

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Test: MSMT 322

Definition Placement of topsoil over a prepared subsoil prior to

Purpose To provide a suitable soil medium for vegetable growth ioils of concern have low moisture content, low nutrien levels, low pH, materials toxic to plants, and/or

Conditions Where Practice Applies This practice is limited to areas having 2:1 or flatter

- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative b. The soil material is so shallow that the rooting
- zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients. The original soil to be vegetated contains material toxic to plant growth.
- d. The soil is so acidic that treatment with
- 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 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.

Topsoil Specifications - Soil to be used as topsoil

- 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 le than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter. ii. Topsoil must be free of plants or plant parts such as
- Bermuda grass, quackgrass, Johnsongrass, nutsedge, polson ivy, thistle, or others as specified.
- iii. Where the subsoil is either highly ocidic or compase of heavy clays, ground ilmestone 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 till—age operations as described in the following procedures

- III. For sites having disturbed areas under 5 acres: Place topsoil (if required) and apply soil amend—ments as specified in 20.0 Vegetative Stabilization Section 1 — Vegetative Stabilization Methods and
- IV. For sites having disturbed areas over 5 acres: On soil meeting topsoil specifications, obtain test results dictating fertilizer and ilme amendments required to bring the soil into compliance with the
- a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

 b. Organic content of tapsoil shall be not less than 1.5 percent by weight.

 c. Topsoil having soluble solt content greater than 500 parts per million shall not be used.
- d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-taxic materials.
- NOTE: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientiet and approved by the appropriate approval authority, may be used in
- Place topsoil (if required) and apply sail amendments 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 Stobilization 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, albeit 4"— 8" higher in elevation.
- SEEDBED PREPARATION: Loosen upper three inches of soil by raking discing or other acceptable means befare seeding, if not previously iii. Topsoil shall be unifarmly 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 top-soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets. SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 eq.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.
- iv. Topsoil shall not be piace while the tapsoil 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 praper grading and seedbed preparation. MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 ibs./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.

- SUPER DIVERSION FENCE " MINIMUM ENCING SHALL BE 42" HIGH CHAIN LINK FENCE CONSTRUCTED IN ACCORDANCE WITH HE LATEST MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 690.01 ND 690.02 THE SPECIFICATIONS FOR A 6"-0" FENCE SHALL BE USED, SUBSTITUTE 2" FABRIC & 70" POSTS. POSTS SHALL BE PLACED WITHOUT CONCRETE EMBEDMENT CHAIN LINK FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES OR STAPLES.

FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24° AT TOP AND MID SECTION.

WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. MAINTAINENCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.

shiplap fashion. Reinforce the averlap with a double row of staples spaced 8" apart in a staggered pattern on either side.

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

U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENS SOIL CONSERVATION SERVICE G = 22 - 2 VATER MANAGEMENT ADMINISTRATION

PERMANENT SEEDING NOTES

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

 $\mbox{\sc MAINTENANCE:}$ inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

8. Inspection and maintenance must be provided periodically and after U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONG SOIL CONSERVATION SERVICE A - 1 - 6 WATER MANAGEMENT ADMINISTRATIC HIGHLY VISABLE FLAGGING ANCHOR POSTS SHOULD BE MINIMUM 2" STEEL "U" CHANNEL OR 2" X 2" TIMBER, 6' IN LENGTH. MAXIMUM B FEET ------------USE 8' WIRE "U" TO SECURE FENCE BOTTOM.

DETAIL 1 - EARTH DIKE

2:1 SLOPE OR FLATTER

V,V,V,V,V,V,V

PLAN VIEW

Seed and cover with straw mulch.
 Seed and cover with Erosion Control Matting or line with sod.
 4" - 7" stone or recycled concrete equivalent pressed into

1. All temporary earth dikes shall have uninterrupted positive

8. Fill shall be compacted by earth moving equipment

Construction Specifications

2. Runoff diverted from a disturbed area shall be conveyed to a sediment

3. Runoff diverted from an undisturbed area shall outlet directly into a

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

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.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

b-DIKE WIDTH

c-FLOW WIDTH

d-FLOW DEPTH

A-2 B-3 --------

 Forest protection device only.
 Retention area will be set as part of the review process.
 Boundaries of retention area should be staked and flagge prior to installing device.
 Root damage should be avoided. Protection signage should be used.
 Device should be maintained throughout construction

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL NO SCALE

SEDIMENT AND EROSION CONTROL NOTES

A <u>minimum of 48 hours</u> 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 redisturbance, permanent or temporary stabilization shall be completed within:
a) 7 calendar 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 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—ARDS 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.

1) Preferred-Apply 2 tons per ocre dalomitic limestone (92 lbs/100 sq.ft.) and 600 lbs per ocre 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 ocre 30-0-0 ureafarm fertilizer (9 lbs/1000 sq.ft.) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been abtained from the Howard County Sediment Control Inspector.

 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 7. SITE ANALYSIS: Total Area of Site:
Area Disturbed:
Area to be roofed or paved:
Area ta be vegetatively stabilized:
Total Cut:
Total Fill: SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw. 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. 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.

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 ar 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 shall be backfilled and stabilized within one working day, or is limited to three pipe lengths

12. The total amount of slit fence = 13. The total amount of super silt fence = 182 LF 14. The total amount of super diversion fence =

• 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.

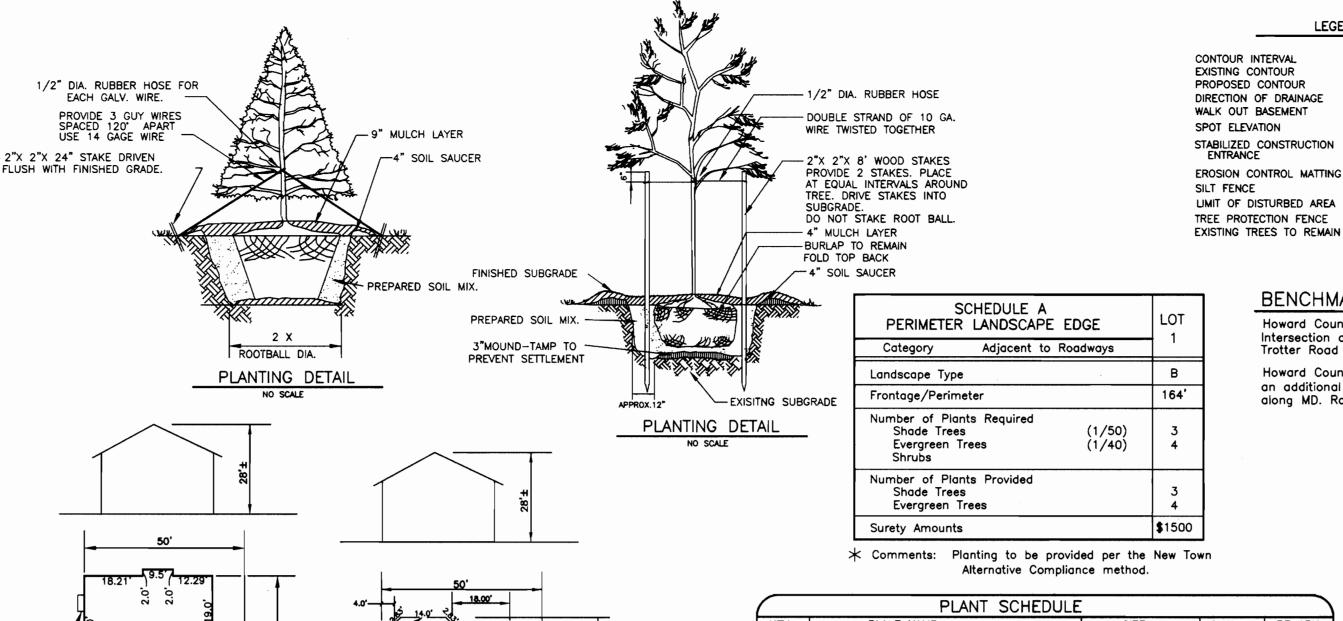
* Delay construction of houses on lots:

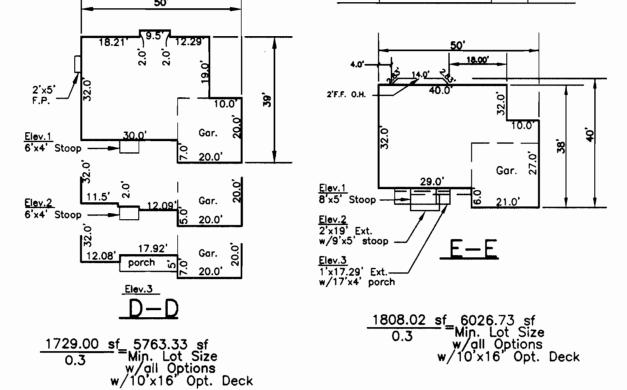
CONSTRUCTION SEQUENCE: NO. OF DAYS Obtain grading permit.
 Install tree protection fence.
 Install sediment and erosian control devices and stabilize.
 Excavate for foundations, rough grade and temporarily stabilize.
 Construct structures, sidewalks and driveways.
 Final grade, install Erosion Control Matting and stabilize in accordance with standards and specifications.
 Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.

DEVELOPER'S/BUILDERS CERTIFICATE I/We certify that the landscaping shown on this plan will be done

the Howard County Landscape Manual. I/We further certify that upon completion a Certificate of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

12-8-00





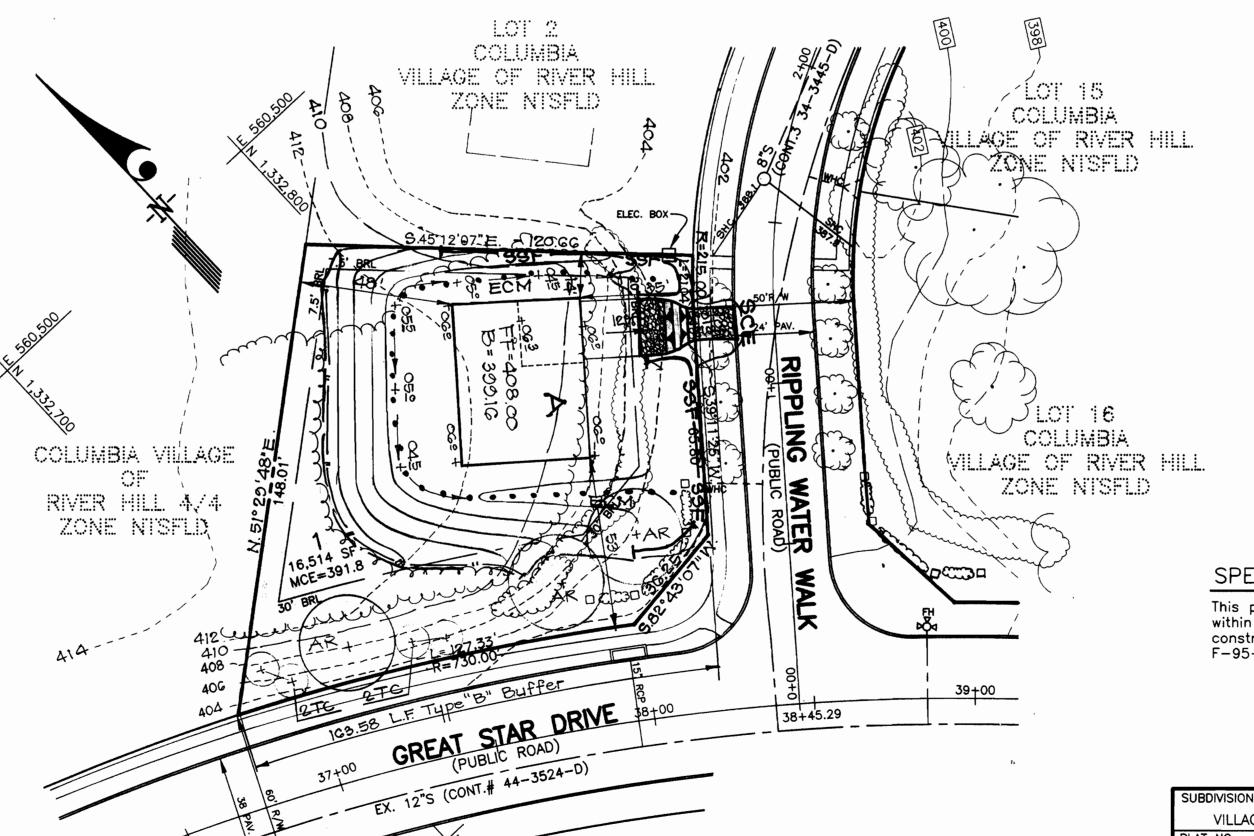
PLANT NAME QUAN. REMARK ACER RUBRUM 'OCTOBER GLOF 2 1/2"-3" CAL. B&B TSUGA CANADENSIS 6'-8' HT. B&B CANADIAN HEMLOCK

1. All plant materials shall be full and heavy, be well formed and symmetrical, conform to the most current AAN specifications and be installed in accordance with HRD planting specifications.

2. Contractor shall verify location of all underground utilities prior to digging.

3. Final location of plant material may need to vary to meet final field conditions. Trees shall not be planted in the bottom of drainage swales.

> ADDRESS CHART STREET ADDRESS LOT NUMBER 6101 RIPPLING WATER WALK



ALL HOUSETYPES W/ALL OPTIONS

BENCHMARKS:

LEGEND

348

-- 348 --

W.O.B.

+ 78 4

LOD

Howard County Monument 29G4 Intersection of MD. Route 108 and

Howard County Monument 29G5 an additional 2,544' ± Northeasterly along MD. Route 108 away from Site RIPPLING WATE

VICINITY MAP

GENERAL NOTES:

1. Subject property is zoned: NTSFLD per 10-18-93

Comprehensive Zoning Plan.

The total area included in this submission is: 0.3791 Acres. The total number of lots included in this submission is : 1

Improvement to property: Single Family Detached

The maximum lot coverage permitted is: 30%

6. Department of Planning and Zoning reference file numbers F-96-89, F-96-110, F-96-124, S-93-21, P-95-11, W&S Cont. #34-3445-D, WP-95-32, WP-95-78. and WP-95-114.

Utilities shown as existing are taken from approved Water and Sewer plans Contract #34-3445-D and #44-3524-D, approved Road Construction plans F-96-124, and actual field survey.

8. Any damage to county owned rights-of-way shall be corrected at the developer's expense.

All roadways are public and existing.

10. The existing topography was taken from Road Construction Plans prepared by Gutschick, Little & Weber in March 1996.

The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments Numbers: 29G4 & 29G5

12. 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.

13. The contractor shall notify "Miss Utility" at 1-800-257-7777

at least 48 hours prior to any excavation work. 14. For driveway entrance details, refer to Ho. Co. Design Manual

Volume IV details R.6.03 15. In accordance with FDP-Phase 222, Part Ⅲ bay 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 3 feet into

may not project into any setbacks. This plan has been prepared in accordance with the provisions of section 16.124 of the Howard County Code and Landscape Manual. Financial Surety for the trees in schedule A in the amount of \$1,500.00 shall be part of the builders grading permit applications.

the front or rear setbacks. Exterior stairway areaways

17. SHC elevations shown are at the property line.

This property is exempt from the forest conservation requirements per section 16.1202 (b)(1)(IV) of the Ho! Co. Code because it is part of a planned unit development with preliminary plan approval prior to 12/31/92.

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-95-141 and/or approved Water and Sewer Plans Contract #34-3445-D.

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORP. 10725 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

SUBDIVISION NAME			SECTION/AREA	LOTS/PARCEL	LOTS/PARCELS	
VILLAGE OF RIVER HILL			4/3		1 `	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DIST.	CENSUS TRACT	
12757	1	NTSFLD	35	5th	6055	
WATER CODE	*		SEWER CODE			
I - 10			6653000			

CLARK · FINEFROCK & SACKETT, INC. **ENGINEERS · PLANNERS · SURVEYORS**

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

7133 MINSTREE WAY - COLUMBIA, MD 21043 - (410) 381-7300 BALT (301) 621-8100 WASH.						
DESIGNED	SITE DEVELOPMENT,	SCALE				
JME/P.C.	SEDIMENT AND EROSION CONTROL PLAN	1" 70'				
	LOT 1	1" = 30'				
DRAWN	COLUMBIA	DRAWING				
KQL/Jdb		1 of 1				
•	VILLAGE OF RIVER HILL	- 1				
CHECKED	SECTION 4 AREA 3	JOB NO.				
JME/P.C.	FIFTH (5th) ELECTION DISTRICT	00-158				
	HOWARD COUNTY, MARYLAND	_ 00-136				
DATE	FOR : COLUMBIA BUILDERS, INC.	FILE NO.				
	P.O. BOX 999	00-158-X				
12-8-00	COLUMBIA, MARYLAND 21044 .	1				

DEPARTMENT OF PLANNING & ZONING PEVELOPMENT ENGINEERING DIVISION 2/7/01

HOWARD S.C.D. and meets Technical Requirements 2/2/01 Signature

U.S. Natural Resourch Property Service THIS DEVELOPMENT PLAN IS APPROVED

who Reluter 21261

FOR SOIL EROSION AND SEDIMENT

CONTROL BY THE HOWARD SOIL

according to plan, section 16.124 of the Howard County Code and

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

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according

12-8-00

ENGINEER'S CERTIFICATE

hereby certify that this plan for Sediment and

plan based on my personal knowledge of the site

Erosion Control represents a practical and workable

conditions and that it was prepared in accordance

with the requirements of the Howard Soil Conservation

SDP-01-78