

## 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

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

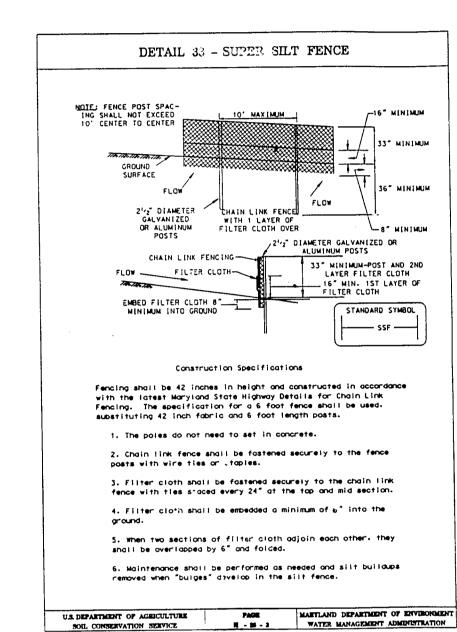
1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/ 100 sq.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs./ 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq.ft.)

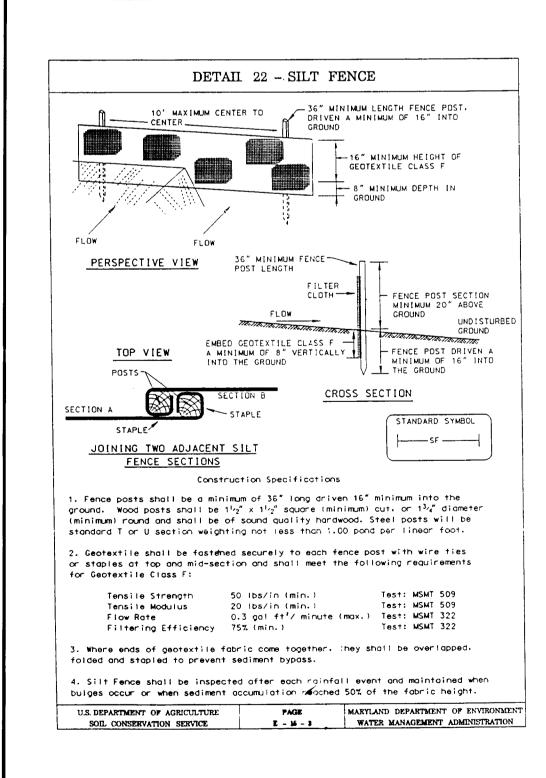
2) Acceptable-Apply 2 tons per acre dolomatic limestone (92 lbs/ 1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10- fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

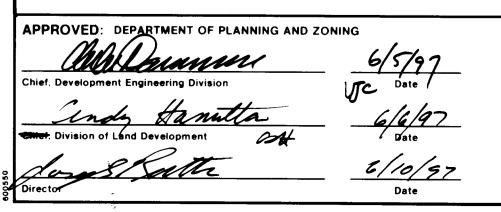
SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. 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

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

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

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

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REFER TO THE 1894 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

## **LEGEND** CONTOUR INTERVAL 2 FT EXISITNG CONTOUR PROPOSED CONTOUR --- 348 --DIRECTION OF DRAINAGE WALK OUT BASEMENT Was SPOT ELEVATION + 78<del>4</del> STABILIZED CONSTRUCTION ENTRANCE SUPER SILT FENCE SILT FENCE ED (A-1) EARTH DIKE $\rightarrow$ $\rightarrow$ $\rightarrow$ $\rightarrow$ LIMIT OF DISTURBED AREA TREE PROTECTION FENCE EXISTING TREES TO REMAIN ELECTRIC CONDUIT TELEPHONE CONDUIT BURIED CABLE GAS MAIN \_\_\_\_

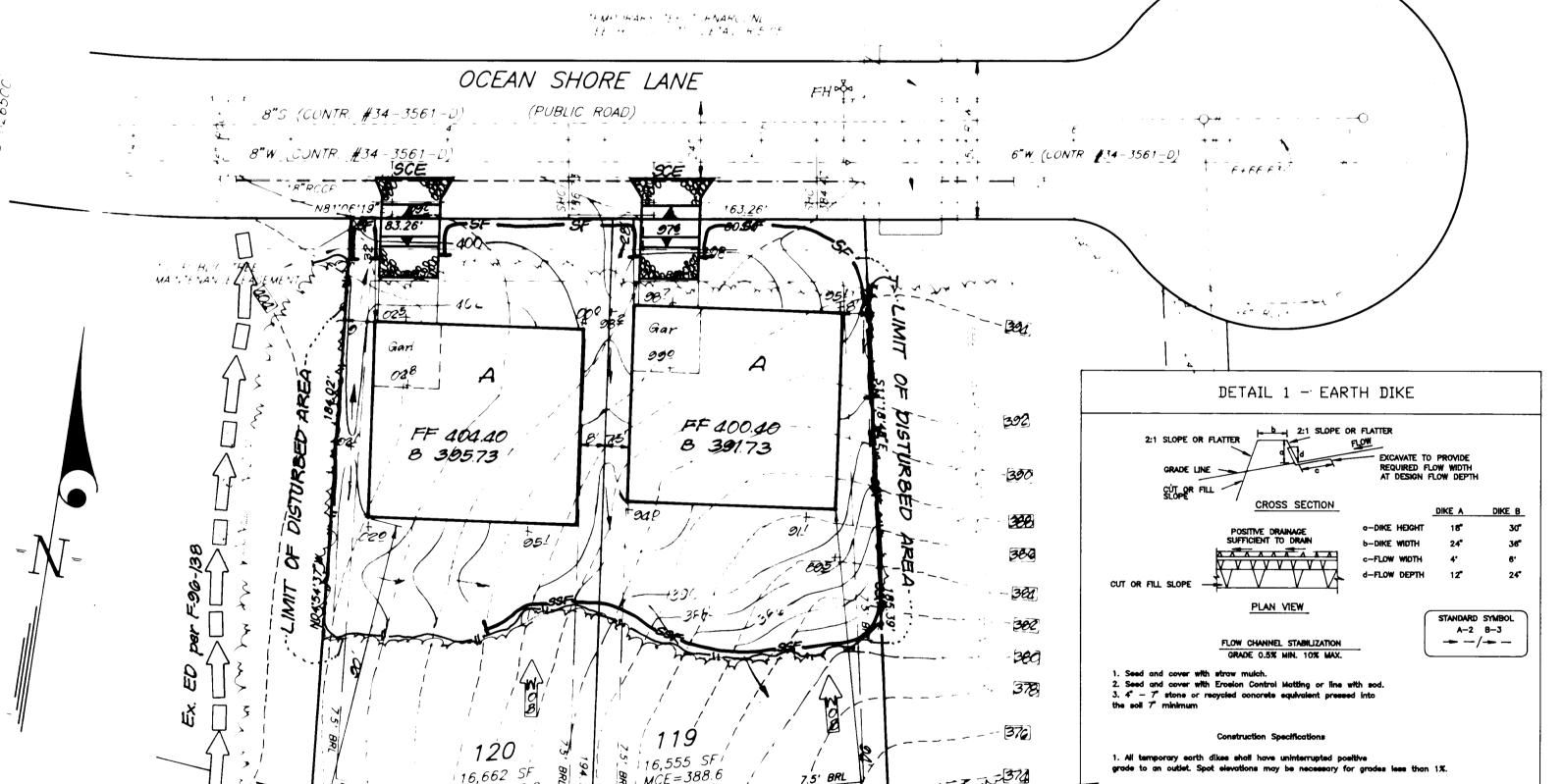
CABLE TELEVISION

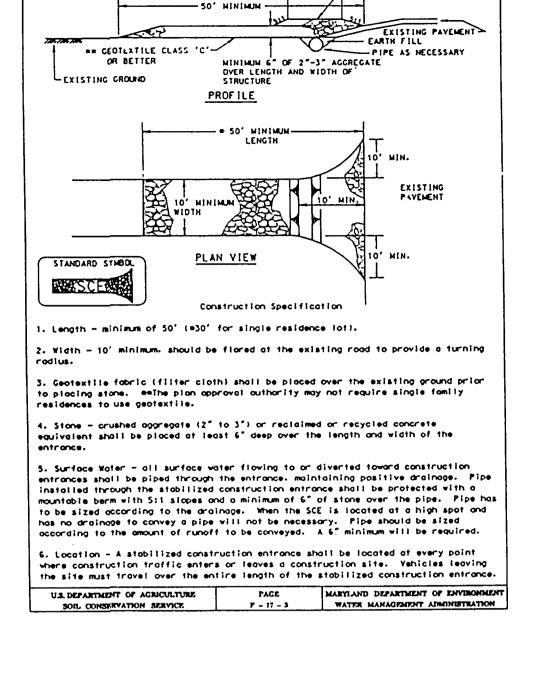
N 49690C

2:1 SLOPE OR FLATTER 2:1 SLOPE OR FLATTER -EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH AT DESIGN FLOW DEPTH CROSS SECTION DIKE A DIKE B O-DIKE HEICHT 18" SUFFICIENT TO DRAIN D-DIKE WIDTH c-FLOW WIDTH d-FLOW DEPTH CUT DR FILL SLOPE -PLAN VIEW STANDARD SYMBOL A-2 B-3 ----FLOW CHANNEL STABILIZATION 1. Seed and cover with straw mutch. 2. Seed and cover with Erosion Control Matting or line with sod. 3. 4" - 7" stone or recycled concrete equivalent pressed into Construction Specifications 1. All temporary earth dikes shall have uninterrupted positive 2. Runoff diverted from a disturbed area shall be conveyed to a sediment 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity 4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow. 6. Fill shall be compacted by earth moving equipment. 7. All earth removed and not needed for construction shall be placed so that 8. Inspection and maintenance must be provided periodically and after PAGE MARYLAND DEPARTMENT OF ENVIRONMENT
A - 1 - 6 WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

DETAIL 1 - EARTH DIKE

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE EARTH FILL \* GEOTEXTILE CLASS 'C' -----PIPE AS NECESSARY MINIMUM 6" OF 2"-3" AGGREGATE OVER LENGTH AND WIDTH OF STRUCTURE LEXISTING CROUND PROFILE LENGTH PLAN VIEW STANDARD SYMBOL WASCE Construction Specification . Length - minimum of 50' (=30' for single residence lot). . Width - 10' minimum, should be flored at the existing road to provide a turning 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. eaThe plan approval authority may not require single family 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 5. Surface Water — all surface water flowing to or diverted toward construction





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MARYLAND DEPARTMENT OF ENVIRONMEN

A -- 1 - 6 VATER MANAGEMENT ADMINISTRATION

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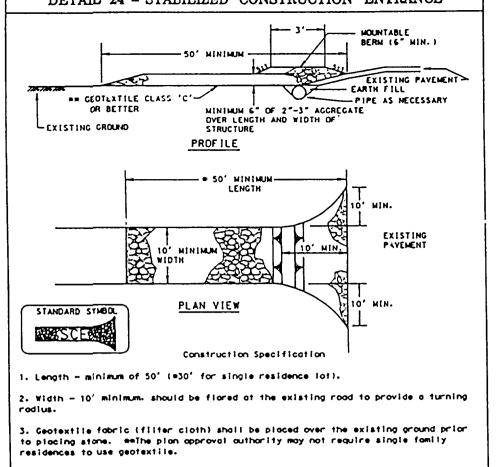
6. Fill shall be compacted by earth moving equipment.

It will not interfere with the functioning of the dilce.

4 6 functioning of the dike.

each rain event.

U.S. DEPARTMENT OF AGRICULTURE



## 1. 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).

2. 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 ALD SEDIMENT CONTROL and revisions thereto.

SEDIMENT AND EROSION CONTROL NOTES

3. Following initial soil disturbance or redisturbance, permanent or temporary tabilization shall be completed within: a) 7 calen ar days for all perimeter sediment control stuctures, dikes, perimeter slopes and all slopes greater than 3:1 b) 14 days as to all other disturbed or graded areas on the

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol.1. Chapter 7, of the HOWARD COUNTY DESIGN MANUAL. Storm

5. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STAND-IRDS 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. 6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. SITE ANALYSIS: Total Area of Site: 4.04 Ac.

Area Disturbed: 3.51 Ac.

Area to be roofed or paved: 1.20 Ac. Area to be roofed or paved: 1.20Ac.
Area to be vegetatively stabilized: 2.31Ac. Total Cut: \_\_\_\_\_

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.

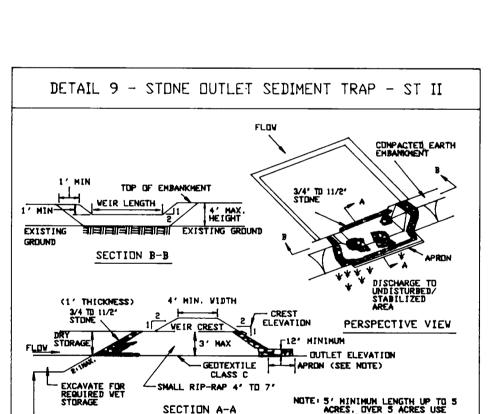
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector. 10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment 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

11. Trenct es for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

12. The total amount of silt fence = 345LF
13. The total amount of super silt fence = 210 LF
14. The total amount of earth dike = 030 LF \* It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment co trol inspector of the site and it's grading permit number at the the of construction.

NO. OF DAYS CONSTRUCTION SEQUENCE: Obtain grading permit Install tree protection fence. \_ Install sediment and erosicn control devices and stabilize. \_\_\_ #4. Excavate for foundations, rough grade and temporarily stabilize. Construct structures, sidevalks and driveways. Final grade and stabilize in accordance with Stds. and Specs. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize. \* Delay construction of houses on lots 104 \$ 112 until Temp.

Traps Nº 1 and Nº 2 have been removed



Construction Specifications 1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared. 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic

3. All cut and fill slopes shall be 2:1 or flatter. 4. The stone used in the outlet shall be small rip-rap 4' to 7' in size with a 1' thick layer of 3/4" to 11/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face

naterial or other objectionable naterial. The embaniment shall be

compacted by traversing with equipment while it is being

5. Sediment shall be removed and trap restored to its original

dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Renoved sediment shall be deposited in a suitable area and in such a manner that it will not erode. SOIL CONSERVATION SERVICE

21.0 STANDARDS AND SPECIFICATIONS <u>FOR</u> **TOPSOIL** 

**Definition** 

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

<u>Purpose</u>

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 reas having 2:1 or flatter

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.

a. The texture of the exposed subsoil/parent material

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

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

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

Construction and Material Specifications

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

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

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

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

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

II. For sites having disturbed areas under 5 acres: i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization Section I - Vegetative Stabilization Methods and Materials.

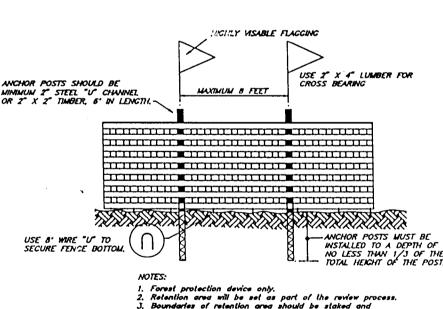
V. Topsoil Application When topsoiling, maintain needed erosion and

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.

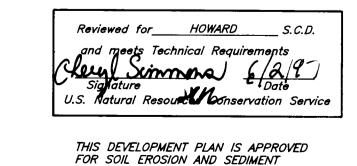
iii. Topsoil shall be uniformly distributed in a 4" layer and lightly compacted to a minimum ....ckness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from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

iv. Topsoil shall not solace 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.



i. Protection signage may also be used. i. Device should be maintained throughout construction

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL



CONTROL BY THE HOWARD SOIL

CONSERVATION DISTRICT.

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 raining 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

4-15-97

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 Katherine 1 Mc Makon 4-15-97
Katherine 1 Mc Makon DATE



1-15-97



DESIGNED SEDIMENT AND EROSION CONTROL PLAN KIWM LOTS 104 - 112, 119 & 120 **COLUMBIA** PS. VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHANE 2 CHECKED

FIFTH (5th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

R: GOODIER BUILDERS, Inc. 5054 DORSEY HALL DRIVE, SUITE 205 ELLICOTT CITY, MARYLAND 21042

SCALE

1'=30

DRAWING

3 of 4

JOB NO.

FILE NO.

97-012

