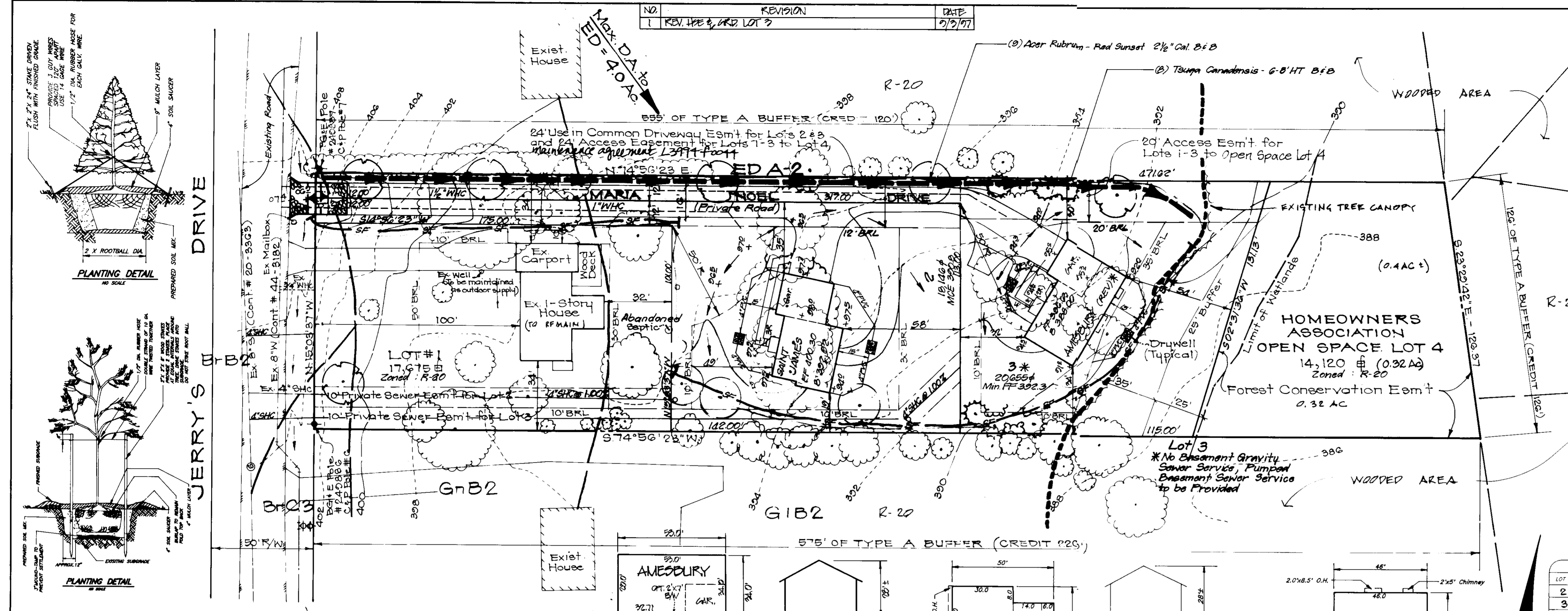
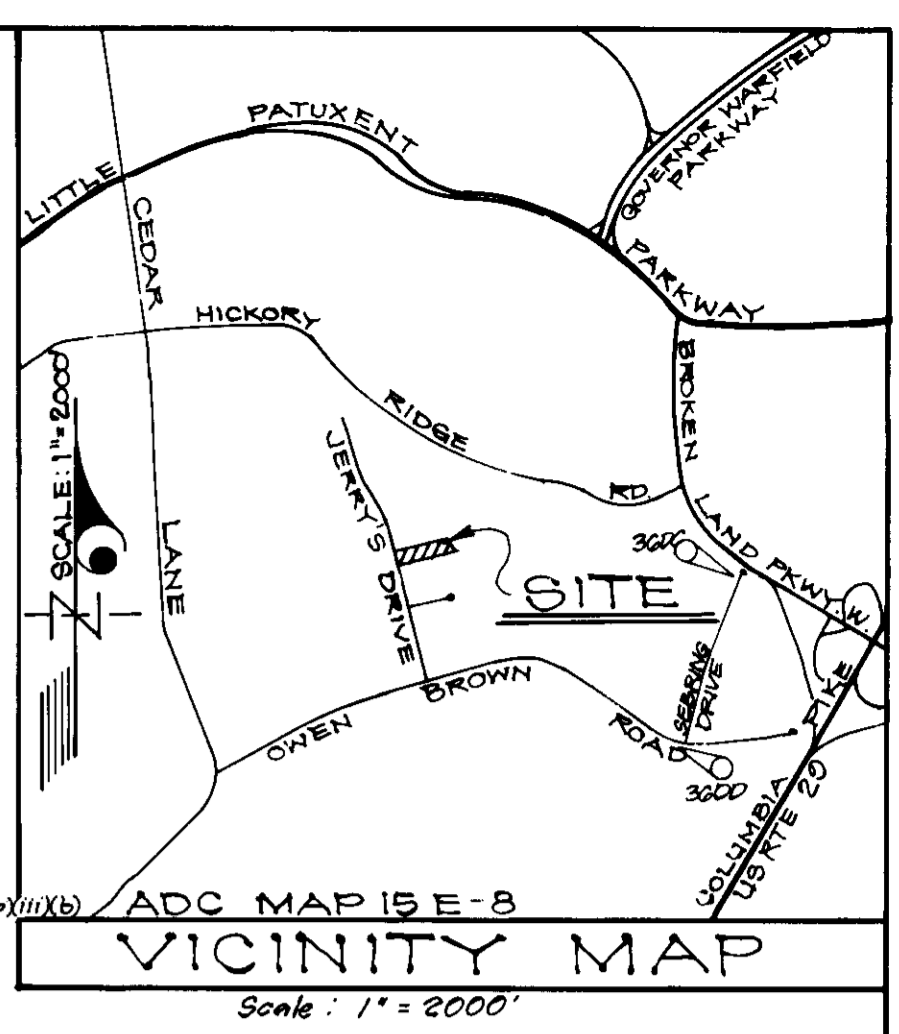


NO	REVISION	DATE
1	REV. PER 8, AND LOT 3	2/2/97



GENERAL NOTES:

- Subject property is zoned: R-20 per 10-18-83 Comprehensive Zoning Plan.
- The total area included in this submission is: 1.82 Acres
- The total number of lots included in this submission is: 2
- Improvement to property: Single Family Detached
- Department of Planning and Zoning reference file numbers are: P-97-123, W-97-29, S-8129, Contr. #20-3363
- Utilities shown as existing are taken from approved Water and Sewer Plans Contract # 20-3363
- Any damage to county owned rights-of-way shall be corrected at the developer's expense.
- All roadways are public and existing.
- The existing topography was field run by Clark, Finebrock & Sackett, Inc.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System -- Howard County Station Nos. 3600 and 3600.
- The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least twenty-four (24) hours prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-287-7777 at least 48 hours prior to any excavation work.
- Stormwater Management fees-in-lieu for Quantity Drywells to be provided for Water Quality.
- In accordance with Zoning, Sect. 12B.1(B)(c) Subdivision Regs. Sec. 12B.1(B)(c) (1)(ii)(b) any windows or chimneys not more than 10 feet in width may project not more than 4 feet into any setbacks; porches and decks may project not more than 10 feet into the front or rear setbacks.
- No clearing, grading or construction is permitted within Wetlands and Stream Buffers or Forest Conservation Easements.
- SIC elevations shown are located at the property line.
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Financial surety for the required trees in the amount of \$1,300 is part of the Builders Grading Permit Application.
- For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details.
- LANDSCAPE SURETY: This Plan has been prepared in accordance with Section 16.124 of the Howard County Code and the Landscape Manual. Financial surety for the required 13 landscape trees in the amount of \$1,300 is part of the Builders Grading permit application.



ADC MAP 15 E-8
VICINITY MAP
Scale: 1" = 2000'

SEDIMENT AND EROSION CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1885).
 - All vegetative 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 SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
 - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1
 - 14 days as to all other disturbed or graded areas on the project site.
 - All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 2 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 - 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.
 - SITE ANALYSIS:

Total Area of Site:	1.82 AC
Area Disturbed:	0.11 AC
Area to be vegetatively stabilized:	0.11 AC
Total Cut:	146.66
Total Fill:	124.00

 Off-site Wastewater/Borrow Area Located: _____
 - Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - Additional sediment control must be provided, if deemed necessary by the Howard County DPM Sediment Control Inspector.
 - 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 received.
 - Trenches for the construction of utilities is limited to three pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.
 - The total amount of silt fence = 480LF
 - The total amount of super-silt fences = 0-
- * It is the responsibility of the contractor to identify the spot/borrow site and notify and gain approval from the sediment control inspector of the site and its grading permit number at the time of construction.

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, toxic levels to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies:

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - 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.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- 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

- Topsoil salvaged from the existing site may be used provided that it meets the standards set forth in these specifications. Topsoil, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil grade section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - 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 textures. Subsoils and shall contain less than 2% by volume of coarse stones, slag, coarse fragments, gravel, sticks, roots, trash or other materials larger than 1" and 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, tallgrass, johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, gypsum limestone shall be spread at the rate of 4-6 tons per acre (100-140 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over the entire area to be worked into the soil in conjunction with ridge operations as described in the following procedures.
 - For sites having disturbed areas under 5 acres:
 - Pace Topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
 - Topsoil Application:
 - When topsoiling, maintain needed erosion and sediment control practices such as dikes, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.
 - 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.
 - Topsoil shall not be placed while the topsoil or subsoil is wet or frozen or when the soil is so hard that the subsoil is so hard that it is a condition that may otherwise be detrimental to the seeding and seedling propagation.

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 ryegrass (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 at 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.

Reviewed for: HOWARD S.C.D. and meets Technical Requirements
John M. Hamilton 6/2/97
Natasha Rezak Conservation Service

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

John M. Hamilton 6/2/97
Approved

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:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 800 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.).
- Acceptable - Apply 2 tons per acre dolomitic 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. per acre of Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.5 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 at 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 ryegrass (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 at 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.

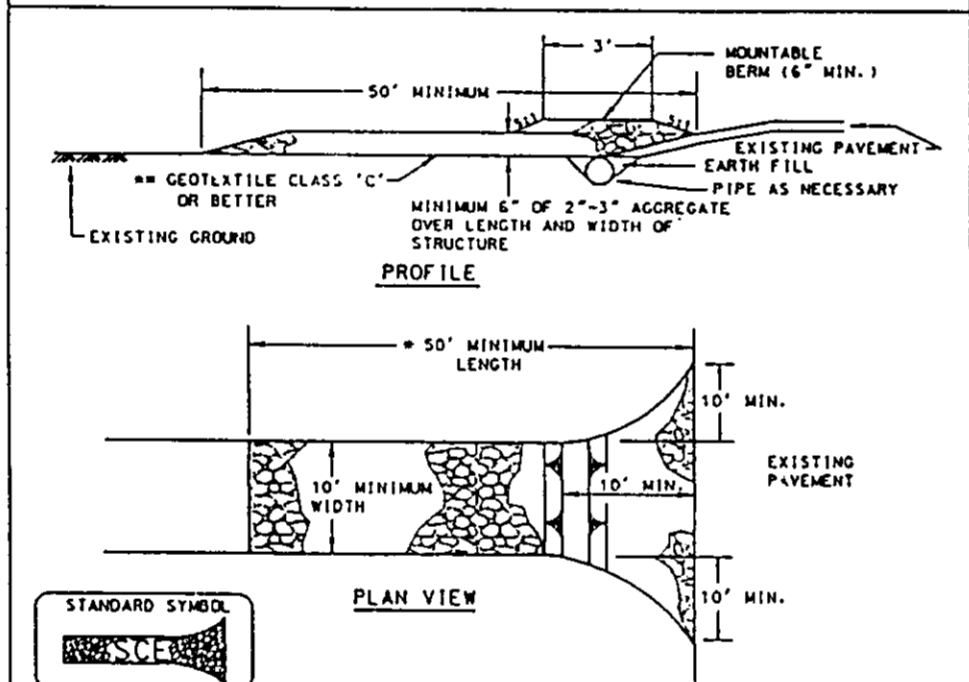
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

Reviewed for: HOWARD S.C.D. and meets Technical Requirements
John M. Hamilton 6/2/97
Natasha Rezak Conservation Service

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

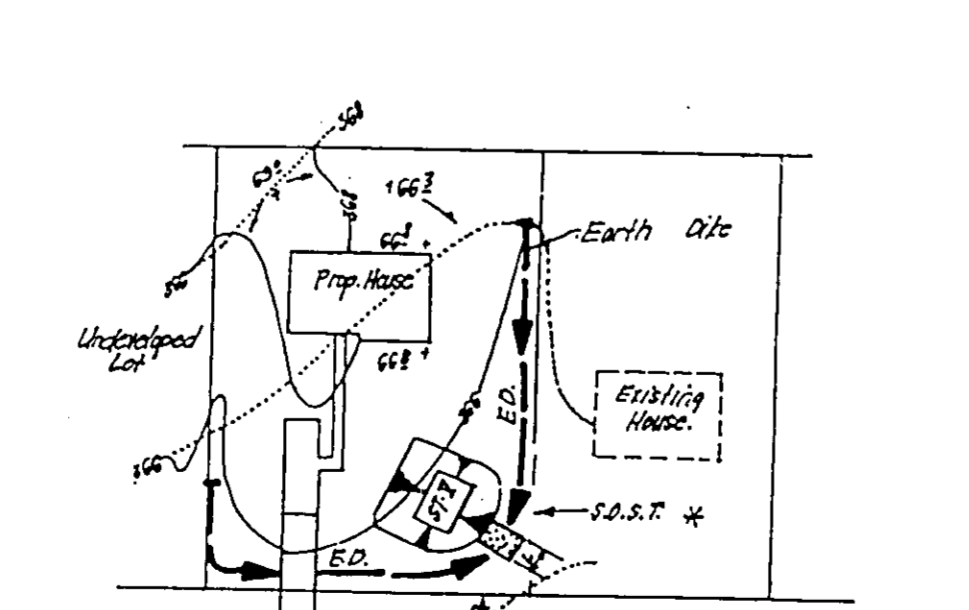
John M. Hamilton 6/2/97
Approved

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Length - minimum of 50' (30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. Section approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate 12" to 31" or recycled or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be directed through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mound or 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 silt 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.
- 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 4-11-1 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION



DEVELOPER'S/BUILDER'S CERTIFICATE

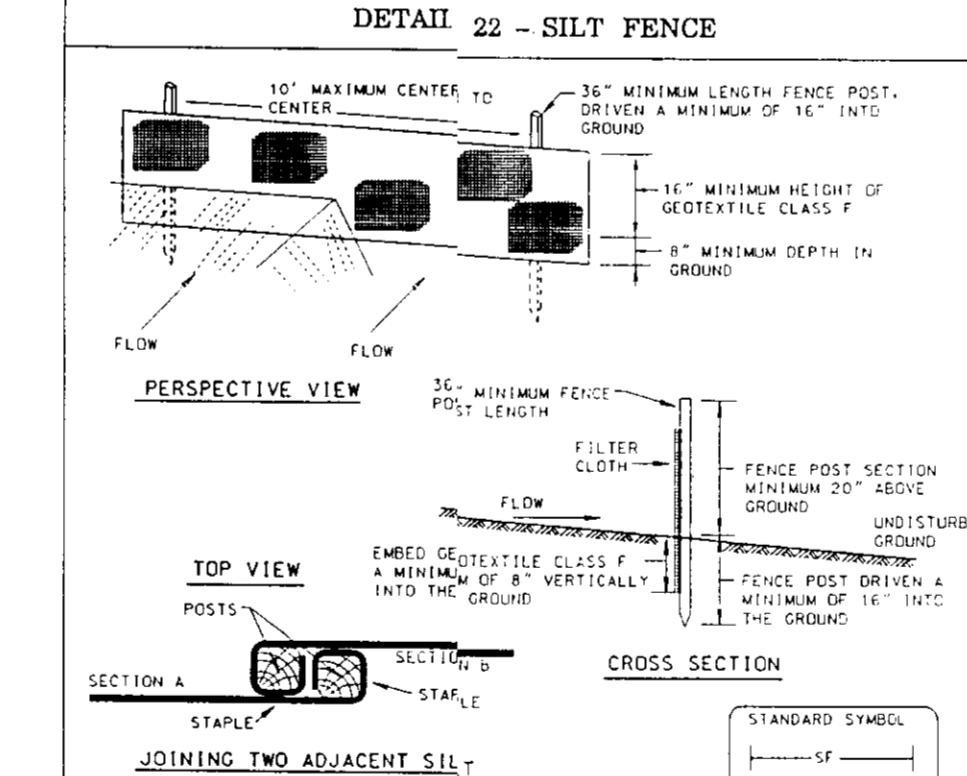
"We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training 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 or their authorized agents, as are deemed necessary."

Michael J. Pflanz 3-21-97
NAME DATE

MINIMUM LOT SIZE CHART

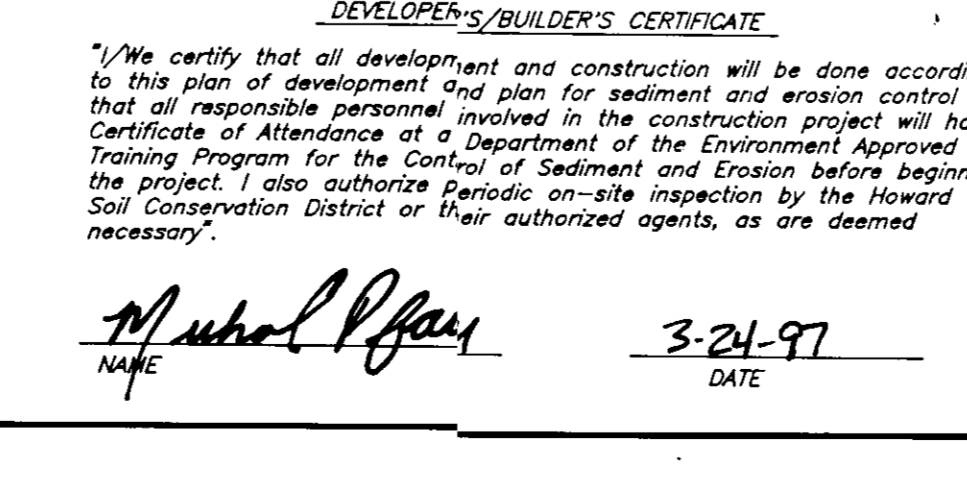
LOT NUMBER	GROSS AREA	PIPESTEAM AREA	REMAINING AREA	100 YEAR FLOODPLAIN	25% SLOPES	MINIMUM LOT SIZE
2	14,146 SF	2,100 SF	16,046 SF			16,046 SF
3	20,655 SF	3,804 SF	16,851 SF			16,851 SF

DETAIL 22 - SILT FENCE



- 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 1/2" diameter (minimum round) and shall be of good quality hardwood. Steel posts will be standard 1" or 1 1/2" section weight not less than .100 pound per linear foot.
 - Geotextile shall be fastened securely to each fence post with wire ties for a minimum of 8" vertically into the ground. Steel ties shall be 1/4" diameter and shall meet the following requirements for Geotextile Class 1:
- | | | |
|----------------------|-----------------------------|---------------|
| Tensile Strength | 50 (bsin) (min.) | Test: WMT 509 |
| Tensile Modulus | 20 (bsin) (min.) | Test: WMT 509 |
| Fibre Break | 100 (bsin) (min.) | Test: WMT 322 |
| Filtering Efficiency | 75% (90%+1% mixture) (max.) | Test: WMT 322 |
- Where ends of geotextile fabric come together, they shall be overlapped, forced and stapled to prevent sediment bypass.
 - 5114 Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.
- U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 4-11-1 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

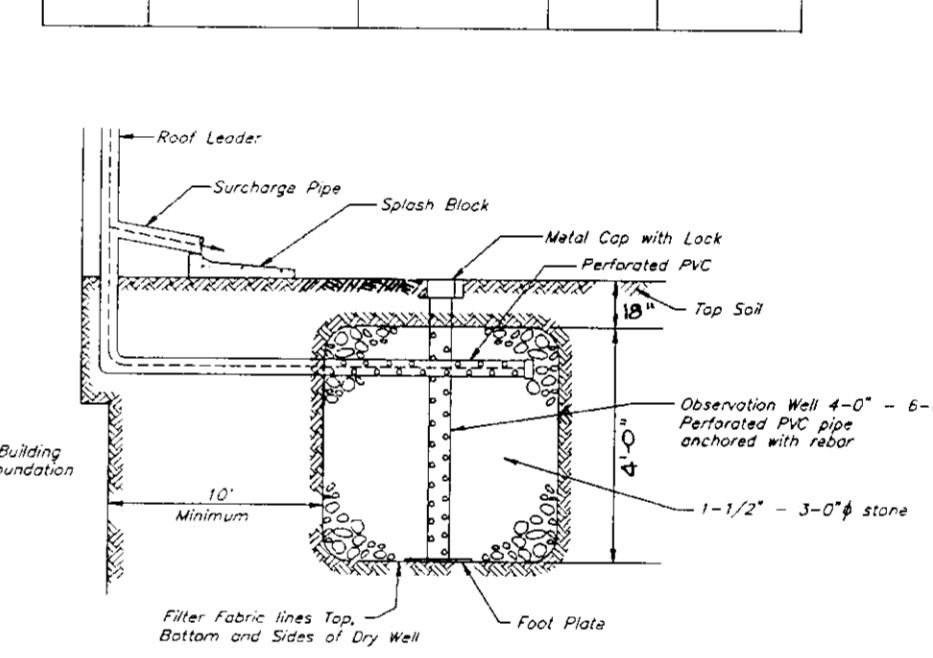
DETAIL 1 - EARTH DIKE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 4-11-1 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

DRY WELL CHART

LOT NO.	AREA REQUIRED	AREA PROVIDED	NO. WELLS	SIZE WELLS
2	222 CF	240 CF	2	6"x5'x4' deep
3	222 CF	240 CF	2	6"x5'x4' deep



TYPICAL DRY WELL CROSS SECTION
NOT TO SCALE

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
1	6220 MARA NBL DR
2	6210 " "
3	6220 " "

ENGINEER'S CERTIFICATE

I hereby 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.

Michael J. Pflanz 3-24-97
DATE

OWNER / DEVELOPER
MICHAEL AND MARY PFAU
6212 DEVON DRIVE
COLUMBIA, MARYLAND 21044

CLARK • FINEBROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH

APPROVED: DEPARTMENT OF PLANNING & ZONING

John M. Hamilton 6/4/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy Hamilton 8/10/97
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James H. Sackett 8/13/97
DIRECTOR DATE

DESIGNED: JME
DRAWN: PS
CHECKED: J.M.E
DATE: 8-20-97

SITE DEVELOPMENT, LANDSCAPE, SEDIMENT AND EROSION CONTROL PLAN
LOTS 2 & 3
NOEL GLEN

TAX MAP 35 GRID 12 PARCEL 170
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: TRINITY BUILDERS, Inc
6212 DEVON DRIVE
COLUMBIA, MARYLAND 21044

SCALE: 1" = 30'
DRAWING: 1 OF 1
JOB NO: 96-192
FILE NO: 96-192 X