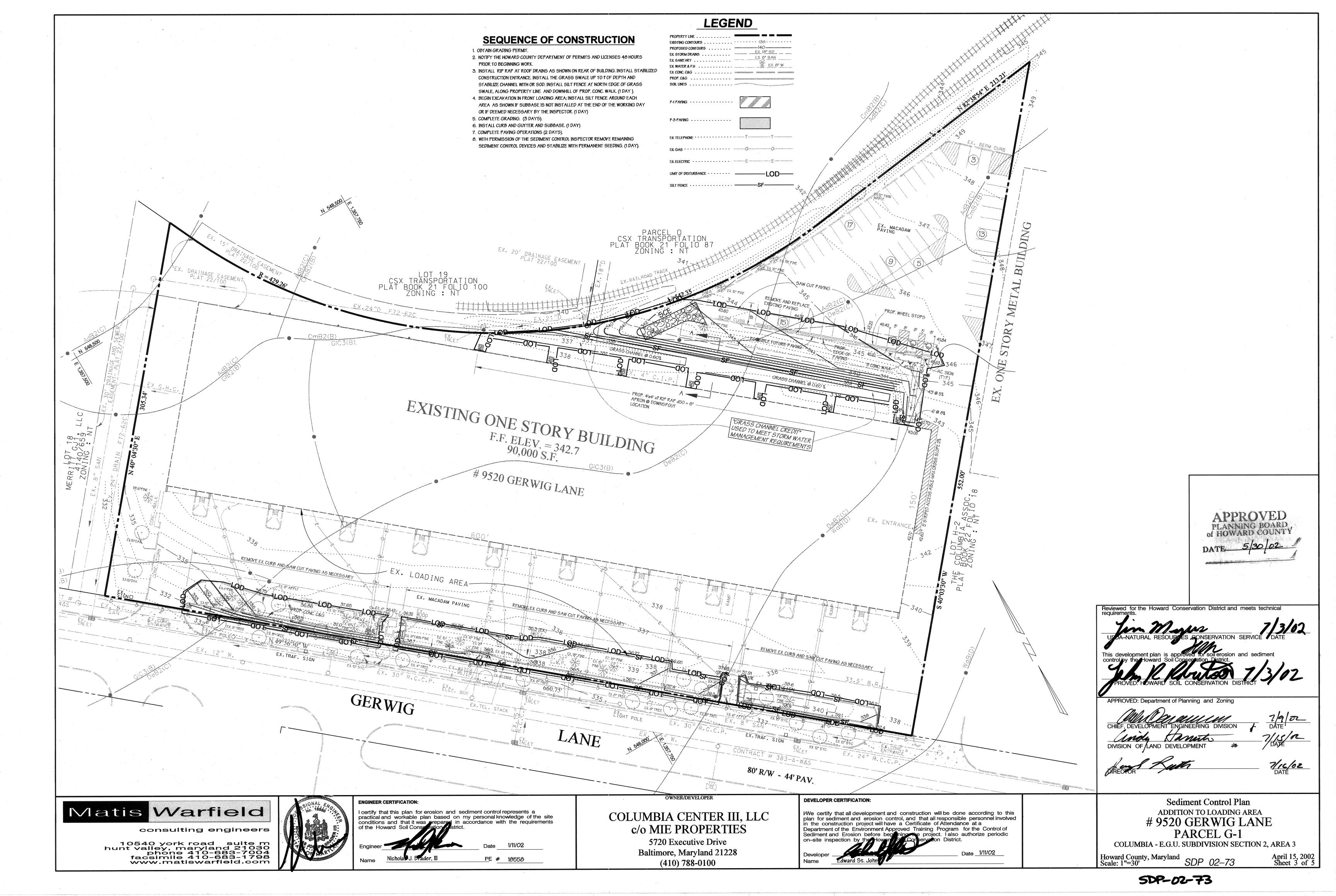


SDP-02-73



1. Refer to "1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control" fo standard details and detailed specifications of each practice specified herein. 2. With the approval of the sediment control inspector, minor field adjustments can and will be made to II. Wood Cellulose Fiber Mulch (WCFM)

c. WCFM, including due, shall contain no germination or growth inhibiting factors.

d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

e. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

I. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1° and 2°. Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is

III. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre.

The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs.

A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to

II. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on the creats of banks. The remainder of area should appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Argo-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

Iv. Lightweight plastic netting may be stapled over mulch according to manufacturer's recomendations Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

Seeding grass and legumes to establish around cover for a minimum period of one year on disturbed

. Class of turfgrass sod shall be Maryland or Yirginia State Certified or Approval. Sod labels shall be

II. Sod shall be machine cut at a uniform soil thickness of 3/4", plus or minus 1/4", at the time of

iii. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section

ly. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may

v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted

I. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.

II. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and

iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggerli

Joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slope and to ensure solid contact between sod roots and the underlying soil surface.

iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

I. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during

il. After the first week, sod watering is required as necessary to maintain adequate moisture content

III. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which

will receive a microunit of ingili rever of maintenance. These is received and raked to prepare a proper seedbed. Stones and debris over 11/2 inches in diameter shall be removed. The resulting seedbed shall be in such

NOTE: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

dition that future mowing of grasses will pose no difficulty.

tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent volds which would cause drying of the roots.

cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.

Section IV - Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

atter slopes where equipment can operate safely. If used on sloping land, this practice should be

H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediated following mulch application to minimize loss by wind or water. This may be done by one of the following mulch application.

hods(listed by preference), depending upon size of area and crosion hazard

to be used, the rate should be increased to 2.5 tons/acre.

of wood cellulose fiber per 100 gallons of water.

Section II - Temporary Seeding

ection III - Permanent Seeding

ensure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the Baltimore County Soil Conservation District. 3. At the end of each working day, all sediment control practices will be inspected and left in operationa 4. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be comp

leted within: (a) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than three horizontal to one vertical (3:1), and (b) fourteen days as to all other disturbed or graded areas on the project site which will remain idle over fourteen day 5. Any change to the grading proposed on this plan requires re-submission to Baltimore County Soll

6. Dust control will be provided for all disturbed areas. Refer to 1994 Maryland Standards and Specifications for Soll Erosion and Sediment Control", page H-30-1, for acceptable methods and specifications 7. Any variations from the sequence of operations stated on this plan requires the approval of the

sediment control inspector and the Baltimore County Soll Conservation District prior to the initiation 8. Excess cut or borrow material shall go to, or come from, respectively, a site with an open grading

9. The following item may be used as applicable: Refer to "Maryland's Guidelines to Waterway Construct

by the Water Resources Administration (WRA), dated January, 1986, for standard details and detailed

specifications of each practice specified herein for waterway construction. Section I - Vegetative Stabilization Methods and Materials A. Site Preparation

I. Install crosion and sediment control structures (either temporary or permanent) such as diversions grade stabilization structures berms waterways or sediment control basins. II. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually III. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)

I. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 areas. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples may be taken for engineering purposes may also be used for chemical analysis.

II. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the

iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sleve and 96 - 100% will pass through a #20 mesh sleve. Iv. Incorporate lime and fertilizer into the top 3-5° of soil by disking or other suitable means.

C. Seedbed Preparation I. Temporary Seeding

a. Seedbed preparation shall consist of loosening soil to a depth of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should not be tracked leaving the surface in an irregula

b. Apply fertilizer and lime as prescribed on the plans

c. Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means. II. Permanent Seeding

a. Minimum soil conditions required for permanent vegetative establishment:

 Soluble salts shall be less than 500 parts per million (ppm).
 The soil shall contain less than 40% clay but enough fine grained material (> 30% slit plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecial lespedeza is to be planted, then a sandy soil (<30% slit plus clay) would be acceptable. t. Soil shall contain 15% minimum organic matter by weight.

5. Soil must contain sufficient pore space to permit adequate root penetration.

6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with

b.Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.

c. Apply soil amendments as per soil test or as included on the plans d. Mix soil amendments into the top 3 - 5° of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an Irregular condition with ridges running parallel to the contour of the slope. The top 1 - 3" of soil should be loose and friable.

I. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject t re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material in this Job.

NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USE II. Inoculant - The inoculant for treating legume seed in the seed mixture shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species, inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding, NOTE: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 - 80 degrees F. can weaken bacteria and make inoculant less effective.

E. Methods of Seeding

LHydrosceding: Apply seed uniformly with hydrosceder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total soluble nitrogen; P205 (phosphorus): 200 lbs./ac.; K20 (potassium): 200 lbs./ac.

b. Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by hydroseeding Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt of c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

F. Mulch Specifications (In order of preference)

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half

I. Kentucky Bluegrass - Fall sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight. II. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/ Certified Kentucky Bluegrass Seeding rate; 2 pounds mixture/IOOO square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight. b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half

III. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; certified Tall Fescue Cultivars 95 - 100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate 5 to 8 b/1000 square feet. One or more cultivars may be blended.

y. Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade in Bluegrass lawns For establishment in high quality, intensively managed turf area. Mixture includes; certified Kentucky Bluegrass Cultivars $30 - 40^{\circ}$ and certified Fine Fescue and $60 - 70^{\circ}$. Seeding rate: 11/2 - 3 bs.//000 equare feet. A minimum of 3 Kentucky bluegrass cultivars must be chosen, with each cultivar ranging from seeding rate 5 to 8b.//000 equare feet. a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

> y. Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade in Bluegrass lawns. or establishment in high quality, intensively managed turf area. Mixture includes; certified Kentucky Jugraes Cultivars 30 - 40% and certified Fine Fescue and 60.- 70%. Seeding rate: 1 1/2 - 3 Jbs./1000 square feet. A minimum of 3 Kentucky bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

NOTE: Turfgrass varieties should be selected from those listed in the most current University of Publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recon

Western MD: March 15-June 1, August 1-October 1 (Hardiness Zones - 5b, 6a)

Central MD: March 1-May 15, August 15-October 15 (Hardiness Zones - 6b) Southern MD, Eastern Shore: March 1-May 15, August 15-October 15 (Hardiness Zones - 7a, 7b)

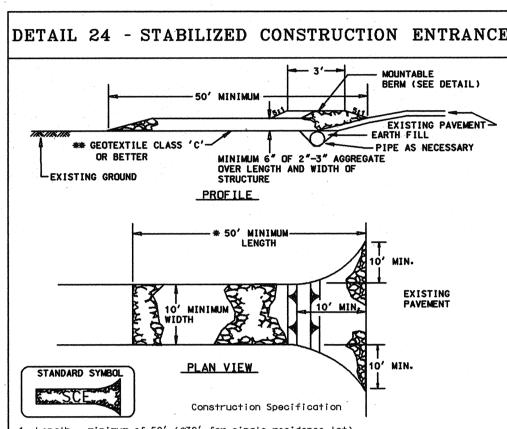
If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

D. Repairs and Maintenance

Inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season. i. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately

II. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer, iii. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half

iv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 171.



Length - minimum of 50' (*30' for single residence lot). . Width - 10' minimum, should be flared at the existing road to provide a turning adius.

Geotextile fabric (filter cloth) shall be placed over the existing ground prior o placing stone. **The plan approval authority may not require single family

1. 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 nstalled through the stabilized construction entrance shall be protected with a mountable 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 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

PE # 18558

(USE CERTIFIED MATERIAL HARDINESS LBS./AC. LBS./1000 1 CONDITIONS ZONES IF AVAILABLE) 5/15 6/1 8/14 7/31 10/1 10/15 11/15 5b X X X X TALL FESCUE (75%) CANADA BILLEGRASS (10%) 6a X X KENTUCKY BLUEGRASS (10%) REDTOP (5%) 76 | X | KENTUCK BLUEGRASS (50%) CREEPING RED FESCUE OR 6 a A HARD FESCUE (40%) DRY TO DRY TALL FESCUE (85%) PERENNIAL RYEGRASS (10%) KENTUCKY BLUEGRASS (5%) RED FESCUE OR 4 CHEWINGS FESCUE (80%) 6a X PERENNIAL RYEGRASS (20% TALL FESCUE (85%) OR PERENNIAL RYEGRASS (50%) PLUS CROWNVETCH OR 6a X X SERECIA LESPEDEZA (83%) X TALL FESCUE (83%) 56 X X X WEEPING LOVEGRASS (2%) 6a X X X SERECIA LESPEDEZA (15%) 7b X X $-\frac{1}{x}$ REED CANARYGRASS (75%) MODERATELY REDTOP (6%) PLUS BIRDSFOOT TREEFOIL (19%) 6b X TALL FESCUE (86%) MODERATEL' a IPOA TRIVIALIS (7%) 6a X BIRDSFOOT TREEFOIL (7%) 6b HARD FESCUE (20%) 56 X 6a X

USDA

SITE

HARDINESS ZONE

RECOMMENDED PLANTING DATES

Table 25 - Permanent Seeding for Low Maintenance Areas

RATE

SEED MIX

A. USED BY SHA ON SLOPED AREAS. ADD A LEGUME FOR SLOPES > THAN 3:1.

B. USED IN MEDIAN AREAS BY SHA. SHADE TOLERANT. C. POPULAR MIX - PRODUCES PERMANENT GROUNDCOVER QUICKLY. BLUEGRASS THICKENS STAND.

D. BEST USE ON SHADY SLOPES NOT ON POORLY DRAINED CLAYS. E. USE ON LOW MAINTENANCE, STEEP SLOPES. USE TALL FESCUE IN DRAUGHTY CONDITIONS. CROWN VETCH BEST FOR 5b, 6a, 6b F. SUITABLE FOR SEEDING IN MID-SUMMER.

G. WEEPING LOYEGRASS MAY BE SEEDED WITH TALL FESCUE IN MID-SUMMER. SERECIA LESPEDEZA IS BEST SUITED FOR ZONES 7ª AND 7b. H. USE ON POORLY DRAINED SOILS - DITCHES OR WATERWAYS. BIRDSFOOT TREEFOILS BEST FOR ZONES 5b, 6a, ABOVE 2.000 FEET. I USE IN AREAS OF MOIST SHADE, POA TRIVIALIS THRIVES IN WET SHADY AREAS.

J. TALL FESCUE MAY BE SEEDED ALONE. THE HARD FESCUE PROVIDES BETTER SHADE TOLERANCE AND PRODUCES A BETTER STAND. K. LOW FERTILITY GRASS, REQUIRES INFREQUENT MOWING, GOOD COMPANION FOR WILDFLOWERS

PERMANENT SEEDING RATES LIME RATE FERTILIZER RATE (10-20-20) P205 90LB/AC 175 LB/AC 175 LB/AC 2 TONS/AC (2.0 LB/1000 S.F.) (4.0 LB/1000 S.F.) (4.0 LB/1000 S.F. (100 LB/1000 S.F.)

FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES THE RATES SHOWN ABOVE FOR TESTING AGENCY SHALL BE USED. SOIL TESTING SHALL BE PERFORMED AT THE TIME OF FINE GRADING AND THE RESULTS SHALL BE FURNISHED TO THE SEDIMENT CONTROL INSPECTOR

Table 26 - Temporary Seeding Rates, Depths, and Dates HARDINESS ZONE_

	MINIMUM SEEDING		PLANTING	HARDINESS ZONES AND SEEDING DATES								
SPECIES	RATES		DEPTH	7a and 7b			6b			6a and 5b		
	PER ACRE	LBS./1000 SQ. FT.	INCHES	2/1- 4/30	5/1 - 8/14	8/15 - 11/30	3/1- 4/30	5/1- 8/14	8/15 - 11/15	3/15 - 5/31	6/1 - 7/31	8/1 - 10/31
CHOOSE ONE:						BY			BY			BY
BARLEY	2.5 B.U. (122 bs.)	2.80	1-2	Х	-	10/15	Х	-	10/15	Х	-	10/1
OATS	3 B.U. (96 lbs.)	2.21	1-2	Х	-	-	Х	-	-	Х	-	-
RYE	2.5 B.U. (140 lbs.)	3.22	1-2	Х	-	Х	Х	-	Х	Х	-	Х
BARLEY OR RYE PLUS FOXTAIL MILLET	150 lbs.	3.45	1	X X	X X	10/15 X	X X	X X	10/15 X	X	X X	10/1 X
WEEPING LOVEGRASS	4 bs.	.09	1/4 - 1/2	-	х	-	-	х	-	-	х	-
ANNUAL RYEGRASS	50 lbs.	1.15	1/4 - 1/2	х	-	11/1	х	1	11/1	х	-	8/15
MILLET	50 lbs.	1.15	1/2	-	Х	-	-	Х	-	-	Х	-

TEMPORARY SEEDING RATES FERTILIZER RATE LIME RATE (10-10-10) 600 LB/AC (100LB/1000 S.F.) (15 LB/1000 S.F.)

24.0 MATERIALS SPECIFICATIONS Table 27 Geotextile Fabrics

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN. 500 320 320 145		
Α	0.30 **	250			
В	0.60	200			
С	0.30	200			
D	0.60	90			
E	0.30	90	145		
F (SILT FENCE)	0.40-0.80*	90	190		

* US Std. Sieve CW-02215 ** 0.50 MM. MAX. FOR SUPER SILT FENCE

The properties shall be determined in accordance with the following procedures:

- Apparent opening size MSMT 323

-Grab tensile strength ASTM D 1682: 4 x 8" specimen, 1x2" clamps, 12" /min. strain rate in both

principal directions of geotextile fabric.

ASTM D 3786 -Burst strength

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolephins, polyesters, or polymides. The geotextile fabric shall resist deterioration from ultraviolet exposure.

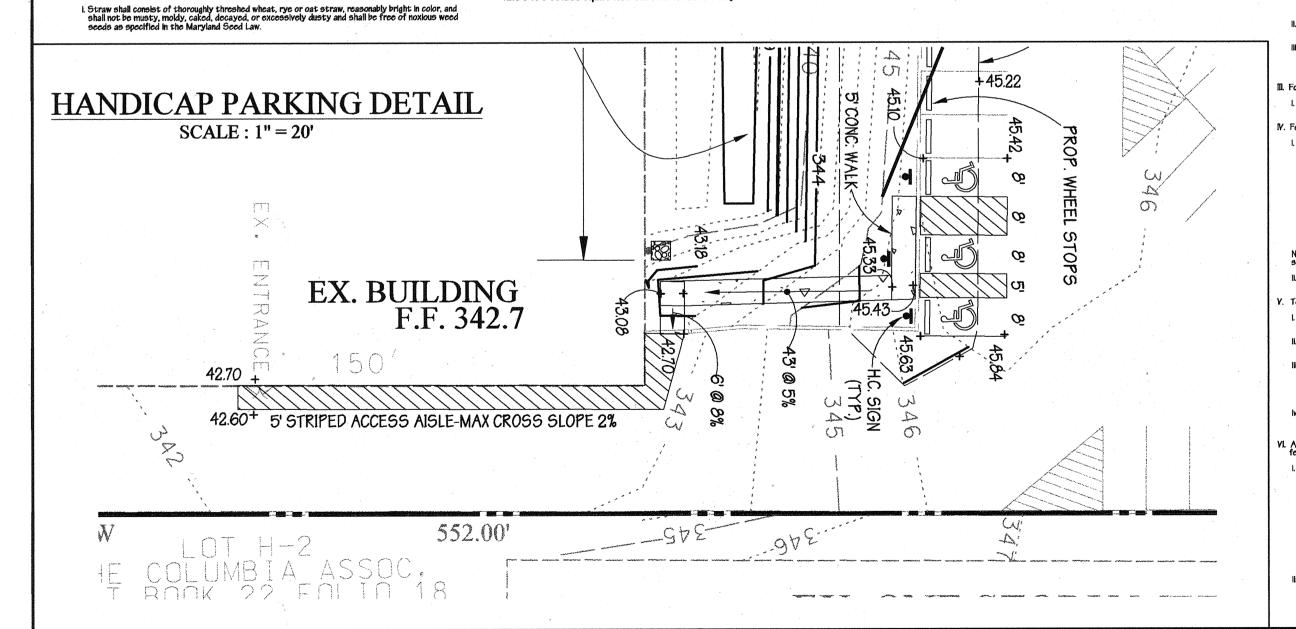
In addition, Classes A through E shall have a 0.01 cm./sec. minimum permeability when tested in accordance with MSMT 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

Class F aeotextile fabrics for silt fence have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modules when tested in accordance with MSMT 509. The material shall also have a 0.3 gal./ft.2/min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with MSMT 322.

Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of 0 to 120 degrees F.

PLANNING BOARD of HOWARD COUNTY

CONSERVATION SERVICE



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 sections in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following: 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 clapsed (14 days min.) to permit dissipation of phyto-toxic materials. Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authirity, may be used in lieu of natural topsoil. Place topsoil (If required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials. 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 in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tiliage. 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. 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. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and ammendments may be applied as specified below: Composted Sludge Material for use as a soll conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements: Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of aquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and O.2 percent potassium and have a ph of 7.0 to 8.0. If compost does not meet these requirements appropriate constituents must be added to meet the requirements prior to use. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 15/1,000 square feet, and 1/3 the normal lime application rate. OWNER/DEVELOPER

DETAIL 22 - SILT FENCE SILT FENCE Silt Fence Design Criteria 16" MINIMUM HEIGHT O (Maximum) (Maximum) Silt Fence Length Slope Length Slope Steepness Flatter than 50: unlimited unlimited 1.000 fee 125 feet 50:1 to 10:1 10:1 to 5:1 100 feet 750 feet 36" MINIMUM FENCE-PERSPECTIVE VIEW 5:1 to 3:1 60 feet 500 feet 3:1 to 2:1 40 feet 250 feet - FENCE POST SECTION 2:1 and steeper GROUND Note: In greas of less than 2% slope and sandy soils (USDA general classification MBED GEOTEXTILE CLASS F system, soil Class A) maximum slope length and silt fence length will be A MINIMUM OF 8" VERTICALLY - FENCE POST DRIVEN A unlimited. In these areas a silt fence may be the only perimeter control MINIMUM OF 16" INTO SECTION A STANDARD SYMBOL STAPLE -----SF -----JOINING TWO ADJACENT SILT FENCE SECTIONS Construction Specifications . Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be $1\frac{1}{2}$ " x $1\frac{1}{2}$ " square (minimum) cut, or $1\frac{3}{4}$ " diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pend per linear foot. . Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements Test: MSMT 509 Tensile Strength 50 lbs/in (min.) Test: MSMT 509 Tensile Modulus 20 lbs/in (min.) 0.3 gal ft*/ minute (max.) Test: MSMT 322 Flow Rate Filtering Efficiency 75% (min.) Where ends of dectextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass. 4. Silt Fence sha∥l be inspected after each rainfall event and maintained wher bulges occur or when sediment accumulation reached 50% of the fabric height. PAGE MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONME E - 15 - 3 WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE E - 15 - 3A WATER MANAGEMENT ADMINISTRATION **DEVELOPER CERTIFICATION:**

APPROVED: Department of Planning and Zoning CHIEF, DEVELOPMENT ENGINEERING DIVISION

7/16/02 DATE

Reviewed for the Howard Conservation District and meets technical

requirements

Sediment Control Notes & Details ADDITION TO LOADING AREA # 9520 GERWIG LANE PARCEL G-1

COLUMBIA - E.G.U. SUBDIVISION SECTION 2, AREA 3

ENGINEER CERTIFICATION: Matis Warfield I certify that this plan for erosion and sediment control represents a We certify that all development and construction will be done according to this COLUMBIA CENTER III, LLC practical and workable plan based on my personal knowledge of the site plan for sediment and erosion control, and that all responsible personnel involved conditions and that it was prepared in accordance with the requirements in the construction project will have a Certificate of Attendance at a c/o MIE PROPERTIES Department of the Environment Approval Training Program for the Control of consulting engineers also authorize periodic 5720 Executive Drive 10540 york road suite m hunt valley, maryland 21030 phone 410-683-7004 facsimile 410-683-1798 www.matiswarfield.com 1/11/02 1/11/02

Topsoil - Construction and Material Specifications

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

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet

Baltimore, Maryland 21228

(410) 788-0100

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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 SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL." AND REVISIONS THERETO. 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE,

Sediment Control Notes

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).

PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT

CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4 ALL SEDIMENT TRAPS/BASING SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE "HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE". 5. 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 SEEDING, SOD, TEMPORARY SEEDING AND MULCHING (SEC G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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 LINTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 7. SITE ANALYSIS:

TOTAL AREA OF SITE: 4.99 ACRES AREA DISTURBED: 0.67 ACRES AREA TO BE ROOFED OR PAVED: 0.28 ACRES

AREA TO BE VEGETATIVELY STABILIZED: 0.39 ACRES

TOTAL CUT: 700 C.Y.

OFFSITE WASTE/BORROW AREA LOCATION: EXCESS CUT SHALL BE TAKEN TO A SITE WITH AN APPROVED SEDIMENT CONTROL PLAN. 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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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. 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

