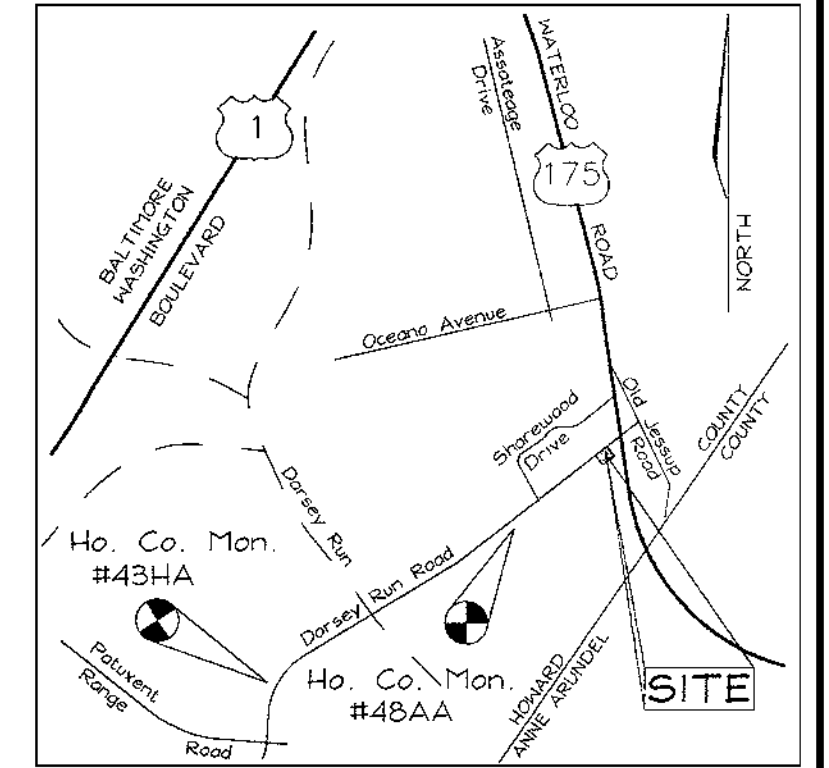
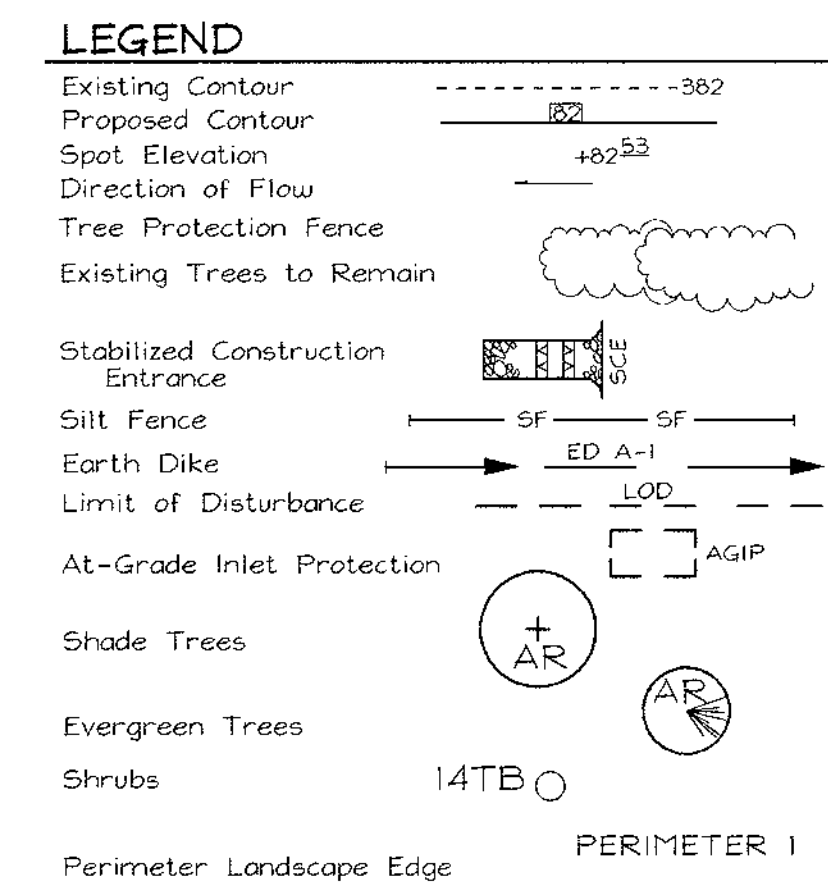


NO. ADJACENT TO PERIMETER PROPERTIES	A	B	C
Planetary	3	2	
Landscaping	150	103	
Frontage	No	No	
Credit for trees	No	No	
Number of trees	60	140	5
Number of trees provided	3	3	1

KEY	QUAN	BOTANICAL NAME	SIZE	REMARKS
AR	5	Acer Rubrum	2 1/2"-3" Cal.	B 4 B
P	5	Pin Oak	2 1/2"-3" Cal.	B 4 B
E	5	Eastern White Pine	6"-8" HL	B 4 B
TB	30	Thuja Gold Juniper	24" - 30" HL	

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
SfB2	Sassafras gravelly sandy loam, 1 to 5 percent slopes, moderately eroded	B

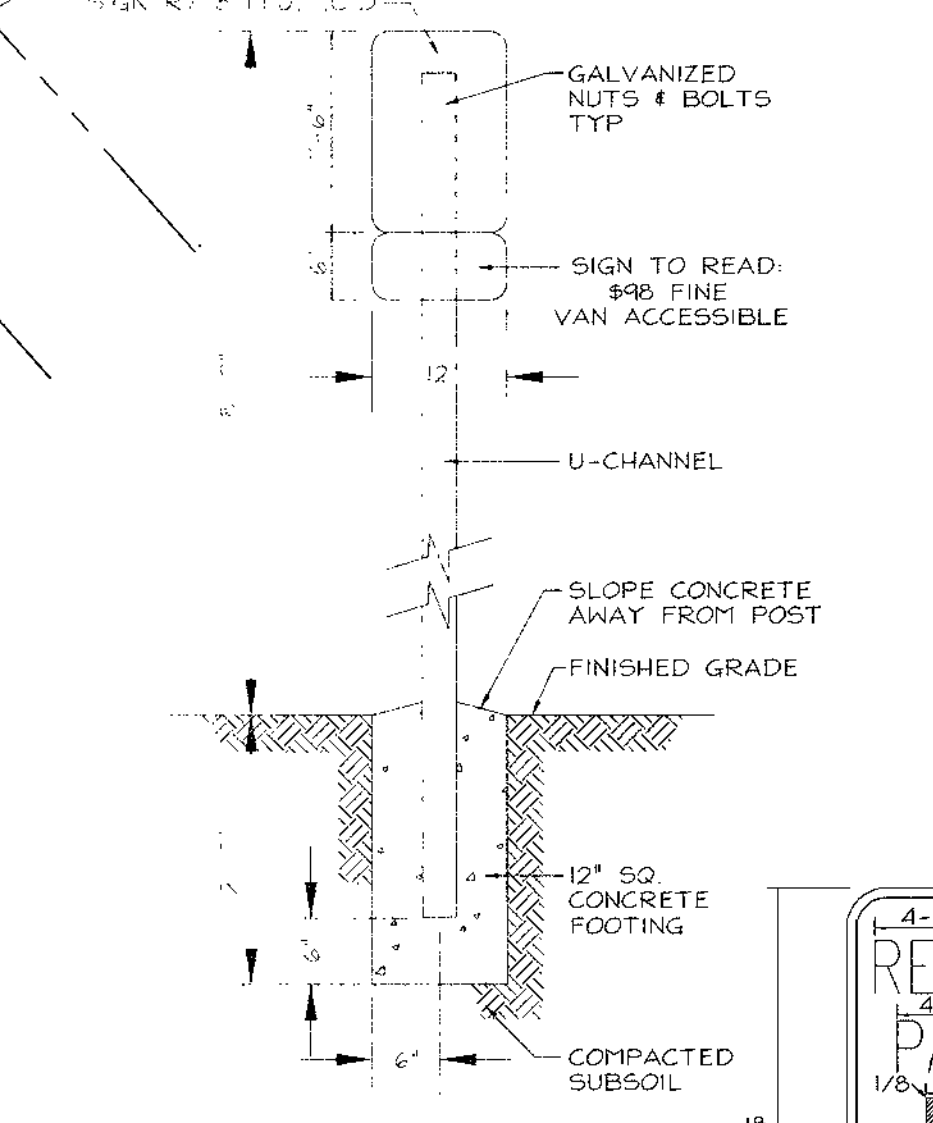
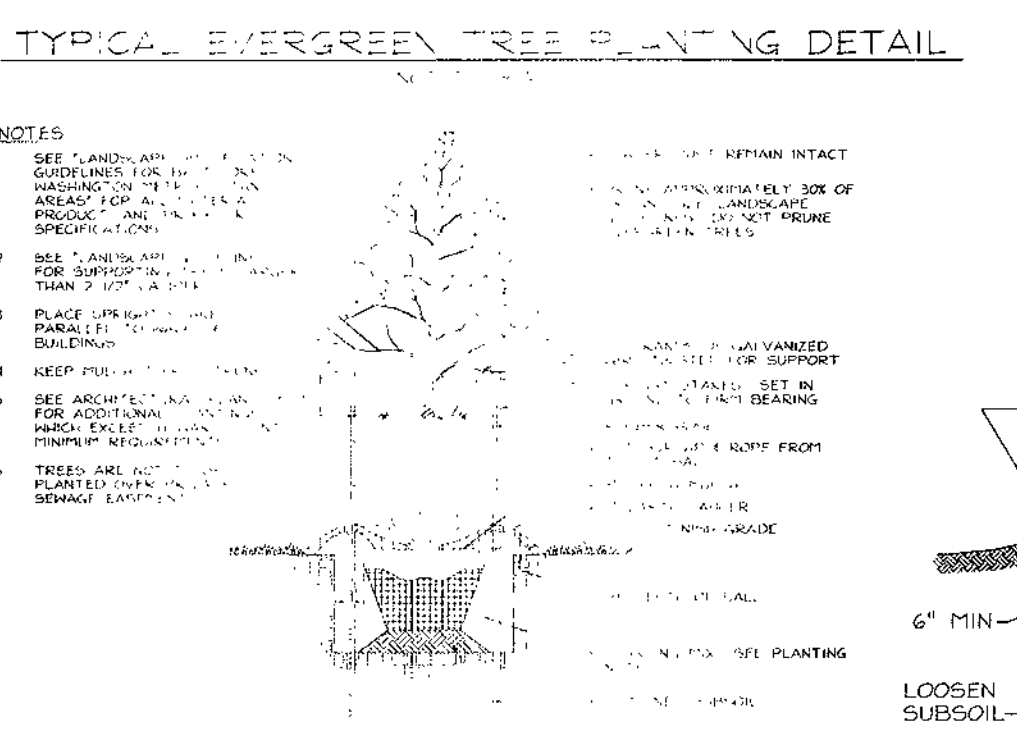
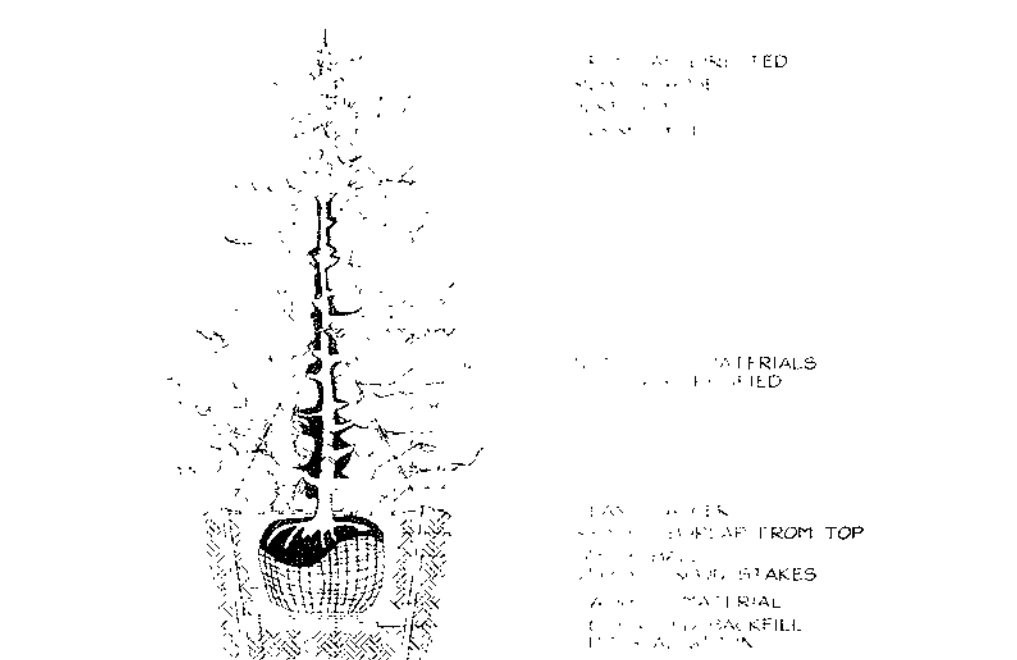
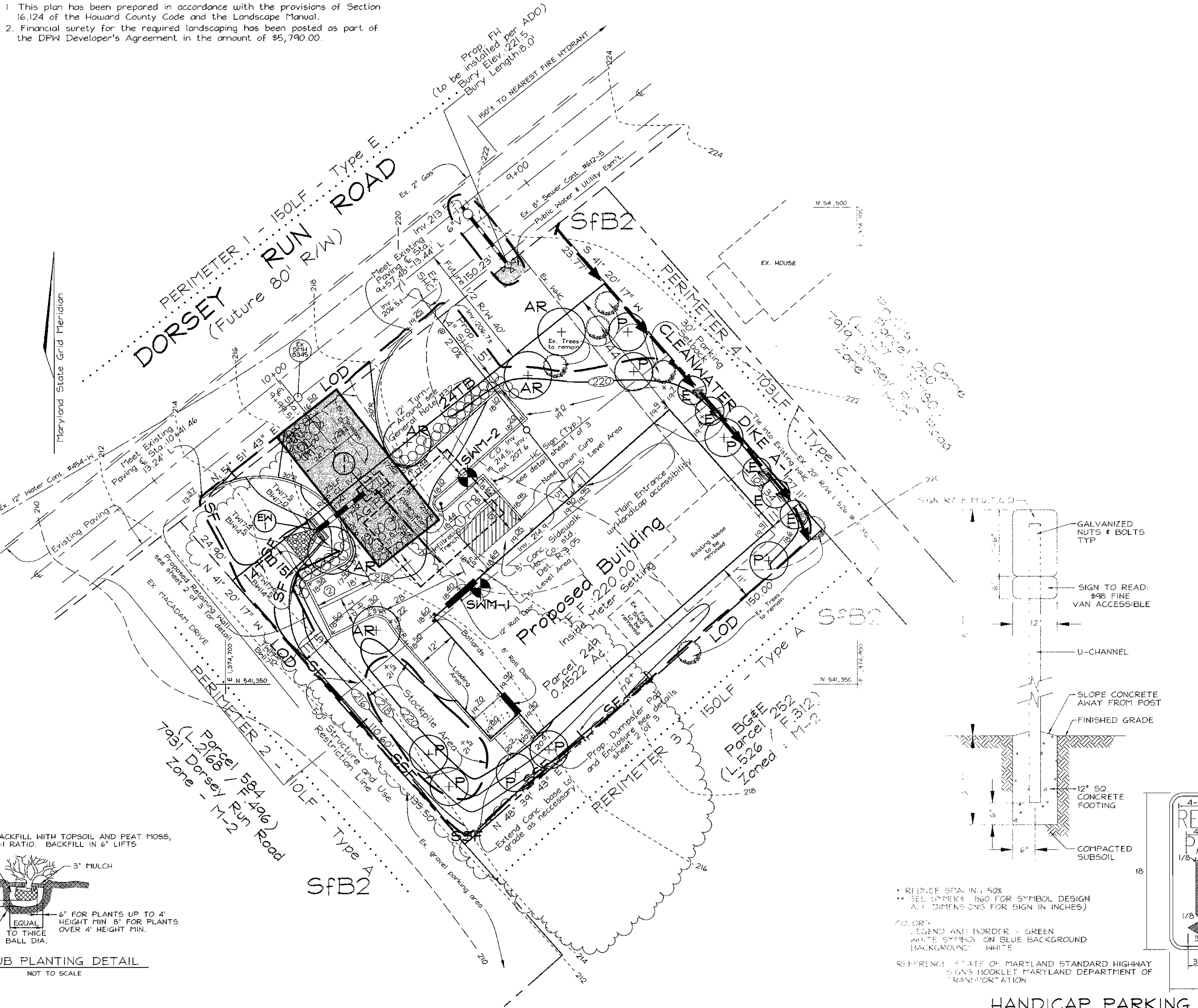
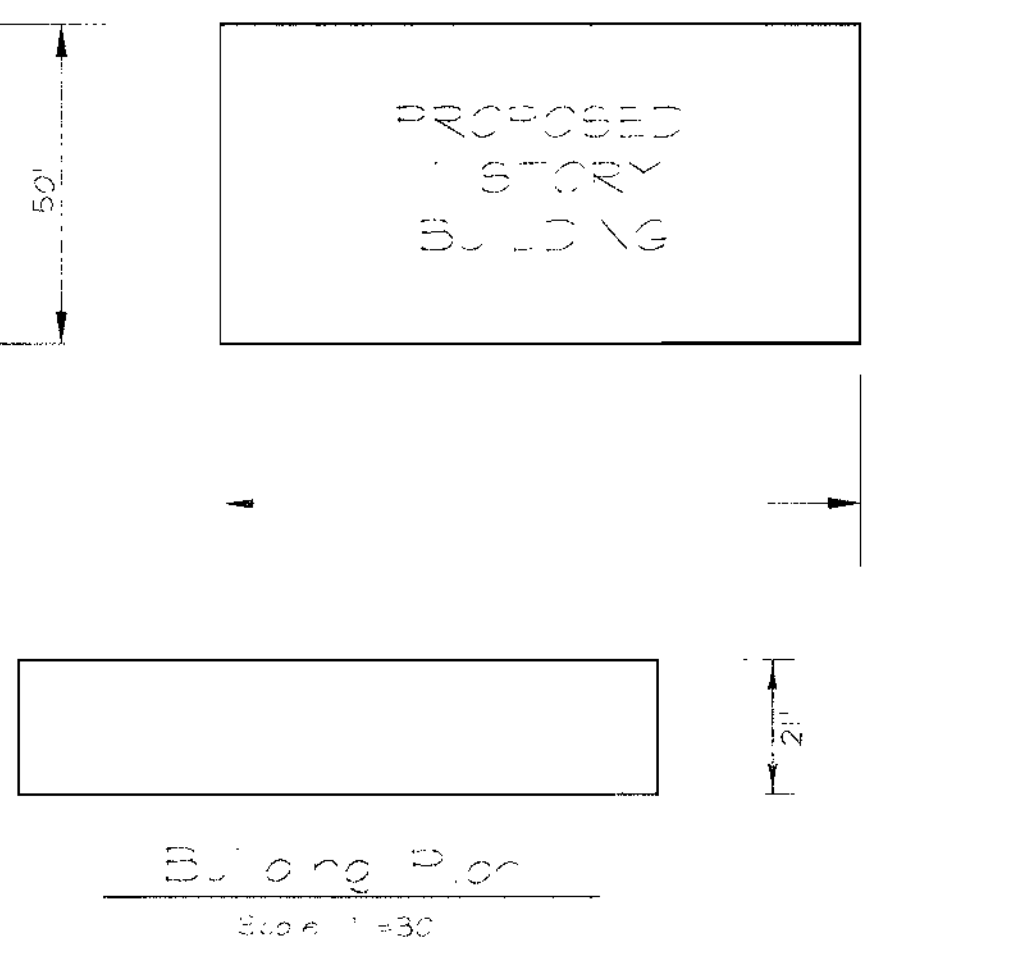
SHEET INDEX	
TITLE	SHEET NO
Site Development Plan, Sediment and Erosion Control Plan and Landscape Plan	1 of 3
Stormwater Management and Placement Details	2 of 3
Stormwater Pollution Prevention Plan and Details	3 of 3



LANDSCAPE NOTES

1. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.

2. Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of \$5,790.00.



- 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
 - C & P Telephone Company: 775-9976
 - Howard County Bureau of Utilities: 313-2366
 - AT&T Cable Location Division: 343-3553
 - B.G.E. Co. Contractor Services: 862-4620
 - B.G.E. Co. Underground Damage Control: 787-4620
 - State Highway Administration: 531-5533
 - Site analysis:
 - Area of parcel: 0.4522 Acre
 - Present zoning: M-2
 - Use of structure: Manufacturing and Office space (woodworking and cabinetry shop)
 - Building area: 5,000sf
 - Building coverage on site: 0.12 Ac. or 25.38% of gross area
 - Paved parking lot/area on site: 0.09 Ac. or 19.9% of gross area
 - Area of landscape island: 200sf
 - Project background:
 - Location: Jessup, Md.; Tax Map 43, Grid 21, Parcel 249
 - Zoning: M-2
 - Section/Area: n/a
 - Site Area: 0.4522 Acre
 - DPZ references: Contr #454-M, Contr #612-S, WP-00-11; BOA Case 99-24-V, SDP-98-154 (denied Sept. 24, 1998)
 - 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 Field Surveys and available record drawings. Approximate location of 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, 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.
 - All storm drain pipe bedding shall be Class 'C'.
 - Coordinates and elevations are based on the following Howard County Monuments: 43HA & 46AA.
 - A noise study is not required for this project.
 - Existing topography and boundary are based on a Field Survey by Kies Cook and Ass. in June, 1998.
 - All curbs and gutters to be Howard County Standard concrete Detail 3.01 unless otherwise specified.
 - Contractor responsible to construct all handicap parking and handicap access in accordance with current ADA requirements.
 - Where drainage flows away from curb, contractor to reverse the gutter pan.
 - Public Water available along Dorsey Run Road Contract No. 454-M.
 - Public Sewer available along Dorsey Run Road Contract #612-S.
 - Stormwater Management (quality and quantity) is provided by a proposed infiltration facility. Infiltration trenches to be privately owned and maintained.
 - All exterior lighting shall conform to Zoning Regulations Section 134.
 - All elevations are to finished grade unless otherwise noted.
 - All dimensions are to face of curb unless otherwise noted.
 - This plan is exempt from Forest Conservation due to the fact that the parcel is less than 40,000sf in size per Subdivision Section 16.120(b)(1)(i).
 - This plan does not require APFO due to the fact that the proposed building will generate less trips than the existing building.
 - There are no Wetlands or Flood Plains on the site.
 - BOA Case 99-24-V approved October 21, 1999 to allow the reduction of the 50' setback from an external public street right-of-way to 45' for a proposed building to reduce the required 30' use setback from an external public street right-of-way to 14' for parking and 4' for a vehicle turnaround sign.
 - WP-00-01 approved September 10, 1999 to grant a 45 day extension to file revised plans from the approval date of BOA 99-24-V for SDP-98-154.
 - The "Virtual Turnaround Area" is not permitted to be used for parking, storage, loading or unloading.
 33. Vehicles being loaded or unloaded shall not be located within the 50' Setback and Use Restriction Line.
 - Any change in the use of the structure (or site) stated in General Note #4 and/or increase in the maximum number of on-site employees stated in the parking tabulation will require compliance with applicable parking requirements of the Zoning Regulations in effect at that time.
 - Contractor to contact Howard County Health Department (410.313.2640) if a well is encountered on the site for proper abandonment procedure and certification.

REVIEWED FOR COMPLIANCE WITH LOCAL REQUIREMENTS

Jim Myers 3/12/01 DATE

USED FOR PERMITS AND CONSTRUCTION

THIS DEVELOPMENT IS SUBJECT TO THE SEDIMENT AND EROSION AND LANDSCAPE DISTRICT

John R. Robertson 3/12/01 DATE

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert H. Vogel 3/6/01 DATE
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

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

Robert Caswell 3.6.01 DATE
SIGNATURE OF DEVELOPER

OWNER / DEVELOPER

ROBERT CASWELL
24 FOURTH STREET
LAUREL, MARYLAND 20707
(301) 483-7659

PARKING TABULATION

Parking Required: 1 space per employee
 Parking Provided: 2 employees=2 spaces
 Handicap Spaces Required: 1 (1 van)
 Handicap Spaces Provided: 1 (1 van)

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
Parcel #249	7927 Dorsey Run Road

PROJECT NAME	SECTION/AREA	PARCEL NUMBER
Caswell Property		249

L/F NO	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
433/1	21	M-2	43	6th	6069.01

WATER CODE: B-02 SEWER CODE: 3020000

SITE DEVELOPMENT PLAN, SEDIMENT AND EROSION CONTROL PLAN AND LANDSCAPE PLAN

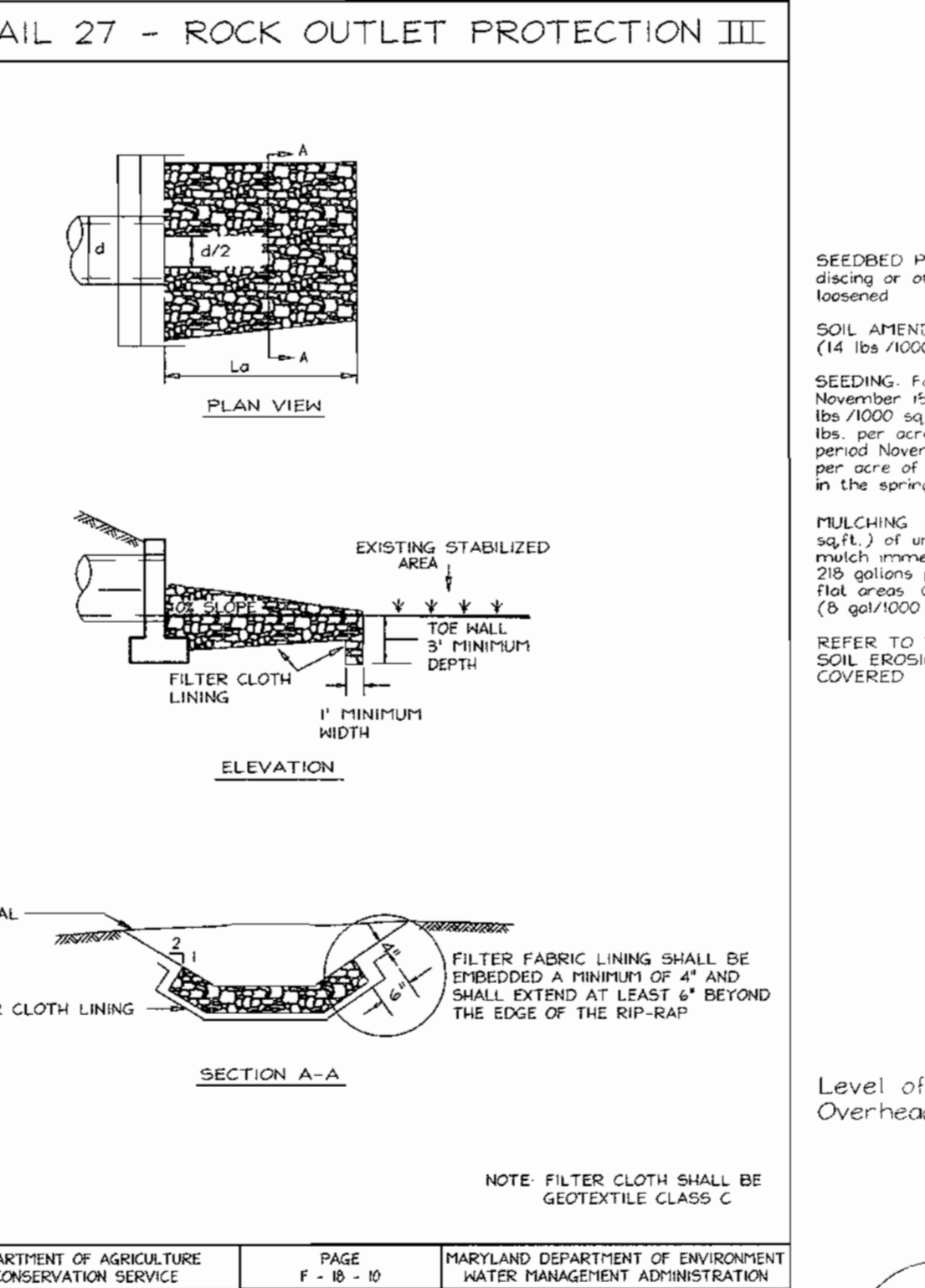
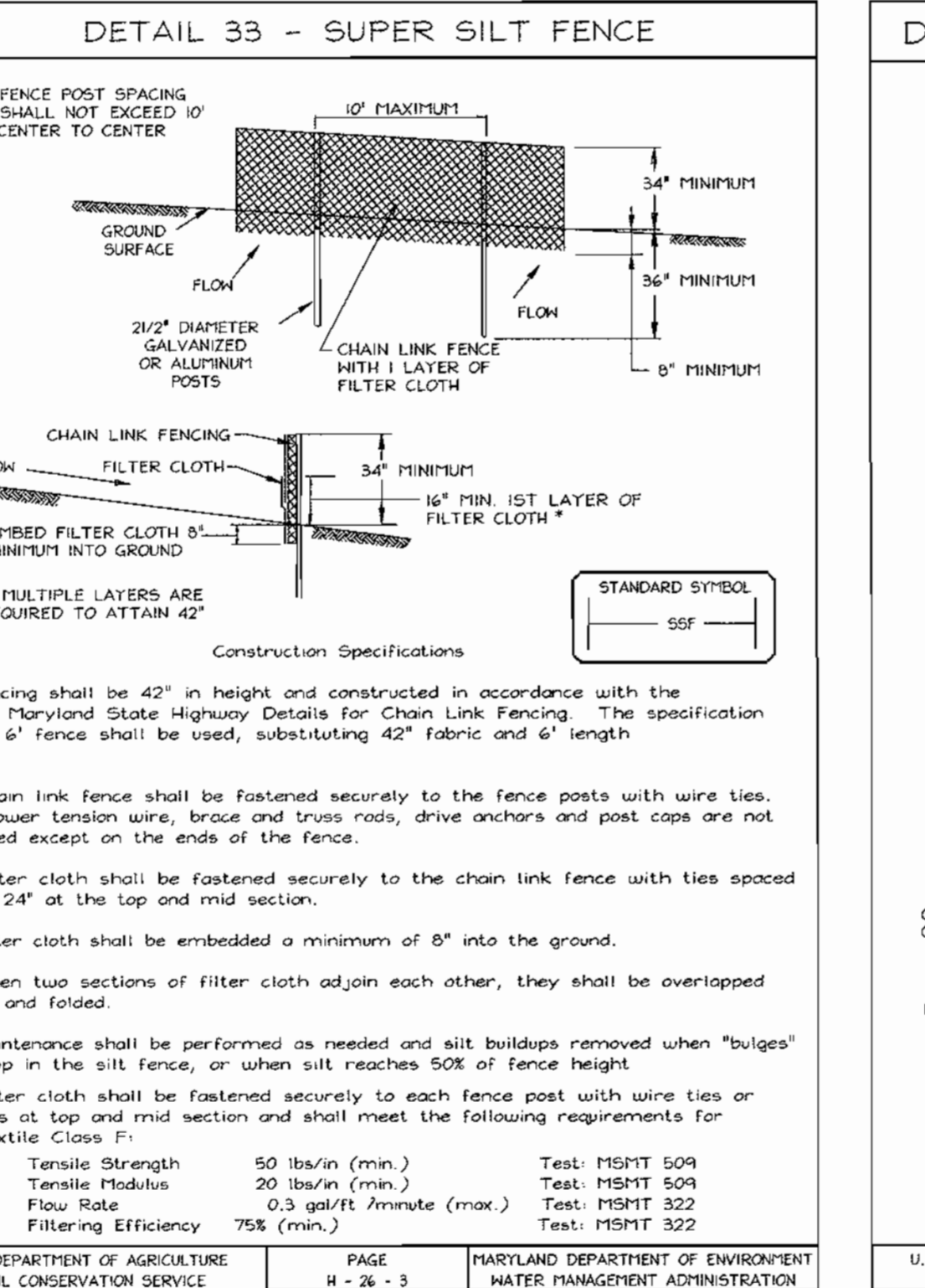
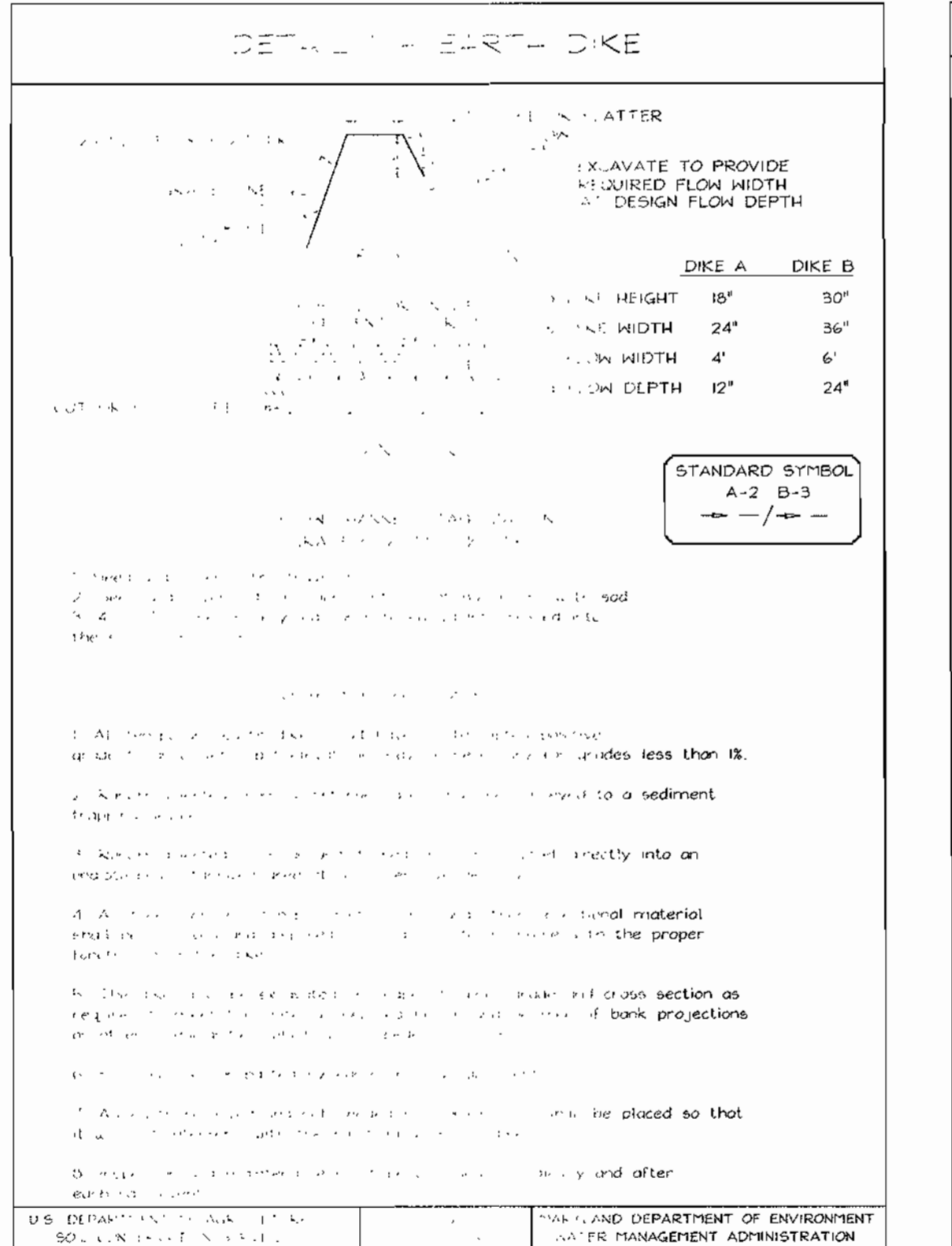
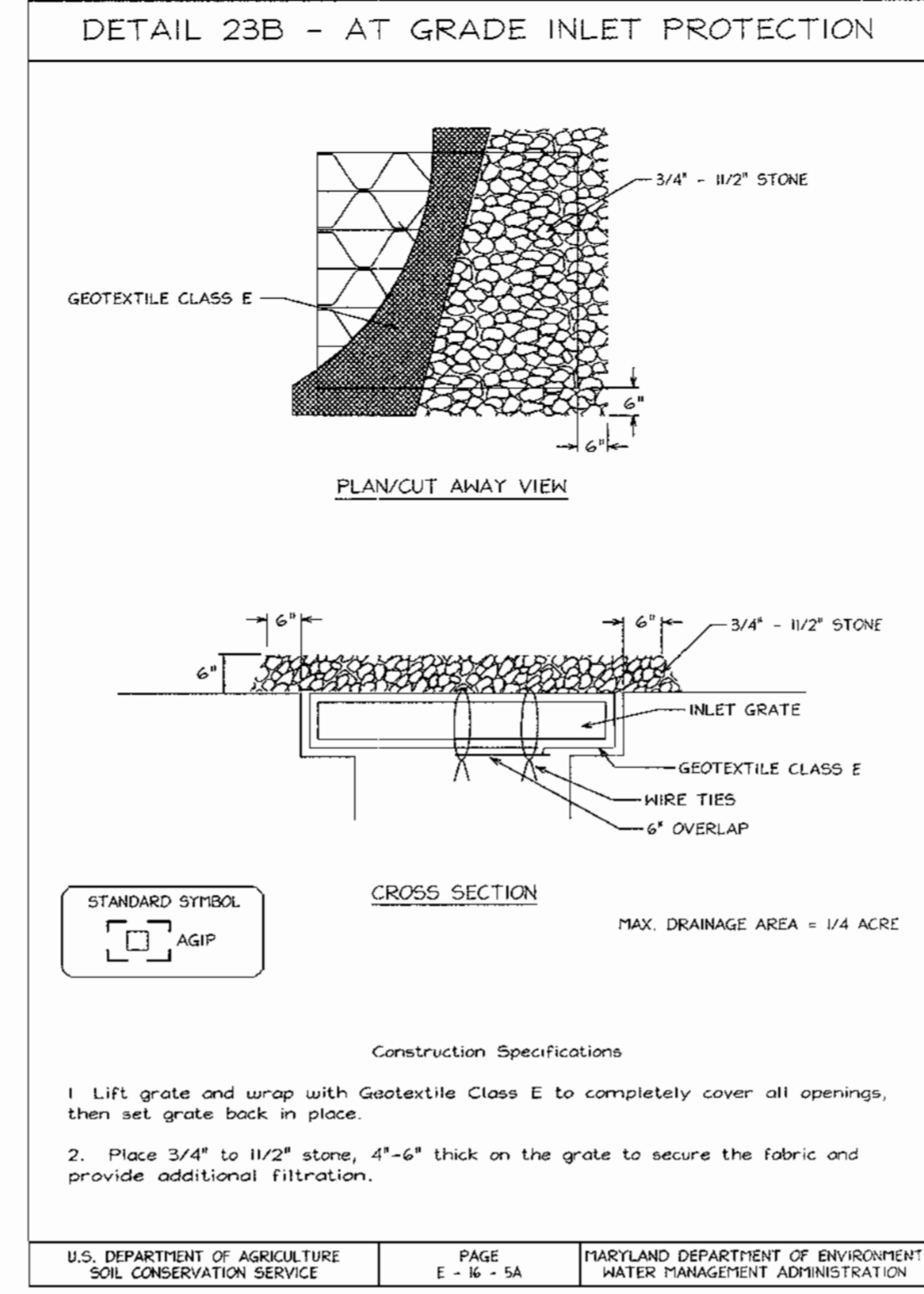
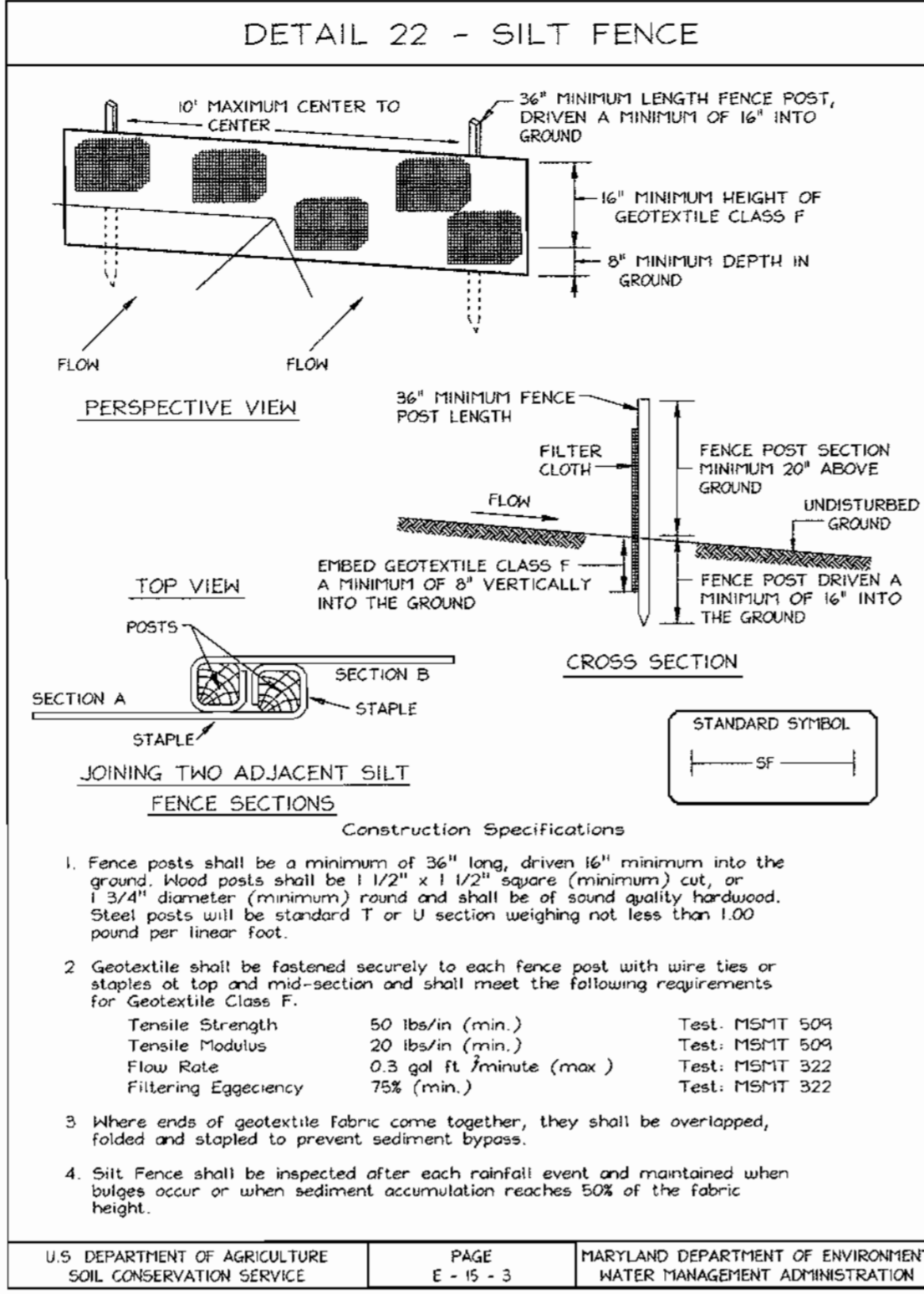
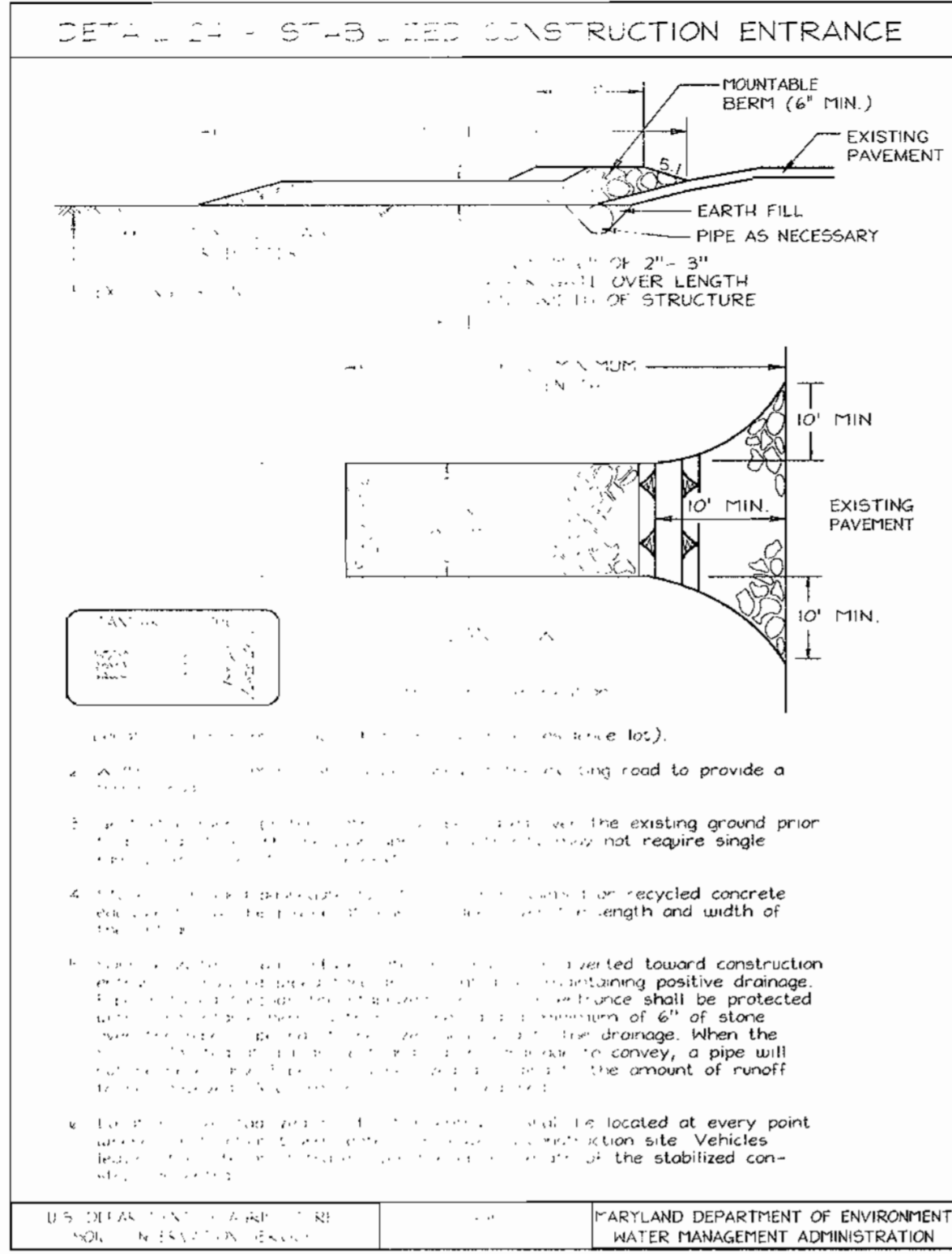
CASWELL PROPERTY

TAX MAP #43 GRID #21 PARCEL 249
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: RHW
DRAWN BY: PS
CHECKED BY: RHW
DATE: Jan. 24, 2001
SCALE: As Shown
W.O. NO.: 98-135

1 SHEET OF 3



200 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition:
Placement of topsoil on a prepared subsoil prior to establishment of permanent vegetation or turf.

Purpose:
To provide a suitable soil medium for vegetative growth. Data of concern include maximum nutrient low nutrient levels, pH, soil water, soil texture, soil structure, and soil color.

Locations Where This Rule Applies:

1. The practice is limited to areas having 2% or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil materials in the soil profile that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
c. The natural soil to be vegetated contains material that is toxic to plant growth.
2. The practice is limited to areas having 2% or flatter slopes where:
a. The soil materials in the soil profile that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
b. The natural soil to be vegetated contains material that is toxic to plant growth.

General and New Material Specifications:

1. Topsoil shall be from the existing site or may be imported from other sources. The standards set forth in these specifications apply to the method of soil testing and sampling for a given soil type. The standards set forth in the representative soil profile section in the Soil Survey published by USDA, in cooperation with Maryland Agricultural Experiment Station.
2. Topsoil shall be:
a. Free of rocks, stones, and other debris larger than 1 1/2" in diameter.
b. Free of any other material that may be detrimental to the growth of plants.
c. Free of any other material that may be detrimental to the growth of plants.
d. Free of any other material that may be detrimental to the growth of plants.

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 (313-1955).
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 revisions thereto.
3. Following initial soil disturbance or redistribution, permanent or temporary sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days or to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter 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 for permanent seeding, sod, temporary seeding, and mulching (Sec. G). 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 permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:
Total Area 0.45 Acres
Area Disturbed 0.20 Acres
Area to be roofed or paved 0.18 Acres
Area to be vegetatively stabilized 0.21 Acres
Total Cut 3810 CY
Total Fill 7100 CY
Offsite waste/borrow area location _____
8. Any sediment control practice which is disturbed by grading activity for 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 perimeter 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 with an approved and active grading permit.

THESE PLANS SHALL BE IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL.

Jim Meyer 3/12/01
John Robertson 3/12/01

APPROVED: _____ DATE: 4/12/01
Cindy Hamada 4/17/01
Robert H. Vogel 3/14/01

ENGINEERS CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Engineer: Robert H. Vogel
Date: 3/14/01

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

Signature of Developer: _____
Date: 3-6-01

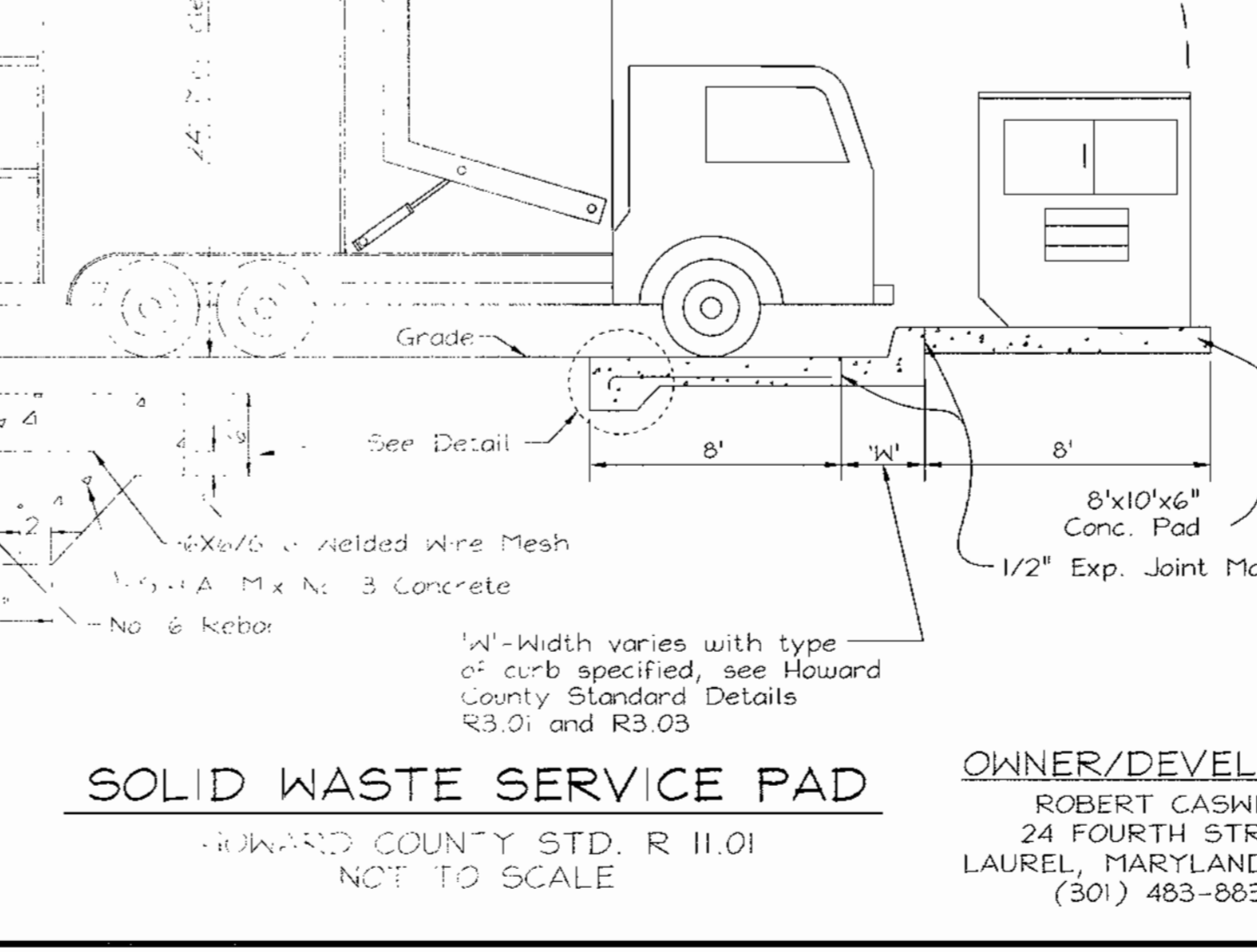
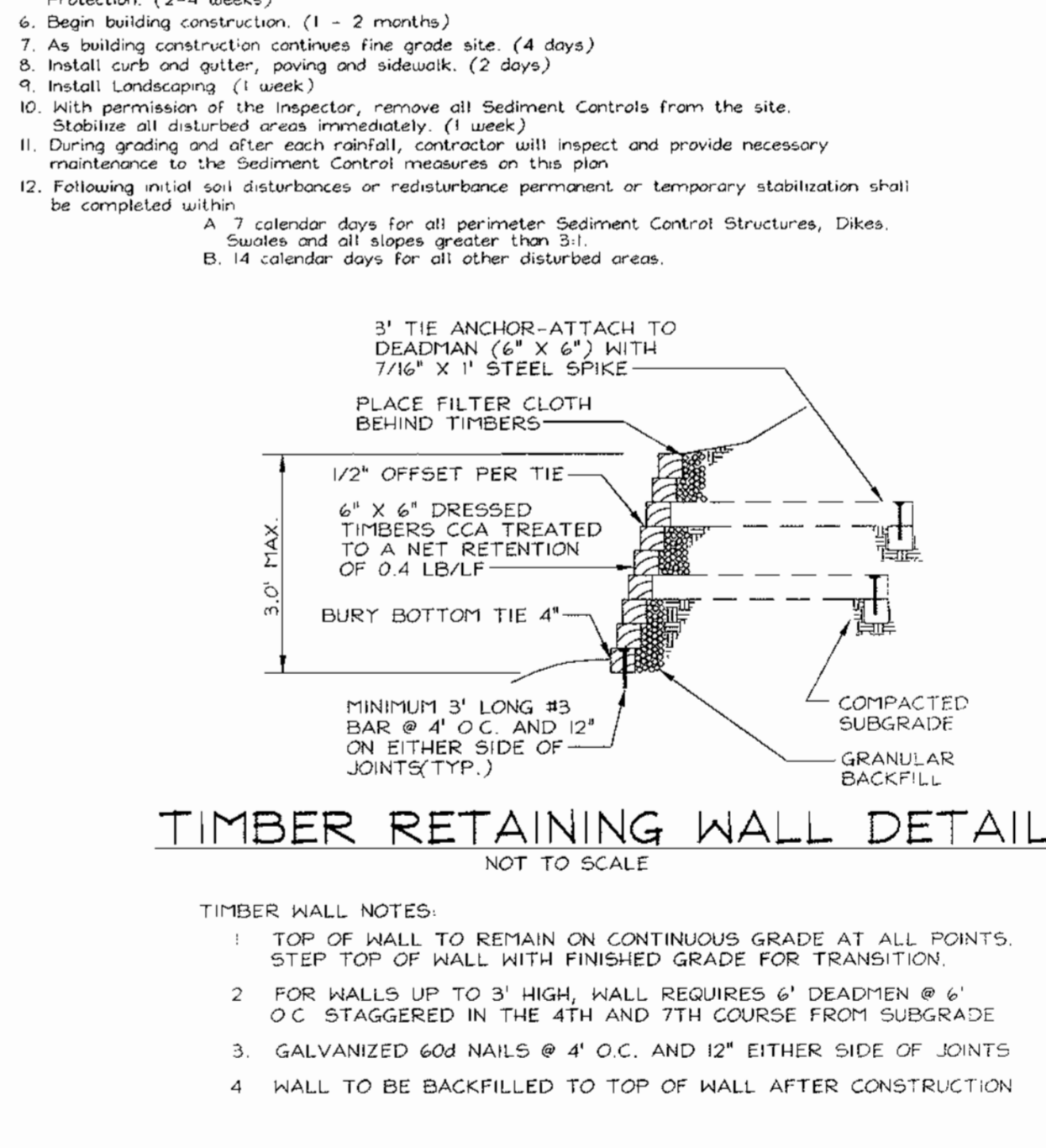
TEMPORARY SEEDING NOTES

SEEDING PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. If not previously loosened:
Apply 400 lbs. per acre (14 lbs/1000 sq ft) fertilizer (14 lbs/1000 sq ft).

SEEDING: For periods March thru April 10 and from August 15 thru November 15, seed with 2 1/2 tons per acre of annual ryegrass (3.2 lbs/1000 sq ft) for the period May 1 thru August 15, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs/1000 sq ft) for the period November 1 thru late April 25. District sites requiring 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 200 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (8 gal/1000 sq ft) for anchoring.

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



SEDIMENT CONTROL AND EROSION CONTROL AND MISCELLANEOUS DETAILS

CASWELL PROPERTY

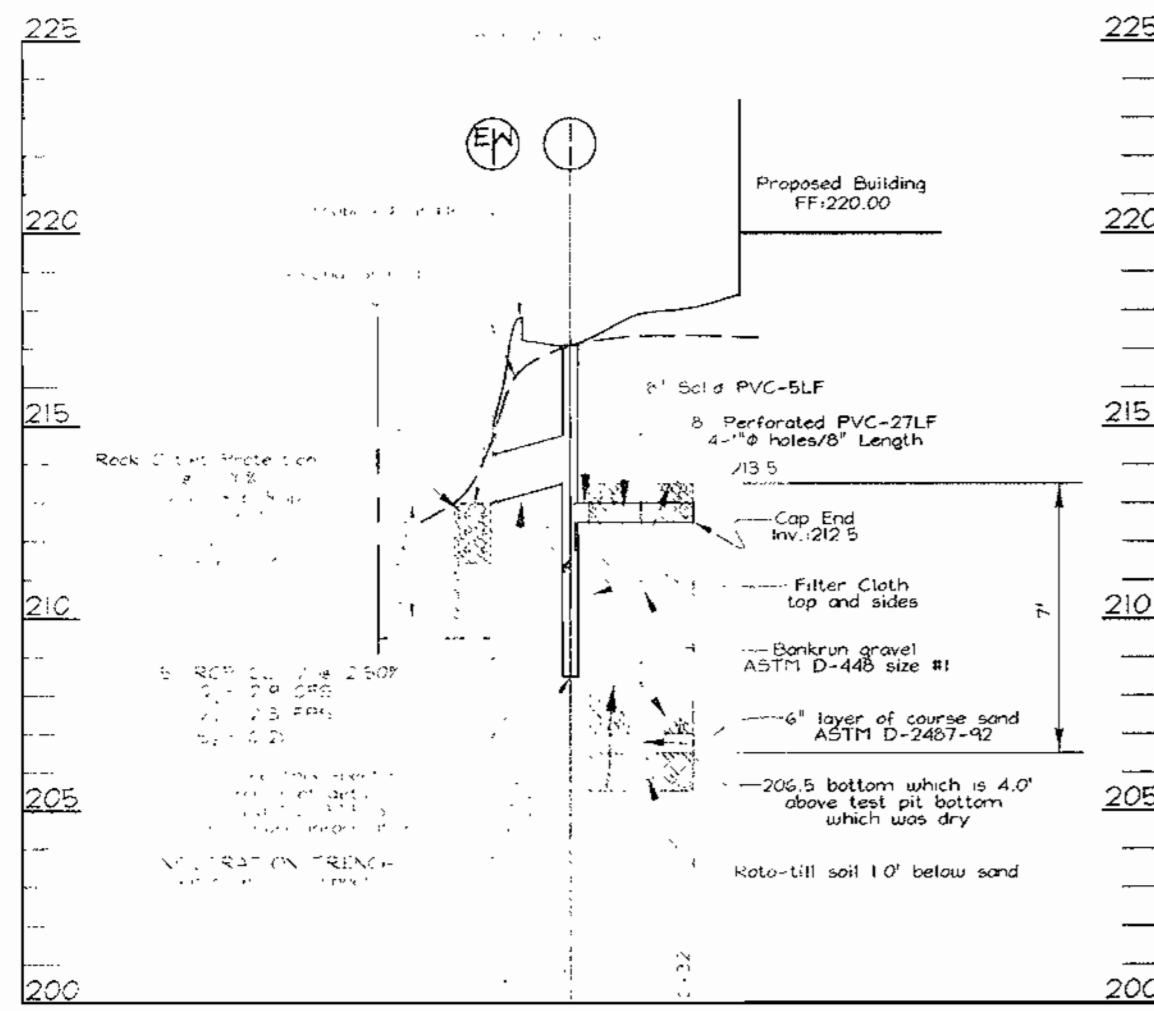
TAX MAP #43 GRID #21
6TH ELECTION DISTRICT

PARCEL 249
HOWARD COUNTY, MARYLAND

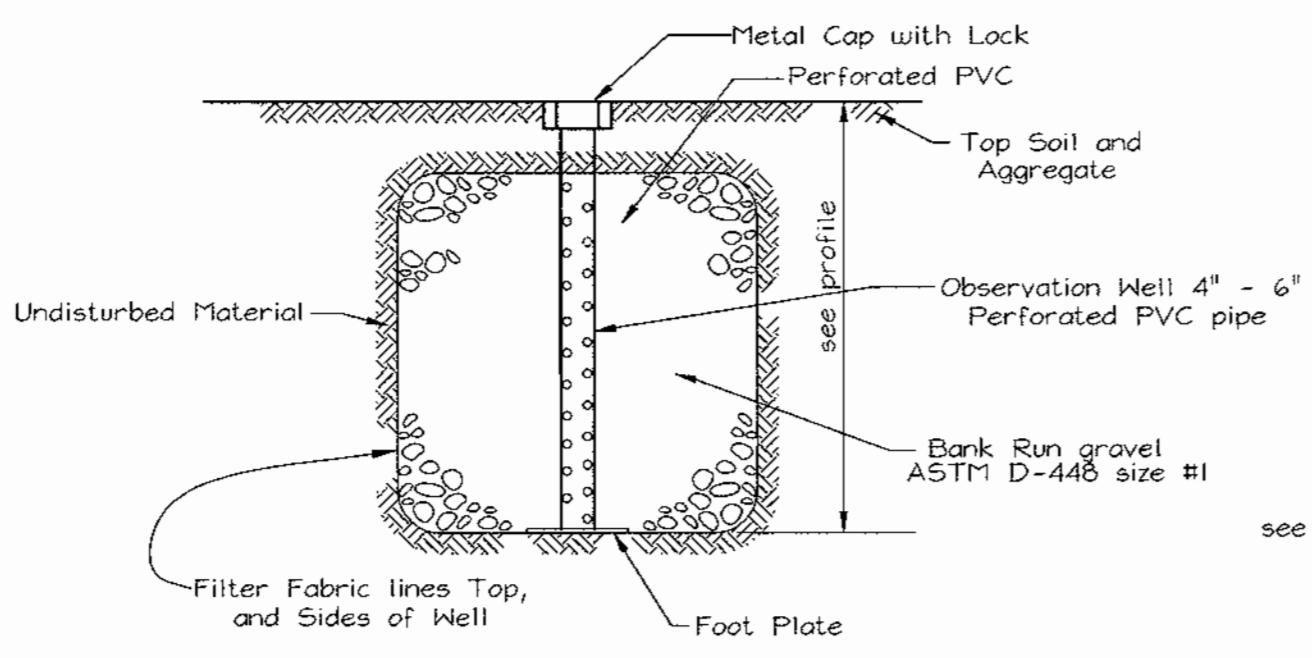
FREDERICK WARD ASSOCIATES, INC.
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: RHW
DATE: Oct. 21, 2000
SCALE: As Shown
W.O. NO.: 98-195

2 SHEET OF 3



STORM DRAIN/INFILTRATION TRENCH PROFILE



OBSERVATION WELL DETAIL

UNDERGROUND INFILTRATION TRENCH CONSTRUCTION SPECIFICATIONS

TIMING:
An infiltration trench shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

TRENCH PREPARATION:
Excavate the trench to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing during the installation process. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.

FABRIC LAY DOWN:
The filter fabric roll must be cut to the proper width prior to installation. The cut width must include sufficient material to conform to the trench perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over the trench and unroll a sufficient length to allow placement of the fabric down onto the trench. Stones or other anchoring objects should be placed on the fabric at the edges of the trench to keep the lined trench open on windy periods. When overlaps are required between rolls, the upstream roll should lap a minimum of two (2) feet over the downstream roll in order to provide a shingled effect. The overlap insures fabric continuity and that the fabric conforms to the excavation surface during placement and compaction.

STONE AGGREGATE PLACEMENT AND COMPACTION:
The stone aggregate should be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process insure fabric conformity to the excavation sides, thereby reducing potential for soil piping, fabric clogging and settlement problems.

OVERLAPPING AND COVERING:
Following the stone aggregate placement, the filter fabric shall be folded over the stone aggregate to form a 6-inch minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent back filling.

CONTAMINATION:
Care should be exercised to prevent natural or fill soils from intermixing with the stone aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated aggregate.

VOIDS BEHIND FABRIC:
Voids can be created between the fabric and the excavation sides and shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to insure fabric conformity to the excavation sides. Soil piping, fabric clogging and possible surface subsidence will be avoided by this remedial process.

UNSTABLE EXCAVATION OF SIDES:
Vertically excavated walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or cohesionless soils predominate. These conditions may require laying back of the sides slopes to maintain stability. A trapezoidal rather than rectangular cross section may result.

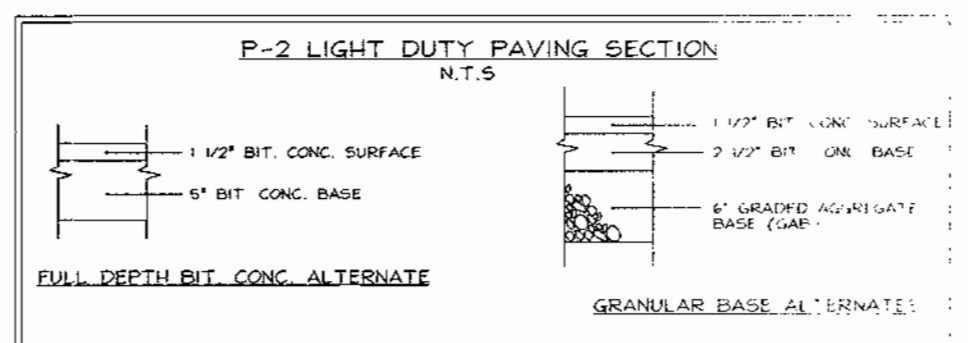
VEGETATIVE BUFFERS:
A vegetative buffer of at least 20 feet (wider if possible) shall be used to intercept surface runoff from all impervious areas.

OBSERVATION WELL:
An observation well shall be provided. The depth of the well at the time of the installation will be clearly marked on the well cap.

MAINTENANCE:
Infiltration trenches shall be designed to minimize maintenance. However, it is recognized that all infiltration facilities are subject to periodic clogging by sediment, oil, grease, grit and other debris. In addition, the performance and longevity of these structures is not well documented. Consequently, a monitoring observation well is required for all infiltration trenches.

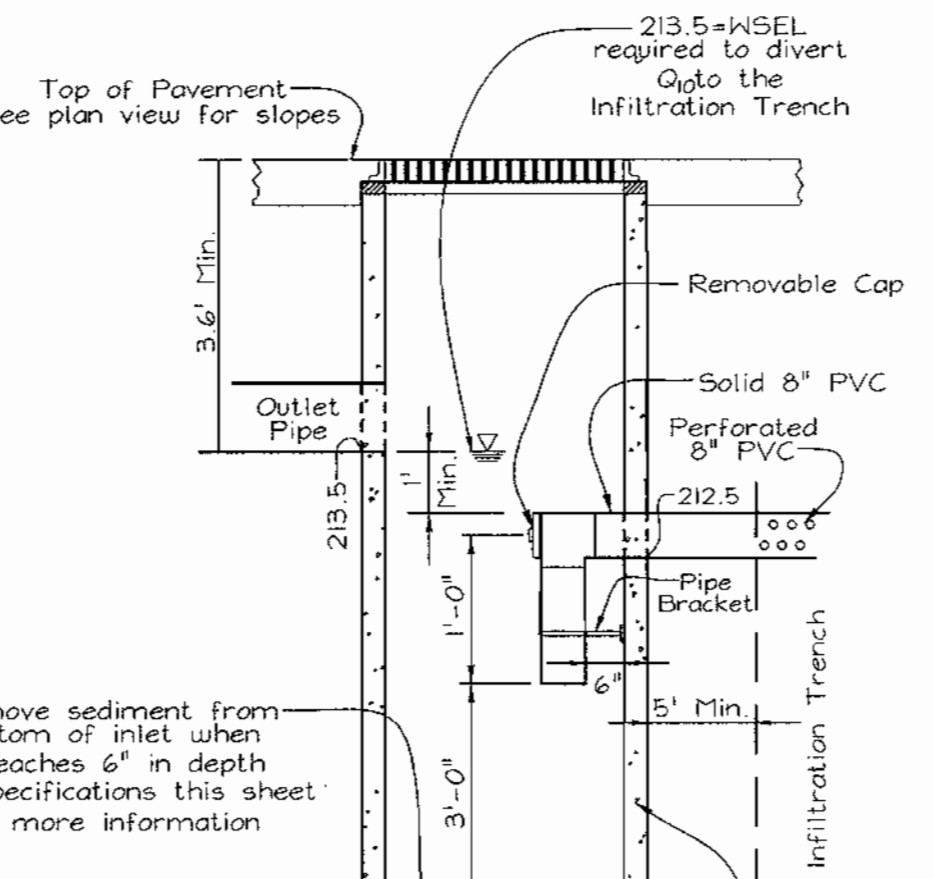
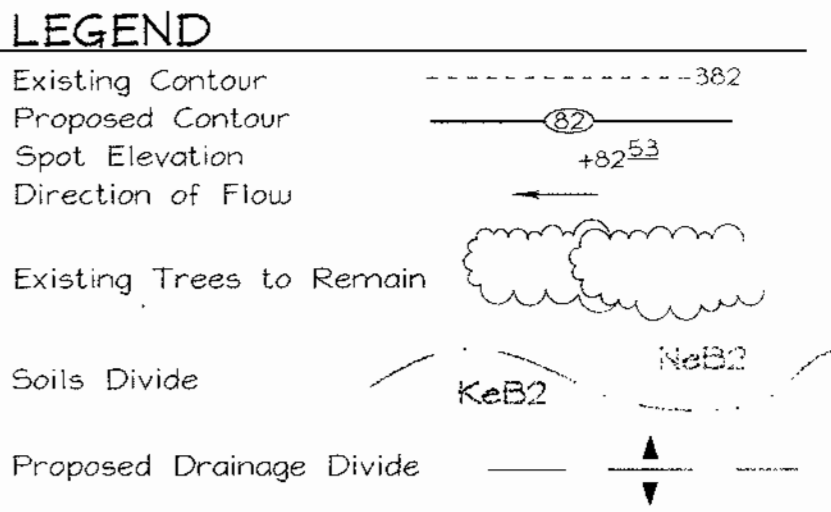
The observation well shall be monitored periodically. For the first year after the completion of construction, the well should be monitored on a quarterly basis and after every large storm event. It is recommended that a log book be maintained indicating the rate at which the trench dewater after large storms and the depth of the well for each observation. Once the performance characteristics of the structure 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.

Sediment buildup in the top of stone aggregate or the surface inlet should be monitored on the same schedule as the observation well. A monitoring well in the top foot of the stone aggregate will be required when the trench has a stone surface. Sediment deposited shall not be allowed to build up to the point where it will reduce the rate of infiltration into the trench.

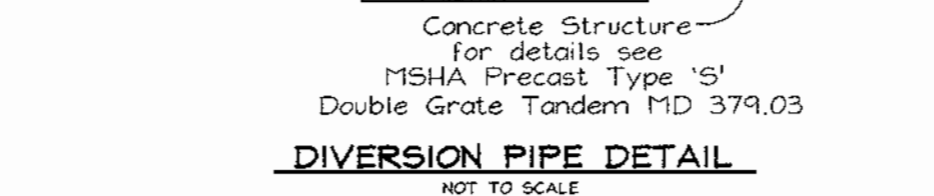


SOILS LEGEND

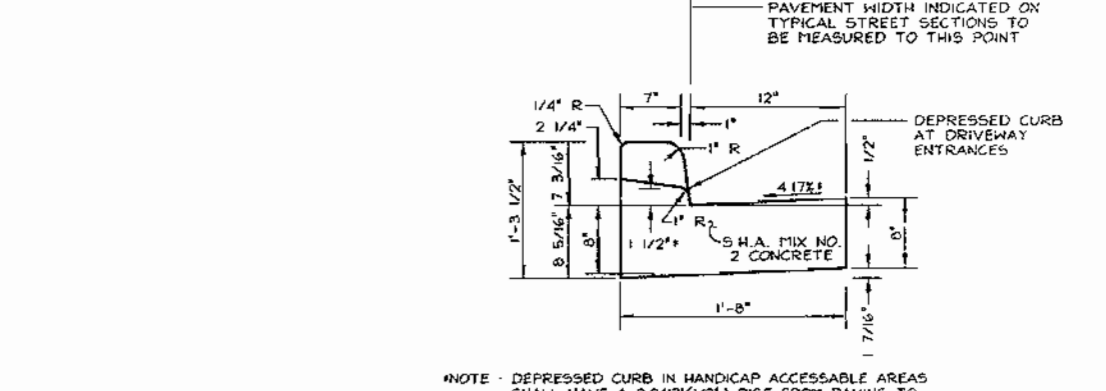
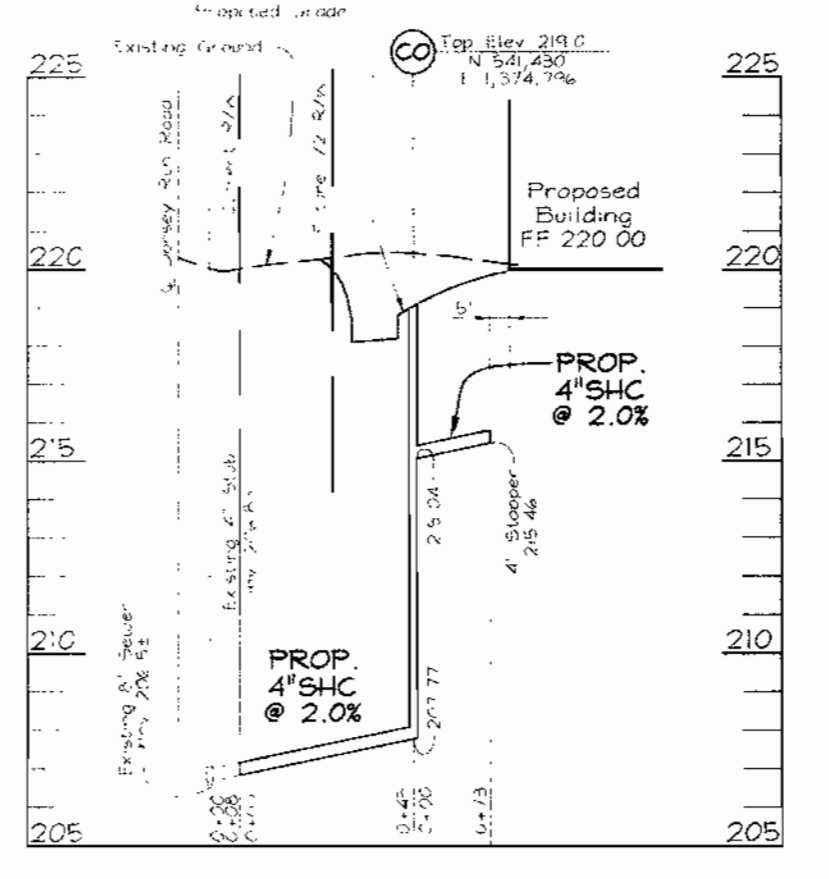
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
SfB2	Classified as gravelly sandy loam, 1 to 5 percent slopes, moderately eroded	B



SEWER HOUSE CONNECTION PROFILE



DIVERSION PIPE DETAIL



STANDARD COMBINATION CURB AND GUTTER

UNDERGROUND INFILTRATION TRENCH GENERAL NOTES

- A minimum clearance of 18 inches shall be maintained between a utility line and the trench. No utility line shall be placed over, under or within the trench.
- See the notes on the plan view for additional information.

UNDERGROUND INFILTRATION TRENCH SUMMARY

YEAR	10 YEAR
Flow (c.f.s.)	1.6 c.f.s.
Volume (c.f.s.)	0 c.f.s.
Area (sq. ft.)	212.50
Volume (cu. ft.)	5,658 cf

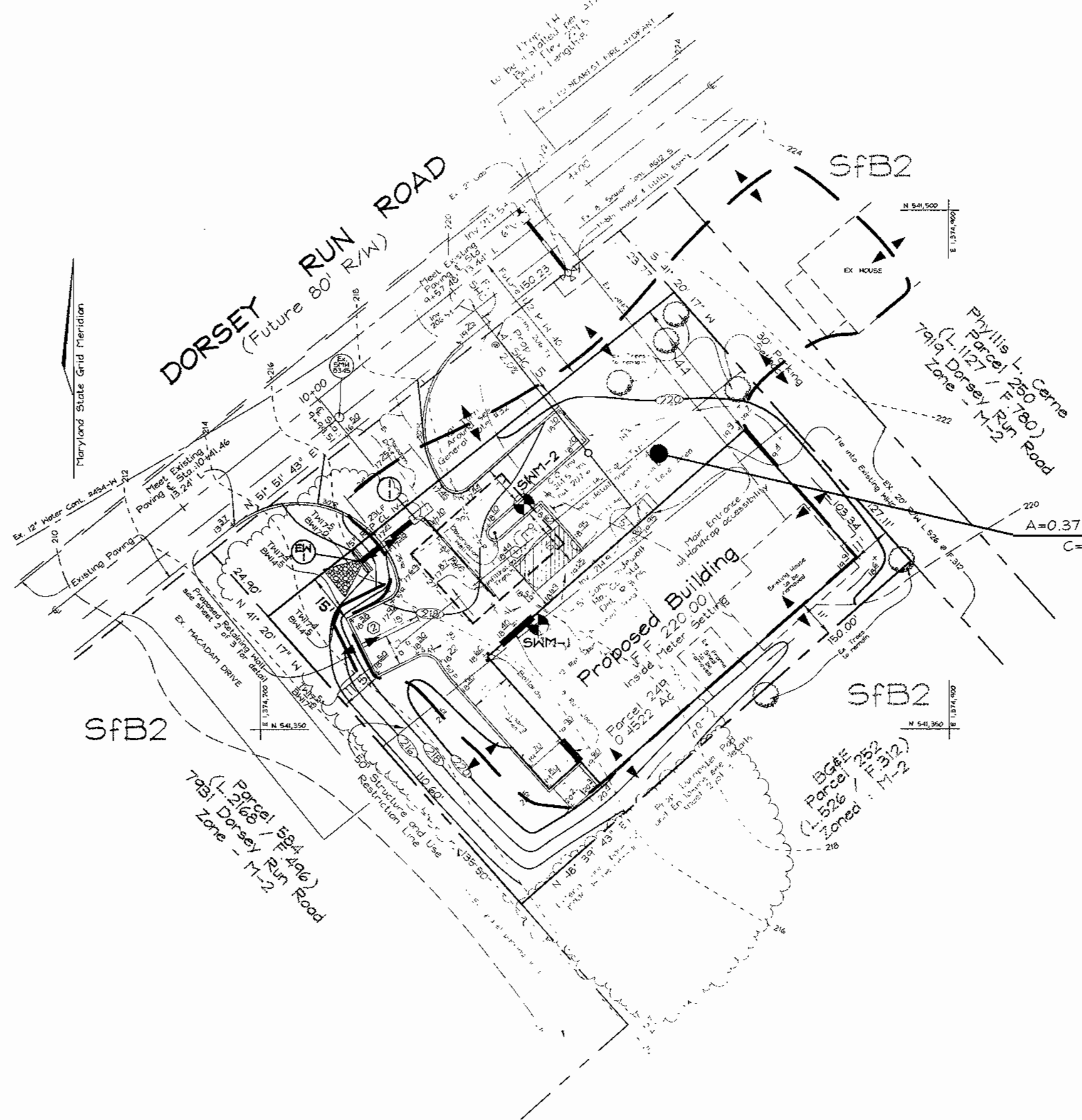
STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
1-1	Proposed Infiltration Trench	1/4 Mile E 1,374,746	217.10	-	206.50	MD 379.03
HK-1	Hydrology	1/4 Mile E 1,374,750	214.25	215.00	-	SD 5.21

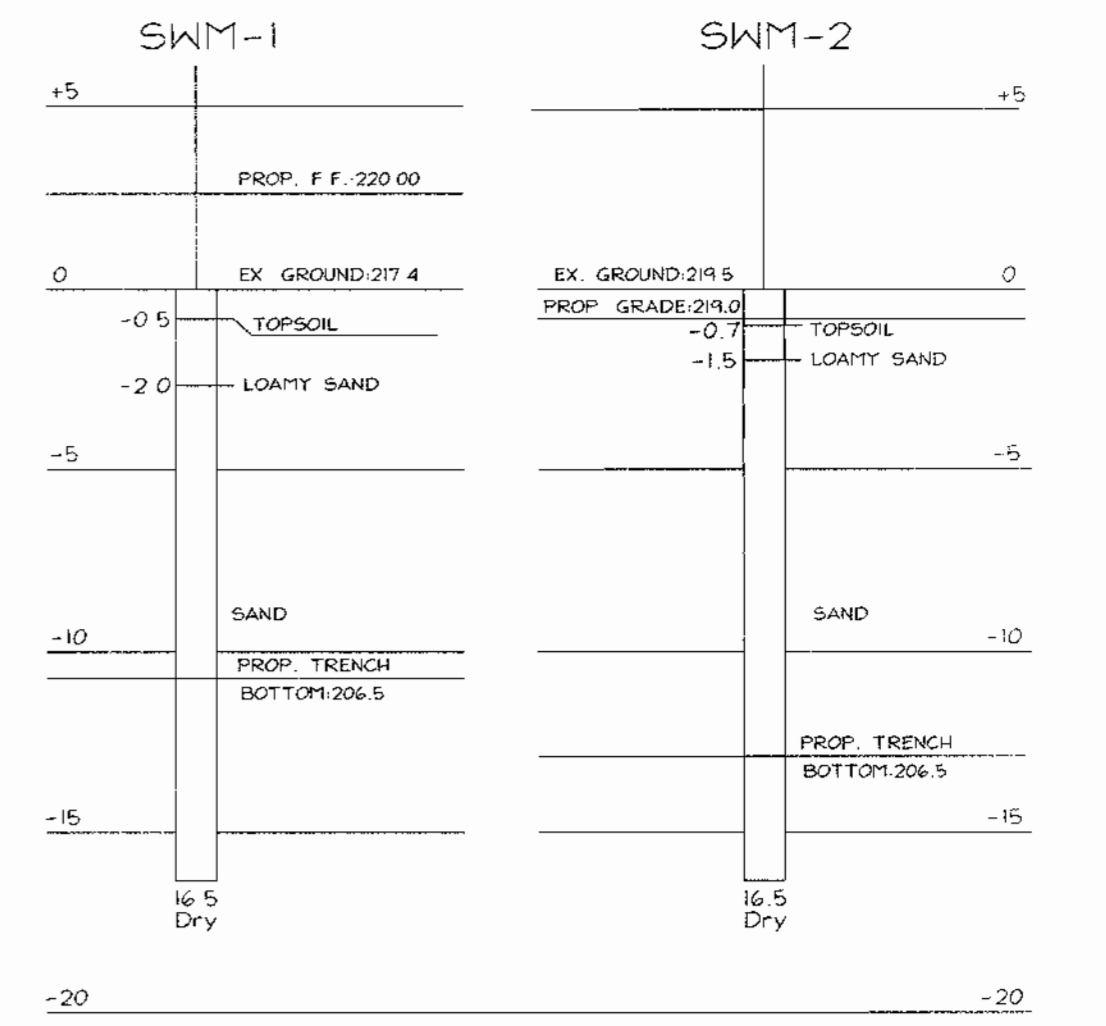
NOTE: See notes on the plan view for additional information.

PIPE SCHEDULE

SIZE	TYPE	LENGTH
8"	8" Solid PVC	100.00
6"	6" Perforated PVC	100.00
15"	15" Concrete	100.00



STORM DRAINAGE DRAINAGE AREA MAP



S.W.M. BORING PROFILES

APPROVE: [Signatures] PLANNING AND ZONING
DATE: 4/12/01
DATE: 4/12/01
DATE: 3/14/01

OWNER/DEVELOPER
ROBERT CASWELL
24 FOURTH STREET
LAUREL, MARYLAND 20707
(301) 483-8835

NO.	REVISION	DATE

STORM DRAIN PROFILES, STORM DRAIN DRAINAGE AREA MAP, AND DETAILS

CASWELL PROPERTY

TAX MAP #43 GRID #21 PARCEL 249
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354
ARCHITECTS Phone: 410-290-9550 Fax: 410-720-6226
SURVEYORS Bel Air, Maryland Columbia, Maryland Warrenton, Virginia



DESIGN BY: RHV
DRAWN BY: PS
CHECKED BY: RHV
DATE: Oct 21, 2000
SCALE: As Shown
W.O. NO: 98-135
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