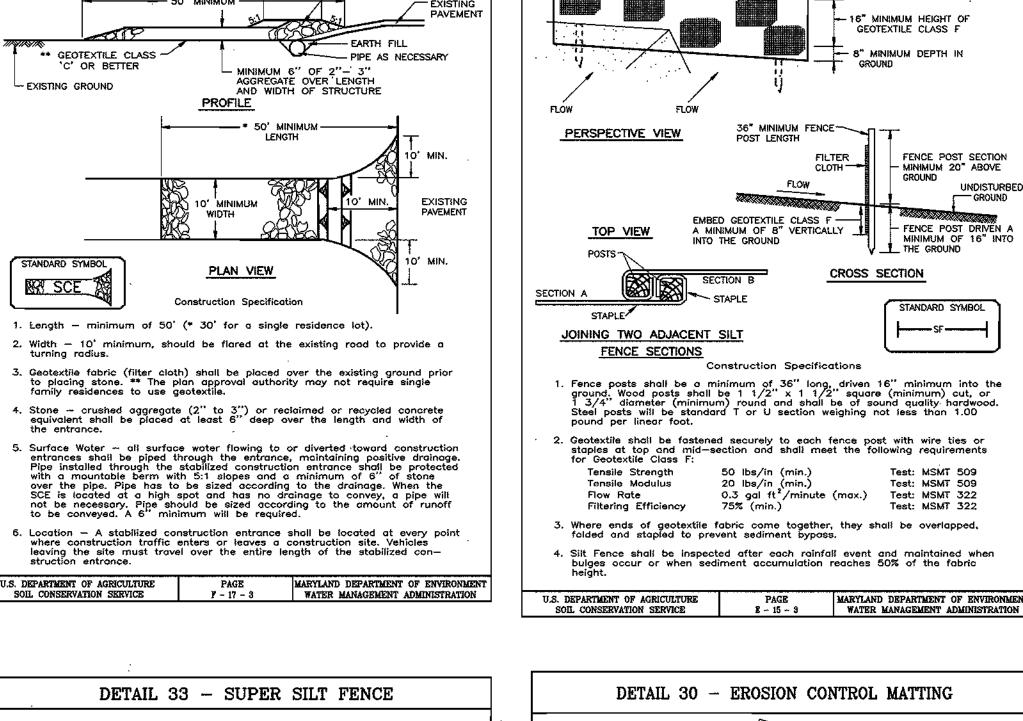
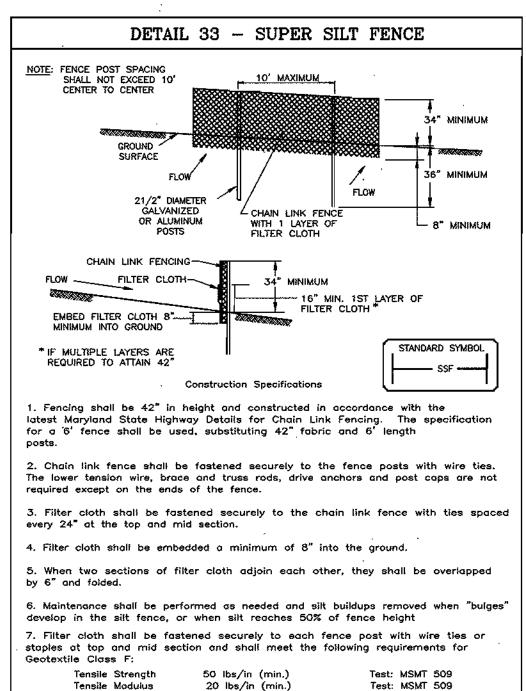
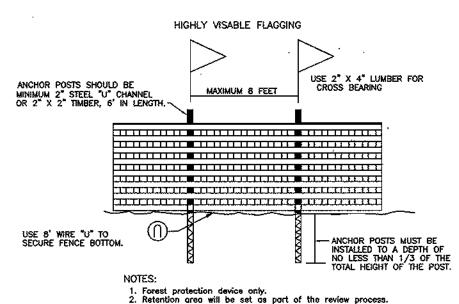


- Stone crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of







0.3 gal/ft \*/minute (max.)

Test: MSMT 322

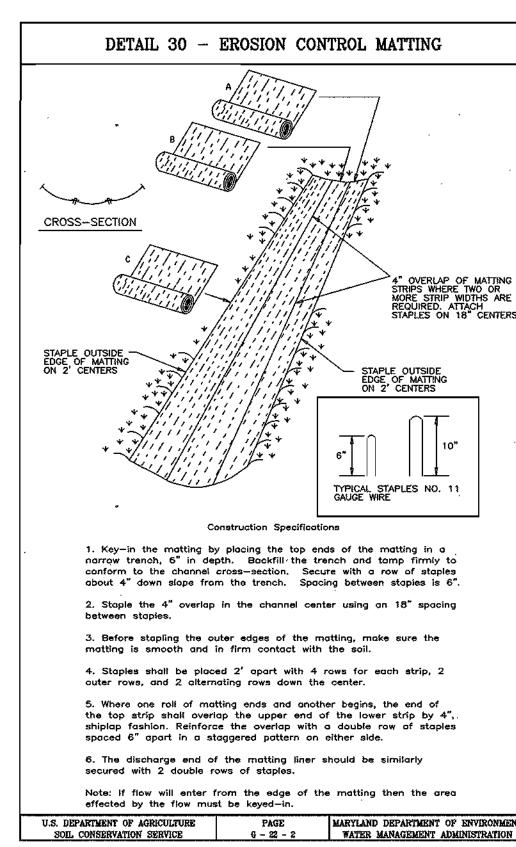
Flow Rate

Filtering Efficiency

1. Protest protection device only.
2. Retention area will be set as part of the review process.
3. Boundaries of retention area should be staked and flagged prior to installing device.
4. Root damage should be avoided.
5. Protection signage should be used.
6. Device should be maintained throughout construction.

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL

	•
APPROVED: DEPARTMENT OF PLANNING	& ZONING
_ Della Chamman	7/9/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION CW	DATE
Atamth	7/12/04
CHIEF, DIVISION OF LAND DEVELOPMENT	PATE
DIRECTOR (NCT) NG	7/15/07 DATE



DETAIL 22 - SILT FENCE

- 36" MINIMUM LENGTH FENCE POST, DRIVEN A MINIMUM OF 16" INTO

# THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

# 21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

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

# Purpose

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

- Conditions Where Practice Applies
- material is not adequate to produce vegetative
- furnish continuing supplies of moisture and plant nutrients.
- material toxic to plant growth.

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

- i. Topsoil shall be a loam, sandy loam, clay loam, silt toam, 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, guackgrass, 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

DRY WELL TABLE

LENGTH

5,5

, <del>⊆</del>

AREA VOL.REG

A 1500

8 500 l

C | 2003 |

D 500

OF.

100

100

100

# <u>Definition</u>

III. For sites having disturbed areas under 5 acres: Place topsoil (if required) and apply soil amend-

To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient

- This practice is limited to areas having 2:1 or flatter slopes where:
- The texture of the exposed subsoil/parent
- The soil material is so shallow that the rooting zone is not deep enough to support plants or
- c. The original soil to be vegetated contains
- d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having stopes 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

Agricultural Experimental Station.

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

ments as specified in 20.0 Vegetative Stabilization

Section 1 - Vegetative Stabilization Methods and

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

has been treated with soil sterilants or chemicals

used for weed control until sufficient time has

elapsed (14 days min.) to permit dissipation of

by a qualified agronomist or soil scientist and approved

by the appropriate approval authority, may be used in

ii. Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization-Section I-

Vegetative Stabilization Methods and Materials.

When topsoiling, maintain needed erosion and

Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have

iii. Topsoil shalt be uniformly distributed in a 4"-8"

been previously established, shall be maintained,

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

iv. Topsoil shall not be place while the topsoil or

that may otherwise be detrimental to proper

grading and seedbed preparation.

order to prevent the formation of depressions or

subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition

sediment control practices such as diversions,

Grade Stabilization Structures, Earth Dikes, Slope

NOTE: Topsoil substitutes or amendments, as recommended

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

On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments

IV. For sites having disturbed areas over 5 acres:

phyto-toxic materials.

lieu of natural topsoil.

water pockets.

MOTTO®

ELEV

516.0

513.5

5140

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

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

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 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.

replacements and reseedings.

MAINTENANCE: Inspect all seeded areas and make needed repairs,

# 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.

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.

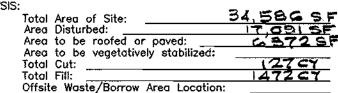
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

### SEDIMENT AND EROSION CONTROL NOTES PERMANENT SEEDING 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).
- 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 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
- project site. 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-ARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT
- CONTROL for permanent seedings, sad, 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:



- 8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same
- 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 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 super silt fence = 410 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.

# CONSTRUCTION SEQUENCE:

- . Install sediment and erosion control devices and stabilize
- accordance with standards and specifications. 7. Upon approval of the sediment control inspector, remove
  - \* Delay construction of houses on lots:

# 1. Obtain grading permit.

- ?. Install tree protection fence 4. Excavate for foundations, rough grade and temporarily stabilize.
  5. Construct structures, sidewalks and driveways. 6. Final grade, install Erosion Control Matting and stabilize in
- sediment and erosion control devices and stabilize.

NO. OF DAYS

# ROOFLEADER Surcharge Mipe -SPLASH BLOCK cap w/screwtoplio GEOTEXT LE TELPESIDES ONLY BULDING FOUNDATION OBSERVATION WELL FOOT PLATE DRY WELL DETAIL

# 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 Certificate of Attendance at a Department of the Environment Approved raining Program for the Control of Sediment and Erosion before beginning I also authorize periodic on-site inspection by the Howard S

PROJECT MANAGER

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



DRAWN CHECKED 3675 PARKAYENUE SUITE 301 (CF&S SERVER DRAWINGS) J:\03081-ROBINSON-SUB-DIV\SED-EROS-CONT-DETS.DWG (R14

CLARK · FINEFROCK & SACKETT, INC. **ENGINEERS · PLANNERS · SURVEYORS** 7135 MINSTREL WAY . COLUMBIA, MD 21045 . (410) 381-7500 BALT. . (301) 621-8100 WASH. SEDIMENT CONTROL NOTES & DETAILS DRAWING LOT 3 2 of 2 ROBINSON SUBDIVISION JOB NO. SIXTH (GTH) ELECTION DISTRICT 03-081 HOWARD COUNTY, MARYLAND FOR T.BIHOMES INC FILE NO.

ELLICOTT CITY MD 20776

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