

GENERAL NOTES

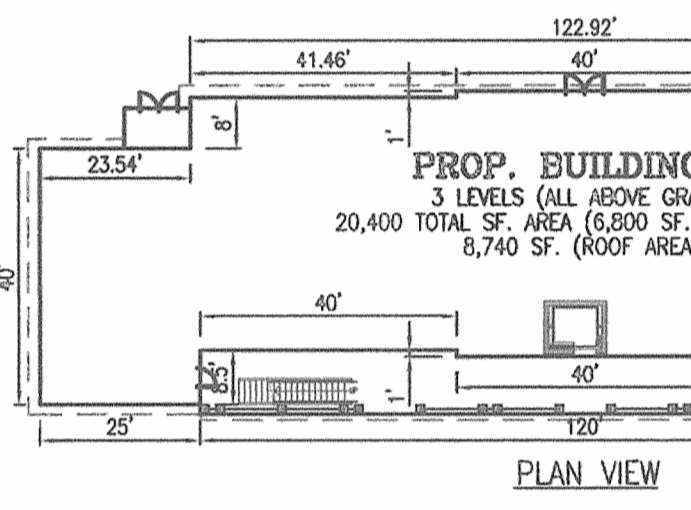
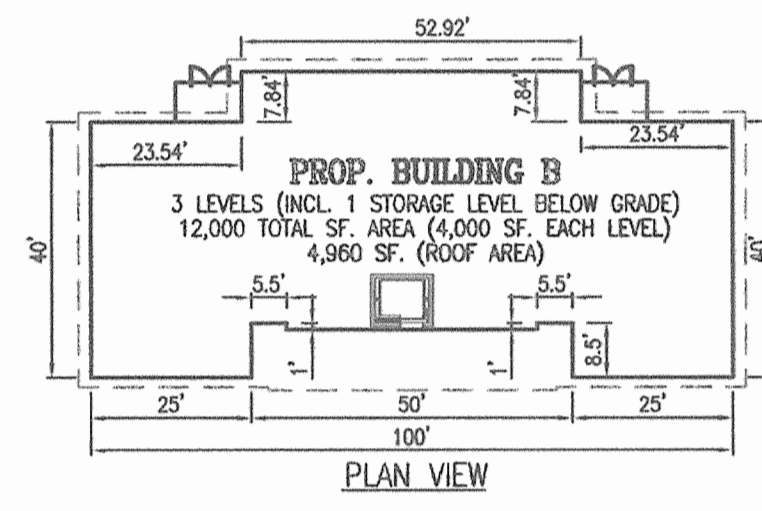
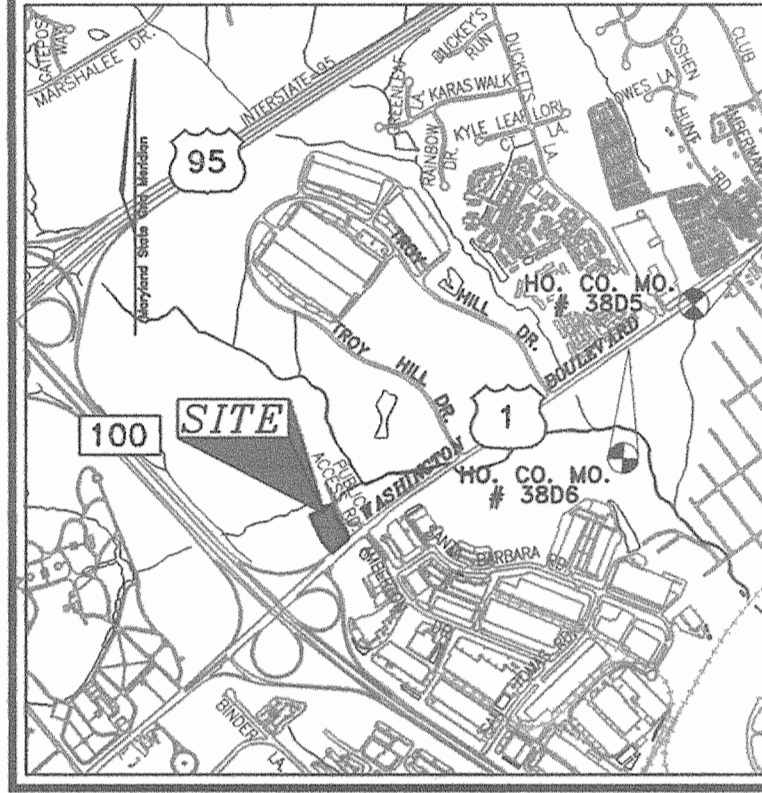
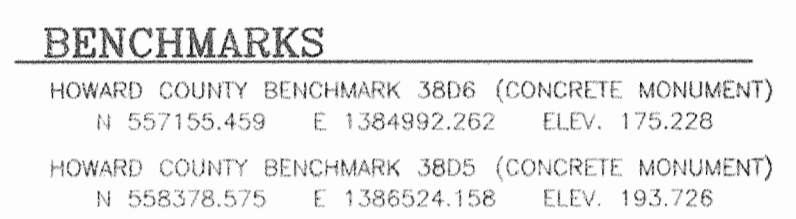
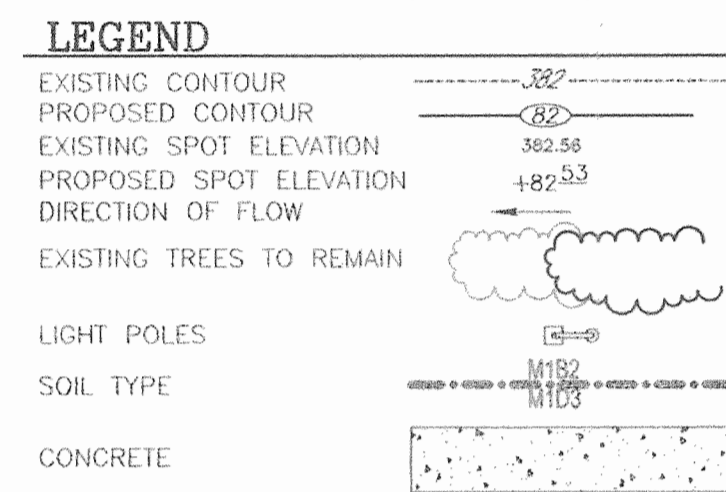
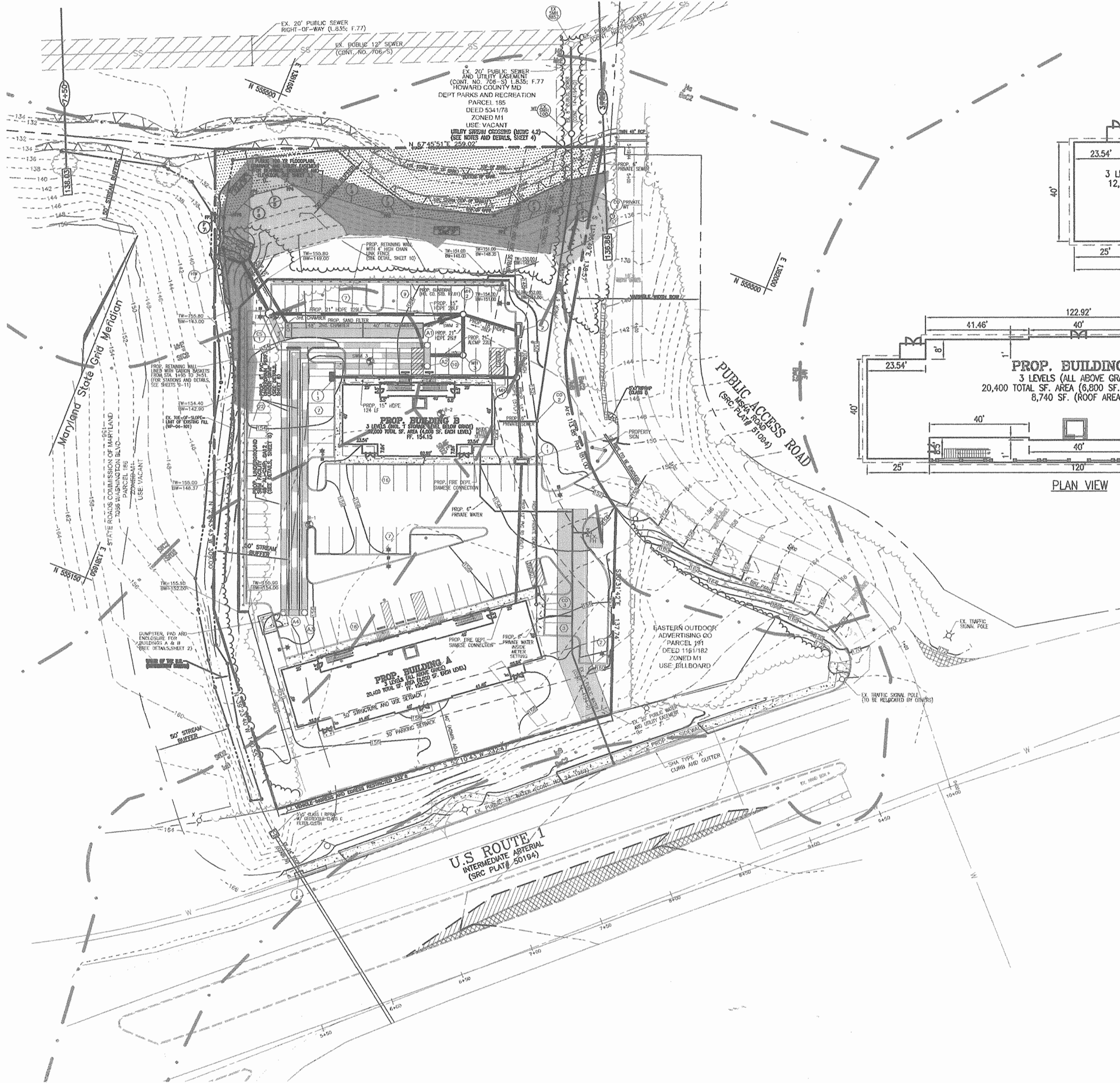
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 - MISS UTILITY: 1-800-257-7777
 - VERIZON TELEPHONE COMPANY: 1-410-394-6291
 - HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
 - AT&T CABLE LOCATION DIVISION: 393-3553
 - B.G.A.E. CO. CONTRACTOR SERVICES: 850-4600
 - B.G.A.E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
 - STATE HIGHWAY ADMINISTRATION: 531-5533
- SITE ANALYSIS:
 - AREA OF PARCEL: 2.375 AC.
 - PRESENT ZONING: M-1
 - USE OF STRUCTURE: GENERAL OFFICE AND RETAIL* (GENERAL RETAIL SALES IS NOT A PERMITTED USE IN THE M-1 ZONING DISTRICT)
 - * RETAIL USES ARE PERMITTED PURSUANT TO:
 - A. THE UNLIMITED RETAIL USES PERMITTED PER THE HCZR SECTION 122.B INCLUDE BANKS, FURNITURE SALES, LAUNDRY & DRY CLEANING, STANDARD AND CARRYOUT RESTAURANTS.
 - B. RETAIL USES ARE PERMITTED IN ACCORDANCE WITH THOSE USES OUTLINED IN HCZR SECTION 122.C.3 AND ACCUMULATIVELY SHALL NOT EXCEED 2,000 SF. OF GROSS FLOOR AREA ON THE SITE AND SHALL NOT EXCEED 10% OF THE TOTAL FLOOR SPACE OF THE FRINGIBLE USE.
 - BUILDING A COVERAGE: 6,800 SF. (8,740 SF. AREA INCLUDING ROOF)
 - BUILDING B COVERAGE: 4,000 SF. (4,960 SF. AREA INCLUDING ROOF)
 - TOTAL BUILDING COVERAGE: 10,800 SF. (13,700 SF. AREA INCLUDING ROOF)
 - BUILDING A COVERAGE ON SITE (INCLUDING ROOF): 20 AC. OR 8.42% OF GROSS AREA
 - BUILDING B COVERAGE ON SITE (INCLUDING ROOF): 11 AC. OR 4.63% OF GROSS AREA
 - TOTAL BUILDING COVERAGE ON SITE (INCLUDING ROOF): 31 AC. OR 13.05% OF GROSS AREA
 - PAVED PARKING LOT/AREA ON SITE: 0.84 AC. OR 35.4% OF GROSS AREA
 - AREA OF LANDSCAPE ISLAND: 0.46 AC. OR 1.94% OF GROSS AREA
 - STEEP SLOPES: GREATER THAN 24.9% = 12,538 SF. / SLOPES 15%-24.9% = 3,316 SF.
 - LIMIT OF DISTURBED AREA: 101,547 SF. OR 2.33 AC.
 - CUT: 225 CY. FILL: 13,433 CY.
- PROJECT BACKGROUND:
 - LOCATION: ELKBRIDGE, 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: BA-00-49E FOR SDP-04-004 - PROPOSED GAS STATION/CONVEN. STORE/FAST FOOD RESTAURANT (THAT WAS VOIDED BY DPZ LETTER DATED 06/22/04), WP-04-101, AA-05-005.
- 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 UTILITIES ARE SHOWN FOR THE CONTRACTORS 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 DRAIN PIPE BEDDING SHALL BE CLASS "C".
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY FREDERICK WARD AND ASSOCIATES, DATED MAY 24, 2001. THE COORDINATES SHOWN HEREON ARE BASED UPON 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)
- ALL CURB AND GUTTER TO BE 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. 24-1969.
- PUBLIC SEWER IS AVAILABLE THROUGH CONTRACT NO. 706-S.
- 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 BY RBD, LLC. (SEE DETAILS, SHEET 5)
- ALL EXTERIOR LIGHTING TO CONFORM TO SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. (DETAIL ON SHEET 2)
- BUILDINGS TO HAVE INSIDE WATER METER SETTING.
- TRAFFIC IMPACT STUDY PREPARED BY THE TRAFFIC GROUP, DATED MAY 5, 2003.
- GEOTECHNICAL REPORT PREPARED BY HILLIS-GARNES DATED MAY 22, 2002.
- THIS PLAN HAS BEEN PREPARED BY 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.
- THE FOREST CONSERVATION OBLIGATION HAS BEEN SATISFIED THROUGH A FEE-IN-LIEU PAYMENT OF \$15,246.00 (\$0.492 SF X 0.50) FOR THE 0.70 AC. OF REFORESTATION. OBLIGATION HAS BEEN PAID TO THE FOREST CONSERVATION FUND.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$15,480.00 FOR THE REQUIRED 42 SHADE TREES, 15 EVERGREEN TREES, AND 21 SHRUBS.
- 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 REGULATIONS.
- THIS PLAN IS SUBJECT TO WP-04-101; A WAIVER PETITION APPROVED JUNE 18, 2004, TO WAIVE SECTION 16.116(A)(2)(I) TO PERMIT GRADING, REMOVAL OF VEGETATIVE COVER, PAVEMENT, RETAINING WALL AND SWM OUTFALL WITHIN A 50 FOOT STREAM BUFFER AND A SWM OUTFALL ON PROTECTED STEEP SLOPE. APPROVAL SUBJECT TO THE FOLLOWING CONDITIONS:
 - DISTURBANCE GRADING AND DEVELOPMENT SHALL BE PERMITTED TO THE "BOTTOM OF THE TOE SLOPE" AS SHOWN ON THE EXHIBIT RECEIVED ON 7/27/04.
 - THE EXISTING FILL AREA SHALL CLEARLY BE INDICATED AND IDENTIFIED ON ANY SITE DEVELOPMENT PLAN AND/OR FINAL PLAN FOR THIS PROPERTY.
 - THE LOCATION OF THE OUTFALL FOR THIS PROPOSED SWM SHALL OBTAIN THE APPROVAL OF THE SCD, IF IT IS DETERMINED BY THAT AGENCY THAT THE OUTFALL SHOULD BE SHIFTED TO THE GENTLER GRADES LOCATED TO THE EAST OF THE CURRENTLY PROPOSED LOCATION, IT MUST BE SHIFTED.
- THIS PLAN IS SUBJECT TO MDE APPLICATION TRACKING NO. 200660164/05-NT-3235.
- THERE ARE NO WETLANDS ON SITE. WETLAND DELINEATION PREPARED BY FREDERICK WARD ASSOCIATES, INC., DATED SEPTEMBER 2003.
- FOR NORTH BOUND US ROUTE 1 LEFT TURN IMPROVEMENTS, SEE SHEET 2.
- THE FLOODPLAIN SHOWN HEREON IS BASED ON DEEP RUN FLOODPLAIN STUDY D-109A(MAP # 25-45).
- CONTRACTOR TO VERIFY THAT THE EXISTING PAVEMENT SECTION BETWEEN PROPOSED CURB AND THE EXISTING WHITE STRIP ALONG US ROUTE 1 MEET CURRENT MSHA TRAFFIC BEARING SPECIFICATIONS. SHOULD PAVEMENT SECTION NOT MEET MSHA TRAFFIC BEARING SPECIFICATIONS, CONTRACTOR TO SAW CUT AND REMOVE EXISTING PAVEMENT AND REPLACE WITH MSHA PAVEMENT SECTION SHOWN ON SHEET 2.
- CONTRACTOR TO OBTAIN CORE SAMPLES OF THE EXISTING PAVEMENT ALONG THE PROPERTY FRONTAGE OF U.S. RTE. 1 PRIOR TO BEGINNING CONSTRUCTION TO VERIFY THE TRAFFIC BEARING CAPACITY OF THE EXISTING PAVEMENT. IF THE CORE SAMPLES DO NOT MEET THE CURRENT MSHA SPECIFICATIONS, THE EXISTING PAVEMENT AND SUBBASE ARE TO BE REMOVED AND REPLACED USING THE SHA PAVING SECTION SHOWN ON SHEET 2 OF 11.
- THIS PLAN IS SUBJECT TO AA-05-005, APPROVED APRIL 26, 2005; AN ADMINISTRATIVE ADJUSTMENT FROM SECTION 122.D.2.A OF THE ZONING REGULATIONS TO REDUCE THE 30 FOOT SETBACK FROM AN EXTERNAL PUBLIC STREET RIGHT-OF-WAY TO 40 FEET FOR A PROPOSED OFFICE BUILDING. APPROVAL SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND COUNTY LAWS AND REGULATIONS.
 - THE GRANTED ADJUSTMENT SHALL APPLY SOLELY TO THE PROPOSED OFFICE BUILDING AS DEPICTED ON THE ADMINISTRATIVE ADJUSTMENT PLAN SUBMITTED BY THE PETITIONER AND NOT TO ANY OTHER STRUCTURE, ADDITION, BUILDING OR USE.
 - A BUILDING PERMIT FOR THE OFFICE BUILDING SHALL BE OBTAINED WITHIN TWO YEARS FROM THE DATE OF THIS ORDER AND SUBSTANTIAL CONSTRUCTION SHALL BE COMPLETED WITHIN THREE YEARS. THE PETITIONER SHALL SUBMIT A COPY OF THE DECISION AND ORDER WITH THE BUILDING PERMIT APPLICATION.
- NO CLEARING, GRADING, FILL, DISTURBANCE OR CONSTRUCTION IS PERMITTED WITHIN THE FLOODPLAIN, STEEP SLOPES OR 50' STREAM BUFFERS, EXCEPT AS APPROVED BY WP-04-101 AND AS SHOWN ON THIS PLAN.
- THE ONSITE PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT AND 20' PUBLIC WATER AND UTILITY EASEMENT SHOWN ON THIS PLAN WAS RECORDED ON A DPW PLAT OF EASEMENT RECORDED AS 110077 F 007.

SITE DEVELOPMENT PLAN

TROY-100 OFFICES

US RT 1

(PREVIOUS PLAN NUMBER SDP-04-04)



PROPOSED BUILDINGS
NOT TO SCALE

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 10
SITE LAYOUT PLAN, AND SITE DETAILS	2 OF 10
SITE GRADING PLAN, AND SEDIMENT AND EROSION CONTROL PLAN	3 OF 10
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS	4 OF 10
STORM DRAIN DRAINAGE AREA MAP, AND UTILITY PROFILES	5 OF 10
STORMWATER MANAGEMENT NOTES & DETAILS	6 OF 10
LANDSCAPE PLAN	7 OF 10
FOREST CONSERVATION PLAN	8 OF 10
WALL NOTES AND DETAILS	9 OF 10
WALL NOTES AND DETAILS	10 OF 10

LOCATION MAP
SCALE: 1"=50'

PARKING TABULATION

BUILDING	REQUIRED
BUILDING A OFFICE: 19,140 SF @ 3.3 SPACE/1000 SF	63 SPACES
BUILDING A RETAIL: 1,260 SF* @ 5 SPACE/1000 SF	6 SPACES
BUILDING B OFFICE: 7,260 SF @ 3.3 SPACE/1000 SF	24 SPACES
BUILDING B RETAIL: 740 SF* @ 5 SPACE/1000 SF	4 SPACES
TOTAL SPACES REQUIRED:	97 SPACES
TOTAL SPACES PROVIDED:	101 SPACES (INCLUDING 5 HANDICAP)
* THE RETAIL SQUARE FOOTAGE OF EACH BUILDING CAN BE ADJUSTED SO AS NOT TO EXCEED THE TOTAL PERMITTED MAXIMUM OF 2,000 SF FOR THE ENTIRE SITE. (SEE GENERAL NOTE 4.)	
NOTE: NO CHANGE IN USE, INCLUDING THE STORAGE AREA IN BUILDING B, IS PERMITTED WITHOUT COMPLIANCE WITH THE PARKING REQUIREMENTS IN ZONING SECTION 133 AND OBTAINING DPZ APPROVAL.	

ADDRESS CHART

LOT/PARCEL#	BUILDING	STREET ADDRESS
189	A	7078 WASHINGTON BLVD.
189	B	7076 WASHINGTON BLVD.

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER
N/A	N/A	189

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
5534/333	24	M1	37	1ST	6012.02

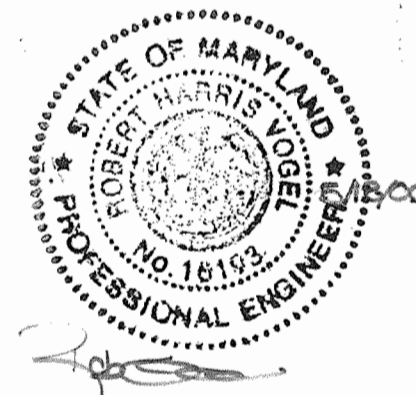
WATER CODE: B02 SEWER CODE: 3020000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 6/6/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6/6/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 6/14/06
DIRECTOR DATE



OWNER/DEVELOPER
ROSE HILL FARM, LLC
979 HOODS MILL ROAD
COOKSVILLE, MD 21723

SITE DEVELOPMENT PLAN
COVER SHEET
TROY-100 OFFICES
US RT 1

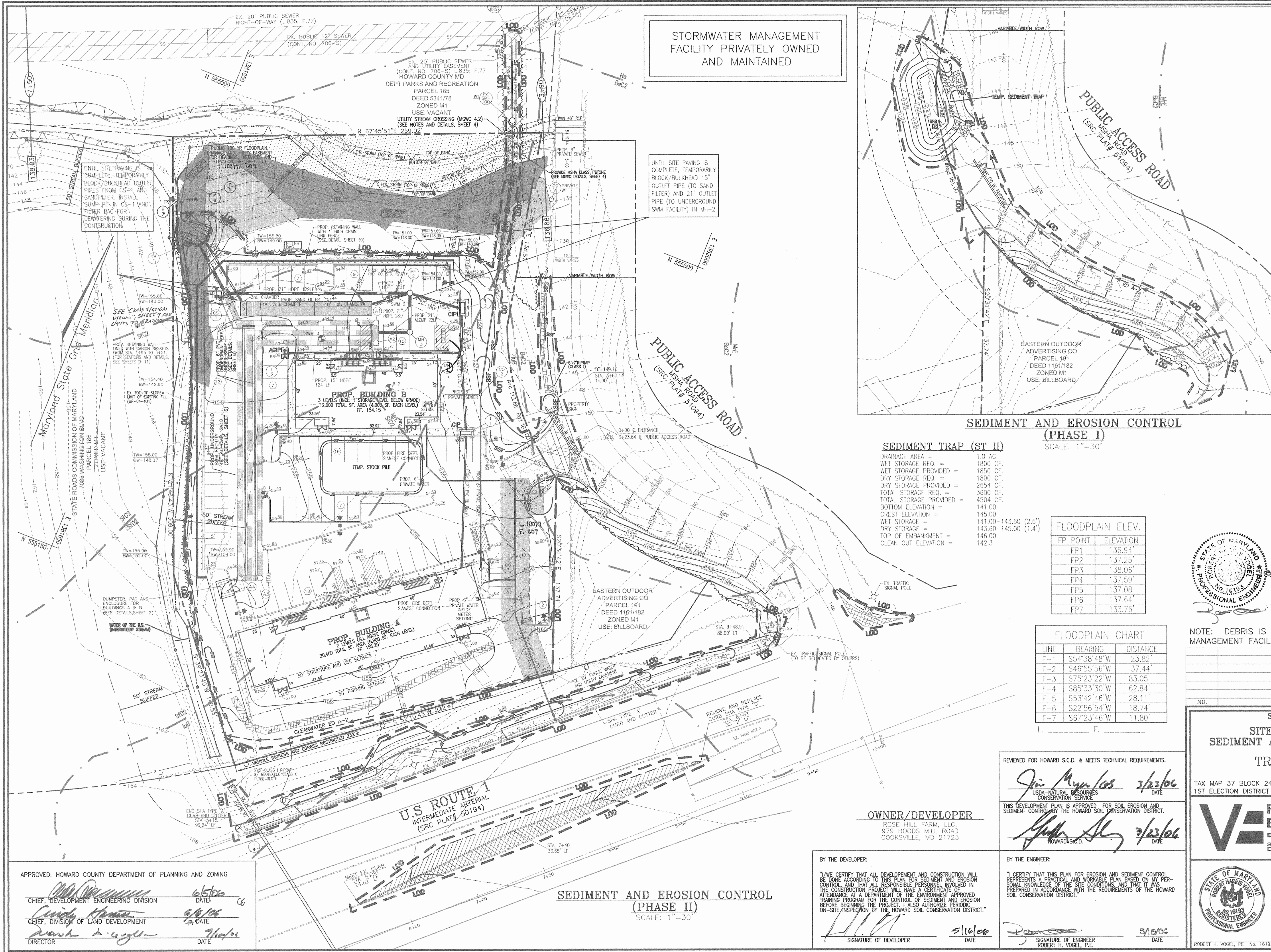
TAX MAP 37 BLOCK 24 PARCEL '189'
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8951

DESIGN BY: RHV
DRAWN BY: DZ
CHECKED BY: RHV
DATE: MAY 2006
SCALE: AS SHOWN
W.O. NO.: 00-134

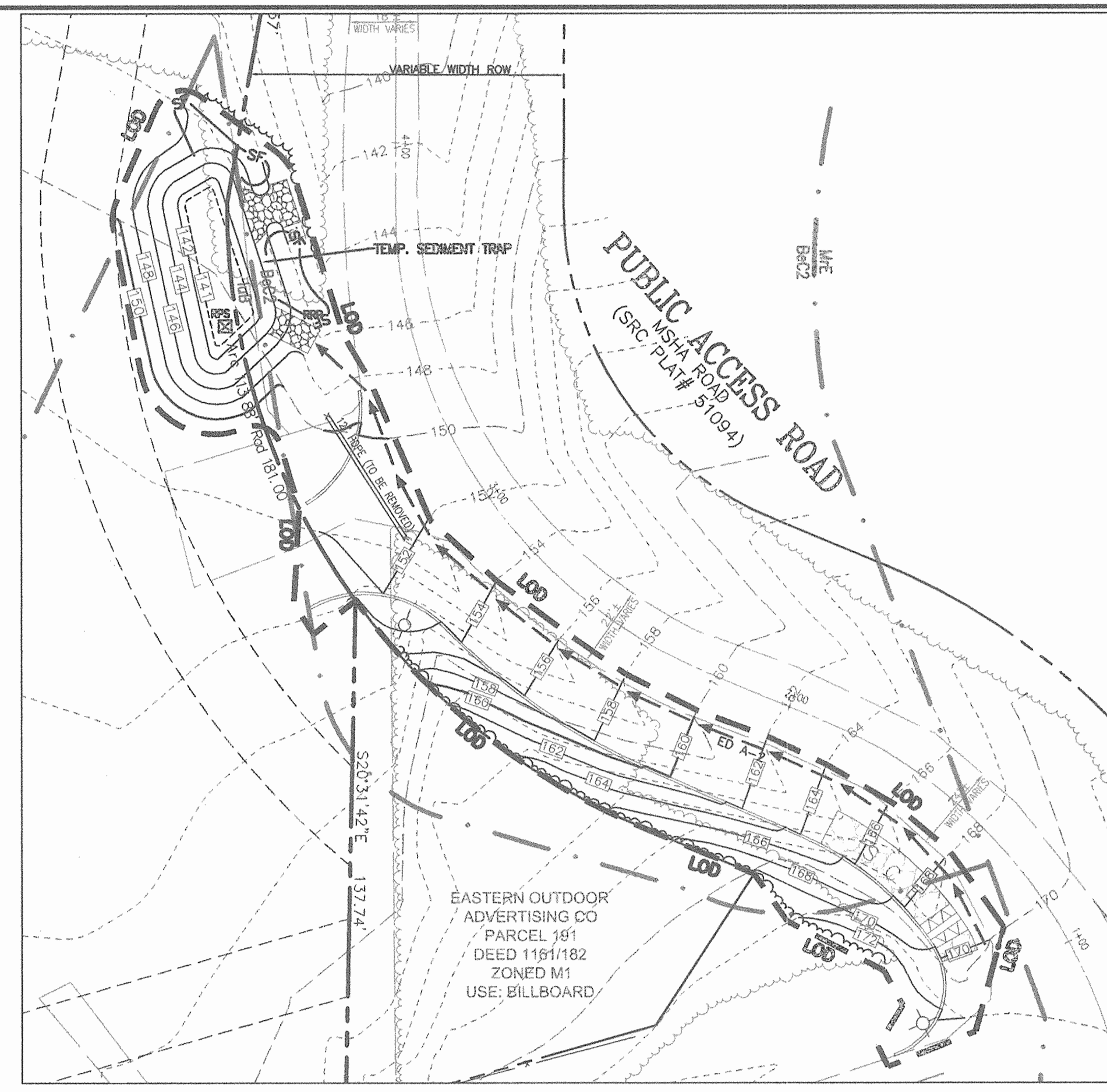
1 SHEET OF 10

ROBERT H. VOGEL, PE No. 16193



STORMWATER MANAGEMENT FACILITY PRIVATELY OWNED AND MAINTAINED

UNTIL SITE PAVING IS COMPLETE, TEMPORARILY BLOCK/BULKHEAD 15" OUTLET PIPE (TO SAND FILTER) AND 21" OUTLET PIPE (TO UNDERGROUND SWM FACILITY) IN MH-2



SEDIMENT AND EROSION CONTROL (PHASE I)

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

FLOODPLAIN ELEV.

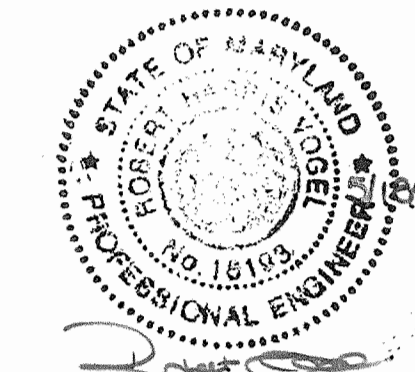
FP POINT	ELEVATION
FP1	136.94'
FP2	137.25'
FP3	138.06'
FP4	137.59'
FP5	137.08'
FP6	137.64'
FP7	133.76'

FLOODPLAIN CHART

LINE	BEARING	DISTANCE
F-1	S54°38'48"W	23.82'
F-2	S46°55'56"W	37.44'
F-3	S75°23'22"W	83.05'
F-4	S85°33'30"W	62.84'
F-5	S53°42'46"W	28.11'
F-6	S22°56'54"W	18.74'
F-7	S67°23'46"W	11.80'

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING GUY WIRE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING SD MANHOLE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING VEGETATION (APPROXIMATE LOCATION)
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MIC2 BFB8
- SF
- SOILS BOUNDARY
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- CIP
- AGIP
- RPS
- AT GRADE INLET PROTECTION
- REMOVABLE PUMPING STATION
- PROPOSED LIGHTPOLE
- PROPOSED SIDEWALK
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL MATTING
- PUBLIC 100 YR FLOODPLAIN DRAINAGE AND UTILITY EASEMENT
- STEEP SLOPES
- Moderate Slopes
- EXISTING CONC. TO BE REMOVED
- PROP. SHA PAVING TO BE PROVIDED (SEE DETAIL, SHEET 2)



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

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
SITE GRADING PLAN, AND
SEDIMENT AND EROSION CONTROL PLAN**

**TROY-100 OFFICES
US RT 1**

TAX MAP 37 BLOCK 24
1ST ELECTION DISTRICT

PARCEL '189'
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS**

8407 MAIN STREET
ELLICOTT CITY, MD 21043

TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHV
DRAWN BY: DZ
CHECKED BY: RHV
DATE: MAY 2006
SCALE: 1" = 30'
W.O. NO.: 00-134

3 SHEET OF 10

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Chief, Division of Land Development
Director

6/5/06
6/6/06
7/10/06

SEDIMENT AND EROSION CONTROL (PHASE II)

BY THE DEVELOPER:

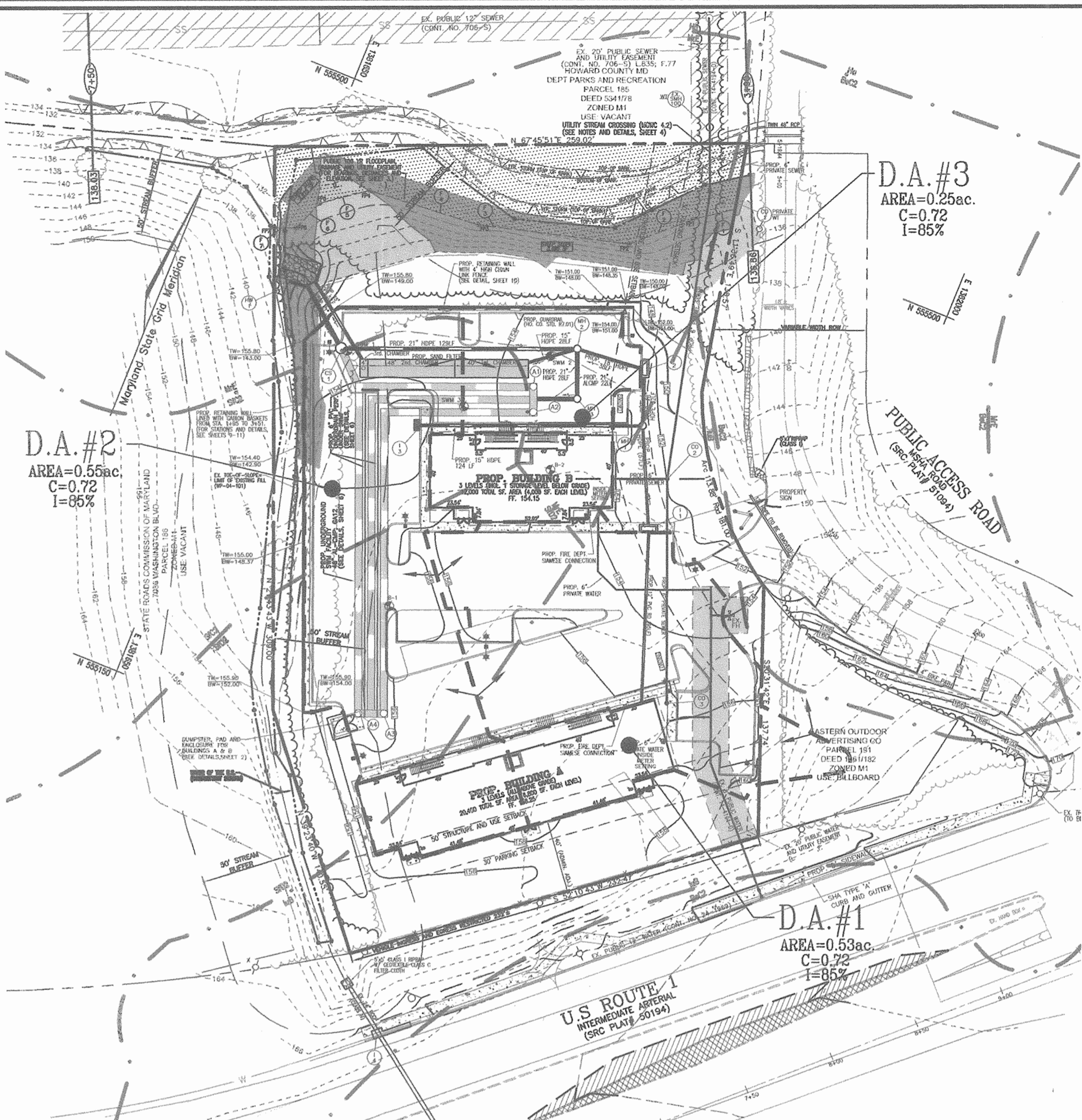
I, ROSE HILL FARM, LLC, CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING 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: 5/16/06

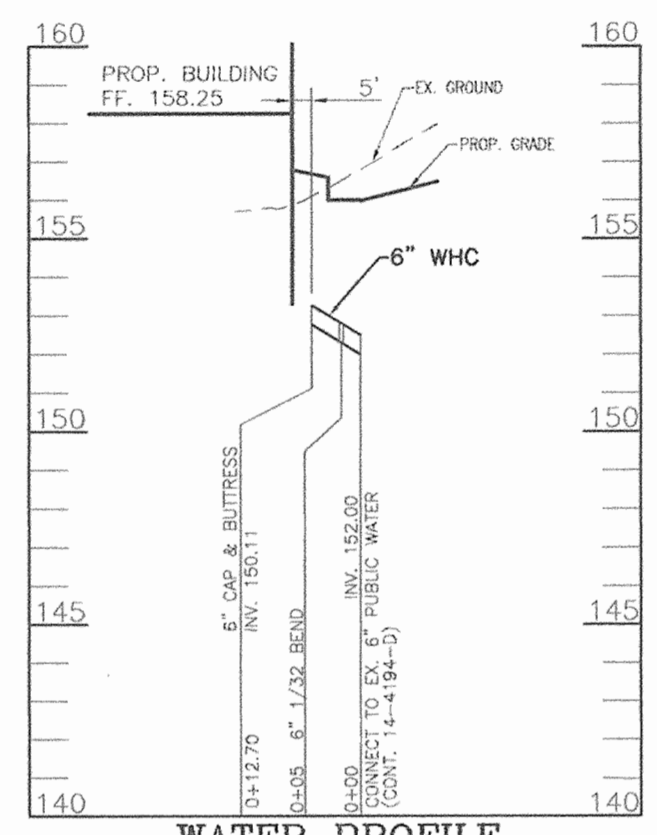
BY THE ENGINEER:

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.

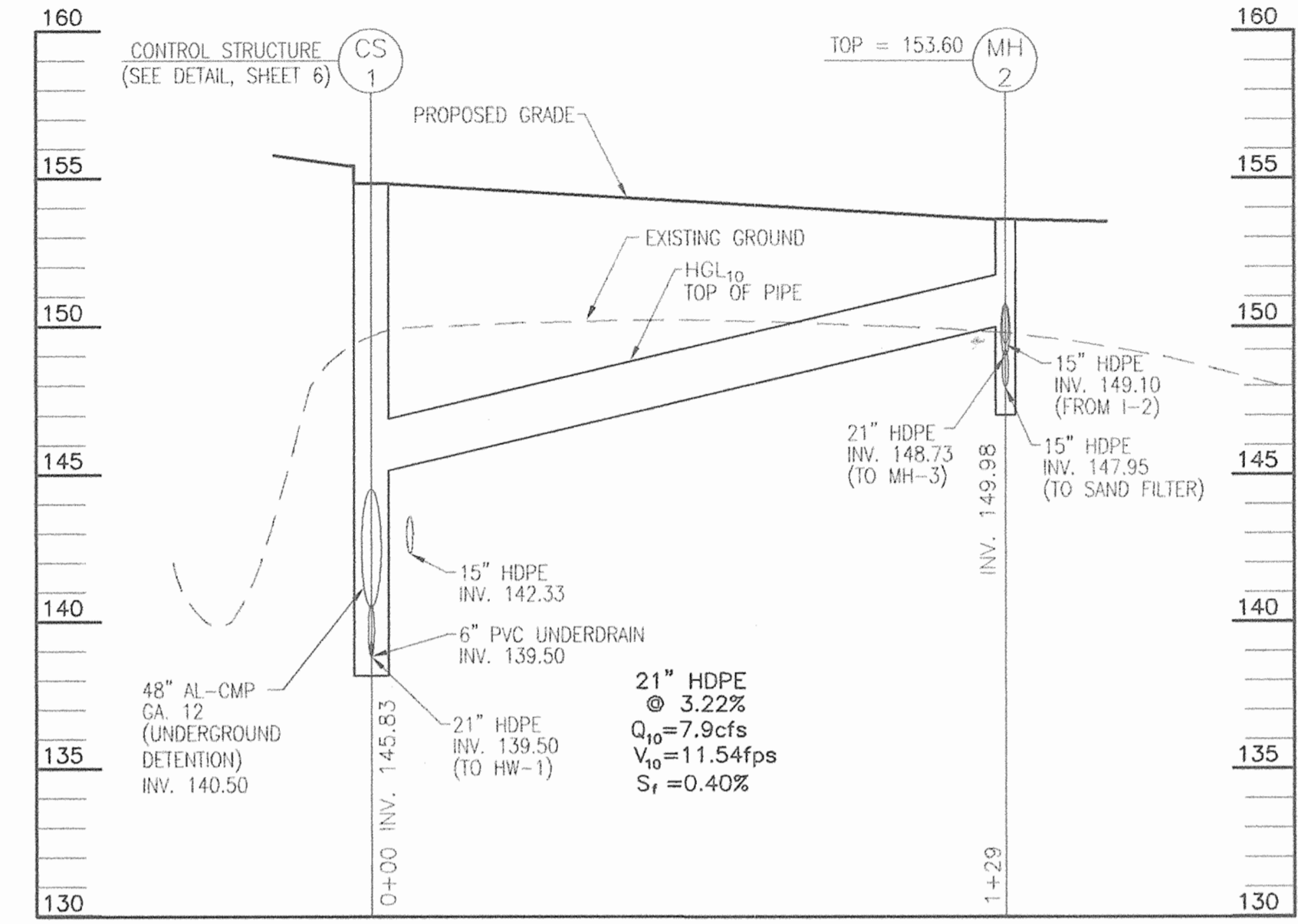
Signature of Engineer: [Signature] DATE: 5/18/06



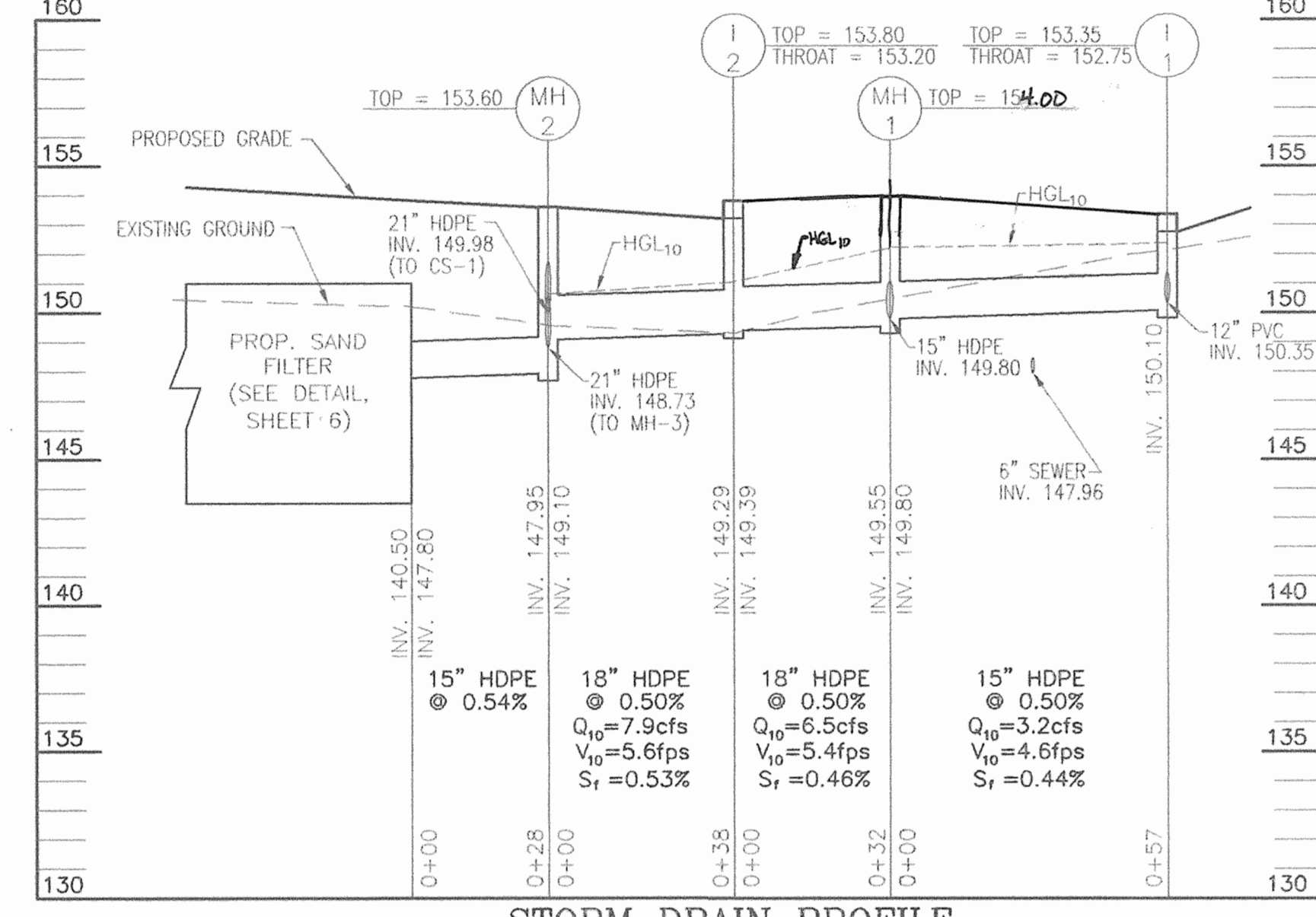
STORM DRAIN DRAINAGE AREA MAP
SCALE: 1"=50'



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



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=30'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=30'
VERTICAL - 1"=5'

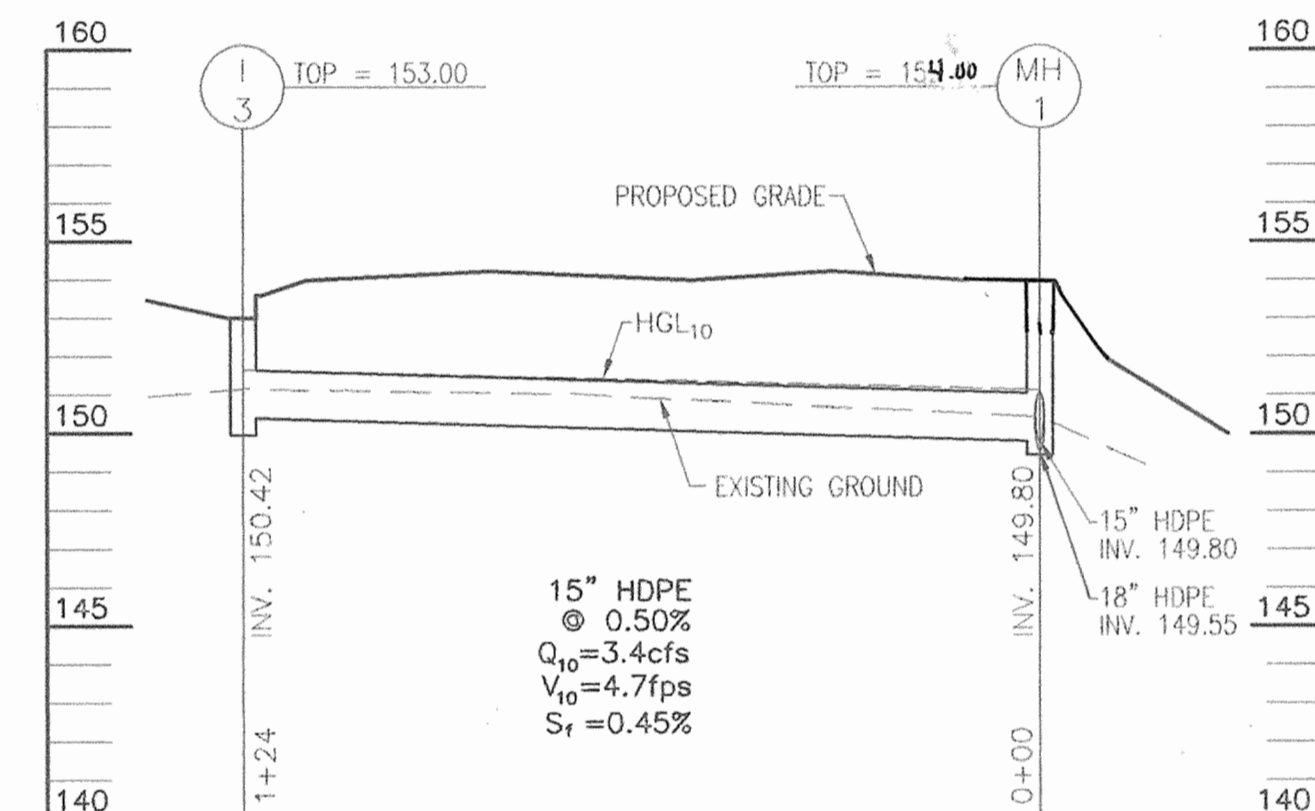
PIPE SCHEDULE

SIZE	TYPE	LENGTH
12"	PVC	95 LF
15"	HDPE	262 LF
18"	HDPE	70 LF
21"	HDPE	65 LF
21"	ALCMP	22 LF
48"	ALCMP	826 LF
6"	SOLID PVC	42 LF
6"	PERF. PVC	356 LF

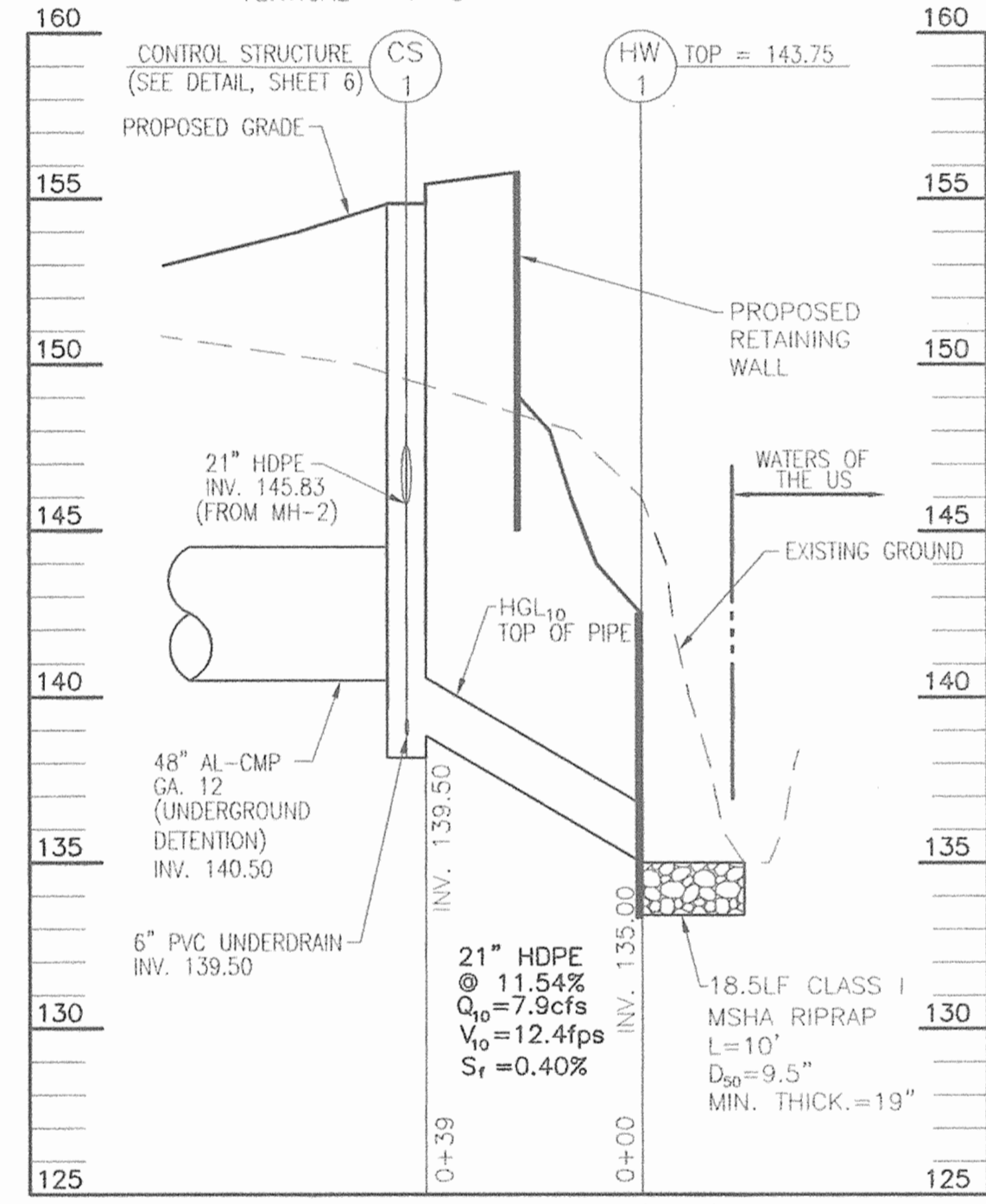
STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-1	A-10 Inlet	N 555,331 E 1,381,892	153.35	150.35	152.45	SD 4.02
I-2	A-10 Inlet	N 555,411 E 1,381,856	153.80	149.55	149.30	SD 4.02
I-3	Double Type 'S' Combination Inlet	N 555,336 E 1,381,753	153.00		150.42	SD 4.34
I-4	COG Inlet (See Note 4, below)	N 555,018 E 1,381,857	167.46	154.53	154.43	MD 374.31
MH-1	Precast Manhole (4')	N 555,392 E 1,381,898	154.00	149.90	149.90	G 5.12
MH-2	Precast Manhole (4')	N 555,408 E 1,381,819	153.60	149.10	149.10	G 5.12
MH-3	Precast Manhole (4')	N 555,382 E 1,381,829	154.04	148.00	145.00	G 5.12
HW-1	Type 'A' Headwall (72" specs.)	N 555,363 E 1,381,666	142.50		135.00	SD 5.11
CS-1	Control Structure	N 555,360 E 1,381,698	(See Detail, Sheet 5)			

NOTE: 1. Top elevations are to the center of the structure at top of curb for Single and Double Type 'S' Comb. 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.
4. Contractor to field verify invert at I-4 prior to construction.

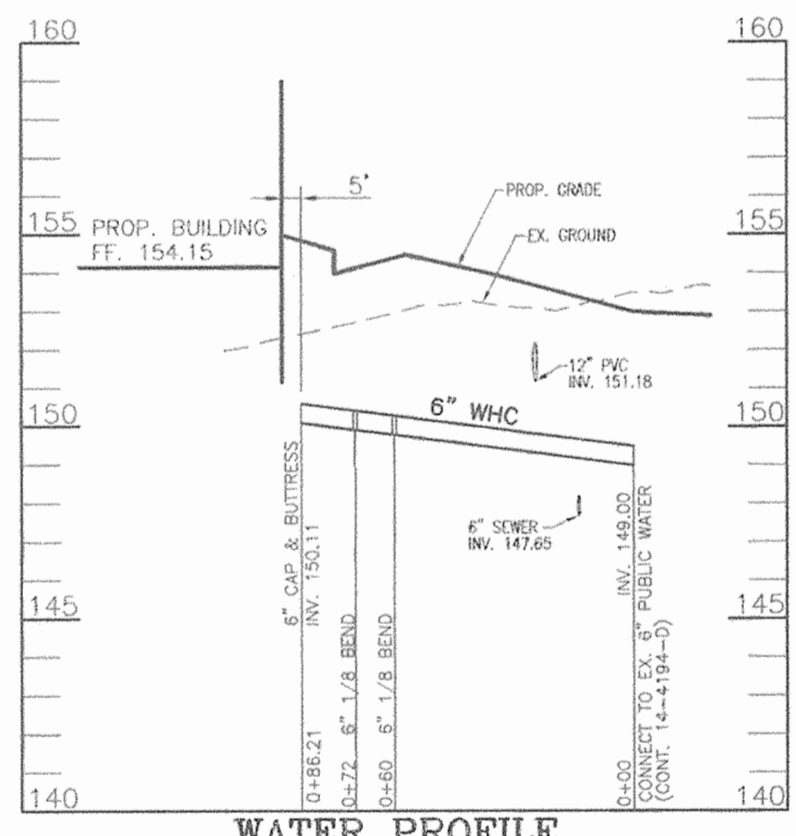


STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=30'
VERTICAL - 1"=5'

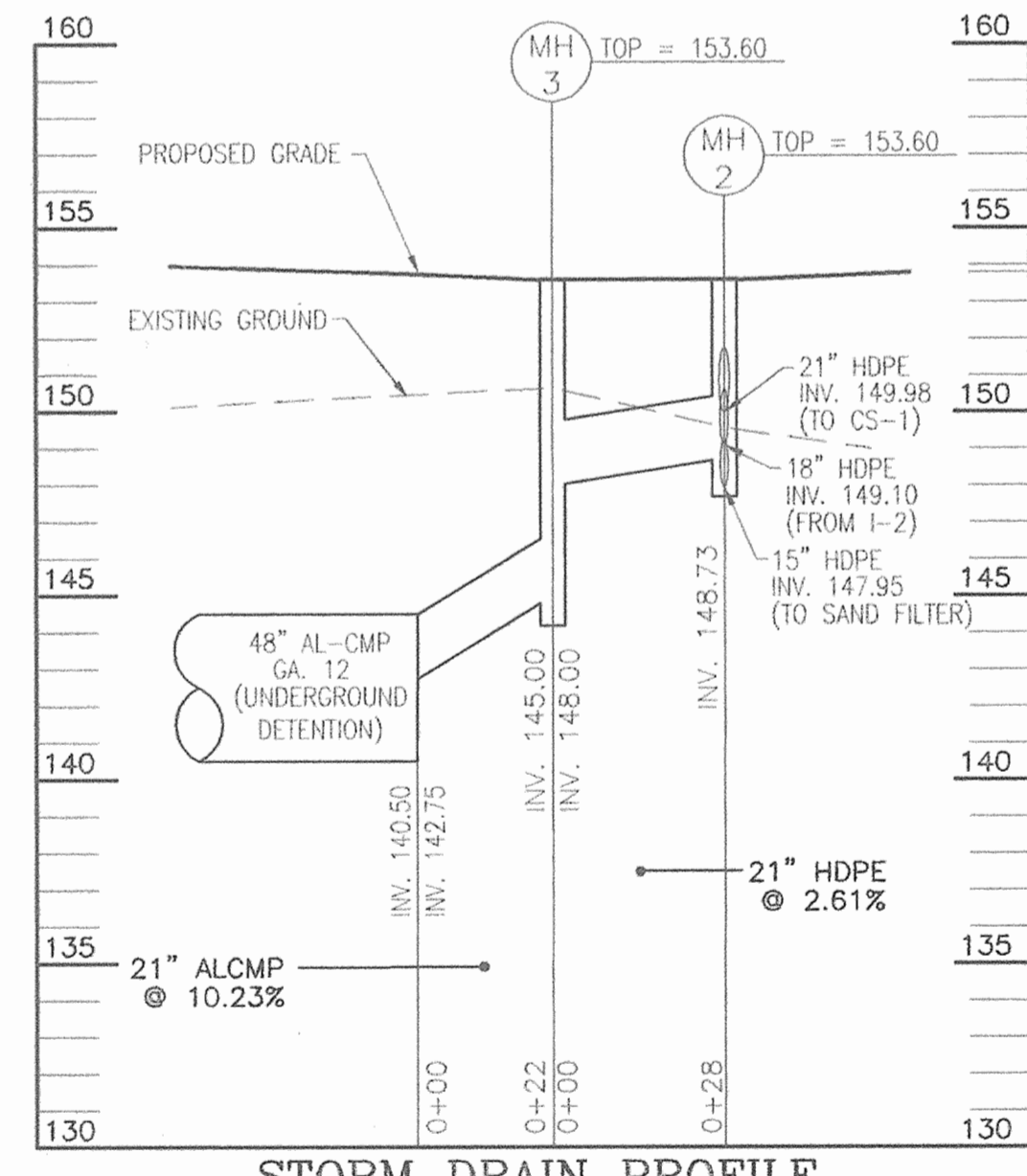


OUTFALL PROFILE
SCALE: HORIZONTAL - 1"=30'
VERTICAL - 1"=5'

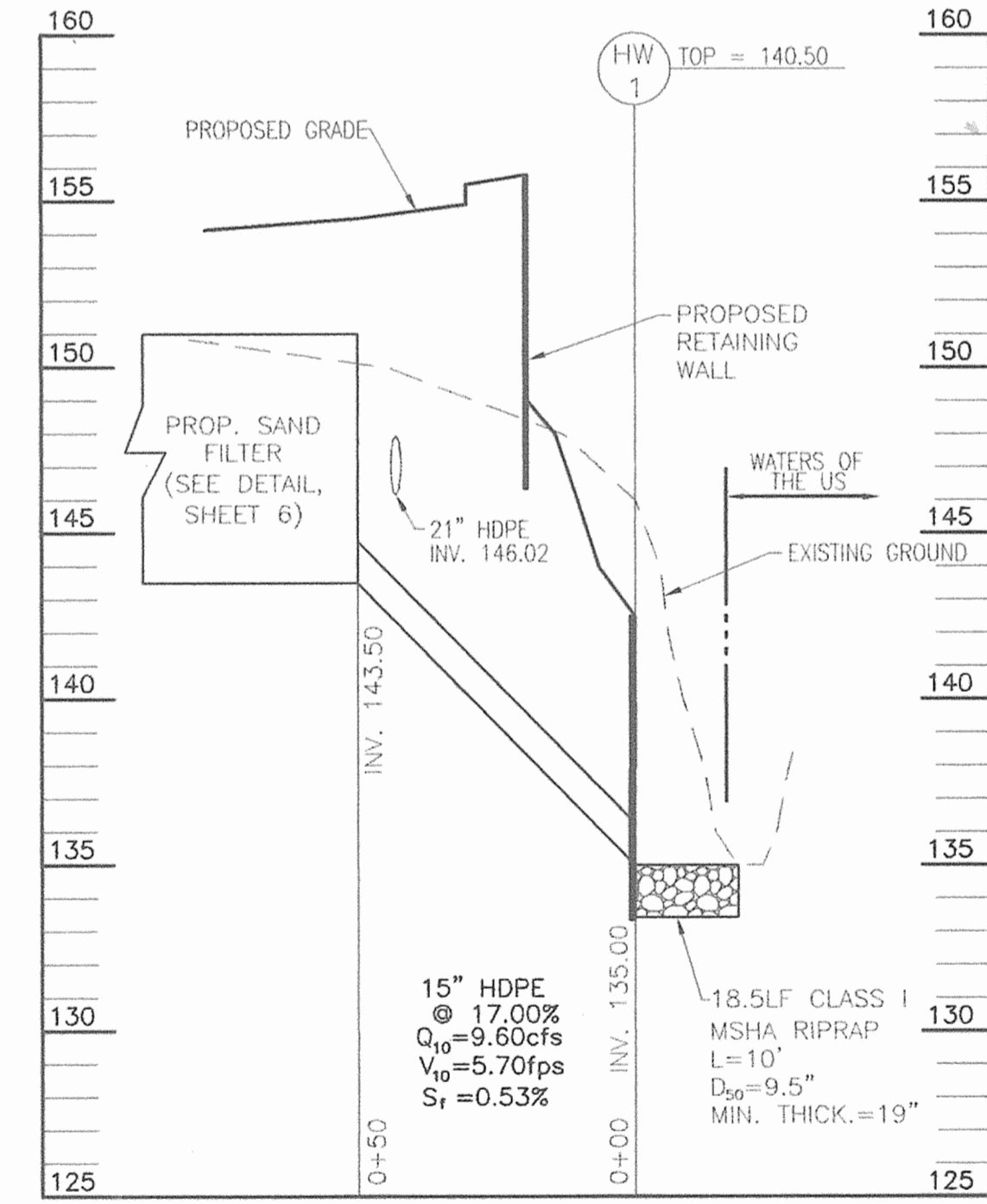
NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.



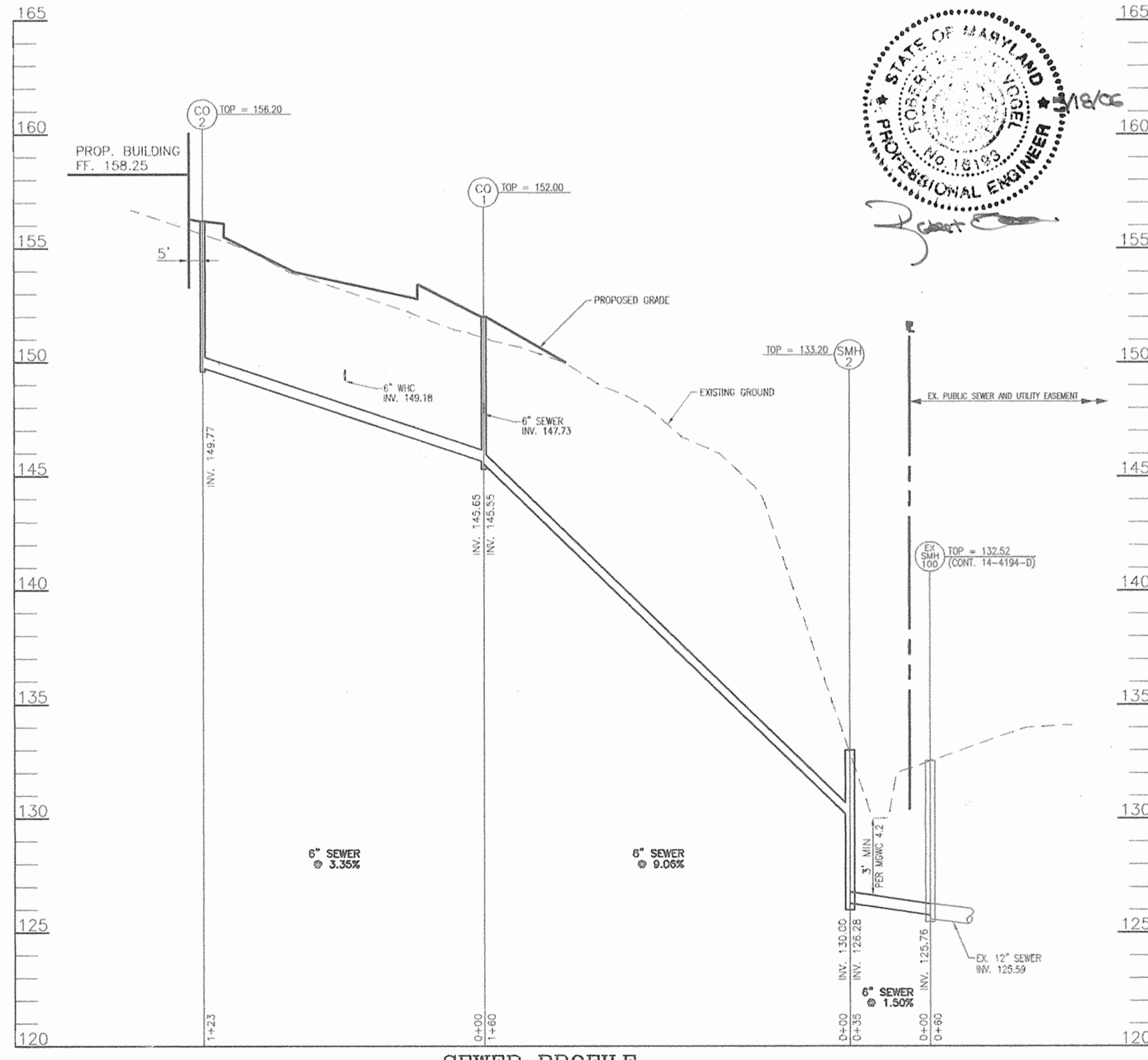
WATER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=30'
VERTICAL - 1"=5'



SANDFILTER TO HW-1 PROFILE
SCALE: HORIZONTAL - 1"=30'
VERTICAL - 1"=5'



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



OWNER/DEVELOPER
ROSE HILL FARM, LLC
979 HOODS MILL ROAD
COOKSVILLE, MD 21723

NOTE: SEE SHEET 3 FOR FLOODPLAIN CHART.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

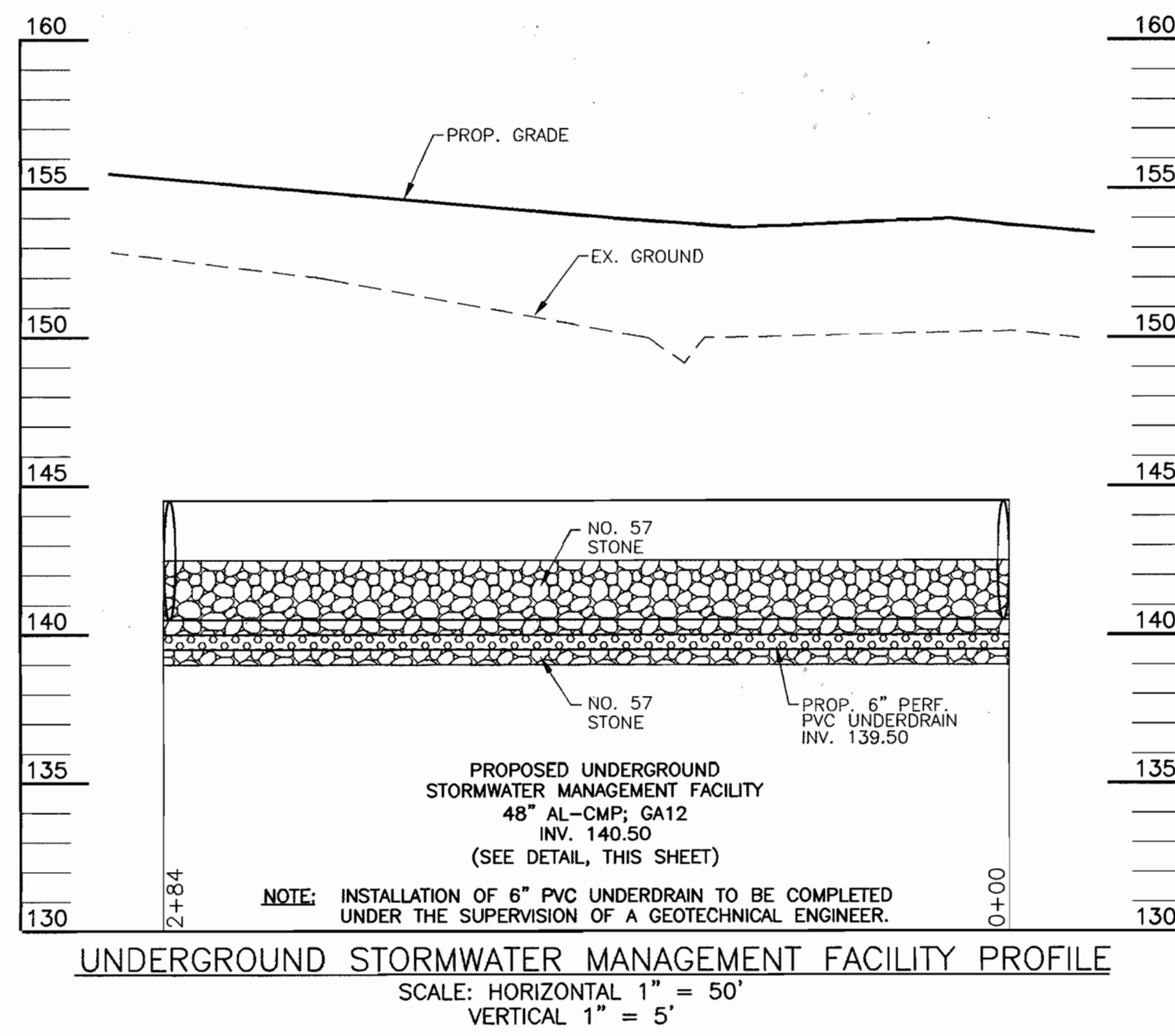
DATE: 6/16/05
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 DATE: 6/16/05

SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP,
AND UTILITY PROFILES
TROY-100 OFFICES
US RT 1
 TAX MAP 37 BLOCK 24
 1ST ELECTION DISTRICT
 PARCEL '189'
 HOWARD COUNTY, MARYLAND

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



DESIGN BY: RHV
 DRAWN BY: DZ
 CHECKED BY: RHV
 DATE: MAY 2006
 SCALE: AS SHOWN
 W.O. NO.: 00-134

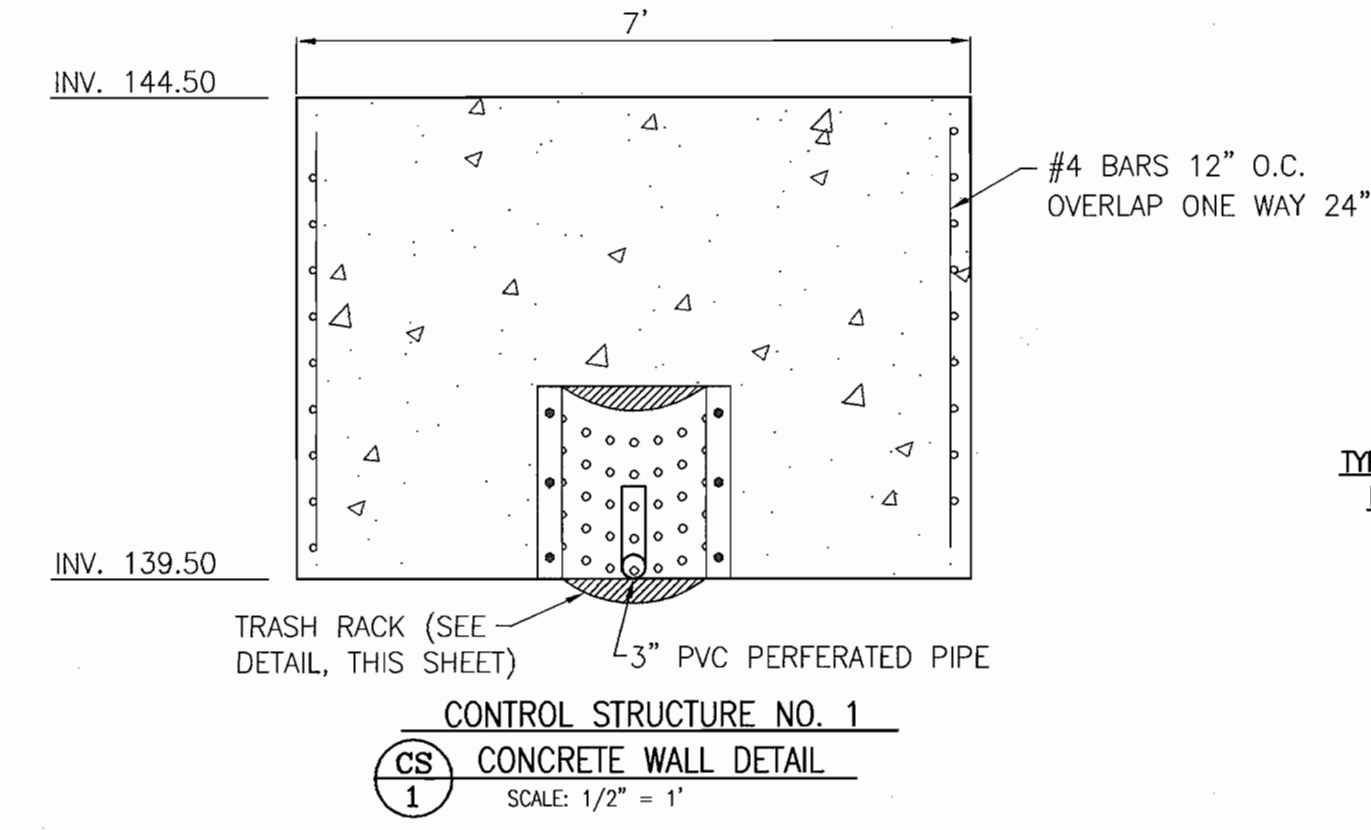


MGWC 4.2: GABIONS
RIGID ENGINEERING TECHNIQUE FOR BANK STABILIZATION

DESCRIPTION
 THE WORK SHOULD CONSIST OF PROTECTING STREAMBANKS AGAINST EROSION CURRENTS WITH STONE-FILLED WIRE BASKETS.

MATERIAL SPECIFICATIONS
 FILTER FABRIC: STIFF FILTER CLOTH MAY BE USED CAUTIOUSLY BASED ON THE 1994 MD STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 STONES: ACCEPTABLE STONE DIMENSIONS SHOULD BE A FUNCTION OF THE BASKET THICKNESS AS GIVEN BELOW.
SUGGESTED STONE DIMENSIONS FOR DESIGN BASKET THICKNESS
 BASKET THICKNESS: 9, 12, 18 IN. 4-7 IN. 4-12 IN. 36 IN.

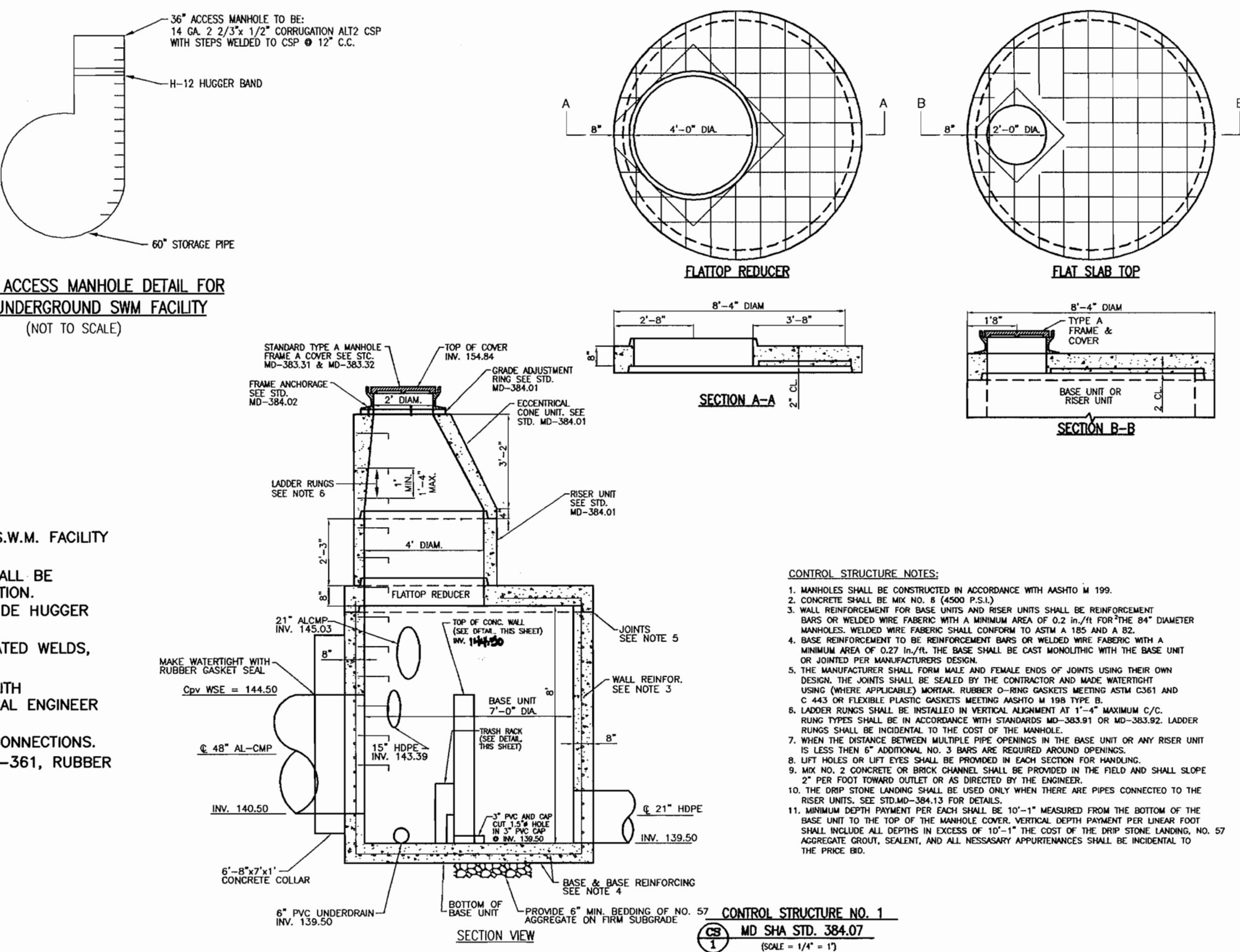
INSTALLATION GUIDELINES
 ALL EROSION AND SEDIMENT CONTROL DEVICES, INCLUDING FILTER BAGS, SHOULD BE IMPLEMENTED AS THE FIRST ORDER OF BUSINESS ACCORDING TO A PLAN APPROVED BY THE WMA OR LOCAL AUTHORITY. (SEE THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.) THE RECOMMENDED CONSTRUCTION PROCEDURE IS AS FOLLOWS (REFER TO DETAIL 2.3):
 1. THE CONTRACTOR SHOULD INSURE THAT A CONTINUOUS PERIMETER CONTROL BARRIER IS IN PLACE TO MINIMIZE THE AMOUNT OF POLLUTANTS ENTERING THE FLOW. A DIVERSION PIPE AS SHOWN IN MGWC 1. THE CONSTRUCTION AREA SHOULD BE DETERMINED DURING PLACEMENT OF THE GABION REVETMENT'S FOUNDATION.
 2. EXCAVATION, INCLUDING CUTOFF WALLS AND STALE FOUNDATION, SHOULD BE MADE IN REASONABLE CLOSE CONFORMITY WITH THE EXISTING STREAM SLOPE SUCH THAT THE PLACED BASKETS UNDERMINING FROM WATER FLOW AND OVERTURNING FROM LATERAL EARTH PRESSURE. THE FOUNDATION SHOULD ACCOMMODATE THE PLACEMENT OF AT LEAST ONE LAYER OF GABION BASKETS BELOW THE CHANNEL INVERT ELEVATION. THE SUBGRADE SHOULD BE SMOOTH, FIRM AND FREE FROM PROTRUDING OBJECTS OR VOIDS THAT WOULD AFFECT THE PROPER POSITIONING OF THE WIRE BASKETS OR DAMAGE THE FILTER CLOTH.
 3. FILTER FABRIC SHOULD BE CAREFULLY AND LOOSELY PLACED ON THE PREPARED SUBGRADE AND SECURED. ADJACENT STRIPS SHOULD OVERLAP A MINIMUM OF 8 IN. TO AVOID DAMAGING THE FILTER CLOTH. CARE SHOULD BE EXERCISED IN PLACING, STRETCHING, AND HOLDING THE EMPTY BASKETS UNITS IN GOOD ALIGNMENT. IF THE FILTER FABRIC IS TORN OR DAMAGED, IT SHOULD BE REPAIRED OR REPLACED.
 4. PLACEMENT OF THE WIRE BASKETS UNITS SHOULD BEGIN WITH THE CUTOFF WALLS. THE EMPTY WIRE BASKETS SHOULD BE SET ON THE PREPARED SUBGRADE AND FILTER FABRIC, AND THE VERTICAL ENDS SHOULD BE BOUND TOGETHER WITH WIRE TIES AT THE SPACING THAT IS ADEQUATE TO PERMIT STRETCHING OF THE UNITS FOR INSTALLATION PURPOSES. STAKES, PINS OR OTHER ACCEPTABLE METHODS SHOULD BE USED TO INSURE A GOOD ALIGNMENT OF THE EMPTY WIRE BASKET UNITS. TIEBACKS MAY BE REQUIRED TO GUARD AGAINST ROTATIONAL OVERTURNING OF THE STREAMBANK.
 5. THE EMPTY BASKETS SHOULD BE FILLED CAREFULLY WITH STONE PLACE BY HAND OR MACHINE, IN A MINIMUM OF TWO COURSES, TO ASSURE GOOD ALIGNMENT WITH MINIMUM VOIDS BETWEEN STONES AND TO AVOID BULGING OF THE MESH. THE MAXIMUM HEIGHT FROM WHICH STONE MAY BE DROPPED INTO THE SIRE MESH SHOULD BE 3 FEET. CARE SHOULD BE TAKEN IN PLACING THE TOP LAYER OF STONE TO ASSURE A UNIFORM SURFACE THIS AVOIDING ANY BULGING OF THE LID MESH. AFTER A BASKET UNIT HAS BEEN FILLED, ITS LID SHOULD BE BENT OVER UNTIL IT MEETS THE END OF THE UNIT. THE LID SHOULD THEN BE SECURED TO THE SIDES AND ENDS WITH WIRE TIES. WHEN COMPLETE BASKET UNIT CANNOT BE INSTALLED ON SLOPES OR CHANNELS BECAUSE OF SPACE LIMITATIONS, THE BASKET UNIT SHOULD BE CUT TO FIT IN A MANNER APPROVED BY THE WMA.
 6. ALL EXCAVATION VOIDS EXISTING ALONG THE EDGES OF THE COMPLETED GABIONS SHOULD BE BACKFILLED AND PERMANENTLY STABILIZED IN ACCORDANCE WITH APPROVED SEDIMENT AND EROSION CONTROL PLAN.



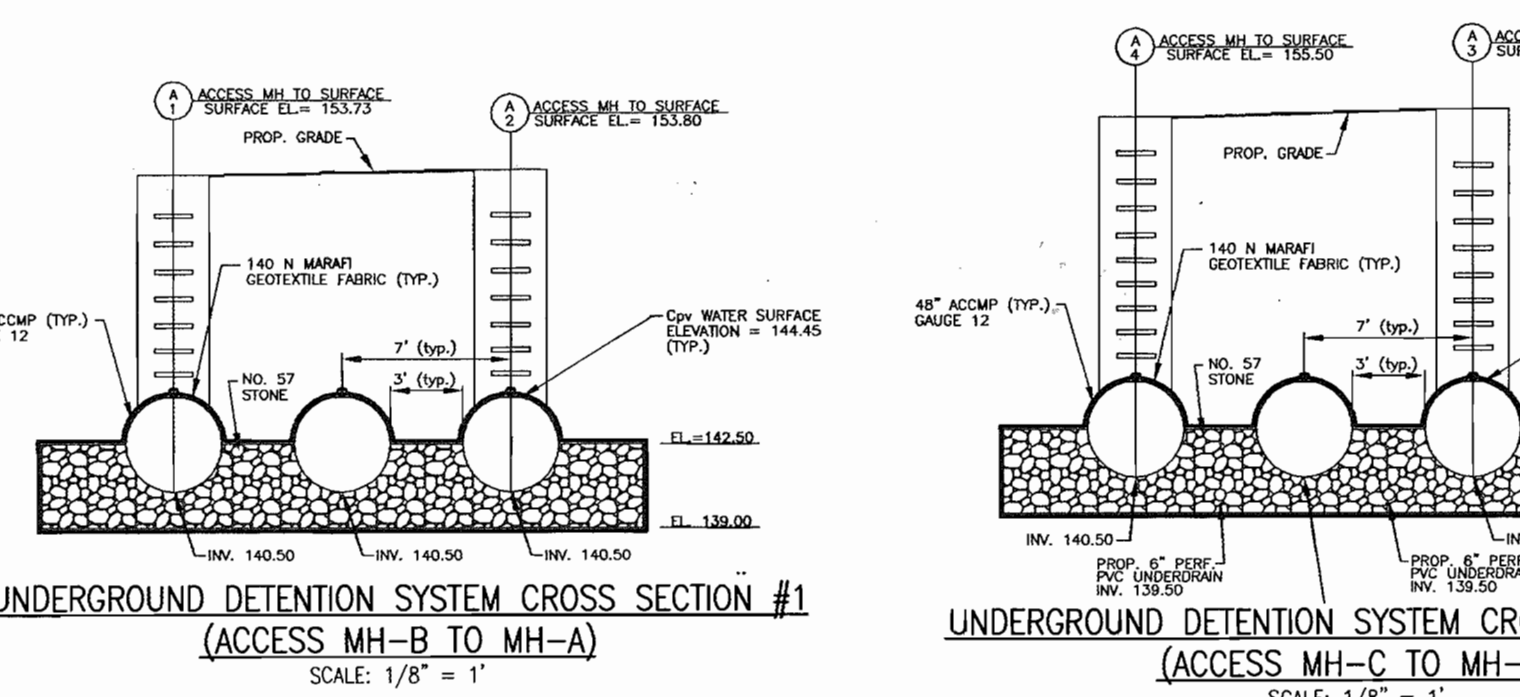
CONTROL STRUCTURE CONCRETE WALL NOTES

1. CONCRETE WALL SHALL BE MIX NO. 6 (4500 p.s.i.)
2. WALL REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MIN. AREA OF 0.21 in²/ft WELDED WIRE FABRIC.
3. WALL SHALL BE CAST-IN-PLACE, POURED MONOLITHIC USING FORMS. IN LIEU OF MONOLITHIC POUR, WALL SHALL BE CONNECTED BY OVERLAPPING BARS ONE WAY 24", AND SEALED WITH GREEN STREAK WATERSTOP (OR APPROVED EQUIVALENT)

- NOTE:** CONTRACTOR SHALL ENSURE THAT THE S.W.M. FACILITY IS WATERTIGHT.
1. ALL PIPE CONNECTIONS AT STRUCTURES SHALL BE CEMENTED TO ENSURE WATER TIGHT CONNECTION.
 2. ALL ACCMP PIPE JOINTS SHALL USE 12" WIDE HUGGER BAND WITH "O" RING GASKETS.
 3. TEES AND ELBOWS TO BE FACTORY FABRICATED WELDS, ONE PIECE.
 4. TRENCH BEDDING TO BE IN ACCORDANCE WITH RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEER IN THE FIELD.
 5. PROVIDE WATER TIGHT JOINTS AT ALL PIPE CONNECTIONS. (FOR REINFORCED CONCRETE PIPE, ASTM C-361, RUBBER GASKET PIPE).

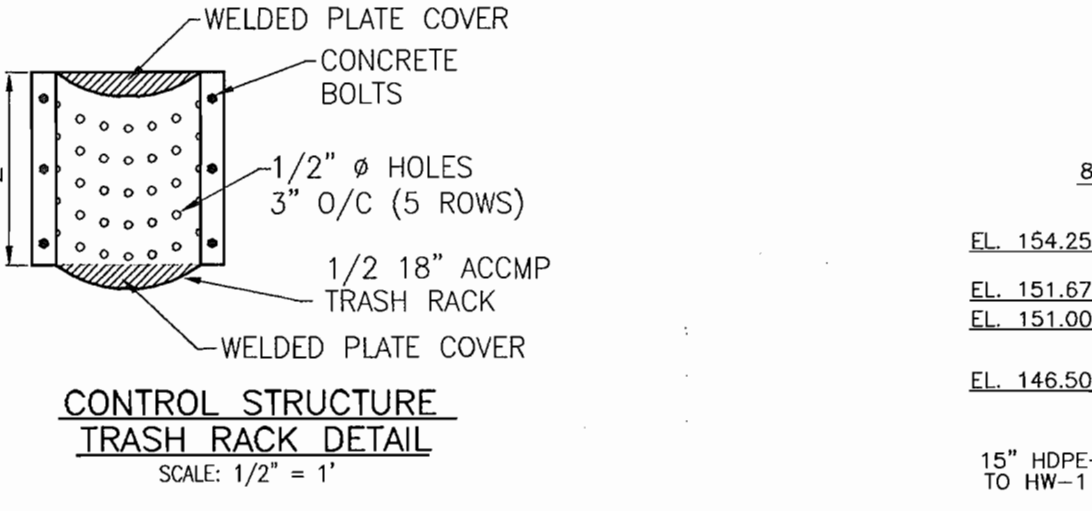
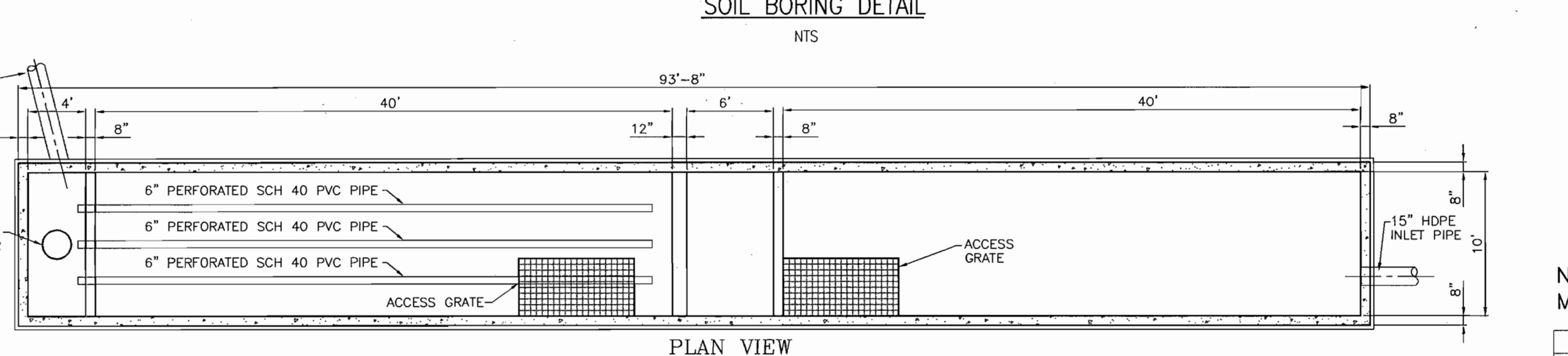
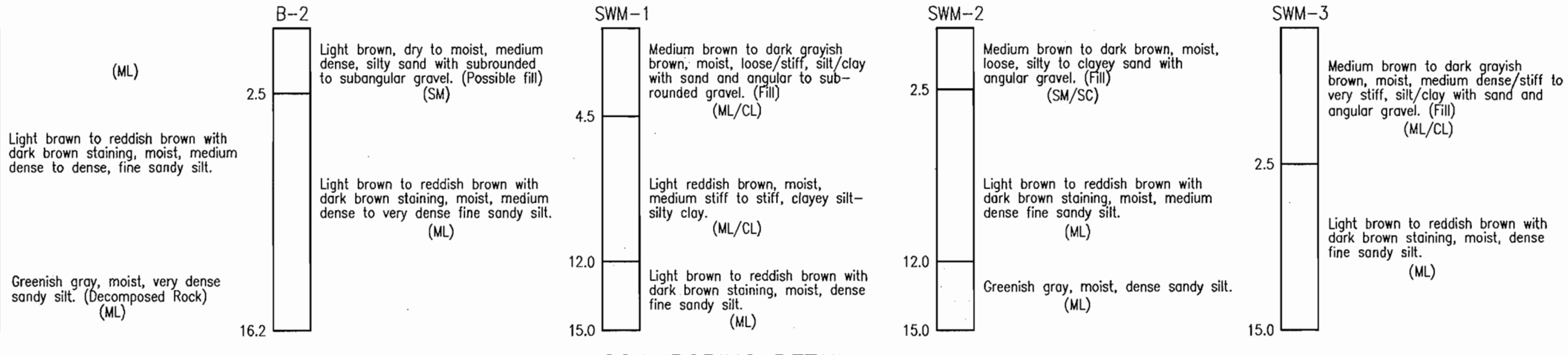
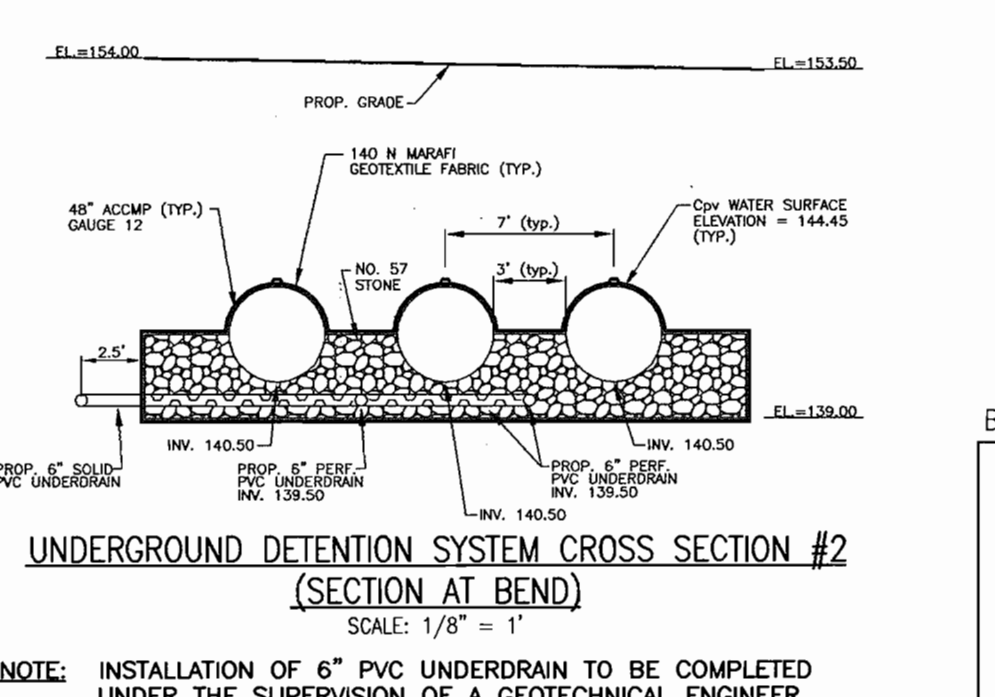


- CONTROL STRUCTURE NOTES:**
1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASHRAE 109
 2. CONCRETE SHALL BE MIX NO. 6 (4500 P.S.I.)
 3. WALL REINFORCEMENT FOR BASE UNITS AND RISER UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.21 IN²/FT FOR THE 8\"/>
 - 4. BASE REINFORCEMENT TO BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.21 IN²/FT FOR THE 8\"/>
 - 5. THE MANHOLES SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER TIGHT USING FORMS APPROVED BY THE ENGINEER. GREEN STREAK WATERSTOP WITH CHASE AND C AND ON FILLING PLASTIC GASKETS MEETING ASHRAE 109 TYPE B.
 - 6. LADDER RINGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AS 1\"/>
 - 7. WALLS SHALL BE IN ACCORDANCE WITH DIMENSIONS IN THE SHEET UNLESS OTHERWISE NOTED. ALL JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER TIGHT USING FORMS APPROVED BY THE ENGINEER. GREEN STREAK WATERSTOP WITH CHASE AND C AND ON FILLING PLASTIC GASKETS MEETING ASHRAE 109 TYPE B.
 - 8. LADDER RINGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AS 1\"/>
 - 9. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH RISER PIPE MANHOLE.
 - 10. THE OPEN STONE UNDERLID SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE DETAIL 2.3 FOR DETAILS.
 - 11. MINIMUM DEPTH FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER, VERTICAL OFFSET PERMANENT FOR LADDER FOOT SHALL BE 12\"/>
 - 12. ALL EXCAVATION VOIDS EXISTING ALONG THE EDGES OF THE COMPLETED GABIONS SHOULD BE BACKFILLED AND PERMANENTLY STABILIZED IN ACCORDANCE WITH APPROVED SEDIMENT AND EROSION CONTROL PLAN.



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND STORMWATER FILTRATION SYSTEM (F-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 PONDS 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.



STORMWATER MANAGEMENT REQUIREMENTS					
AREA	REQUIREMENT	VOLUME REQUIREMENT WITHOUT CREDITS	CREDITS	VOLUME REQUIREMENT WITH CREDITS	NOTES
2.38 AC.					
1	WATER QUALITY VOLUME (WQV)				UNDERGROUND SANDFILTER
	DEVELOPED AREAS	0.07 AC. FT.	---	0.08 AC. FT.	
	RE-DEVELOPED AREAS	0.01 AC. FT.	---		
2	RECHARGE VOLUME (REV)				STONE TRENCH UNDER SANDFILTER
	DEVELOPED AREAS	0.01 AC. FT.	---	0.01 AC. FT.	
	RE-DEVELOPED AREAS	0.00 AC. FT.	---		
3	CHANNEL PROTECTION VOLUME (CPV)	0.18 AC. FT.	---	0.18 AC. FT.	APPROX. 850 FT OF 48\"/>
4	OVERHEAD FLOOD PROTECTION (O _F)				
5	EXTREME FLOOD VOLUME (Q _{100Y})				

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *[Signature]* DATE: 6/26/06

Chief, Division of Land Development: *[Signature]* DATE: 6/6/06

Director: *[Signature]* DATE: 7/10/06

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCE CONSERVATION SERVICE: *[Signature]* DATE: 7/23/06

HOWARD S.C.D.: *[Signature]* DATE: 7/23/06

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] DATE: 7/16/06

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] DATE: 5/18/06

UNDERGROUND SAND FILTER CONSTRUCTION SPECIFICATIONS

1. PROVIDE MANHOLE AND/OR GRATES TO ALL UNDERGROUND AND BELOW GRADE STRUCTURES. MANHOLES SHALL BE IN COMPLIANCE WITH STANDARD SPECIFICATIONS FOR EACH COUNTY, BUT DIAMETERS SHOULD BE 30" MINIMUM (TO COMPLY WITH OSHA CONFINED SPACE REQUIREMENTS). ALUMINUM AND STEEL LOUVERED DOORS ARE ALSO ACCEPTABLE. TEN INCH WIDE (MINIMUM) MANHOLE STEPS (12" O.C.) SHALL BE CAST IN PLACE OR DRILLED AND MORTARED INTO THE WALL BELOW EACH MANHOLE. A 5" MINIMUM HEIGHT CLEARANCE FROM THE TOP OF THE SAND LAYER TO THE BOTTOM OF THE UPPER/SURFACE SLAB IS REQUIRED FOR ALL PERMANENT UNDERGROUND STRUCTURES. LIFT RINGS ARE TO BE SUPPLIED TO REMOVE/REPLACE TOP SLABS ON PRE-FABRICATED STRUCTURES. MANHOLE COVERS SHOULD ALLOW FOR PROPER VENTILATION.
2. UNDERGROUND SANDFILTERS SHOULD BE CONSTRUCTED WITH A GATE VALVE LOCATED JUST ABOVE THE TOP OF THE FILTER BED FOR DEWATERING IN THE EVENT THAT CLOGGING OCCURS.
3. UNDERGROUND SAND BEDS SHALL BE PROTECTED FROM TRASH ACCUMULATION BY A WIDE MESH GEOTEXTILE SCREEN TO BE PLACED ON THE SURFACE OF THE SAND BED; SCREEN IS TO BE ROLLED UP, REMOVED, CLEANED AND RE-INSTALLED DURING MAINTENANCE OPERATIONS.

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

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT NOTES AND DETAILS
TROY-100 OFFICES
US RT 1

TAX MAP 37 BLOCK 24
 1ST ELECTION DISTRICT

PARCEL '189'
 HOWARD COUNTY, MARYLAND

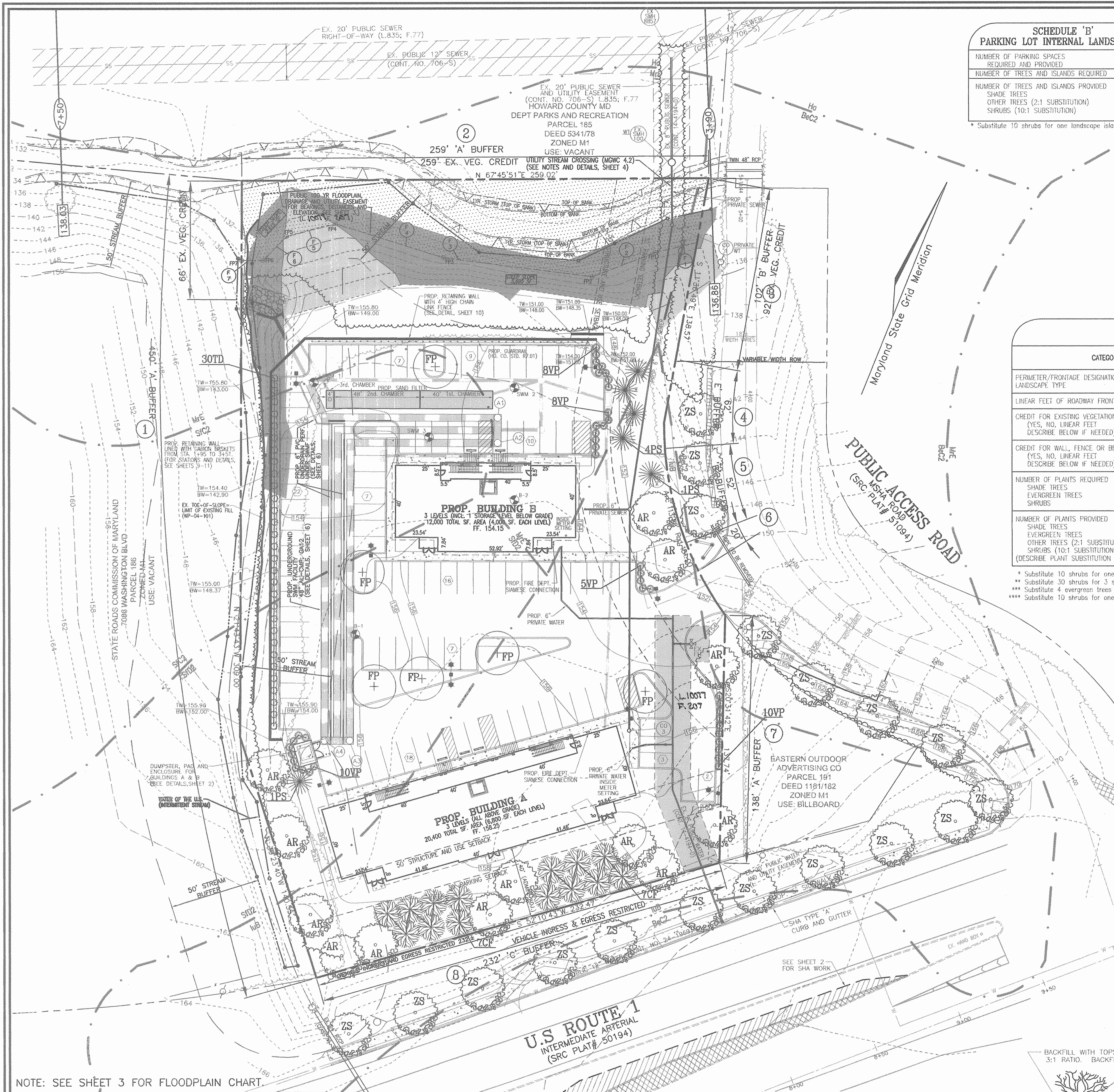
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
 ELLICOTT CITY, MD 21043

TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: RHV
 DRAWN BY: DZ
 CHECKED BY: RZ
 DATE: MAY 2006
 SCALE: AS SHOWN
 W.O. NO.: 00-131A

6 SHEET OF 10



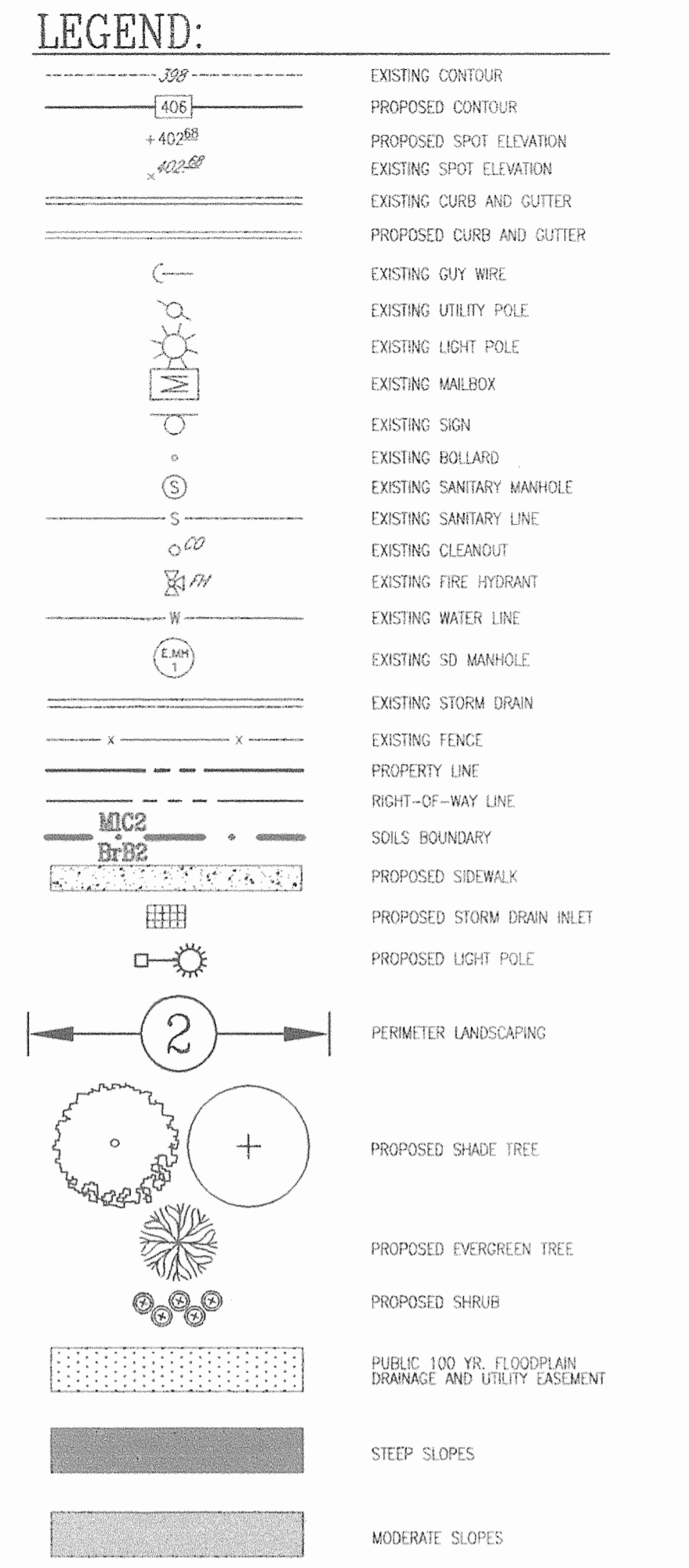
SCHEDULE 'B' PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES REQUIRED AND PROVIDED	110
NUMBER OF TREES AND ISLANDS REQUIRED	6
NUMBER OF TREES AND ISLANDS PROVIDED	6
SHADE TREES	6
OTHER TREES (2:1 SUBSTITUTION)	-
SHRUBS (10:1 SUBSTITUTION)	-

* Substitute 10 shrubs for one landscape island shade tree.

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
AR	14	ACER RUERUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2"-3" CAL.	B & B
FP	6	FRAXINUS P. 'PATMORE' PATMORE GREEN ASH	2 1/2"-3" CAL.	B & B
CF	14	PRINUS STROBUS EASTERN WHITE PINE	7-9' HT.	B & B
PS	6	CORNUS FLORIDA/WHITE FLOWERING DOGWOOD	7-9' HT.	B & B
VP	41	WIDENIUM PULCATUM 'MARISOL' MARBLE'S DOUBLE FILE VIBURNUM	30-36" HT.	B & B OR CONT.
TD	30	TANUS MEDIA 'DENSIFORMIS' DENSIFORMIS YEW	2 1/2"-3" HT.	B & B OR CONT.
ZS	18	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN JAPANESE ZELKOVA	2 1/2"-3" CAL.	B & B



SCHEDULE 'A' PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PER. PROPERTIES			ADJACENT TO ROADS					ADJACENT TO DUMPSTER
	1	2	7	3	4	5	6	8	9
PERIMETER/FRONTAGE DESIGNATION LANDSCAPE TYPE	A	A	A	B	E	B	E	C	D
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	450	250	138	102	62	52	20	232	15'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	YES 56'	YES 259'	NO	YES 92'	NO	NO	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	1:60 6**	1:60 0	1:60 2*	1:50 0	1:40 2***	1:50 1	1:40 1	1:40 6	1:60 0
SHADE TREES	-	-	-	1:40 0	-	1:40 1	-	1:20 12	1:10 2****
EVERGREEN TREES	-	-	-	-	1:04 16	-	1:04 5	-	-
SHRUBS	-	-	-	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED	3**	-	1*	0	0**	1	1	6	0
SHADE TREES	-	-	-	0	4**	1	-	14	1****
EVERGREEN TREES	-	-	-	0	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTION)	30**	-	10*	-	16	-	5	-	10****

* Substitute 10 shrubs for one shade tree in Perimeter 4.
 ** Substitute 30 shrubs for 3 shade trees in Perimeter 1.
 *** Substitute 4 evergreen trees for 2 shade trees in Perimeter 4.
 **** Substitute 10 shrubs for one evergreen tree in Perimeter 9.

STREET TREE CALCULATIONS

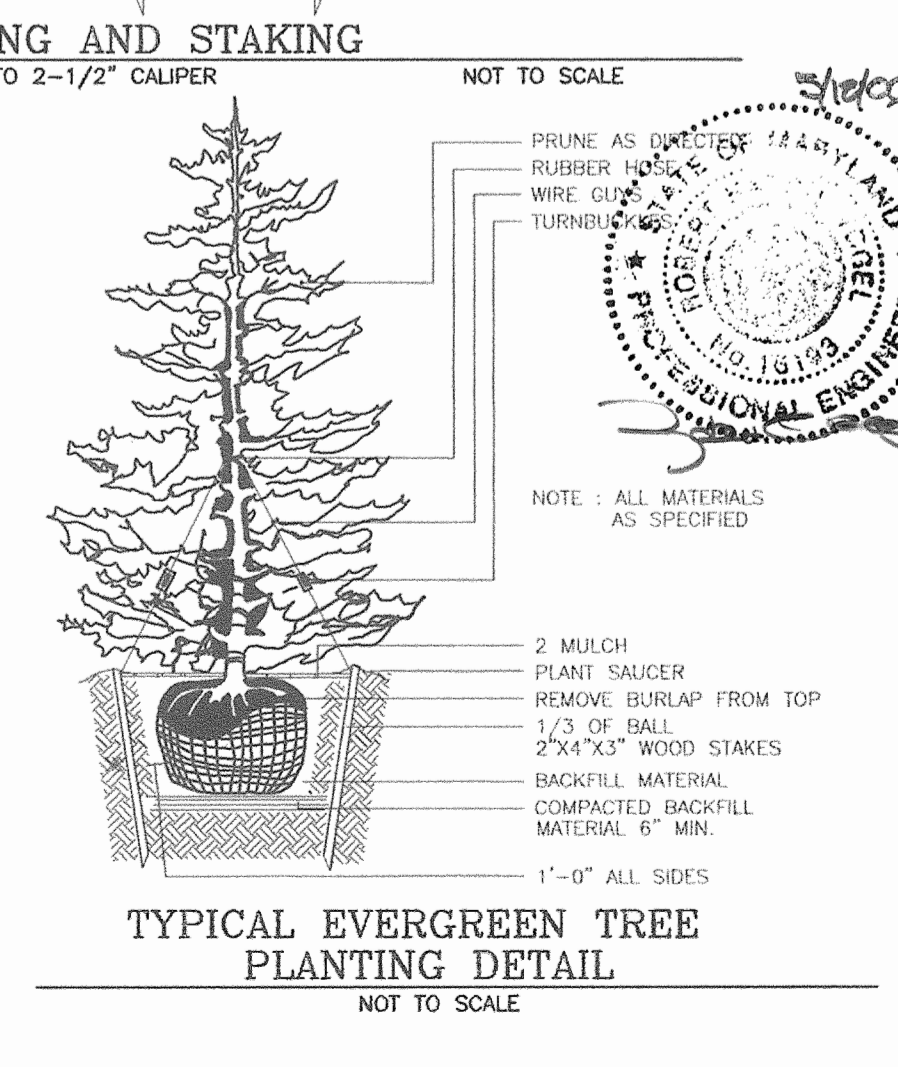
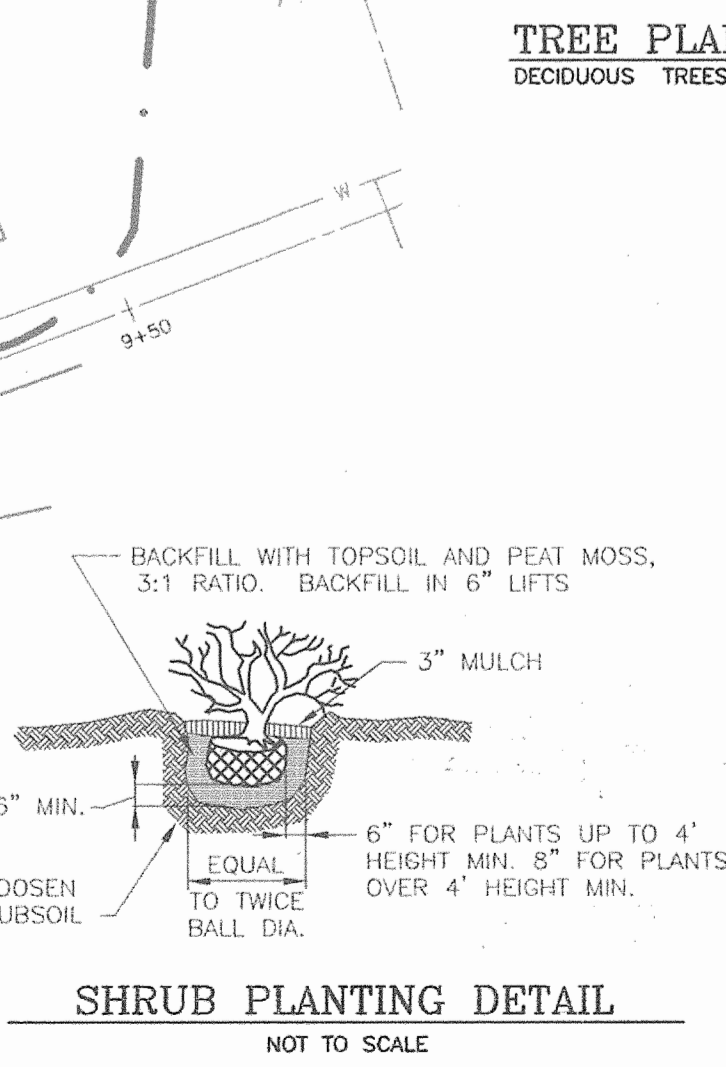
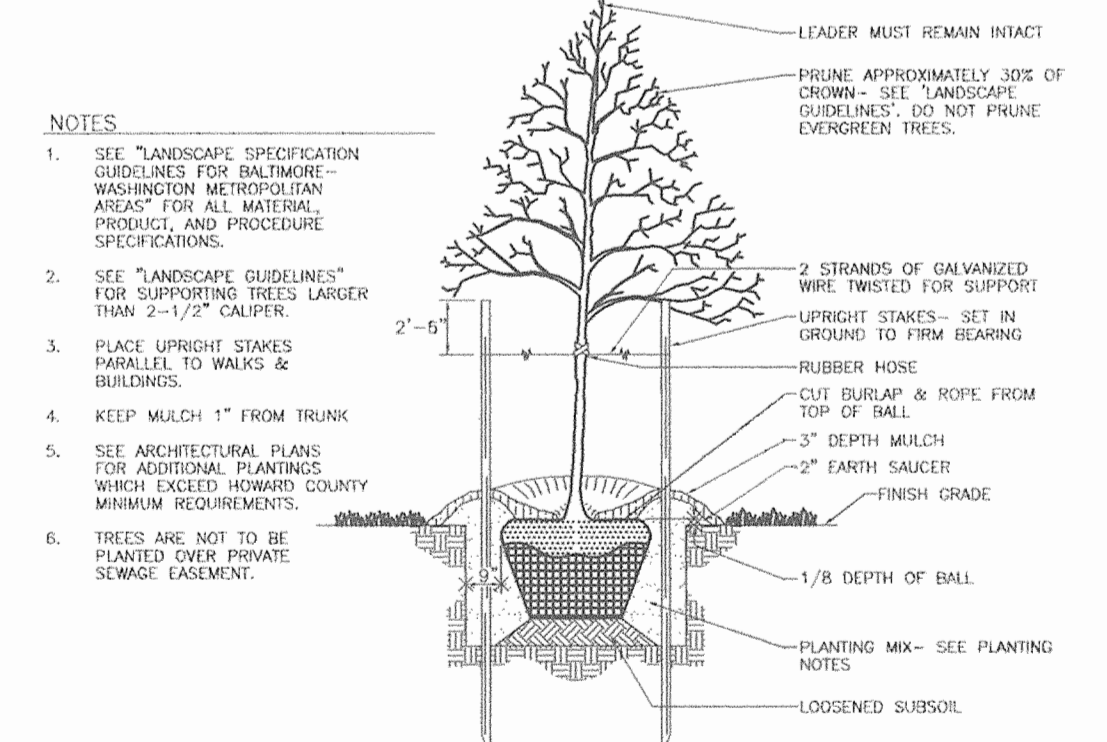
STREET NAME	LINEAR FEET	REQUIRED	PROVIDED
PUBLIC ACCESS ROAD	300	8	8
U.S. ROUTE 1	400	10	10

LANDSCAPE SCHEDULE NOTES:

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LCAWM 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.

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 \$15,480.00 FOR THE REQUIRED 42 SHADE TREES, 15 EVERGREEN TREES, AND 21 SHRUBS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 6/6/06

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 7/10/06

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.

SIGNATURE OF DEVELOPER: [Signature]
 DATE: 6/6/06

LANDSCAPE PLAN
 SCALE: 1"=30'

OWNER/DEVELOPER
 ROSE HILL FARM, LLC
 979 HOODS MILL ROAD
 COOKSVILLE, MD 21723

SITE DEVELOPMENT PLAN
SITE LANDSCAPE PLAN

TROY-100 OFFICES
 US RT 1

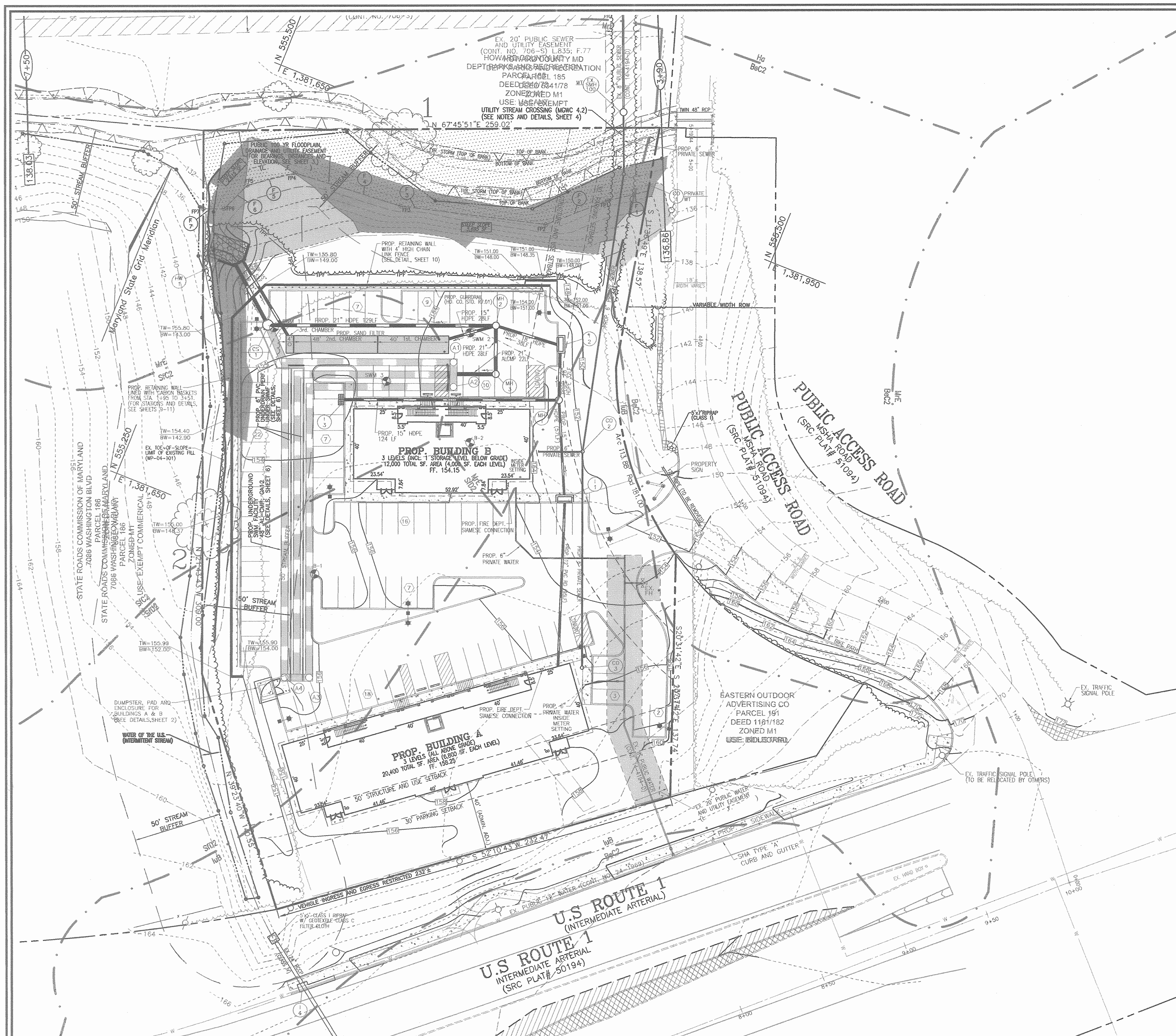
TAX MAP 37 BLOCK 24
 1ST ELECTION DISTRICT

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

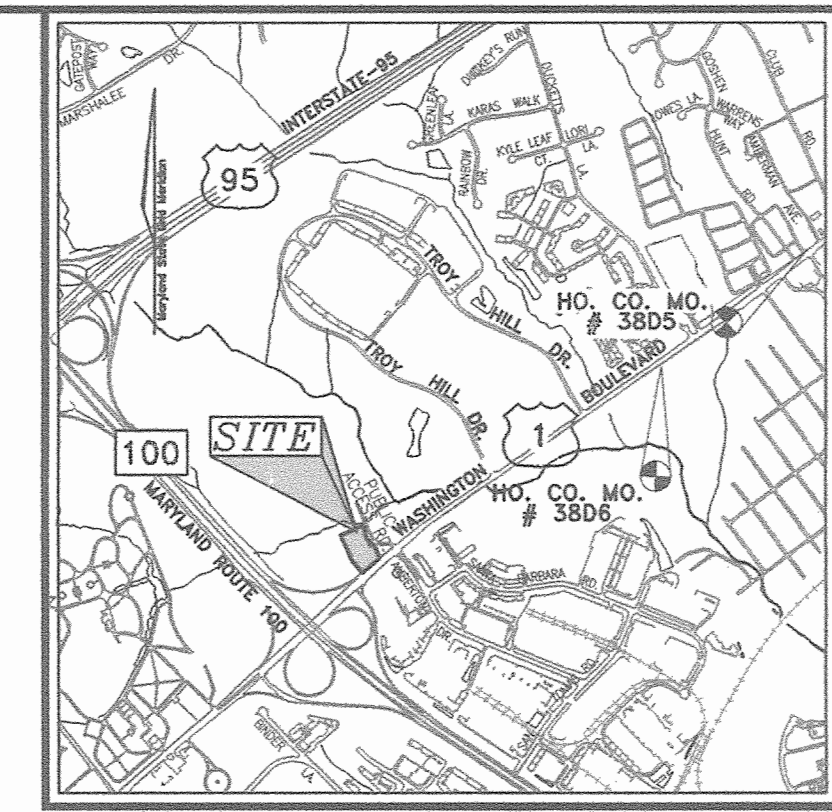
DESIGN BY: RHV
 DRAWN BY: DZ
 CHECKED BY: RHV
 DATE: MAY 2006
 SCALE: 1" = 30'
 W.O. NO.: 00-134

7 SHEET OF 10



SITE DATA

TAX MAP: 37 PARCEL: 189
 DEED REF: 5534/333
 ZONED: M1
 TOTAL SITE AREA: 2.38 AC
 100-YR FLOODPLAIN: 0.24 AC
 NET TRACT AREA: 2.14 AC
 TOTAL FORESTED AREA: 0.79 AC
 AFFORESTATION THRESHOLD: (15%) 0.55 AC
 REFORESTATION THRESHOLD: (15%) 0.32 AC



VICINITY MAP
SCALE: 1"=2000'

LEGEND

- BOUNDARY LINE
- - - EX. CONTOURS
- - - EX. TREELINE
- - - PROP. TREELINE
- - - WATERS OF U.S.
- - - 50' STREAM BUFFER
- SSF --- SUPER SILT FENCE
- TPF --- TREE PROTECTION FENCE
- LOD --- LIMIT OF DISTURBANCE
- MDC2 --- SOILS BOUNDARY
- BrB2 --- STAND LINE
- SPECIMEN TREE
- MODERATE SLOPES
- STEEP SLOPES >25%
- PUBLIC 100 YR FLOODPLAIN DRAINAGE AND UTILITY EASEMENT

SPECIMEN TREES

NO.	SIZE (DBH")	COMMON NAME	REMOVE/RETAIN
1	34	AMERICAN SYCAMORE	RETAIN
2	55	AMERICAN ELM	RETAIN

SUPPLEMENTAL INFORMATION

GROSS SITE AREA: 2.38 ACRES
 ZONED: M-1
 PROPOSED USE: GENERAL OFFICE/RETAIL (SEE GENERAL NOTE 4)

FOREST CONSERVATION WORKSHEET

NET TRACT AREA:
 A. TOTAL TRACT AREA: 2.38 AC
 B. AREA WITHIN 100 YEAR FLOODPLAIN: 0.24 AC
 C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION: 0.00 AC
 D. NET TRACT AREA: 2.14 AC

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	CA
0	0	0	0	0	1

EXISTING FOREST COVER:
 G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN) = 0.55 AC
 H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD = 0.23 AC
 I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD = 0.23 AC

BREAK EVEN POINT:
 J. FOREST RETENTION WITH NO MITIGATION REQUIRED = 0.37 AC
 K. CLEARING PERMITTED WITHOUT MITIGATION = 0.18 AC

PROPOSED FOREST CLEARING:
 L. TOTAL AREA OF FOREST TO BE CLEARED = 0.55 AC
 M. TOTAL AREA OF FOREST TO BE RETAINED = 0.90 AC

PLANTING REQUIREMENTS:
 N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD = 0.06 AC
 O. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD = 0.64 AC
 P. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD = 0.00 AC
 R. TOTAL REFORESTATION REQUIRED = 0.70 AC
 S. TOTAL AFFORESTATION REQUIRED = 0.00 AC
 T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED = 0.70 AC

THE FOREST CONSERVATION OBLIGATION HAS BEEN SATISFIED THROUGH A FEE-IN-LIEU PAYMENT OF \$15,246.00 (\$3,492.50 x 0.50) FOR THE 0.70 AC. OF REFORESTATION. OBLIGATION HAS BEEN PAID TO THE FOREST CONSERVATION FUND.

OWNER/DEVELOPER

ROSE HILL FARM, LLC
 979 HOODS MILL ROAD
 COOKSVILLE, MD 21723

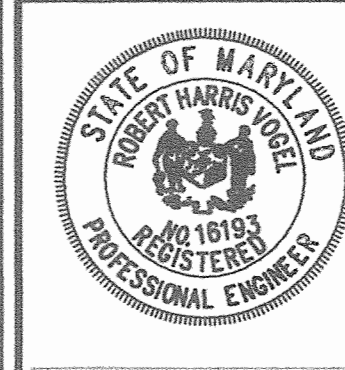
NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
 FOREST CONSERVATION PLAN**

**TROY-100 OFFICES
 US RT 1**

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

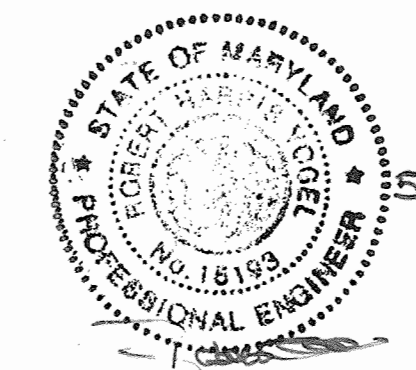
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NOTE: SEE SHEET-3 FOR FLOODPLAIN CHART

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *[Signature]* 6/5/06
 Chief, Division of Land Development: *[Signature]* 6/6/06
 Director: *[Signature]* 7/16/06



[Signature]
 LARRY J. THOMPSON
 DNR QUALIFIED PROFESSIONAL

RETAINING WALL SPECIFICATION GUIDELINES

PART 1: GENERAL

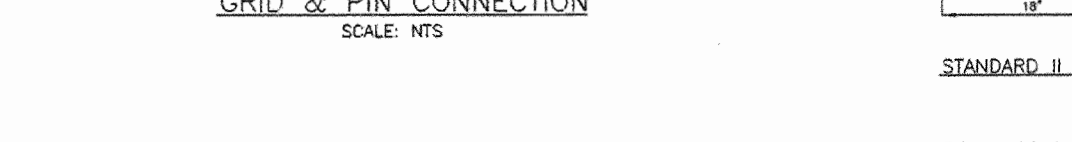
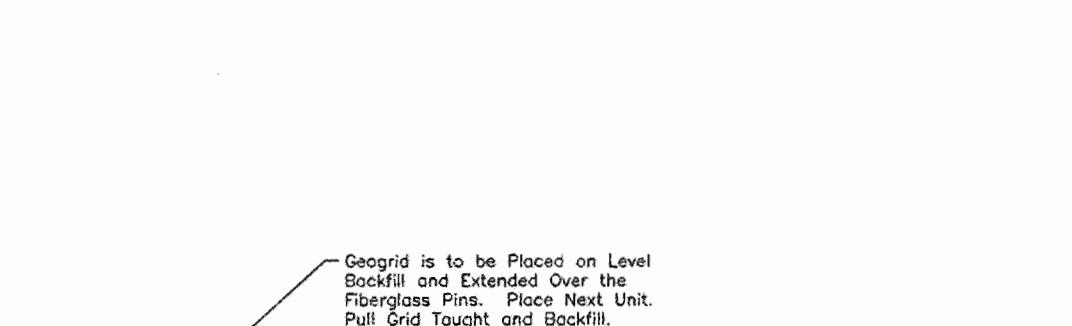
- 1.01 Description
 - A. Retaining walls must be constructed under the supervision of a Maryland Registered Professional Engineer.
 - B. Work includes furnishing and installing concrete modular block retaining wall units to the lines and grades shown on the construction drawings and all applicable notes.
 - C. Work includes preparing foundation soil, furnishing and installing leveling pad, unit fill and reinforced backfill to the lines and grades shown on the construction drawings.
 - D. Work includes furnishing and installing all related materials required for construction of the retaining wall as shown on the construction drawings.
- 1.02 Reference Standards
 - A. ASTM C 50 - Load Bearing Concrete Masonry Units.
 - B. ASTM C 130 - Sampling and Testing Concrete Masonry Units.
 - C. ASTM D 445 - Size of Aggregate for Road and Bridge Construction.
 - D. ASTM D 693 - Laboratory Correction Characteristics using Standard Effort.
- 1.03 Delivery, Storage and Handling
 - A. Contractor shall check the materials upon delivery to assure that proper materials have been received.
 - B. Contractor shall prevent excessive mud, wet cement, epoxy, and similar materials (which may affect themselves) from coming in contact with the masonry.
 - C. Contractor shall protect materials from damage and exposure to sunlight. Damaged materials shall not be incorporated into the retaining wall structure and backfill.
- 1.04 Quality Assurance
 - A. Owner will be responsible for soil testing and construction observations for quality control during earthwork and retaining wall construction.

PART 2: MATERIALS

- 2.01 Definitions
 - A. Modular wall units - KEYSTONE or equivalent modular concrete facing and corner units, machine made from portland cement, water, and mineral aggregate.
 - B. Structural Geogrid - A structural geogrid formed by a regular network of integrally connected tensile elements with surfaces of sufficient size to allow interlocking with surrounding soil, rock, or earth and function primarily as reinforcement.
 - C. Unit Fill/Drainage Aggregate - drainage aggregate, such as No. 57 Stone, which is placed within the cells of the modular concrete units and immediately behind the units to a width of at least 12 inches.
 - D. Reinforced Backfill - Compacted soil which is within the reinforced soil volume as shown on the plans.
 - E. Retention Force - The interface between the reinforced backfill and the reinforced fill during construction, measured along the rear plane of the reinforcement.
 - F. Reinforced Backfill - On-site material located behind the reinforced zone of soil.
- 2.02 Concrete Units
 - A. Concrete aggregate units shall conform to the requirements of ASTM D 28-04 and have a minimum 28-day compressive strength of 4,000 psi. The units shall also pass 150 freeze/thaw cycles in water with less than 5% weight loss.
 - B. Wall Face Units for general wall construction shall be KEYSTONE II Units or equivalent. Sculptured face or integral (foot) may be used.
 - C. Top of Wall Cap Units shall be KEYSTONE Cap Units or equivalent with fiberglass connecting pins.
- 2.03 Fiberglass Connecting Pins
 - A. Connecting pins shall be 1/2" diameter thermo-set isophthalic polyester resin-pultruded fiberglass reinforcement rods provided by the unit manufacturer.
- 2.04 Construction Adhesive
 - A. Construction adhesive for top of wall cap blocks shall be KEYSTONE SealSeal or an approved equivalent construction adhesive. Material shall conform to ASTM 2339 and shall be supplied by the block unit supplier.
- 2.05 Soil Fill Materials
 - A. Base Leveling and Pad Material
 - 1. Material shall consist of crushed stone (GA S/3) as shown on the construction drawing. The leveling pad shall be, at a minimum, 6-inches thick. MSHA No. 57 Stone or pea gravel is not permitted.
 - B. Unit Fill/Drainage Aggregate
 - 1. Fill for units shall be free draining crushed stone or gravel, with a minimum aggregate size of 1/2" to 3/4" and no more than 10% passing the No. 10 sieve and conforming to ASTM D 445. Goodstone or pea gravel is not approved by the Geotechnical Engineer. Pro gravel shall not be used. MSHA No. 57 stone may be used.
 - C. Reinforced Backfill
 - 1. Material shall consist of soil classified as SM, SL, SC or more granular soils per USCS with minimum soil parameters as indicated under design parameters. The backfill material shall contain no particles greater than 2.5 inches in diameter. The backfill material shall contain at least 30 percent by weight retained on the US Standard No. 200 sieve. Other backfill materials may be approved by the Geotechnical Engineer.
 - D. Sample Submittal
 - 1. The contractor shall submit samples and material specifications of the proposed backfill soils (unit fill, pad material, reinforced backfill) to the Geotechnical Engineer for approval.
 - 2. Soil must meet or exceed the friction angle specified in design parameters.
 - 3. Direct shear testing is required for all soil samples used for Reinforced Backfill.
- 2.06 Structural Geogrid
 - A. The geogrid identified for the retaining wall consists of the following:
 - Tensar UX14000S, UX190000, UX160000.
 - B. Other geogrid may be utilized provided the materials meet or exceed the minimum strength with similar or better shear characteristics of the Tensar geogrid and are approved by the Geotechnical Engineer for use with soil backfill. The material shall be protected from sunlight and weather while stored on site in accordance with the manufacturer's recommendation.
- 2.07 Geotextile
 - A. A non-woven geotextile shall be utilized as shown on the plans to provide a filter between the unit fill/drainage aggregate and the reinforced soil. The geotextile shall conform to the criteria for G-Geotextile Class A or non-woven Geotextiles and Specifications for Construction and Materials, Section 923.02, where geogrids are located. The geotextile shall be placed as detailed on the plans. All geotextiles and units shall be protected with a minimum of 12 inches. The geotextile shall be placed so that minimal contact is made between the geotextile and the backfill material. Rippled or corrugated geotextiles shall not be used. The material shall be protected from sunlight and weather while stored on site in accordance with the manufacturer's recommendation.

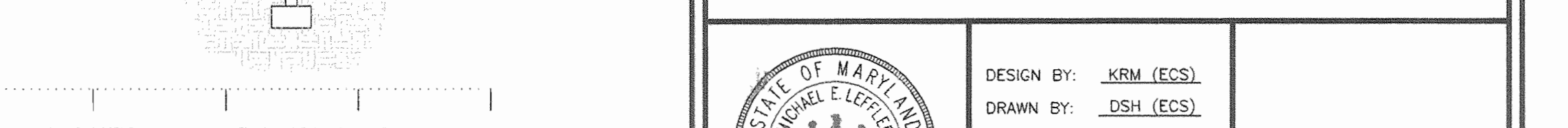
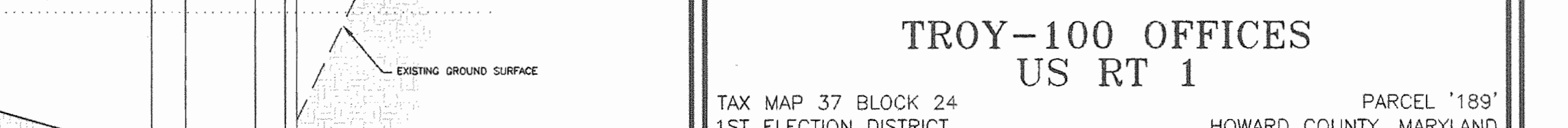
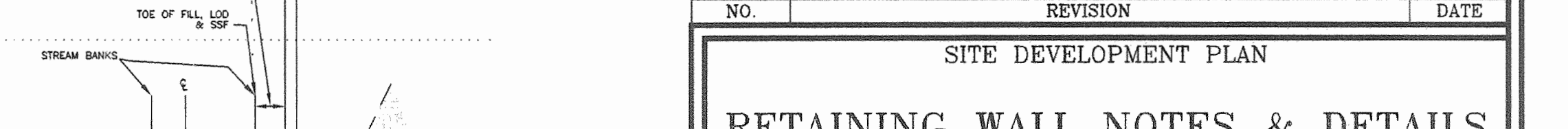
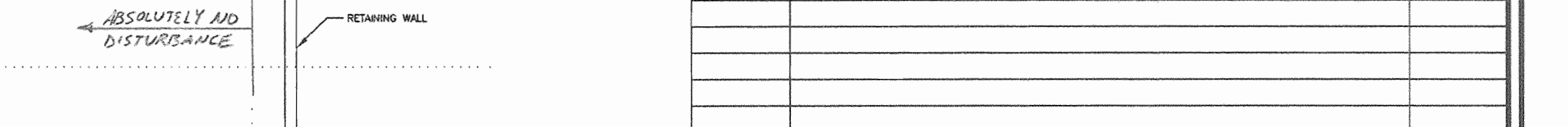
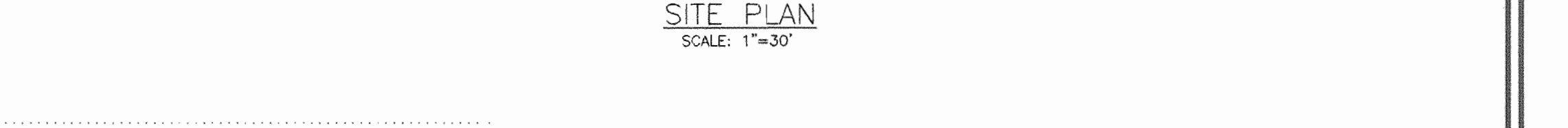
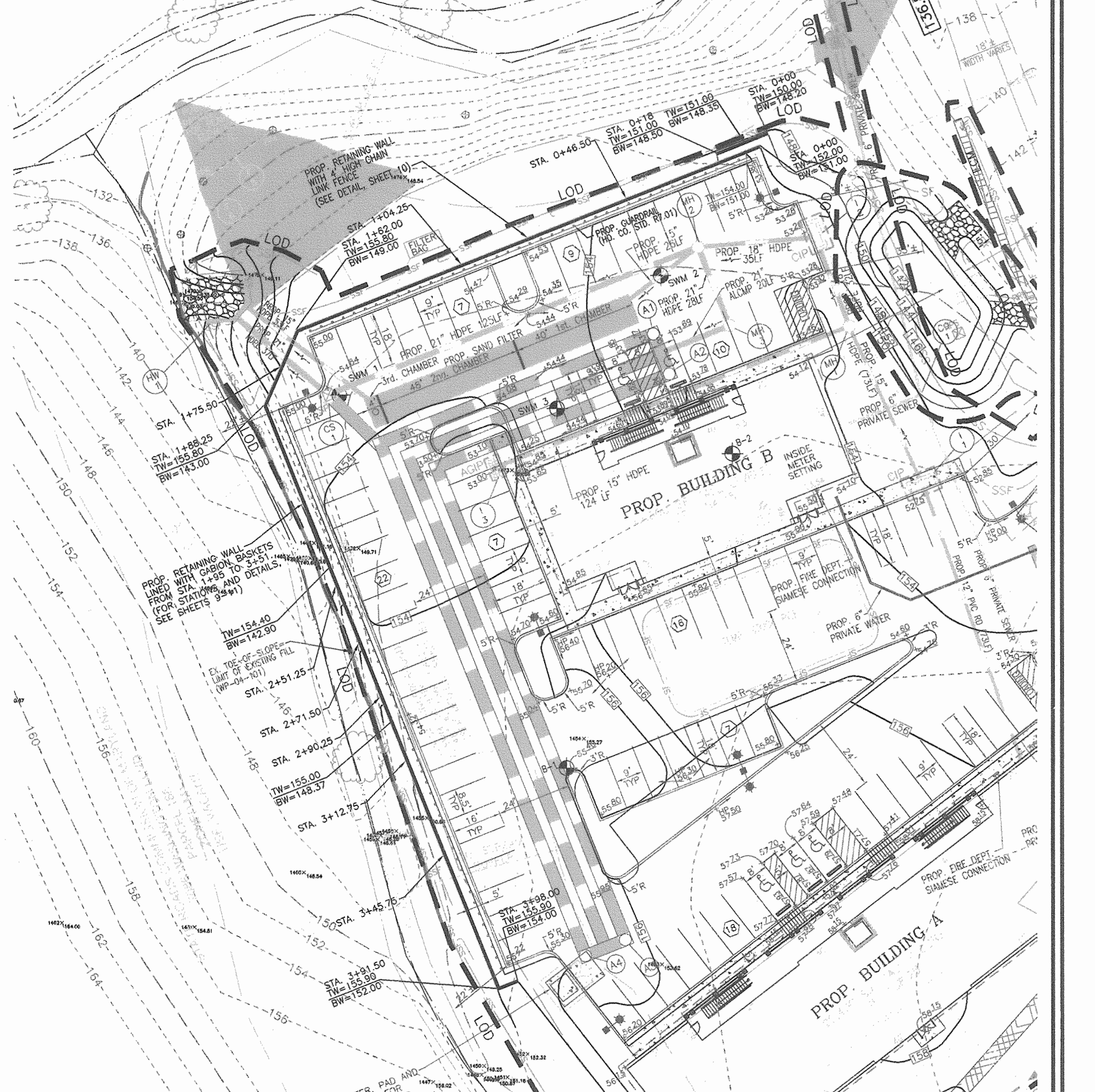
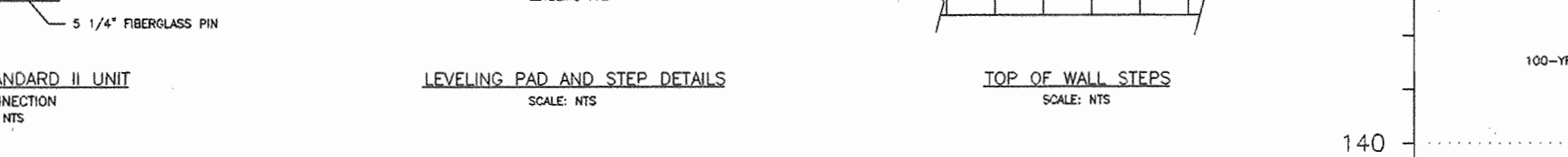
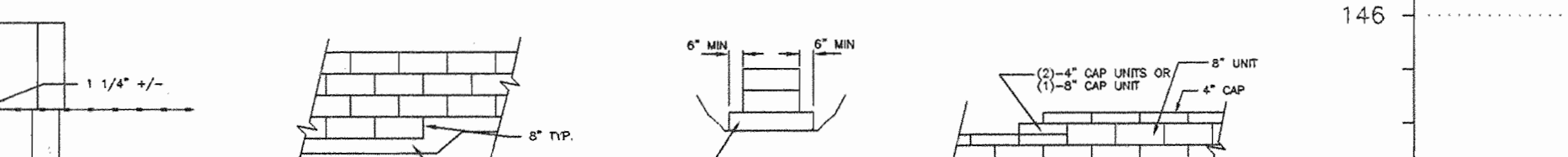
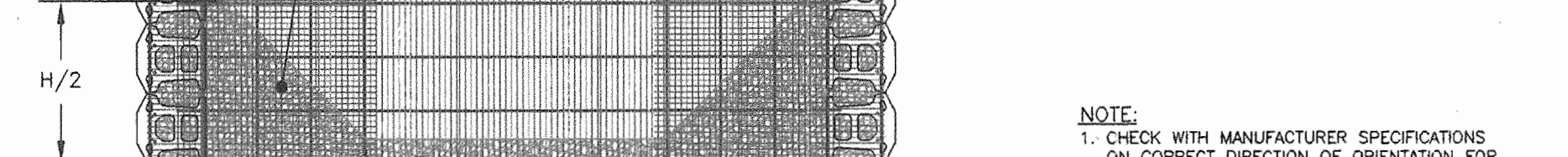
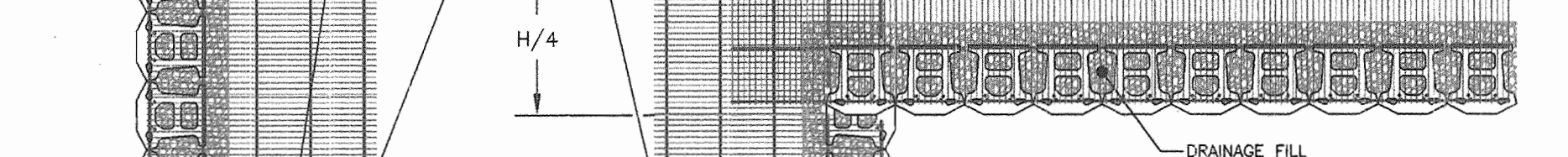
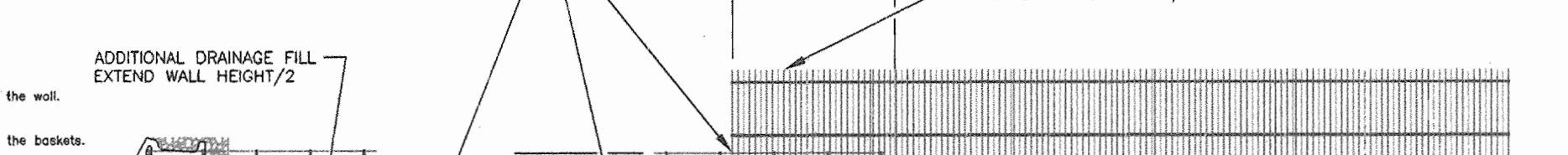
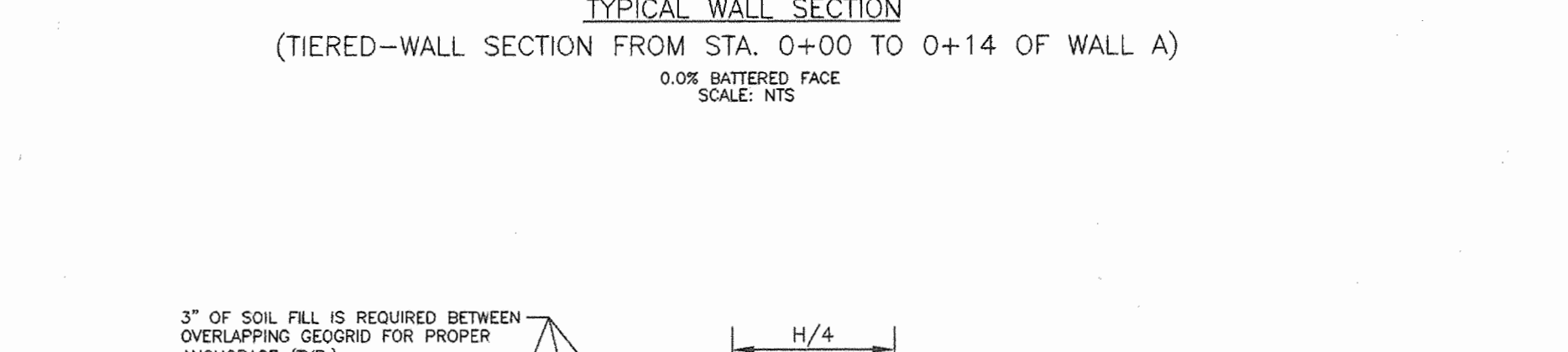
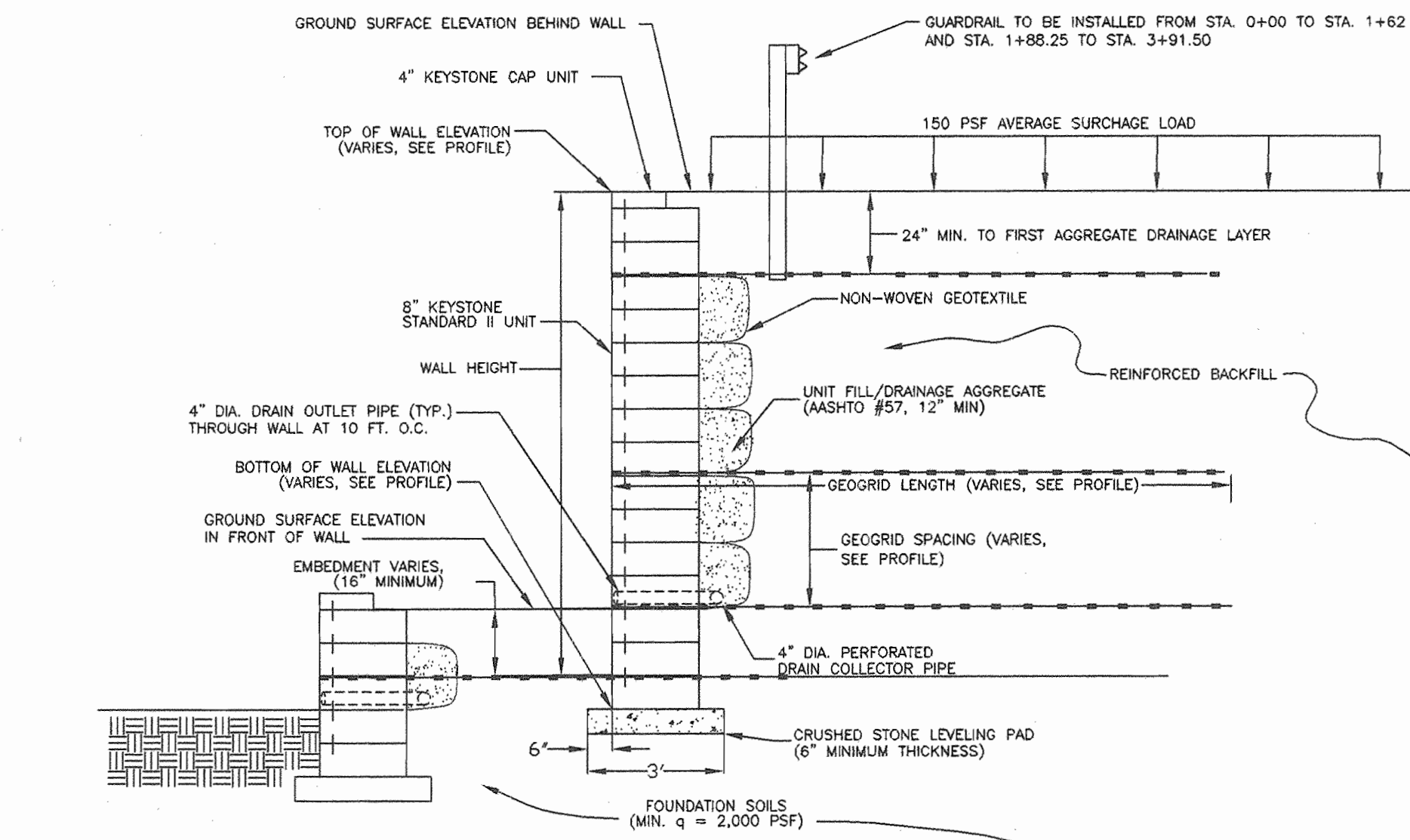
DESIGN PARAMETERS

Characteristic	Soil Parameters	Minimum Friction Angle	Minimum Cohesion	Minimum Unit Weight (pcf)
Configuration	Soil Type	30	0	115
Maximum Wall Height	Reinforced #8	30	0	115
Backfill Aggregate	Reinforced #8	30	0	115
Wall Embedment	Foundation soils	25	0	110
Surcharge				



PART 3: INSTALLATION

- 3.01 Excavation
 - A. Contractor shall excavate to the lines and grades shown on the construction drawings. Contractor shall be careful not to disturb embankment and foundation materials beyond lines shown.
 - B. All existing basins, retained soil and other soil or unstable materials shall, at a minimum, be removed from the footprint of the retaining wall area.
 - C. Excavation of the excavation during the excavation of the backfill, a backfill drainage system shall be utilized.
 - D. Excavation of the excavation during the excavation of the backfill, a backfill drainage system shall be utilized.
 - E. Excavation of the excavation during the excavation of the backfill, a backfill drainage system shall be utilized.
- 3.02 Foundation Preparation
 - A. Foundation shall be excavated as required for leveling pad dimensions shown on the construction drawings, or as directed by the Geotechnical Engineer.
 - B. The required bearing pressure beneath the footing of the wall must be verified in the field by a Geotechnical Engineer.
 - C. Unusable soils shall be removed and replaced with approved material.
 - D. Over-excavation shall be backfilled with approved, compacted backfill material or as approved by the Geotechnical Engineer.
- 3.03 Base Leveling Pad
 - A. Leveling pad materials shall be placed upon an approved foundation as shown on the construction drawings to a minimum thickness of 6 inches.
 - B. Aggregate material shall be compacted to provide a dense, level surface on which to place the first course of modular units. Compaction shall be to at least 95% of the maximum dry density as determined by the Standard Proctor Compaction Test (ASTM D 693). Leveling pad shall be prepared and compacted to ensure complete contact of retaining wall unit with base.
- 3.04 Unit Installation
 - A. The first course of concrete modular units shall be carefully placed on the base leveling pad. Each unit shall be checked for level (in both directions) and alignment.
 - B. Install fiberglass connecting pins and fill all voids in and around the modular units with unit fill material.
 - C. Top of wall units shall be placed so that all voids are completely filled.
 - D. Sweep excess material from top of units and install the next course. Ensure that the units of each course are completely filled, backfilled and compacted prior to proceeding to next course.
 - E. Place each subsequent course, ensuring that pins protrude into adjoining courses a minimum of 1 inch. Two pins are required per unit. Full each unit forward to bottom line change offset (as noted on the plans), away from the line, facing against the pins in the previous course and against the course as completed.
 - F. Repeat procedure to the extent of wall height. Wall construction shall not exceed 2 courses in height before reinforced backfill is placed.
 - G. Follow wall elevation and unit fill placement closely with any other backfilling required. Compaction of soil shall be to 95% of the maximum dry density as determined in accordance with ASTM D 693.
 - H. As appropriate where the wall changes elevation, units can be stepped with the grade or turned into the reinforcement with a convex return end. Provide appropriate curved units on completed leveling pad in case of convex return end.
- 3.05 Geogrid Installation
 - A. The geogrid type and length (direction perpendicular to the wall face) shall conform to those indicated on the construction drawings or as directed by the Geotechnical Engineer.
 - B. Correct orientation (roll direction) of the geogrid shall be verified by the Contractor.
 - C. The geogrid shall be connected to the modular wall units by placing the geogrid over fiberglass pins and laying the grid wide to the fill side.
 - D. A rippled, non-woven geotextile shall be located between the drainage aggregate/unit fill and the reinforced backfill. The geotextile shall be folded back parallel to the geogrid and fiberglass pins and to eliminate loose folds in unit fill material. The geogrid shall be nailed back to the geogrid. Backfill shall be placed over the geogrid in the direction of the geogrid. The geogrid shall be placed in the direction of the geogrid. The geogrid shall be placed in the direction of the geogrid. The geogrid shall be placed in the direction of the geogrid.
 - E. The geogrid shall be nailed back to the geogrid. Backfill shall be placed over the geogrid in the direction of the geogrid. The geogrid shall be placed in the direction of the geogrid. The geogrid shall be placed in the direction of the geogrid. The geogrid shall be placed in the direction of the geogrid.
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- 3.06 Fill Placement
 - A. Backfill material shall be placed in 8 inch loose lifts and compacted to at least 95% of the maximum dry density as determined by ASTM D 693. The in-place moisture content shall be in the range of all the optimum moisture content to 2 percentage points higher than the optimum moisture content, as determined in accordance with ASTM D 693.
 - B. Backfill shall be placed, spread and compacted in such a manner that minimizes the development of shock or loss of retention of the geogrid. Backfill shall be placed in horizontal layers. The excavation face shall be stepped or retained to provide opposition of backfill on a level surface and to increase the interface between the reinforced soil and the reinforced backfill.
 - C. Only hand-operated compaction equipment shall be allowed within 5 feet of the back surface of the KEYSTONE or equivalent units.
 - D. Backfill shall be placed from immediately behind the wall towards the excavation face/reinforced soil and compacted to the specifications presented herein with appropriate connection equipment.
 - E. Traction construction equipment shall not be operated directly on the geogrid. A minimum backfill thickness of 4 inches is required for operation of tracked vehicles over the geogrid. Turning of tracked vehicles shall not be permitted over the geogrid.
 - F. Rubber-tired equipment may operate over the geogrid reinforcement at slow speeds (less than 10 mph). Avoid sudden braking and sharp turning.
 - G. The activity of the fill material must be confirmed by a Geotechnical Engineer.
- 3.07 Cap Installation
 - 1. Provide permanent mechanical connection to wall units with KEYSTONE KeySealTM or equivalent construction adhesive.
 - 2. Soil must meet or exceed the friction angle specified in design parameters.
 - 3. Place Cap Units over projecting pins from the units below. Pull forward to setback position.
 - 4. Backfill and compact to finished grade.
- 3.08 Baskets
 - A. Baskets should be spaced 8'(H) x 3'(W) x 1'(D).
 - B. Baskets should be constructed of No. 11 gauge, galvanized steel wire.
 - C. Baskets should be constructed and delivered to the project site.
- 3.09 Aggregate
 - 1. Gabbion aggregate should consist of crushed stone, and should meet the requirements set forth by MSHA Standards and Specifications for Construction and Materials, Section 901.00.
- 3.10 Installation
 - 1. Gabbions are to be placed along the retaining wall, from STA 1+90 to STA 3+10.
 - 2. Full gabbions shall be installed during construction of the wall, with the first course of gabbions placed at the bottom of the wall.
 - 3. Gabbions shall be spaced and staggered in such a manner such that continuous vertical joints are prevented.
 - 4. Continue to place gabbions until at least one full basket is above first grade at the face of the wall.
 - 5. All baskets installed below-grade shall be wrapped with an approved filter fabric to prevent movement of soil fines into the baskets.



OWNER/DEVELOPER
ROSE HILL FARM, LLC
979 HODDS MILL ROAD
COOKSVILLE, MD 21725

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SITE DEVELOPMENT PLAN
RETAINING WALL NOTES & DETAILS
TROY-100 OFFICES
US RT 1
TAX MAP 37 BLOCK 24
1ST ELECTION DISTRICT
PARCEL '189'
HOWARD COUNTY, MARYLAND

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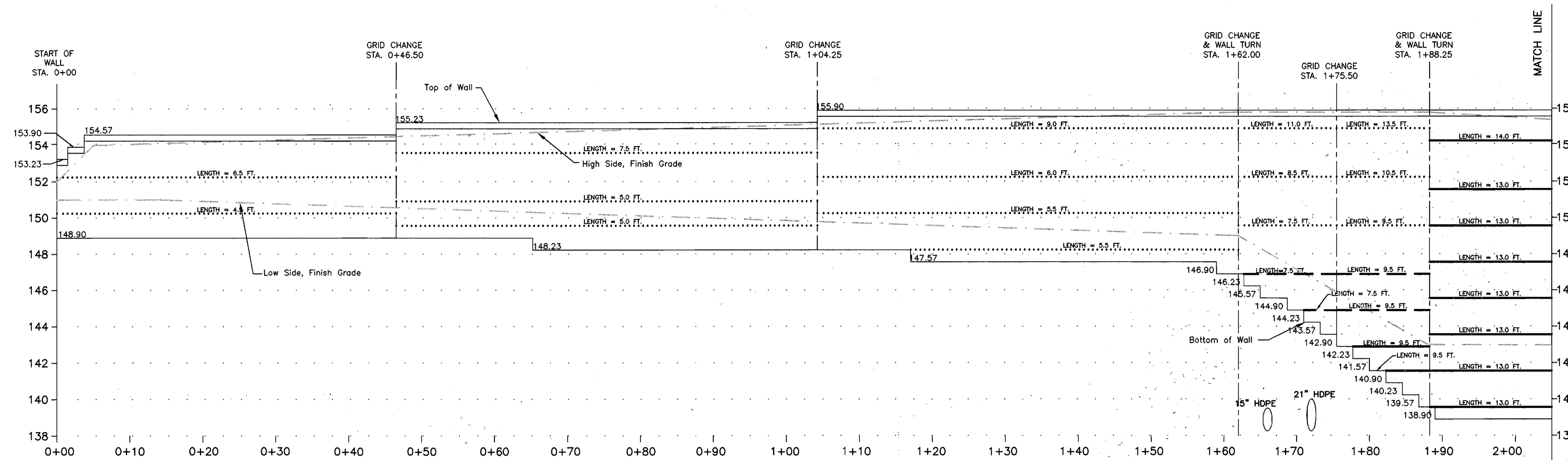
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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 6/6/06

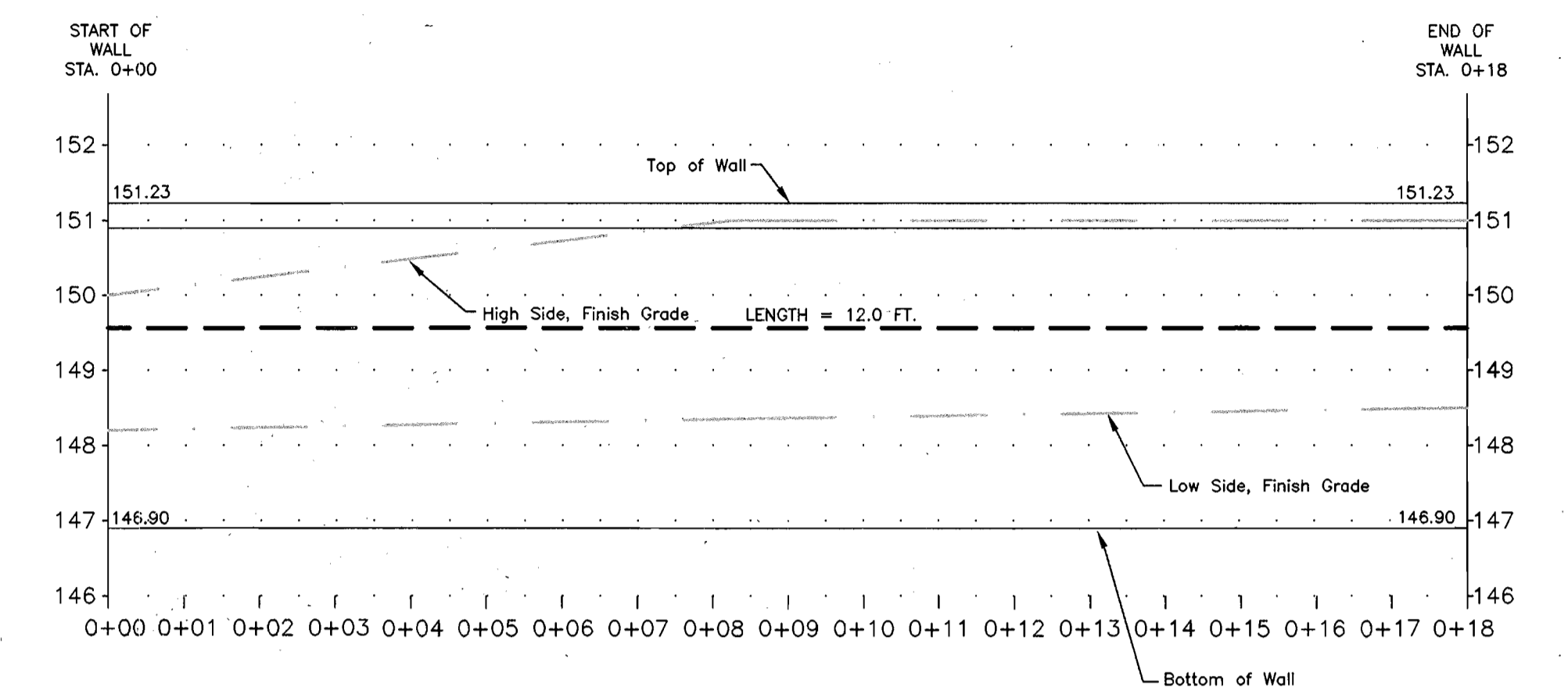
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6/6/06

DIRECTOR
DATE: 7/10/06



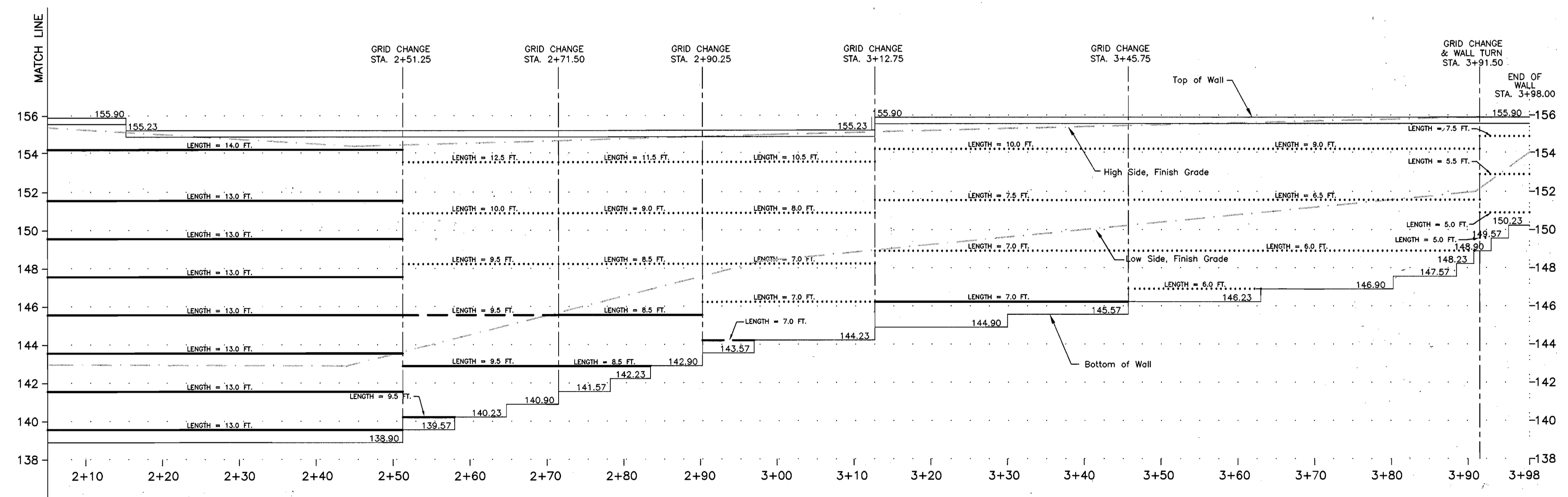
WALL A PROFILE
 SCALE
 VERTICAL SCALE 1"=4'
 HORIZONTAL SCALE 1"=10'

- TENSAR UXK140065 GEOGRID
- TENSAR UXK150060 GEOGRID
- TENSAR UXK160060 GEOGRID



WALL B PROFILE
 SCALE
 VERTICAL SCALE 1"=2'
 HORIZONTAL SCALE 1"=2'

- TENSAR UXK150060 GEOGRID



WALL A PROFILE
 SCALE
 VERTICAL SCALE 1"=4'
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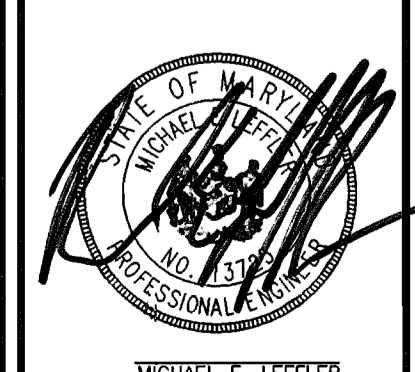
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- TENSAR UXK160060 GEOGRID

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SITE DEVELOPMENT PLAN
RETAINING WALL NOTES & DETAILS
TROY-100 OFFICES
US RT 1
 TAX MAP 37 BLOCK 24 PARCEL '189'
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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 [Signature] DATE 6/5/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 6/6/06
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE 7/10/06
 DIRECTOR