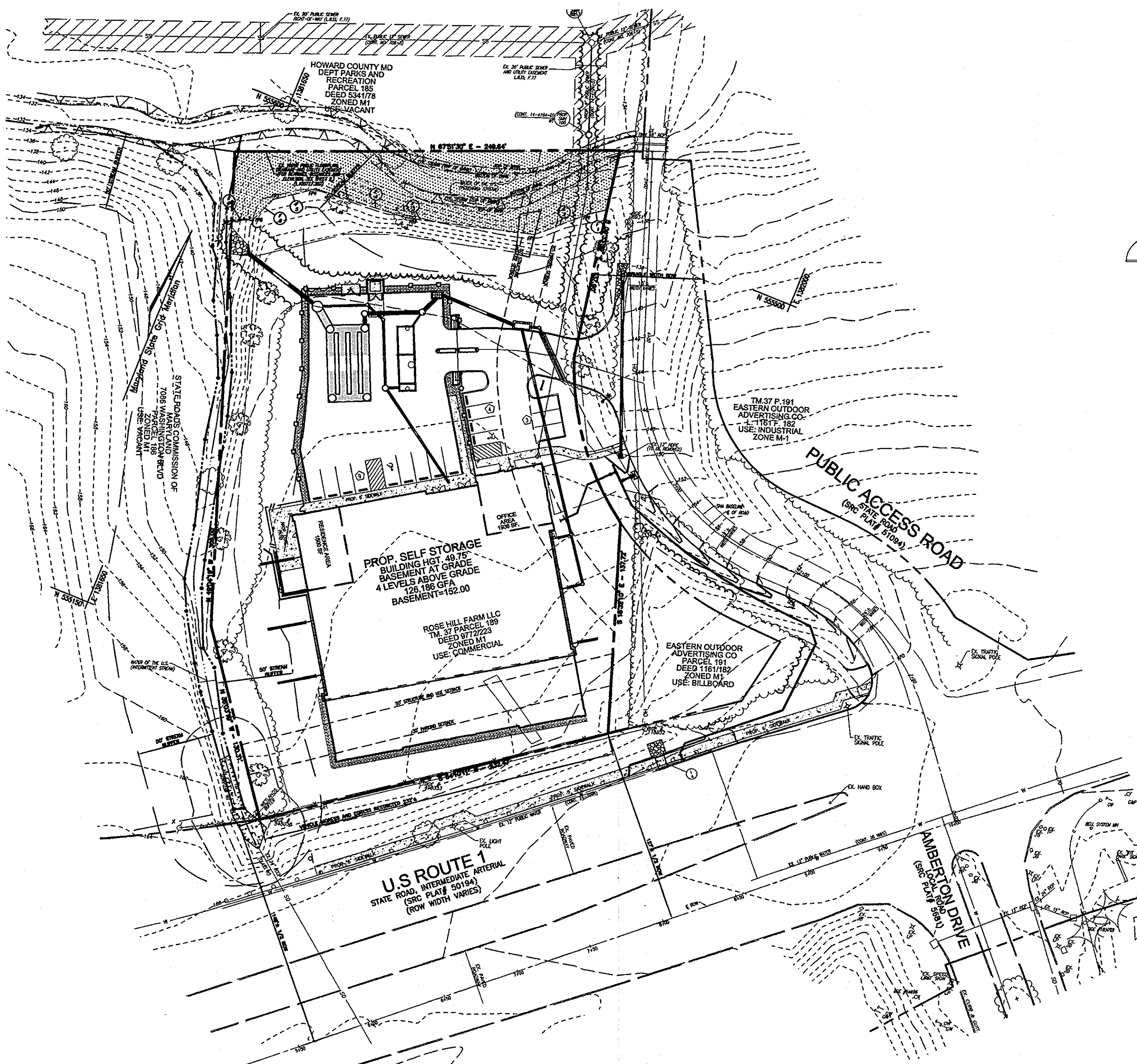


GENERAL NOTES:

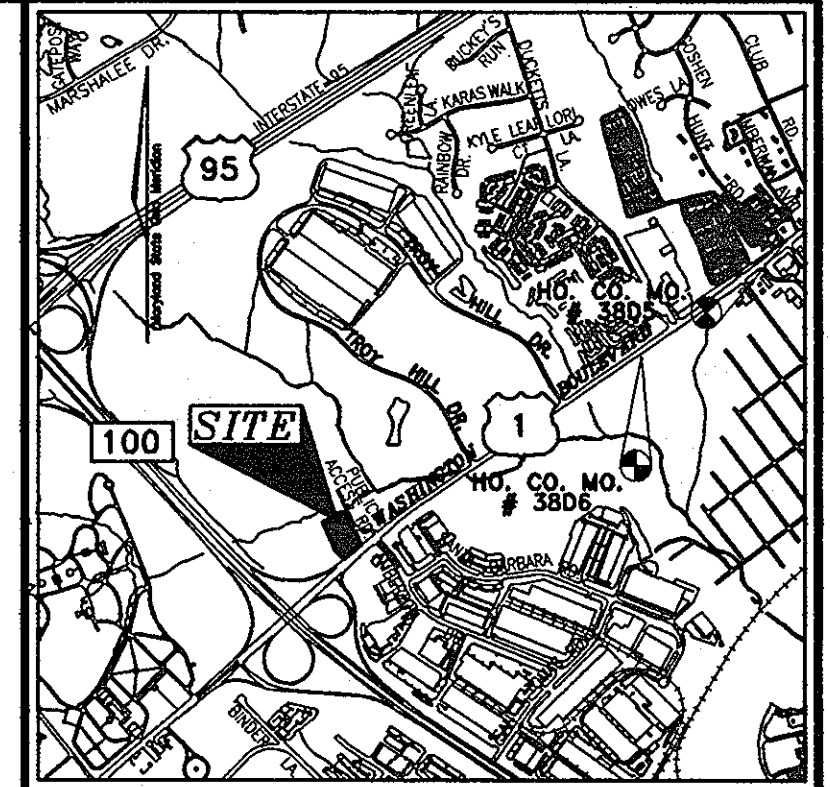
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MDSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 MISS UTILITY 1-800-257-7777
 VERIZON TELEPHONE COMPANY: 1-410-954-6281
 HOWARD COUNTY BUREAU OF UTILITIES: 313-2566
 AT&T CABLE LOCATION DIVISION: 393-3553
 B.G.&E. CO. CONTRACTOR SERVICES: 850-4620
 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 187-4620
 STATE HIGHWAY ADMINISTRATION: 531-5533
- SITE ANALYSIS:
 AREA OF PARCEL: 2.375 AC.
 PRESENT ZONING: M-1
 USE OF STRUCTURE: SELF STORAGE
 TOTAL BUILDING COVERAGE: 26,757 SF. (0.61 AC. OR 25.68% OF GROSS AREA)
 PAVED PARKING LOT/AREA ON SITE: 17,726 SF. (0.41 AC. OR 17.3% OF GROSS AREA)
 AREA OF LANDSCAPE ISLAND: 410 SF. (0.10 AC. OR 4.21% OF GROSS AREA)
 LIMIT OF DISTURBED AREA: 2 AC. OR 80-4% OF GROSS AREA.
 CUT: 2.700 CY. FILL: 3.104 CY.
- PROJECT BACKGROUND:
 LOCATION: ELK RIDGE, MD.; TAX MAP 37, BLOCK 24, PARCEL 189
 ZONING: M-1
 SUBDIVISION: N/A
 SECTION/AREA: N/A
 SITE AREA: 2.375 AC.
 DPZ REFERENCES: WP-04-010; SDP-04-004; AA-05-005; SDP-05-086; BA-06-046V; WP-09-069; BA-09-041V
- 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 START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF 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 CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3,500 P.S.I.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST PRIOR TO CONSTRUCTION.
- ALL STORM PIPE BEDDING TO BE IN ACCORDANCE WITH THE CURRENT HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY FREDERICK WARD AND ASSOCIATES, DATED MAY 24, 2001. THE COORDINATES SHOWN HEREON ARE BASED UPON NAD 83 THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- ALL PAVING TO BE MINIMUM HOWARD COUNTY STANDARD DETAIL P-2 UNLESS OTHERWISE NOTED. (SEE DETAILS, SHEET 2) THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION.
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL 3.01 UNLESS OTHERWISE NOTED. (SEE DETAIL SHEET 2)
- CONTRACTOR RESPONSIBLE TO CONSTRUCT ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- PUBLIC WATER IS AVAILABLE THROUGH CONTRACT NO. 14-4194-D.
- PUBLIC SEWER IS AVAILABLE THROUGH CONTRACT NO. 14-4194-D.
- STORMWATER MANAGEMENT QUANTITY IS PROVIDED BY THE PROPOSED UNDERGROUND DETENTION SYSTEM. WATER QUALITY IS PROPOSED BY AN UNDERGROUND SAND FILTER STRUCTURE. THE PROPOSED SWM SYSTEM AND WATER QUALITY SYSTEM ARE TO BE PRIVATELY OWNED AND MAINTAINED.
- ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. (DETAIL ON SHEET 2)
- BUILDING TO HAVE INSIDE WATER METER SETTING.
- APFO TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, DATED 8-12-08.
- GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES DATED 5-22-02.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,990.00 FOR THE REQUIRED 14 SHADE TREES, 17 EVERGREEN TREES, AND 8 SHRUBS.
- THE FOREST CONSERVATION OBLIGATION HAS BEEN MET/PROVIDED BY SDP-05-086 BY A FEE-IN-LIEU PAYMENT OF \$15,270.00 MADE TO THE MD. CO. FOREST CONSERVATION FUND FOR THE OUTSTANDING 0.70 AC. REFOREST OBLIGATION FOR THAT PLAN, AND THIS PLAN DOES NOT EXCEED THE LOG ON SDP-05-086.
- DEBRIS IS TO BE KEPT OUT OF ALL STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THIS PLAN IS SUBJECT TO MDE APPLICATION TRACKING NO. 200660164/05-NI-3235
- THERE ARE NO WETLANDS ON SITE. WETLAND DELINEATION PREPARED BY FREDERICK WARD ASSOCIATES, INC., DATED SEPTEMBER 2003, AND UPDATED BY ECO-SCIENCE PROFESSIONALS, INC., DATED DECEMBER 1, 2008.
- THE FLOODING IN SHOWN HEREON IS BASED ON DEEP RUN FLOODPLAIN STUDY D-1094 (MAP # 25-45).
- NO CLEARING, GRADING, FILL, OR EXCAVATION IS PERMITTED WITHIN THE FLOODPLAIN, STEEP SLOPES OR 50' STREAM BUFFERS, EXCEPT AS APPROVED BY WP-09-069 DATED DECEMBER 23, 2008 AND AS SHOWN ON THIS PLAN.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- THE SUBJECT PROPERTY IS ZONED M-2 PER THE 2-04 COMPREHENSIVE ZONING PLAN.
- THE EXISTING PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT ON THIS PLAN WAS RECORDED ON 05-23-06 AS L.10077/F.207.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5' IN HEIGHT AND NO MORE THAN 6' LATEROALLY FROM THE DOOR. ITS LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM).
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED SQUARE TUBE POST (12 GAUGE) - 3" LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- FIRE LANES SHOULD BE PROVIDED AT THE FRONT OF THE BUILDING. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND STENCILED.
- LANDSCAPING NOT PERMITTED WITHIN 7'-1/2' OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-1 13.1.4
- SIGNAGE SHALL BE PROVIDED ON THE BUILDING IDENTIFYING THE BUILDING ADDRESS, AND EACH SUITE SEPARATED BY LETTER.
- THIS PLAN IS SUBJECT TO BA-08-041V, APPROVED ON 10/15/2008, FOR VARIANCES FROM SECTION 122.D.2.0 TO (1) REDUCE THE 50 FOOT STRUCTURE AND USE SETBACK FROM U.S. ROUTE 1 FOR A STORAGE FACILITY, (2) TO REDUCE THE 50 FOOT STRUCTURE AND USE SETBACK FROM THE STATE HIGHWAY PUBLIC ACCESS ROAD TO 30 FEET FOR THE CONSTRUCTION OF A STORAGE FACILITY, AND (3) TO REDUCE THE 30 FOOT PARKING SETBACK FROM THE STATE HIGHWAY PUBLIC ACCESS ROAD TO 10.4 FEET FOR THE PARKING SPACES. THE VARIANCES WILL APPLY ONLY TO THE SELF-STORAGE AND PARKING SPACES BEING REQUESTED, AND NOT TO ANY NEW STRUCTURES, USES, OR CHANGE IN USES ON THE SUBJECT PROPERTY, OR TO ANY ADDITIONS THERETO.
- MONUMENTAL SIGN REQUIRES SIGN PERMIT.
- THIS PLAN IS SUBJECT TO WP-09-069, APPROVED 12/23/08, TO WAIVE SECTION 16.116(o)(2)(i) TO PERMIT CLEARING, GRADING, A PART OF A CONCRETE PATIO, A PART OF A RETAINING WALL, A PART OF A 4 INCH PERFORATED PVC DRAIN PIPE, A PART OF A 6 FOOT HIGH WOOD FENCE, AND A SWMF OUTFALL WITHIN THE 50 FOOT STREAM BUFFER REFERENCED FROM AN INTERMITTENT STREAM, AND TO WAIVE SECTION 16.116(b)(1) TO PERMIT A SWMF OUTFALL ON A PROTECTED STEEP SLOPE WITHIN THE 50 FOOT STREAM BUFFER. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITION:
 A. THE PETITIONER/DEVELOPER SHALL COMPLY WITH THE ENCLOSED DED AND HSCD COMMENTS, EXCLUDING HSCD COMMENT 2 (WHICH REQUIRED THE BUILDING, WHICH IS CURRENTLY SHOWN INFRINGING INTO THE "50 FOOT STRUCTURE AND USE SETBACK" BY 20 FEET AS APPROVED BY A HOWARD COUNTY ZONING VARIANCE CASE, BA-08-041V ON 10/15/08, TO BE LOCATED AN ADDITIONAL 10 FEET EASTWARD AND FURTHER INTO THE SETBACK WHICH WAS NOT APPROVED).
- ALL GATES TO HAVE A KNOX BOX (FIRE DEPARTMENT ACCESS BOX) OR KNOX BOX KEY OVERRIDE CONTROL TO INSURE TIMELY FIRE DEPARTMENT ACCESS. NFPA-1 18.2.2.2
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 3805 AND 3806 WERE USED FOR THIS PROJECT.
- MDE PERMIT TRACKING #200660164/05-NI-3235.
- BUILDING PERMIT WILL NOT BE ISSUED UNTIL SUCH A TIME AS THE PREVIOUSLY RECORDED PUBLIC WATER MAIN EASEMENT IS ABANDONED.

EZ STORAGE FACILITY US ROUTE 1 SITE DEVELOPMENT PLAN



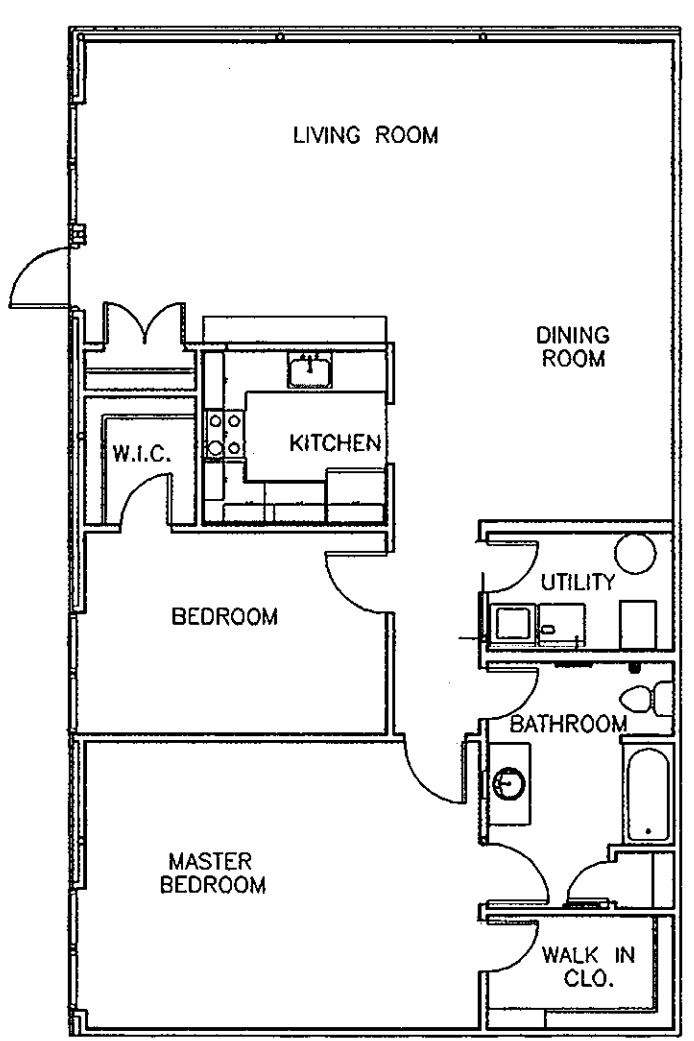
LEGEND

EXISTING CONTOUR	---
PROPOSED CONTOUR	- - -
EXISTING SPOT ELEVATION	382.56
PROPOSED SPOT ELEVATION	+82.53
DIRECTION OF FLOW	→
EXISTING TREES TO REMAIN	(Tree symbol)
NEW TREE LINE	---(Tree symbol)---
LIGHT POLES	(Pole symbol)
SOIL TYPE	M1B M103
CONCRETE	(Hatched pattern)



BENCHMARKS

HOWARD COUNTY BENCHMARK 3806 (CONCRETE MONUMENT)	N 557155.459	E 1384992.262	ELEV. 175.228
HOWARD COUNTY BENCHMARK 3805 (CONCRETE MONUMENT)	N 558378.575	E 1386524.158	ELEV. 193.726



PARKING TABULATION

REQUIRED	REQUIRED
SELF STORAGE BUILDING: 126,186 SF (ALL FLOORS)	
STORAGE:	
NO PARKING REQUIREMENT	0 SPACES
GENERAL OFFICE: 1,936 SF @ 3.3 SPACE/1000 SF	7 SPACES
RESIDENCE: 1,500 SF @ 2 SPACES/DWELLING UNIT	2 SPACES
TOTAL SPACES REQUIRED:	9 SPACES
TOTAL SPACES PROVIDED:	16 SPACES*
	*INCLUDES 2 HANDICAP SPACES

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
189	7078 WASHINGTON BLVD.

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER			
N/A	N/A	189			
DEED REF.	BLOCK NO.	ZONE	TAX MAP NO.	ELECT. DIST.	CENSUS TR.
1703/234	24	M1	37	1ST	6012.02
WATER CODE:	B02	SEWER CODE:	3020000		

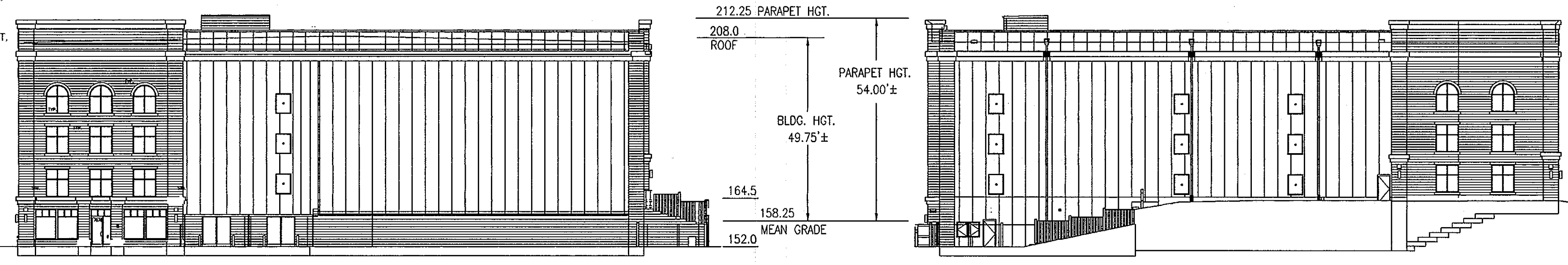
SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 7
SITE LAYOUT PLAN, AND SITE DETAILS	2 OF 7
SITE GRADING PLAN; SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP	3 OF 7
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS	4 OF 7
STORM DRAIN DRAINAGE AREA MAP, AND UTILITY PROFILES	5 OF 7
STORMWATER MANAGEMENT NOTES & DETAILS	6 OF 7
LANDSCAPE PLAN	7 OF 7

OWNER
ROSE HILL FARM, LLC
4720 HOOBES WINE ROAD
COOKSVILLE, MD 21722

OWNER/DEVELOPER
SIENA CORPORATION
8221 SNOWDEN RIVER PARKWAY
COLUMBIA, MD 21045
443-539-3080

LOCATION MAP
SCALE: 1"=50'



FRONT ELEVATION

BUILDING ELEVATION

SIDE ELEVATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/14/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/14/09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5/15/09
DIRECTOR, DEP DATE

NO. _____ REVISION _____ DATE _____

SITE DEVELOPMENT PLAN

COVER SHEET

**EZ STORAGE FACILITY
US ROUTE 1**
(L.17023/F.245)

TAX MAP 37 BLOCK 24 1ST ELECTION DISTRICT PARCEL '189'
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERING, INC.**
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELICOTT CITY, MD 21043 TEL: 410.481.2969
FAX: 410.481.2961

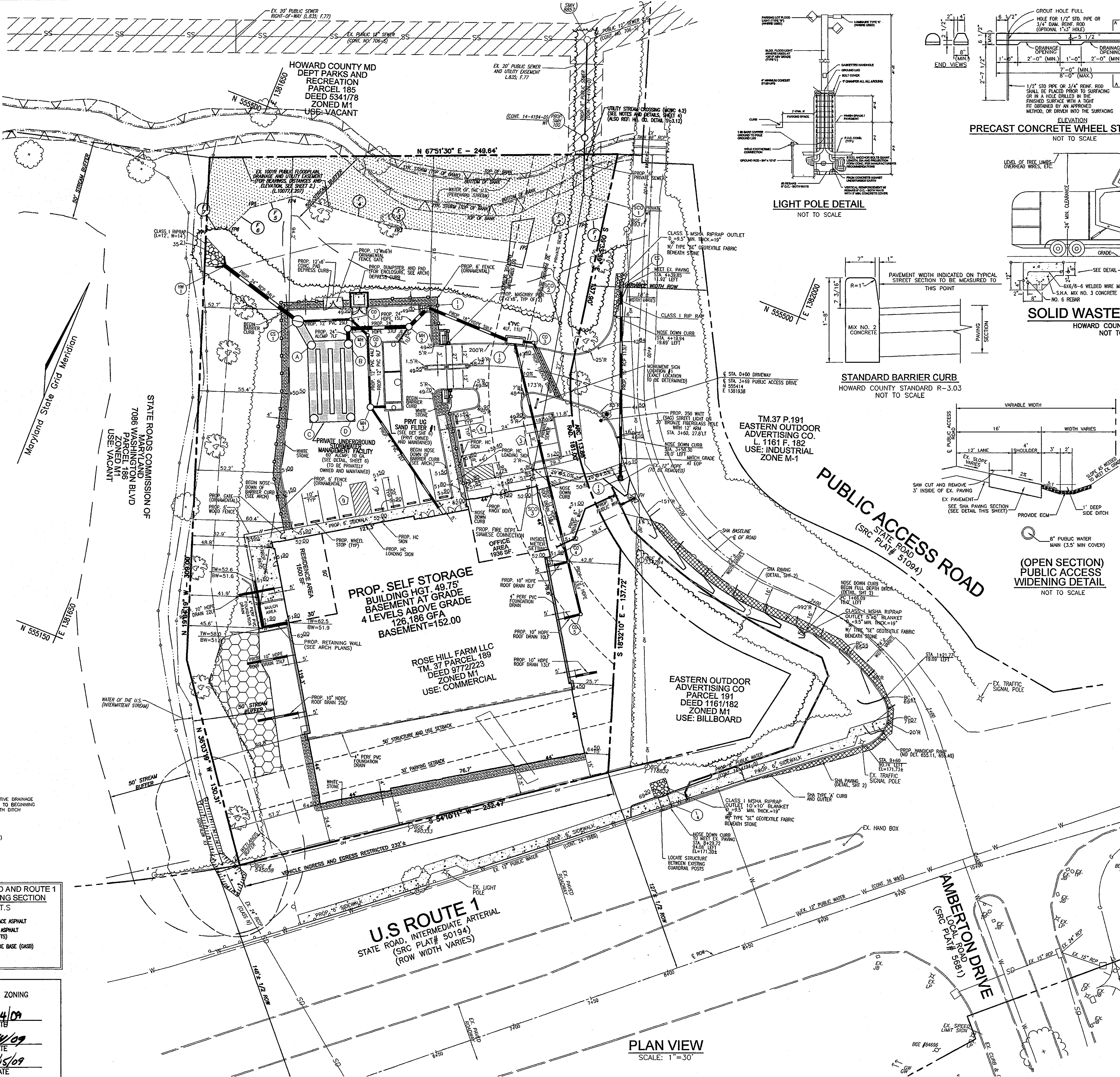
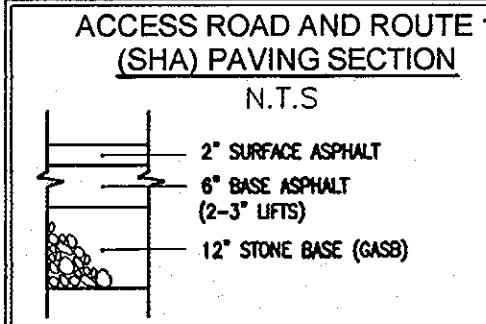
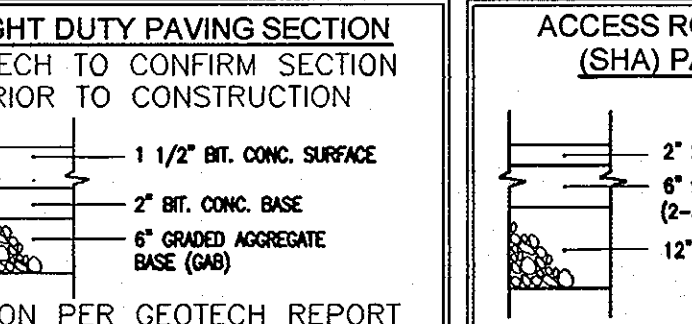
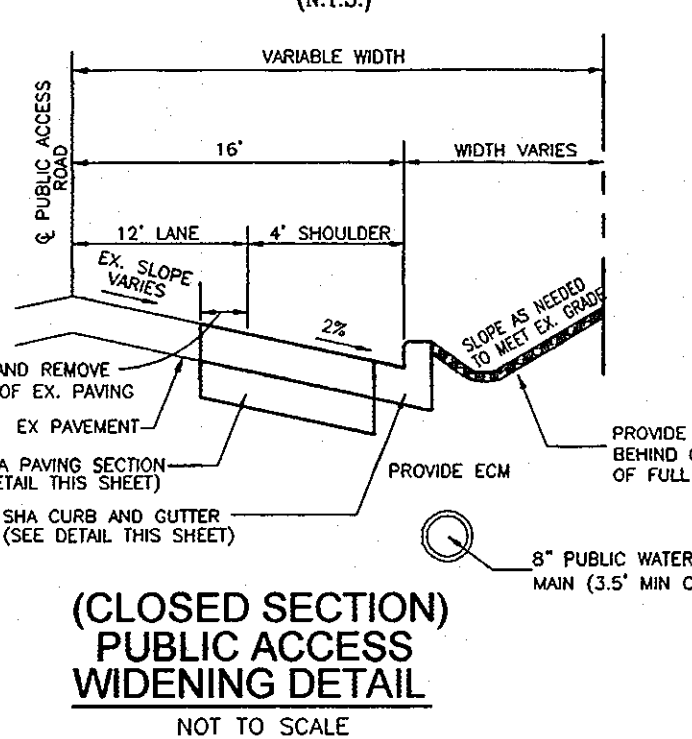
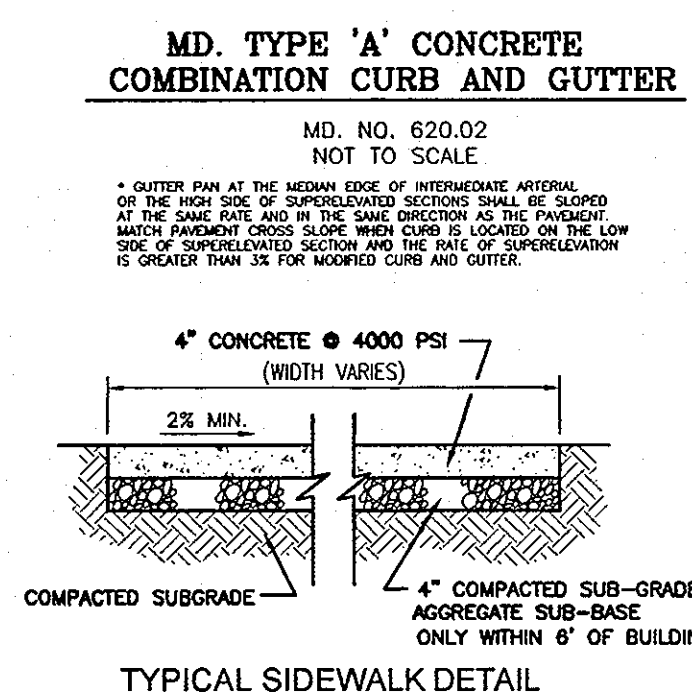
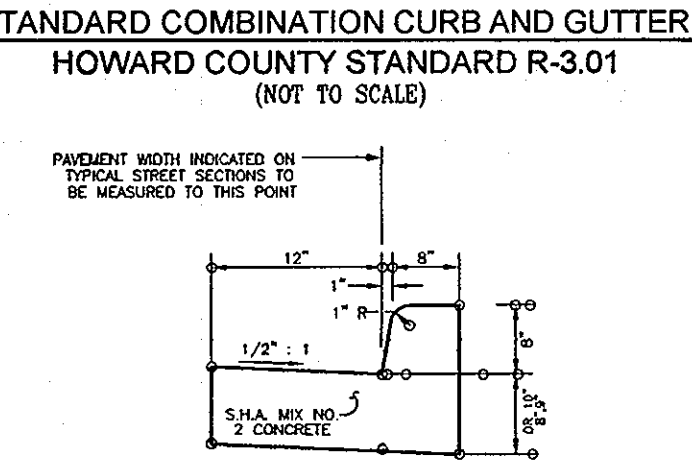
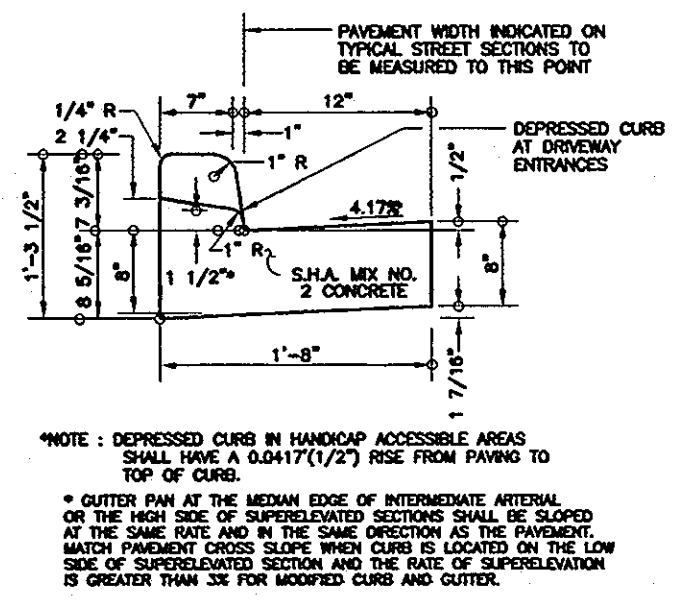
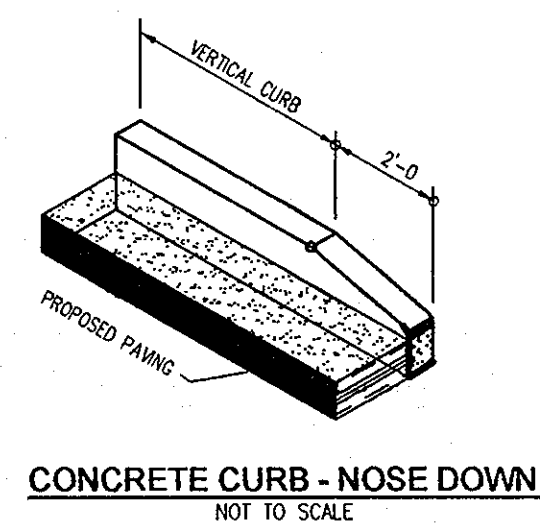
PROFESSIONAL CERTIFICATE

DESIGN BY: JAR
DRAWN BY: DZ/HD/JR
CHECKED BY: RRV
DATE: MARCH 06, 2009
SCALE: AS SHOWN
W.O. NO.: 08-32

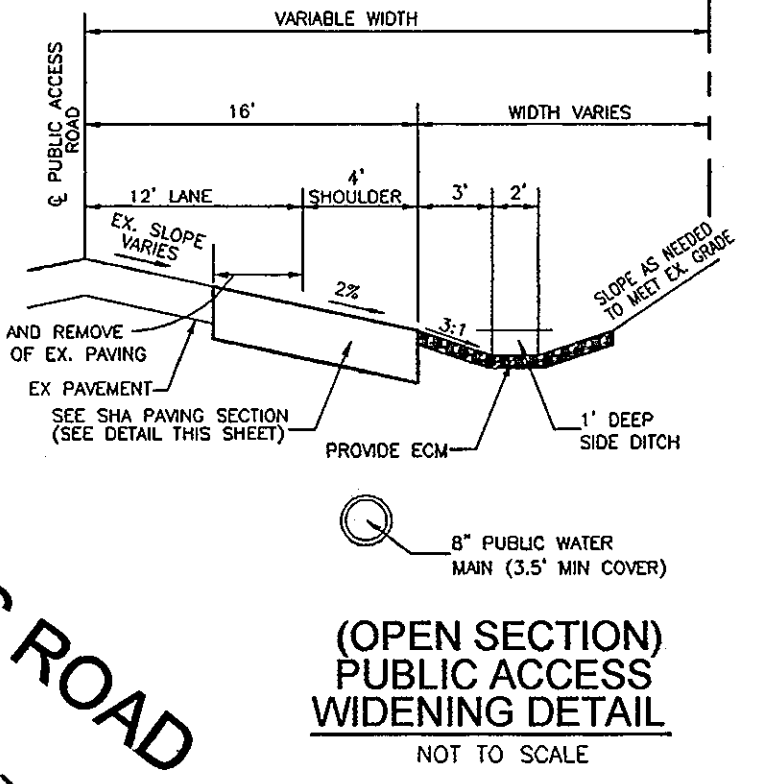
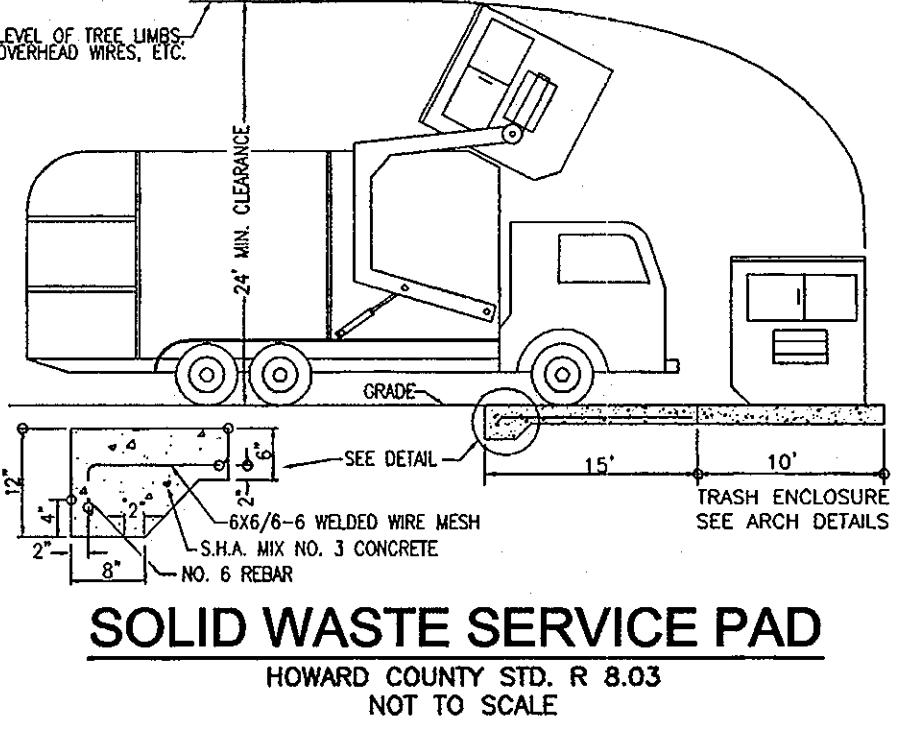
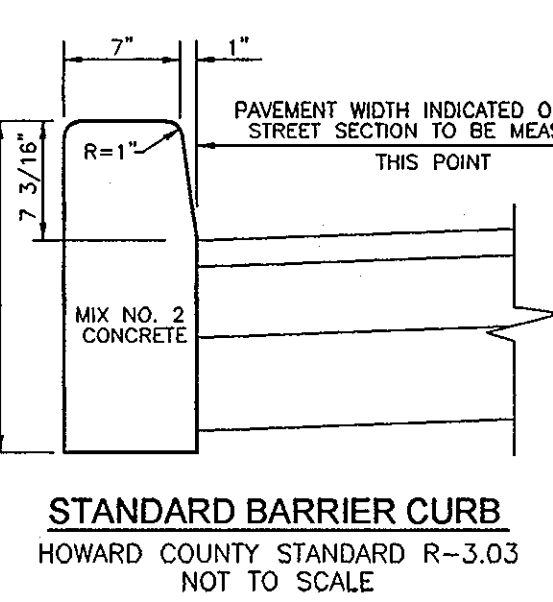
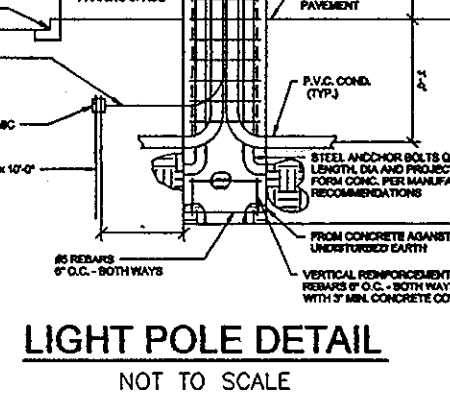
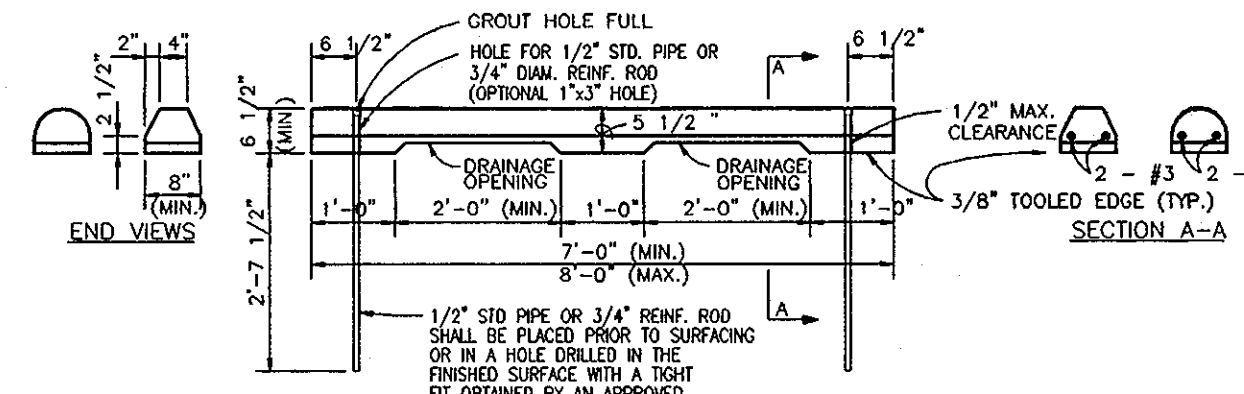
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16193 EXPIRATION DATE: 08-27-2010

1 SHEET OF 7

STORMWATER MANAGEMENT FACILITY TO BE PRIVATELY OWNED AND MAINTAINED



PLAN VIEW
SCALE: 1"=30'



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED TRENCH DRAIN
- EXISTING TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- PROPOSED TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- EX. PUBLIC 100 YR FLOODPLAIN
- SHA PAVING

FLOODPLAIN ELEV.		FLOODPLAIN CHART	
FP POINT	ELEVATION	LINE	BEARING DISTANCE
FP1	136.94'	F-1	S54°38'48"W 23.82'
FP2	137.25'	F-2	S46°55'56"W 37.44'
FP3	138.06'	F-3	S75°23'22"W 83.05'
FP4	137.59'	F-4	S85°33'30"W 62.84'
FP5	137.08'	F-5	S53°42'46"W 28.11'
FP6	137.64'	F-6	S22°56'54"W 18.74'
FP7	133.76'	F-7	S67°23'46"W 11.80'

L. 10077 F. 707

- NOTE: SEE ARCHITECTURAL PLANS FOR THE FOLLOWING EZ-STORAGE DETAILS:**
- 1-TRASH ENCLOSURE
 - 2-ORNAMENTAL FENCE
 - 3-CHAINLINK FENCE
 - 4-ENTRANCE GATE
 - 5-RETAINING WALL
 - 6-WALKS ADJACENT TO BUILDING
 - 7-PATIO ADJACENT TO BUILDING
 - 8-ON-SITE LIGHTING

NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.

OWNER: ROSE HILL FARM, LLC
970 HODDS HILL ROAD
COCKEYSVILLE, MD 21723

DEVELOPER: SIENA CORPORATION
8221 SNOWDEN RIVER PARKWAY
COLUMBIA, MD 21045
443-539-3080

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
SITE LAYOUT PLAN AND SITE DETAILS
EZ STORAGE FACILITY US ROUTE 1
(L.11723/F.284)

TAX MAP 37 BLOCK 24
1ST ELECTION DISTRICT

PARCEL '189'
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
ELLIOTT CITY, MD 21043

TELE: 410.481.7666
FAX: 410.481.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: JAR
DRAWN BY: OZ/HD/JR
CHECKED BY: RHY
DATE: MARCH 06, 2009
SCALE: 1"=30'
W.O. NO.: 08-32

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2010.

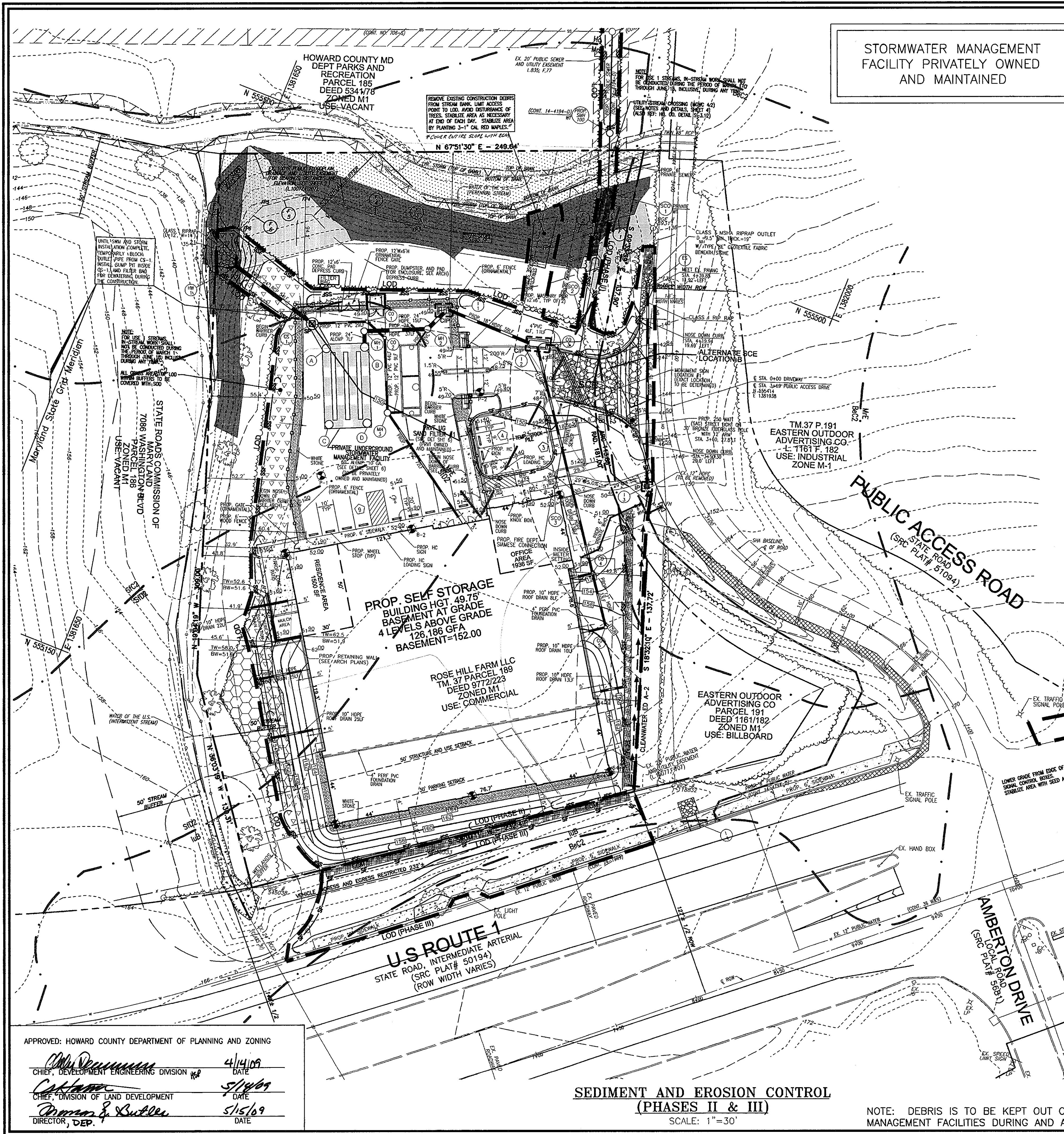
2 SHEET OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Robert H. Vogel 4/14/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION #8 DATE

Robert H. Vogel 5/14/09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Robert H. Vogel 5/15/09
DIRECTOR, DEP. DATE

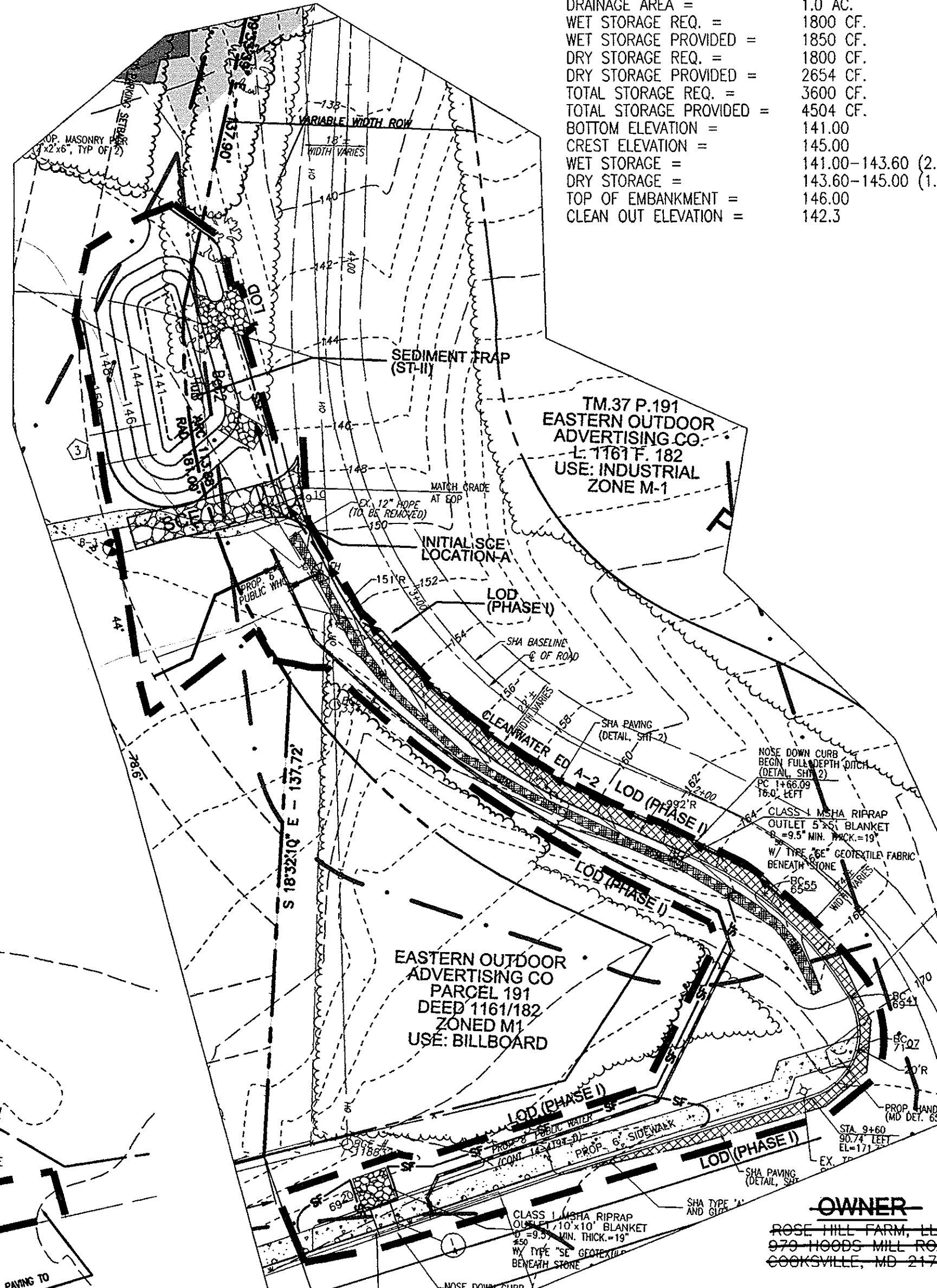


STORMWATER MANAGEMENT FACILITY PRIVATELY OWNED AND MAINTAINED

SOILS LEGEND					
SYMBOL	NAME / DESCRIPTION	GROUP	K VALUE	HYDRIC	
BcC2	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	C	.43	C	
Ho	HATBORO SILT LOAM	D	0.49	D	
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES	C	0.37	C	
MtE	MONTALTO AND RELAY SOILS, 15 TO 45 PERCENT SLOPES	C	.24	C	
S1C2	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B	.20	B	
S1D2	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B	.20	B	

LEGEND:	
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	PROPOSED TRENCH DRAIN
	EXISTING TREES (FIELD LOCATED)
	EXISTING TREE LINE (FIELD LOCATED)
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	SOILS BOUNDARY
	PROPOSED SIDEWALK
	MODERATE SLOPES (12% - 24.99%)
	STEEP SLOPE (>25%)
	EX. PUBLIC 100 YR. FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	CURB INLET PROTECTION
	AT GRADE INLET PROTECTION
	STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED ECM
	PROPOSED SOD WITHIN BUFFER

SEDIMENT TRAP (ST II)
 DRAINAGE AREA = 1.0 AC.
 WET STORAGE REQ. = 1800 CF.
 WET STORAGE PROVIDED = 1850 CF.
 DRY STORAGE REQ. = 1800 CF.
 DRY STORAGE PROVIDED = 2654 CF.
 TOTAL STORAGE REQ. = 3600 CF.
 TOTAL STORAGE PROVIDED = 4504 CF.
 BOTTOM ELEVATION = 141.00
 CREST ELEVATION = 145.00
 WET STORAGE = 141.00-143.60 (2.6')
 DRY STORAGE = 143.60-145.00 (1.4')
 TOP OF EMBANKMENT = 146.00
 CLEAN OUT ELEVATION = 142.3



SEDIMENT & EROSION CONTROL (PHASE I)

SCALE: 1"=30'

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 4/16/09
 HOWARD S.C.D. DATE

BY THE ENGINEER:
[Signature] 3/26/09
 SIGNATURE OF ENGINEER DATE

BY THE DEVELOPER:
[Signature] 3/26/09
 SIGNATURE OF DEVELOPER DATE

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 PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SEDIMENT AND EROSION CONTROL (PHASES II & III)

SCALE: 1"=30'

NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/14/09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/18/09
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5/15/09
 DIRECTOR, DEP. DATE

OWNER / OWNER / DEVELOPER
 ROSE HILL FARM, LLC
 679 HODGS MILL ROAD
 COOKSVILLE, MD 21723

SIENA CORPORATION
 8221 SNOWDEN RIVER PARKWAY
 COLUMBIA, MD 21045
 443-539-3080

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
SITE GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP
EZ STORAGE FACILITY
US ROUTE 1
 (L17201F234)

TAX MAP 37 BLOCK 24
 1ST ELECTION DISTRICT

PARCEL '189'
 HOWARD COUNTY, MARYLAND

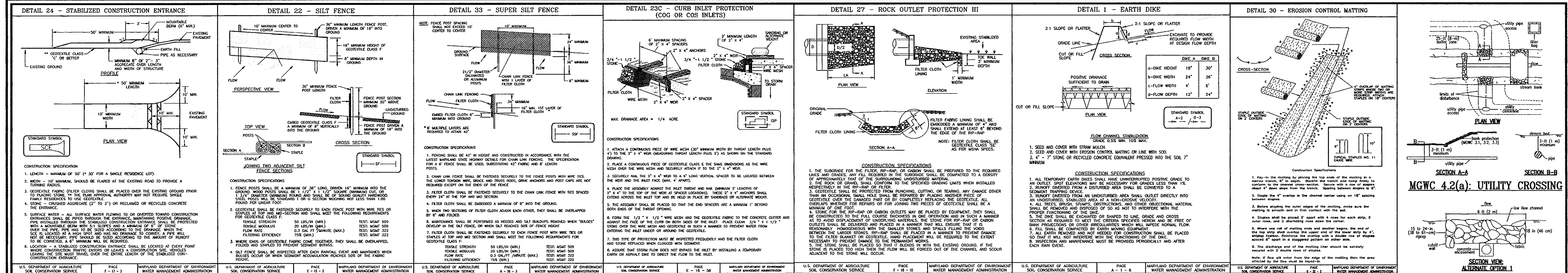
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: JAR.
 DRAWN BY: DZ/HJ/JR.
 CHECKED BY: RBV.
 DATE: MARCH 06, 2009.
 SCALE: 1"=30'
 W.O. NO.: 08-32

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. 14163, EXPIRATION DATE: 09-27-2010.

3 SHEET OF 7



PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS DESIRED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1. PREPARED: APPLY 2 TONS/ACRE DOLOMITE LIMESTONE (92 IBS/1000 SQ. FT.) AND 60 IBS/ACRE (14 IBS/1000 SQ. FT.) FERTILIZER (31-0-0) 31% TAL FESCUE HARROW OR DISK INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 IBS/ACRE 30-0-0 UREA-FORMALDEHYDE FERTILIZER (9 IBS/1000 SQ. FT.)

2. ACCEPTABLE: APPLY 2 TONS/ACRE DOLOMITE LIMESTONE (92 IBS/1000 SQ. FT.) AND 1000 IBS/ACRE 10-10-10 FERTILIZER (23 IBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 IBS/ACRE (14 IBS/1000 SQ. FT.) OF KENTUCKY 31 TAL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 IBS KENTUCKY 31 TAL FESCUE PER ACRE AND 2 IBS/ACRE (0.5 IBS/1000 SQ. FT.) OF WEEPING LOVERGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION 1: TWO TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2: USE SOG.

OPTION 3: SEED WITH 60 IBS/ACRE KENTUCKY 30 TAL FESCUE AND MULCH WITH 2 TONS/ACRE WELLS ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNMULCHED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPE 8 FEET OR HIGHER. USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NECESSARY REPAIRS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 IBS/ACRE 10-10-10 FERTILIZER (14 IBS/1000 SQ. FT.).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 IBS/1000 SQ. FT.) FOR THE PERIOD MAY 1 - AUGUST 14, SEED WITH 3 IBS/ACRE OF WEEPING LOVERGRASS (0.7 IBS/1000 SQ. FT.) FOR THE PERIOD NOVEMBER 16 - FEBRUARY 28. PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOG.

MULCHING: APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNMULCHED WOOD-FREE SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

2.10 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, AND ARE TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL pH.

CONCATIONS WHERE PRACTICES APPLY

I. THIS PRACTICE APPLIES TO AREAS HAVING 21" OR FLATTER SLOPES WHERE:

A. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUOUS SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

B. THE ORIGINAL SOIL IS TO VEGETATED CONTAINS MATERIALS TOXIC TO PLANT GROWTH.

C. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSES OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 SHOULD BE CONSIDERED AREAS HAVING SLOPES STEEPER THAN 2:1. SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL PROVIDED FOR A GIVEN AREA SHOULD BE 4 INCHES. TOPSOIL IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SURVEY PUBLISHED BY USDA - SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIC SOIL SCIENTIST WITH THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1/2" IN DIAMETER. TOPSOIL SHALL BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERRIES, GRASSES, JOHNSONGRASS, OR COMPOSED NUTSHELLS, PEELS, OTHERS AS SPECIFIED.

B. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF TOXIC MATERIALS, THE TOPSOIL SHALL BE APPLIED AT THE RATE OF 4.5 TONS/ACRE (200-400 POUNDS PER FLOOD SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING REQUIREMENTS:

I. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

A. COMPOSTED SLUDGE SHALL BE SUPPLIED BY OR ORIGINATE FROM A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES UNDER COMAR 26.06.04.

B. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 2 PERCENT PHOSPHORUS AND 0.2 PERCENT POTASSIUM AND HAVE A pH OF 7.0 TO 8.0. APPROPRIATE CONCENTRATIONS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.

C. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1000 SQUARE FEET.

II. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LBS/1000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).

2. ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ANY REVISIONS HERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (A) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS FOR ALL OTHER DISTURBED OR GRASS AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PERMANENT SEEDING, SOIL TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:

TOTAL AREA	2.375 ACRES
(INCLUDES OFF-SITE IMPROVEMENTS)	2.10 ACRES
AREA TO BE ROOFED OR PAVED (PARKING, BUILDING, ROAD IMP.)	1.08 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.02 ACRES
TOTAL CUT	3780 CY
TOTAL FILL	3154 CY
WASTE/BORROW LOCATION	* SEE NOTE BELOW TO BE DETERMINED.

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

9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

12. TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND ACTIVE GRADING PERMIT.

SEQUENCE OF CONSTRUCTION

1. OBTAIN HOWARD COUNTY GRADING PERMIT AND MDE PERMIT 200660164/05-NI-3235.

2. FOR USE IN STREAMS, IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OF MARCH 1 THROUGH JUNE 15, INCLUDING DURING ANY OF THE FOLLOWING PERIODS:

3. OBTAIN PUBLIC WATER AND SEWER CONTRACT DRAWINGS FROM HOWARD COUNTY (CONTRACT 14-4194-H)

4. NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. (2 DAYS)

5. CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR TO REVIEW ALL DISTURBANCE. (1 WEEK)

Phase I

6. INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM AT INITIAL LOCATION. (1 DAY)

7. INSTALL SEDIMENT TRAP. (2 DAYS)

8. INSTALL ALL SILT FENCE, SUPER SILT FENCE, AND EARTH DIKES WITHIN PHASE I.

9. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB PHASE I AREA. (1 WEEK)

10. CONSTRUCT ROADWAY IMPROVEMENTS ALONG ACCESS ROAD. INSTALL STORM DRAIN STRUCTURE 1-4. DELAY CONSTRUCTION OF STORM DRAIN 1-3 AND ES-1 UNTIL PHASE II.

11. INSTALL PUBLIC WATER. (3 WEEKS)

12. STABILIZE PHASE I WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT TRAP.

Phase II

13. INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM AT LOCATIONS 1-4. (1 DAY)

14. INSTALL SOG FOR 1-3 TO ES-1 DURING 2 DAYS OF CLEAR WEATHER. PROVIDE INLET PROTECTION FOR 1-3. INSTALL REMAINING PHASE I SEDIMENT CONTROL DEVICES. (3 DAYS)

15. BEGIN SITE GRADING AND STORM DRAIN CONSTRUCTION. TEMPORARILY BLOCK DUFFALL FROM ES-1 DURING CONSTRUCTION OF SIM AND STORM DRAIN SYSTEM. REMOVE DEBRIS FROM STREAM BANK AS NOTED ON PLAN. (6 WEEKS)

16. BEGIN BUILDING CONSTRUCTION. (32 WEEKS)

17. INSTALL PUBLIC AND PRIVATE SEWER. (3 WEEKS)

18. AS STORM DRAIN SYSTEM IS COMPLETED INSTALL INLET PROTECTION.

19. INSTALL ALL ON-SITE CURB, GUTTER AND SIDEWALK. (1 WEEK)

20. INSTALL ON-SITE PAVING BASE COURSE. (1 WEEK)

21. FINE GRADE AND STABILIZE ALL AREAS INCLUDING ANY EXPOSED EARTH AREAS OUTSIDE THE LOD DISTURBANCE WITHIN BUFFERS SHALL BE SOODED. REFER TO THE LANDSCAPE PLAN FOR AREAS TO BE SOODED. REMOVE ALL TRASH AND DEBRIS FROM ENTIRE PROJECT. (2 WEEKS)

Phase III

22. CONSTRUCT ROADWAY IMPROVEMENTS ALONG ROUTE 1. AS NECESSARY PROVIDE ECM ALONG TOE OF SLOPE ADJACENT TO ROUTE 1 (3 WEEKS)

23. REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES AFTER RECEIVING APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR. (4 WEEKS)

24. INSTALL SITE LANDSCAPING. (2 WEEKS)

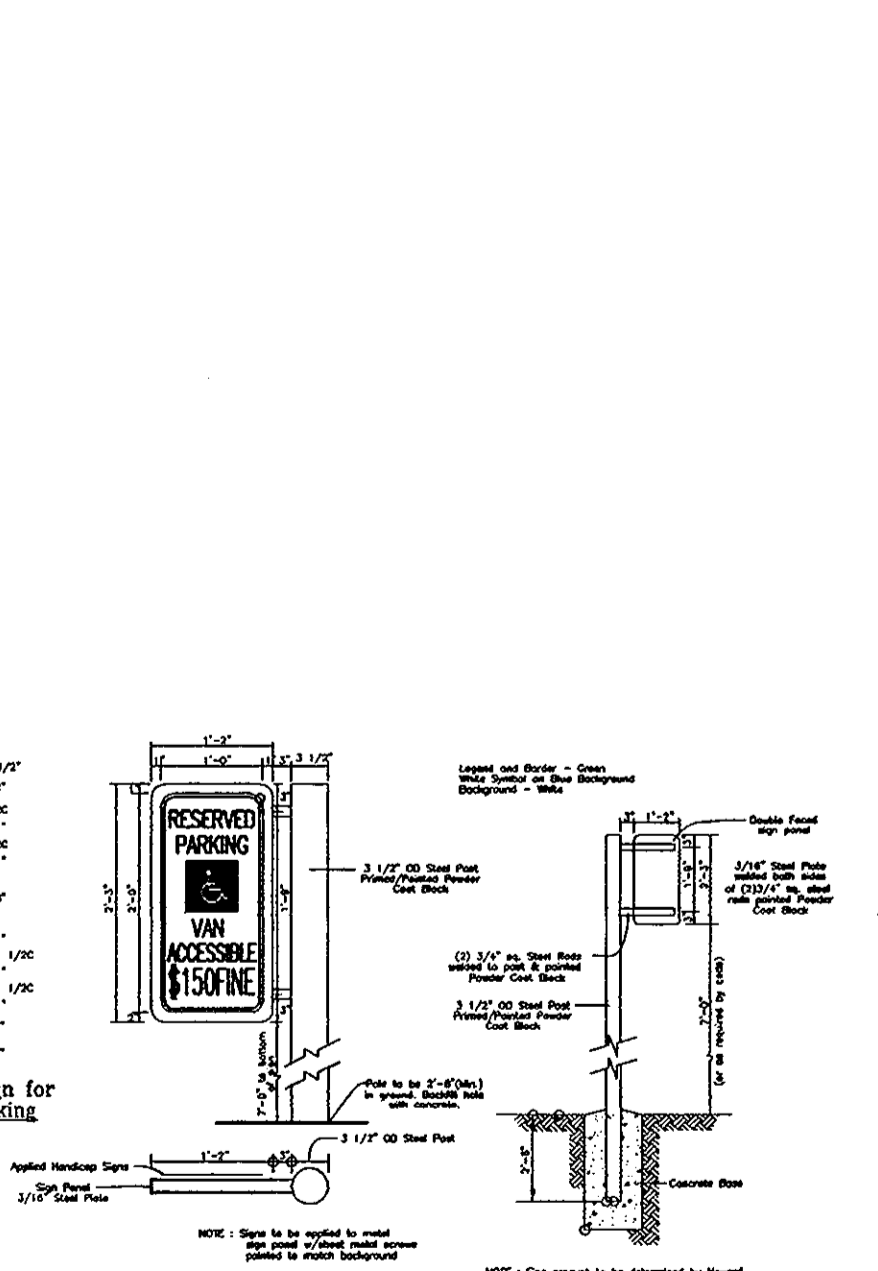
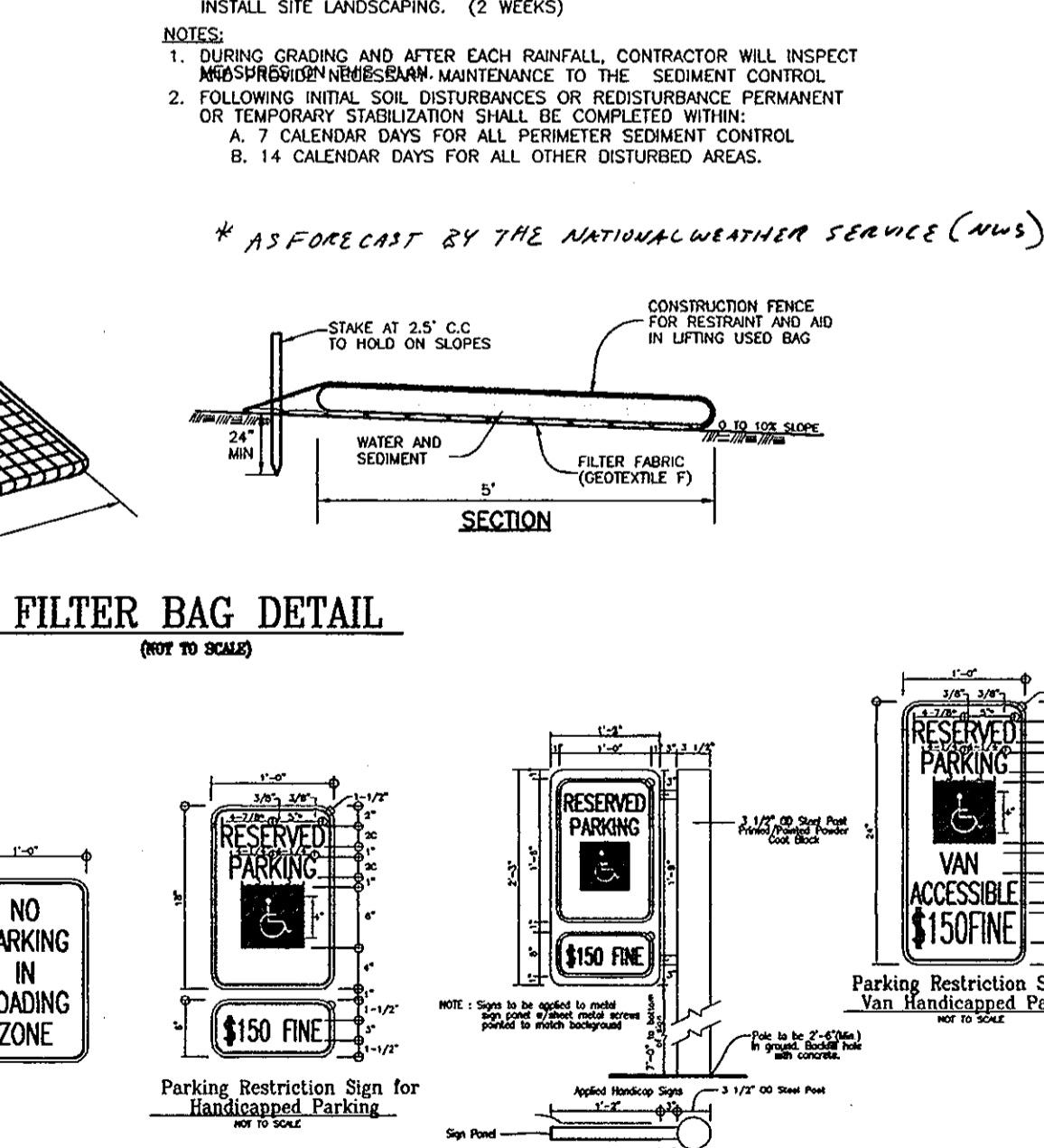
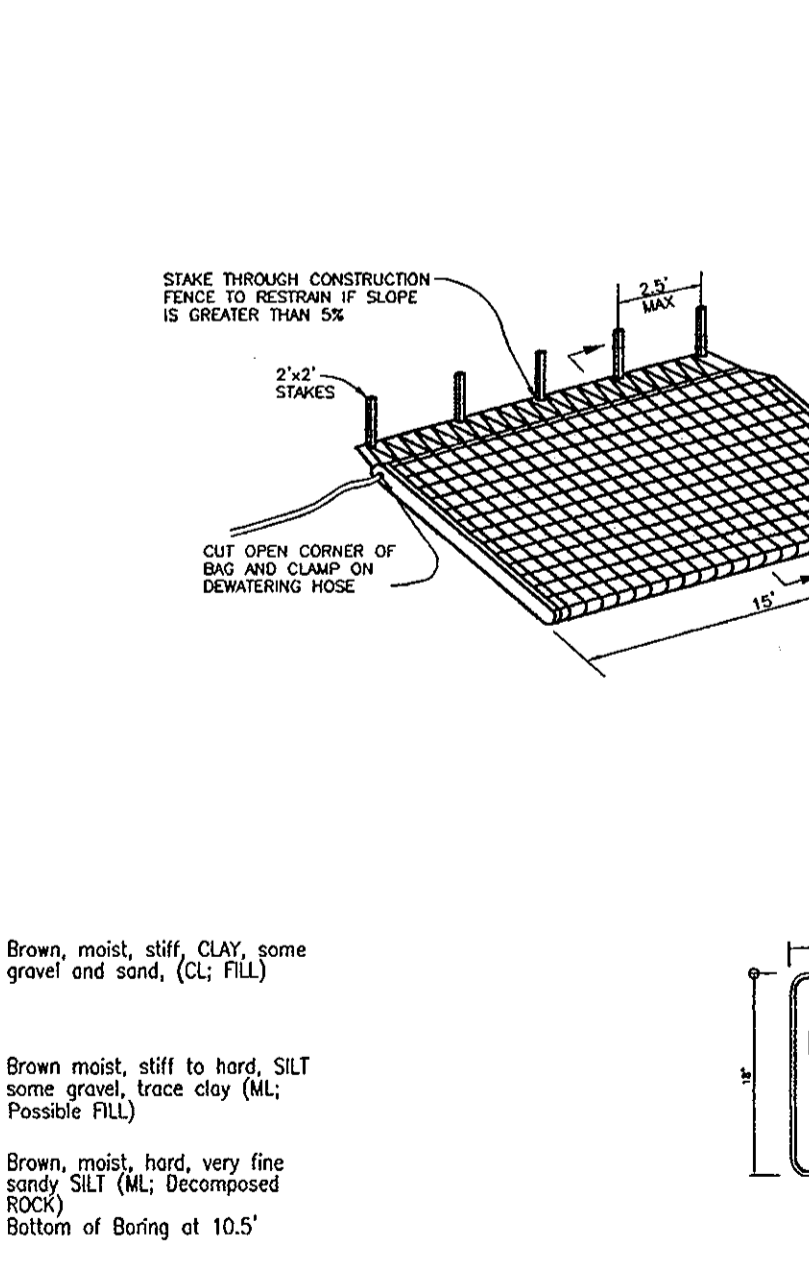
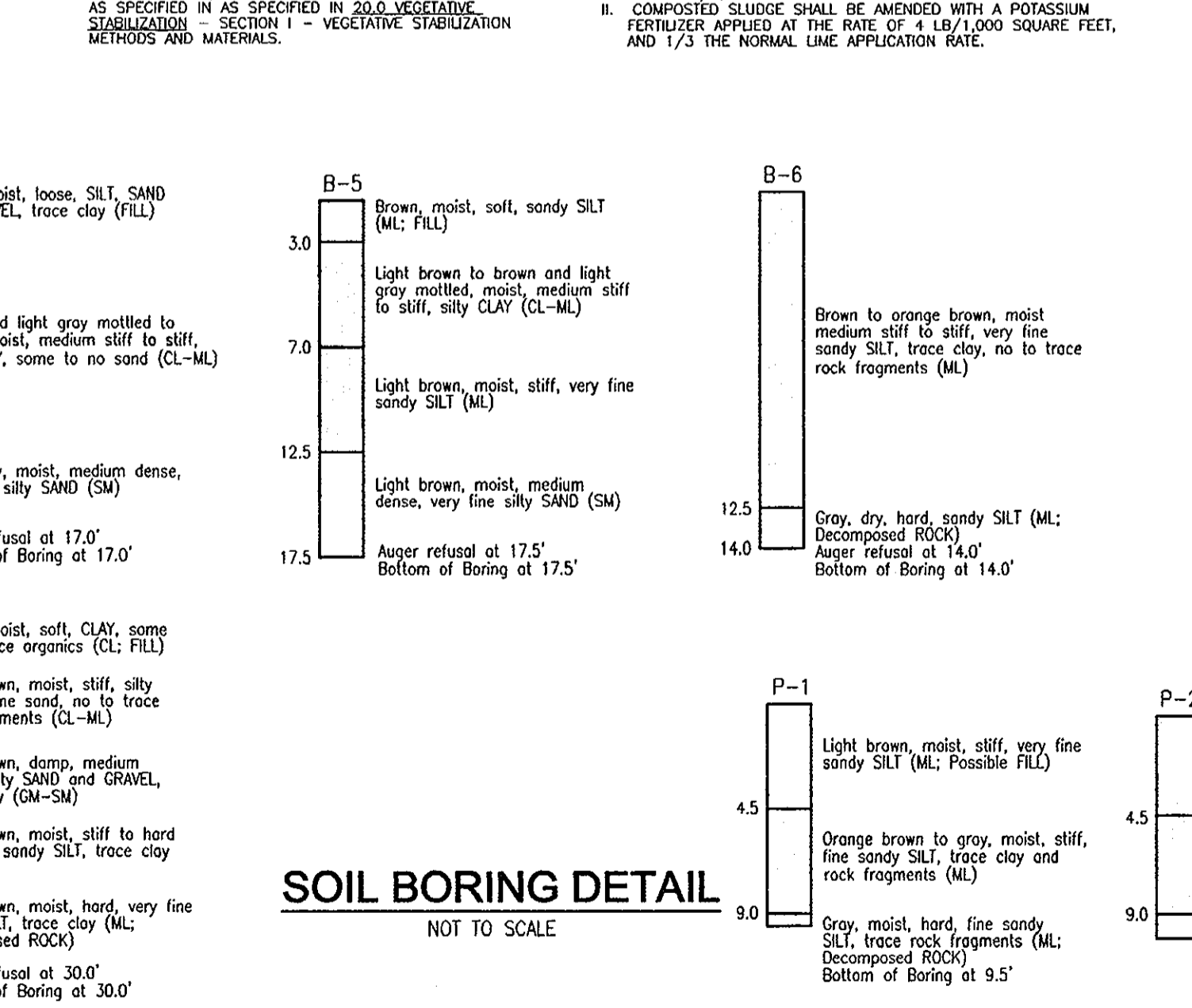
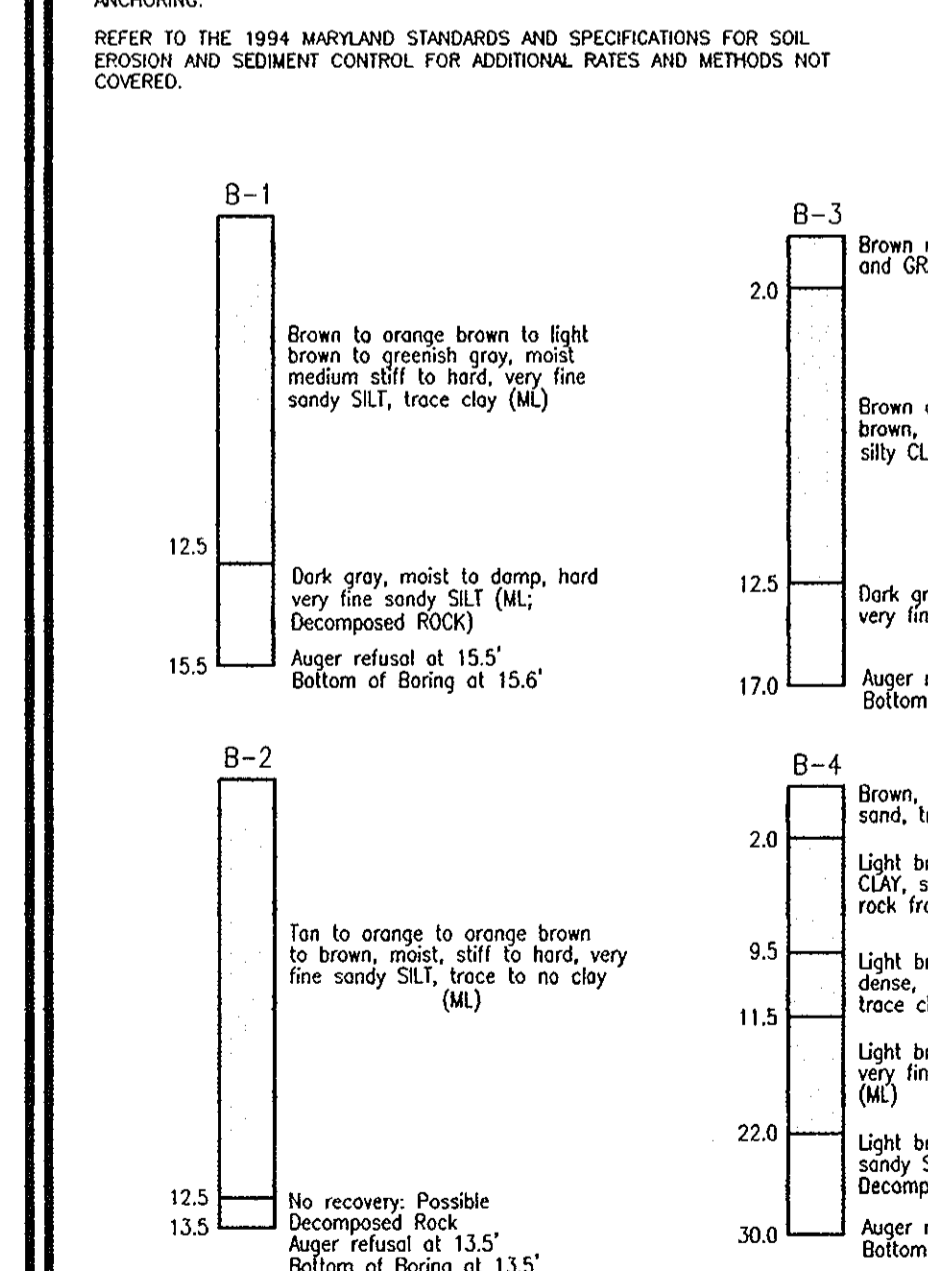
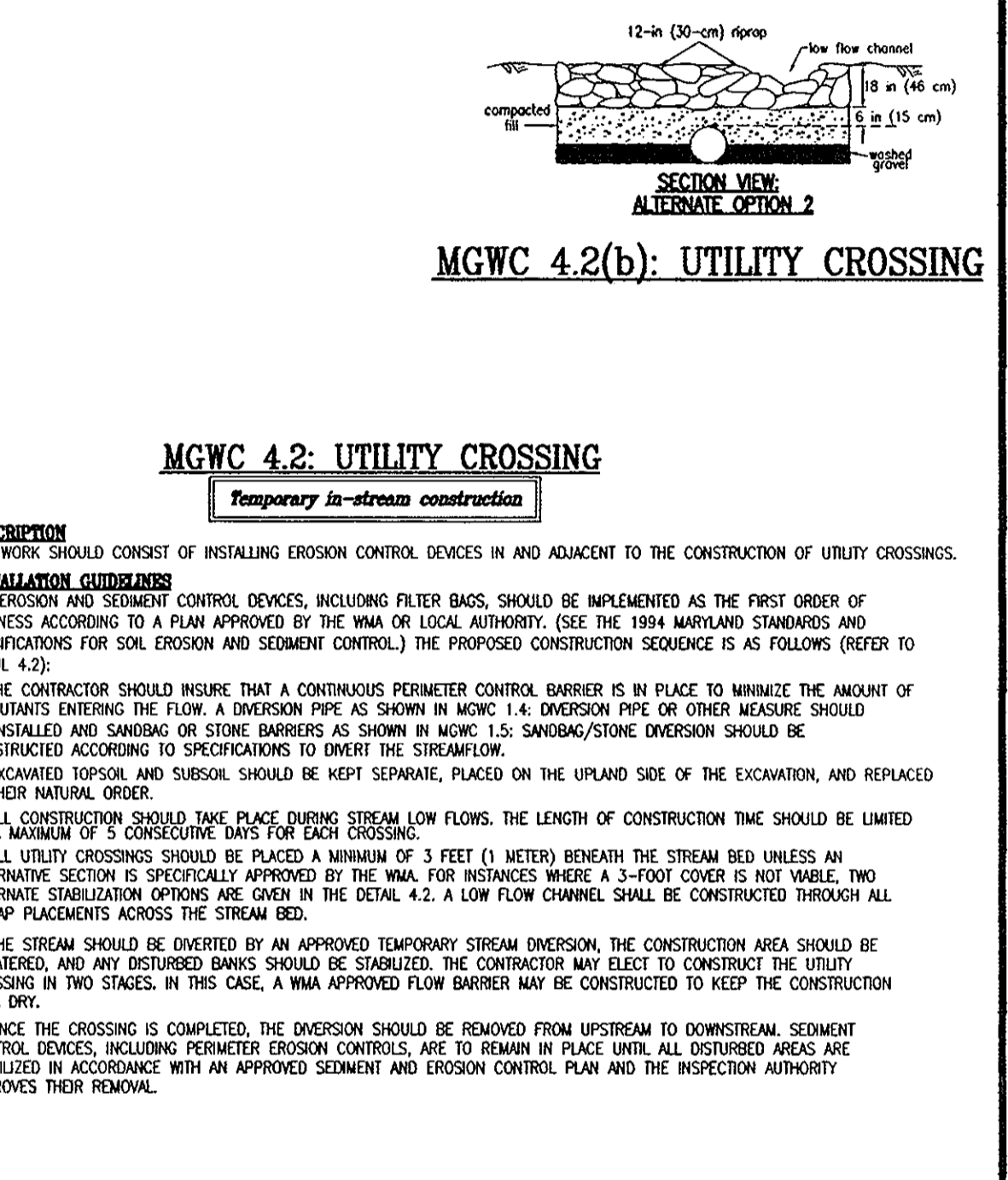
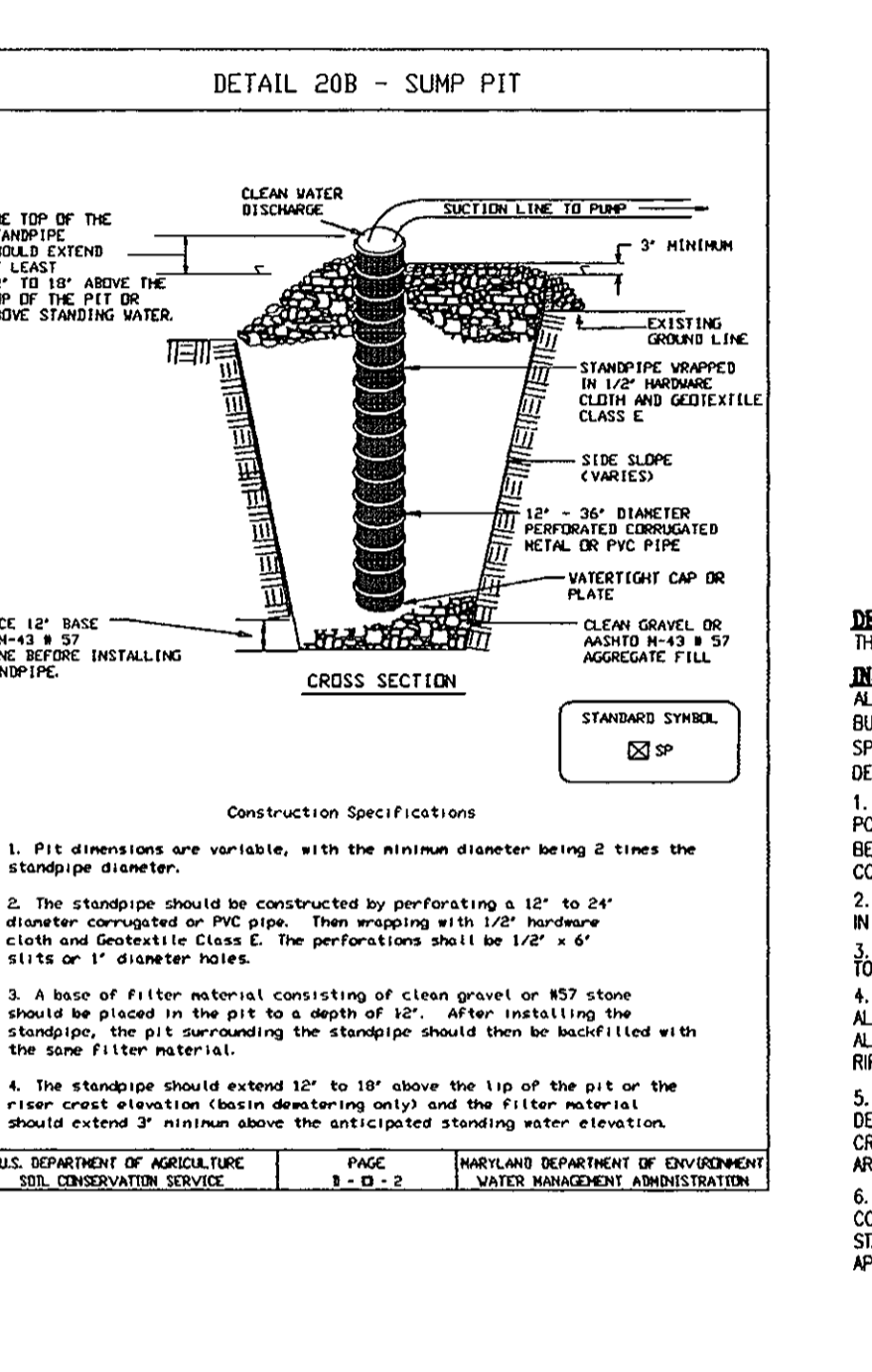
NOTES

1. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT MID-SPRINGS FOR HIGH-STREAM MAINTENANCE TO THE SEDIMENT CONTROL.

2. FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

A. 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL

B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.



OWNER

ROSE HILL FARM, LLC
979 THOBS HILL ROAD
COCKEVILLE, MD 21723

OWNER/DEVELOPER

SIENA CORPORATION
SNOWDEN RIVER PARKWAY
COLUMBIA, MD 21045
443-539-3080

ROBERT H. VOGEL, INC.

ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
ELDREDGOTOWN, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: JAR

DRAWN BY: DZ/HD

CHECKED BY: JRH

DATE: MARCH 06, 2009

SCALE: AS SHOWN

S.O. NO.: OB-32

SHEET 4 OF 7

STATE OF MARYLAND PROFESSIONAL ENGINEER

ROBERT H. VOGEL, PE No. 16193

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 4/14/09

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 5/10/09

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 5/18/09

DIRECTOR, DEP.

BY THE DEVELOPER:

DATE: 3/26/09

SIGNATURE OF DEVELOPER

DATE: 4/2/09

SIGNATURE OF ENGINEER

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN FOR EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF THE ENVIRONMENT 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.

DATE: 4/2/09

HOWARD S.C.D.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 4/2/09

NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.

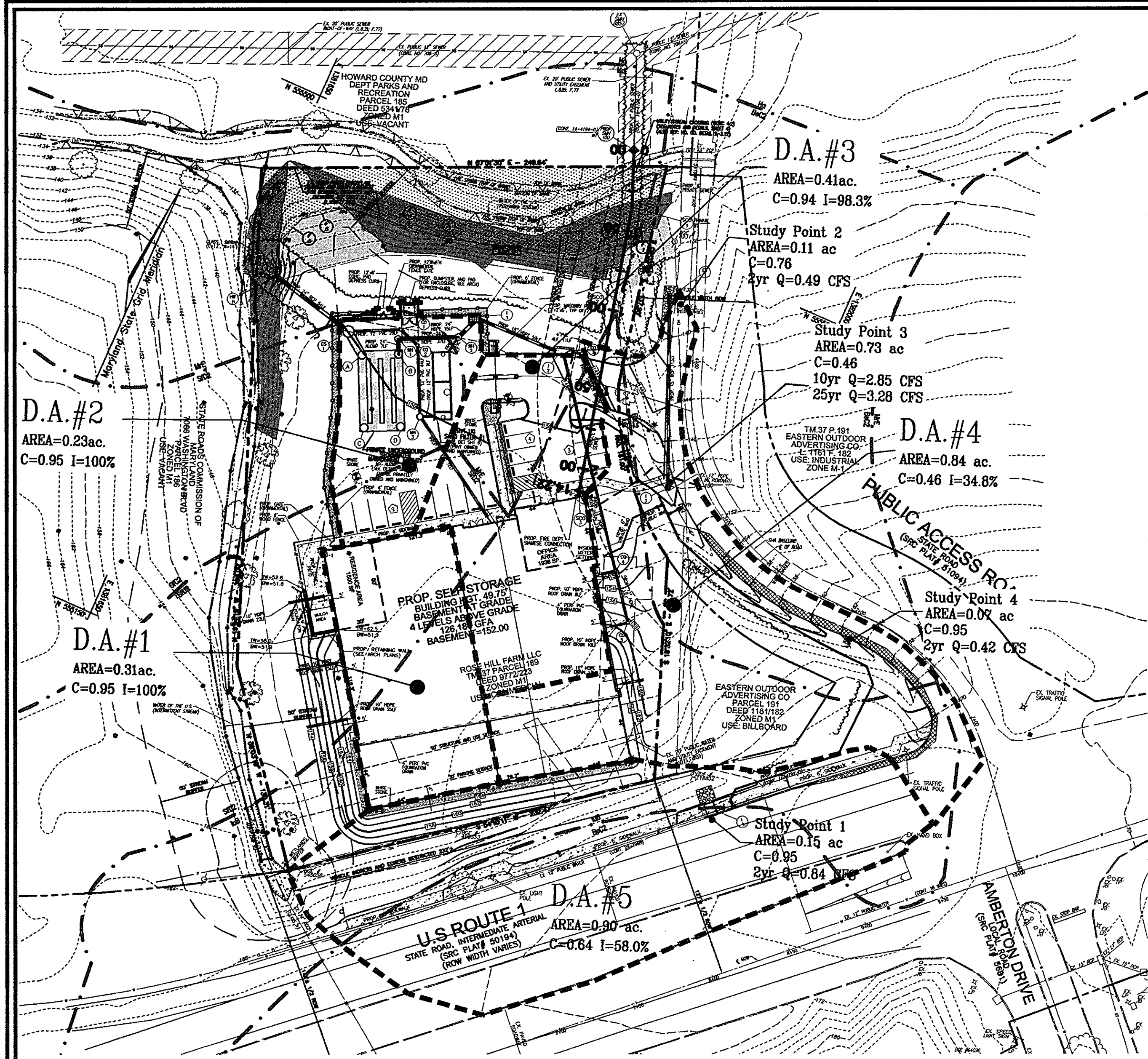
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

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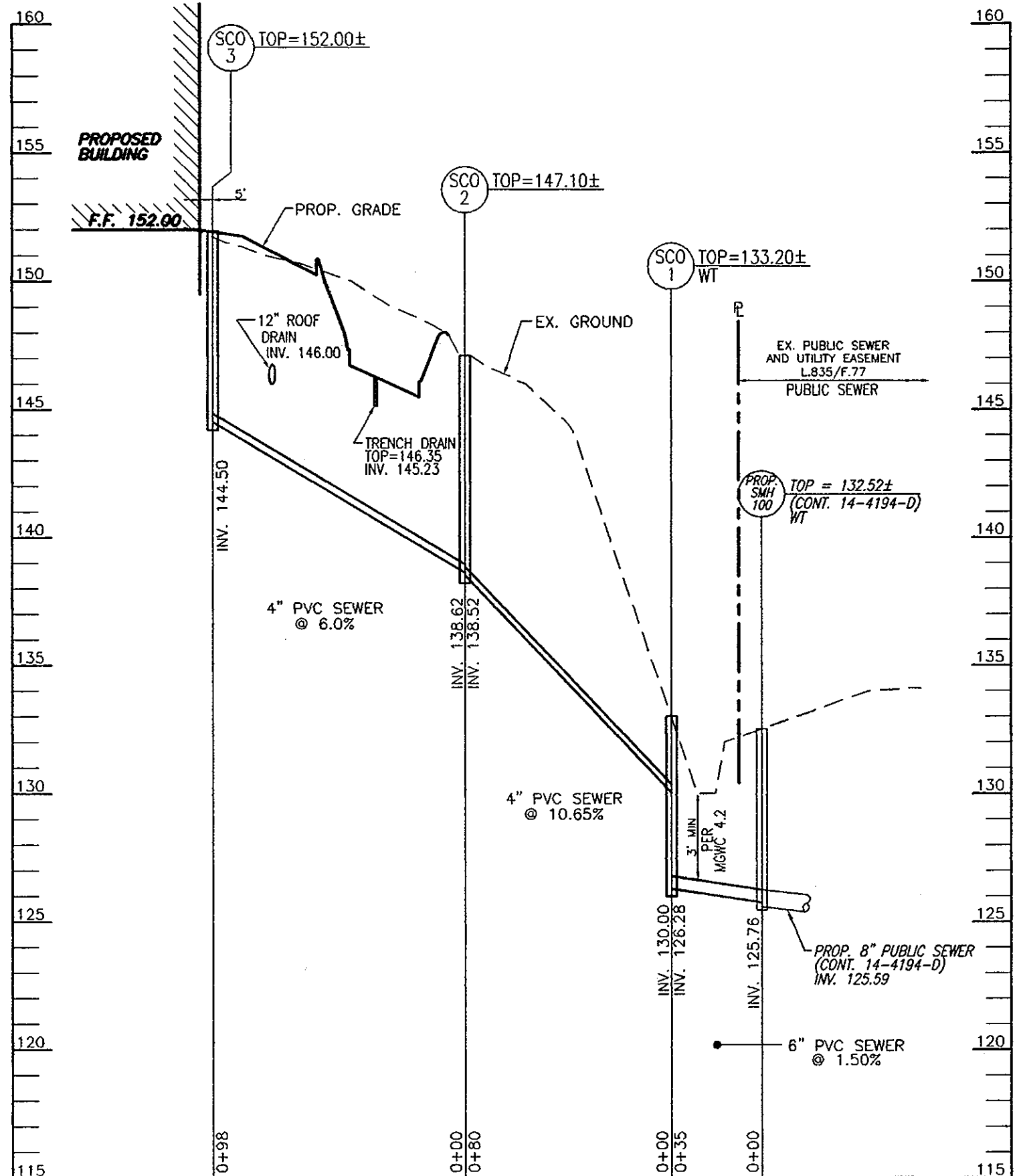
TAX MAP 37 BLOCK 24
1ST ELECTION DISTRICT

PARCEL '189'
HOWARD COUNTY, MARYLAND

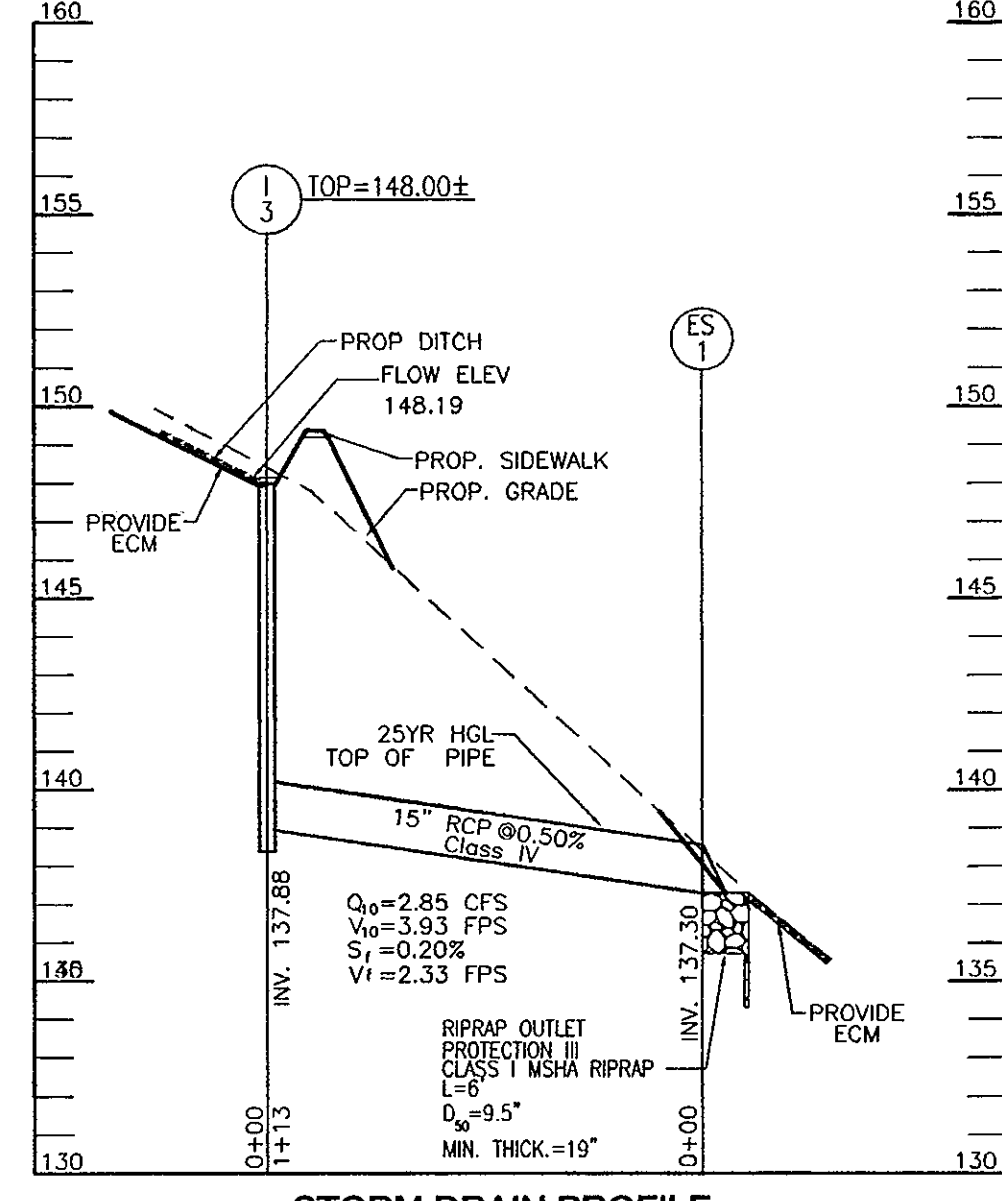
ROBERT H. VOGEL, PE No. 16193



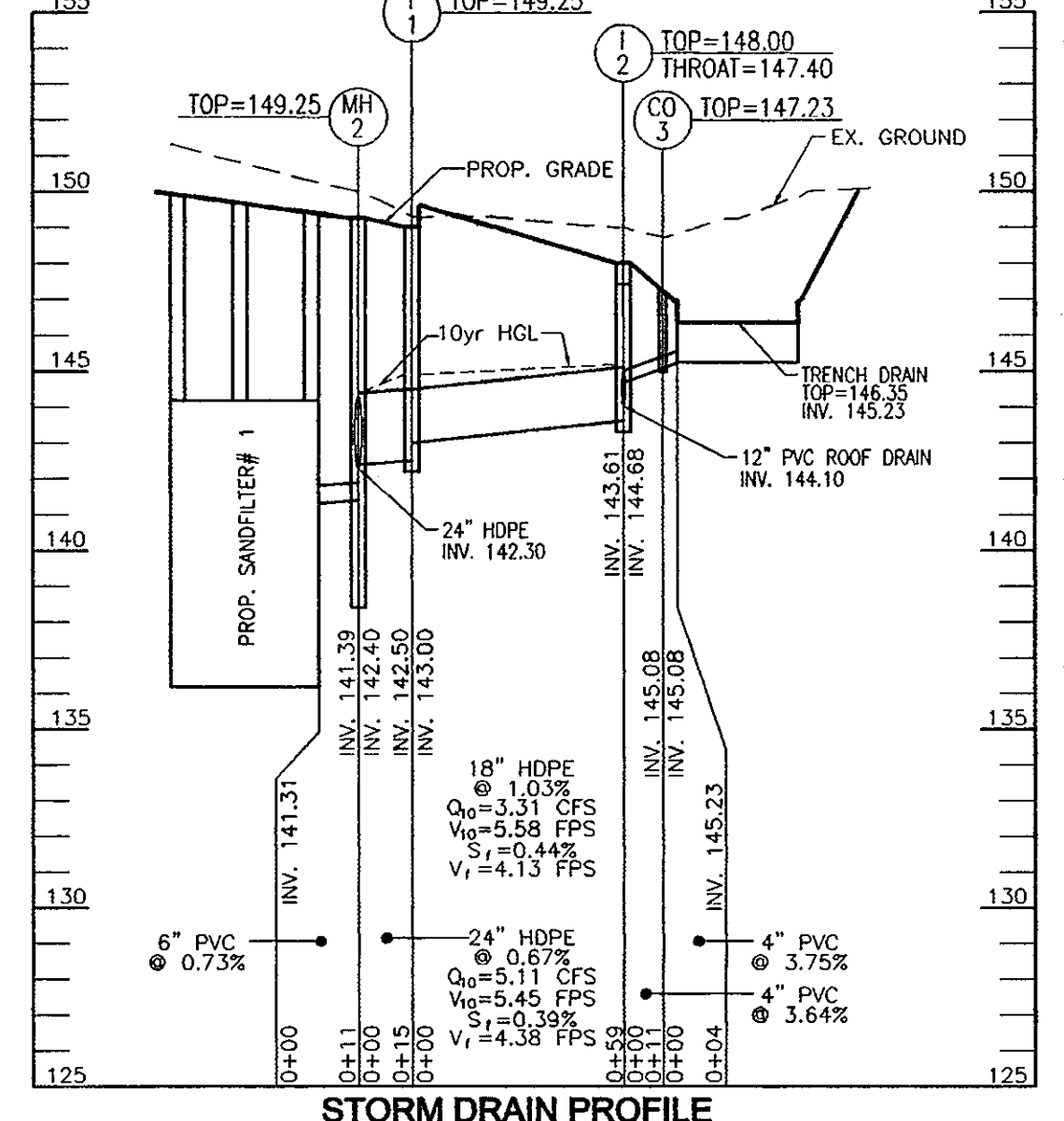
STORM DRAIN DRAINAGE AREA MAP
SCALE = 1"=50'



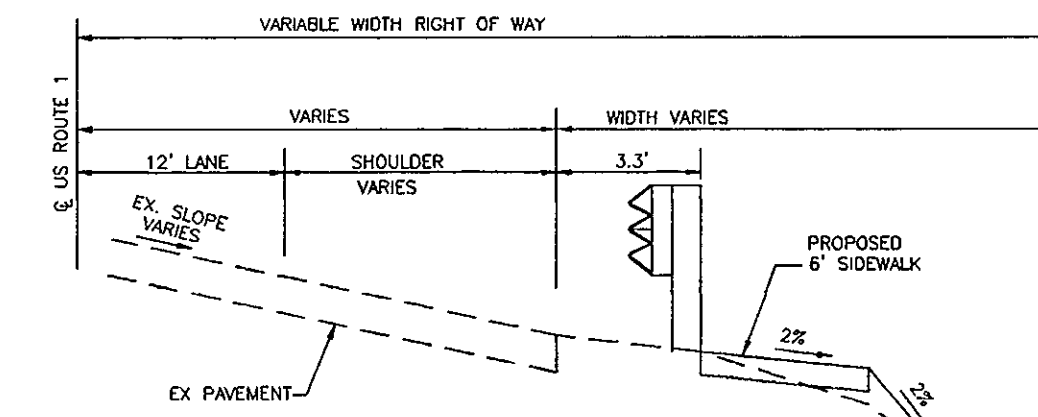
PRIVATE SEWER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



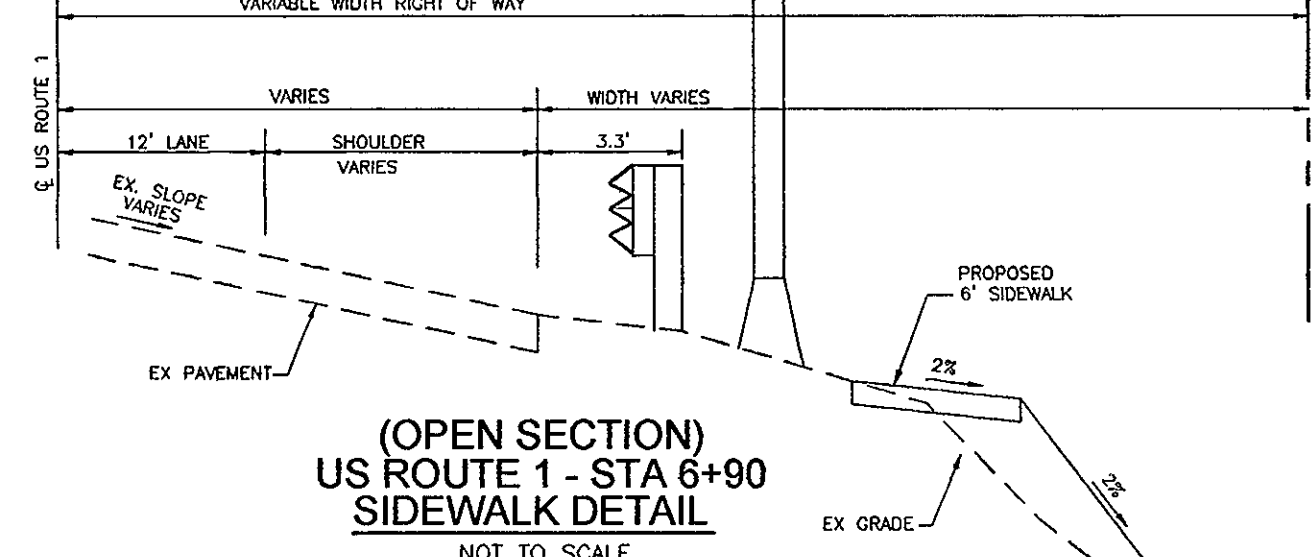
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



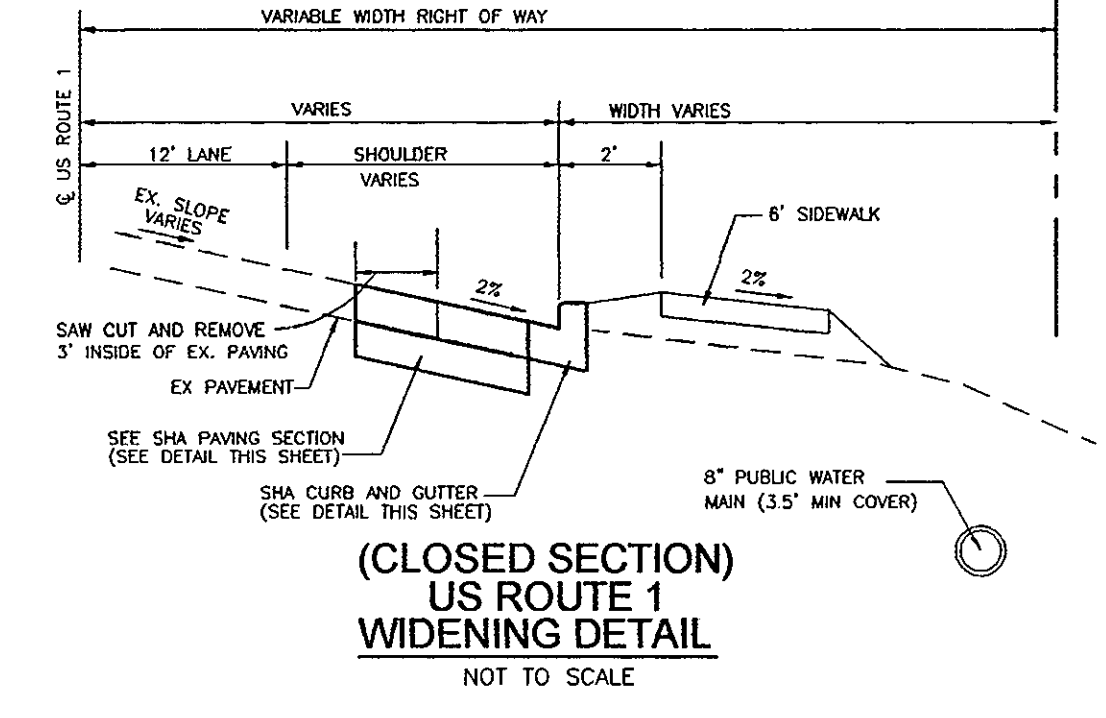
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



(OPEN SECTION)
US ROUTE 1
SIDEWALK DETAIL
NOT TO SCALE



(OPEN SECTION)
US ROUTE 1 - STA 6+90
SIDEWALK DETAIL
NOT TO SCALE

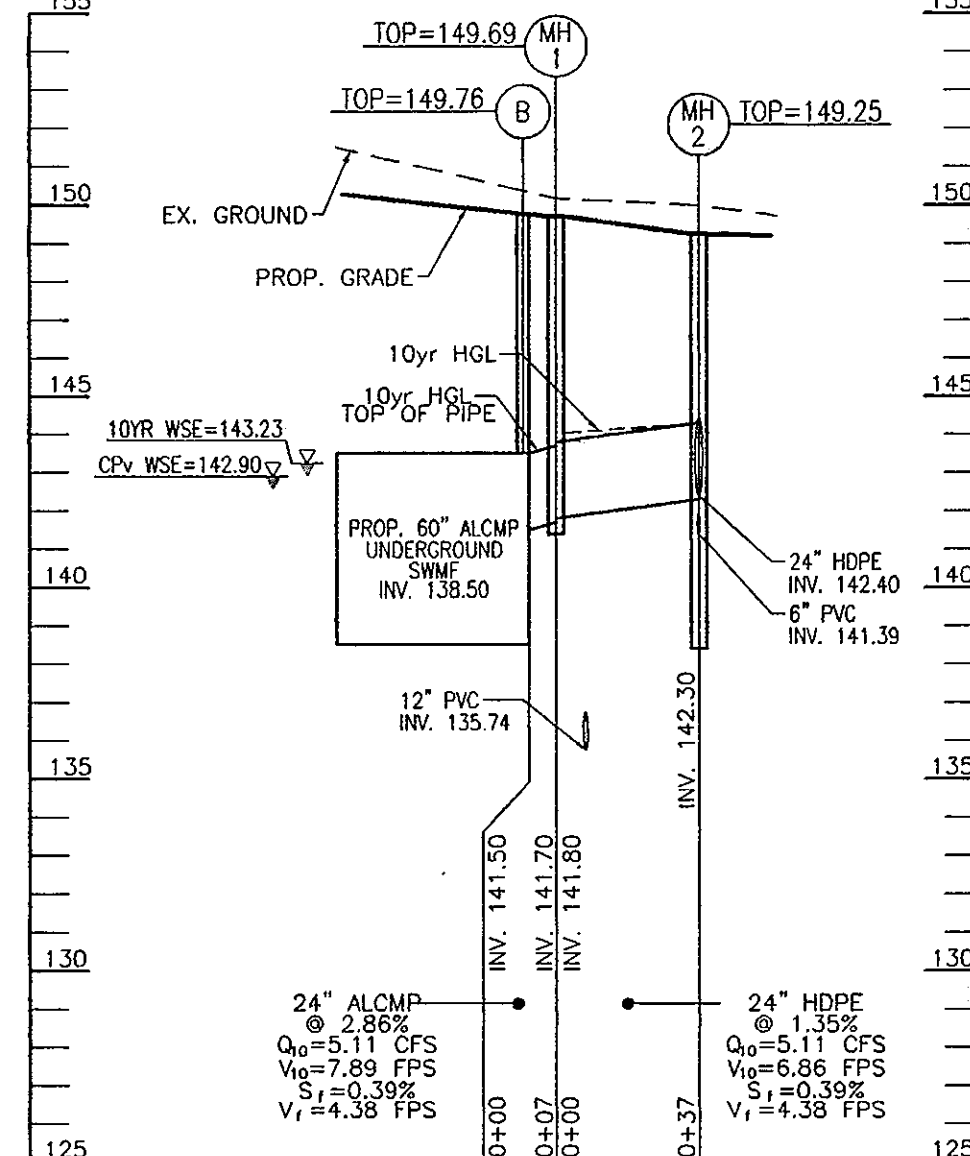


(CLOSED SECTION)
US ROUTE 1
WIDENING DETAIL
NOT TO SCALE

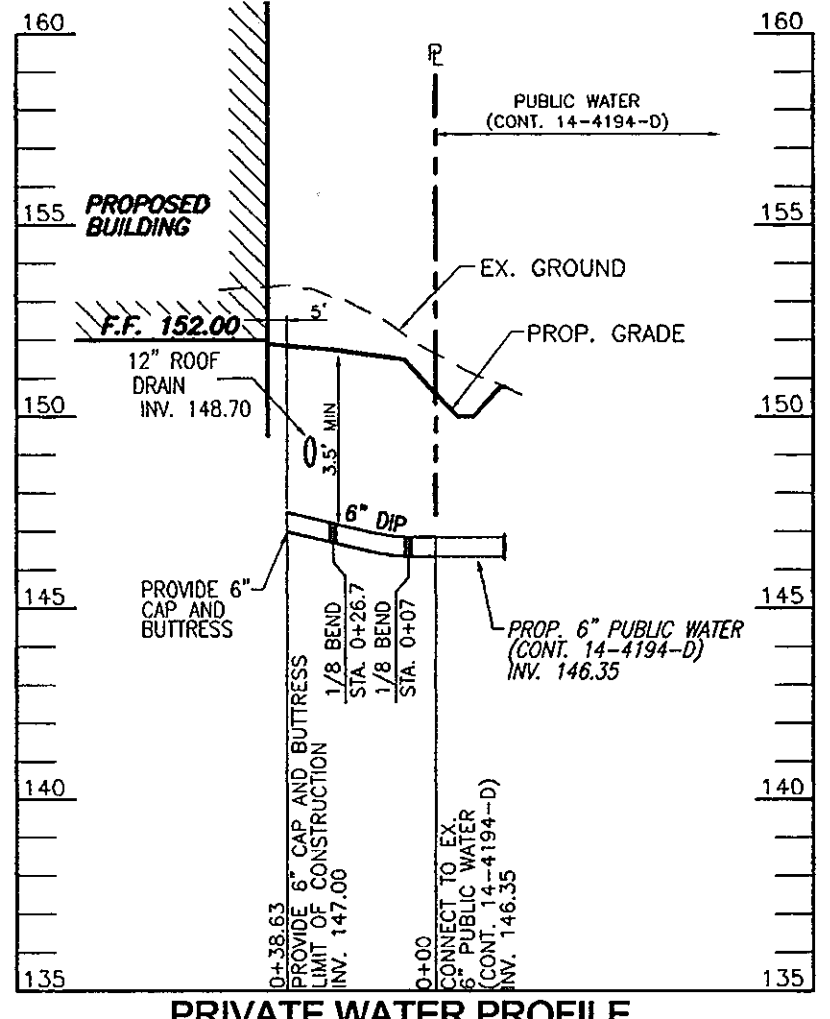
SIZE	PIPE SCHEDULE	TYPE	LENGTH
4"	PVC		72 LF
10"	HDPE		83 LF
12"	HDPE		171 LF
12"	PVC		96 LF
18"	HDPE		59 LF
24"	HDPE		52 LF
24"	ALCMP		7 LF
60"	ALCMP		239 LF
6"	SOLID PVC		11 LF
24"	RCP		54 LF
15"	RCP Class IV		113 LF

NO.	TYPE	STRUCTURE SCHEDULE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-1	DOUBLE TYPE 'S' COMBINATION INLET		N 555420.3 E 1381785.3	149.00	143.00	142.50	D-4.23
I-2	A-10 INLET		N 555419.6 E 1381844.8	147.80	144.88	143.61	D-4.03
MH-1	PRECAST 48" MANHOLE		N 555391.4 E 1381746.2	149.69	141.80	141.70	G-5.12
MH-2	PRECAST 48" MANHOLE		N 555398.2 E 1381788.6	149.25	142.40	142.30	G-5.12
MH-3	PRECAST 48" MANHOLE		N 555343.3 E 1381786.9	150.04	144.75	144.36	G-5.12
CS-1	CONTROL STRUCTURE		N 555373.9 E 1381725.2	(SEE DETAIL SHEET 6)			
HW-1	TYPE 'A' HEADWALL (60" SPECS.)		N 555399.9 E 1381661.0	138.71	-	135.21	SD 5.11
TRENCH DRAIN	ACO POWERDRAIN STOOK			146.35	-	145.23	
I-3	MSHA INLET		N 555367.5 E 1381935.0	148.00	-	137.88	MD378.03
ES-1	MSHA END SECTION		N 555474.1 E 1381893.4	139.22	-	137.30	MD368.01
I-4	MSHA 5' COG		N 555189.2 E 1382036.8	171.20	-	169.20	MD374.68

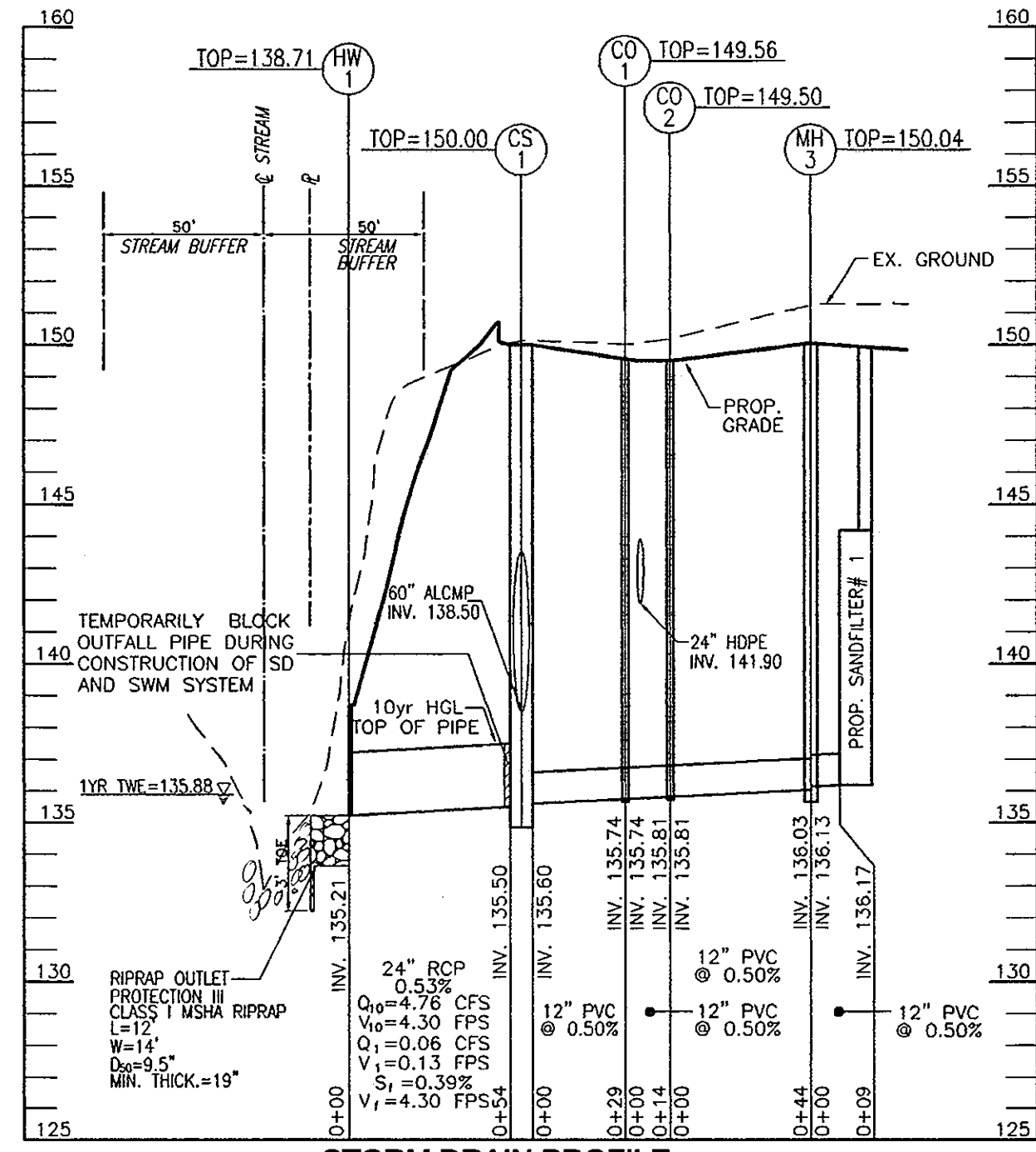
NOTE: 1. TOP ELEVATIONS ARE TO CENTER TOP OF GRATE FOR SINGLE AND DOUBLE TYPE 'S' COMBINATION INLETS, CENTER TOP OF GRATE FOR SINGLE AND DOUBLE TYPE 'S' INLETS, BOTTOM OF CURB OR THROAT FOR A-10 AND COG INLETS, AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES.
2. FOR TOP SLAB SLOPES SEE GRADING PLAN.
3. SEE ARCHITECTURAL PLANS FOR ROOF DRAIN DETAILS.



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



PRIVATE WATER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.

OWNER
ROSE HILL FARM, LLC
973 HOODS HILL ROAD
COOKSVILLE, MD 21723

OWNER/DEVELOPER
SIENA CORPORATION
8221 SNOWDEN RIVER PARKWAY
COLUMBIA, MD 21045
443-539-3080

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP, AND UTILITY PROFILES
EZ STORAGE FACILITY
US ROUTE 1
(L. 11/03/F. 234)
TAX MAP 37 BLOCK 24
1ST ELECTION DISTRICT
PARCEL '189'
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLIOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
DESIGN BY: JAR
DRAWN BY: OZ/HJ/JR
CHECKED BY: RHV
DATE: MARCH 06, 2009
SCALE: 1"=30'
W.O. NO.: 08-32

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. 15153 EXPIRATION DATE: 09-27-2010

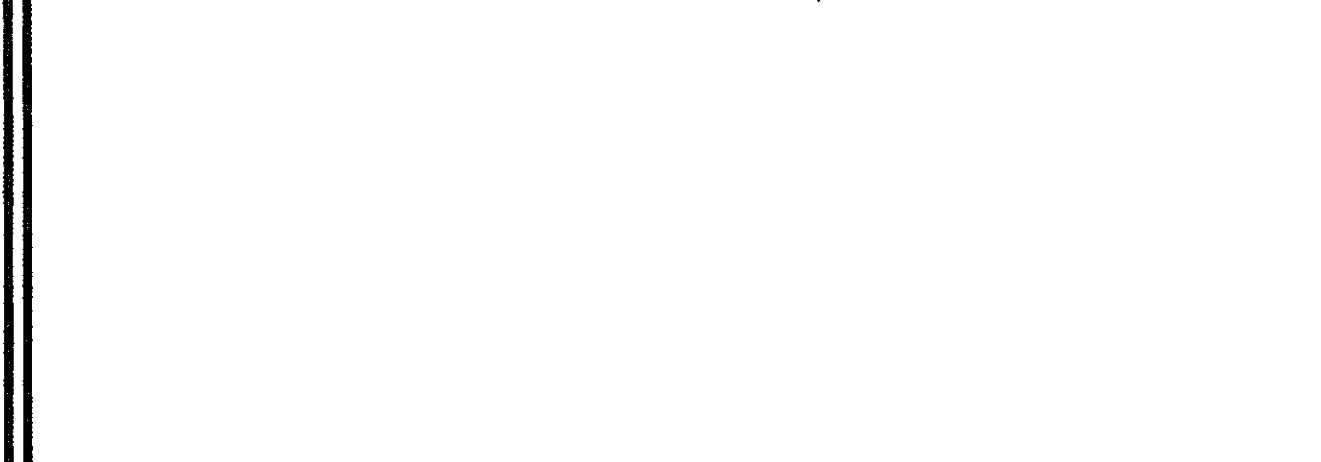
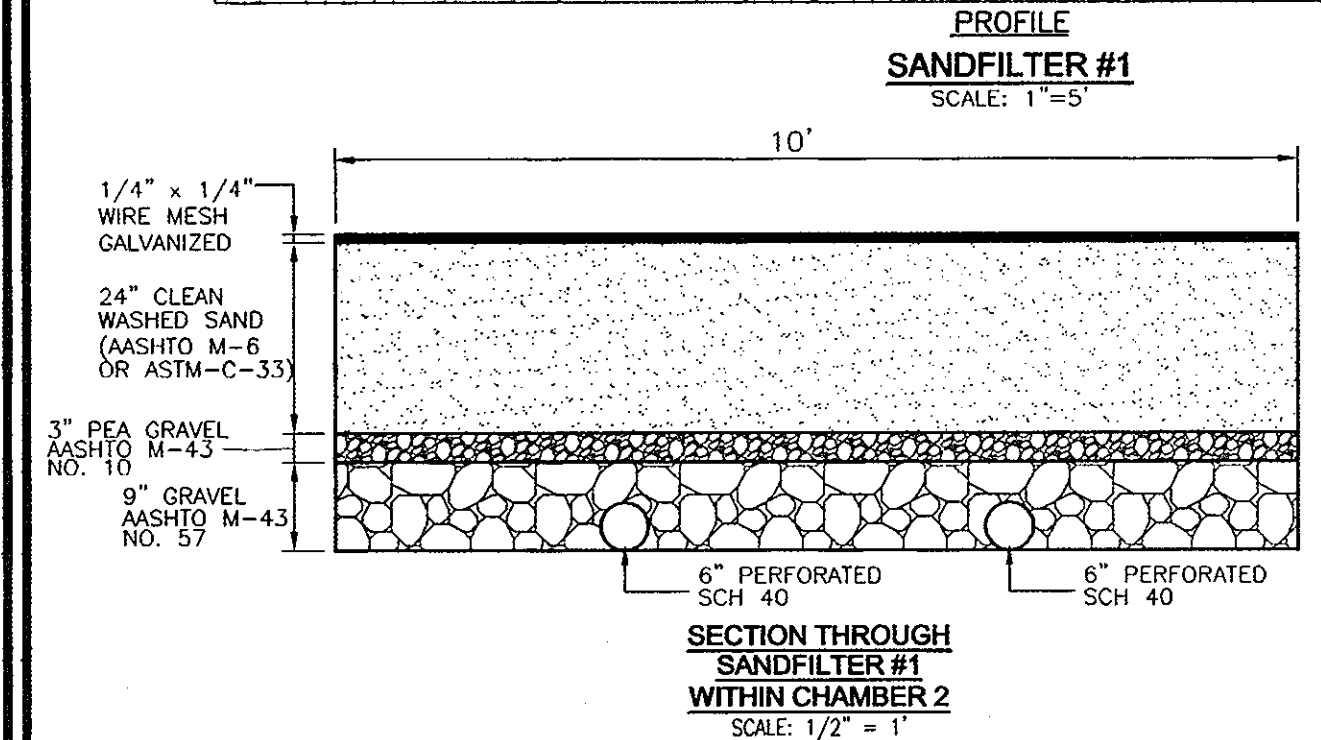
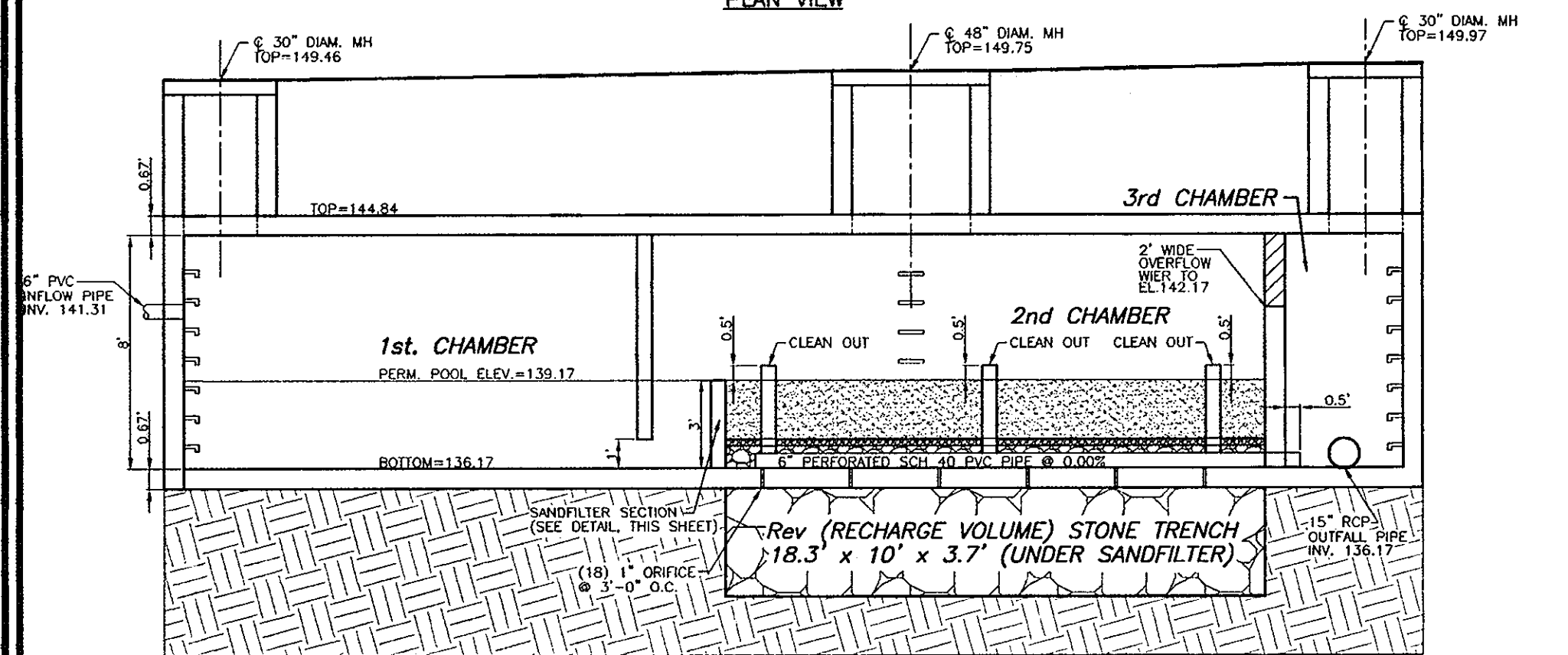
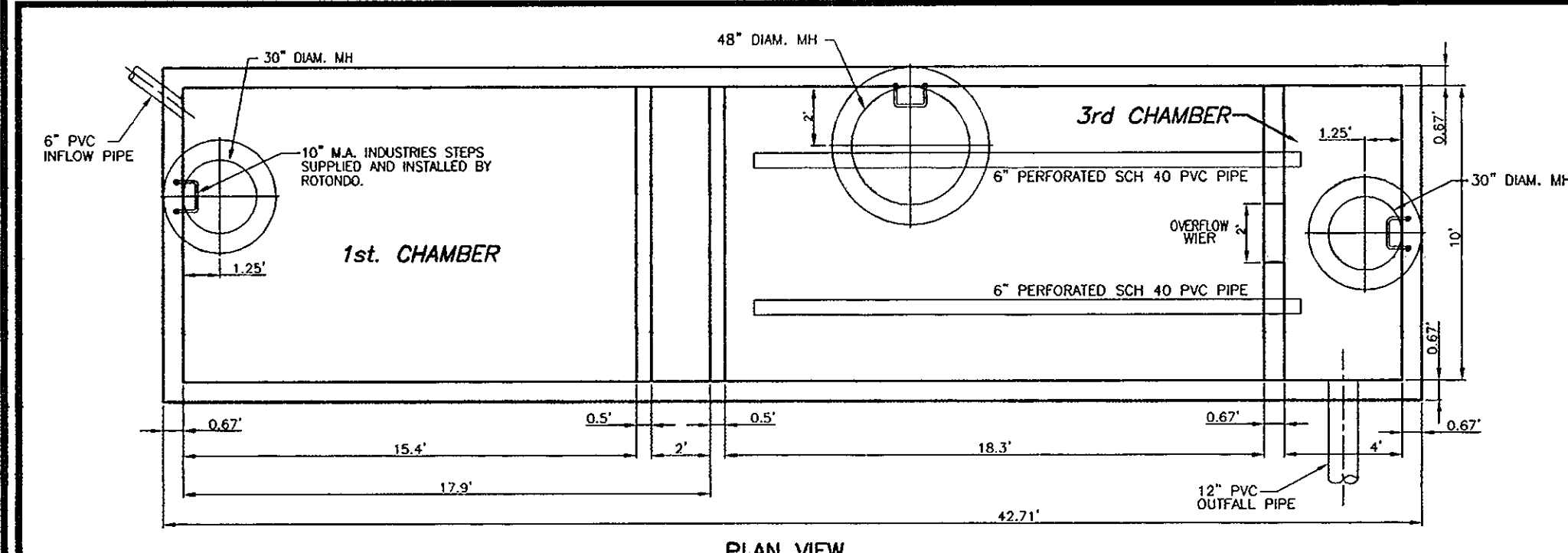
5 SHEET OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 4/14/09

BY THE DEVELOPER:
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 PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
SIGNATURE OF DEVELOPER: [Signature]
DATE: 3/26/09

BY THE ENGINEER:
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 OF ENGINEER: [Signature]
DATE: 4/2/09

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD S.C.D.
DATE: 4/2/09



MATERIAL	SPECIFICATION	SIZE	NOTES
SAND	CLEAN AASHTO M-6 OR ASTM-C-33 CONCRETE SAND	0.075" to 0.425"	SAND SUBSTITUTIONS SUCH AS DUNESAND AND CRUSHED PISTON ARE NOT ACCEPTABLE. NO ORGANIC CONTAMINANTS OR POLYMER SAND SUBSTITUTIONS ARE ACCEPTABLE. THE SAND SHOULD BE WASHED AND SCREENED TO REMOVE FINE MATERIALS AND CLAY. SAND SHOULD BE WASHED TO REMOVE FINE MATERIALS AND CLAY.
PEAT	ASH CONTENT: <15% PH RANGE: 5.2 TO 6.5 LOSS ON DRYING: 0.12 TO 0.15 G/100G	N/A	THE MATERIAL MUST BE RED-SEDGE HEAVY PEAT, SPREAD, UNCOMPACTED, UNIFORM, AND CLEAN.
LEAF COMPOSITE	AASHTO M-43	0.375" to 0.75"	
UNDERGROUND GRAVEL	AASHTO M-43	0.375" to 0.75"	
GEOTEXTILE FABRIC (IF REQUIRED)	ASTM-D-4833 (PROCKESS) ASTM-D-4742 (EDGE STRENGTH) - 125 LB/30 YD ASTM-D-4741 (TEAR RESISTANCE) - 150 LB/30 YD ASTM-D-4741 (TENSILE RESISTANCE) - 15 TO 25 MESH	30 MIL THICKNESS	MUST MAINTAIN 125 GPM PER SQ. FT. FLOW RATE. NOTE: A 1/4\"/>
PEA GRAVEL	ASTM-D-4833 (PROCKESS) ASTM-D-4742 (EDGE STRENGTH) - 125 LB/30 YD ASTM-D-4741 (TEAR RESISTANCE) - 150 LB/30 YD ASTM-D-4741 (TENSILE RESISTANCE) - 15 TO 25 MESH	3/4\"/>	
IMPERVIOUS LINER (IF REQUIRED)	ASTM-D-4833 (PROCKESS) ASTM-D-4742 (EDGE STRENGTH) - 125 LB/30 YD ASTM-D-4741 (TEAR RESISTANCE) - 150 LB/30 YD ASTM-D-4741 (TENSILE RESISTANCE) - 15 TO 25 MESH	30 MIL THICKNESS	LINER TO BE IMPERVIOUS RESISTANT. A GEOTEXTILE FABRIC SHOULD BE USED TO PROTECT THE LINER FROM PUNCTURE.
UNDERGROUND PIPING	12\"/>		
CONCRETE (CAST-IN-PLACE)	CONCRETE SHALL BE ASTM C-150 TYPE I OR II, 3000 PSI (28 DAYS), WITH A MINIMUM OF 4% AIR ENTRAINMENT. CONCRETE SHALL BE WASHED AND CLEANED TO REMOVE OIL, GREASE, AND OTHER CONTAMINANTS. CONCRETE SHALL BE CURED WITH A CURING COMPOUND.	N/A	
CONCRETE (PRE-CAST)	PRE-CAST MANUFACTURER	N/A	SEE ADOPTED NOTE
NON-REBAR STEEL	ASTM A-36	N/A	STRUCTURAL STEEL TO BE HOT ROLLED GALVANIZED ASTM-A-153

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

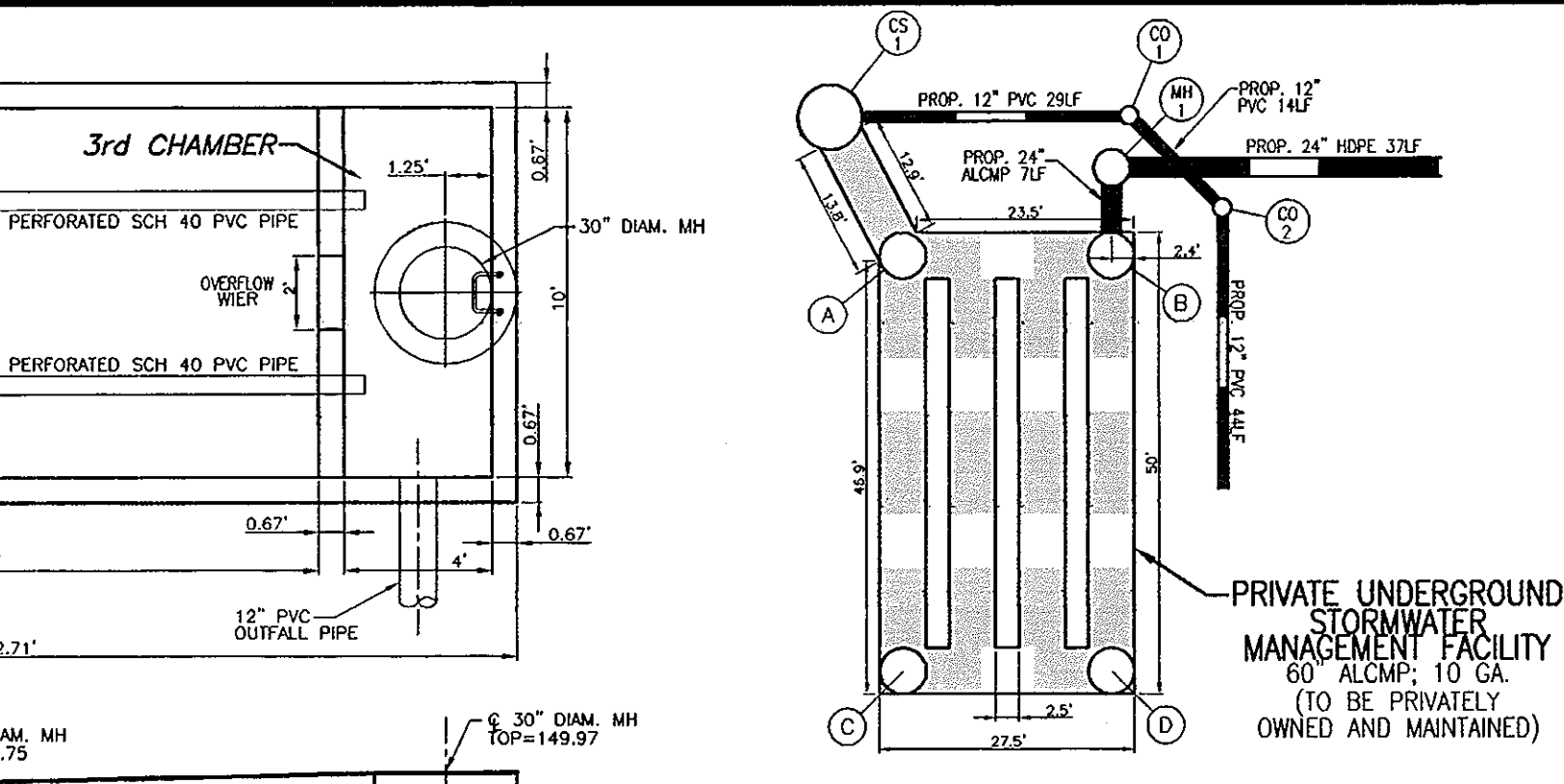
CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR, DEP.

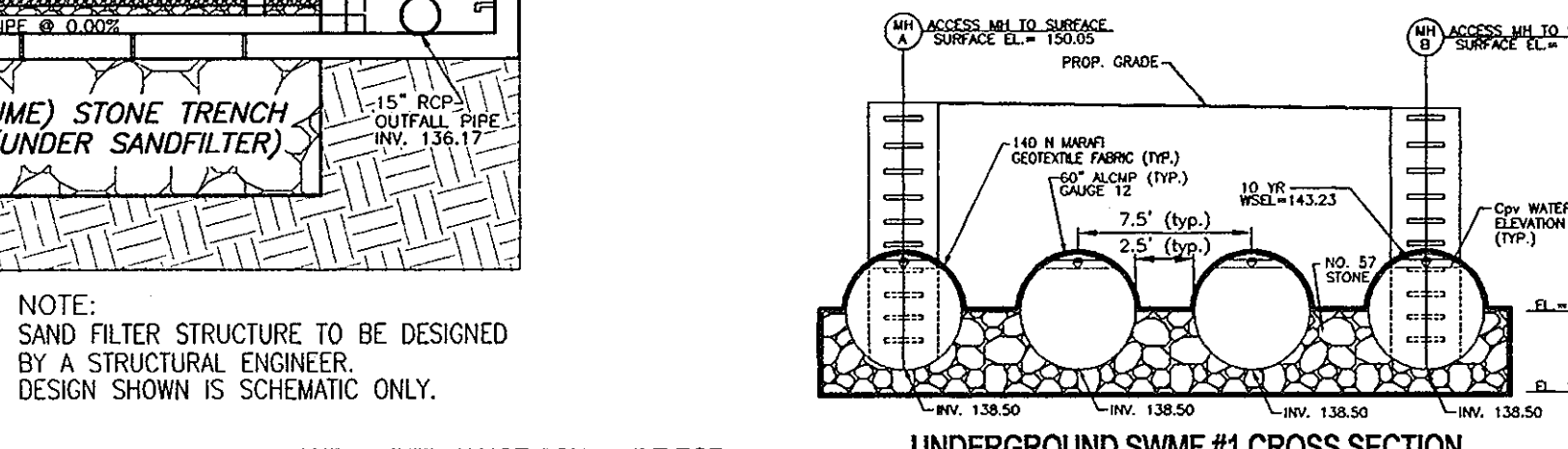
DATE: 4/14/09

DATE: 5/15/09

DATE: 3/26/09



- NOTE:** CONTRACTOR SHALL ENSURE THAT THE S.W.M. FACILITY IS WATER-TIGHT.
1. ALL PIPE CONNECTIONS AT STRUCTURES SHALL BE CEMENTED TO ENSURE WATER-TIGHT CONNECTION.
 2. ALL ALCCM PIPE JOINTS SHALL USE 12\"/>



- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND STORMWATER FILTRATION SYSTEM (P-2)**
1. THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED AND/OR REPAIRED WHEN DRAW-DOWN TIMES WITHIN THE CHAMBER EXCEED 36 HOURS.
 2. DEBRIS AND LITTER SHALL BE REMOVED AS NECESSARY TO ENSURE PROPER OPERATION OF THE SYSTEM.
 3. SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENTATION CHAMBER WHEN IT ACCUMULATES TO A DEPTH OF 6 INCHES. VEGETATION WITHIN THE SEDIMENT CHAMBER SHALL BE LIMITED TO A HEIGHT OF 18 INCHES.
 4. WHEN WATER POUNDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
 5. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
 6. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO ENSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
 7. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM 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.



MH-2 (4'-0\"/>

APPENDIX B.3.A CONSTRUCTION SPECIFICATIONS FOR SAND FILTERS

1. MATERIAL SPECIFICATIONS FOR SAND FILTERS

2. SAND FILTER TESTING SPECIFICATIONS

3. SAND FILTER CONSTRUCTION SPECIFICATIONS

4. SPECIFICATIONS PERTAINING TO UNDERGROUND SAND FILTERS (P-2)

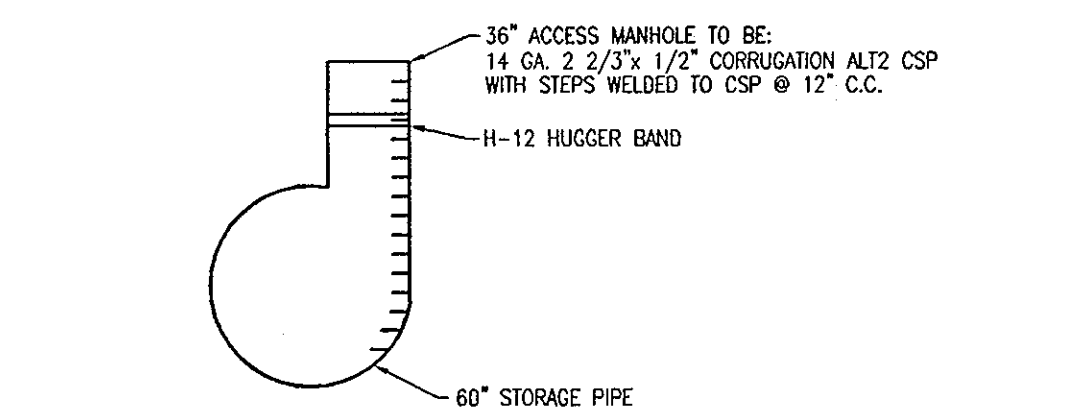
BY THE DEVELOPER:

BY THE ENGINEER:

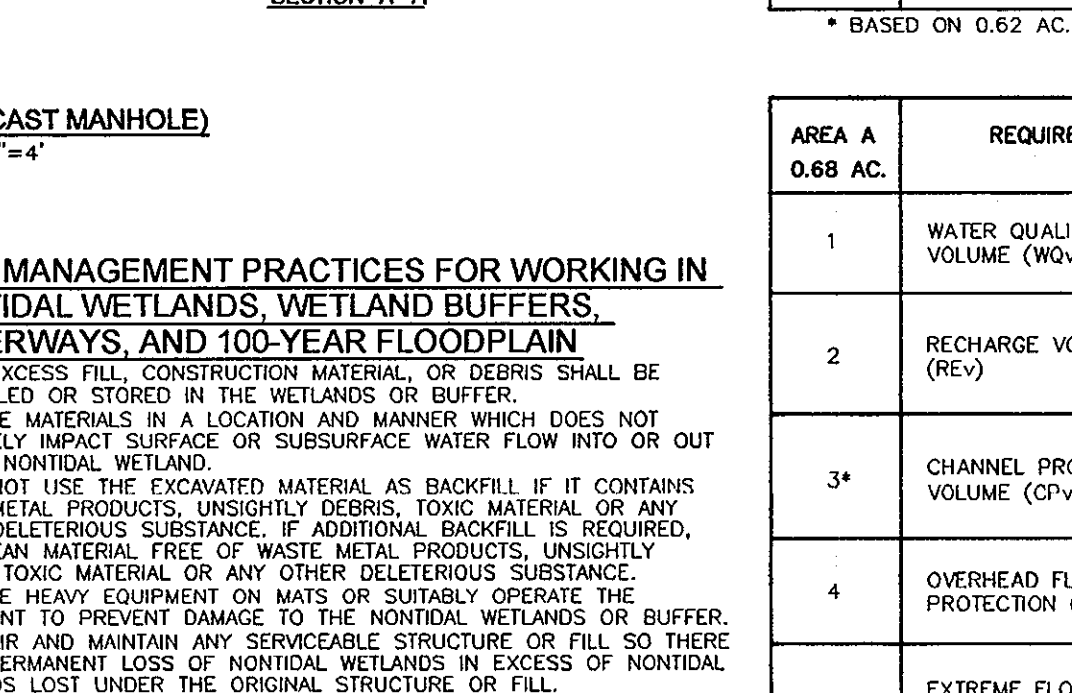
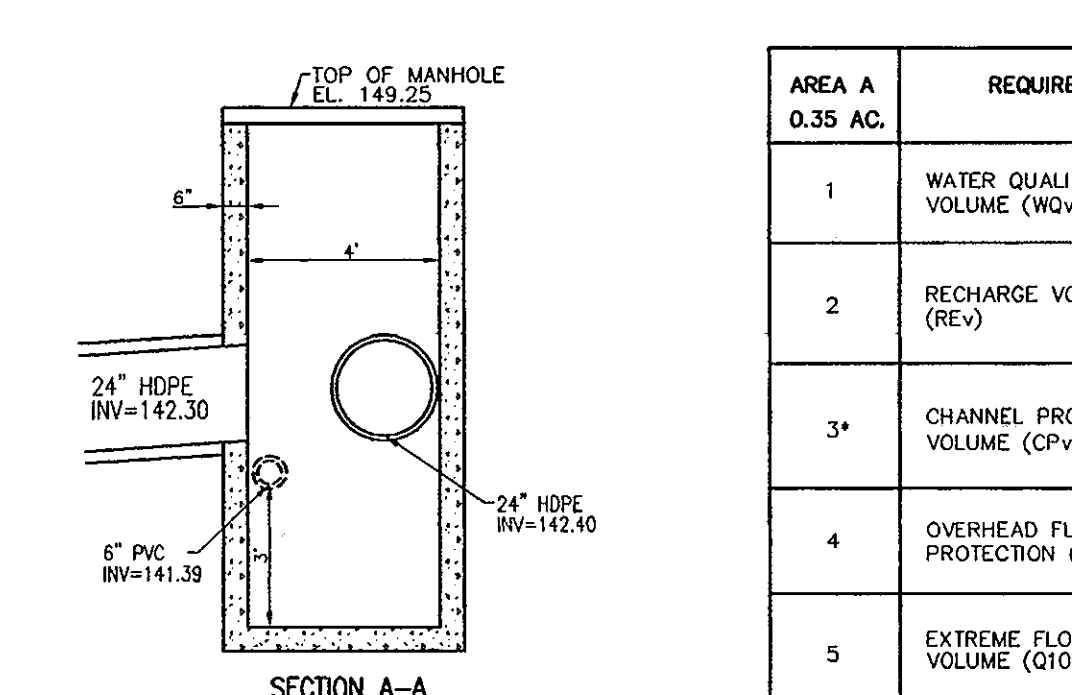
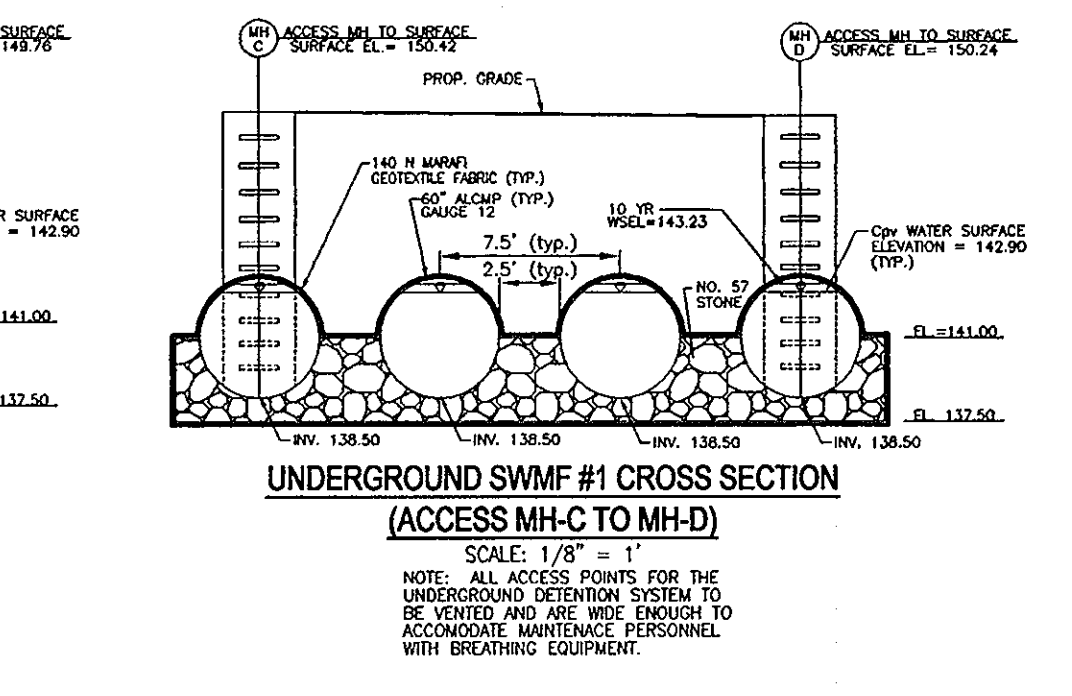
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND FACILITIES

- A. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
- B. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS.
- C. WHEN SEDIMENT ACCUMULATION OF MORE THAN 2\"/>



TYPICAL ACCESS MANHOLE DETAIL FOR UNDERGROUND SWM FACILITY (NOT TO SCALE)



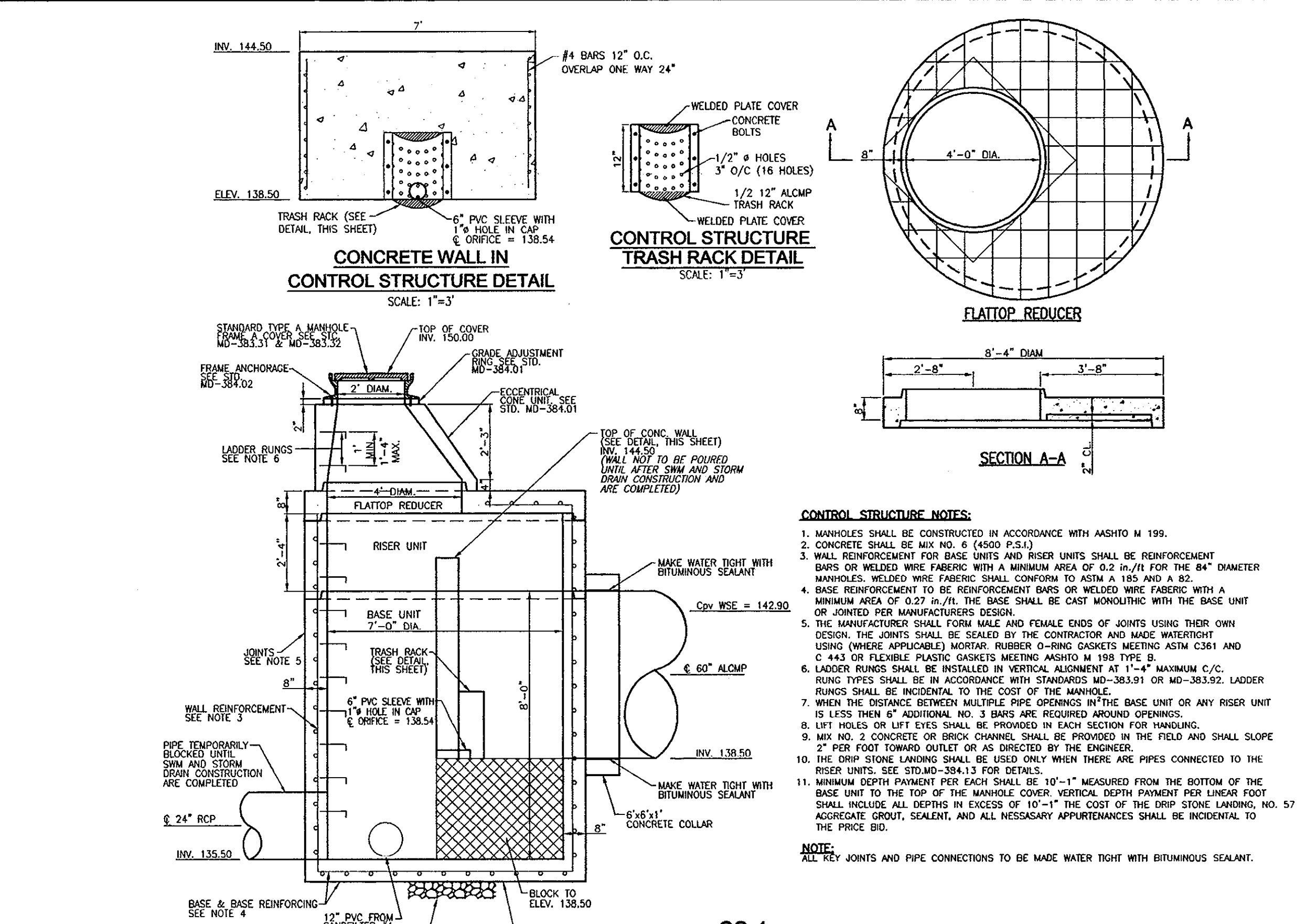
BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAIN

- 1) NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN THE WETLANDS OR BUFFER.
- 2) PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLAND.
- 3) DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- 4) PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO THE NONTIDAL WETLANDS OR BUFFER.
- 5) REPAIR AND MAINTAIN ANY SERVICABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS OR EXCESS OF NONTIDAL WETLANDS LOST UNDER THE ORIGINAL STRUCTURE OR FILL.
- 6) RECTIFY ANY NONTIDAL WETLANDS TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- 7) ALL STABILIZATION IN THE WETLAND AND BUFFER SHALL BE OF THE FOLLOWING RECOMMENDED SPECIES: ANNUAL RYEGRASS (LOLUM MULTIFLORUM), MELLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNOLA SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY VEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE DIVISION KENTUCKY 33 RESOLVE SHALL NOT BE UTILIZED IN THE WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- 8) AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRASSES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRASSES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- 9) TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM (USE I WATERS).
- 10) IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUDING DURING ANY YEAR.
- 11) STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD S.C.D.

DATE: 3/26/09



CS-1 CAST-IN-PLACE SWM CONTROL STRUCTURE MD SHA STD. 384.07 SCALE: 1\"/>

CONTROL STRUCTURE NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
2. CONCRETE SHALL BE MIX NO. 6 (AASHTO P.S.3).
3. WALL REINFORCEMENT FOR BASE UNITS AND RISER UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.2 IN²/IN FOR THE 8\"/>

NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.

OWNER: ROSE HILL FARM, LLC, 979 HOBBS MILL ROAD, COOKSVILLE, MD 21725

OWNER/DEVELOPER: SIENA CORPORATION, 8221 SNOWDEN RIVER PARKWAY, COLUMBIA, MD 21045, 443-539-3080

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT NOTES AND DETAILS

EZ STORAGE FACILITY US ROUTE 1 (L1703/F234)

TAX MAP 37 BLOCK 24 1ST ELECTION DISTRICT

PARCEL '189' HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET, ELLICOTT CITY, MD 21043

TEL: 410.461.7666 FAX: 410.461.8961

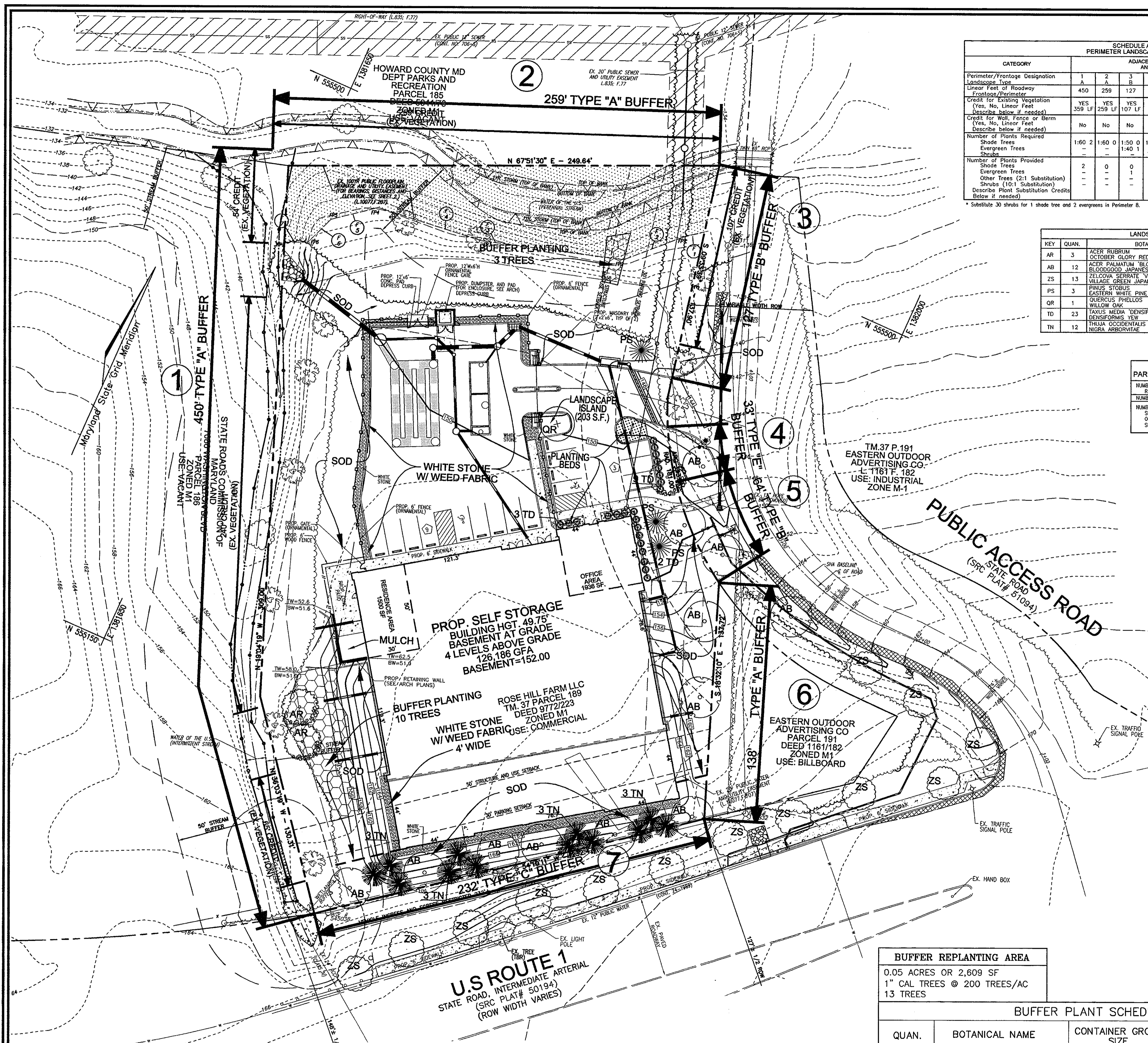
DESIGN BY: JAR

DRAWN BY: OZ/HD/AR

CHECKED BY: RHV

DATE: MARCH 06, 2009

SCALE: 1\"/>



SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER AND ROWWAYS							ADJACENT TO DUMPSTER	TOTAL
	1	2	3	4	5	6	7		
Perimeter/Frontage Designation	A	A	B	E	B	A	C	B	
Linear Feet of Roadway	450	259	127	33	84	138	232	35	
Frontage/Perimeter	Yes	Yes	Yes	No	No	No	No	No	
Credit for Existing Vegetation (Yes, No, Linear Feet)	359 LF	259 LF	107 LF	No	No	No	No	No	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No	No	No	No	No	No	
Describe below if needed									
Number of Plants Required									
Shade Trees	1:60	2:160	1:50	0	1:40	1:50	1:140	1:40	13
Evergreen Trees	-	-	1:40	1	1:40	2	1:20	1:20	17
Shrubs	-	-	-	-	-	-	-	-	38
Number of Plants Provided									
Shade Trees	2	0	0	1	1	2	6	-	12
Evergreen Trees	-	-	-	1	1	2	12	-	15
Other Trees (2:1 Substitution)	-	-	-	-	-	-	-	-	30*
Shrubs (10:1 Substitution)	-	-	-	-	-	-	-	-	38
Describe Plant Substitution Credits Below if needed									

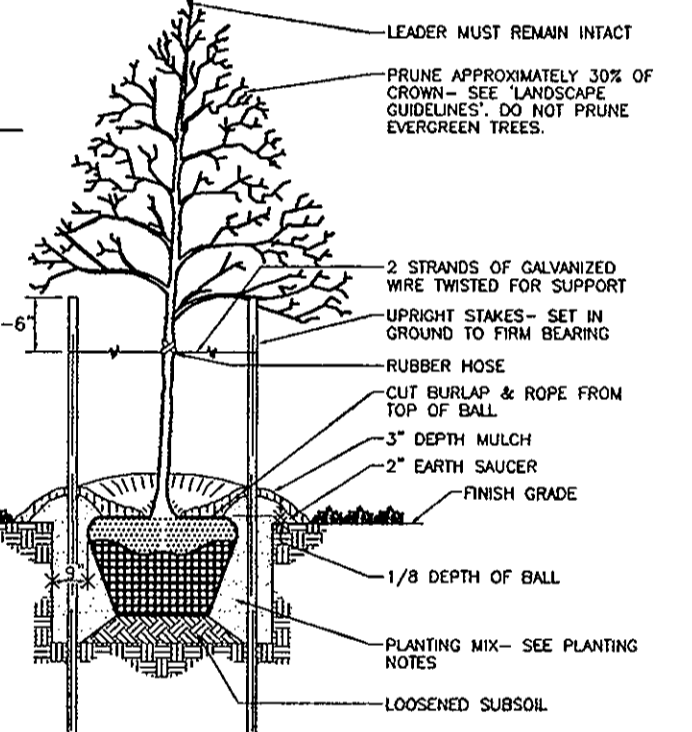
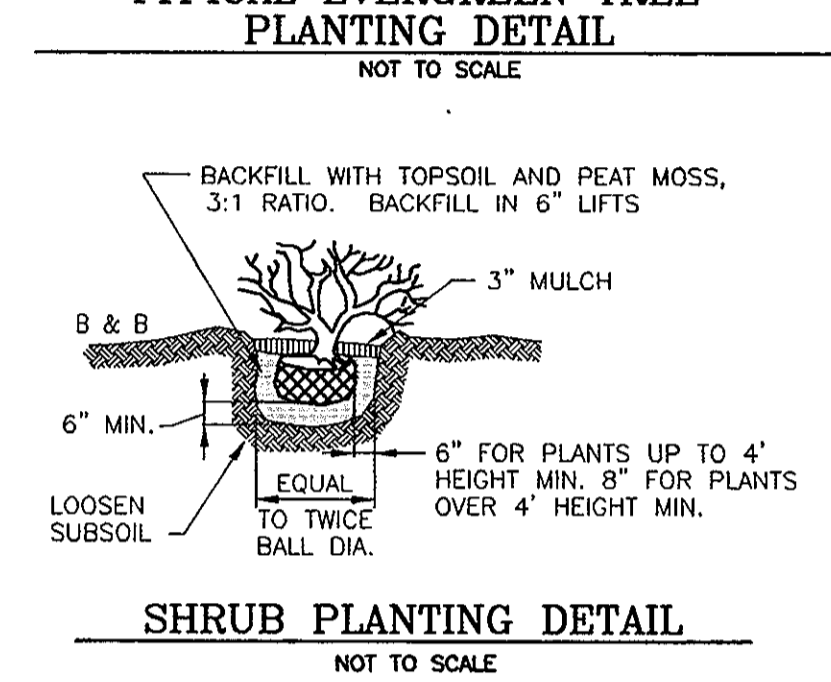
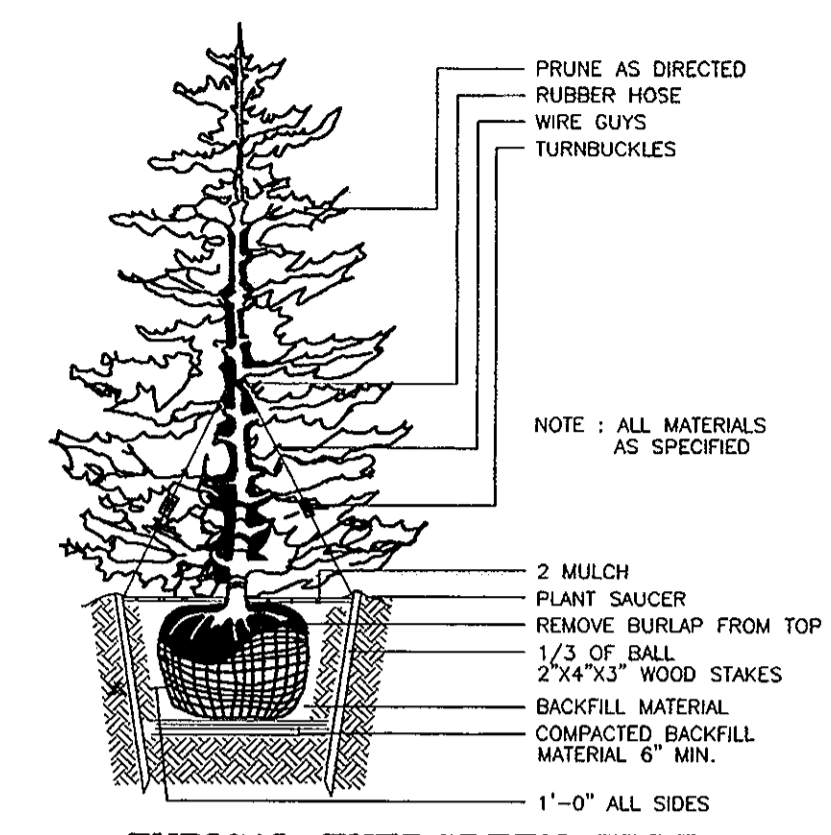
* Substitute 30 shrubs for 1 shade tree and 2 evergreens in Perimeter B.

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
AR	3	ACER RUBRUM OCTOBER GLORY RED MAPLE	2 1/2"-3" CAL.	B & B
AB	12	PLATANUS OCCIDENTALIS BLOODGOOD JAPANESE RED MAPLE	4"-8" HT. (MAX. HEIGHT=20')	B & B
ZS	13	ZELKOW SEROTINA VILLAGE GREEN VILLAGE GREEN JAPANESE ZELKOWA	2 1/2"-3" CAL.	B & B
PS	3	PRUNUS SEROTINA EASTERN WHITE PINE	7'-9" HEIGHT	B & B
OR	1	QUERCUS PHellos WILLOW OAK	2 1/2"-3" CAL.	B & B
TD	23	TAXUS MEDIA DENSIFORMIS DENSFORMIS YEW	2 1/2"-3" HT.	B & B
TN	12	TRIALIA OCCIDENTALIS 'NIGRA' NIGRA ARBORVITAE	4"-5" HT. (MAX. HEIGHT=20')	B & B

SCHEDULE 'B' PARKING LOT INTERNAL LANDSCAPING

NUMBER OF TREES AND ISLANDS REQUIRED	17
NUMBER OF TREES AND ISLANDS PROVIDED	17
NUMBER OF TREES (2:1 SUBSTITUTION)	1
SHRUBS (10:1 SUBSTITUTION)	1



- NOTES:**
- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-METROPOLITAN WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT AND FINISH SPECIFICATIONS.
 - SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2 1/2" CALIPER.
 - PLACE UPRIGHT STAKES PARALLEL TO WALKS & BIWAYS.
 - KEEP MULCH 1" FROM TRUNK.
 - SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOMEOWNERS' MINIMUM REQUIREMENTS.
 - TREES MAY NOT BE PLANTED OVER PRIVATE SEWER EASEMENT.

STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	REQUIRED	PROVIDED
PUBLIC ACCESS ROAD	240	6	6
U.S. ROUTE 1	400	10	10

- BGE NOTES:**
- THE PROPOSED LANDSCAPING ON WIREZONE (40' FROM BGE POLES) IS IN ACCORDANCE WITH BGE LIST OF TREES AND PLANTS, AS SHOWN ON THIS PLAN.
 - BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.
 - THE CONTRACTOR IS TO CALL "MISS UTILITY" PRIOR TO THE INSTALLATION OF ANY LANDSCAPING TO LOCATE ANY UNDERGROUND GAS LINES THAT MAY BE LOCATED IN OR NEAR THE PROPERTY. LANDSCAPING MAY NOT BE INSTALLED ANY CLOSER THAN 10' FROM THE GAS LINE IN EITHER DIRECTION.

- LANDSCAPE SCHEDULE NOTES:**
- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT MAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LCMWV PLANTING SPECIFICATIONS.
 - MAINTENANCE TO INCLUDE MONITORING AND HAND WATERING AS NEEDED FOR THE FIRST TWO GROWING SEASONS TO ESTABLISH WOODY PLANTS. SPECIALIZED PLANTING AREAS INCLUDING FOUNDATION PLANTING OR ANNUAL BEDS MAY REQUIRE REGULAR HAND WATERING OR IRRIGATION.
 - CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
 - CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

PLANTING BEDS
PROVIDE MULCHED PLANTING BEDS WITH 180 PERENNIALS AT ENTRANCE SIGN AND FRONT DOOR OF OFFICE. COORDINATE NATIVE SPECIES WITH OWNER.

BUFFER REPLANTING AREA
0.05 ACRES OR 2,609 SF
1" CAL TREES @ 200 TREES/AC
13 TREES

BUFFER PLANT SCHEDULE

QUAN.	BOTANICAL NAME	CONTAINER GROWN SIZE	APPROXIMATE SPACE SPACING (FEET ON CENTER)
4	Acer rubrum Red Maple	1" caliper B & B	15 x 15
3	Platanus occidentalis Sycamore	1" caliper B & B	15 x 15
3	Prunus serotina Black Cherry	1" caliper B & B	15 x 15
3	American sweetgum Liquidambar styraciflua	1" caliper B & B	15 x 15

- LEGEND:**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED SPOT ELEVATION
 - EXISTING SPOT ELEVATION
 - EXISTING CURB AND GUTTER
 - PROPOSED CURB AND GUTTER
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - PROPOSED TRENCH DRAIN
 - EXISTING TREES (FIELD LOCATED)
 - EXISTING TREELINE (FIELD LOCATED)
 - EXISTING FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - SOILS BOUNDARY
 - PROPOSED SIDEWALK
 - MODERATE SLOPES (15% - 24.99%)
 - STEEP SLOPE (>25%)
 - EX. PUBLIC 100 YR. FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
 - PERIMETER LANDSCAPING
 - PROPOSED SHADE TREE
 - PROPOSED EVERGREEN TREE
 - PROPOSED SHRUB
 - BUFFER REPLANTING AREA

- GENERAL NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,990.00 FOR THE REQUIRED 14 SHADE TREES, 17 EVERGREEN TREES, AND 8 SHRUBS.

OWNER/DEVELOPER
ROSE HILL FARM, LLC
970 HODGINS HILL ROAD
COOKSVILLE, MD 21723

SIENA CORPORATION
8221 SNOWDEN RIVER PARKWAY
COLUMBIA, MD 21045
443-539-3080

SITE DEVELOPMENT PLAN
SITE LANDSCAPE PLAN
EZ STORAGE FACILITY
US ROUTE 1
(L17031F.23A)
TAX MAP 37 BLOCK 24
1ST ELECTION DISTRICT
PARCEL '189'
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELDGOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
DESIGN BY: JAR
DRAWN BY: DZ/HID/JR
CHECKED BY: RHV
DATE: MARCH 08, 2009
SCALE: 1"=30'
W.O. NO.: 08-32

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2010.

7 SHEET OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
4/14/09
DATE
4/14/09
DATE
5/15/09
DATE

DEVELOPER'S/BUILDER'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 (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
3/26/09
DATE

LANDSCAPE PLAN
SCALE: 1"=30'