

- Geotextile fabric (filter clath) shall be placed over the existing ground prior to placing stone. ** The plan appraval authority may not require single family residences to use geotextile. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchars and post caps are not required except on the ends of the fence.
- Stane crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of 3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" of the top and mid section.

A" OVERLAP OF MATTING STRIPS WHERE TWO OR MORE STRIP WIDTHS ARE REQUIRED. ATTACH STAPLES ON 18" CENTERS

STAPLE OUTSIDE EDGE OF MATTING ON 2' CENTERS

TYPICAL STAPLES NO. 1

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6/29/01

- 5. Surface Water all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, mointaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mauntable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey, a pipe will not be necessary. Pipe should be sized according to the amount of runaff to be conveyed. A 6" minimum will be required.
- 6. Location A stabilized construction entrance shall be lacated at every point where construction traffic enters or leaves a construction site. Vehicles leaving the elte must travel over the entire length of the stabilized can—

DETAIL 30 - EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a

narrow trench, 6" in depth. Backfill the trench ond tamp firmly to

conform to the channel cross-section. Secure with a row of staples

about 4" down slope from the trench. Spacing between staples is 6".

2. Staple the 4" overlap in the channel center using an 18" spacing

3. Befare stapling the outer edges of the matting, make sure the

4. Staples shall be placed 2' apart with 4 rows for each strip, 2

5. Where one roll of matting ends and another begine, the end of

6. The discharge end of the matting liner should be similarly

the top etrip shall overlap the upper end of the lower strip by 4",

shiplap fashion. Reinforce the overlap with a double row of staples

Note: If flow will enter from the edge of the motting then the area

matting is smooth and in firm contact with the soil.

auter rows, and 2 alternating rows down the center.

spaced 6" apart in a staggered pattern on either side.

HIGHLY VISABLE FLAGGING

MAXIMUM 8 FEET

secured with 2 double rows of staples

effected by the flow must be keyed-in.

LOPMENT ENGINEERING DIVISION

SOIL CONSERVATION SERVICE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

CROSS-SECTION

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staples at top and mid section and shall meet the following requirements for Geotextile Class F: Tensile Strength 50 lbs/in (min.) Tensile Modulus 20 lbs/in (min.) Flaw Rate Filtering Efficiency 75% (min.)

Test: MSMT 509 Test: MSMT 509 0.3 gal/ft */minute (max.) Test: MSMT 322 Test: MSMT 322 MARYLAND DEPARTMENT OF ENVIRONMEN U.S. DEPARTMENT OF AGRICULTURE H - 26 - 3 WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE

DETAIL 33 - SUPER SILT FENCE

10' MAXIMUM

WITH 1 LAYER OF FILTER CLOTH

34" MINIMUM

Construction Specifications

lotest Maryland State Highway Details for Chain Link Fencing. The specification

5. When two sections of filter cloth adjoin each other, they shall be overlapped

7. Filter cloth shall be fastened securely to each fence post with wire ties or

. Fencing shall be 42" in height ond constructed in accordance with the

for a 6' fence shall be used, substituting 42" fabric and 6' length

4. Filter clath shall be embedded a minimum of 8" into the ground.

develop in the silt fence, or when silt reaches 50% of fence height

56" MINIMUN

-- 8" MINIMUM

STANDARD SYMBOL

FLOW

NOTE: FENCE POST SPACING

SHALL NOT EXCEED 10' CENTER TO CENTER

GROUND

SURFACE

GAL VANIZED

OR ALUMINUM

CHAIN LINK FENCING

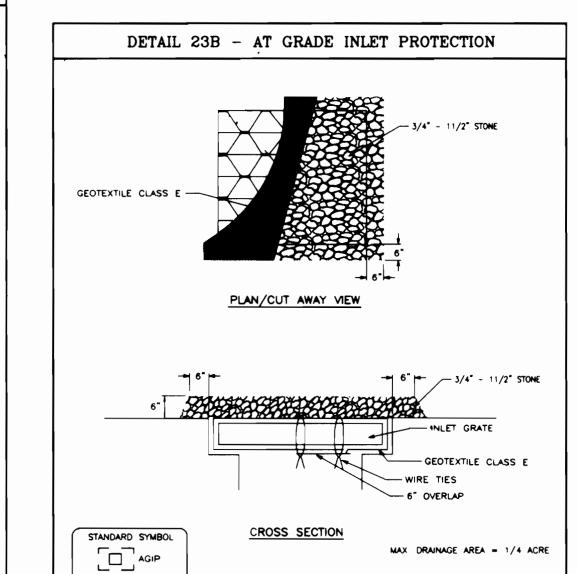
FILTER CLOTH-

EMBED FILTER CLOTH 8"

MINIMUM INTO GROUND

* IF MULTIPLE LAYERS ARE

REQUIRED TO ATTAIN 42"



Construction Specifications

MARYLAND DEPARTMENT OF ENVIRONME

WATER MANAGEMENT ADMINISTRATION

1. Lift grate and wrap with Geotextile Class E to completely cover all openings,

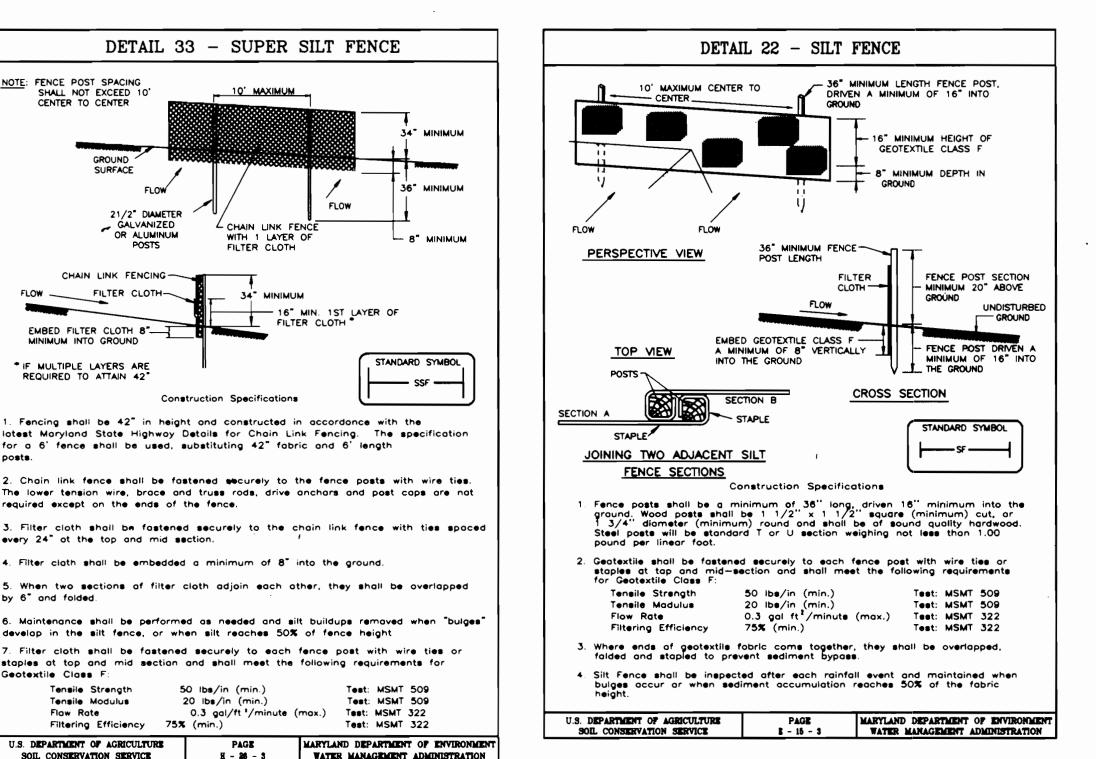
Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and

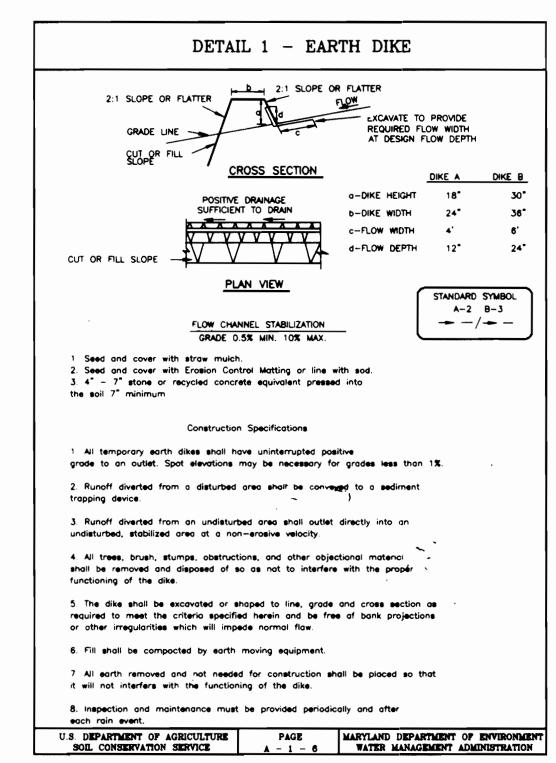
then set grate back in place.

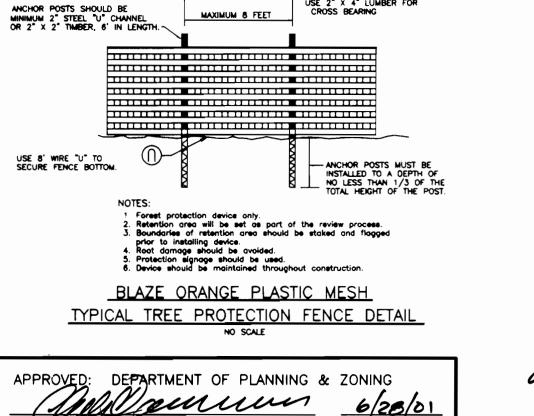
provide additional filtration

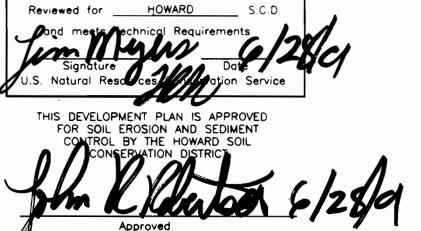
U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE









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 So Conservation District or their authorized agents, as are deemed necessary"



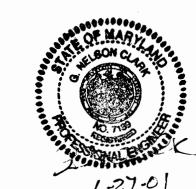
11-28-00

ENGINEER'S CERTIFICATE

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







11-28-00 (#9) D:/drawings/TREYBURN/1-44SE-Deta

SEDIMENT AND EROSION CONTROL NOTES

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 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

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.

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.

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

1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/100 sq.ft.) and 600 lbe per acre 10-10-10 fertilizer (14 lbs./

2) Acceptable-Apply 2 tons per acre dolomatic limestone (92 lbs/

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

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.)

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

the following schedules:

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

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.

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 flot 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

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).

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 AND SEDIMENT CONTROL and revisions thereto. 3. Following initial soil disturbance or redisturbance, permanent or

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

recommended seeding dates do not allow for proper germination

7. SITE ANALYSIS: Total Area of Site: 14.82 Acres
Area Disturbed: 13.89 Acres
Area to be roofed or paved: 4.30 Acres
Area to be vegetatively stabilized: 9.59 Acres

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

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 made.

11. 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 earth dike =

13. The total amount of silt fence = 345 LF 14. The total amount of super silt fence = 414 LF

NO. OF DAYS

40, 41, 42

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

3. Install sediment and erosion control devices and stabilize

6. Final grade, install Erosion Control Matting and stabilize in

7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.

accordance with standards and specifications.

4. Excavate for foundations, rough grade and temporarily stabilize 5. Construct structures, sidewalks and driveways.

* Delay construction of houses on lots:

CONSTRUCTION SEQUENCE:

Obtain grading permit.
 Install tree protection fence.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

<u>Definition</u> 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

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

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

Construction and Material Specifications . Topsoil salvaged from the existing site may be used

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

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 than 1 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

DESIGNED

DRAWN

,000 square feet) prior to the placement of topsoil

age operations as described in the following procedures

Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillIII. 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 I — Vegetative Stabilization Methods and IV. For sites having disturbed areas over 5 acres:

results dictating fertilizer and lime amendments

required to bring the soil into compliance with the

a. pH for topsoil shall be between 8.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise

the pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than

 1.5 percent by weight.
 c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 d. No sod or seed shall be placed on soil 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

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.

 Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization—Section I— Vegetative Stabilization Methods and Materials.

V. Topsoil Application

water packets.

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"- 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or

Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

OWNER

THE RYLAND GROUP, INC. 7250 PARKWAY DRIVE, SUITE 520 HANOVER MARYLAND, 21076

CLARK · FINEFROCK & SACKETT, INC. ENGINEERS · PLANNERS · SURVEYORS 7135 MINSTREL WAY . COLUMBIA, MD 21045 . (410) 381-7500 BALT. . (301) 621-8100 WASH. SEDIMENT AND EROSION CONTROL DETAILS DM/JME LOTS 1 THRU 44 AS SHOWN DRAWING KQL/DM 8 OF 8 CHECKED JOB NO. SECOND (2nd) ELECTION DISTRICT 00-152 HOWARD COUNTY, MARYLAND FOR : RYLAND GROUP FILE NO.

7250 PARKWAY DRIVE

HANOVER, MARYLAND 21076

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