

SYMBOL	RATING	NAME	K FACTOR	MAP NO.
GbB	(B)	GLADSTONE LOAM 3 TO 15 PERCENT SLOPES	.28	17
GbC	(B)	GLADSTONE LOAM 0 TO 8 PERCENT SLOPES	.28	17
GfB	(B)	GLADSTONE-URBAN LAND COMPLEX 0 TO 8 PERCENT SLOPES	.28	17
UuB	(D)	URBAN LAND-UDORNTENTS COMPLEX 0 TO 8 PERCENT SLOPES	.37	17

**FOREST CONSERVATION WORKSHEET**

NET TRACT AREA:  
 A. Total tract area.....=2.2  
 B. Area within 100 year floodplain.....=0.0  
 C. Area to remain in agricultural production.....=0.0  
 D. Net tract area.....=2.2

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)  
 Input the number "1" under the appropriate land use zoning, and limit to only one entry.  
 ARA MDR IDA HDR MPD CIA  
 0 0 0 0 1 0 0

E. Afforestation Threshold.....15% x D = 0.3  
 F. Conservation Threshold.....20% x D = 0.4

EXISTING FOREST COVER:  
 G. Existing forest cover (excluding floodplain).....=1.6  
 H. Area of forest above afforestation threshold.....=1.3  
 I. Area of forest above conservation threshold.....=1.2

BREAK EVEN POINT  
 J. Forest retention above threshold with no mitigation.....=0.6  
 K. Clearing permitted without mitigation.....=1.0

PROPOSED FOREST CLEARING:  
 L. Total area of forest to be cleared.....=1.2  
 M. Total area of forest to be retained.....=0.4

PLANTING REQUIREMENTS:  
 N. Reforestation for clearing above conservation threshold.....=0.3  
 O. Reforestation for clearing above conservation threshold.....=0.0  
 P. Credit for retention above conservation threshold.....=0.0  
 Q. Credit for retention above conservation threshold.....=0.0  
 R. Total reforestation required.....=0.3  
 S. Total afforestation required.....=0.0  
 T. Total reforestation and afforestation required.....=0.3

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES	TOTAL
LANDSCAPE TYPE	B (PERIMETER 1) B (PERIMETER 2) B (PERIMETER 3) B (PERIMETER 4) B (PERIMETER 5)*	
LINEAR FEET OF PERIMETER	215.25 LF 105 LF 292.09 LF 231.17 LF 527.14 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO NO YES, 179.54 LF, EX. VEGETATION YES, 102.53 LF, EX. VEGETATION YES	
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO NO NO NO NO	463 LF OF PRIVACY FENCE
NUMBER OF PLANTS REQUIRED		
SHADE TREES	4 SHADE TREES 2 SHADE TREES 2 SHADE TREES 3 SHADE TREES 11 SHADE TREES	22 SHADE TREES
EVERGREEN TREES	5 EVERGREEN TREES 3 EVERGREEN TREES 0 EVERGREEN TREES 0 EVERGREEN TREES 0 EVERGREEN TREES	27 EVERGREEN TREES
SHRUBS	0 SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED		
SHADE TREES	4 SHADE TREES 2 SHADE TREES 2 SHADE TREES 3 SHADE TREES 12 SHADE TREES	13 SHADE TREES
EVERGREEN TREES	5 EVERGREEN TREES 3 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SUBSTITUTION TREES 0 SUBSTITUTION TREES	14 EVERGREEN TREES
OTHER TREES (21 SUBSTITUTION) SHRUBS (10.1 SUBSTITUTION)	0 SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS	0 SHRUBS

**LANDSCAPE REQUIREMENT PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
6	(Symbol)	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
5	(Symbol)	GLEDITSIA TRIACANTHOS INERMIS 'IMPERIAL'	IMPERIAL THORNLESS HONEYLOCUST	2 1/2" - 3" CAL.
14	(Symbol)	THUJA PLICATA	GREEN GIANT	5'-6" HGT.
TOTAL		25 (11 SHADE TREES, 14 EVERGREEN TREES)		
2*	(Symbol)	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
TOTAL		27 (13 SHADE TREES, 14 EVERGREEN TREES) - SEE GENERAL NOTE #13		

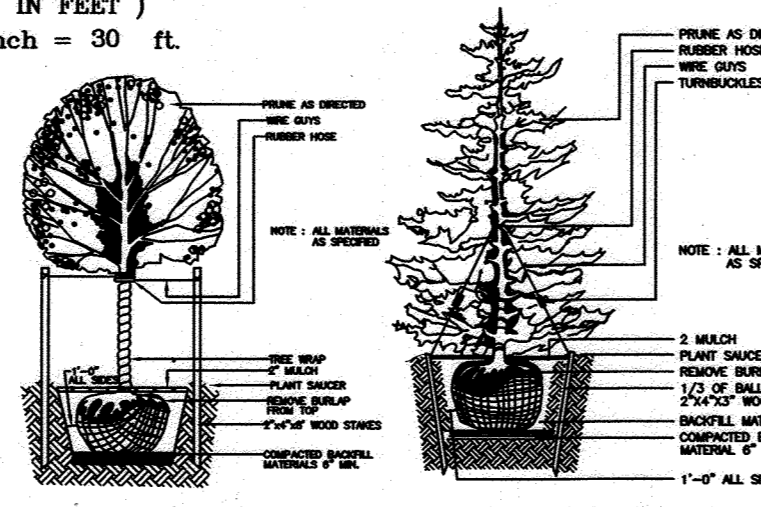
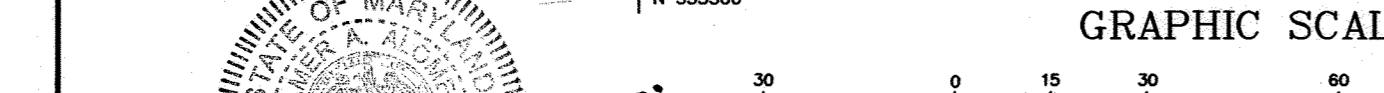
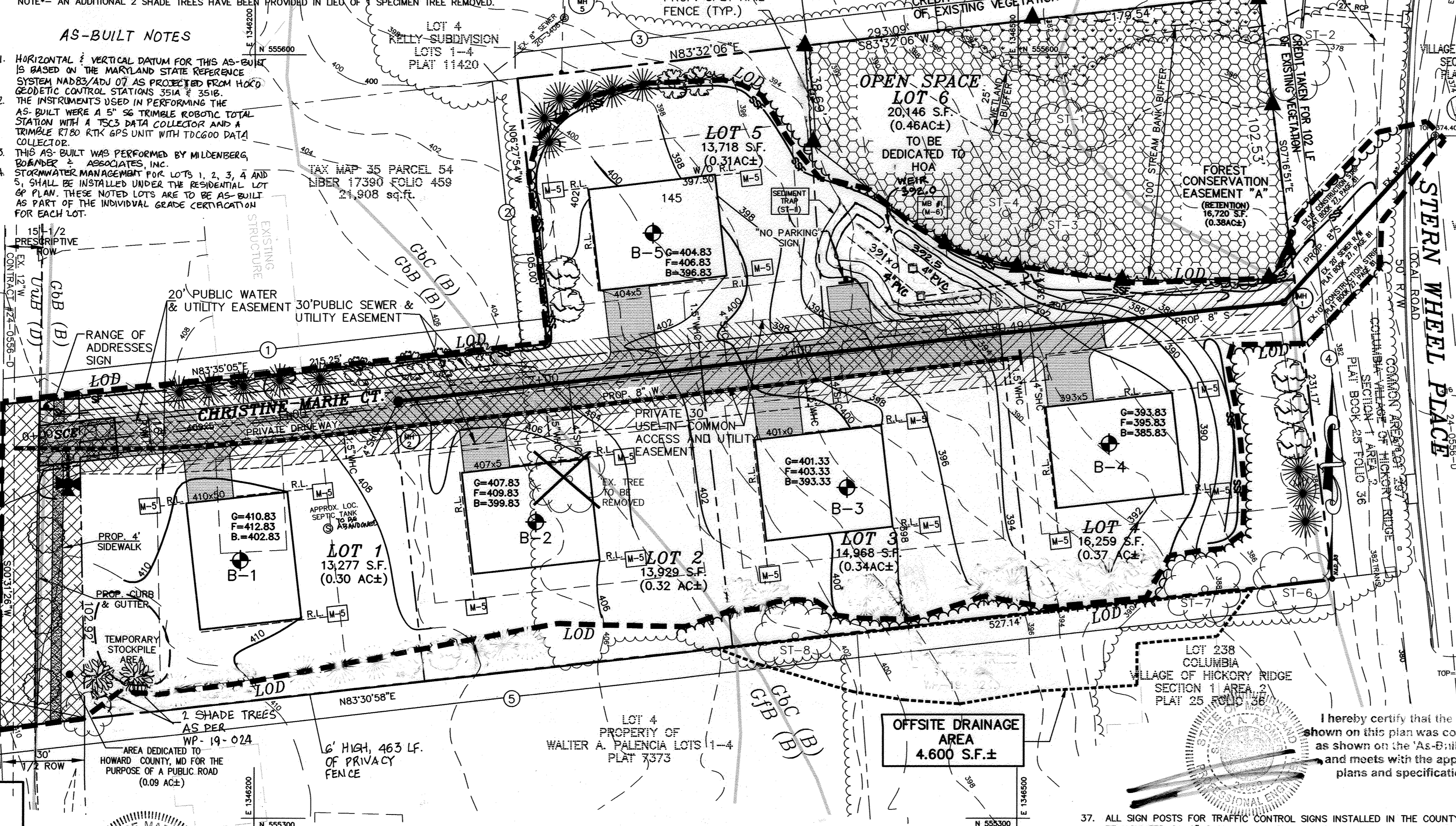
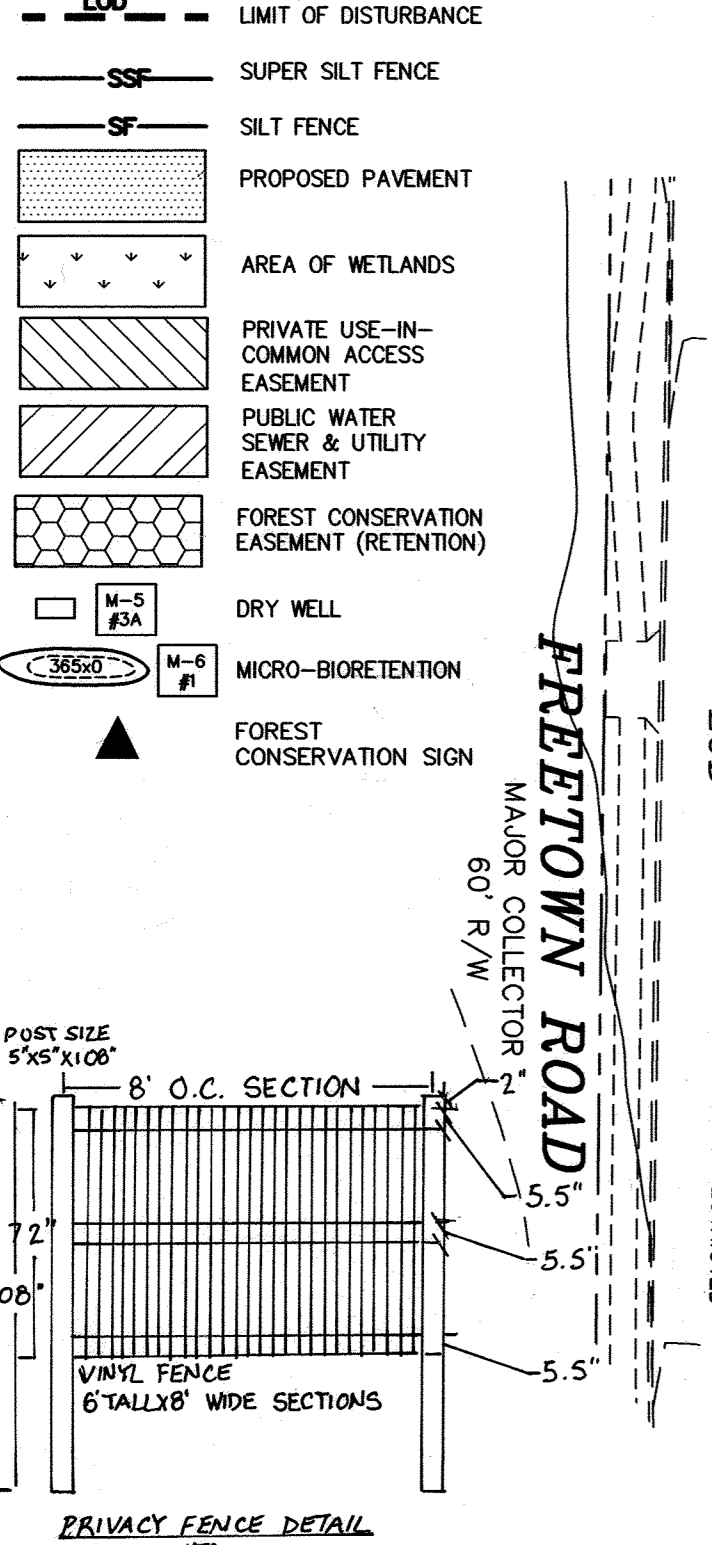
**SWM PRACTICES CHART**

LOT NO.	STREET ADDRESS	DRYWELL (M-5) (NUMBER)	MICRO-BIORETENTION (M-6) (NUMBER)
LOT 1	5000 CHRISTINE MARIE CT.	3	3
LOT 2	5004 CHRISTINE MARIE CT.	3	3
LOT 3	5008 CHRISTINE MARIE CT.	3	3
LOT 4	5012 CHRISTINE MARIE CT.	3	3
LOT 5	5005 CHRISTINE MARIE CT.	3	3

**AS-BUILT NOTES**

- HORIZONTAL & VERTICAL DATUM FOR THIS AS-BUILT IS BASED ON THE MARYLAND STATE REFERENCE SYSTEM MARS83 AND IS AS PROVIDED FROM HOWARD COUNTY CONTROL STATIONS 351A & 351B.
- THE INSTRUMENTS USED IN PERFORMING THE AS-BUILT WERE A 5" SE TRIMBLE ROBOTIC TOTAL STATION WITH A 15C3 DATA COLLECTOR AND A TRIMBLE R780 RTK GPS UNIT WITH TDC600 DATA COLLECTOR.
- THIS AS-BUILT WAS PERFORMED BY MILDENBERG, BOENDER & ASSOC., INC.
- STORMWATER MANAGEMENT FOR LOTS 1, 2, 3, 4 AND 5 SHALL BE INSTALLED UNDER THE RESIDENTIAL LOT AS PART OF THE INDIVIDUAL GRADE CERTIFICATION FOR EACH LOT.

**LEGEND**

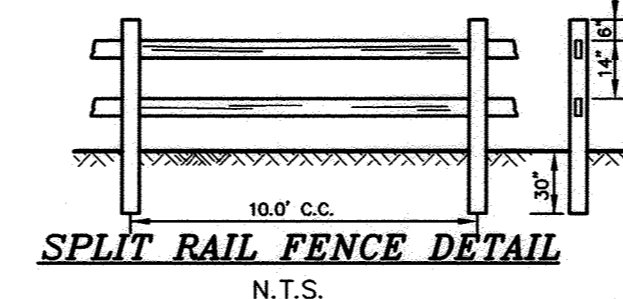


**STREET TREE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
3	(Symbol)	PRUNUS SARGENTII OR EQUIVALENT	SARGENT CHERRY OR EQUIVALENT	2 1/2" - 3" CAL.
TOTAL		3 STREET TREES - SEE GENERAL NOTE #39		

**STREET TREE CALCULATIONS**

STREET NAME	PERIMETER LENGTH	PLANTING REQUIREMENT	TREES REQUIRED	TREES PROVIDED
FREETOWN ROAD	127 LF.	1 TREE / 40 LF.	3	3



**SHEET INDEX**

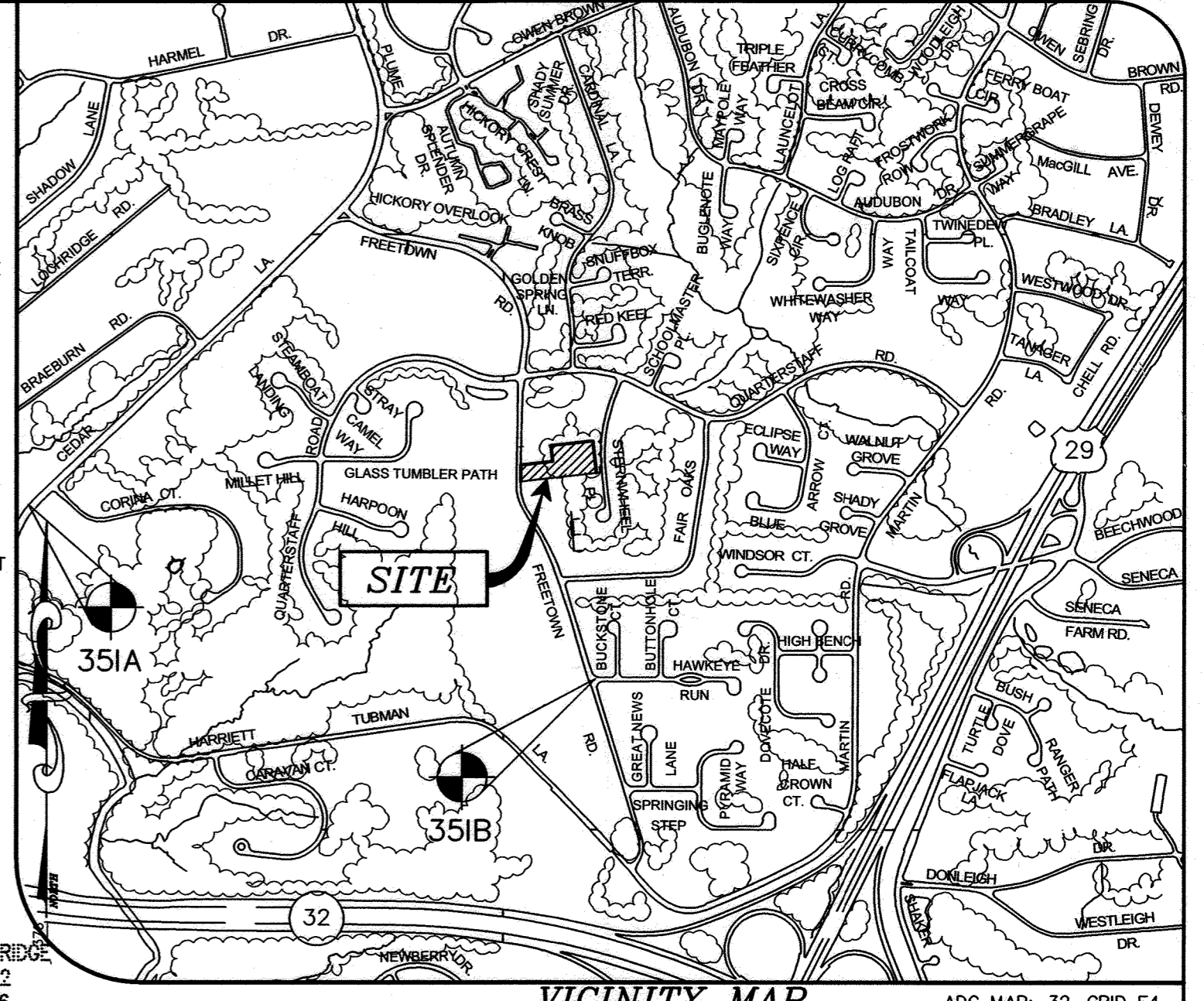
NO.	TITLE
1	SUPPLEMENTAL AND LANDSCAPE PLAN
2	ROAD IMPROVEMENT PLAN AND DETAILS
3	STORMWATER MANAGEMENT PLAN AND DETAILS
4	SEDIMENT CONTROL NOTES AND DETAILS

**SPECIMEN TREE CHART**

KEY	SPECIES	(IN DBH)	COMMENTS	COMMENTS
1	SILVER MAPLE	31.5"	POOR, TRUNK ROT	TO REMAIN
2	TULIP POPLAR	41"		TO REMAIN
3	SILVER MAPLE	50.5"	POOR, TRUNK DIEBACK	TO REMAIN
4	SILVER MAPLE	30.5"	FAIR CONDITION	TO REMAIN
5	SILVER MAPLE	45.5"	FAIR CONDITION, MULTI-STEM	TO BE REMOVED
6	TULIP POPLAR	43"		CREDIT
7	TULIP POPLAR	37"		CREDIT
8	SILVER MAPLE	32"	FAIR CONDITION, LIMITED CROWN	CREDIT

**FOREST RETENTION AREA**  
 MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED  
 VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

**SIGNAGE DETAIL**  
 NOT TO SCALE



**GENERAL NOTES:**

- SUBJECT PROPERTY ZONED "R-12" PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- ALL ASPECTS OF THIS PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS, UNLESS ALTERNATIVE COMPLIANCE HAS BEEN APPROVED.
- PROJECT BACKGROUND:  
 ADDRESS: 6549 FREETOWN ROAD, COLUMBIA, MD 21044  
 LOCATION: TAX MAP: 35 PARCEL: 138 GRID: 24  
 ELECTION DISTRICT: FIFTH  
 ZONING: R-12  
 TOTAL AREA 2.21 AC±  
 PROPOSED USE: SFD  
 DPZ FILE NUMBERS: ECP-19-004, WP-19-024, WP-19-098
- AREA TABULATION:  
 A. TOTAL TRACT AREA: 2.21 AC±  
 B. NUMBER OF BUILDABLE LOTS: 5  
 C. NUMBER OF OPEN SPACE LOTS:  
 D. AREA OF ROAD DEDICATION: 0.09 AC±  
 E. OPEN SPACE AREA REQUIRED: (8%) 0.18 AC±  
 F. OPEN SPACE PROVIDED: (20.81%) 0.46 AC±  
 G. AREA OF BUILDABLE LOTS: 1.66 AC±
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 351A & 351B  
 STA. NO. 351A N 555,450.556 E 1,346,039.778 EL. 412.302  
 STA. NO. 351B N 553,953.538 E 1,346,532.451 EL. 419.530
- PROJECT BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JULY 2018 BY MILDENBERG, BOENDER & ASSOC., INC.
- EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PERFORMED ON OR ABOUT JULY 2018 BY MILDENBERG, BOENDER & ASSOC., INC.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED UNDER CONTRACT # 24-5093-D (WATER AND SEWER).
- THE PROPOSED SUBDIVISION WILL CONSIST OF SINGLE FAMILY DETACHED DWELLINGS.
- STEEP SLOPES GREATER THAN 25% AND OVER 20,000 SQ. FT. IN AREA DO NOT EXIST ON SITE.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
 A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).  
 B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2").  
 C) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. OF 45 FOOT TURNING RADIUS.  
 D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).  
 E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD PLAIN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE.  
 F) STRUCTURE CLEARANCES - MINIMUM 12 FEET  
 G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY ON-SITE RETENTION OF 0.4 ACRES AND A PAYMENT OF FEE-IN-LIEU FOR 0.3 ACRES OF REFORESTATION. FEE-IN-LIEU FOR 0.3 ACRES (13,068 SQ. FT.) OF REFORESTATION IN THE AMOUNT OF \$ 9,801.00 WILL BE POSTED WITH THIS PLAN.
- LANDSCAPING FOR THIS SUBDIVISION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. SURETY FOR THE PROVIDED LANDSCAPING - IN THE AMOUNT OF \$10,350.00 WILL BE PROVIDED WITH THE DEVELOPER'S AGREEMENT.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR 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.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTION 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.
- STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED VIA MICRO-BIORETENTION AND DRY WELLS FACILITIES AND WILL BE PRIVATELY OWNED AND MAINTAINED.
- IN ACCORDANCE WITH SECTION 16.121.(a)(2) OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS OPEN SPACE REQUIREMENT FOR THIS SUBDIVISION IS MET ON-SITE, BY THE CREATION OF OPEN SPACE LOT 6.
- THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, SIMILAR HOUSE TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
- WETLANDS AND ITS BUFFER EXIST ON SITE AS CERTIFIED IN THE WETLAND AND FSD LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. IN JULY 24, 2018.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OF CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OF BUILDING/GRADING PERMIT.
- 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.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MARYLAND STATE HIGHWAY ADMINISTRATION STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP ON OCTOBER 10, 2018, AND WAS APPROVED ON JUNE, 2019.
- NO 100 YEAR FLOODPLAIN EXISTS ON THIS SITE. DRAINAGE AREA IS LESS THAN 30 ACRES.
- NO CEMETERIES EXIST ON SITE.

**DEVELOPERS CERTIFICATE**

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature]  
 DATE: 7/31/19

**DEVELOPER'S/OWNER'S CERTIFICATE**

I/WE 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/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Signature: [Signature]  
 DATE: 7/31/19

**ENGINEER'S CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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]  
 DATE: 8/13/19

**DEVELOPER'S CERTIFICATE**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 09/03/20

Signature: [Signature]  
 DATE: 8/15/19

**OWNER'S CERTIFICATE**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 09/03/20

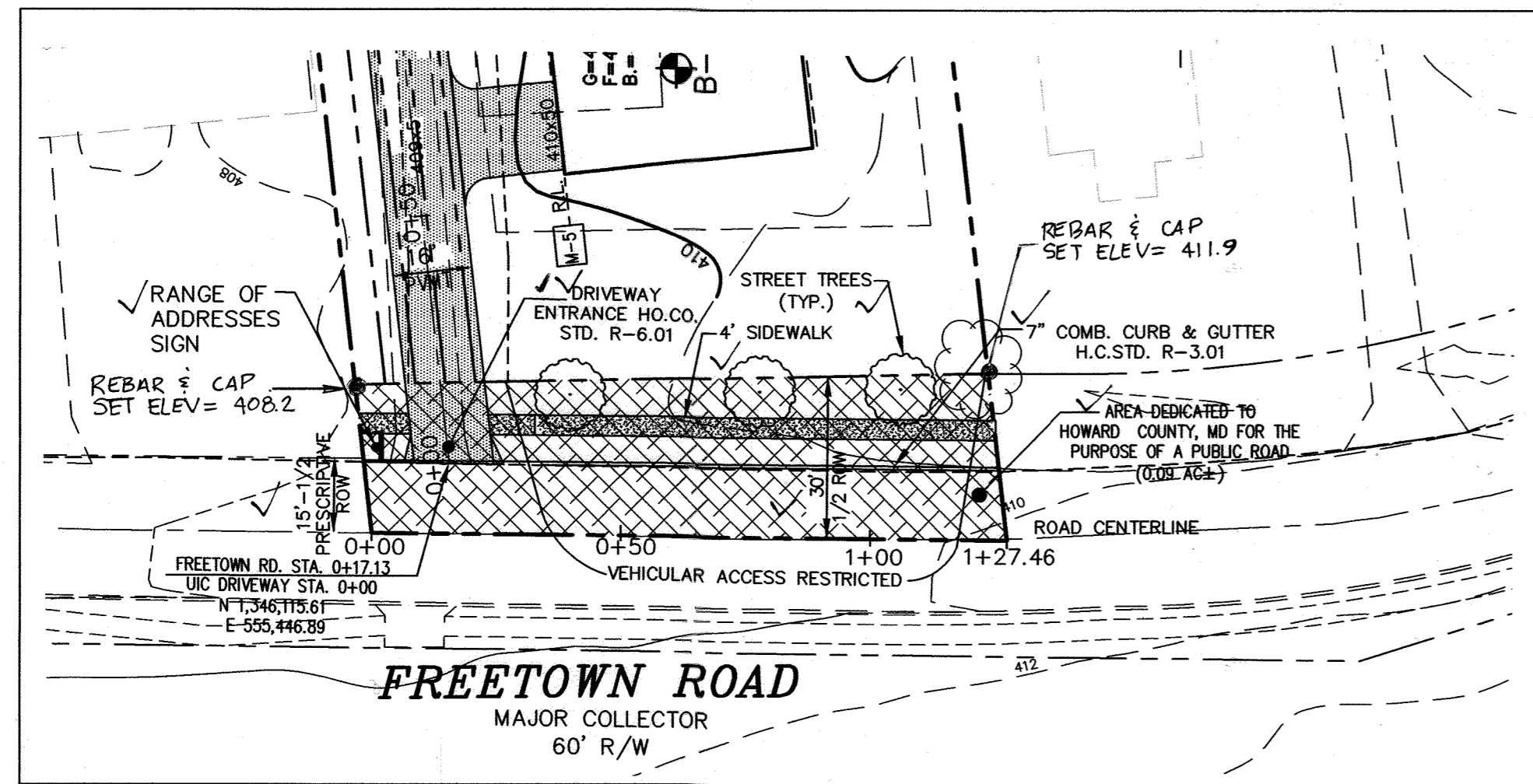
Signature: [Signature]  
 DATE: 8/15/19

Project	18-014	date	AUG 2019
Illustration	MMM	engineering	MMM
Scale	1" = 30'	approval	MMM
date	7/31/19	revision	

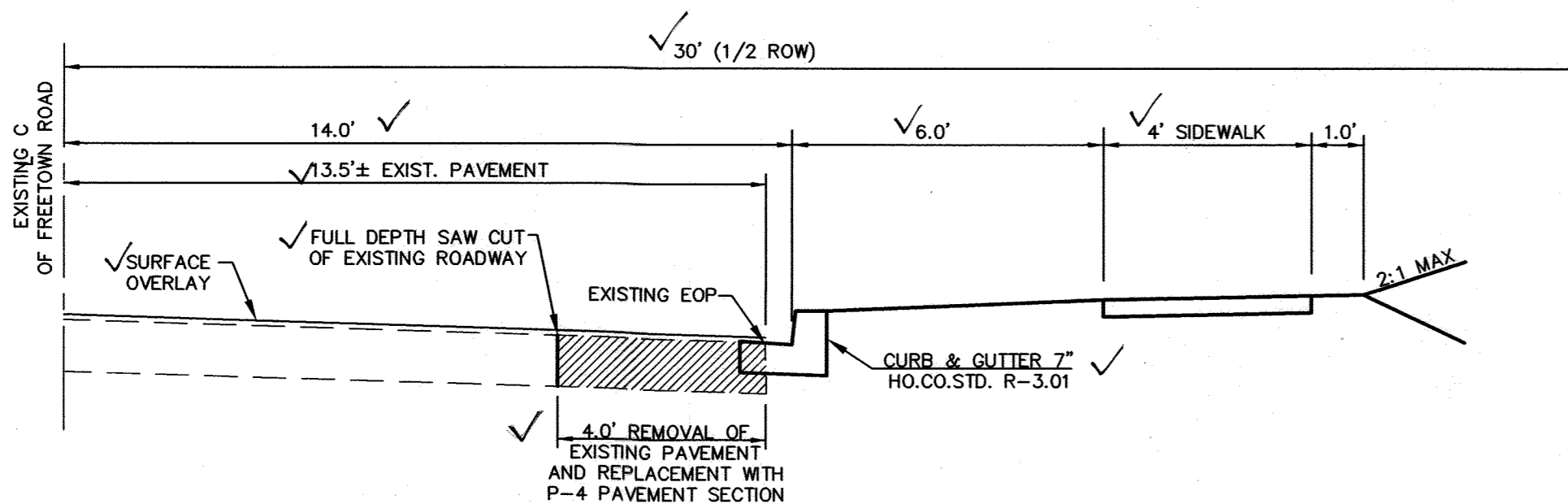
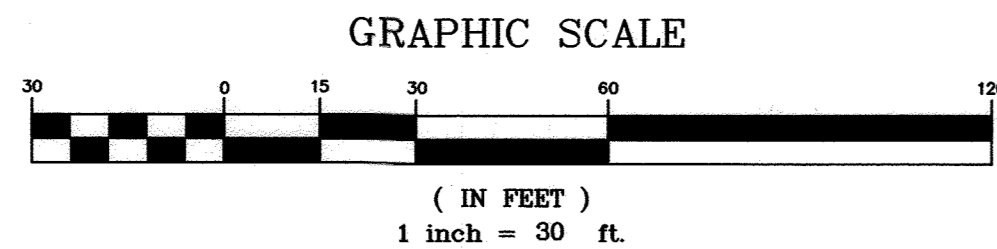
**ATHOLTON OVERLOOK**  
 LOTS 1 THRU 5 AND OPEN SPACE LOT 6  
 SUPPLEMENTAL AND LANDSCAPE PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Surveyors  
 7350-B Craze Drive, Columbia, Maryland 21044  
 (410) 997-0296 Tel. (410) 997-0298 Fax.





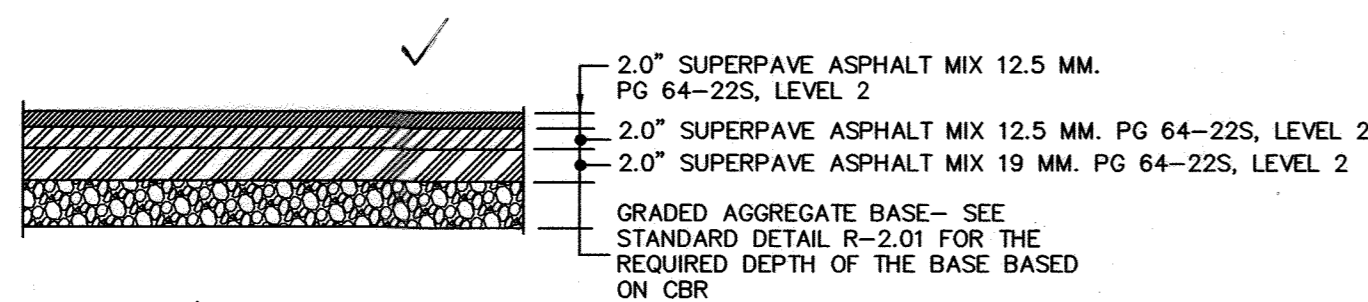
**FREETOWN ROAD IMPROVEMENTS PLAN**



**FREETOWN ROAD IMPROVEMENTS DETAIL**

NOT TO SCALE

1. WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 13' LANE, CONTRACTOR SHALL REMOVE A MINIMUM OF 1' FULL DEPTH OF THE EXISTING ROADWAY. IF CURB AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4' OF WIDENING FROM FACE OF GUTTER PAN.
2. THE EXISTING PAVEMENT TO BE RESURFACED SHALL BE MILLED AT A DEPTH OF 1.5" (MINIMUM).
3. THE RESURFACING SHALL BE PLACED TO THE CENTERLINE OF THE ROADWAY.
4. RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION.



**P-4 PAVEMENT SECTION**

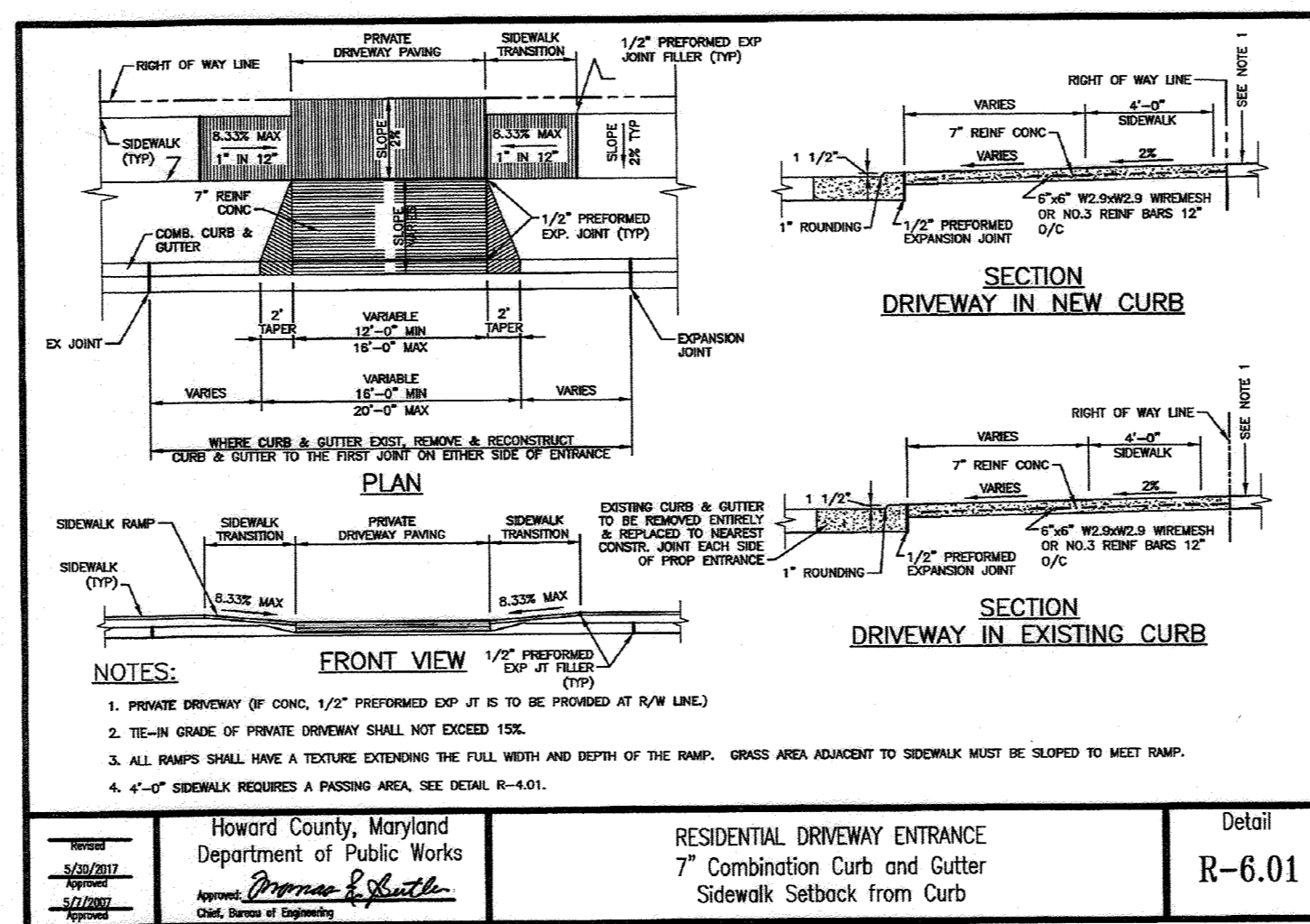
(NEW FULL DEPT CONSTRUCTION)  
NOT TO SCALE

**OWNER**

JAMES W. KING, JR.  
6549 FREETOWN ROAD  
COLUMBIA, MD 21044  
240-375-1052

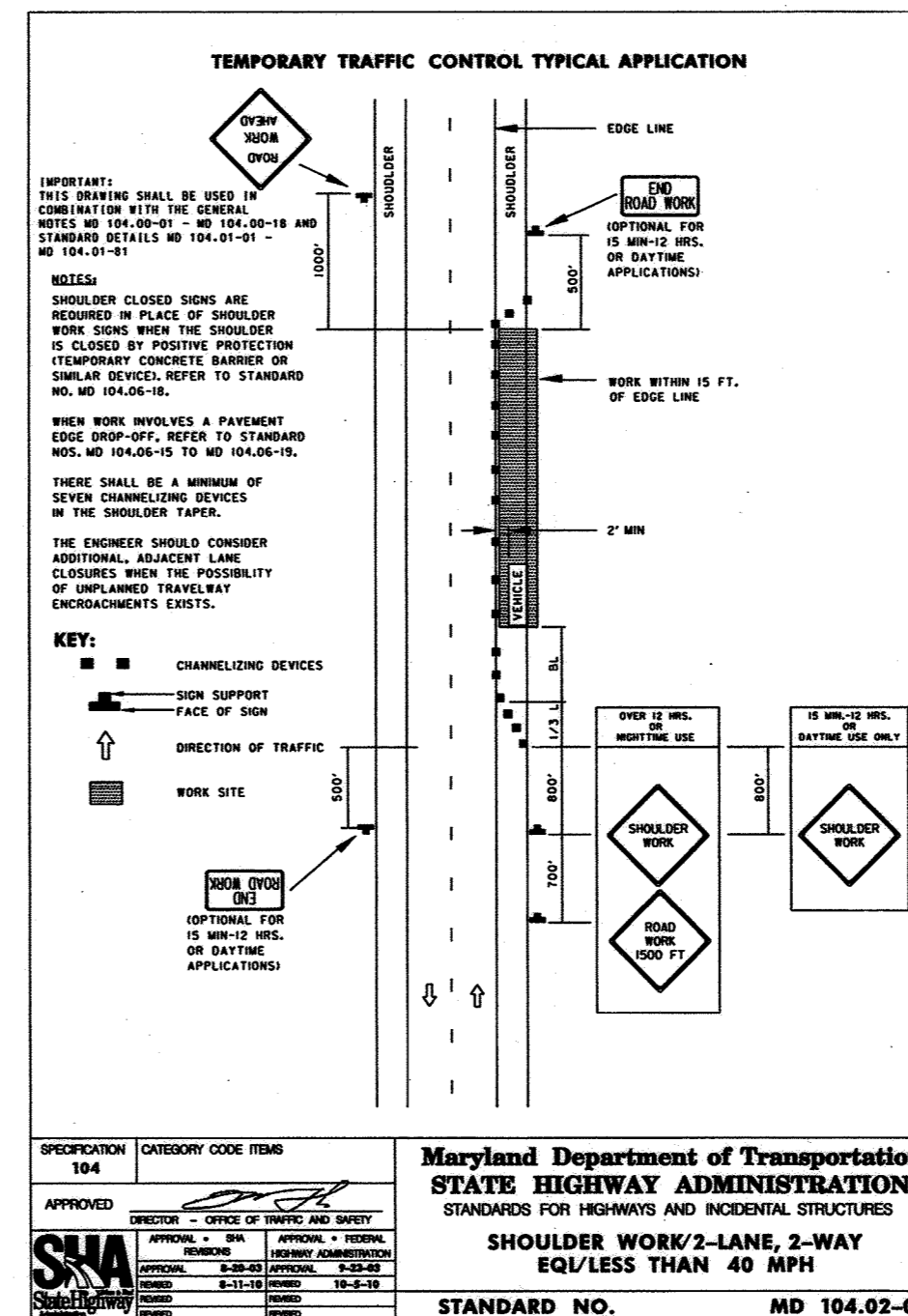
**DEVELOPER**

BURKARD HOMES  
5850 WATERLOO ROAD, STE. 140  
COLUMBIA, MD 21045  
240-375-1052

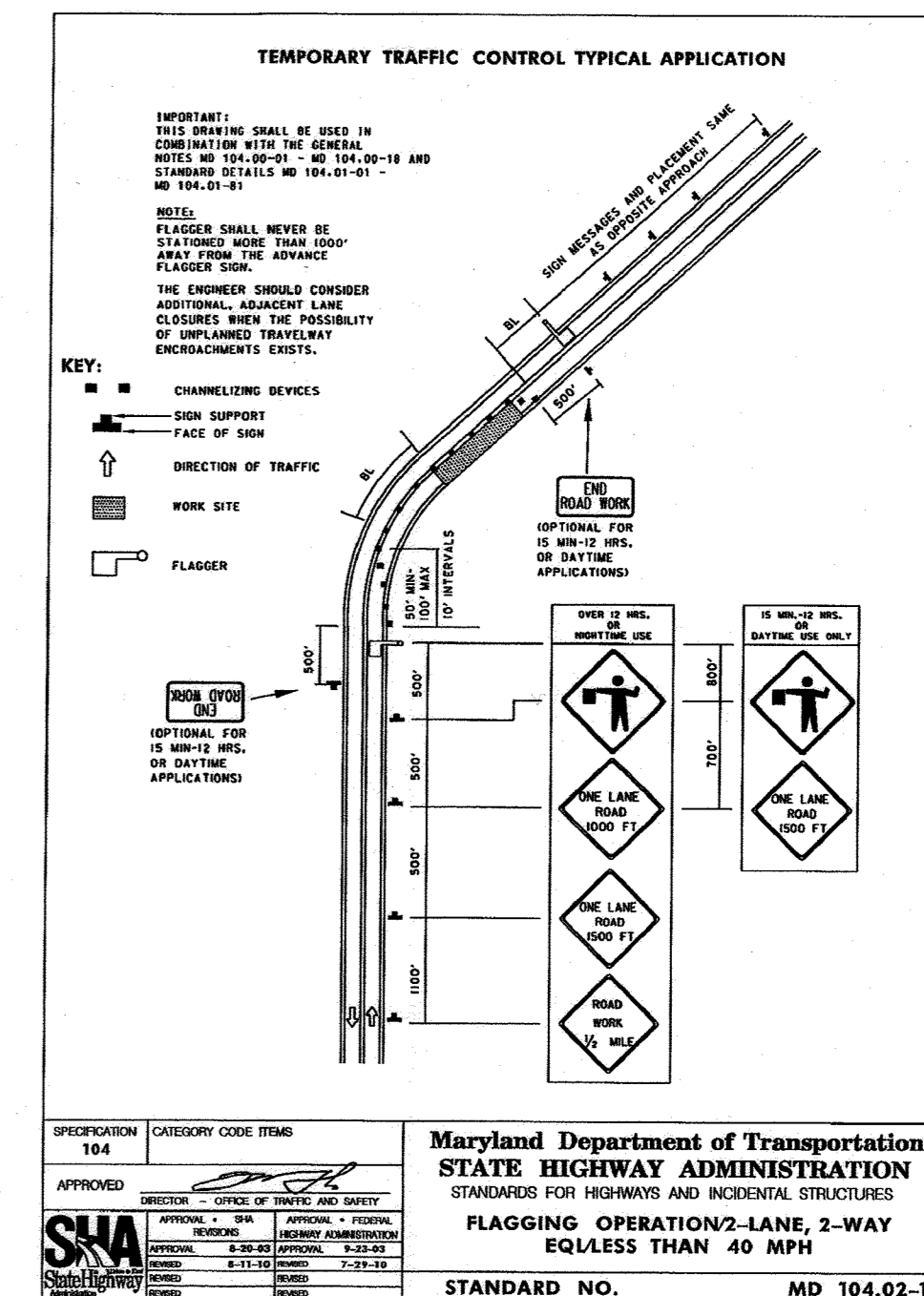


RESIDENTIAL DRIVEWAY ENTRANCE  
7" Combination Curb and Gutter  
Sidewalk Setback from Curb

Detail  
R-6.01



Maryland Department of Transportation  
**STATE HIGHWAY ADMINISTRATION**  
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES  
**SHOULDER WORK 2-LANE, 2-WAY  
EQUIVALENT 40 MPH**  
STANDARD NO. MD 104.02-02



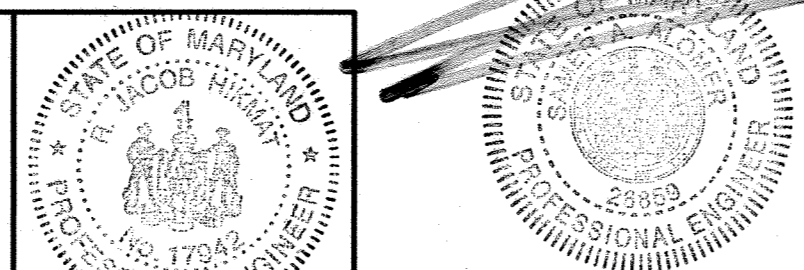
Maryland Department of Transportation  
**STATE HIGHWAY ADMINISTRATION**  
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES  
**FLAGGING OPERATION 2-LANE, 2-WAY  
EQUIVALENT 40 MPH**  
STANDARD NO. MD 104.02-10

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 8-15-19  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 8-20-19  
CHIEF, DIVISION OF LAND DEVELOPMENT

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. 17942, EXP DATE 09/03/20

*[Signature]* 8/1/19  
R. JACOB HIKMAT P.E. DATE:



I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.

date AUG 2019  
project 18-014  
illustration MAM  
scale 1" = 30'  
approval RH

date JAN 2024  
description ADD ROAD IMP AS-BUILT INFO.  
revisions

ATHOLTON OVERLOOK  
LOTS 1 THRU 5 AND OPEN SPACE LOT 6  
TAX MAP: 35, PARCEL 138  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
ROAD IMPROVEMENT PLAN AND DETAILS

**MILDENBERG, BOENDER & ASSOC., INC.**  
Planners Surveyors  
Engineers  
2350-B Grace Drive, Columbia, Maryland 21044  
(410) 997-0286 Tel. (410) 997-0288 Fax.



**SOILS TABLE**

SYMBOL	RATING	NAME	K FACTOR	MAP NO.
GbB	(B)	GLADSTONE LOAM, 3-8% SLOPES	.28	17
GbC	(B)	GLADSTONE LOAM, 8-15% SLOPES	.28	17
GtB	(B)	GLADSTONE-URBAN LAND COMPLEX, 0-8% SLOPES	.28	17
UuB	(D)	URBAN LAND-UDORTHTENS COMPLEX, 0-8% SLOPES	.37	17

**SWM PRACTICES SCHEDULE**

AREA	PROPOSED PRACTICES	REQUIRED ESDv	PROVIDED ESDv	REQUIRE Pe	PROVIDED Pe	REQUIRED Rev	PROVIDED Rev
LOT 1 (HOUSE)	M-5, DRYWELLS (3 EACH)	279.2 C.F.	336 C.F.	1.6"	1.9"	49 C.F.	336 C.F.
LOT 2 (HOUSE)	M-5, DRYWELLS (3 EACH)	279.2 C.F.	336 C.F.	1.6"	1.9"	49 C.F.	336 C.F.
LOT 3 (HOUSE)	M-5, DRYWELLS (3 EACH)	279.2 C.F.	336 C.F.	1.6"	1.9"	49 C.F.	336 C.F.
LOT 4 (HOUSE)	M-5, DRYWELLS (3 EACH)	279.2 C.F.	336 C.F.	1.6"	1.9"	49 C.F.	336 C.F.
LOT 5 (HOUSE)	M-5, DRYWELLS (3 EACH)	279.2 C.F.	336 C.F.	1.6"	1.9"	49 C.F.	336 C.F.
LOT 6 (VIC AND INDIVIDUAL DRIVEWAYS)	M-6, MICRO-BIORETENTION (MB #1)	1,163 C.F.	1,304 C.F.	1.6"	1.8"	191 C.F.	324 C.F.
TOTAL		2,891 C.F.	2,984 C.F.	1.6"	1.9"	436 C.F.	2,004 C.F.

**OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)**

ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A-4.1 AND 2.

SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTOR WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.

MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.

SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

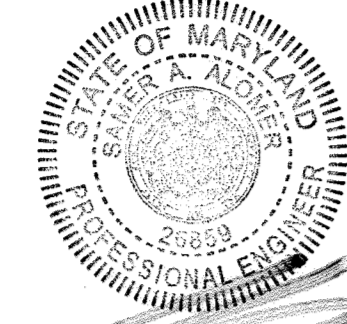
**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)**

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

**LEGEND**

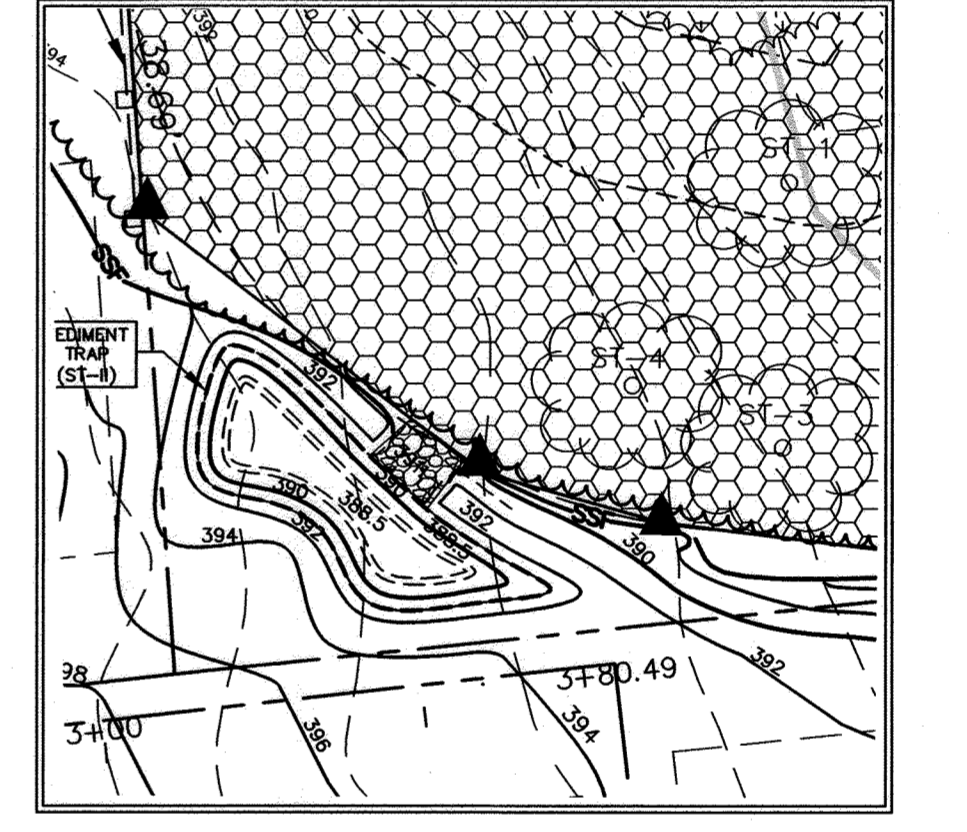
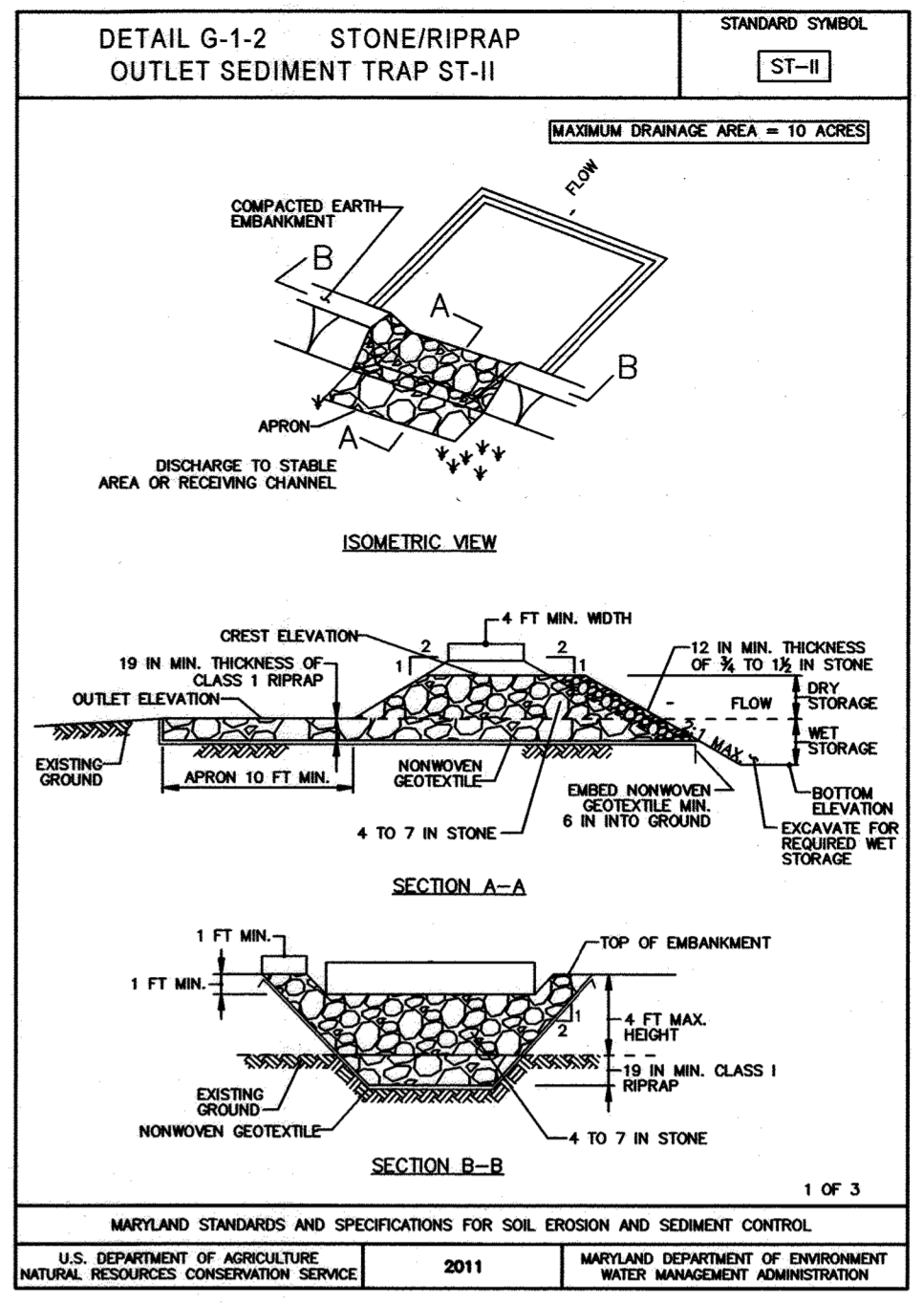
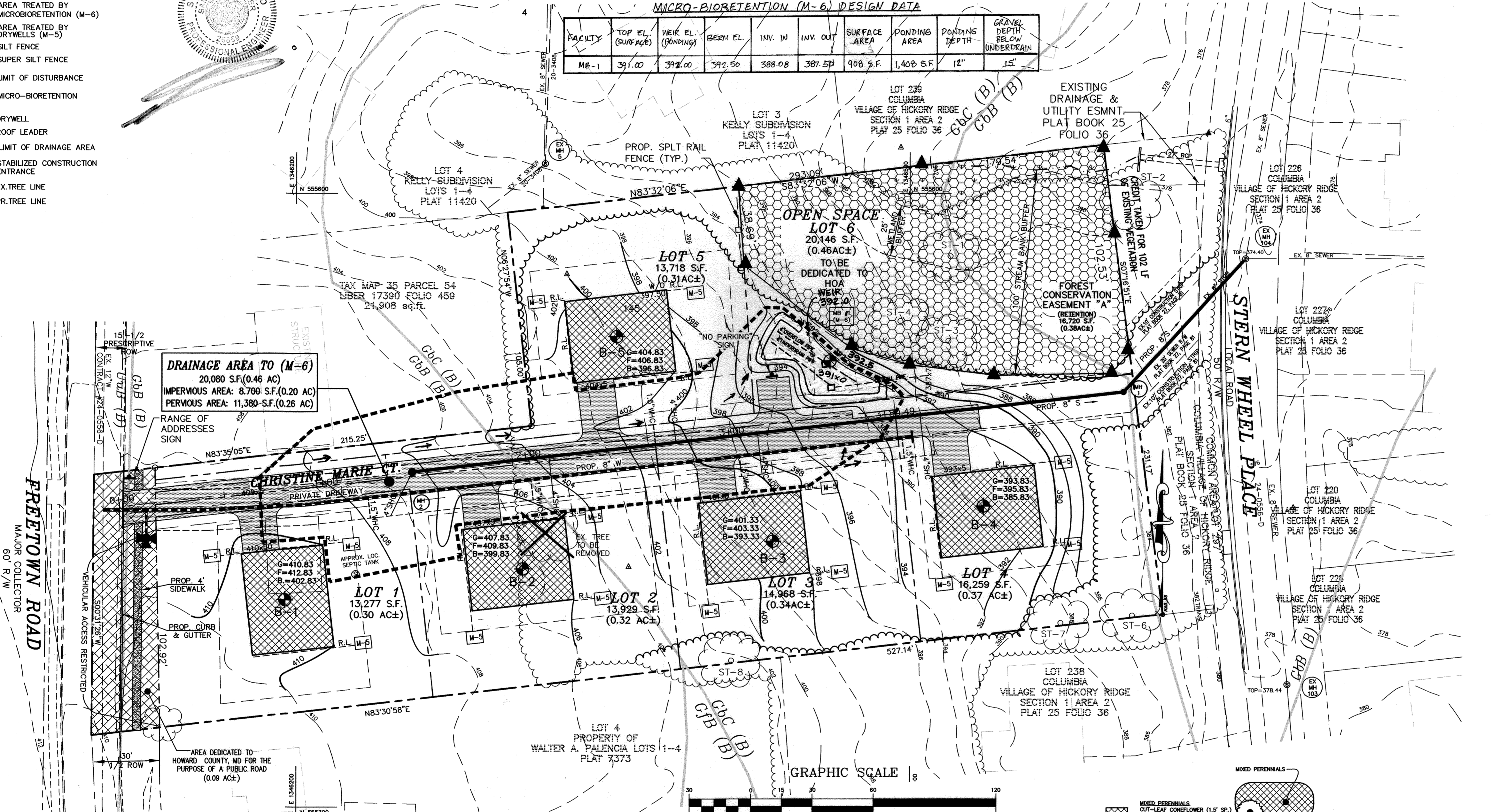
- FOREST CONSERVATION EASEMENT (RETENTION)
- WETLANDS AREA
- PROPOSED DRIVEWAY AREA TREATED BY MICROBIORETENTION (M-6)
- AREA TREATED BY DRYWELLS (M-5)
- SF SILT FENCE
- SSF SUPER SILT FENCE
- LOD LIMIT OF DISTURBANCE
- MB #2 (M-6) MICRO-BIORETENTION
- DRYWELL
- R.L. ROOF LEADER
- LIMIT OF DRAINAGE AREA
- STABILIZED CONSTRUCTION ENTRANCE
- EX. TREE LINE
- PR. TREE LINE

I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.



**MICRO-BIORETENTION (M-6) DESIGN DATA**

FACILITY	TOP EL. (SURFACE)	WEIR EL. (OPENING)	BEEN EL.	INV. IN	INV. OUT	SURFACE AREA	PONDING AREA	PONDING DEPTH	GRAVEL DEPTH (MIN. UNDERDRAIN)
MB-1	391.00	392.00	392.50	388.08	387.50	908 S.F.	1,400 S.F.	12"	15"



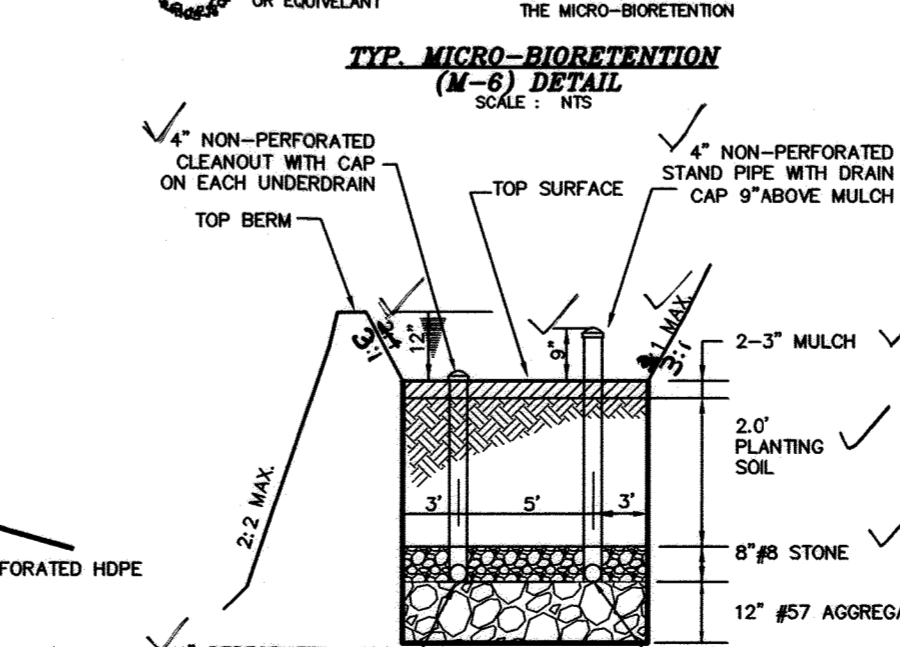
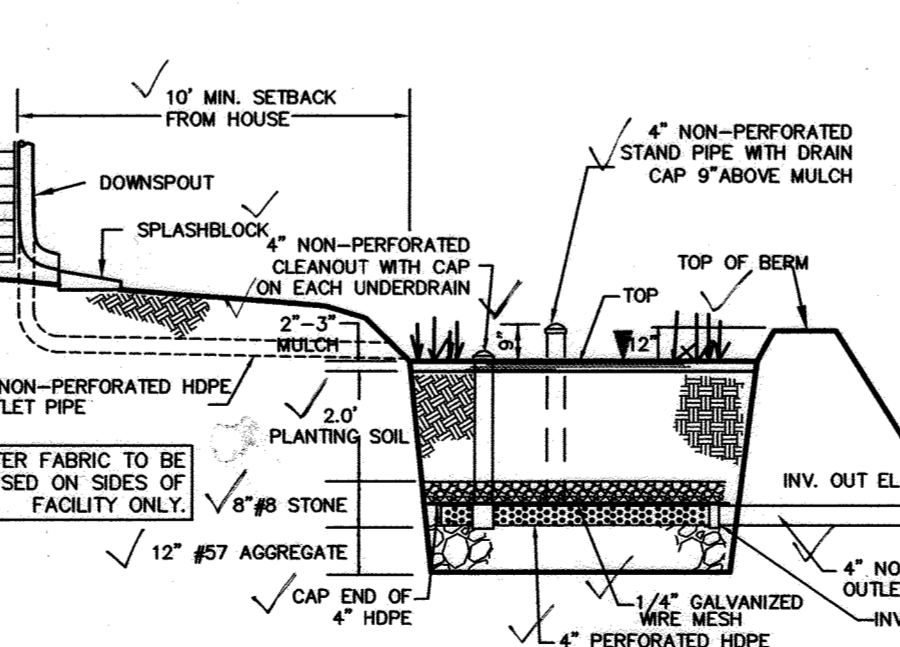
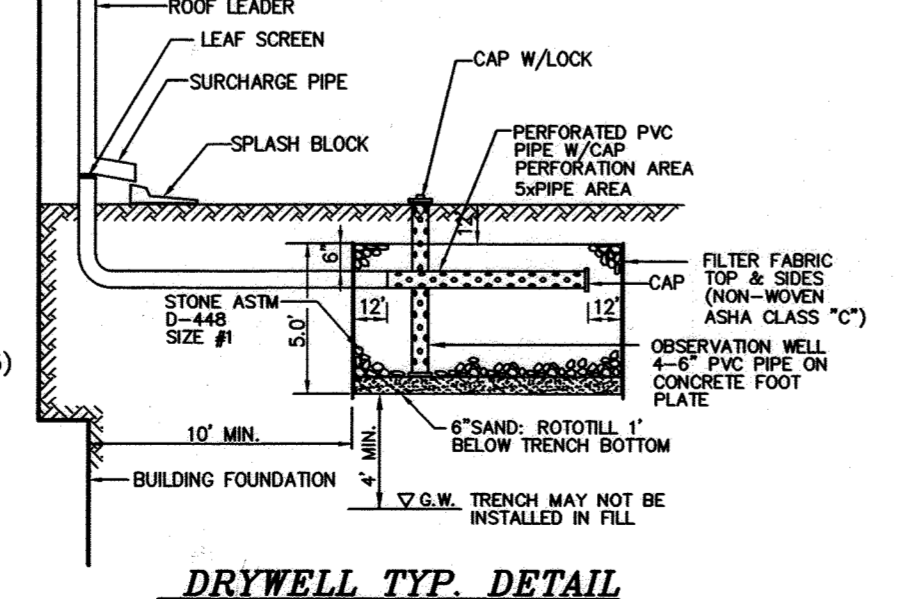
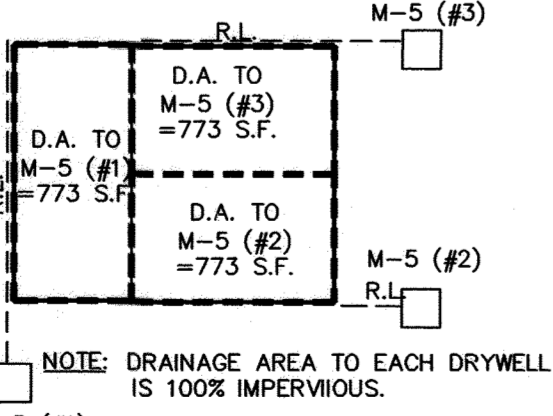
**SEDIMENT TRAP DATA**

DRAINAGE AREA:	0.41 AC.
TOTAL STORAGE REQUIRED:	1,476 C.F.
TOTAL STORAGE PROVIDED:	1,528 C.F.
WET STORAGE REQUIRED:	738 C.F.
WET STORAGE PROVIDED:	778 C.F.
DRY STORAGE REQUIRED:	738 C.F.
DRY STORAGE PROVIDED:	750 C.F.
EX. GROUND ELEV. @ OUTLET:	391.0
BOTTOM ELEVATION:	388.5
BOTTOM DIMENSIONS:	8'x42'
WEIR LENGTH:	10'
WEIR CREST ELEV.:	391.0
TOP OF EMBANKMENT ELEV.:	392.0
TOP OF EMBANKMENT WIDTH:	4'
SIDE SLOPE:	2:1
OUTLET PROTECTION LENGTH:	10'
OUTLET PROTECTION DEPTH:	9'

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Planting soil	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil (2' to 4' deep)	loamy sand (60-65%) & compost (35-40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2014)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel	ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	elemental stone: washed cobbles	stone: 2" to 5"	
Geotextile	n/a		PE Type 1 nonwoven
Gravel (underdrain and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 (3/8" TO 3/4")	
Underdrain piping	F 75k Type PS 28 or AASHTO M-278	4" or 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 pipe; not necessary unless pipe is wrapped with 1/4-inch geotextile hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; F <sub>c</sub> = 3500 psi @ 28 days, normal weight, air-entrained, reinforcing as per ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved base or local materials requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.8/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressure); and analysis of potential cracking. Sand substitutions such as Diabase and Graystone (AASHTO M-28) are not acceptable. No chlorine carbonate or chloride sand substitutions are acceptable. No "rock dust" can be used for sand.
Sand	AASHTO M-6 or AASHTO-C-33	0.075 to 0.04"	



**OWNER/DEVELOPER**  
BURKARD HOMES, LLC  
5850 WATERLOO ROAD, SUITE 140  
COLUMBIA, MD 21045  
(410)375-1052

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Jacob Hikmat* 8/15/19  
CHIEF, DEVELOPMENT ENGINEERING DIVISION / DATE

STATE OF MARYLAND PROFESSIONAL ENGINEER  
*Jacob Hikmat* 8/15/19  
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. 17942, EXP. DATE 9/03/2020.  
R. JACOB HIKMAT, P.E. DATE

Project	date	description	approval
18-014	AUG 2019	engineering illustration	MMM
		scale	MMM
		1"=30'	RH

DATE: 8/15/19  
DESCRIPTION: APP SWM AS-BUILT DATA  
REVISIONS:

**ATHOLTON OVERLOOK**  
LOTS 1 THRU 5 AND OPEN SPACE LOT 6  
TAX MAP: 35, PARCEL: 138  
HOWARD COUNTY, MARYLAND  
FIFTH ELECTION DISTRICT  
STORMWATER MANAGEMENT PLAN AND DETAILS

**MILDENBERG & ASSOC., INC.**  
Engineers Planners Surveyors  
7350-B Grace Drive, Columbia, Maryland 21044  
(410) 397-0296 Tel. (410) 397-0298 Fax.



STANDARD SEDIMENT CONTROL NOTES

- 1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS...

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS FINAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN...

- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS...

- 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL...

- 5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSON FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.

6. SITE ANALYSIS: TOTAL AREA OF SITE: 2.21 ACRES

- 7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

- 8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID, THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY...

- 9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.

- 10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSD PRIOR TO PROCEEDING WITH CONSTRUCTION.

- 11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGINS ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME.

- 12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.

- 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.

- 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE MAINTAINED AT 2' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.

- 15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE): USE I AND IP MARCH 1 - JUNE 15

- 16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

(B-4-2) STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA A. SOIL PREPARATION

- 1. TEMPORARY STABILIZATION a. SEED PREPARATION TO PROVIDE PERMANENT VEGETATIVE ESTABLISHMENT ARE: i. SOIL PH BETWEEN 6.0 AND 7.0.

- 2. PERMANENT STABILIZATION a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: i. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

- 3. SOIL AMENDMENTS TO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREA TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION.

- 4. TOPSOILING a. TOPSOIL IS PLACED OVER PREPARED SUBSOIL FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

- 5. MULCHING a. MULCH MATERIALS (IN ORDER OF PREFERENCE) ARE: STRAW CONSISTING OF THOROUGHLY PREFERRED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR.

- 6. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) a. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER FOR DISTURBED AREAS OF 5 ACRES OR MORE.

- 7. STOCKPILE AREA a. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.

- 8. STOCKPILE AREA a. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.

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(B-4-3) STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA A. SEEDING

- 1. SPECIFICATIONS a. SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY.

- 2. APPLICATION a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROPS OR BROADCAST SPREADERS. b. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1.

- 3. MULCHING a. MULCH MATERIALS (IN ORDER OF PREFERENCE) ARE: STRAW CONSISTING OF THOROUGHLY PREFERRED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR.

- 4. MULCHING a. MULCH MATERIALS (IN ORDER OF PREFERENCE) ARE: STRAW CONSISTING OF THOROUGHLY PREFERRED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR.

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(B-4-5) STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.

PURPOSE TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER OF DISTURBED EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CONDITIONS WHERE PRACTICE APPLIES TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA A. SEED MIXTURES

- 1. GENERAL USE a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED IN THE SITE CONDITION OR PURPOSE.

- 2. TURFGRASS MIXTURES a. AREAS WHERE TURFGRASS MAY BE DESIRE INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

- 3. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE.

- 4. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE.

- 5. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE.

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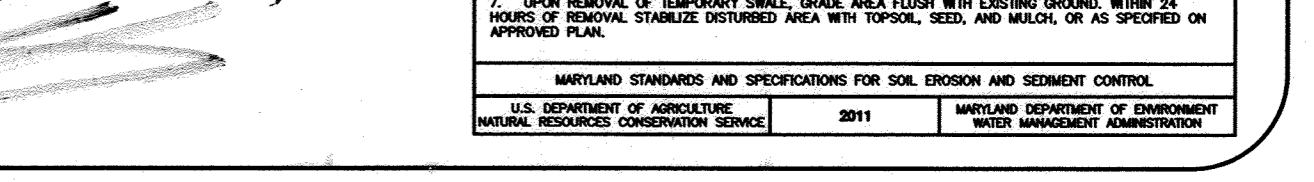
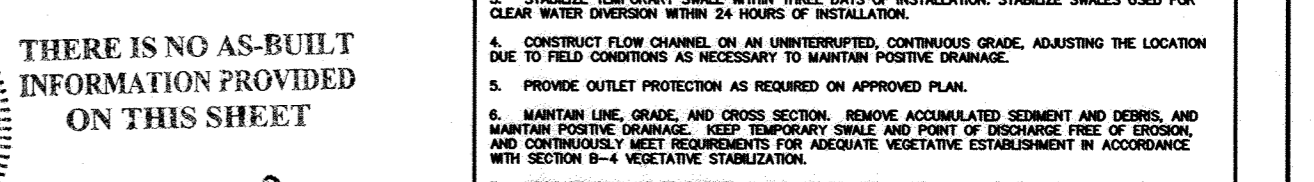
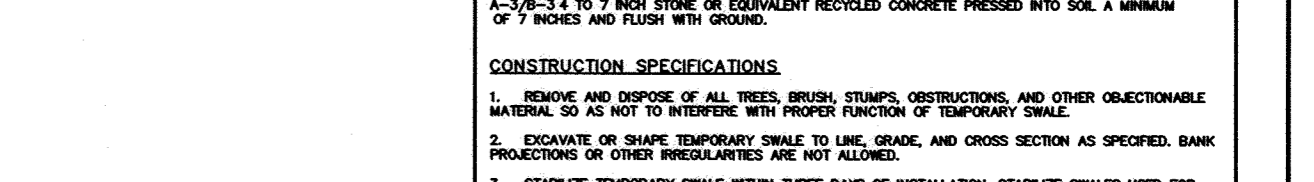
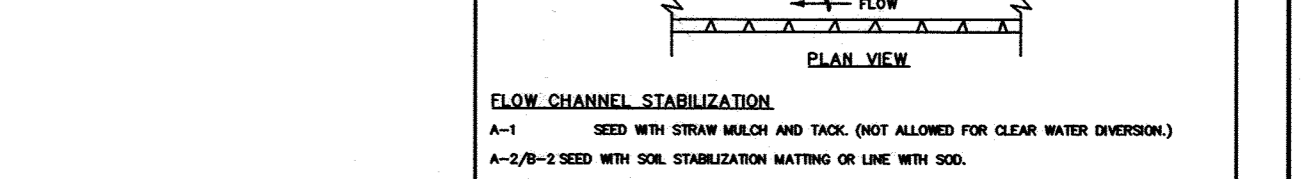
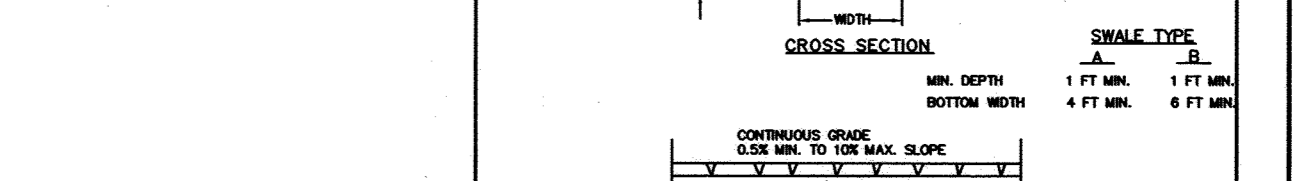
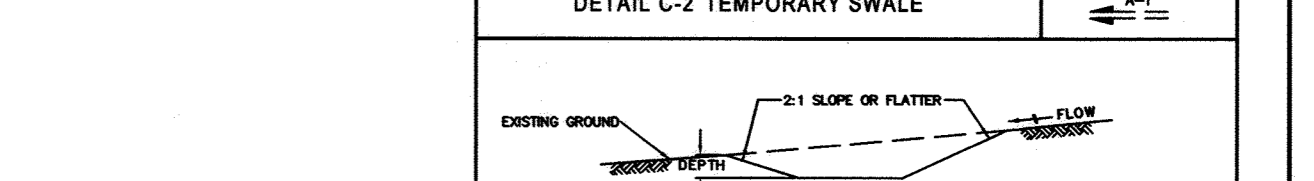
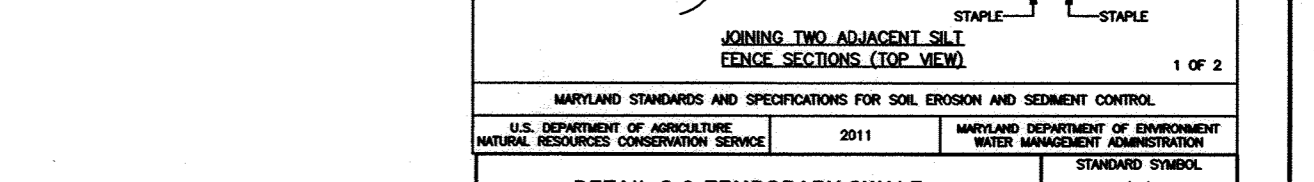
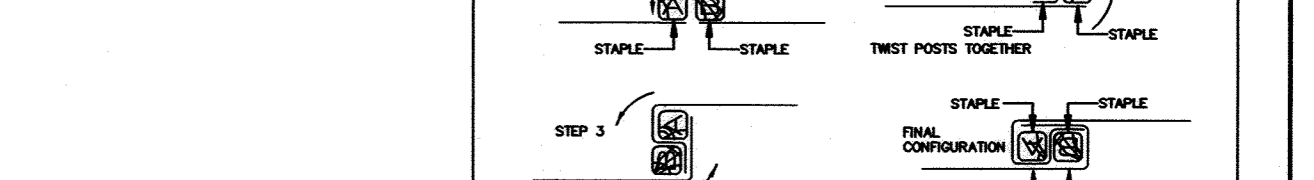
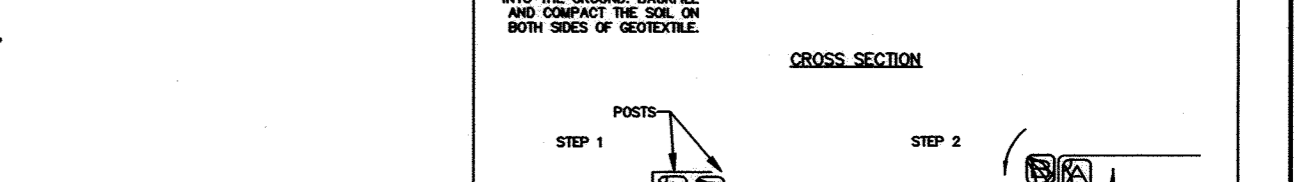
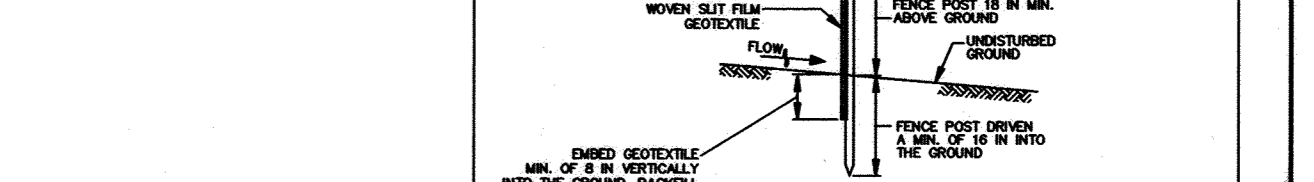
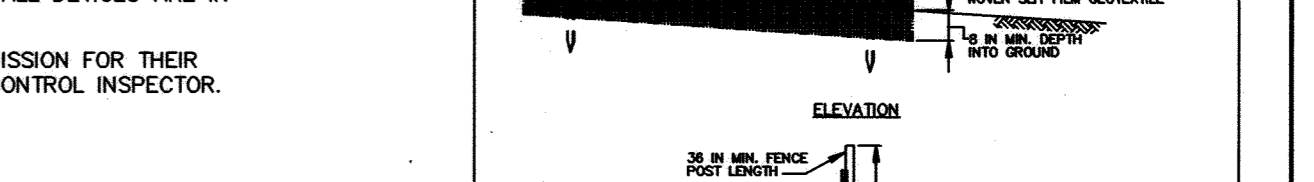
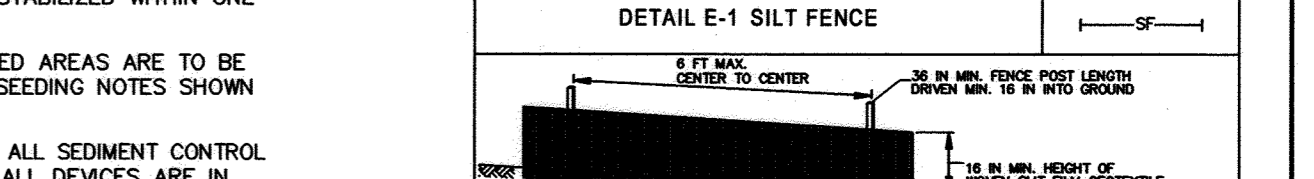
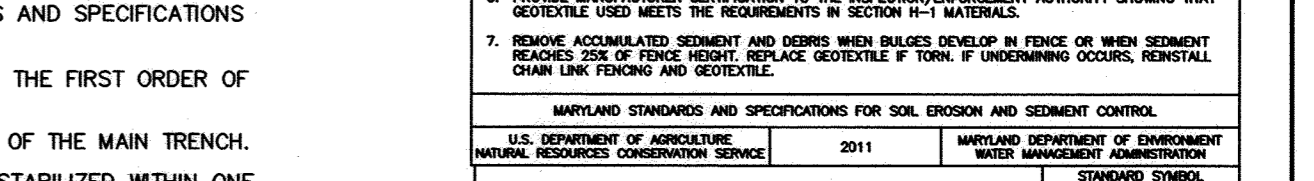
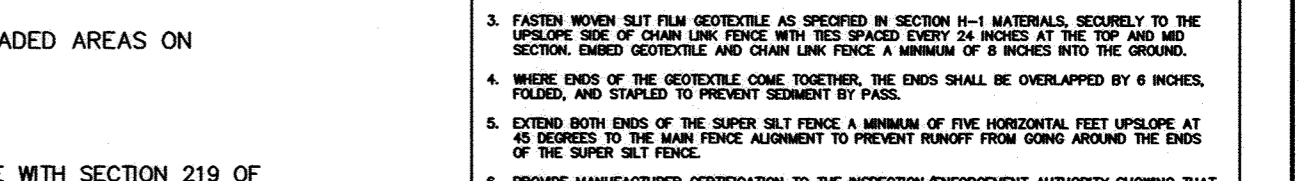
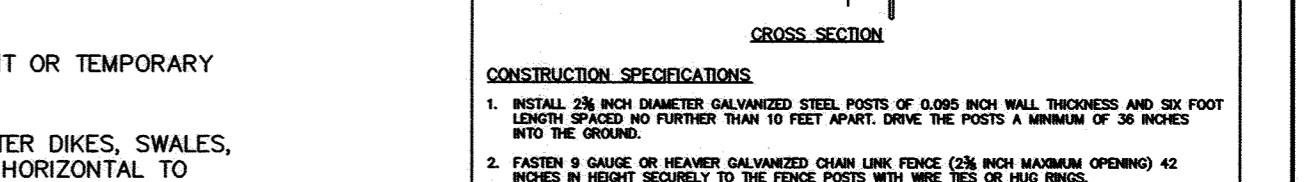
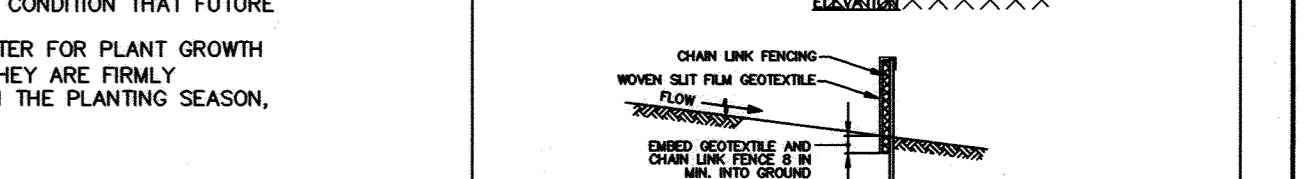
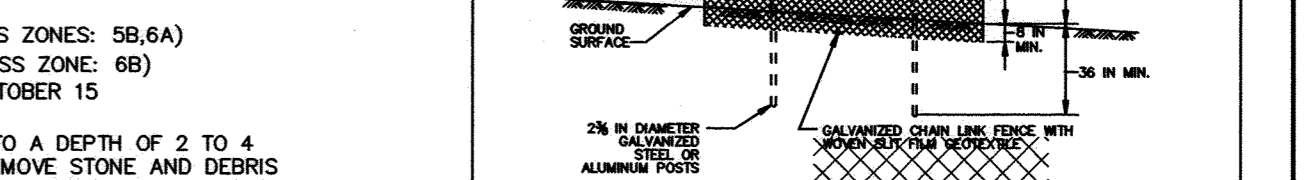
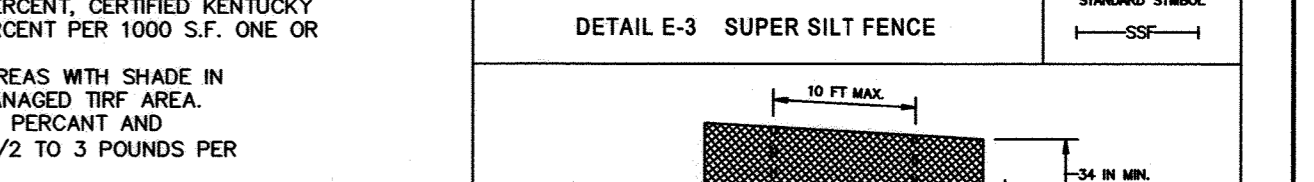
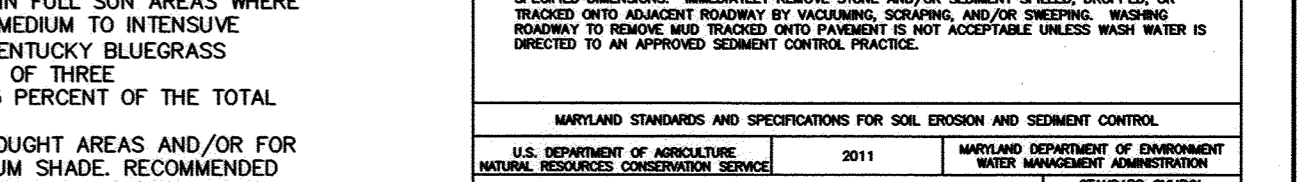
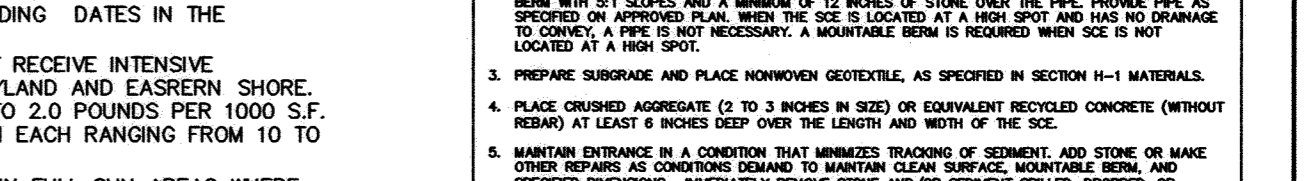
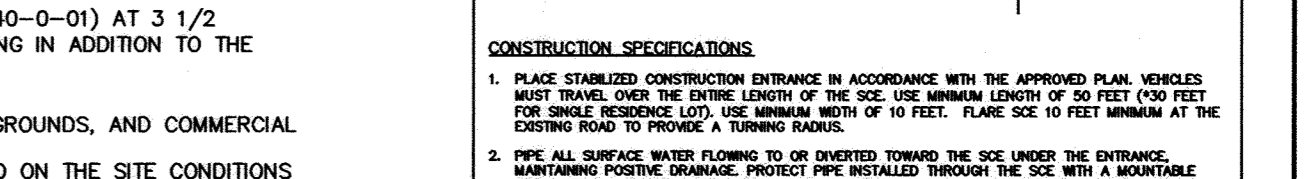
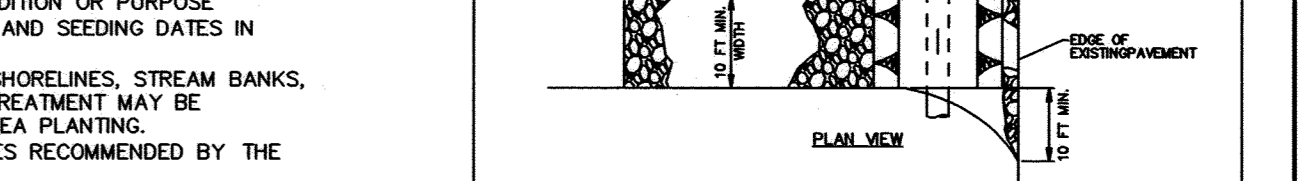
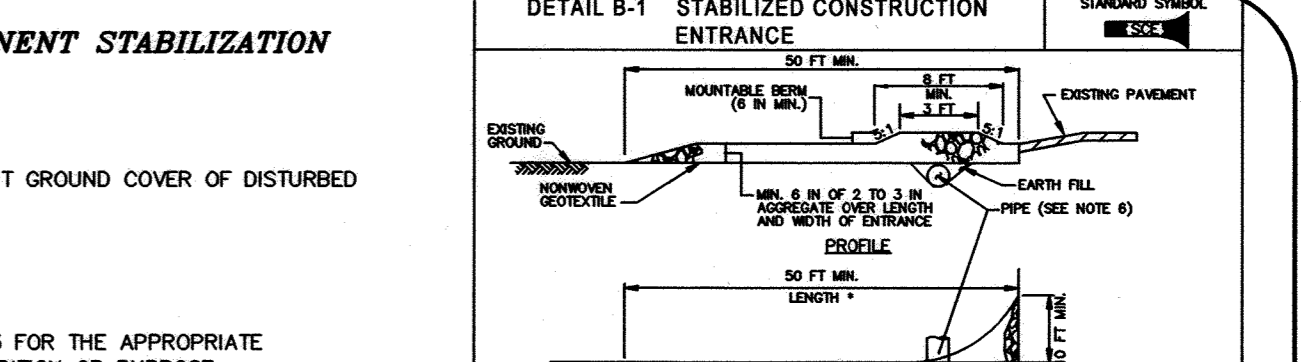
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Project: ATHLTON OVERLOOK, LOTS 1 THRU 5 AND OPEN SPACE LOT 6. Date: AUG 2019. Engineer: JACOB HIKMAT P.E.

Revision table with columns for date, description, and revision number.

Project information including address: 7350-B Grace Drive, Columbia, Maryland 21044.

Professional Engineer seal for R. JACOB HIKMAT P.E., State of Maryland, License No. 17942.

Professional Engineer seal for J. BOENDER, State of Maryland, License No. 17942.

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