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
BELL ATLANTIC TELEPHONE CO:	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

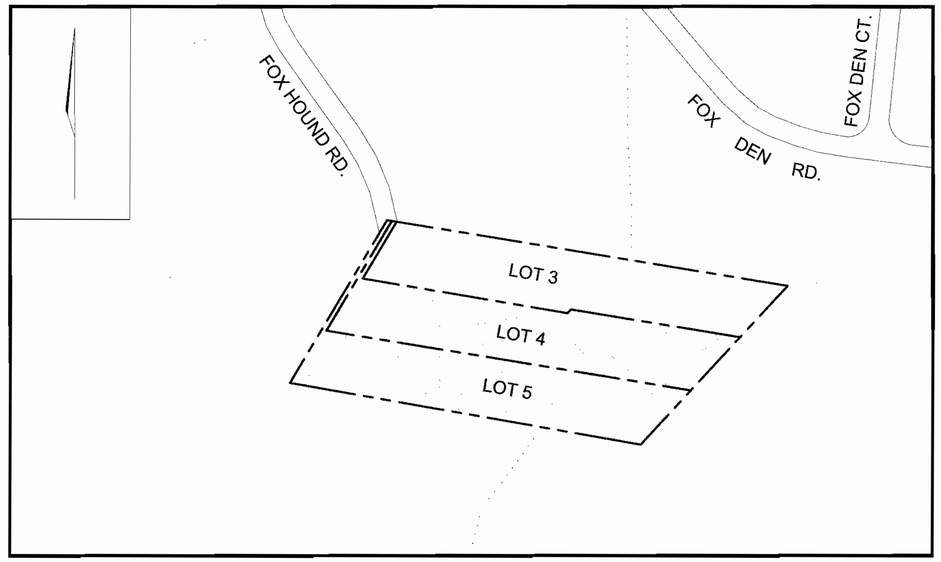
4. SITE ANALYSIS:
   AREA OF SITE: 87,123 SF (2.00 AC)
   AREA OF PLAN SUBMISSION: 87,123 SF (2.00 AC)
   TOTAL NUMBER OF BUILDABLE LOTS: 2
   TOTAL NUMBER OF OPEN SPACE LOTS: 0
   PRESENT ZONING: R-20
   LIMIT OF DISTURBANCE: 30,815 SF (.71 AC)
   PROPOSED USE OF SITE: SINGLE FAMILY DWELLINGS
   TOTAL UNITS ALLOWED: 2
   TOTAL UNITS PROPOSED: 2
5. PROJECT BACKGROUND
   LOCATION: TAX MAP: 17 PARCEL: 173 BLOCK: 14
   ZONING: R-20
   GRAY FOX WOODS
   DEED REFERENCE: LIBER 3629 FOLIO 653
   DPZ REFERENCES: F-01-07, WP-01-47
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 RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
8. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION 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 UNINTERUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
9. 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.
10. ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
11. SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOILS TEST
12. COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 17DA AND 17DB.
13. EXISTING TOPOGRAPHY IS BASED ON PLANS PREPARED BY A FIELD SURVEY PREPARED BY VOGEL & ASSOCIATES, DATED JUNE 2000.
14. ACCESS TO WATER HAS BEEN PROVIDED UNDER CONTRACT NO. 44-178. ACCESS TO SEWER HAS BEEN PROVIDED UNDER CONTRACT NO. 20-1067
15. THERE ARE NO STEEP SLOPES LOCATED ON THIS PROPERTY.
16. NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY
17. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK
18. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: (HO. CO. STD R-1 PAVING)
   A) WIDTH - 12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE)
   B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
   C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
   D) STRUCTURES (CULVERTS/BRIDGES) - MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING)
   E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
   F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
   G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
19. ALL DRIVEWAY APRONS TO BE PER HOWARD COUNTY STANDARD DETAIL NO.'S R-6.05 & R-6.01 UNLESS OTHERWISE NOTED.
20. PERIMETER LANDSCAPING FOR LOT 5 SHALL BE PROVIDED AS SHOWN ON SHEET 2 OF THIS SITE PLAN AND IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN ON FILE WITH F-01-07, PER SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE PLAN. LOT 4 IS AN INTERIOR LOT AND IS EXEMPT FROM PERIMETER LANDSCAPING. LOT 5 SHALL REQUIRE (6) SHADE TREES AND SHALL HAVE SURETY POSTED WITH THE GRADING PERMIT IN THE AMOUNT OF $1800.00
21. WETLANDS SHOWN HEREON BASED ON DELINEATION PERFORMED BY WILDMAN ENVIRONMENTAL SERVICES DATED APRIL 2000.
22. 100 YEAR FLOODPLAIN SHOWN HEREON BASED ON ANALYSIS PERFORMED BY VOGEL AND ASSOCIATES, INC.
23. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, STREAMS, FLOODPLAINS, OR THEIR BUFFERS EXCEPT FOR INDIVIDUAL WATER AND SEWER HOUSE CONNECTIONS ON LOTS 4 AND 5.
24. FEE-IN-LIEU OF THE OPEN SPACE IN THE AMOUNT OF $4500.00 ($1500.00 FOR EACH NEW LOT) WAS APPROVED AND HAS BEEN PAID BY THE DEVELOPER UNDER F-01-07
25. REFERENCE WAIVER PETITION WP-01-47 APPROVED DECEMBER 5, 2000 TO WAIVE SECTION 16.120(C)(1) AND SECTION 16.120(C)(iii) OF THE HOWARD COUNTY SUBDIVISION REGULATIONS TO REDUCE THE MINIMUM LOT FRONTAGE OF LOT 3 TO 6.83' AND ADJACENT PIPESTEM LOTS WHICH SHARE A COMMON DRIVEWAY TO HAVE SUFFICIENT COLLECTIVE FRONTAGE TO MEET DRIVEWAY EASEMENT REQUIREMENTS IN THE DESIGN MANUAL (i.e. 24 FEET) SUBJECT TO:
   A. THE 14' DRIVEWAY IS CONSTRUCTED WITHIN THE EASEMENT TO FOX HOUND ROAD WITHOUT DISTURBANCE TO ADJACENT LOT 27.
   B. NO FURTHER SUBDIVISION WILL BE PERMITTED UTILIZING THE USE IN COMMON ACCESS EASEMENT PROPOSED FOR LOTS 3-5 ON THIS PLAT (F-01-07).
   C. THE APPLICANT SHALL GRANT EASEMENT OF THE 100 YEAR FLOODPLAIN TO HOWARD COUNTY AS PART OF THE SUBDIVISION PROPOSAL
26. FEE-IN-LIEU OF PROVIDING STORMWATER MANAGEMENT FOR THIS PROJECT PER SECTION 5.2.3.A.3 OF THE DESIGN MANUAL, VOLUME 1 WAS APPROVED ON JULY 27, 2000. WATER QUALITY FOR LOTS 4 & 5 WILL BE PROVIDED BY THE INSTALLATION OF DRYWELLS FOR EACH INDIVIDUAL LOT.
27. THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (1.54 ACRES OF REFORESTATION) HAS BEEN MET BY THE PURCHASE OF 1.54 ACRES OF OFF-SITE FOREST CONSERVATION EASEMENT LOCATED ON THE WINKLER PROPERTY MITIGATION BANK UNDER F-01-07.

SITE DEVELOPMENT PLAN

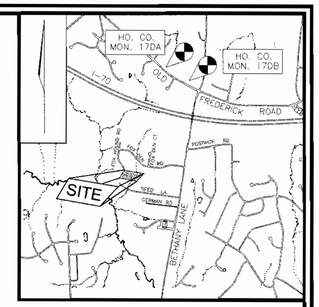
GRAY FOX WOODS

LOTS 4 AND 5

HOWARD COUNTY, MARYLAND



LOCATION PLAN
SCALE : 1"=100'



VICINITY MAP
SCALE: 1"=2000'

BENCHMARKS

NO.	NORTHING	EASTING	ELEVATION
17DA	595,410.845	1,351,641.146	482.04
17DB	594,529.556	1,352,722.586	476.02

ADDRESS CHART

LOT #	STREET ADDRESS
4	2841 FOX HOUND ROAD
5	2845 FOX HOUND ROAD

PERMIT INFORMATION CHART

PROJECT NAME			SECTION/AREA		PARCEL NUMBER
GRAY FOX WOODS					173
PLAT REF.	BLOCK NO.	ZONE	TAX MAP	ELECT. DIST.	CENSUS TR.
15153	14	R-20	17	2ND	6022.00
WATER CODE: W08			SEWER CODE: 5991000		

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 3
SITE DEVELOPMENT AND LANDSCAPE PLAN	2 OF 3
DETAILS	3 OF 3

NO.	REVISION	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/10/02

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/12/02

DIRECTOR — DATE 4/4/02

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/8/02

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

HOWARD SCD — DATE 4/9/02

ENGINEERS 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.

SIGNATURE OF ENGINEER — DATE 3/27/02

ROBERT H. VOGEL

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.

SIGNATURE OF DEVELOPER — DATE 3/28/02

OWNER / DEVELOPER
MICHAEL PFAU
7320 GRACE DRIVE
COLUMBIA, MD 21044
(410) 531-6444

COVER SHEET

GRAY FOX WOODS

LOTS 4 AND 5

TAX MAP 17 BLOCK 14 — PARCEL 173
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

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

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No.16193

DESIGN BY:	JCO
DRAWN BY:	JT
CHECKED BY:	RHV
DATE:	FEB. 1, 2002
SCALE:	AS NOTED
W.O. NO.:	2019186

SHEET 1 OF 3

M:\PROJECTS\2019186\ENGR\dwg\SDP 1.dwg Wed Mar 27 16:09:30 2002 Justin

PLANT LIST

QTY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT
6	ACER RUBRUM/ OCTOBER GLORY	2½"-3" CAL	B & B

NOTE: SEE SHEET 3 FOR PLANTING RESTRICTIONS AND DETAILS

NOTE
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

PERIMETER LANDSCAPE EDGE SCHEDULE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	NONE REQUIRED	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	28'	548' (A) N/a with this SDP	302' (B)	497' (C)	265' (D)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	YES \ 372'	YES \ 302'	YES \ 400'	YES \ 80'
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	NA NA NA	N/a 0 0	0 0 0	2 0 0	4 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	NA NA NA NA	N/a 0 0 0	0 0 0 0	2 0 0 0	4 0 0 0

NOTES

1. THE PROPERTY OUTLINE IS BASED ON A FIELD RUN BOUNDARY SURVEY VERIFIED BY FREDRICK WARD ASSOCIATES, INC. IN JUNE, 2000
2. THE EXISTING FEATURES AND CONTOURS SHOWN HEREON ARE BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY FREDRICK WARD ASSOCIATES IN JUNE, 2000
3. REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE TO BE PROVIDED AT THE JUNCTION OF PRIVATE 24 FOOT USE-IN-COMMON ACCESS EASEMENT AND FOX HOUND ROAD RIGHT-OF-WAY AND NOT ONTO AFORESAID PRIVATE 24 FOOT WIDE ACCESS EASEMENT

LEGEND

- EXISTING WATER LINE
- EXISTING SEWER LINE
- PROPOSED SEWER LINE
- SOIL TYPE DIVISION LINE
- EXISTING 2 FT CONTOUR
- EXISTING 10 FT CONTOUR
- PROPOSED CONTOUR
- LOD — LIMIT OF DISTURBANCE
- SF — SF — SILT FENCE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- PRIVATE USE IN COMMON ACCESS EASEMENT
- PUBLIC WATER AND UTILITY EASEMENT
- PRIVATE SEWAGE EASEMENT
- PUBLIC SEWER AND UTILITY EASEMENT
- WETLAND LIMIT
- 100 YEAR FLOODPLAIN
- EROSION CONTROL MATTING
- DRY WELL
- BORING

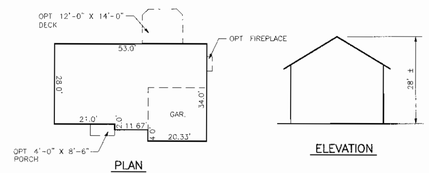
SOILS LEGEND

SYMBOL	NAME/DESCRIPTION	TYPE
MnB2	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MnC2	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
MnD3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
BaA	BALTIMORE SILT LOAM	D
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C

NOTE: TAKEN FROM HOWARD SOIL SURVEY

PLAN

SCALE= 1"=30'



PLAN ELEVATION

"THE AMESBURY"

HOUSE TYPE

NOT TO SCALE

NO.	REVISION	DATE
1	REVISE TSHC TO C@ + REVISE MH TO C/O	5/17/02

SITE DEVELOPMENT AND LANDSCAPE PLAN

GRAY FOX WOODS

LOTS 4 AND 5

TAX MAP 17 BLOCK 14 PARCEL 173
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — PROFESSIONAL ENGINEER

ROBERT H. VOGEL, PE No. 16193

DESIGN BY:	JCO
DRAWN BY:	JT
CHECKED BY:	RHV
DATE:	FEB. 1, 2002
SCALE:	AS NOTED
W.O. NO.:	2019186

SHEET 2 OF 3

OWNER / DEVELOPER

MICHAEL PFAU
7320 GRACE DRIVE
COLUMBIA, MD 21044
(410) 531-6444

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/10/02

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/12/02

DIRECTOR — DATE 4/10/02

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/8/02

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

HOWARD SCD — DATE 4/8/02

ENGINEERS 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.

SIGNATURE OF ENGINEER — DATE 3/27/02

ROBERT H. VOGEL

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.

SIGNATURE OF DEVELOPER — DATE 3/28/02

SDP-02-82

M:\PROJECTS\2019186\ENGR\dwg\SDP-2.dwg Wed Mar 27 16:18:23 2002 Justin

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 Agriculture 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

. For sites having disturbed areas under 5 acres:

ı. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section : – 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 stenlants 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 Applicator

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

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.

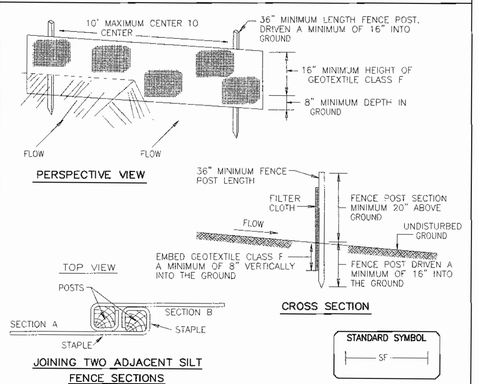
SOIL AMENDMENTS: Apply 600 lbs. per acre 10–10–10 fertilizer (14 lbs./1000 sq.ft)

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 busnel 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 weng 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.

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 ft²/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 pulges occur or when sediment accumulation reaches 50% of the fabric height.

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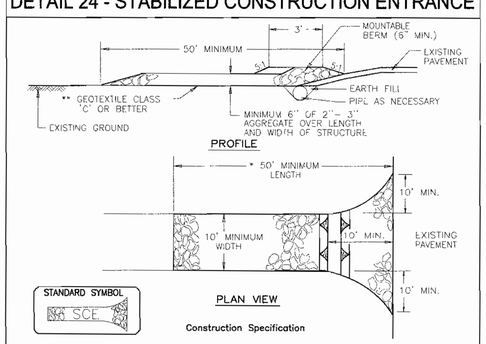
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (* 30' for a single residence lot).
2. Width – 10' minimum, should be flared at the existing road to provide a turning radius
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. ** The plan approval authority may not require single family residences to use geotextile.
4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage When the SCE is located at a high spot and has no drainage to convey, a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required
6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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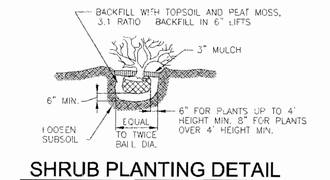
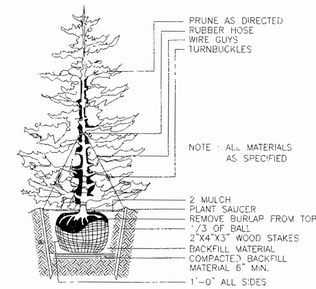


SHRUB PLANTING DETAIL

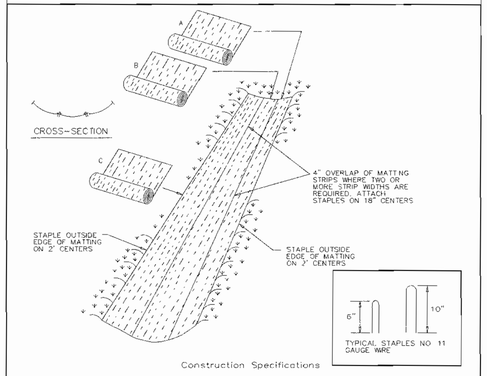
NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

DETAIL 30 - EROSION CONTROL MATTING



Construction Specifications

1. Key–in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross–section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed–in

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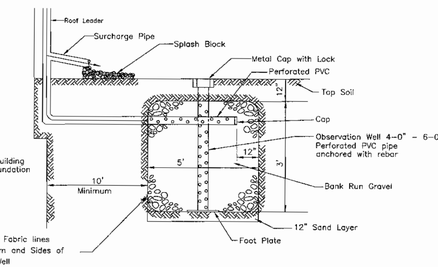
PLANTING RESTRICTIONS

AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.



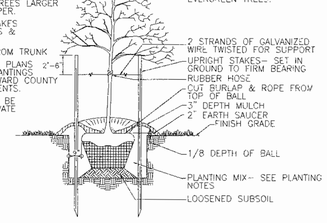
TYPICAL DRY WELL CROSS SECTION

NOT TO SCALE

DRY WELL CHART				
LOT No.	DRY WELL STONE VOLUME REQ.	DRY WELL STONE VOLUME PROV.	No. WELLS	WELL SIZE
4	157 CF	225 CF	3	5'x5'x3'
5	157 CF	225 CF	3	5'x5'x3'

NOTES

1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
2. SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2–1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK
5. SEE ARCHITECTURAL PLANS 2'–6" FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
6. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



TREE PLANTING AND STAKING

(DECIDUOUS TREES UP TO 2–1/2" CALIPER)

NOT TO SCALE

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, (c) 14 days as 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 :

	LOT 4	LOT 5
Total Area	43,561 SF	43,562 SF
Area Disturbed	14,775 SF	11,894 SF
Area to be roofed or paved	3,529 SF	3,520 SF
Area to be vegetatively stabilized	11,246 SF	8,374 SF
Total Cut	560 CY	560 CY
Total Fill	70 CY	70 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.

* To be determined by contractor, with pre–approval of the Sediment Control Inspector with an approved and active grading permit

SEQUENCE OF CONSTRUCTION

1. Obtain grading permit.
2. Notify Howard County Bureau Of Inspections and Permits (410.313.1880) at least 24 hours before starting any work.
3. Construct Stabilized Construction Entrances. (1 day)
4. Install silt fence.
5. After obtaining permission from the sediment control inspector to proceed, rough grade site. (4 days)
6. Construct house. The first floor elevation cannot be more than 1' higher or 0.2' lower than the elevations shown on this plan. (4 months)
7. Final lot grade to be in substantial conformance with site development plan. (2 days)

NOTES:

1. During grading and after each rainfall, the contractor shall inspect and provide the necessary maintenance on the sediment and erosion control measures shown hereon.
2. Following initial soil disturbance or redisturbance permanent or temporary stabilization shall be complied with.
   A. 7 calendar days for all perimeter sediment control
   B. 14 calendar days for all other disturbed areas. structures, dikes, swales, ditch perimeter slopes slopes and all slopes greater than 3:1
3. Upon stabilization of all disturbed areas and with the approval of the sediment control inspector, remove all sediment control devices.

OWNER / DEVELOPER

MICHAEL PFAU
7320 GRACE DRIVE
COLUMBIA, MD 21044
(410) 531-6444

NO.	REVISION	DATE

DETAIL SHEET

GRAY FOX WOODS

LOTS 4 AND 5

TAX MAP 17 BLOCK 14 PARCEL 173
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

DESIGN BY:	JCO
DRAWN BY:	JT
CHECKED BY:	RHV
DATE:	FEB. 1, 2002
SCALE:	AS NOTED
W.O. NO.:	2019186

SHEET 3 OF 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/10/02

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/12/02

DIRECTOR — DATE 4/16/02

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

SOIL CONSERVATION DISTRICT — DATE 4/4/02

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

HOWARD SCD — DATE 4/4/02

ENGINEERS 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.

SIGNATURE OF ENGINEER — DATE 3/27/02

ROBERT H. VOGEL

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.

SIGNATURE OF DEVELOPER — DATE 3/28/02

M:\PROJECTS\2019186\ENGR\dwg\SDP-3.dwg Wed Mar 27 18:10:47 2002 justin

SDP–02–82