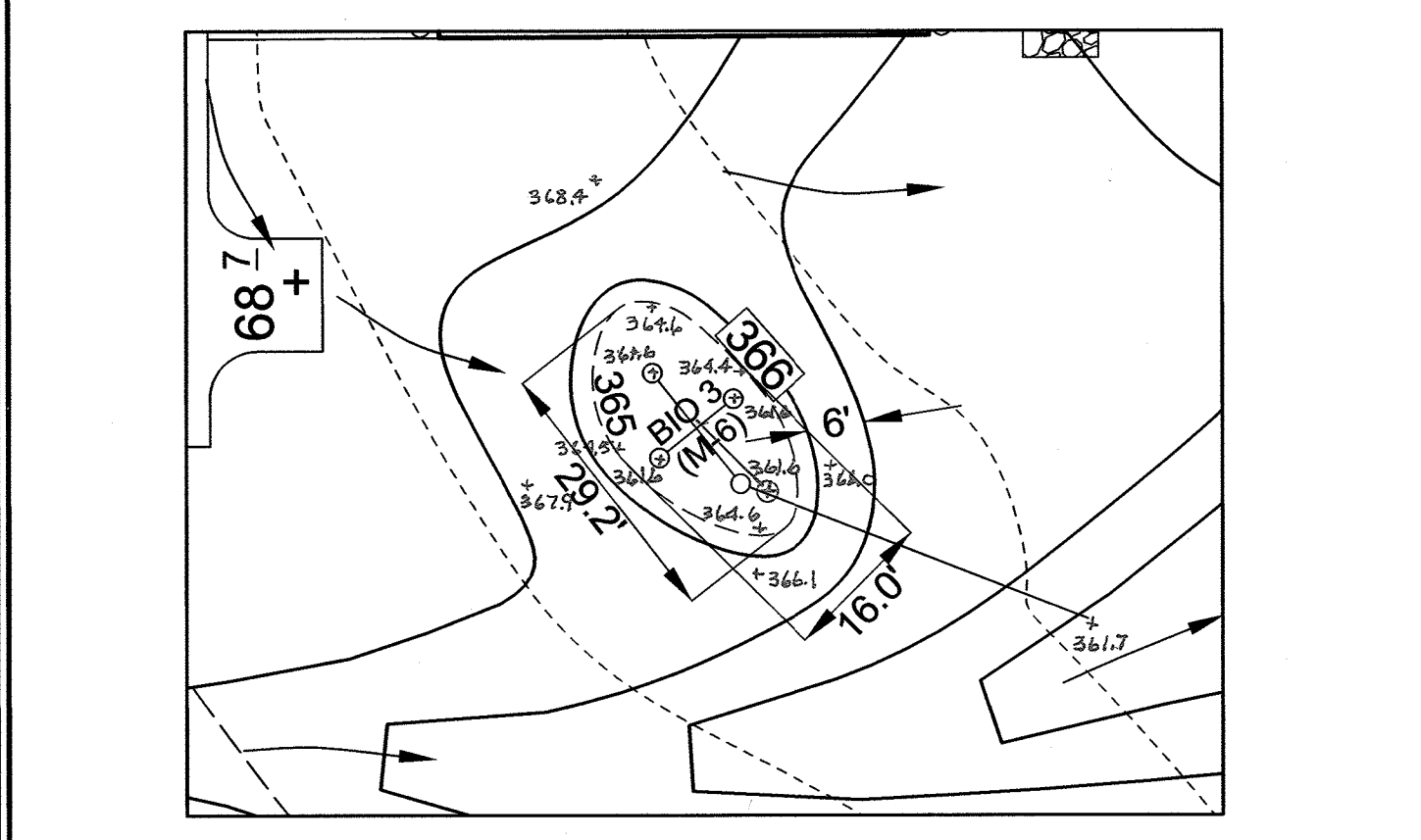
BIORETENTION FACILITY #1 (M-6) PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=3'



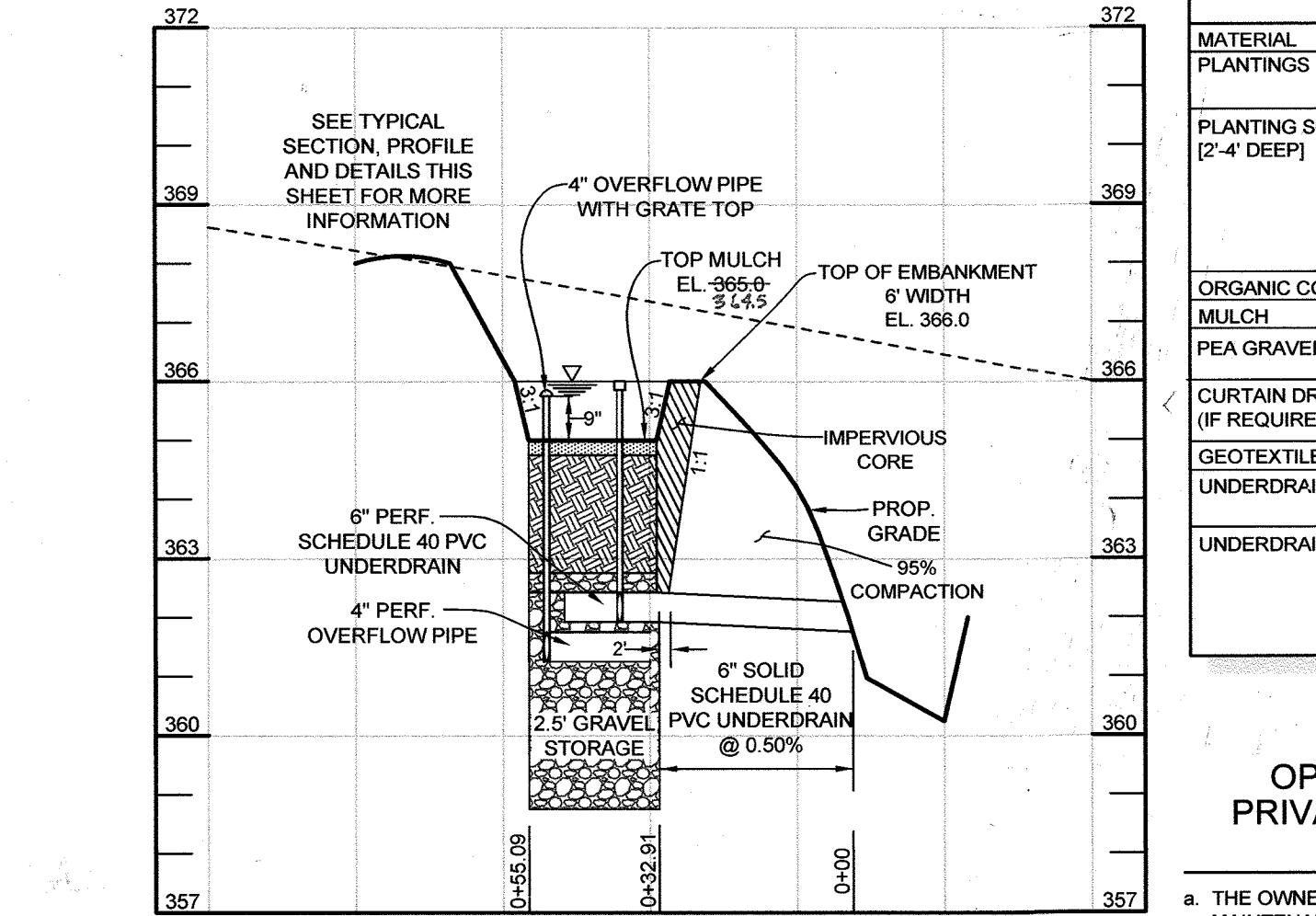
PLAN VIEW - BIORETENTION FACILITY #2 (M-6)  
SCALE: 1"=20'



BIORETENTION FACILITY #2 (M-6) PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=3'



PLAN VIEW - BIORETENTION FACILITY #3 (M-6)  
SCALE: 1"=20'



BIORETENTION FACILITY #3 (M-6) PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=3'

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

- 1. MATERIAL SPECIFICATIONS**  
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
- 2. 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 DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE 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 COMPONENTS: MINIMUM 80% SAND OR SANDY LOAM (USDA 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 (35% 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 INTO THE SOIL TO INCREASE OR DECREASE PH.

- 3. 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 A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TIRE 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 ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO RESTRUCTURE 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.

- 4. PLANT MATERIAL**  
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.
- 5. 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 (9 TO 12 MONTHS) FOR ACCEPTANCE.  
  
ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST 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.

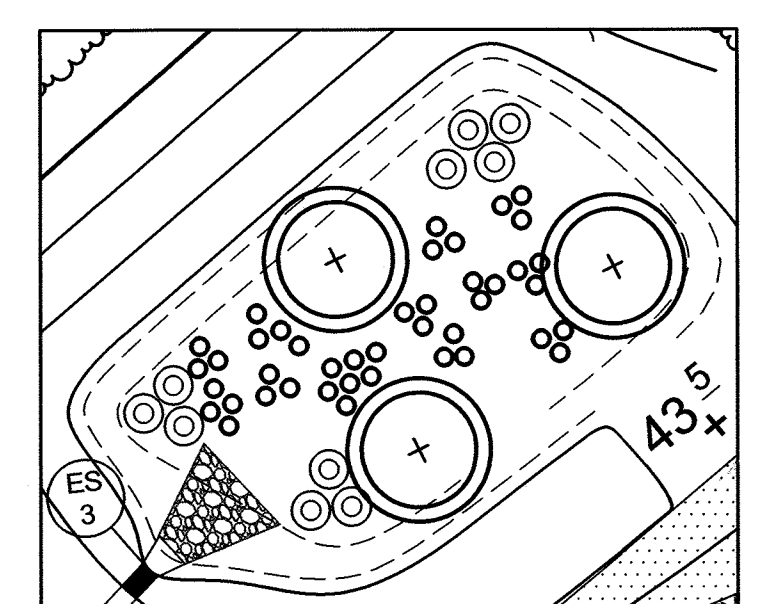
- 6. UNDERDRAINS**  
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:  
• PIPE SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 758, TYPE P528, OR AASHTO M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G. PVC OR HDPE).  
• PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 1/2" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.  
• GRAVEL - THE GRAVEL LAYER (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 (1/4" TO 1/2" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

- 7. MISCELLANEOUS**  
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
6" PERFORATED	PVC	211.38 LF
6" SOLID	PVC	150.15 LF

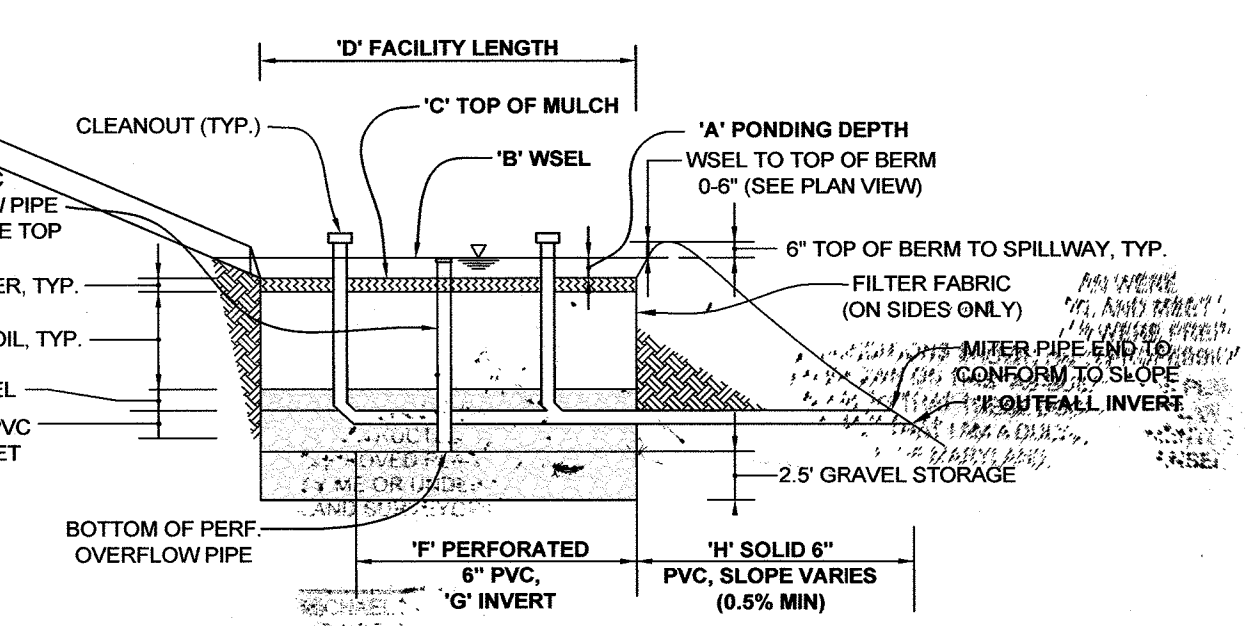
NOTE: FOR SWM BORING LOGS SEE SHEET 14

BIORETENTION ELEVATIONS AND DIMENSIONS			
DESCRIPTION	BIO 1	BIO 2	BIO 3
'A' PONDING DEPTH	1.0'	1.0'	1.0'
'B' WSEL	343.5	362.33	368.0
'C' TOP OF MULCH	342.5	361.33	367.0
'D' FACILITY LENGTH	64.4'	58.4'	29.2'
'E' FACILITY WIDTH	28.6'	40.4'	16.0'
'F' PERF. UNDERDRAIN DIMENSION	84.0'	82.0'	21.0'
'G' UNDERDRAIN INVERT	339.14	358.25	361.81
'H' SOLID UNDERDRAIN DIMENSION	53.5'	81.0'	33.0'
'I' OUTFALL INVERT	339.04	358.05	361.75
'J' OVERFLOW PIPE	338.56	357.57	361.26

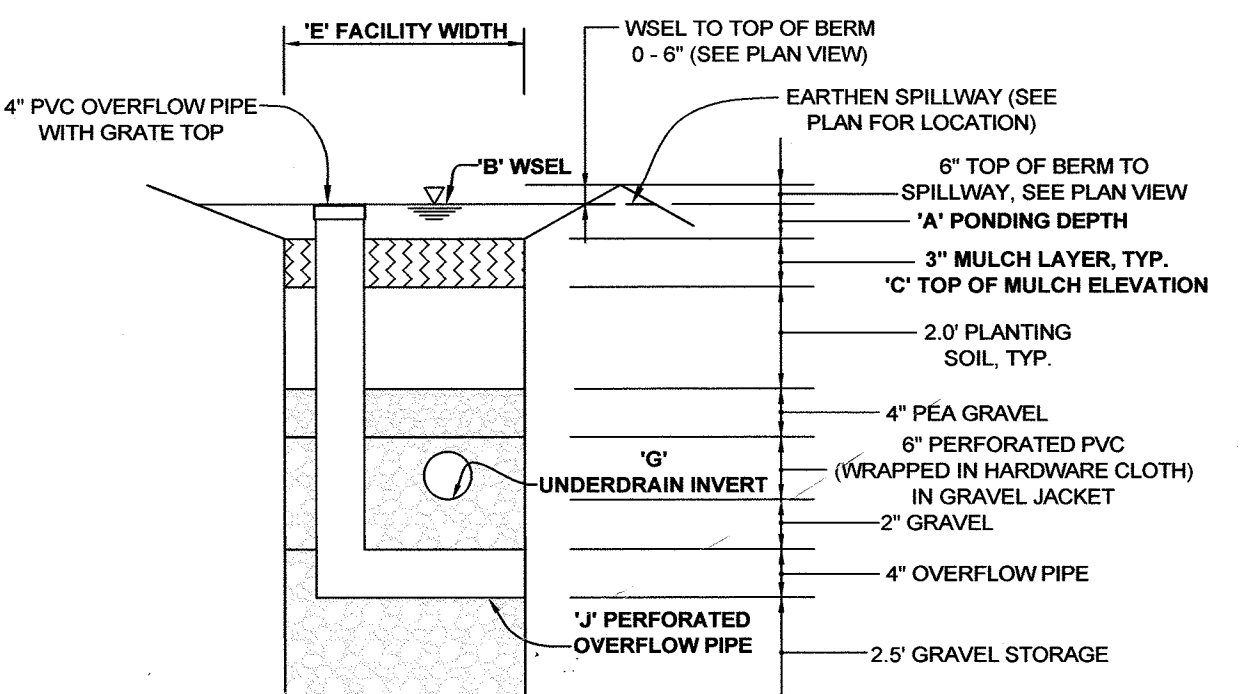


LANDSCAPE - BIORETENTION FACILITY #1  
SCALE: 1"=20'

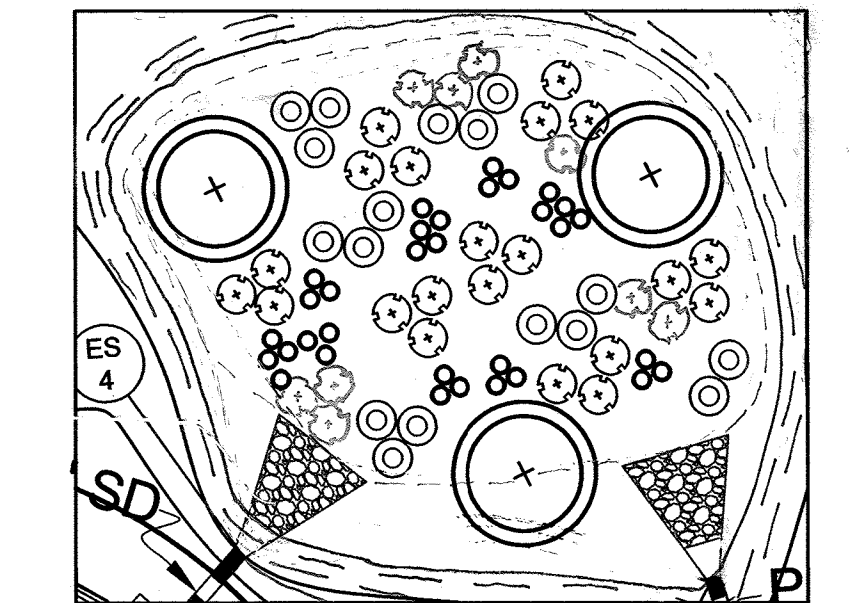
BIORETENTION PLANT LIST									
SYMBOL	SHRUBS	KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	QUANTITY BIO 1	QUANTITY BIO 2	QUANTITY BIO 3
+	HA	HAMAMELIS X INTERMEDIA 'JELENA'	WITCH HAZEL 'JELENA'	AS SHOWN (MIN. 15" O.C.)	36"-48" HT.	3	3	0	
*	VDE	ILEX VERTICILLATA	WINTERBERRY	AS SHOWN (MIN. 5" O.C.)	18"-24" HT.	0	30	0	
HERBACEOUS SPECIES									
○	ED	EUPATORIUM DUBIUM 'LITTLE JOE'	DWARF JOE-PYE WEED	AS SHOWN (MIN. 4" O.C.)	#1	10	17	11	
○	RL	RUDEBECKIA LACINIATA	TALL CONEFLOWER	AS SHOWN (MIN. 2" O.C.)	#1	42	32	13	



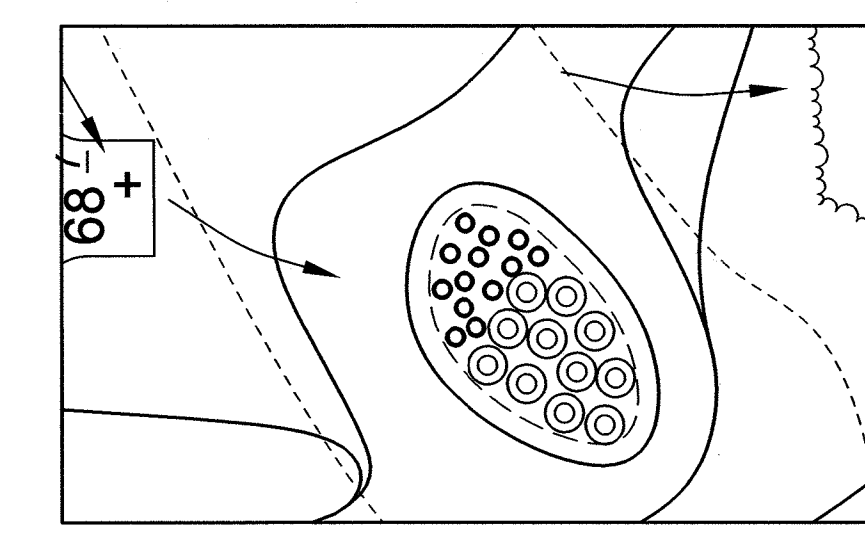
BIORETENTION FACILITY TYPICAL PROFILE  
NOT TO SCALE



BIORETENTION FACILITY TYPICAL SECTION  
NOT TO SCALE



LANDSCAPE - BIORETENTION FACILITY #2  
SCALE: 1"=20'

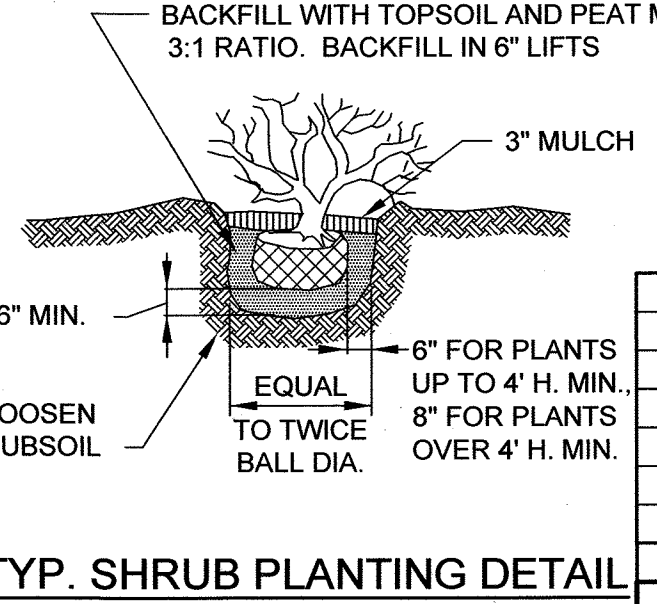


LANDSCAPE - BIORETENTION FACILITY #3  
SCALE: 1"=20'

MATERIALS SPECIFICATIONS FOR BIORETENTION FACILITIES			
MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLANT LIST THIS SHEET	N/A	PLANTINGS ARE SITE-SPECIFIC. SEE PLANT LIST THIS SHEET.
PLANTING SOIL (2'-4' DEPTH)	LOAMY SAND (60% - 65%) & COMPOST (35% - 40%) OR SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	USDA SOIL TYPES LOAMY SAND OR SANDY LOAM. CLAY CONTENT < 5%.
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM. NO PINE OR WOOD CHIPS
PEA GRAVEL DIAPHRAGM	PEA GRAVEL: ASTM-D-448	PEA GRAVEL: NO. 9 OR NO. 9 (1/8" TO 3/8")	
CURTAIN DRAIN (IF REQUIRED)	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 5"	
GEOTEXTILE	N/A	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	PE TYPE 1 NONWOVEN
UNDERDRAIN GRAVEL	AASHTO M-43	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" GALVANIZED HARDWARE CLOTH.

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITIES (M-6 & F-6), FACILITY 3**

- 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 OR 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.



TYP. SHRUB PLANTING DETAIL  
NOT TO SCALE

**OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6), FACILITIES 1 & 2**

- THE HOA 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 HOA SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE HOA SHALL REMOVE DEAD OR 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 HOA 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 HOA SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.
- THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE UNDERDRAINS WITHIN THE BIORETENTION FACILITY.
- HOWARD COUNTY SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORM DRAIN PIPES AND STRUCTURES WITHIN PUBLIC EASEMENTS. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORM DRAIN PIPES AND STRUCTURES WITHIN PRIVATE EASEMENTS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE: 5-16-17  
 DATE: 5-11-17

NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCOCK AND ASSOCIATES, LLC	10/28/2020
1	REVISION BIURETENTION FACILITY # 2	8/29/2021

**OWNER**  
THE JACK AND BETTY CLARK LIVING TRUST  
8600 Doves Fly Way  
Laurel, MD 20723

**DEVELOPER**  
WILLIAMSBURG GROUP  
5485 HARRERS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

**FINAL BIURETENTION PLAN, PROFILES & DETAILS**  
**DOVES FLY**  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
 OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7  
 6TH ELECTION DISTRICT  
 PARCEL 128  
 HOWARD COUNTY, MARYLAND

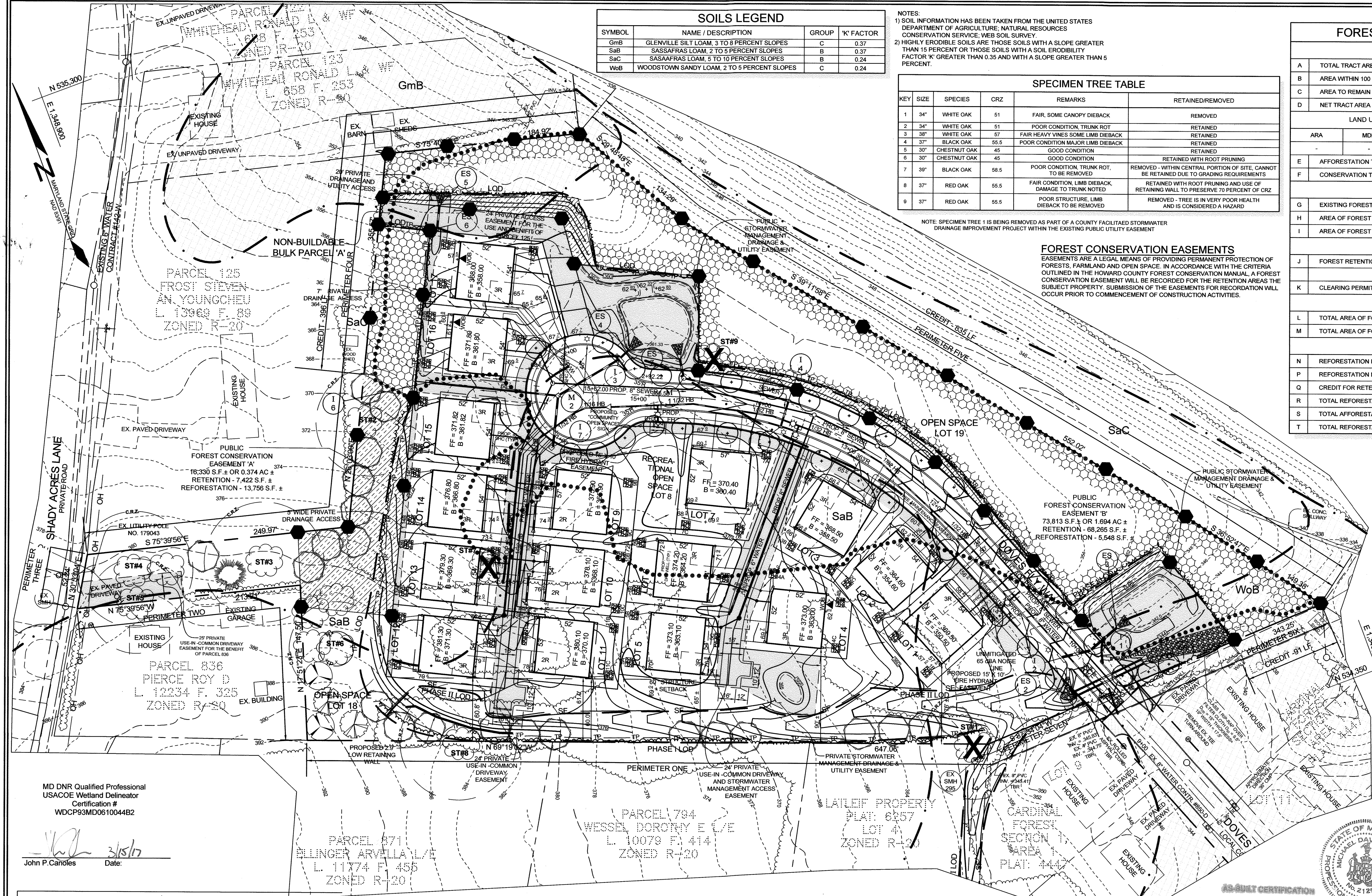
**SILL ENGINEERING, LLC**  
 11130 Dovedale, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: JCV  
 CHECKED BY: PS  
 SCALE: AS SHOWN  
 DATE: MARCH 15, 2017  
 PROJECT #: 14-010  
 SHEET #: 13 of 18









SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	K' FACTOR
GmB	GLENNVILLE SILTY LOAM, 3 TO 5 PERCENT SLOPES	C	0.37
SaB	SASSAFRAS LOAM, 3 TO 5 PERCENT SLOPES	B	0.37
SaC	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES	B	0.24
WvB	WOODSTOWN SANDY LOAM, 2 TO 5 PERCENT SLOPES	C	0.24

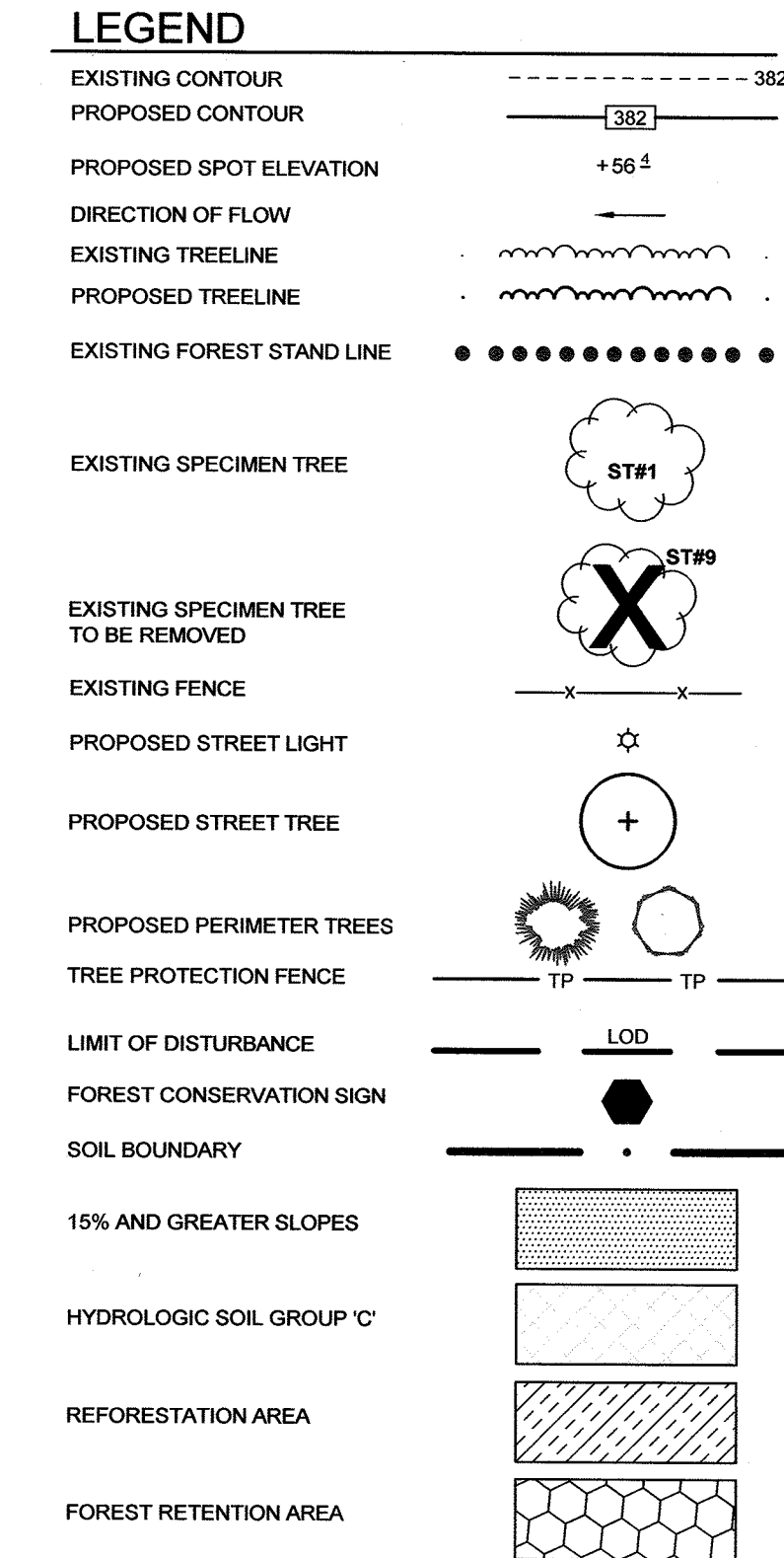
NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.  
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

SPECIMEN TREE TABLE					
KEY	SIZE	SPECIES	CRZ.	REMARKS	RETAINED/REMOVED
1	34"	WHITE OAK	51	FAIR, SOME CANOPY DIEBACK	REMOVED
2	34"	WHITE OAK	51	POOR CONDITION, TRUNK ROT	REMOVED
3	38"	WHITE OAK	57	FAIR HEAVY VINES SOME LIMB DIEBACK	REMOVED
4	37"	BLACK OAK	55.5	POOR CONDITION MAJOR LIMB DIEBACK	REMOVED
5	30"	CHESTNUT OAK	45	GOOD CONDITION	REMOVED
6	30"	CHESTNUT OAK	45	GOOD CONDITION	REMOVED WITH ROOT PRUNING
7	30"	BLACK OAK	55.5	POOR CONDITION, TRUNK ROT, TO BE REMOVED	REMOVED - WITHIN CENTRAL PORTION OF SITE, CANNOT BE RETAINED DUE TO GRADING REQUIREMENTS
8	37"	RED OAK	55.5	FAIR CONDITION, LIMB DIEBACK, DAMAGE TO TRUNK NOTED	REMOVED WITH ROOT PRUNING AND USE OF RETAINING WALL TO PRESERVE 70 PERCENT OF CRZ
9	37"	RED OAK	55.5	POOR STRUCTURE, LIMB DIEBACK TO BE REMOVED	REMOVED - TREE IS IN VERY POOR HEALTH AND IS CONSIDERED A HAZARD

NOTE: SPECIMEN TREE 1 IS BEING REMOVED AS PART OF A COUNTY FACILITATED STORMWATER DRAINAGE IMPROVEMENT PROJECT WITHIN THE EXISTING PUBLIC UTILITY EASEMENT

**FOREST CONSERVATION EASEMENTS**  
 EASEMENTS ARE A LEGAL MEANS OF PROVIDING PERMANENT PROTECTION OF FORESTS, FARMLAND AND OPEN SPACE. IN ACCORDANCE WITH THE CRITERIA OUTLINED IN THE HOWARD COUNTY FOREST CONSERVATION MANUAL, A FOREST CONSERVATION EASEMENT WILL BE RECORDED FOR THE RETENTION AREAS THE SUBJECT PROPERTY. SUBMISSION OF THE EASEMENTS FOR RECORDATION WILL OCCUR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

FOREST CONSERVATION WORKSHEET					
NET TRACT AREA					
A	TOTAL TRACT AREA	8.3 AC			
B	AREA WITHIN 100 YEAR FLOODPLAIN & UTILITY EASEMENT	0.0 AC			
C	AREA TO REMAIN IN AGRICULTURAL PRODUCTION	0.0 AC			
D	NET TRACT AREA	8.3 AC			
LAND USE CATEGORY (FROM TABLE 3.2.1 PAGE 40, MANUAL)					
ARA	MOR	IDA	HDR	MPD	CIA
E	AFFORESTATION THRESHOLD (NET TRACT AREA x 15%)	1.25 AC			
F	CONSERVATION THRESHOLD (NET TRACT AREA x 20%)	1.66 AC			
EXISTING FOREST COVER					
G	EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	3.8 AC			
H	AREA OF FOREST ABOVE AFFORESTATION THRESHOLD	2.55 AC			
I	AREA OF FOREST ABOVE CONSERVATION THRESHOLD	2.14 AC			
BREAK EVEN POINT					
J	FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION	0.43 AC			
	BREAK-EVEN POINT	2.09 AC			
K	CLEARING PERMITTED WITHOUT MITIGATION	1.71 AC			
PROPOSED FOREST CLEARING					
L	TOTAL AREA OF FOREST TO BE CLEARED OR RETAINED OUTSIDE FCE	2.06 AC			
M	TOTAL AREA OF FOREST TO BE RETAINED IN FCE	1.74 AC			
PLANTING REQUIREMENTS					
N	REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0.52 AC			
P	REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	0 AC			
Q	CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD	0.08 AC			
R	TOTAL REFORESTATION REQUIRED	0.44 AC			
S	TOTAL AFFORESTATION REQUIRED	0.0 AC			
T	TOTAL REFORESTATION AND AFFORESTATION REQUIRED	0.44 AC			



**FOREST CONSERVATION PLAN NOTES**

- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
- LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
- NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. FENCING SHALL BE INSTALLED ALONG LIMITS OF DISTURBANCE OCCURRING WITHIN 50 FEET OF THE PROPOSED FCE LIMITS. PERMANENT SIGNAGE WILL BE POSTED AT 50-100 FOOT INTERVALS ALONG ALL FCE LIMITS, AS SHOWN HEREON.
- THE FOREST CONSERVATION ACT REQUIREMENTS FOR THIS PROJECT WILL BE MET THROUGH THE 1.74 ACRES OF RETENTION AND 0.44 ACRES OF PLANTING.
- ON APRIL 16, 2015 A RECONSIDERATION REQUEST OF WP-15-029 TO WAIVE SECTION 16.1205(A)(7) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, ALLOWING REMOVAL OF UP TO TWO (2) SPECIMEN TREES. SEE NOTE #42 ON COUNTERSHEET FOR COMPLETE WAIVER INFORMATION AND CONDITIONS.
- THE FOREST CONSERVATION ACT REQUIREMENTS FOR THIS PROJECT WILL BE MET THROUGH THE 1.74 ACRES OF RETENTION AND 0.44 ACRES OF PLANTING. THIS PLANTING WILL BE PERFORMED ONSITE AND A SURETY OF \$8,583.00 (\$0.50/SQ.FT.) IS REQUIRED FOR THE ONSITE REFORESTATION. NO SURETY IS REQUIRED FOR THE FOREST RETENTION AREA.

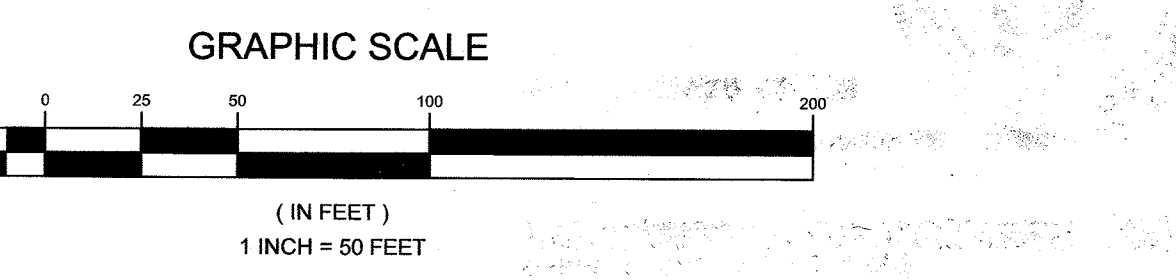
**LANDSCAPE PLAN NOTES**

- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS WITH THE HOWARD COUNTY LANDSCAPING 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 THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND THEIR AGENTS SHALL BE RESPONSIBLE FOR THE 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.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DPV DEVELOPERS AGREEMENT IN THE AMOUNT OF \$8,850 FOR THE REQUIRED LANDSCAPING (29 SHADE TREES AND 1 EVERGREEN).
- BOE HAS REVIEWED THE LANDSCAPE DRAWINGS AND ALL TREES PROPOSED ARE MORE THAN 40' ABOVE OVERHEAD LINES ALONG SHADY ACRES LANE.

CATEGORY	PERIMETER LANDSCAPE EDGE						
	ADJACENT TO ROADWAYS			ADJACENT TO PERIMETER PROPERTIES			
LANDSCAPE TYPE	3	7	5	1	2	4	6
PERIMETER FRONTAGE DESIGNATION							
LINEAR FEET OF ROADWAY	52 (B)	N/A	835 (B)	747 (A)	361 (A)	790 (A)	190 (A)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	0LF	0LF	YES (1)	YES (1)	YES (1)	YES (1)	YES (1)
REMAINING PERIMETER LENGTH CREDIT FOR FENCE OR BERM (YES, NO, LINEAR FEET)	52LF	53LF	0LF	747LF	361LF	790LF	190LF
REMAINING PERIMETER LENGTH NUMBER OF PLANTS REQUIRED							
SHADE TREES	1:50=1	-	1:50=0	1:60=13	1:60=6	1:60=7	1:60=2
EVERGREEN TREES	1:40=1	-	1:40=0	-	-	-	-
NUMBER OF PLANTS PROVIDED	SEE NOTE 2	-	SEE NOTE 4	SEE NOTE 4	SEE NOTE 3	SEE NOTE 3	SEE NOTE 3
SHADE TREES	1:50=1	-	1:50=0	1:60=15	1:60=3	1:60=7	1:60=2
EVERGREEN TREES	1:40=1	-	1:40=0	-	-	-	-
SHRUBS	-	-	-	-	-	-	-

- CREDIT TAKEN FOR EXISTING WOODS.
- UNABLE TO FIT REQUIRED TREES AT PERIMETER 3 DUE TO DRIVEWAY EASEMENT, UTILITIES POLES, AND LINES. SEE PLACED AT PERIMETERS 2 AND 4.
- CREDIT TAKEN FOR FIVE (5) EXISTING TREES INCLUDING ST #5 AND #6.
- TWO TREES ADDED FOR REMOVAL OF ST #7 TO PERIMETER 1 AND TWO TREES ADDED FOR REMOVAL OF ST#9 TO PERIMETER 2, (WP-15-029).

STREET TREE SCHEDULE				
SYMBOL	STREET NAME	LF REQUIRED	TREES REQUIRED	TREES PROVIDED
(Symbol)	DOVES FLY WAY	1,278	32	32



**Eco-Science Professionals, Inc.**  
 Consulting Ecologists  
 P.O. Box 5066 Glen Arun, Maryland 21057 Telephone (410) 832-2480 Fax (410) 832-2488

LANDSCAPE PLANT LIST			
KEY	QUANTITY	BOTANICAL NAME	SIZE NOTE
(Symbol)	22	GINKGO BILOBA 'AUTUMN GOLD'	2.5'-3' CAL. B & B
(Symbol)	1	PICEA ABIES 'NORWAY SPRUCE'	2.5'-3' CAL. B & B
(Symbol)	34	PLATANUS OCCIDENTALIS AMERICAN SYCAMORE	2.5'-3' CAL. B & B
(Symbol)	2	QUERCUS VELLUTINA BLACK OAK	2.5'-3' CAL. B & B
(Symbol)	2	QUERCUS RUBRA RED OAK	2.5'-3' CAL. B & B

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Kent Seale 5-16-17  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 5-11-17  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

**POST-CONSTRUCTION MANAGEMENT PLAN**  
 HOWARD COUNTY REQUIRES A TWO YEAR POST-CONSTRUCTION MANAGEMENT PLAN BE PREPARED AS PART OF THE FOREST CONSERVATION PLAN. THE PLAN GOES INTO EFFECT UPON ACCEPTANCE OF THE CONSTRUCTION CERTIFICATION OF COMPLETION BY THE COUNTY. ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PLAN. THE FOLLOWING ITEMS WILL BE INCORPORATED INTO THE PLAN FOR THE SUBJECT PROPERTY.

**A. FENCING AND SIGNAGE**  
 PERMANENT SIGNAGE INDICATING THE LIMITS OF THE RETENTION/PLANTING AREA SHALL BE MAINTAINED.

**B. GENERAL SITE INSPECTIONS**  
 SITE INSPECTIONS WILL BE PERFORMED TO INSURE THAT RETENTION OF THE FOREST IS MET IN ACCORDANCE WITH THIS PLAN AND THAT THE FOREST EDGE REMAINS HEALTHY AND STABLE.

**C. EDUCATION**  
 THE DEVELOPER WILL PROVIDE APPROPRIATE MATERIALS TO PROPERTY OWNERS INFORMING THEM OF THE LOCATION AND PURPOSE OF THE FOREST CONSERVATION EASEMENT. MATERIALS MAY INCLUDE SITE PLANS AND INFORMATION EXPLAINING THE INTENT OF THE FOREST CONSERVATION LAW.

**D. FINAL INSPECTION**  
 AT THE END OF THE TWO YEAR POST-CONSTRUCTION MANAGEMENT PERIOD, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL, WILL SUBMIT TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL RETENTION/AFFORESTATION REQUIREMENTS HAVE BEEN MET. UPON ACCEPTANCE OF THIS CERTIFICATION, THE COUNTY WILL RELEASE THE DEVELOPER FROM ALL FUTURE OBLIGATIONS AND RELEASE THE DEVELOPER'S BOND.

**DEVELOPER'S CERTIFICATE**  
 I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

3-16-17  
 DEVELOPER

**CONSTRUCTION PERIOD PROTECTION PROGRAM**

**A. FOREST PROTECTION TECHNIQUES**  
 1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE)  
 THE SOIL PROTECTION AREA, OR CRITICAL ROOT ZONE, OF A TREE IS THAT PORTION OF THE SOIL COLUMN WHERE MOST OF A TREE'S ROOTS MAY BE FOUND. THE MAJORITY OF ROOTS RESPONSIBLE FOR WATER AND NUTRIENT UPTAKE ARE LOCATED JUST BELOW THE SOIL SURFACE. TEMPORARY FENCING SHALL BE PLACED AROUND THE CRITICAL ROOT ZONE OF THE FOREST IN AREAS WHERE THE FOREST LIMITS OCCUR WITHIN 25 FEET OF THE LIMIT OF DISTURBANCE.

2. FENCING AND SIGNAGE  
 EXISTING FOREST LIMITS OCCURRING WITHIN 25 FEET OF THE LIMITS OF DISTURBANCE SHALL BE PROTECTED USING TEMPORARY PROTECTIVE FENCING. PERMANENT SIGNAGE SHALL BE PLACED AROUND THE AFFORESTATION AREA PRIOR TO PLANT INSTALLATION, AS SHOWN ON THE PLAN.

**B. PRE-CONSTRUCTION MEETING**  
 UPON STAKING OF LIMITS OF DISTURBANCE A PRE-CONSTRUCTION MEETING WILL BE HELD BETWEEN THE DEVELOPER, CONTRACTOR AND APPROPRIATE COUNTY INSPECTOR. THE PURPOSE OF THE MEETING WILL BE TO VERIFY THAT ALL SEDIMENT CONTROL IS IN ORDER, AND TO NOTIFY THE CONTRACTOR OF POSSIBLE PENALTIES FOR NON-COMPLIANCE WITH THE FCP.

**C. STORAGE FACILITIES/EQUIPMENT CLEANING**  
 ALL EQUIPMENT STORAGE, PARKING, SANITARY FACILITIES, MATERIAL STOCKPILES, ETC. ASSOCIATED WITH CONSTRUCTION OF THE PROJECT WILL BE RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT. CLEANING OF EQUIPMENT WILL BE LIMITED TO AREA WITHIN THE LOOP OF THE PROPOSED HOMESITES. WASTEWATER RESULTING FROM EQUIPMENT CLEANING WILL BE CONTROLLED TO PREVENT RUNOFF INTO ENVIRONMENTALLY SENSITIVE AREAS.

**D. SEQUENCE OF CONSTRUCTION**  
 THE FOLLOWING TIMETABLE REPRESENTS THE PROPOSED TIMETABLE FOR DEVELOPMENT OF THE SUBJECT PROPERTY. THE ITEMS OUTLINED IN THE FOREST CONSERVATION PLAN WILL BE ENACTED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL.

BELOW FIND A PROPOSED SEQUENCE OF CONSTRUCTION.

- INSTALL ALL SIGNAGE AND SEDIMENT CONTROL DEVICES.
- HOLD PRE-CONSTRUCTION MEETING BETWEEN DEVELOPER, CONTRACTOR AND COUNTY INSPECTOR.
- BUILD ACCESS ROADS, INSTALL WATER AND SEWER, AND CONSTRUCT HOUSES, STABILIZE ALL DISTURBED AREAS ACCORDINGLY.
- REMOVE SEDIMENT CONTROL.
- HOLD POST-CONSTRUCTION MEETING WITH COUNTY INSPECTORS TO ASSURE COMPLIANCE WITH FCP. SUBMIT CERTIFICATION OF RETENTION.
- CONSTRUCTION MONITORING  
 ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL MONITOR CONSTRUCTION OF THE PROJECT TO ENSURE THAT ALL ACTIVITIES ARE IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN.
- POST-CONSTRUCTION MEETING  
 UPON COMPLETION OF CONSTRUCTION, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL NOTIFY THE COUNTY THAT CONSTRUCTION HAS BEEN COMPLETED AND ARRANGE FOR A POST-CONSTRUCTION MEETING TO REVIEW THE PROJECT SITE. THE MEETING WILL ALLOW THE COUNTY INSPECTOR TO VERIFY THAT FOREST RETENTION REQUIREMENTS HAVE BEEN MET.

REVISIONS			
NO.	DESCRIPTION	DATE	
2	AS-BUILT PLANS BY ADPOCK AND ASSOCIATES	10/28/2010	

**OWNER**  
 THE JACK AND BETTY CLARK LIVING TRUST  
 8600 DOVES FLY WAY  
 LAUREL, MD 20723

**DEVELOPER**  
 WILLIAMS BURG GROUP  
 5485 HARRIS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410.997.8800

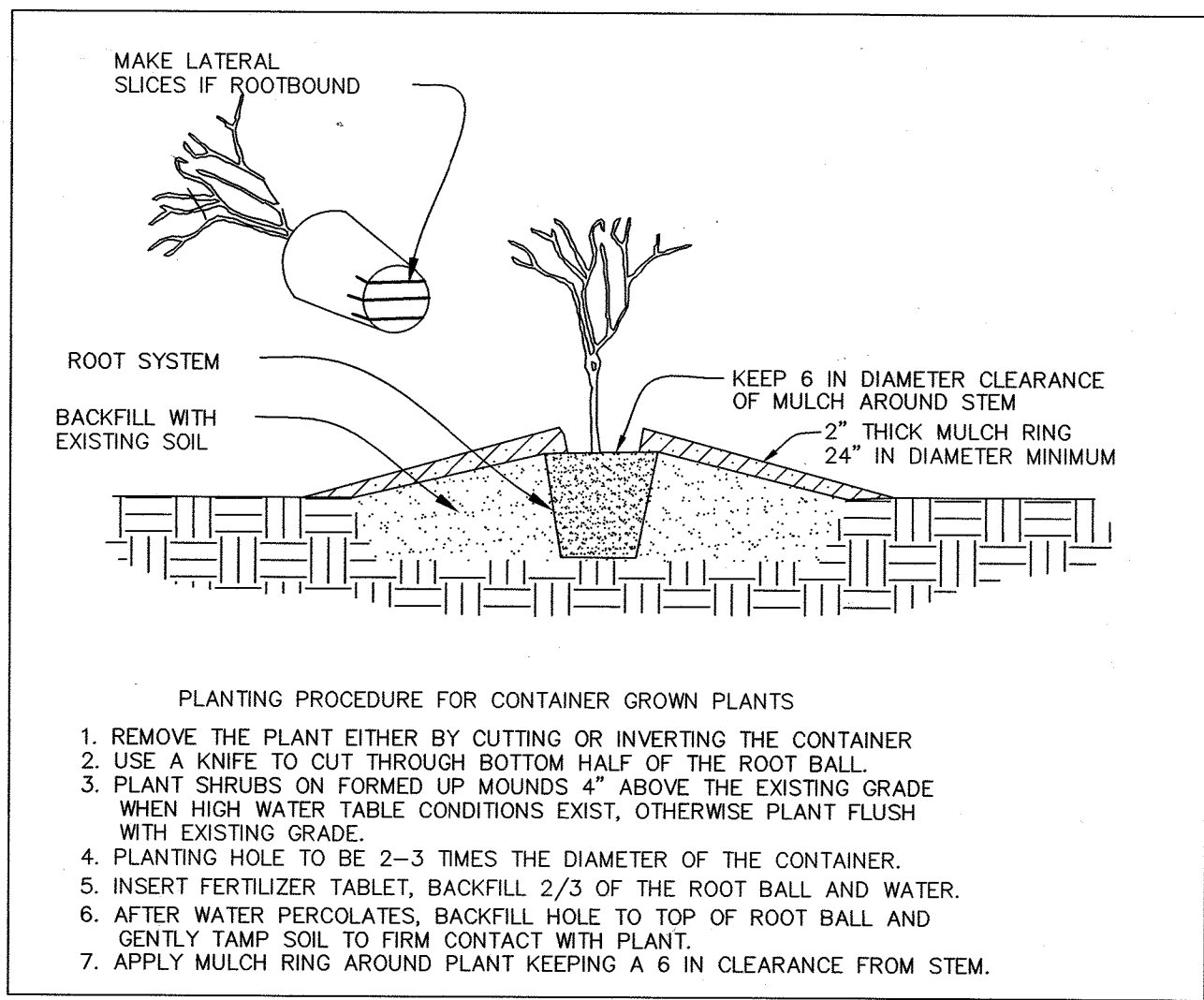
**FINAL FOREST CONSERVATION AND LANDSCAPE PLAN**  
 DOVES FLY  
 LOTS 1 THRU 7 AND LOTS 9 TO 17 AND  
 OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A  
 TAX MAP 47 GRID 7 PARCEL 126  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**  
 11130 Dovesdale, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 410.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

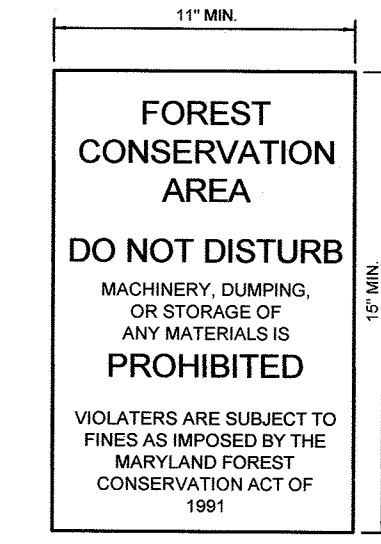
DESIGN BY: PS  
 DRAWN BY: JCV  
 CHECKED BY: PS  
 SCALE: 1"=50'  
 DATE: 10/15/2017  
 PROJECT #: 14-010  
 SHEET #: 15 OF 16

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2017



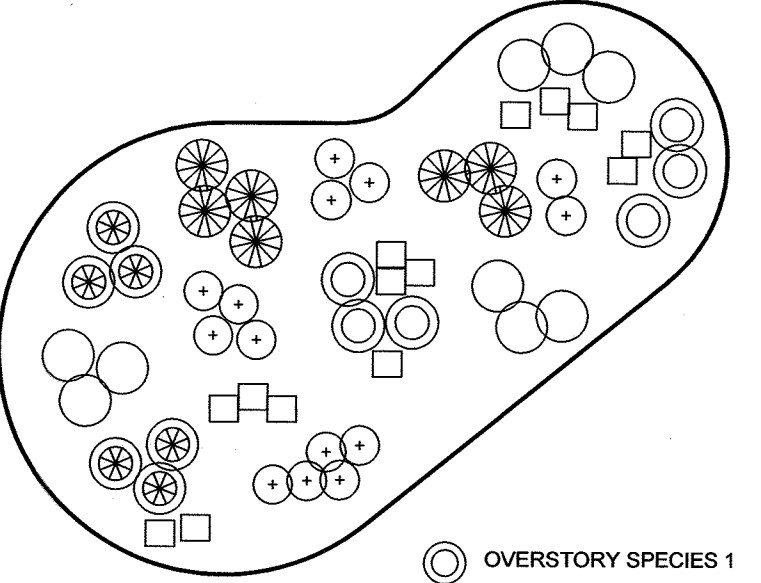


**CONTAINER PLANTING DETAIL**  
NOT TO SCALE



**FOREST CONSERVATION SIGN DETAIL**  
NOT TO SCALE

- NOTES:
1. BOTTOM OF SIGN TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
  2. SIGNS TO BE PLACED APPROXIMATELY 50' APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
  3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
  4. SEE SDP 16-041 FOR SIGN LOCATIONS.
  5. SIGNAGE SHALL BE IN PLACE FOR PERPETUITY.



- OVERSTORY SPECIES 1
- OVERSTORY SPECIES 2
- OVERSTORY SPECIES 3
- UNDERSTORY SPECIES 1
- UNDERSTORY SPECIES 2
- UNDERSTORY SPECIES 3

THIS DIAGRAM SHOWS A TYPICAL DISPERSAL OF SPECIES WITHIN PLANTING AREA. THE SPACING SHALL BE IN ACCORDANCE WITH THE APPROVED PLANTING SCHEDULE. WHERE THE SIZE OF THE PLANTING STOCK VARIES, THE PLANTING UNITS SHALL BE INSTALLED AT AVERAGED SPACING TO PROVIDE APPROXIMATELY UNIFORM COVERAGE.

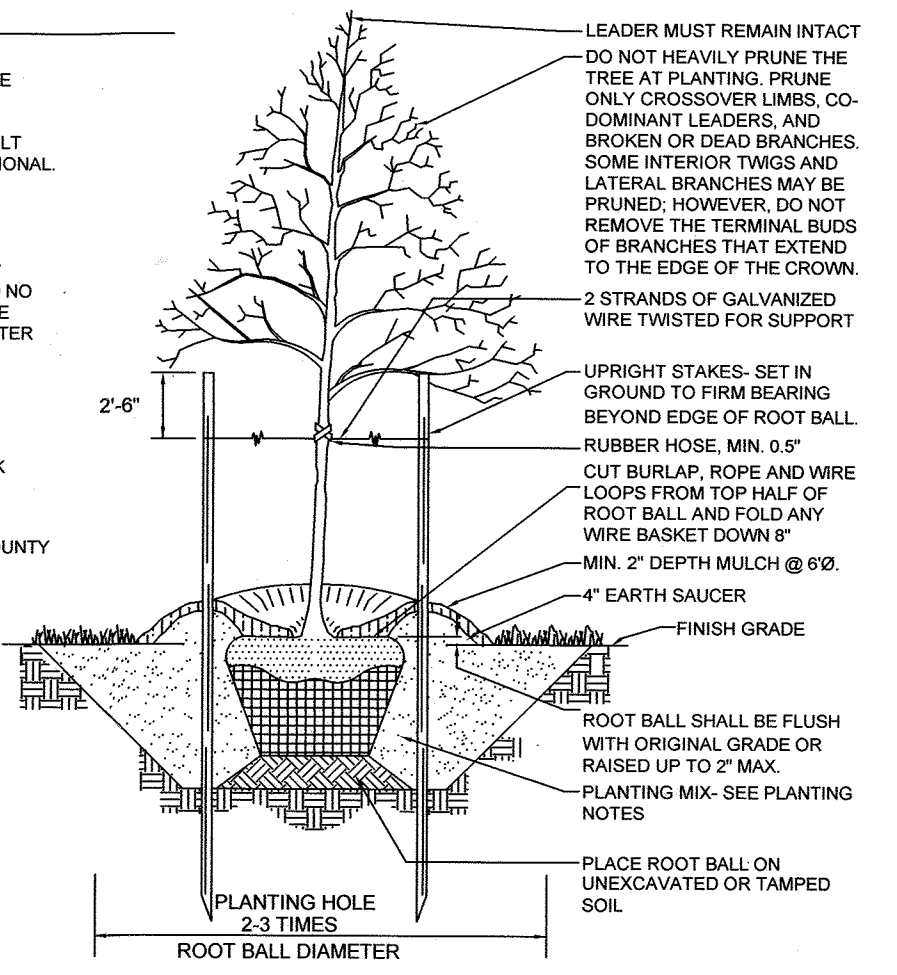
**REFORESTATION RANDOM PLANTING DISTRIBUTION PLAN**  
NOT TO SCALE

**PLANTING/SOIL SPECIFICATIONS**

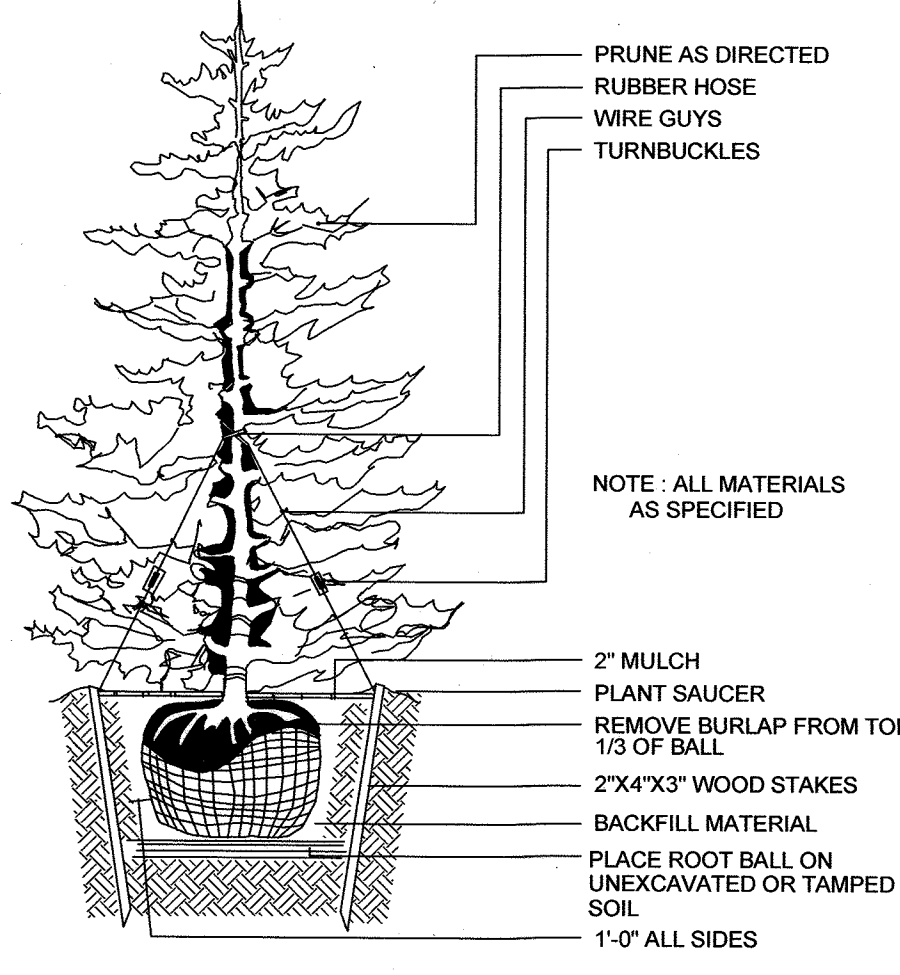
1. INSTALLATION OF B&B / CONTAINER STOCK SHALL BE PERFORMED MARCH 15 - MAY 30 OR SEPTEMBER 15 - NOVEMBER 15
2. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO ADDITIONAL TOPSOIL INSTALLED.
3. BAREROOT PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP EXISTING GRADE. ROOTS SHALL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL AND 1 PART PINE FINES OR EQUIVALENT.
4. FERTILIZER SHALL CONSIST OF AGRIFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURERS' SPECIFICATIONS. FOR WOODY PLANTS, HERBACEOUS PLANTS SHALL BE FERTILIZED WITH OSMOCOTE 8-6-12.
5. PLANTS SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
6. ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

**NOTES**

1. CONSULT INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES FOR FURTHER DETAILS OF PLANTING SPECIFICATIONS, OR CONSULT WITH A QUALIFIED PROFESSIONAL.
2. EACH TREE SHALL BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL.
3. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON AFTER PLANTING.
4. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
5. KEEP MULCH 1" FROM TRUNK.
6. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
7. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



**TYPICAL TREE PLANTING AND STAKING**  
DECIDUOUS TREES UP TO 2-1/2\"/>



**TYPICAL EVERGREEN TREE PLANTING DETAIL**  
NOT TO SCALE

**REFORESTATION PLAN**

THE REFORESTATION AREA WILL BE PLACED INTO A FOREST CONSERVATION EASEMENT.

**A. PLANTING PLAN AND METHODS**

PLANT SPECIES SELECTION WAS BASED ON OUR KNOWLEDGE REGARDING PLANT COMMUNITIES IN MARYLAND'S PIEDMONT PLATEAU AND INFORMATION PROVIDED IN THE SOIL SURVEY ON TYPICAL VEGETATION FOR THE SOIL TYPE ON THE PLANTING SITE. SPECIES SELECTION WAS ALSO BASED ON OUR KNOWLEDGE OF PLANT AVAILABILITY IN THE NURSERY INDUSTRY.

REFORESTATION WILL BE ACCOMPLISHED THROUGH A MIXED PLANTING OF WHIPS AND BRANCHED TRANSPLANTS. CONTAINER GROWN STOCK IS RECOMMENDED BUT BAREROOT STOCK MAY BE USED TO HELP CONTROL REFORESTATION COSTS. IF BAREROOT STOCK IS USED, THE ROOT SYSTEMS OF ALL PLANTS WILL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING TO IMPROVE MOISTURE RETENTION IN THE ROOT SYSTEMS.

PRIOR TO PLANTING THE PROPOSED FOREST CONSERVATION EASEMENTS, ALL MULTIFLORA ROSE IN THE PLANTING AREA SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOVING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWED BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS' SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

**B. PLANTING AND SOIL SPECIFICATIONS**

PLANT MATERIAL WILL BE INSTALLED IN ACCORDANCE WITH THE PLANTING DETAIL AND PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN.

AMENDMENTS TO EXISTING SOIL WILL BE IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN. SOIL DISTURBANCE WILL BE LIMITED TO INDIVIDUAL PLANTING LOCATIONS.

**C. GUARANTEE REQUIREMENTS**

A 90 PERCENT SURVIVAL RATE OF THE REFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON. ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON. AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT GROWING SEASON.

**D. SECURITY FOR REFORESTATION**

SECTION 16-1209 OF THE HOWARD COUNTY FOREST CONSERVATION ACT REQUIRES THAT A DEVELOPER SHALL POST A SECURITY (BOND, LETTER OF CREDIT, ETC.) WITH THE COUNTY TO INSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE FCP.

**CONSTRUCTION PERIOD PROTECTION PROGRAM**

- A. FOREST PROTECTION TECHNIQUES**
- 1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE)**
- THE SOIL PROTECTION AREA OR CRITICAL ROOT ZONE OF A TREE IS THAT PORTION OF THE SOIL COLUMN WHERE MOST OF ITS ROOTS MAY BE FOUND. THE MAJORITY OF ROOTS RESPONSIBLE FOR WATER AND NUTRIENT UPTAKE ARE LOCATED JUST BELOW THE SOIL SURFACE. TEMPORARY FENCING SHALL BE PLACED AROUND THE CRITICAL ROOT ZONE OF THE FOREST IN AREAS WHERE THE FOREST LIMITS OCCUR WITHIN 25 FEET OF THE LIMIT OF DISTURBANCE.
- 2. FENCING AND SIGNAGE**
- EXISTING FOREST LIMITS OCCURRING WITHIN 25 FEET OF THE LIMITS OF DISTURBANCE SHALL BE PROTECTED USING TEMPORARY PROTECTIVE FENCING. PERMANENT SIGNAGE SHALL BE PLACED AROUND THE AFFORESTATION AREA PRIOR TO PLANT INSTALLATION, AS SHOWN ON THE PLAN.
- B. PRE-CONSTRUCTION MEETING**
- UPON STAKING OF LIMITS OF DISTURBANCE A PRE-CONSTRUCTION MEETING WILL BE HELD BETWEEN THE DEVELOPER, CONTRACTOR AND APPROPRIATE COUNTY INSPECTOR. THE PURPOSE OF THE MEETING WILL BE TO VERIFY THAT ALL SEDIMENT CONTROL IS IN ORDER AND TO NOTIFY THE CONTRACTOR OF POSSIBLE PENALTIES FOR NON-COMPLIANCE WITH THE FCP.
- C. STORAGE FACILITIES/EQUIPMENT CLEANING**
- ALL EQUIPMENT STORAGE, PARKING, SANITARY FACILITIES, MATERIAL STOCKPILING, ETC. ASSOCIATED WITH CONSTRUCTION OF THE PROJECT WILL BE RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT. CLEANING OF EQUIPMENT WILL BE LIMITED TO AREA WITHIN THE LOD OF THE PROPOSED HOMESITES. WASTEWATER RESULTING FROM EQUIPMENT CLEANING WILL BE CONTROLLED TO PREVENT RUNOFF INTO ENVIRONMENTALLY SENSITIVE AREAS.
- D. SEQUENCE OF CONSTRUCTION**
- THE FOLLOWING TIMETABLE REPRESENTS THE PROPOSED TIMETABLE FOR THE PROJECT. BELOW FIND A PROPOSED SEQUENCE OF CONSTRUCTION.
1. INSTALL ALL SIGNAGE AND SEDIMENT CONTROL DEVICES.
  2. HOLD PRE-CONSTRUCTION MEETING BETWEEN DEVELOPER, CONTRACTOR AND COUNTY INSPECTOR.
  3. BUILD ACCESS ROADS, INSTALL WELL AND SEPTIC SYSTEMS, AND CONSTRUCT HOUSES. STABILIZE ALL DISTURBED AREAS ACCORDINGLY.
  4. BEGIN MULTIFLORA ROSE REMOVAL. INSTALL PERMANENT PROTECTIVE SIGNAGE FOR EASEMENTS AND INITIATE PLANTINGS IN ACCORDANCE WITH FOREST CONSERVATION PLAN. PLANTING WILL BE COMPLETED WITHIN TWO(2) YEARS OF SUBDIVISION APPROVAL.
  5. REMOVE SEDIMENT CONTROL.
  6. HOLD POST-CONSTRUCTION MEETING WITH COUNTY INSPECTORS TO ASSURE COMPLIANCE WITH FCP. SUBMIT CERTIFICATION OF INSTALLATION.
  7. MONITOR AND MAINTAIN PLANTINGS FOR 2 YEARS.
- E. CONSTRUCTION MONITORING**
- ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL MONITOR CONSTRUCTION OF THE PROJECT TO ENSURE THAT ALL ACTIVITIES ARE IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN.
- F. POST-CONSTRUCTION MEETING**
- UPON COMPLETION OF CONSTRUCTION, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL NOTIFY THE COUNTY THAT CONSTRUCTION HAS BEEN COMPLETED AND ARRANGE FOR A POST-CONSTRUCTION MEETING TO REVIEW THE PROJECT SITE. THE MEETING WILL ALLOW THE COUNTY INSPECTOR TO VERIFY THAT PLANTINGS HAVE BEEN INSTALLED.

**POST-CONSTRUCTION MANAGEMENT PLAN**

HOWARD COUNTY REQUIRES A TWO YEAR POST-CONSTRUCTION MANAGEMENT PLAN BE PREPARED AS PART OF THE FOREST CONSERVATION PLAN. THE PLAN GOES INTO EFFECT UPON ACCEPTANCE OF THE CONSTRUCTION CERTIFICATION OF COMPLETION BY THE COUNTY. ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PLAN.

THE FOLLOWING ITEMS WILL BE INCORPORATED INTO THE PLAN:

**A. FENCING AND SIGNAGE**

PERMANENT SIGNAGE INDICATING THE LIMITS OF THE RETENTION/REFORESTATION AREAS TO BE PLACED IN FOREST CONSERVATION EASEMENTS SHALL BE MAINTAINED.

**B. GENERAL SITE INSPECTIONS/MAINTENANCE OF PLANTINGS**

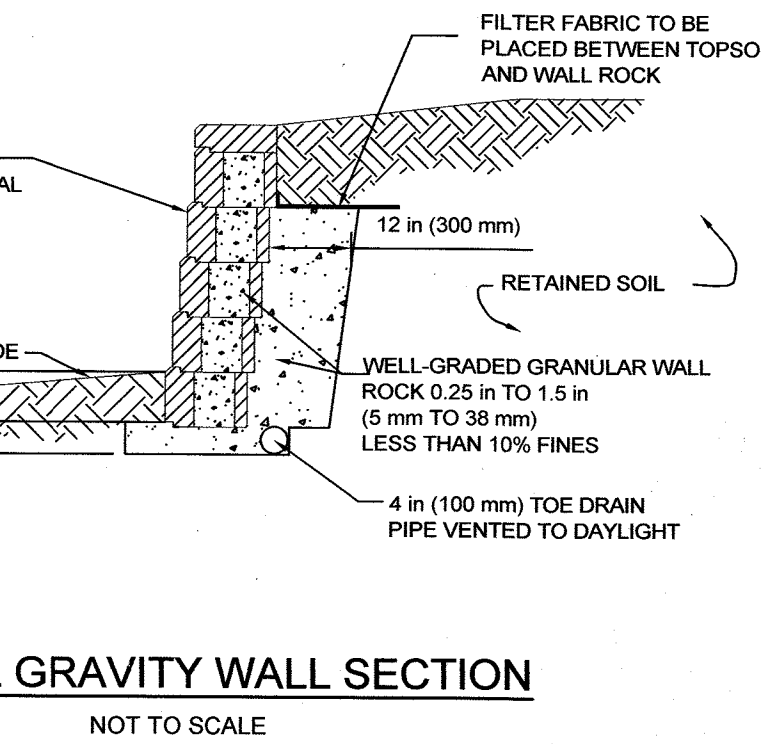
SITE INSPECTIONS WILL BE PERFORMED A MINIMUM OF THREE TIMES DURING THE GROWING SEASON. THE PURPOSE OF THE INSPECTIONS WILL BE TO ASSESS THE HEALTH OF THE AFFORESTATION PLANTINGS. APPROPRIATE MEASURES WILL BE TAKEN TO RECTIFY ANY PROBLEMS WHICH MAY ARISE.

**C. EDUCATION**

THE BANK DEVELOPER WILL PROVIDE APPROPRIATE MATERIALS TO SUBSEQUENT PROPERTY OWNERS INFORMING THEM OF THE LOCATION AND PURPOSE OF THE FOREST CONSERVATION EASEMENTS ON THE PROPERTY. MATERIALS MAY INCLUDE SITE PLANS AND INFORMATION EXPLAINING THE INTENT OF THE FOREST CONSERVATION LAW.

**D. FINAL INSPECTION**

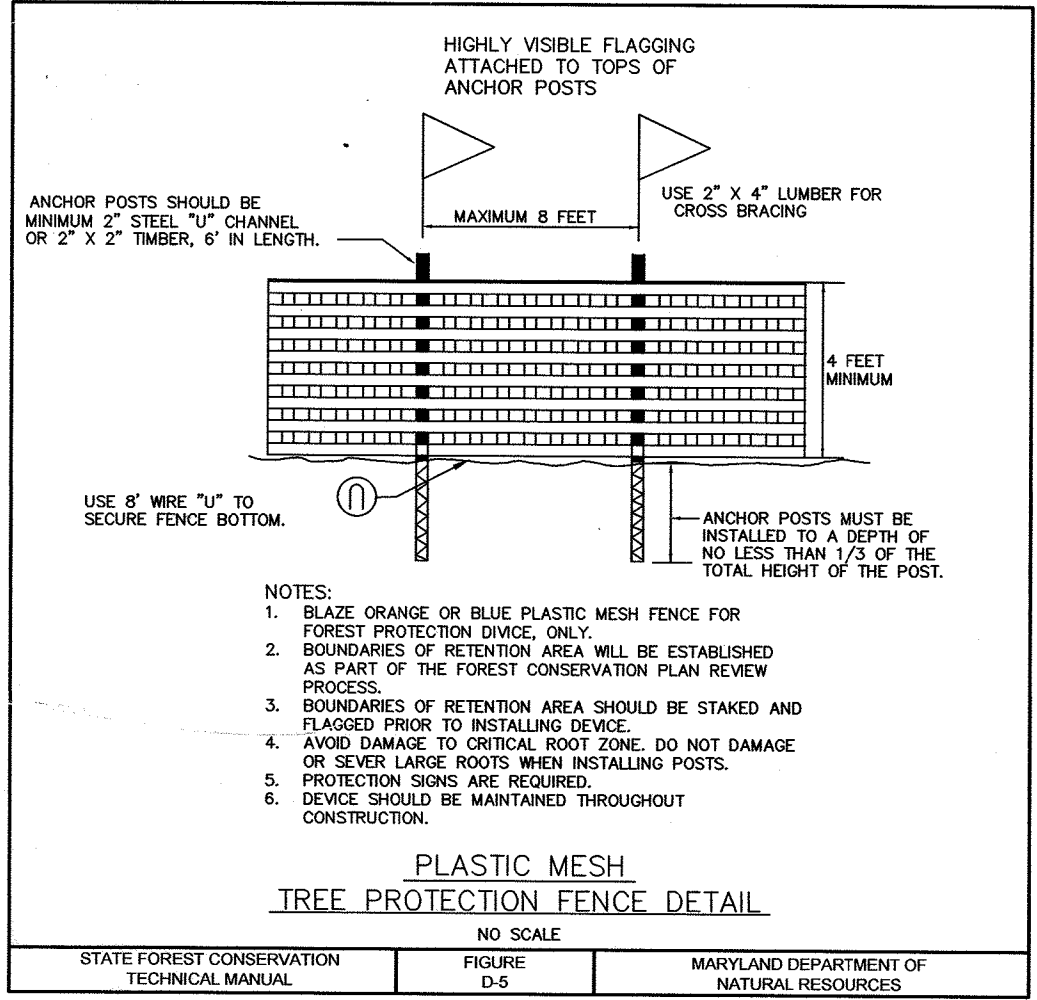
AT THE END OF THE TWO YEAR POST-CONSTRUCTION MANAGEMENT PERIOD, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL, WILL SUBMIT TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL RETENTION/AFFORESTATION REQUIREMENTS HAVE BEEN MET. UPON ACCEPTANCE OF THIS CERTIFICATION, THE COUNTY WILL RELEASE THE DEVELOPER FROM ALL FUTURE OBLIGATIONS AND RELEASE THE DEVELOPER'S BOND.



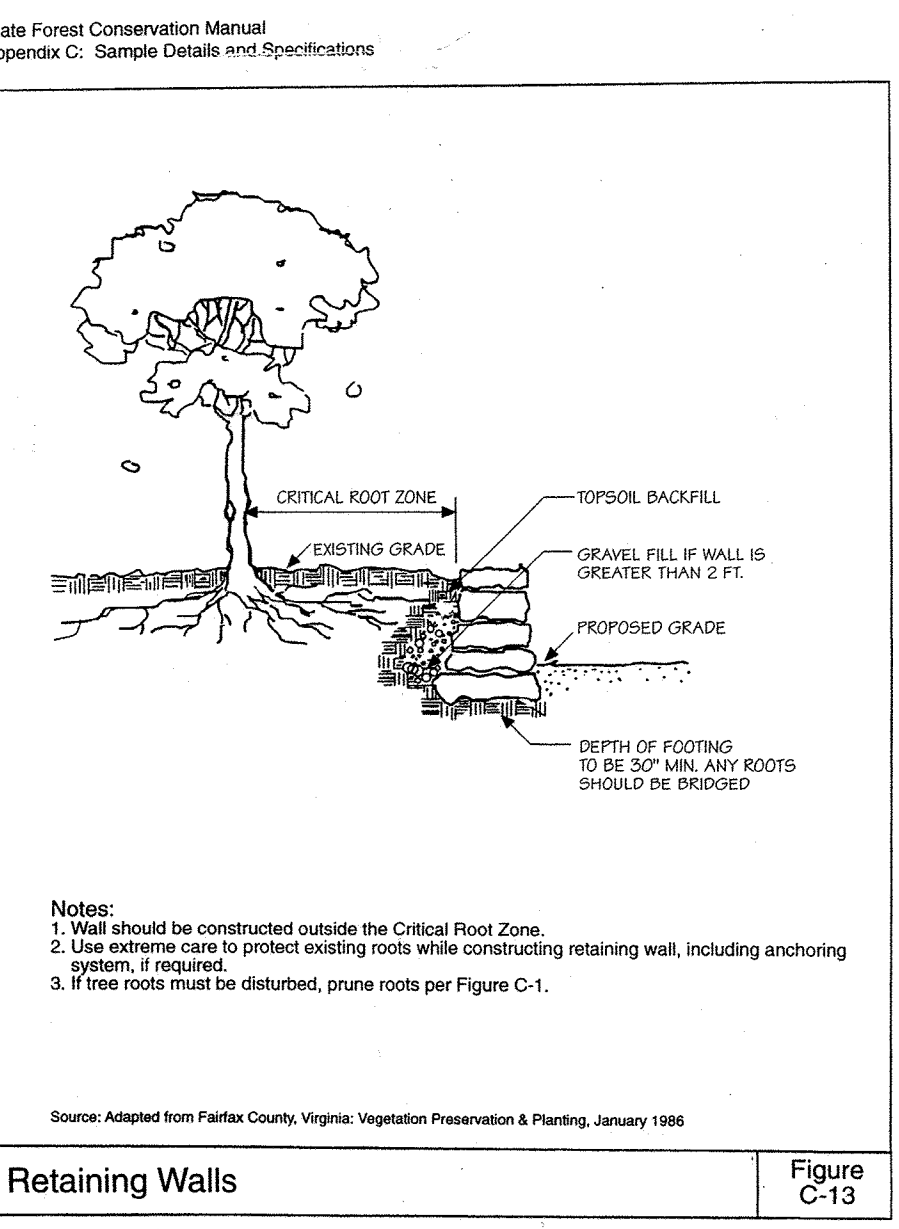
**TYPICAL GRAVITY WALL SECTION**  
NOT TO SCALE

PLANTING SCHEDULE				
<b>FCE A - 0.31 ACRES</b>				
PLANTING UNITS REQUIRED: 220				
PLANTING UNITS PROVIDED: 221.5				
QUANTITY	SPECIES	SIZE	SPACING	TOTAL FCA UNITS
10	ACER RUBRUM - RED MAPLE	1" CAL.	15' O.C.	
13	LIRIODENDRON TULIPIFERA - TULIP POPLAR	1" CAL.	15' O.C.	
15	PRUNUS SEROTINA - BLACK CHERRY	1" CAL.	15' O.C.	
10	QUERCUS ALBA - WHITE OAK	1" CAL.	15' O.C.	
15	VIBURNUM PRUNIFOLIUM - BLACKHAWK	1" CAL.	15' O.C.	
63	TOTAL 1" CALIPER TREES X 3.5 UNITS/TREE = FCA UNIT CREDIT			220.5
				TOTAL UNIT CREDIT
				220.5
<b>FCE B - 0.13 ACRES</b>				
PLANTING UNITS REQUIRED: 89				
PLANTING UNITS PROVIDED: 90				
QUANTITY	SPECIES	SIZE	SPACING	TOTAL FCA UNITS
3	ACER RUBRUM - RED MAPLE	1" CAL.	15' O.C.	
6	LIRIODENDRON TULIPIFERA - TULIP POPLAR	1" CAL.	15' O.C.	
6	PRUNUS SEROTINA - BLACK CHERRY	1" CAL.	15' O.C.	
6	QUERCUS ALBA - WHITE OAK	1" CAL.	15' O.C.	
5	VIBURNUM PRUNIFOLIUM - BLACKHAWK	1" CAL.	15' O.C.	
26	TOTAL 1" CALIPER TREES X 3.5 UNITS/TREE = FCA UNIT CREDIT			91
				TOTAL UNIT CREDIT
				91

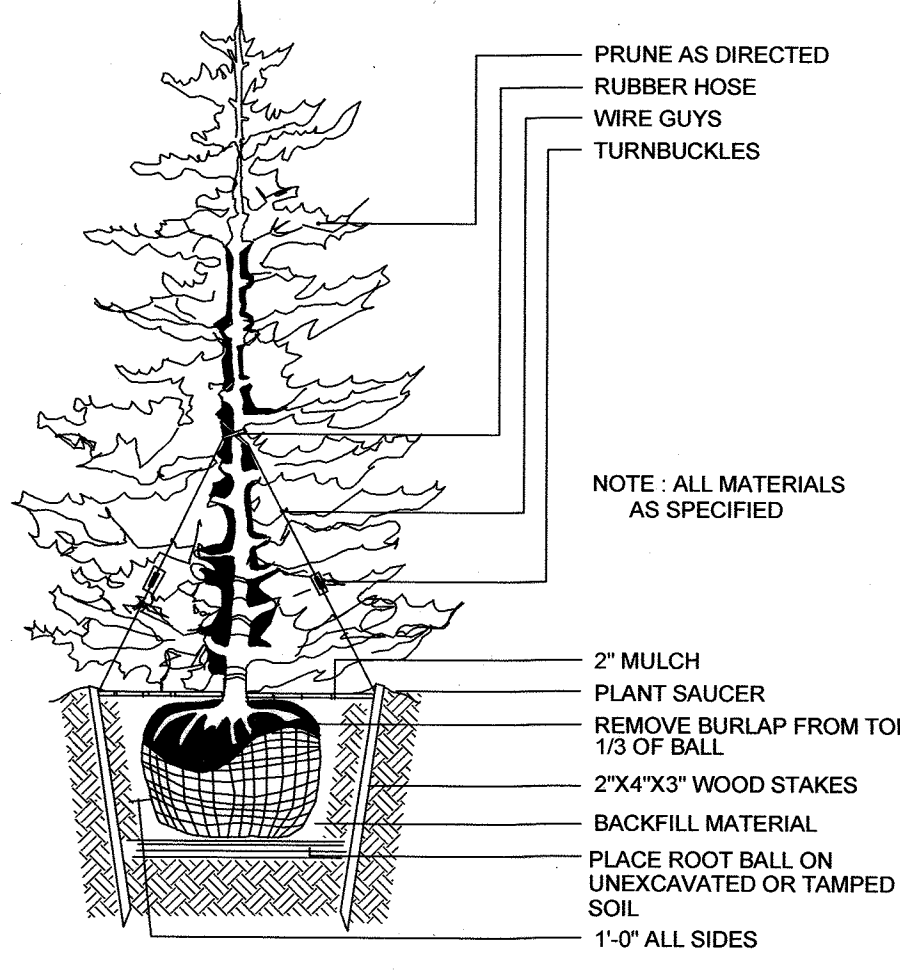
- PLANTING NOTES:**
- PLANTING DENSITY BASED ON 700 PLANTING UNITS PER ACRE, 1" CALIPER TREE = 3.5 UNITS, WHIPS WITH SHELTER = 2 PLANTING UNITS.
  - PLANTING SHALL BE MADE IN A CURVILINEAR FASHION ALONG CONTOUR. THE PLANTING SHOULD AVOID A GRID APPEARANCE BUT SHOULD BE SPACED TO FACILITATE MAINTENANCE.
  - MULTIFLORA ROSE/HEAVY BRUSH REMOVAL/CONTROL MAY BE REQUIRED PRIOR TO INSTALLATION OF PLANTING.
  - ALL WHIPS ARE REQUIRED TO BE INSTALLED WITH TREE SHELTERS PER HOWARD COUNTY FCA REQUIREMENTS. SHELTERS ARE NOT REQUIRED FOR 1" CALIPER TREES BUT ARE RECOMMENDED TO REDUCE DEER DAMAGE.



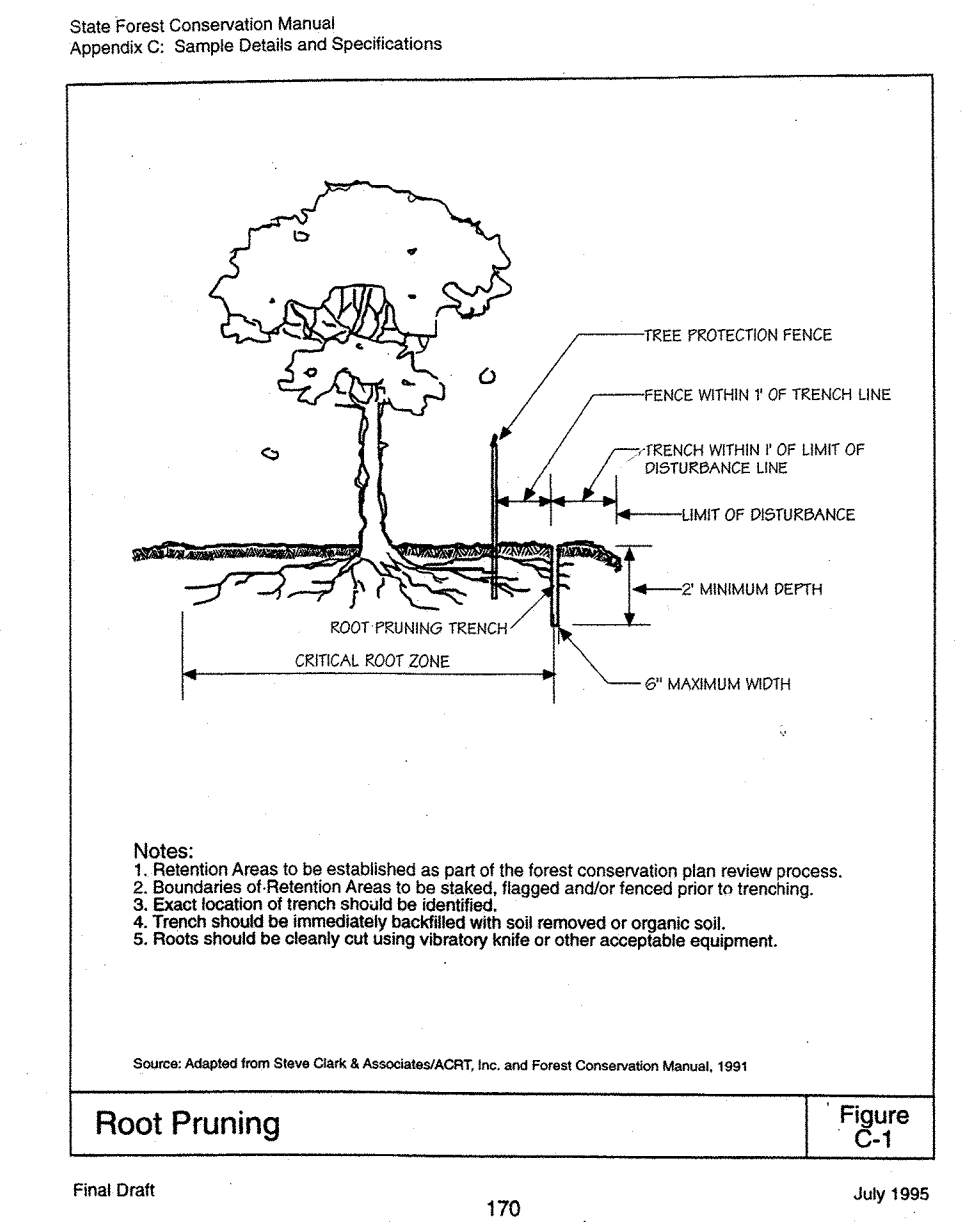
**TREE PROTECTION FENCE DETAIL**  
NOT TO SCALE



**RETAINING WALL DETAIL**  
NOT TO SCALE



**TYPICAL SHRUB PLANTING DETAIL**  
NOT TO SCALE



**ROOT PRUNING DETAIL**  
NOT TO SCALE

MD DNR Qualified Professional  
USACOE Wetland Delineator  
Certification #  
WDCP93MD061004B2

John P. Canoles  
Date: 3/16/17

**Eco-Science Professionals, Inc.**  
Consulting Ecologists

P.O. Box 5006 Glen Arun, Maryland 21057 Telephone (410) 832-2480 Fax (410) 832-2488

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5-16-17

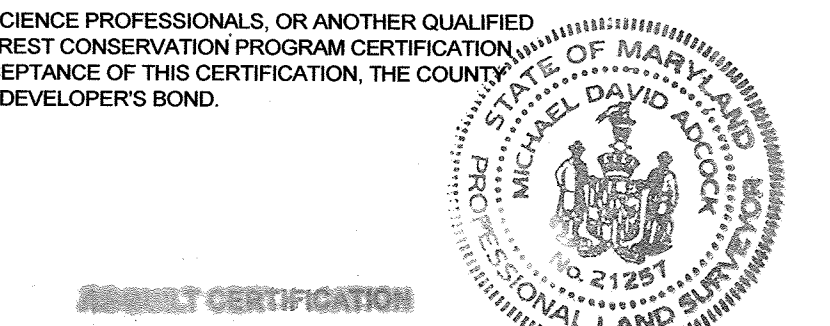
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS  
DATE: 4/10/2017

**DEVELOPER'S CERTIFICATE**

I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16-124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER  
DATE: 3-16-17



NO.	DESCRIPTION	DATE
2	AS-BUILT PLANS BY ADCKOC AND ASSOC LITES, LLC	10/28/2016

**OWNER**  
THE JACK AND BETTY CLARK LIVING TRUST  
8600 DOVES FLY WAY  
LAUREL, MD 20723

**DEVELOPER**  
WILLIAMSBURG GROUP  
5485 HARRIS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

**AS-BUILT**

**FINAL FOREST CONSERVATION AND LANDSCAPE NOTES AND DETAILS**

**DOVES FLY**

LOTS 1 THRU 7 AND LOTS 9 TO 17 AND OPEN SPACES LOTS 8, 18, AND 19, AND NON-BUILDABLE PARCEL A TAX MAP 47 GRID 7 PARCEL 126 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**SILL ENGINEERING GROUP, LLC**

11130 Dovedale, Suite 200  
Marriottsville, Maryland 21104  
Phone: 443.325.5076  
Fax: 410.696.3022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

DESIGN BY: PS  
DRAWN BY: JCV  
CHECKED BY: PS  
SCALE: 1"=50'  
DATE: MARCH 15, 2017  
PROJECT #: 14-010  
SHEET #: 16 OF 16

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. 32025, EXPIRATION DATE: JUNE 30, 2017.