

JAMES MONROE

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
194.6cf Volume Required
193cf Volume Provided

LIBERTY

If Drywells are Required:
(2) 5'x5'x3.5' Drywells
163.1cf Volume Required
175cf Volume Provided

JOHN ADAMS

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
192.5cf Volume Required
216cf Volume Provided

THOMAS JEFFERSON 2

If Drywells are Required:
(2) 5'x5'x3.25' Drywells
159.4cf Volume Required
162.5cf Volume Provided

BRUNSWICK

If Drywells are Required:
(2) 5'x5'x3.5' Drywells
162.7cf Volume Required
175cf Volume Provided

GEORGE MASON 1

If Drywells are Required:
(2) 5'x5'x3.25' Drywells
153.4cf Volume Required
162.5cf Volume Provided

JOHN PAUL JONES

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
193.5cf Volume Required
193cf Volume Provided

PATRIOT

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
181.2cf Volume Required
193cf Volume Provided

FRANCIS SCOTT KEY

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
192cf Volume Required
193cf Volume Provided

ANTHONY WAYNE

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
193.5cf Volume Required
193cf Volume Provided

ABRAHAM CLARK

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
184cf Volume Required
193cf Volume Provided

JOHN HANCOCK

If Drywells are Required:
(2) 6'x6'x3' Drywells
198.8cf Volume Required
216cf Volume Provided

THE VICTORY

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
193.5cf Volume Required
193cf Volume Provided

PAUL REVERE

If Drywells are Required:
(2) 5'x5'x3.25' Drywells
154.6cf Volume Required
162.5cf Volume Provided

PAUL REVERE

If Drywells are Required:
(2) 5'x5'x3.25' Drywells
154.6cf Volume Required
162.5cf Volume Provided

ANTHONY WAYNE

If Drywells are Required:
(2) 6'x6'x3.25' Drywells
220.5cf Volume Required
234cf Volume Provided

PATRICK HENRY

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
164.7cf Volume Required
180cf Volume Provided

MOLLY PITCHER

If Drywells are Required:
(2) 6'x6'x3' Drywells
198.5cf Volume Required
216cf Volume Provided

BENJAMIN BANNEKER

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
180.4cf Volume Required
193cf Volume Provided

DOLLY MADISON

If Drywells are Required:
(2) 6'x6'x2.75' Drywells
180.4cf Volume Required
193cf Volume Provided

FRANCIS MARION

If Drywells are Required:
(2) 6'x6'x3.5' Drywells
154.7cf Volume Required
162.5cf Volume Provided

FREEDOM

If Drywells are Required:
(2) 6'x6'x3.25' Drywells
154.7cf Volume Required
162.5cf Volume Provided

FRANCIS MARION

If Drywells are Required:
(2) 6'x6'x3.5' Drywells
154.7cf Volume Required
162.5cf Volume Provided

FRANCIS MARION

If Drywells are Required:
(2) 6'x6'x3.5' Drywells
154.7cf Volume Required
162.5cf Volume Provided

FRANCIS MARION

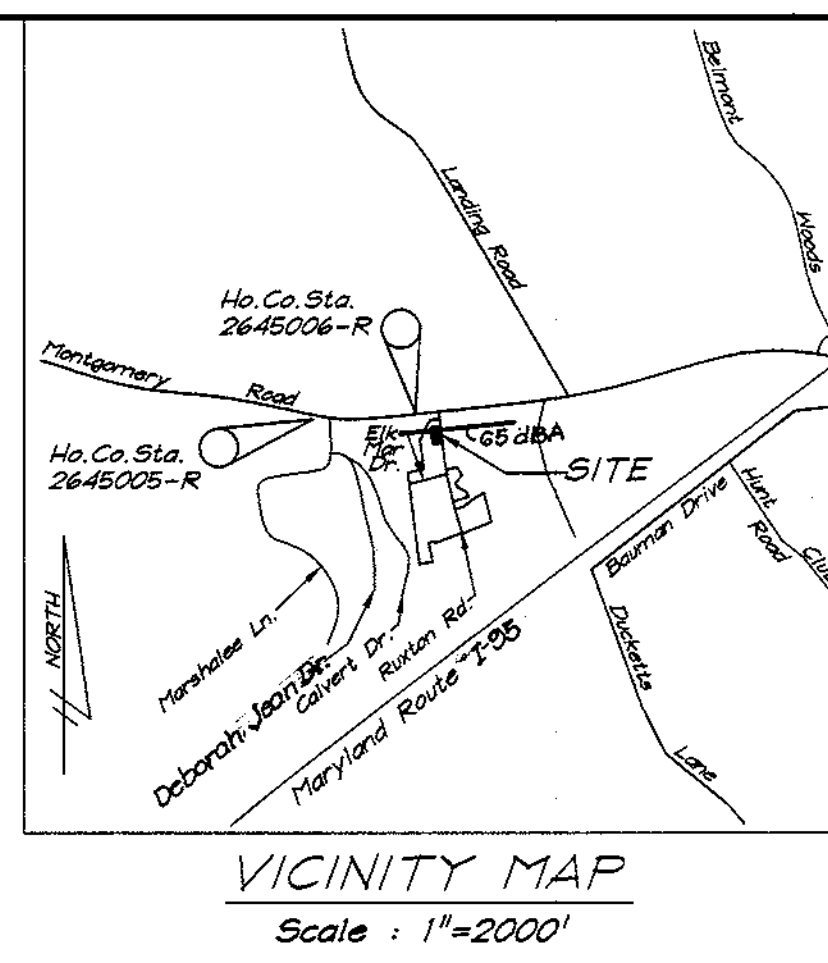
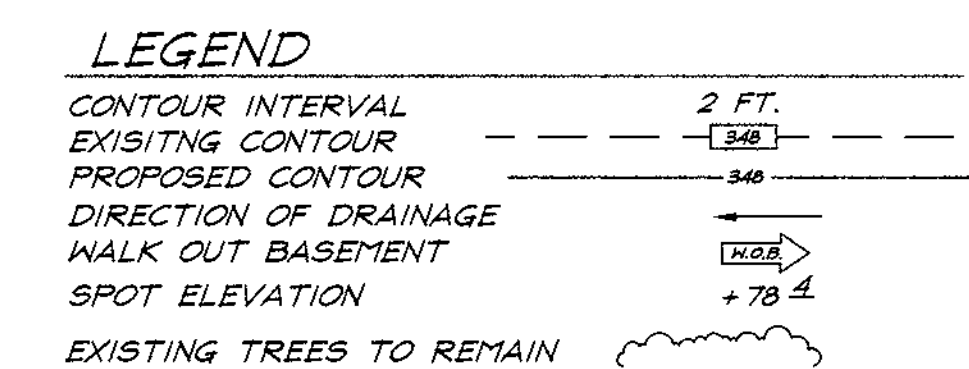
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162.5cf Volume Provided

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ADDRESS CHART

LOT NUMBER	STREET ADDRESS
41	6400 RUXTON DRIVE
42	6404



- GENERAL NOTES:**
- Subject property is zoned: R-20 per 10-18-93 Comprehensive Zoning Plan.
 - The total area included in this submission is: 0.6438 Acres
 - The total number of lots included in this submission is: 2
 - Improvement to property: Single Family Detached
 - SHC Elevation's shown are at the Property Line.
 - Department of Planning and Zoning reference file numbers are: S-94-34; F-84-160; F-94-54; P-96-09; F-96-165; SDP-98-49; F98-174
 - Utilities shown as existing are taken from approved Water and Sewer plans Contract # 14-3529-D, approved Road Construction plans F-96-165.
 - 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 taken from Road Construction Plans F-96-165 prepared by Mildenberg, Boender & Assoc., Inc in May 1997.
 - The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monument Nos.: 2645005-R and 2645006-R.
 - 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 1-800-257-7777 at least 48 hours prior to any excavation work.
 - For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details R-6.03 & R-6.05.
 - Stormwater Management is provided by Extended Detention and Bio Retention. Facilities are Privately owned and maintained, per F-96-165.
 - A dwelling shall not be located within the 65 dBA noise line on lot 41.
 - In accordance with section 128.a.1.b.c. of zoning regulations, areaways, bay windows or chimneys not more than 16 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 Areas.
 - Stormwater management is provided per F-96-165.

SHEET INDEX

DESCRIPTION	SHEET No.
COVER SHEET	1 of 2
SITE DEVELOPMENT SEDIMENT AND EROSION CONTROL PLAN	2 of 2

OWNER / DEVELOPER

LAND DESIGN AND DEVELOPMENT Inc.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

BENCHMARKS:

#1 Elevation 291.93
N 501,966.231 E 869,453.612

#2 Elevation N/A
N 501,884.354 E 869,482.835

SPECIAL NOTES:

This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-96-165 and/or approved Water and Sewer Plans Contract #14-3529-D.

SUBDIVISION NAME RAUSCH PROPERTY		SECTION/AREA 41 & 42	
PLAT NO. 13305	BLOCK NO. 6 & 12	ZONE R-20	TAX MAP NO. 37
WATER CODE 1-12		SEWER CODE 6652500	
ELECTION DIST. 1st		CENSUS TRACT 6055	

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED JME	SITE DEVELOPMENT PLAN LOTS 41 AND 42 RAUSCH PROPERTY TAX MAP 37 PARCEL 95 FIRST (1st) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 30'
DRAWN BLP		DRAWING 1 of 2
CHECKED JME		JOB NO. 97-140
DATE 11-20-08	FOR: PATRIOT HOMES P.O. Box 1016 Columbia, Maryland 21044	FILE NO. 97-140X

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/20/99 Date
Chief, Development Engineering Division MK

[Signature] 1/21/99 Date
Chief, Division of Land Development

[Signature] 1/21/99 Date
Director



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

- 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.

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 Experiment 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 textures. Topsoil shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 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. Limestone shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

iv. For sites having disturbed areas under 5 acres:

1. Place topsoil (if required) and apply soil amendments as specified in 21.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

2. 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:

- 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.
- Organic content of topsoil shall be prescribed to raise 1.5 percent by weight.
- Topsoil having soluble salt content greater than 500 parts per million shall not be used.
- No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for seed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic 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 amendments as specified in 21.0 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, about 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 seeding 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 placed 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, disking 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 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.).
 - 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 80 lbs. per acre (14 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 80 lbs. 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 seed. Option (3) Seed with 80 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 untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch seeding 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, disking 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 gal/1000 sq.ft.) for the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 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 seed.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch seeding 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 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 (11-1-1985).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- 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 2:1
 - 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. I, Chapter 7, 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 SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, soil, temporary seeding and mulching (Sec. 6).
- 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:	0.64 ACRES
Area Disturbed:	0.12 ACRES
Area to be vegetatively stabilized:	0.22 ACRES
Total Cut:	1322 C.Y.
Total Fill:	1322 C.Y.

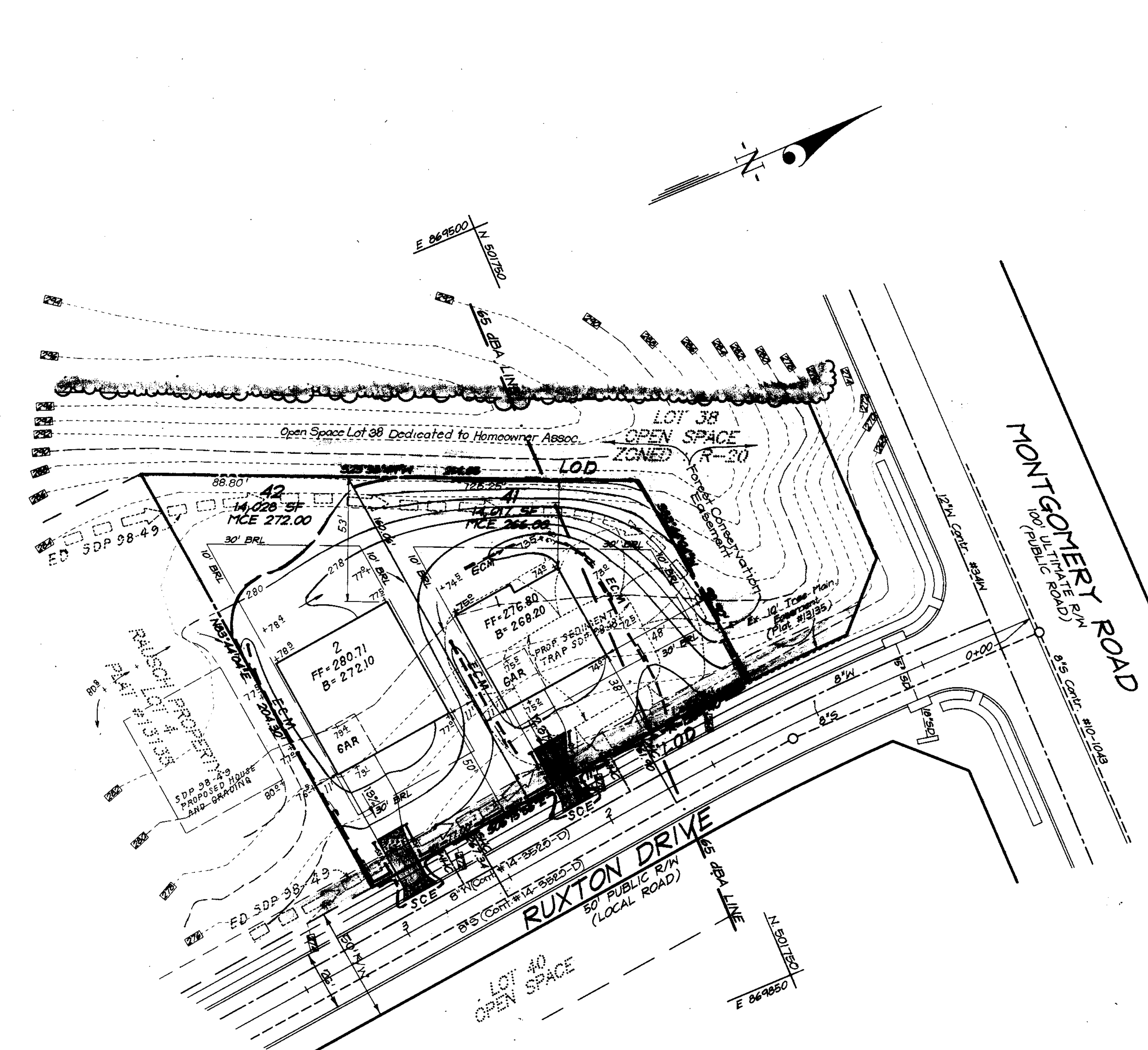
Offsite Waste/Borrow Area Location: _____

- 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.
- 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.
- Tranches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day of the start.
- The total amount of silt fence = 225 LF
- The total amount of super silt fence = 0
- The total amount of earth dike = 0

*It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

- | | NO. OF DAYS |
|--|-------------|
| 1. Obtain grading permit. | 7 |
| 2. Install tree protection fences. | 1 |
| 3. Install sediment and erosion control devices and stabilize. | 1 |
| 4. Excavate for foundations, rough grade and temporarily stabilize. | 15 |
| 5. Construct structures, sidewalks and driveway. | 20 |
| 6. Final grade and stabilize in accordance with Sids. and Specs. | 7 |
| 7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize. | 2 |



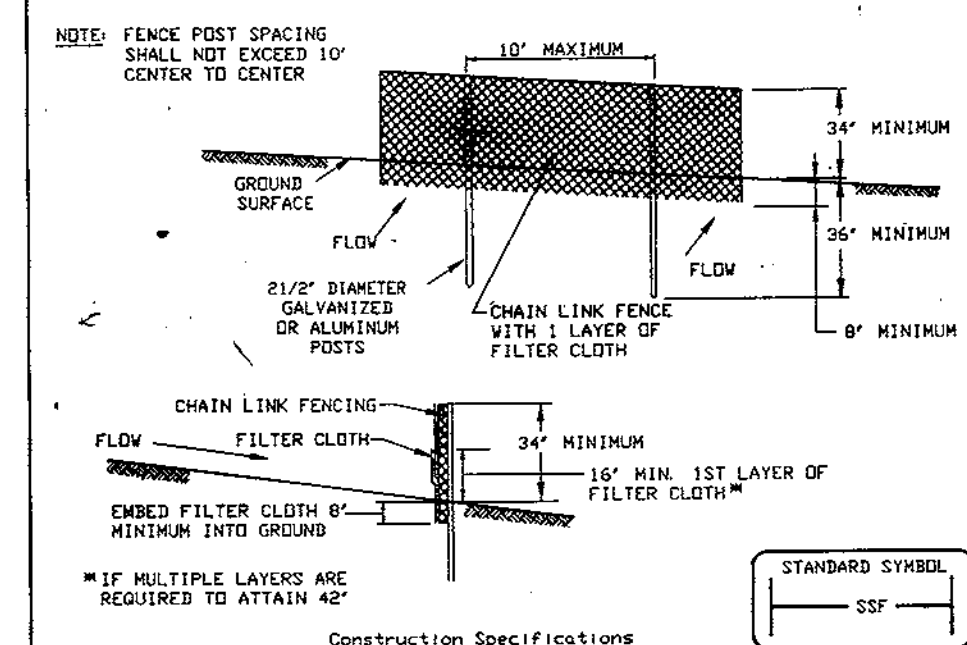
NOTE: Silt Controls from S.D.P. 98-49 and shown on this plan shall not be removed without approval of Sediment Control Inspector.

PLAN
SCALE: 1" = 30'

LEGEND

- CONTOUR INTERVAL: 2 FT.
- EXISTING CONTOUR: [Symbol]
- PROPOSED CONTOUR: [Symbol]
- DIRECTION OF DRAINAGE: [Symbol]
- WALK OUT BASEMENT: [Symbol]
- SPOT ELEVATION: [Symbol]
- STABILIZED CONSTRUCTION ENTRANCE: [Symbol]
- EROSION CONTROL MATTING: [Symbol]
- SUPER SILE FENCE: [Symbol]
- LIMIT OF DISTURBED AREA: [Symbol]
- TREE PROTECTION FENCE: [Symbol]
- EXISTING TREES TO REMAIN: [Symbol]

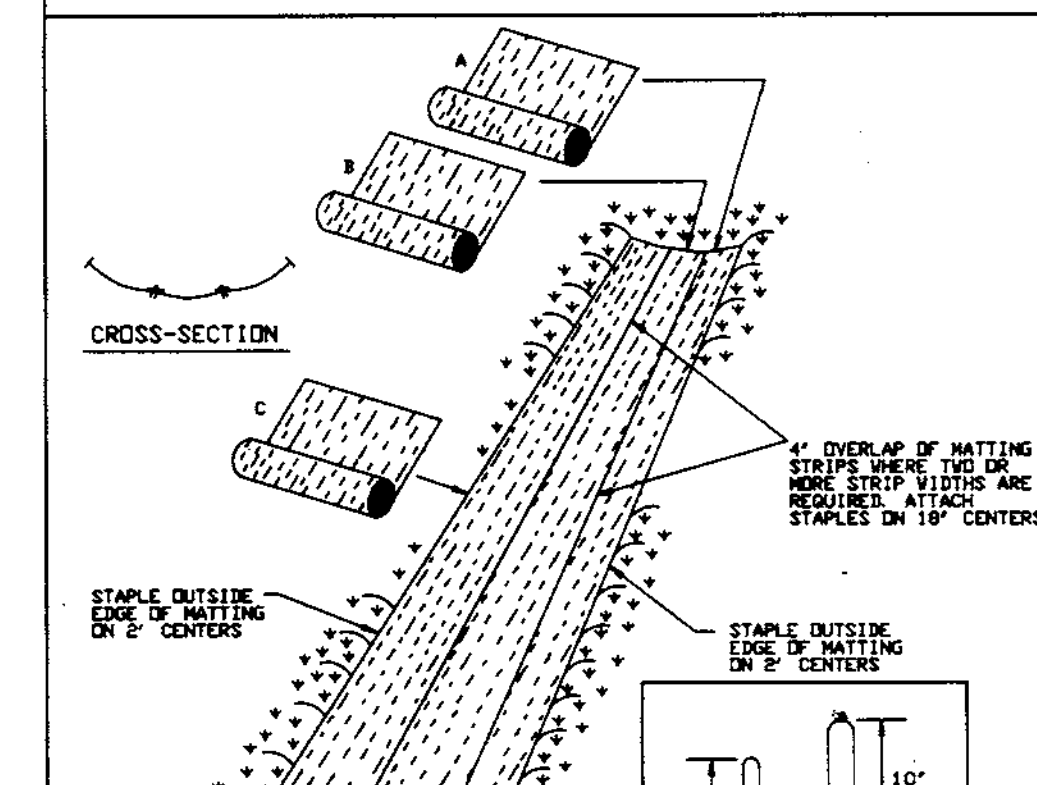
DETAIL 33 - SUPER SILT FENCE



- 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.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- 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.
- Filter cloth shall be fastened securely to each fence post with wire ties on slopes at top and mid section and shall meet the following requirements for Geotextile Class F:

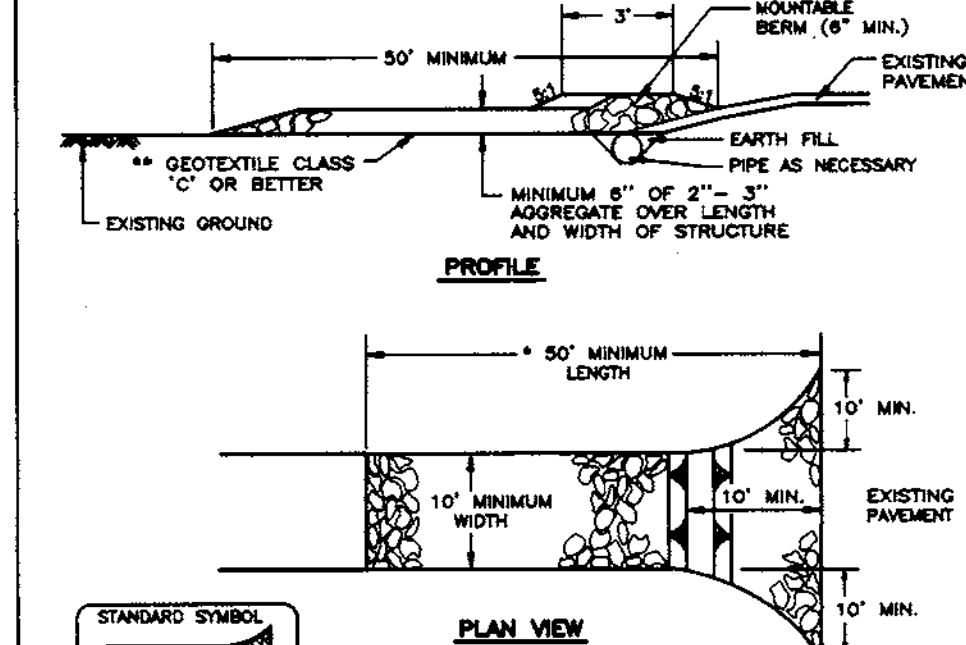
Tensile Strength	90 lbs/in (min.)	Test: MSMT 309
Tensile Modulus	80 lbs/in (min.)	Test: MSMT 309
Flow Rate	0.3 gal/ft ² /minute (max.)	Test: MSMT 352
Filtering Efficiency	75% (min.)	Test: MSMT 352

DETAIL 30 - EROSION CONTROL MATTING



- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and top firmly to conform to the channel cross-section. Secure with a row of staples spaced 4' down slope from the trench. Spacing between staples is 6'.
 - Staple the 4" overlap in the channel center using an 18" spacing between staples.
 - Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
 - Staples shall be placed 2" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
 - 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 1", ship-lap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
 - The discharge end of the matting liner should be similarly secured with a double row of staples.
- Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Length - minimum of 50' (* 30' for a 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. The plan approval authority may not require stone family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent and 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 piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable beam with S11 slope and a minimum of 8" 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.
- 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.

OWNER / DEVELOPER

LAND DESIGN AND DEVELOPMENT INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/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."

NAME: F.N. KUNKLE DATE: 12-31-98

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.

NAME: G. NELSON CLARK DATE: 12-30-98

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 1/10/99
[Signature] 1/11/99
[Signature] 1/21/99

Reviewed for HOWARD S.C.D. and meets Technical Requirements
[Signature] 1/11/99
U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 1/11/99
Approved

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

DESIGNED: JME	SITE DEVELOPMENT, SEDIMENT & EROSION CONTROL PLAN LOTS 41 & 42 A RESUB OF LOT 3 RAUSCH PROPERTY TAX MAP 37 PARCEL 95 FIRST (1st) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE: 1" = 30'
DRAWN: BLP		DRAWING: 2 of 2
CHECKED: JME		JOB NO.: 97-140
DATE: 11-20-98		FILE NO.: 97-140-X

FOR: PATRIOT HOMES
P.O. Box 1018
Columbia, Maryland 21044

SDP 99-53

21.0 STANDARDS AND SPECIFICATIONS

PERMANENT SEEDING NOTES

SEDIMENT AND EROSION CONTROL NOTES

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

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 - 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 heavy clay, gravel, sticks, cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.
 - 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:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

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, disking 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 lb./1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lb./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 uniform fertilizer (10 lb./1000 sq.ft.).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lb./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lb./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 80 lbs. per acre (14 lb./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 80 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.5 lb./1000 sq.ft.) of weeping lovegrass. During the period of October 15 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 seed Option (3) Seed with 80 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 untreated 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 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, disking or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lb./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 lb./1000 sq.ft.) for the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lb./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 untreated 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.

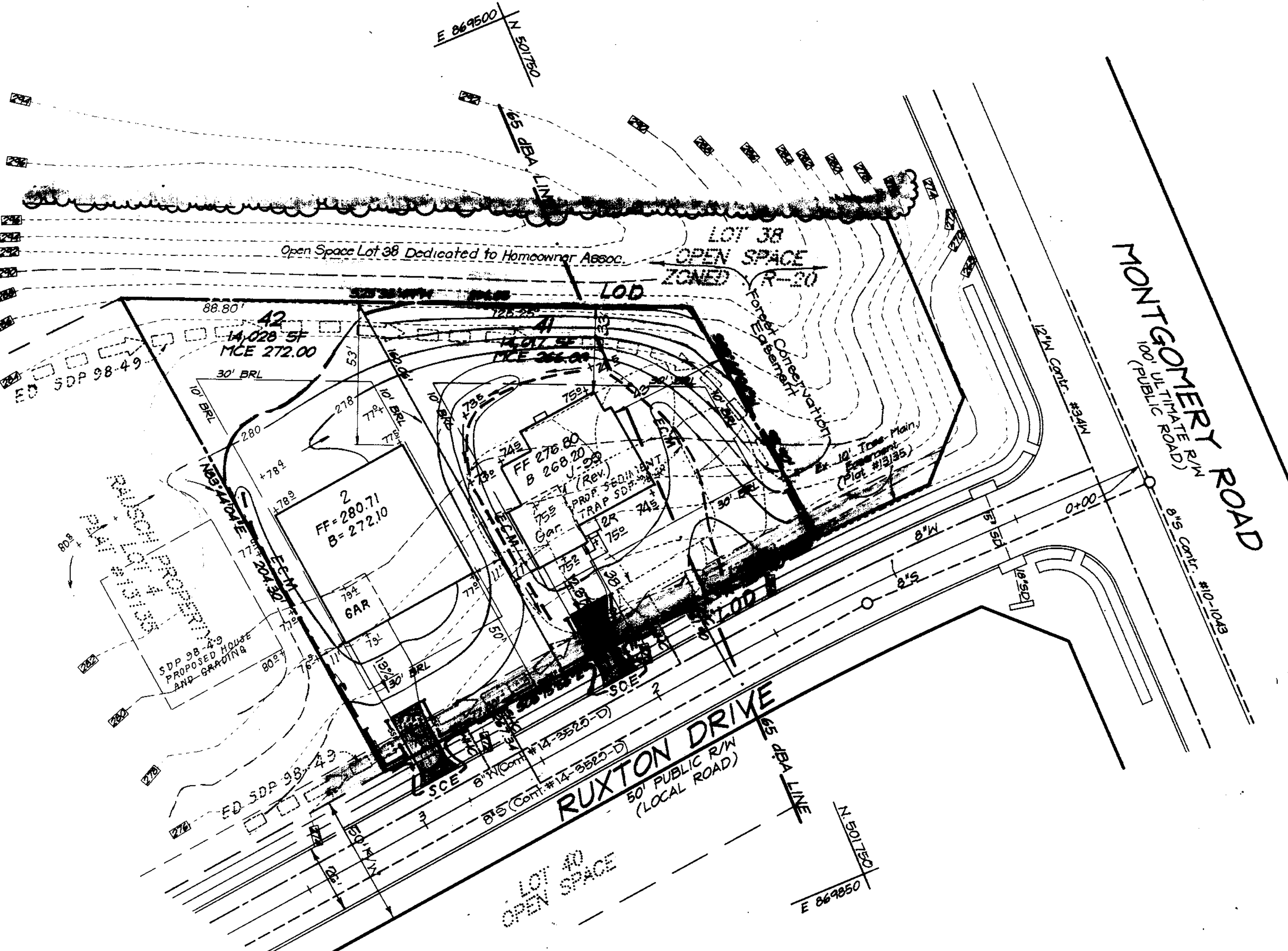
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

- 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 (313-1855).
 - 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 thereto.
 - Following initial soil disturbance or re-disturbance, 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. I, Chapter 7, 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 SPECIFICATIONS 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:	0.64 ACRES
Area Disturbed:	0.51 ACRES
Area to be seeded or sodded:	0.51 ACRES
Area to be vegetatively stabilized:	0.52 ACRES
Total Cut:	1282 C.Y.
Total Fill:	128 C.Y.
 - Off-site West/Borrow Area Location: _____
 - Any sediment control practice which is disturbed by grading activity or 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 LPM Sediment Control Inspector.
 - On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of permanent 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 the final approval by the inspection agency is made.
 - 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 of the trench.
 - The total amount of silt fence = 225 LF
 - The total amount of super silt fence = 0
 - The total amount of earth dike = 0
- * It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the Howard County Inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

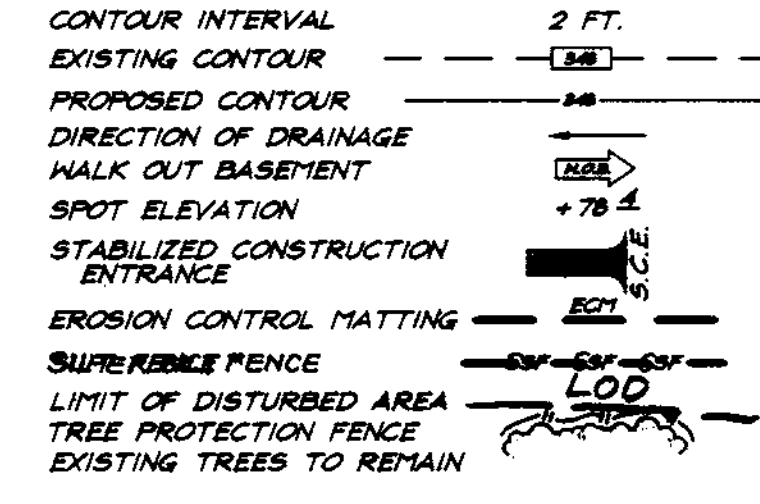
	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	1
3. Install sediment and erosion control devices and stabilize.	1
4. Excavate for foundations, rough grade and temporarily stabilize.	15
5. Construct structures, sidewalks and driveways.	50
6. Final grade and stabilize in accordance with Sids. and Specs.	50
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	2



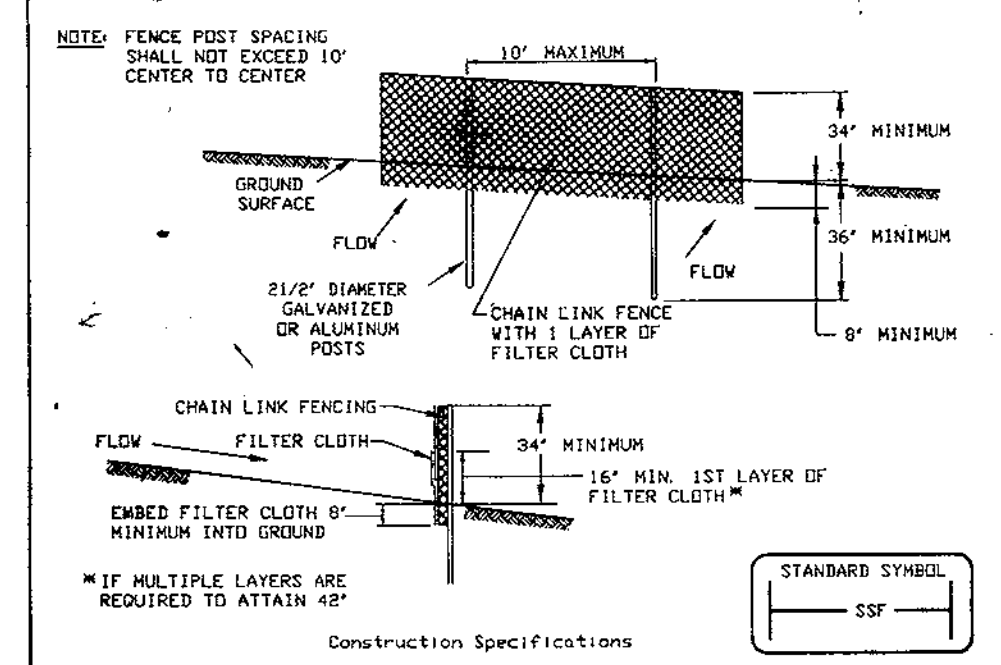
NOTE:
 Site Controls from SDP 98-49 and shown on this plan shall not be removed without approval of Sediment Control Inspector.

PLAN
 SCALE: 1" = 30'

LEGEND



DETAIL 33 - SUPER SILT FENCE

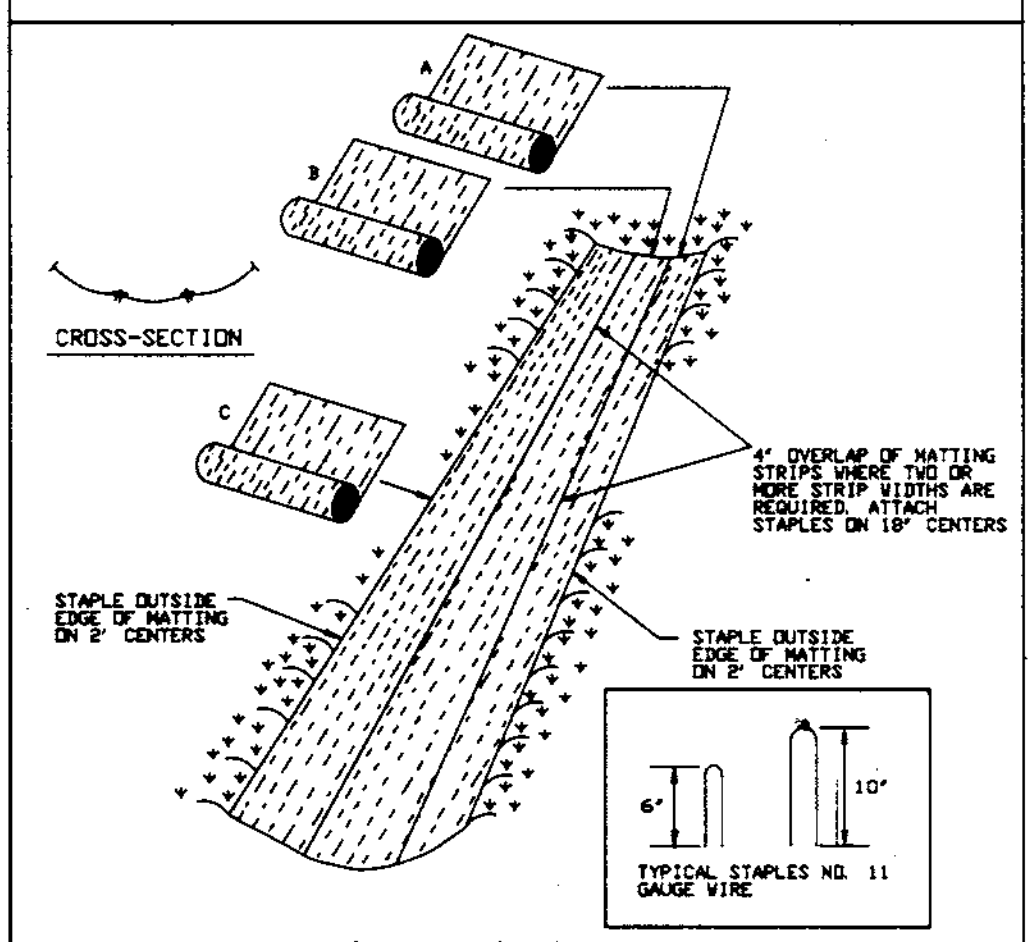


Construction Specifications

- 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.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt bulges removed when 'bulges' develop in the silt fence, or when silt reaches 50% of fence height.
- 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	30 lbs/in (min.)	Test: MSMT 309
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 309
Flow Rate	0.3 gal/ft/minute (max.)	Test: MSMT 332
Filtration Efficiency	75% (min.)	Test: MSMT 332

DETAIL 30 - EROSION CONTROL MATTING

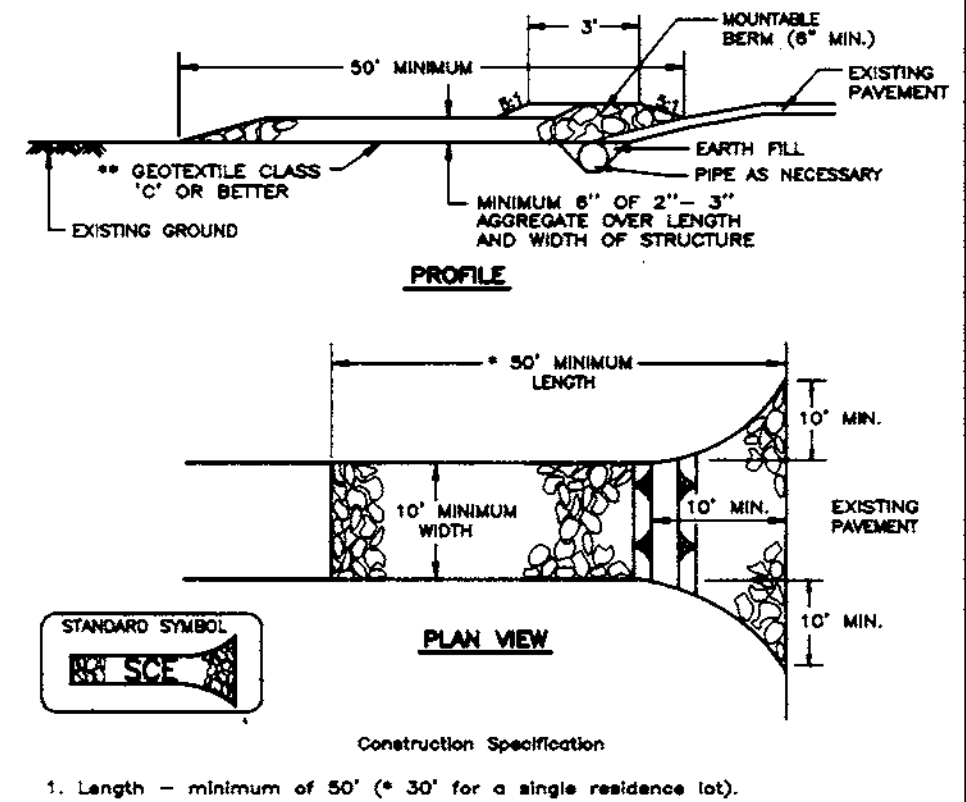


Construction Specifications

- 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 sloping slope. The skin approval authority may not require single firmly secured staples if 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 8" apart with 4 rows for each strip. 2 outer rows, and 2 alternating rows down the center.
- 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", whiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- 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.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

- Length - minimum of 50' (+ 30' for a 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 sloping slope. The skin approval authority may not require single firmly secured staples if 6".
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equipment 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 piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with 5" S11 slope armor a minimum of 2' sections over the pipe. Pipe has to be sized according to the drainage. When the S11 is located at a high head and has no drainage to convey, a pipe will not be necessary. The 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.

OWNER / DEVELOPER
 LAND DESIGN AND DEVELOPMENT Inc.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/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."

Signature: *R.N. Kunkle*
 NAME: R.N. KUNKLE
 DATE: 12-31-98

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.

Signature: *G. Nelson Clark*
 NAME: G. NELSON CLARK
 DATE: 12-30-98



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* Date: 1/20/99
 Chief, Development Engineering Division
 Signature: *[Signature]* Date: 1/21/99
 Chief, Division of Land Development

Reviewed for HOWARD S.C.D. and meets Technical Requirements
 Signature: *[Signature]* Date: 1/19/99
 U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *[Signature]* Date: 1/19/99
 Approved

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED: JME	SITE DEVELOPMENT, SEDIMENT & EROSION CONTROL PLAN LOTS 41 & 42 A RESUB OF LOT 3 RAUSCH PROPERTY	SCALE: 1" = 30'
DRAWN: BLP		DRAWING: 2 of 2
CHECKED: JME	TAX MAP 37 PARCEL 95 FIRST (1st) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO.: 97-140
DATE: 11-20-08	FOR: PATRIOT HOMES P.O. Box 108 Columbia, Maryland 21044	FILE NO.: 97-140-X

No	REVISIONS	Date
1	Rev. hse. f. qrd. lot 41, Add hse typical	10-23-00
2	Rev. hse. f. qrd. lot 41 to show As-Built Conditions	3-23-01
3	Rev. hse. f. qrd. lot 42, Rev. qrd. lot 41 to show As-Built Conditions	5-22-01

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

- 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. 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 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 and shall contain less than 5% by volume of cinders, 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, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons per 1,000 square feet (see) 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:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

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, disking 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 80 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 80 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 applying 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed Option (3) Seed with 80 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 (30 to 40 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 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 (31-3-1853).
- 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 SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redisturbance, 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 for all other disturbed or graded areas on the project site.
- All sediment traps/basins shall be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 7, 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 SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. 6).
- 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:	0.64 ACRES
Area to be seeded or sodded:	0.57 ACRES
Area to be vegetatively stabilized:	0.52 ACRES
Total Cut:	1226 C.Y.
Total Fill:	138 C.Y.

 Offsets Waste/Borrow Area Location:
- 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.
- 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.
- 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.
- The total amount of silt fence = 225 L.F.
- The total amount of silt fence = 0
- The total amount of earth dike = 0

* It is the responsibility of the contractor to identify the spoil/borrow site and obtain and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking 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.)

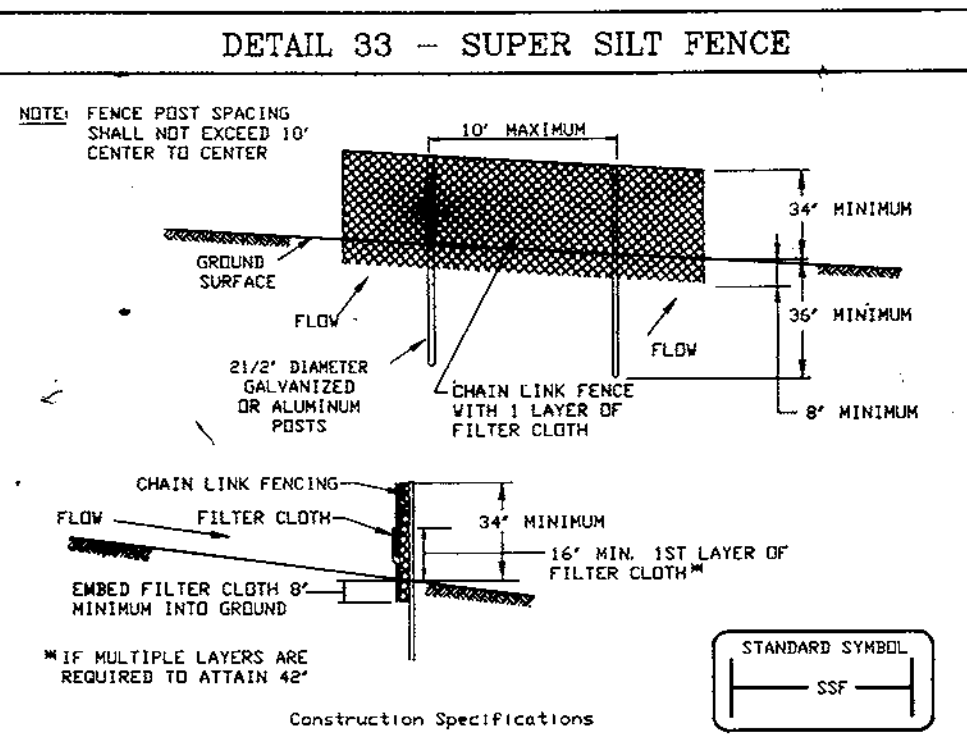
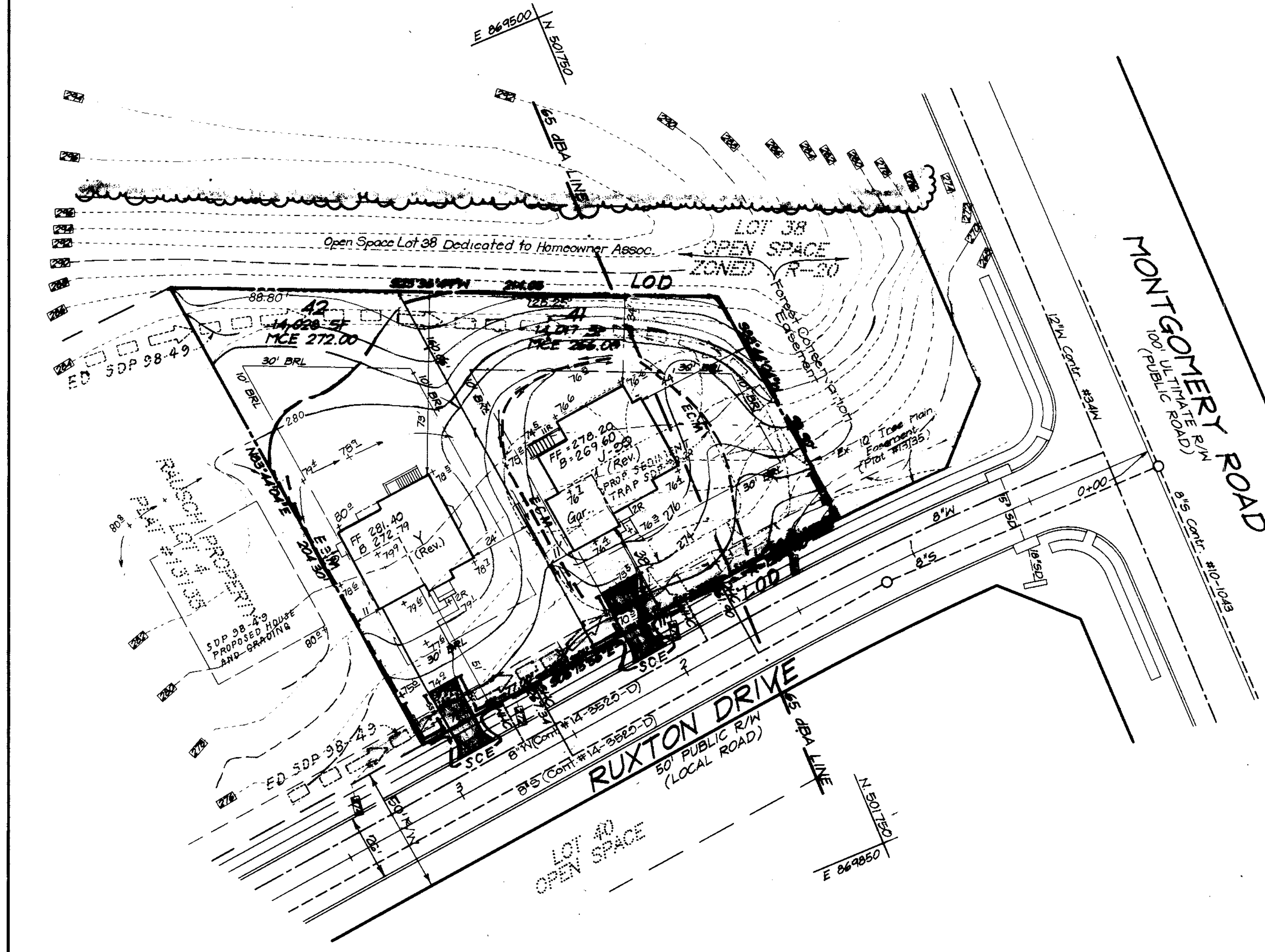
SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual ryegrass (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1000 sq.ft.) For the period November 1 thru February 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 (30 to 40 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.

CONSTRUCTION SEQUENCE:

	NO. OF DAYS
1. Obtain grading permit.	1
2. Install tree protection fence.	1
3. Install sediment and erosion control devices and stabilize.	1
4. Excavate for foundations, rough grade and temporary stabilize.	15
5. Construct structures, sidewalks and driveways.	60
6. Final grade and stabilize in accordance with SDCS and Specs.	7
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	2

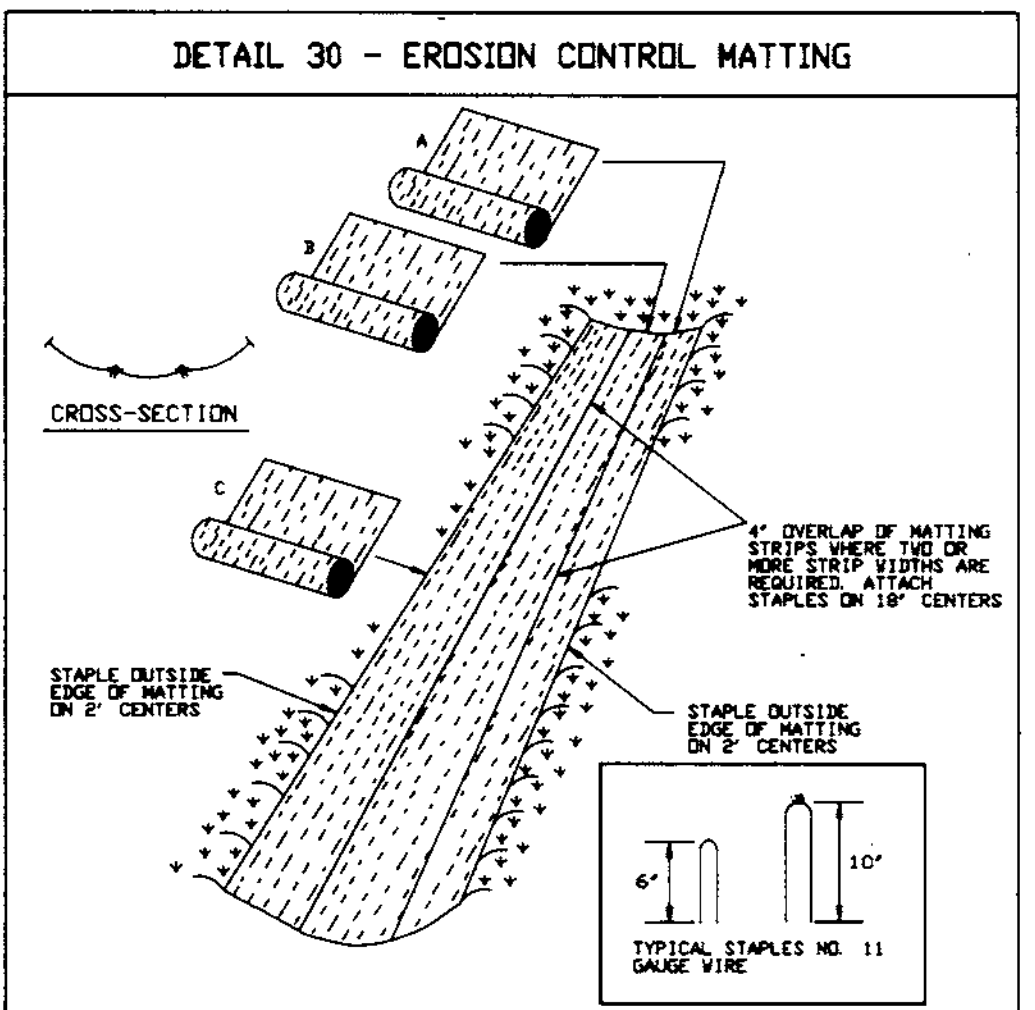


Construction Specifications

- 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.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and trust rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt bulldogs removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
- 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	30 lbs/in (min.)	Test: HMT 509
Tensile Modulus	20 lbs/in (min.)	Test: HMT 509
Flow Rate	6.3 gal/ft/minute (max.)	Test: HMT 382
Filtering Efficiency	75% (min.)	Test: HMT 382

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 3-28-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

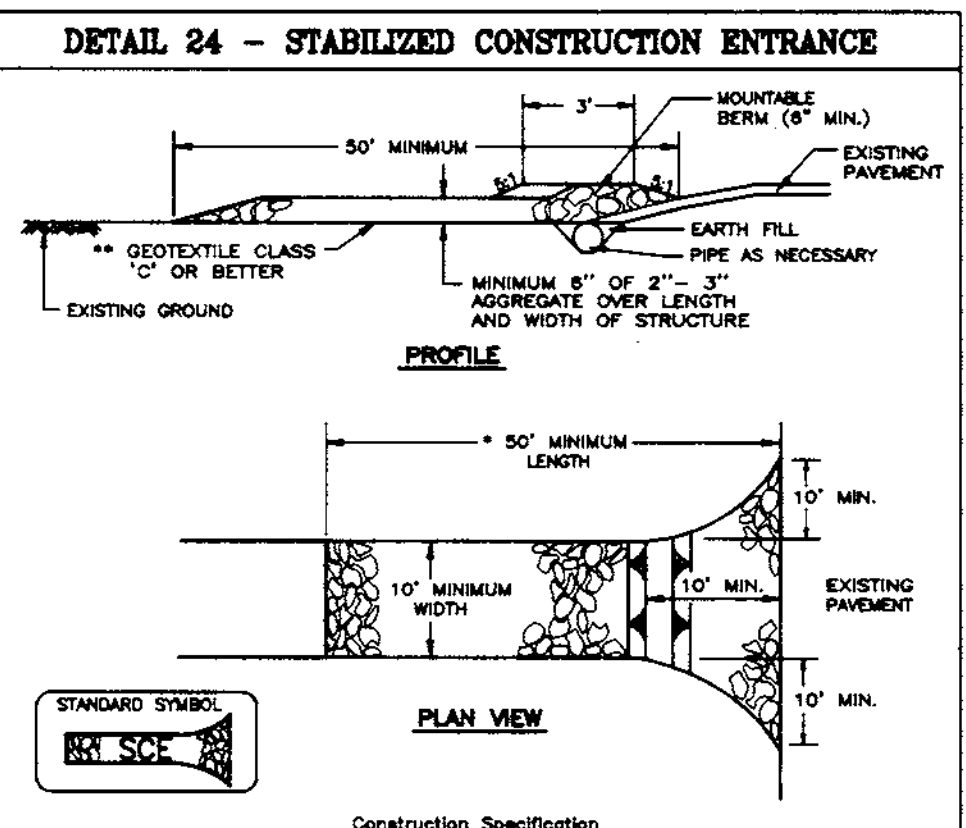


Construction Specifications

- 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 spaced 6" apart from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 8" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- 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", and the bottom strip shall overlap the lower end of the upper strip by 4".
- The discharge end of the matting liner should be securely secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-28-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

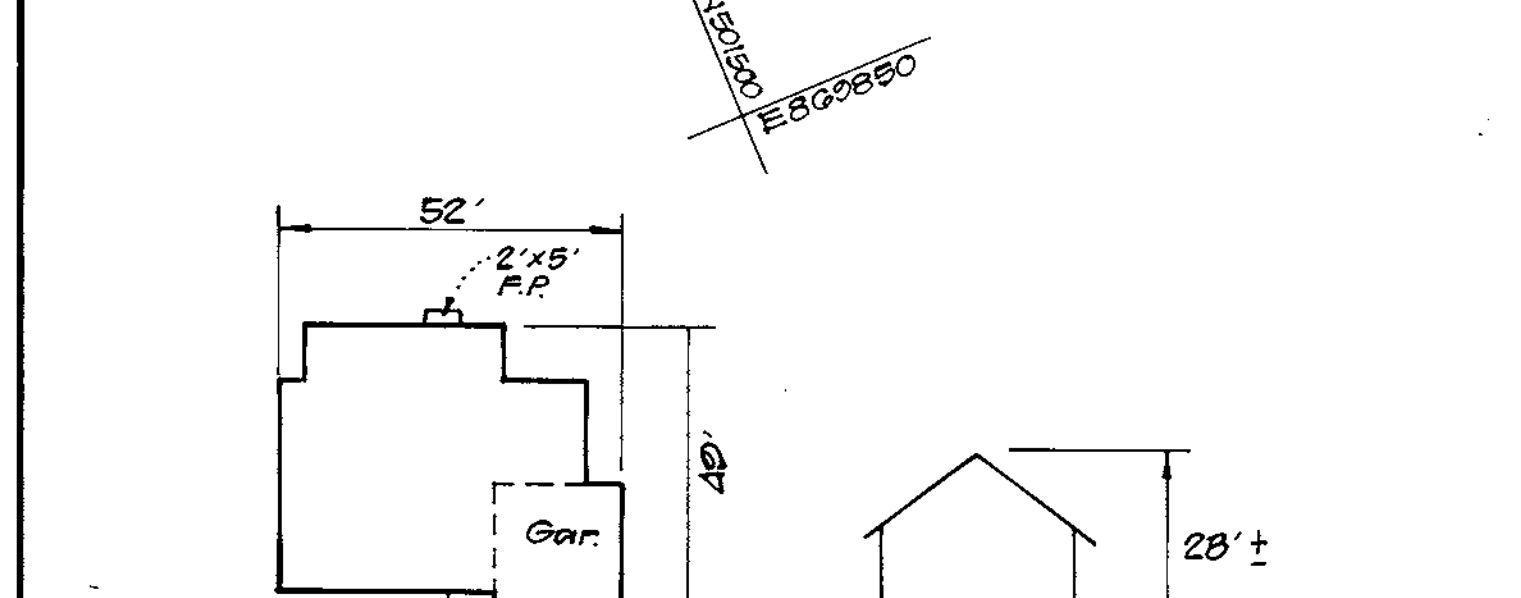


Construction Specifications

- Length - minimum of 50' (+ 30' for a 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. ** The plan approval authority may not require single family residences to use geotextile.
- 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.
- 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 mounded berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe hole 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.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters a construction site. A construction site leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 7-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTE: Silt Controls from SDP 98-49 and shown on this plan shall not be removed without approval of Sediment Control Inspector.



PLAN SCALE: 1" = 30'

LEGEND

CONTOUR INTERVAL	2 FT.
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
DIRECTION OF DRAINAGE	→
WALK OUT BASEMENT	---
SPOT ELEVATION	+78.4
STABILIZED CONSTRUCTION ENTRANCE	---
EROSION CONTROL MATTING	---
SURFACE FENCE	---
LIMIT OF DISTURBED AREA	---
TREE PROTECTION FENCE	---
EXISTING TREES TO REMAIN	---

Reviewed for HOWARD S.C.D. and meets Technical Requirements
 Signature: [Signature] Date: 11/19/99
 U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: [Signature] Date: 11/21/99
 Approved

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/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."

NAME: R.N. KUNKLE DATE: 12-31-98

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.

Signature: [Signature] DATE: 12-30-98
 G. NELSON CLARK

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division MK	Date: 1/20/99
Chief, Division of Land Development	Date: 1/21/99
Chief	Date: 1/21/99

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

DESIGNED	SITE DEVELOPMENT	SCALE
JME	SEDIMENT & EROSION CONTROL PLAN	1" = 30'
B.L.P.	LOTS 41 & 42	DRAWING
JME	A RESUB OF LOT 3	2 of 2
JME	RAUSCH PROPERTY	JOB NO.
JME	TAX MAP 37 PARCEL 95	97-140
JME	FIRST (1st) ELECTION DISTRICT	FILE NO.
JME	HOWARD COUNTY, MARYLAND	97-140-X

FOR: PATRIOT HOMES
 P.O. Box 108
 Columbia, Maryland 21044