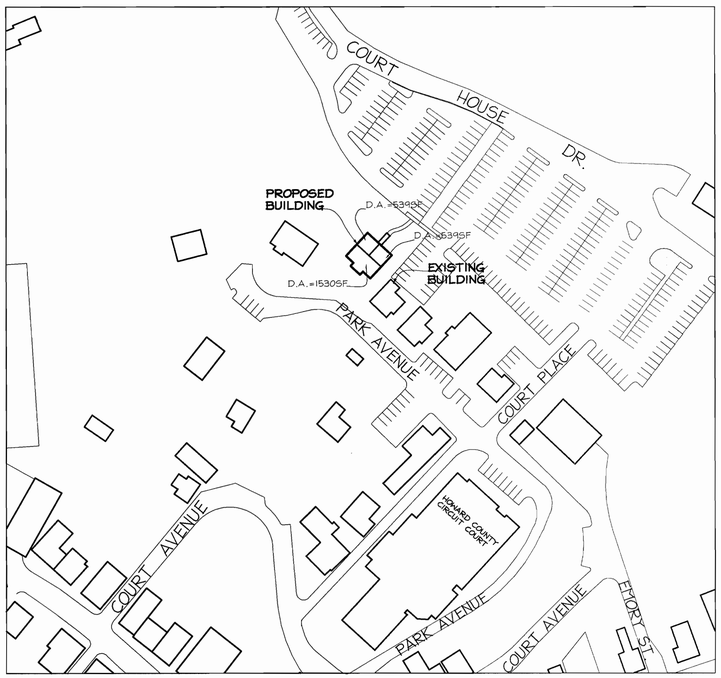
SITE DEVELOPMENT PLAN
COURTHOUSE OVERLOOK

GENERAL NOTES

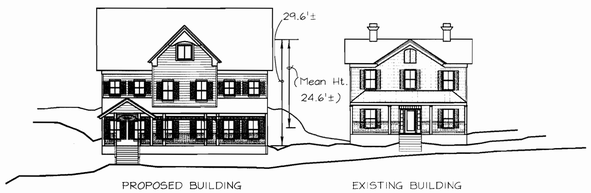
1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
2. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
3. The contractor is to notify 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:	725-9976
Howard County Bureau of Utilities:	313-2366
AT&T Cable Location Division:	393-3553
B.G.&E. Co. Contractor Services:	850-4620
B.G.&E. Co. Underground Damage Control:	787-4620
State Highway Administration:	531-5533

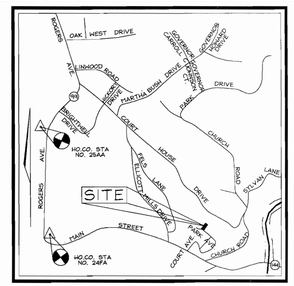
4. Site analysis:
   Area of parcel : 0.17 Ac.±, 7467.3 sf
   Present zoning : HO (Historic: Office)
   Use of structure : Offices
   Building floor area : 5890 sf (lwr floor-2132 sf, 1st floor-2132 sf, 2nd floor-1626 sf)
   Total Building coverage on site : 0.05 Ac. or 29.4% of gross area
   Floor area ratio allowed: 3:1
   Floor area ratio proposed: 0.8:1
   Paved parking lot/area : NA
   Area of landscape island : NA
   Area of open space : NA
   Area of disturbance: 4879 sf
   Maximum number of tenants: 12±
   There are no steep slopes on-site with a contiguous area of 20,000 sf or greater.
5. Project background:
   Location : Ellicott City, Md.; Tax Map 25A, Lot 9, Part of Parcel 108
   Zoning : HO
   Subdivision : NA
   Section/Area : NA
   Site Area : 0.17 Acres±
   Deed references : L.2556, F.259 dated May 29, 1992
   DPZ references : Historic District Commission No. 00-36
6. 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.
7. Any damage to public right-of-ways, paving, or existing utilities will be corrected at the contractor's expense.
8. Existing utilities located from Road Construction Plans, Field Surveys, Public Water and and Sewer Extension Plans and available record drawings. Approximate location of existing utilities are shown for the 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.
9. All reinforced concrete for storm drain structures shall have a minimum of 28 days strength of 3,500 p.s.i.
10. All curb and gutter to be Howard County Standard concrete Detail 3.01 unless otherwise specified. 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.
11. Estimates of earthwork quantities are provided solely for the purpose of calculating fees.
12. 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.
13. All storm drain pipe bedding shall be Class 'C'
14. Coordinates and elevations are based on Howard County Monuments 25AA and 24FA.
15. A noise study is not required for this project.
16. Existing topography is based on a field run survey performed by Vogel & Associates, Inc. dated June, 2000.
17. Financial Surety for the required landscaping must be posted as part of the Developer's Agreement in the amount of $3,300.00 for 7 shade trees and 8 evergreen trees required. Requirements fulfilled with 3 shade trees, 7 evergreen trees, 25 shrubs and existing mature locusts.)
18. Contractor responsible to construct all handicap access in accordance with current ADA requirements.
19. Retaining walls are to be part of the building foundation.
20. Trash pick up to be provided on Park Avenue side using residential type trash recepticals.
21. Water Quality Dry Wells to privately owned and maintained.
22. Public Water available from Contract #44-1071; Public Sewer available from Contract #239-S
23. Stormwater Management is not required since the area of disturbance is less than 5000 sf. Water Quality is proposed by the use of water quality dry wells.
24. All exterior lighting shall conform to Zoning Regulations Section 134.
25. Building to have inside Water Meter setting.
26. An APFO traffic test has been prepared by The Traffic Group on August 9, 2000.
27. This site is exempt from the Forest Conservation Ordinance in accordance with 16.1202(b)(1)(i). (Project less than 40,000 square feet)
28. All setbacks and other bulk regulation requirements will be in accordance with HO District and Supplementary Zoning District Regulations.
29. Retaining walls contiguous with building to be detailed with architecture.
30. A sediment and erosion control plan is not required because the area of disturbance is less than 5000 sf.
31. To the best of the applicants knowledge, there are no cemeteries on site.
32. There are no wetlands, flood plains, streams, specimen trees or woods on site.
33. Automatic fire protection sprinkler system will be provided.



DRAINAGE AREA MAP AND LOCATION MAP
SCALE: 1"=100'



BUILDING ELEVATION
SCALE: 1"=20'



VICINITY MAP
SCALE: 1"=2000'

BENCHMARKS

Howard County Station 25AA
N 524558 E 853653 Elev.:
northeast of the intersection of Rogers Avenue and Patapsco River Road

Howard County Station 24FA
N 523002 E 853674 Elev.:
50'± north of Fredrick Road (Main Street), 14'± east of Rogers Avenue

SHEET INDEX

BUILDING PLAN VIEW
SCALE: 1"=30'

DEVELOPER

Charles E. Wehland
3677 Park Avenue
Ellicott City, Maryland 21043
(410) 465-8755

OWNER

Charles E. Wehland
3677 Park Avenue
Ellicott City, Maryland 21043
(410) 465-8755

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DIRECTOR	DATE 2/28/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 2/28/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 2/12/01

PARKING TABULATION

Parking Required : NA in HO zone.
Parking Provided : Existing Howard County Parking Lot
Handicap Spaces Required : 0
Handicap Spaces Provided : 0

ADDRESS CHART
STREET ADDRESS
3675 Park Avenue

PROJECT NAME			SECTION/AREA		PARCEL NUMBER
Courthouse Overlook			NA		LOT 9, P/O 108
L/F NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
2556/259	1C	HO	25A	2nd	6028
WATER CODE : 1F04			SEWER CODE : 1401200		

COVER SHEET
COURTHOUSE OVERLOOK

TAX MAP #25A BLOCK 1C
2ND ELECTION DISTRICT

LOT 9, P/O PARCEL '108'
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS·SURVEYORS·PLANNERS
3691 Park Avenue, Suite 101 • Ellicott City,Maryland 21043
Tel 410.461.5828 Fax 410.465.3966

STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO.16193 — REGISTERED PROFESSIONAL ENGINEER — 1/23/01
ROBERT H. VOGEL, P.E. No.16193

DESIGN BY: RHV
DRAWN BY: MHM
CHECKED BY: RHV
DATE: January 24, 2001
SCALE: As Shown
W.O. NO.: 00-042

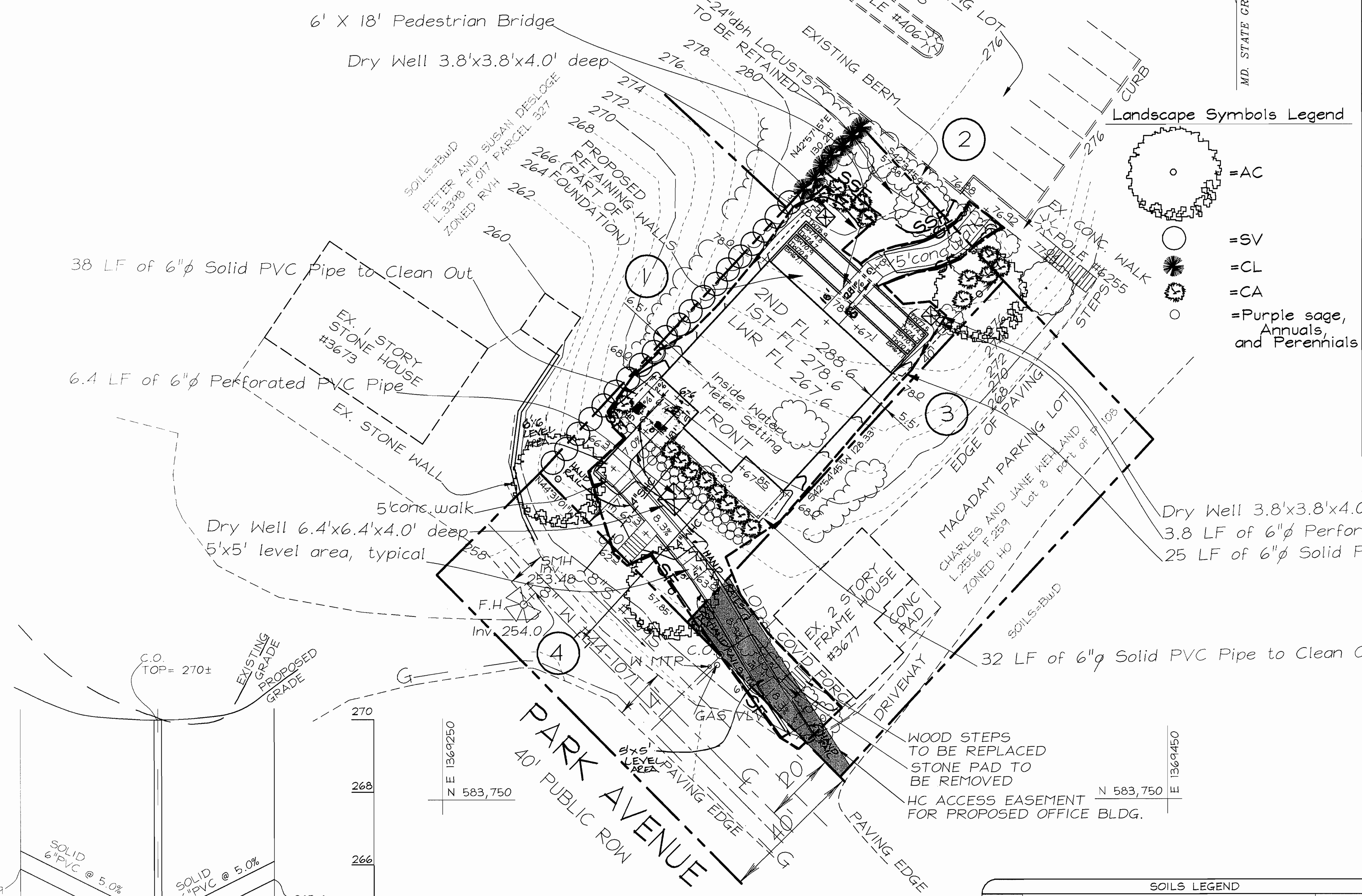
SHEET 1 OF 3

C:\Land Projects\00-042\dwg\5009sl.dwg-E5 01 24 01

SDP-01-22

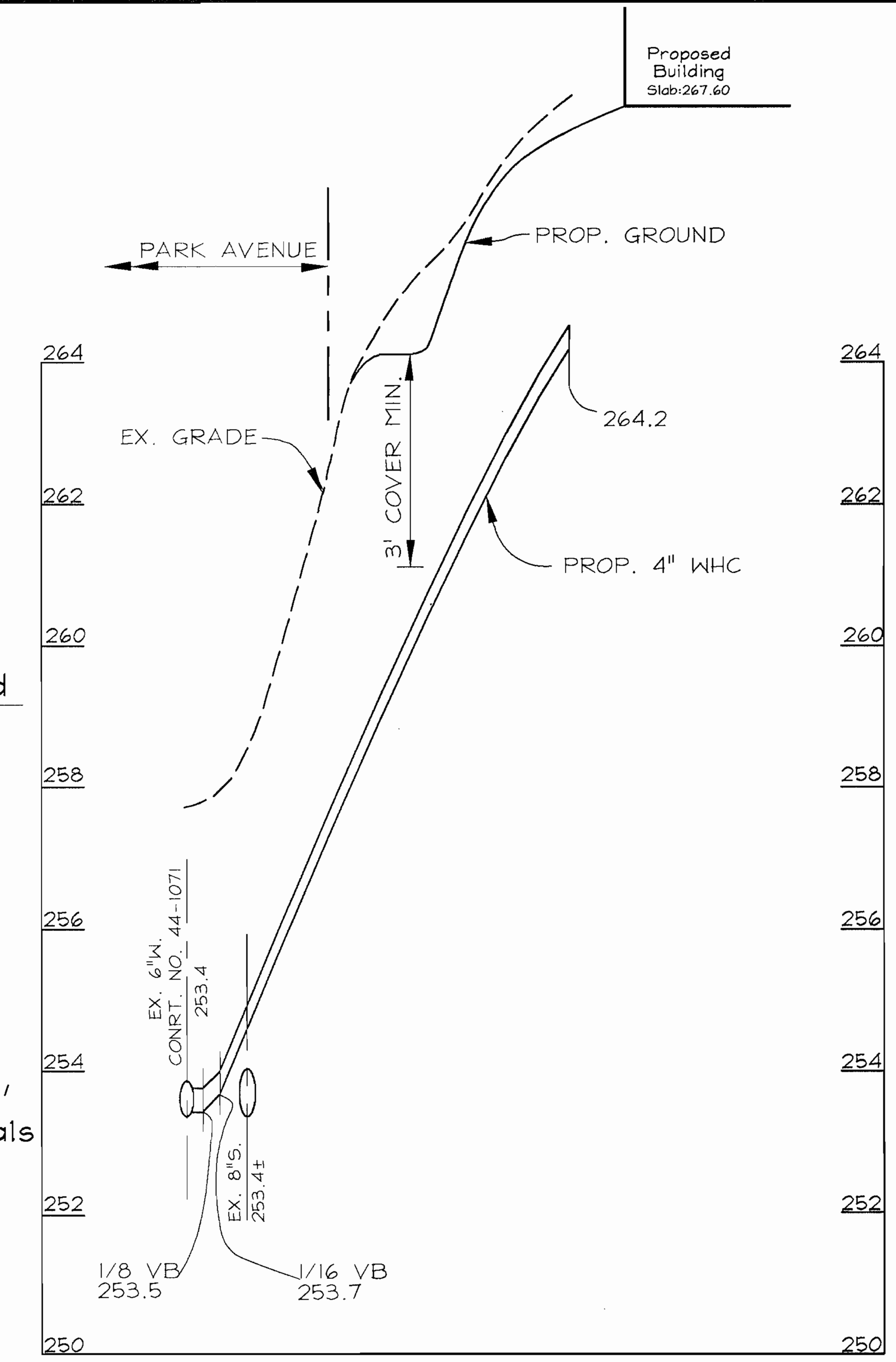
GENERAL NOTES

1. Financial Surety for the required landscaping must be posted as part of the Developer's Agreement in the amount of $3,300.00 for 7 shade trees and 8 evergreen trees required. Requirements fulfilled with 3 shade trees, 7 evergreen trees, 25 shrubs and existing mature locusts.)
2. Retaining walls are to be part of the building foundation.
3. Building to have inside Water Meter setting.
4. Trash pick up to be provided on Park Avenue side using residential type trash recepticals.
5. Water Quality Dry Wells to be privately owned and maintained.



Landscape Symbols Legend

- =AC
- =SV
- =CL
- =CA
- =Purple sage, Annuals, and Perennials

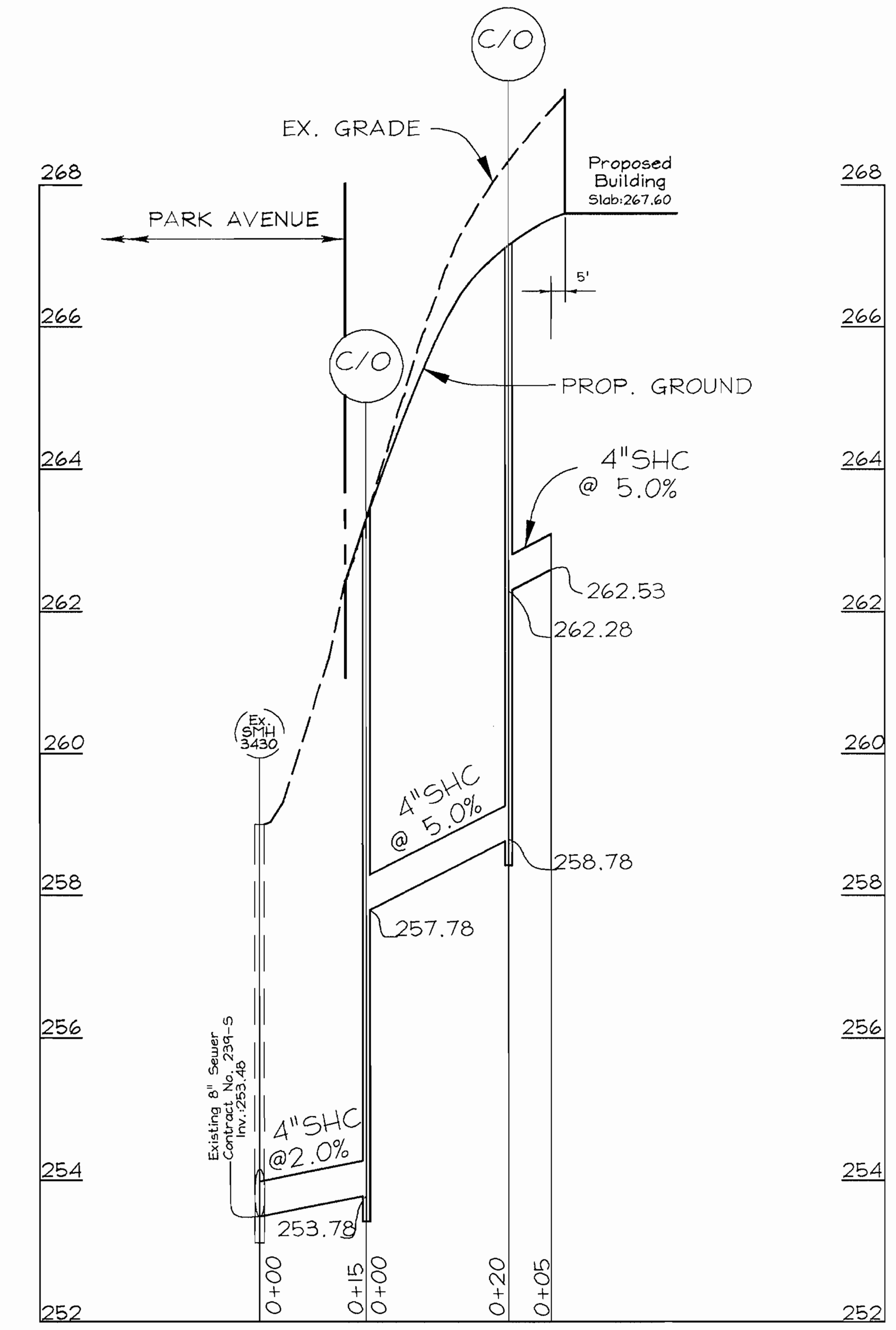


WATER HOUSE CONNECTION PROFILE

SCALE : HORIZONTAL - 1"=20'
VERTICAL - 1"=2'

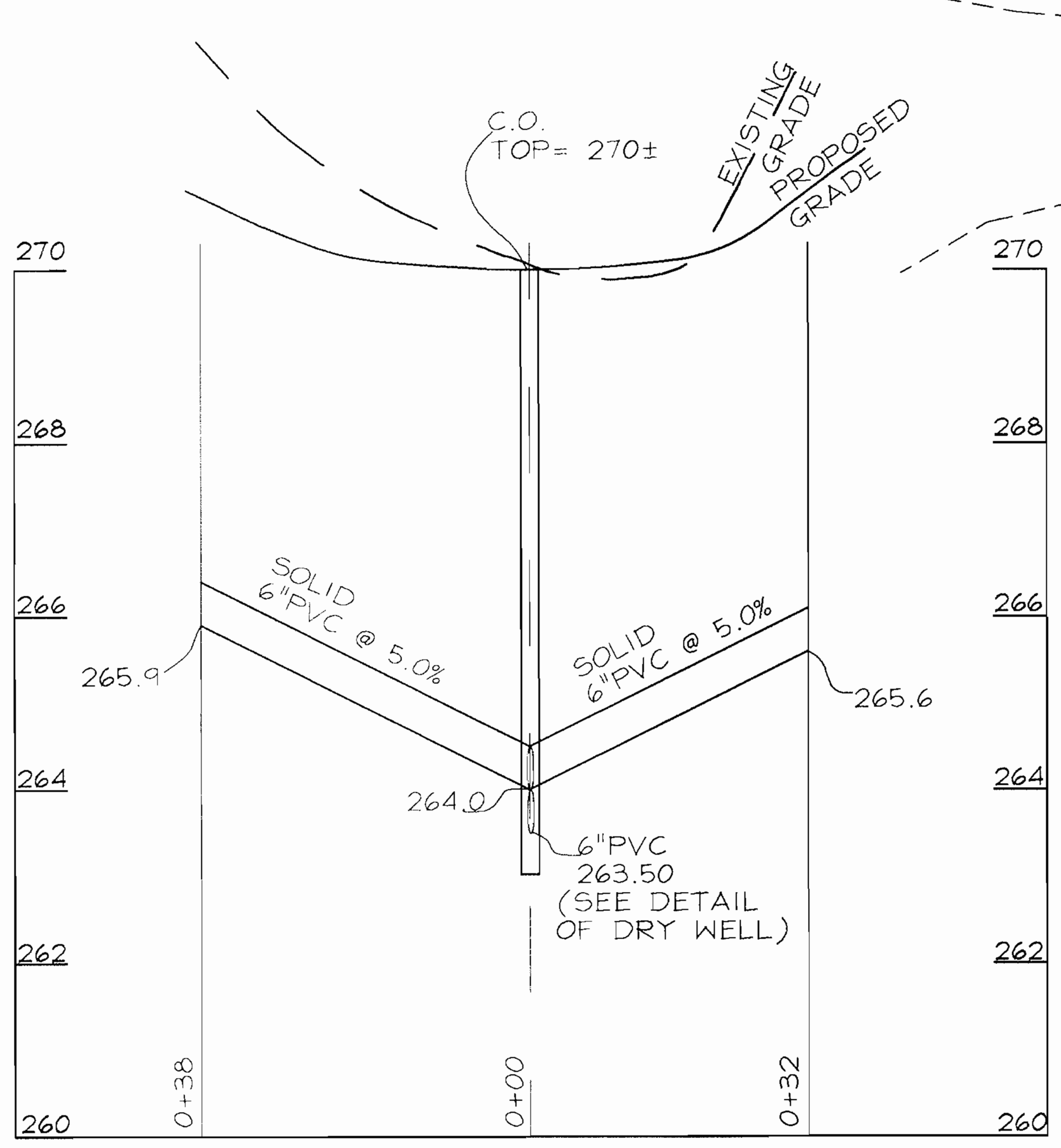
LEGEND

Existing Contour	------------382
Proposed Contour	
Spot Elevation	+82 53
Direction of Flow	←
Existing Trees to Remain	
Shade Trees	AC
Evergreen Trees	CL
Shrubs	3CA
Flowering Large Shrubs	23SV
Purple Sage, Annuals & Perennials	
Limit of Disturbance	— — LOD — —
Silt Fence	— SF — SF —
Landscape Perimeters	2
Dry Well (Water Quality Trench)	
4" Diameter PVC Pipe	- - - - - -
Existing Light Pole	



SEWER HOUSE CONNECTION PROFILE

SCALE : HORIZONTAL - 1"=20'
VERTICAL - 1"=2'



ROOF LEADER PROFILE

SCALE : HORIZONTAL - 1"=20'
VERTICAL - 1"=2'

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	K VALUE	SOIL GROUP
BwD	BRANDYWINE VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	.32	C

DEVELOPER
Charles E. Wehland
3677 Park Avenue
Ellicott City, Maryland 21043
(410) 465-8755

OWNER
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Ellicott City, Maryland 21043
(410) 465-8755

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
AC	3	Amelanchier grandiflora 'Cumulus' Cumulus Service Berry	2 1/2"-3" Cal.	B & B
CA	19	Clethra alnifolia 'September Beauty' September Beauty Pepper Bush	#3 Can	Cont.
SV	20	Syringa vulgaris 'Alba' White Lilac	30"- 36" Ht.	B & B or Cont.
CL	7	Cupressocyparis leylandii Leyland Cypress	4'-6' Ht.	B & B or Cont.

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH MARYLAND LANDSCAPE CONTRACTORS ASSOCIATION PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
5. OWNER TO CONFIRM AVAILABILITY OF PLANTS UPON PLAN APPROVAL. NO SUBSTITUTIONS ALLOWED WITHOUT THE WRITTEN CONSENT OF A LICENSED LANDSCAPE ARCHITECT.
6. PLANTS SOLD BY PRINCETON NURSERIES 1(800) 916-1776

SCHEDULE A
PERIMETER LANDSCAPE EDGE***

CATEGORY	ADJACENT TO PERIMETER PROPERTIES			
Perimeter/Frontage Designation Landscape Type	1 C	2 A	3 A	4 B
Linear Feet of Roadway Frontage/Perimeter	130.28	57.88	128.33	57.85
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	Yes* 57.88	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet Describe below if needed)	No	Yes* 35	No	No
Number of Plants Required Shade Trees Evergreen Trees Shrubs	1:40 3 1:20 7 –	1:60 1 – –	1:60 2 – –	1:50 1 1:40 1 –
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 Substitution) Shrubs (10:1 Substitution) Describe Plant Substitution Credits Below if needed)	1 prop. 1 ex.* 7 – 25**	1 ex.* – – –	2 – – –	2 – – –

* Three existing 8-24" dbh locusts to remain; There is a 3'-4' berm next to the parking lot.
** Shrubs are proposed to substitute for shade trees due to the close proximity of the building to the property line.
*** Due to the small size of this property trees planted in corners are credited to the adjacent perimeter.
Note: Lots 8 and 9 are internal lots in the same subdivision.
This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/12/01 DATE
[signature] CHIEF, DIVISION OF LAND DEVELOPMENT	2/28/01 DATE
[signature] DIRECTOR	2/28/01 DATE

DEVELOPER'S BUILDER'S CERTIFICATE

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

[signature] SIGNATURE OF DEVELOPER — 1/24/01 DATE

SITE DEVELOPMENT PLAN AND LANDSCAPE PLAN
COURTHOUSE OVERLOOK

TAX MAP #25A BLOCK 1C
2ND ELECTION DISTRICT
LOT 9, P/O PARCEL '108'
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS·SURVEYORS·PLANNERS
3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
Tel 410.461.5828 Fax 410.465.3966

STATE OF MARYLAND ROBERT HARRIS VOGEL NO. 16193 REGISTERED PROFESSIONAL ENGINEER 1/23/01
ROBERT H. VOGEL, PE No.16193

DESIGN BY: RHV
DRAWN BY: MHM
CHECKED BY: RHV
DATE: January 24, 2001
SCALE: 1"=20'
W.O. NO.: 00-042

2 SHEET OF 3

SDP-01-22

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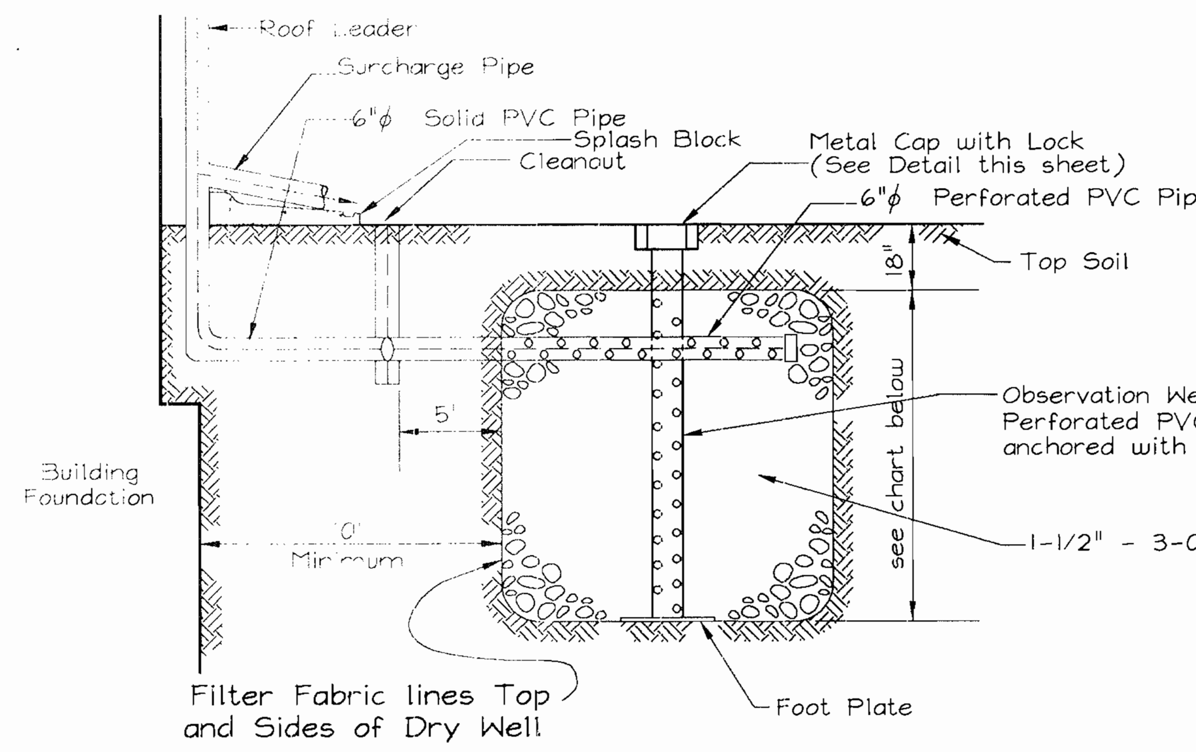
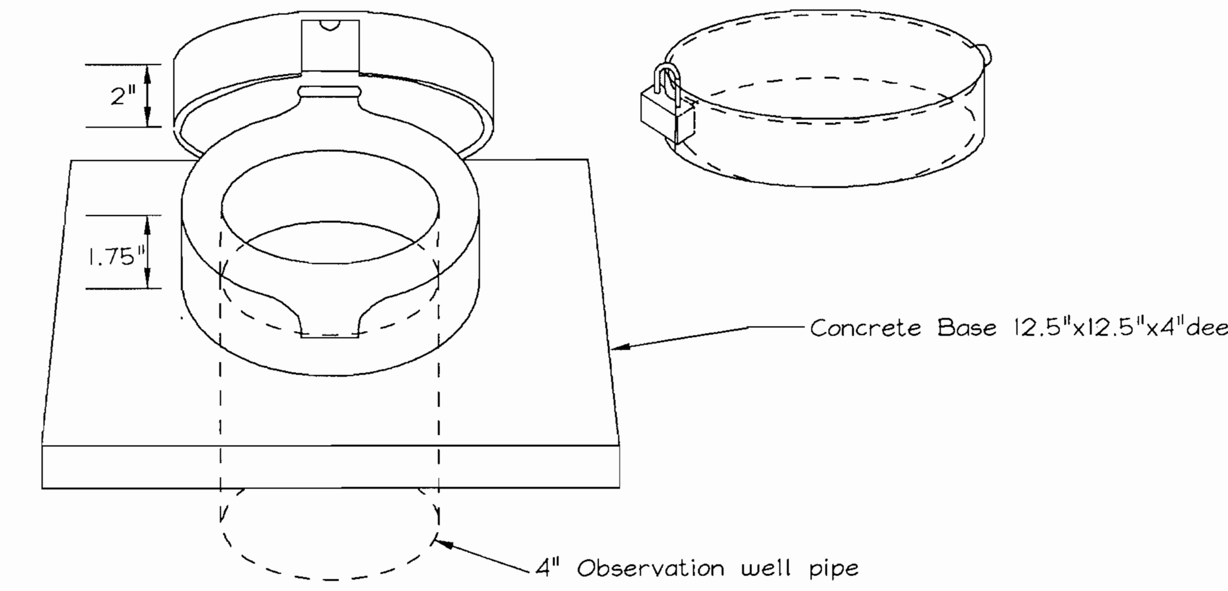


TYPICAL DRY WELL CROSS SECTION

NOT TO SCALE



METAL WELL CAP DETAIL

NOT TO SCALE

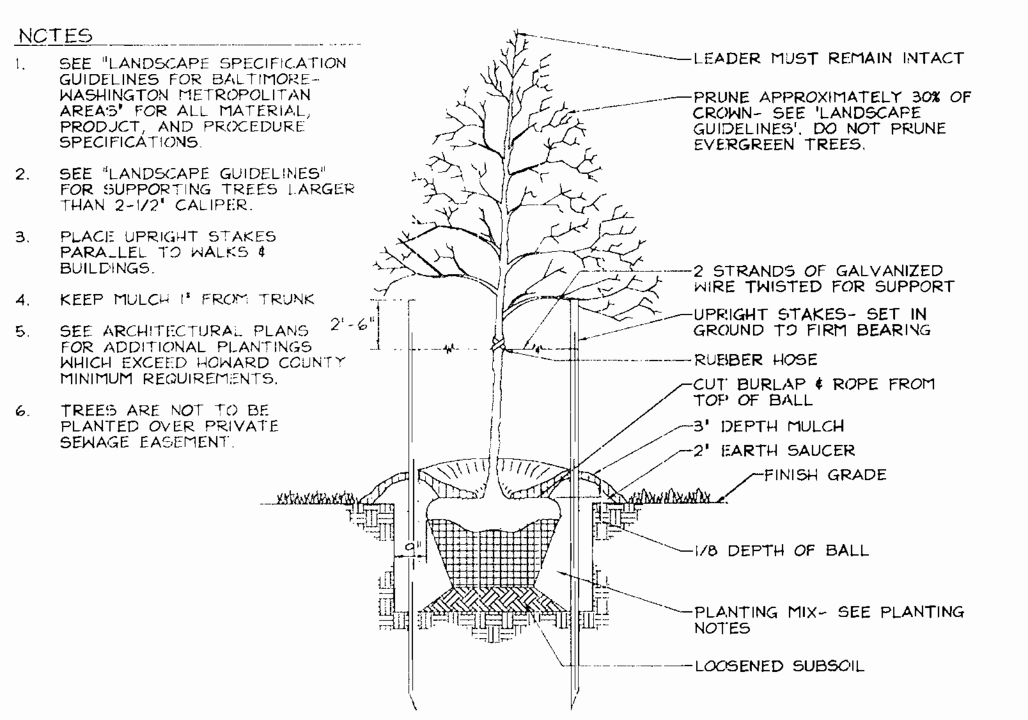
WELL CAP NOTES

1. CONCRETE TO HAVE XX - 4000 PSI AT 20 DAYS
2. REBARS TO BE ASTM A XX GRADE 60
3. FILTER CLOTH TO BE PLACED AT ALL SIDES, EXCEPT THE BOTTOM
4. SET WELL CAP ABOVE GRADE IN UNIMPROVED AREAS
5. WELL CAP MATERIAL SHALL BE GALVANIZED AND COATED WITH BATTLESHIP GREY PAINT
6. PIPE SIZES SHALL BE IN ACCORDANCE WITH THE APPROVED PLAN
7. PRODUCE BOLT AND NUT OR LOCK

DRY WELL CHART

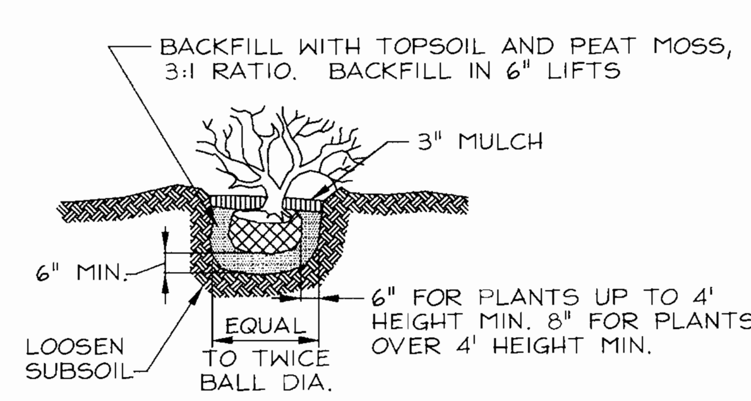
Location	VOLUME REQUIRED	VOLUME PROVIDED	No. WELLS	SIZE WELLS	TRENCH TOP	TRENCH BOTTOM
Back	56 cf/each	57.8 cf/each	2	3.8'x3.8'x4'deep	277.0	273.0
Front	160 cf	163.8 cf	1	6.4'x6.4'x4'deep	264.5	260.5

NOTE: PERFORATED PIPE TO SPAN THE WIDTH OF THE DRY WELL



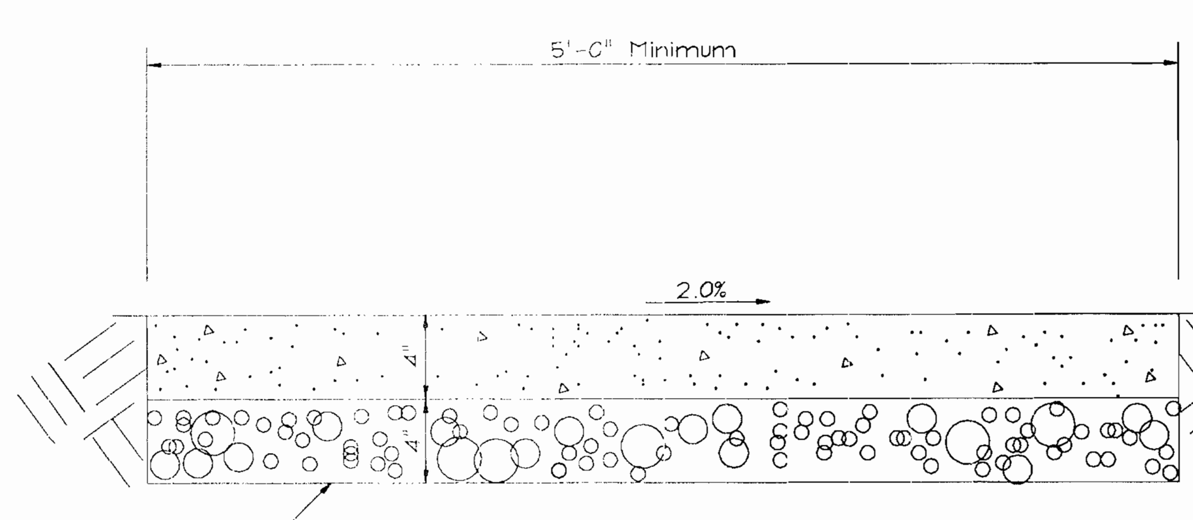
TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER — NOT TO SCALE



SHRUB PLANTING DETAIL

NOT TO SCALE



Construction Specifications

1. Sidewalk to be scribed in 5'-0" maximum squares.
2. Expansion joints across the sidewalk not to be more than 15' apart.
3. 1/2" Preformed Bituminous Expansion material in expansion joints to be kept 1/4" below surface of sidewalk.
4. Concrete to be mix number 2.
5. Where sidewalk abuts curb, sidewalk shall be 1/4" above curb with 1/2" Preformed Bituminous Expansion material between sidewalk and curb.
6. On longitudinal sidewalk grades of 5% or greater, a concrete header, 6' thick and 6" deep below the normal 4" sidewalk thickness shall be constructed for the full width of the sidewalk at intervals of 48 feet. The headers shall be placed at expansion joint locations and shall be monolithic with the curb.

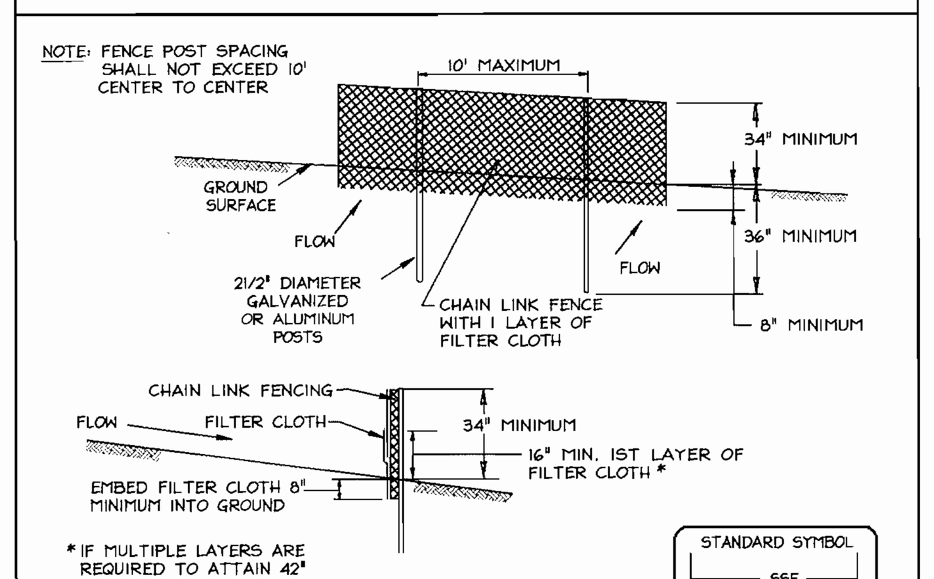
CONCRETE SIDEWALK

NTS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 2/12/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 2/28/01
DIRECTOR	DATE 2/28/01

DETAIL 33 - SUPER SILT FENCE



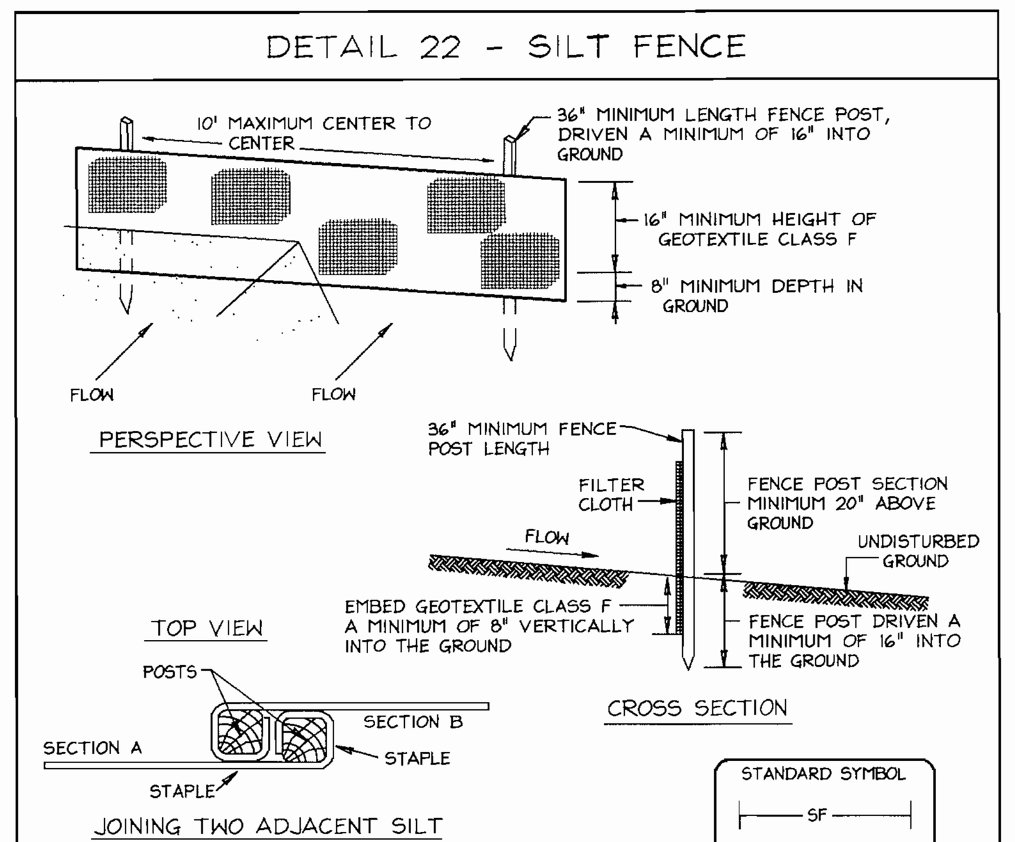
Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, broce and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long, driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft /minute (max.)	Test: MSMT 322
Filtering Eggeciency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/ 100 sq.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs./ 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq.ft.)

2) Acceptable-Apply 2 tons per acre dolomatic limestone (92 lbs/ 1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10- fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

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 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft).

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 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 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 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 RATE AND METHODS NOT COVERED.

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 (313-1855).
2. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. and revisions thereto.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
4. 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.
5. All sediment control structures are to remain in place and are to be maintained in operative condition until site has been permanently stabilized.
6. Site Analysis :

Total Area	7467.3 Square Feet
Area Disturbed	4879 Square Feet
Area to be roofed or paved	3339 Square Feet
Area to be vegetatively stabilized	1540 Square Feet
Total Cut	674 CY
Total Fill	0 CY
Offsite waste/borrow area location	*

7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
8. 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.

* To be determined by contractor with an approved and active grading permit.

SEQUENCE OF CONSTRUCTION

1. Obtain Grading permit.
2. Contact Department of Inspections, licenses and Permits a minimum of 24 hours prior to starting work.
3. Install sediment control as shown on plan in accordance with details.(2 days)
4. Clear and rough grade site.(1 week)
5. Construct building.(5 months)
6. Fine grade and stabilize the site with topsoil and seeding (see notes this plan).(3 days)
7. After the site is permanently stabilized,remove sediment controls and stabilize any remaining disturbed areas.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger that 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

iii. For sites having disturbed areas over 5 acres:

i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No sod or seed shall be placed on soil soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

NOTE: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil ammendments specified in 20.0 Vegetative Stabilization-Section I-Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

Reviewed for HOWARD S.C.D. and meets Technical Requirements
Name / Signature / Date 2/7/01
USDA, NATURAL RESOURCES CONS. SERVICE

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

Approved — Howard S.C.D. — Date 2/7/01

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 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 indication the rate at which the trench dewaters 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 if infiltration into the trench.

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MISCELLANEOUS DETAILS
COURTHOUSE OVERLOOK

TAX MAP #25A BLOCK 1C — 2ND ELECTION DISTRICT — LOT 9, P/O PARCEL '108' — HOWARD COUNTY, MARYLAND

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DESIGN BY:	RHV
DRAWN BY:	MHM
CHECKED BY:	RHV
DATE:	January 24, 2001
SCALE:	As Shown
W.O. NO.:	00-042

SHEET 3 OF 3