

B-4 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION sing vegetation as cover to protect exposed soil from erosion. o promote the establishment of vegetation on exposed soil

Conditions Where Practice Applie On all disturbed areas not stabilized by other methods. This specification is divided into sections on stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary and permanent stabilization

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, educing sediment loads and runoff to downstream areas. Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and

Effects on Water Quality and Quantity

runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation increase organic matter content and improve the water holding capacity of the soil and subsequent plan egetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances

within the root zone ediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, Adequate Vegetative Establishment Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and

planting season. Adequate vegetative stabilization requires 95 percent groundcover . If an area has less than 40 percent groundcover, restabilize following the original recommendations or lime, fertilizer, seedbed preparation, and seeding. 3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates

originally specified. . Maintenance fertilizer rates for permanent seeding are shown in Table B.6. B-4-1 STANDARDS AND SPECIFICATIONS

eseedings within the

INCREMENTAL STABILIZATION stablishment of vegetative cover on cut and fill slopes. o provide timely vegetative cover on cut and fill slopes as work progresses. Conditions Where Practice Appli Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.

 a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff b. Perform Phase 1 excavation, prepare seedbed, and stabilize c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as

d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitat

3. Incremental Stabilization - Fill Slopes 1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.

2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading

operation ceases as prescribed in the plans. 3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner. 4. Construction sequence example (Refer to Figure B.2): a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around

the fill. Construct silt fence on low side of fill unless other methods shown on the plans b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner. d. Place Phase 2 fill, prepare seedbed, and stabilize

e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as lote: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

B-4-5 STANDARDS AND SPECIFICATIONS PERMANENT STABILIZATION o stabilize disturbed soils with permanent vegetation

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed <u>Conditions Where Practice Applies</u>
Exposed soils where ground cover is needed for 6 months or more.

Criteria

Seed Mixtures General Use

a Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guild, Section 342 - Critical Area Planting.

d For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments

shown in the Permanent Seeding Summary. Furfarass Mixtures a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Select one or more of the species or mixtures listed below based on the site conditions or ourpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan. Kentucky Bluegrass: Full 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 per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total 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 pound mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with

each ranging from 10 to 35 percent of the total mixture by weight. iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prope areas and/or fo areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

iv 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 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet. Notes: Select turfgrass varieties from those listed in the most current University of Maryland

Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland" 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 ssures a pure genetic line. c. Ideal Times of Seeding for Turf Grass Mixture

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)
Central MD:March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 ½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is not

especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, Or on adverse sites. Sod: to provide quick cover on disturbed areas (2:1 grade or flatter). General Specifications a. Class of turfgrass must be Maryland State Certified. Sod labels must be made available to the job foreman

b. Sod must be machine cut at a uniform soil thickness of % inch, plus or minus ¼ inch, at the time of cutting Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable. s. Standard size sections of sod must 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. 1. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival. e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod. b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. . Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between

sod roots and the underlying soil surface. d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and imigating for any piece of sod within eight hours.

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to preven b. After the first week, sod watering is required as necessary to maintain adequate moisture content

c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DIVISION OF LAND DEVELOPMENT CHIEF, DEVELOPMENT ENGINEERING DIVISION 3-10-2

E-4-2 STANDARDS AND SPECIFICATIONS
FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS
The process of preparing the soils to sustain adequate vegetative stabilization To provide a suitable soil medium for vegetative growth. Conditions Where Practice Applies: Where vegetative stabilization is to be established

> Temporary Stabilization Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means 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 must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope. Apply fertilizer and lime as prescribed on the plans.

Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other Permanent Stabilization A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are: i. Soil pH between 6.0 and 7.0. i. Soluble salts less than 500 parts per million (ppm)

ii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt

iv. Soil contains 1.5 percent minimum organic matter by weight . Soil contains sufficient pore space to permit adequate root penetration. b. Application of amendments or topsoil is required if on-site soils do not meet the above c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches

Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test. e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will no permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment

leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil

Topsoil salvaged from an existing site may be used provided 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-NRCS.

Topsoiling is limited to areas having 2:1 or flatter slopes where: The texture of the exposed subsoil/parent material 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.

The original soil to be vegetated contains material toxic to plant growth. The soil is so acidic that treatment with limestone is not feasible Areas having slopes steeper than 2:1 require special consideration and design. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria

Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of ntrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack

grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified. 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.

Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding o seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets. Topsoil must not be placed if 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 detriment.

Erosion and sediment control practices must be maintained when applying topso

to proper grading and seedbed preparation. Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except

when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus agnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of

To stabilize disturbed soils with vegetation for up to 6 months. To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time,

Criteria

Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch

alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season H-5 STANDARDS AND SPECIFICATIONS

 $\frac{FOR\ DUST\ CONTROL}{Definition}$ Controlling the suspension of dust particles from construction activities.

<u>Purpose</u>

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including

Conditions Where Practice Applies

Areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications

Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to Vegetative Cover: See Section B-4-4 Temporary Stabilization.

Tillage: Till to roughen surface and bring clods to the surface. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and

similar plows are examples of equipment that may produce the desired effect Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must of be irrigated to the point that runoff occurs Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar erial can be used to control air currents and soil blowing. Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan review authority.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

A mound or pile of soil protected by appropriately designed erosion and sediment control measures. To provide a designated location for the temporary storage of soil that controls the potential for erosic sedimentation, and changes to drainage patterns. Conditions Where Practice Applie Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

1. The stockpile location and all related sediment control practices must be clearly indicated on the REMOVE ANY COVERING erosion and sediment control plan.

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material

3" MULCH and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.

 Runoff from the stockpile area must drain to a suitable sediment control practice. Access the stockpile area from the upgrade side. 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as TOP SOIL MIXTURE — an earth dike, temporary swale or diversion fence. Provisions must be made for discharging

oncentrated flow in a non-erosive manner. 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS . RACTICAL 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 DISTRICT. 12-29-2 ENGINEER DATE DEVELOPER'S CERTIFICATE I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO HIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONN NVOLVED 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. /3/29/20 DEVELOPER THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HE HOWARD SOIL CONSERVATION DISTRICT

B-4-3 STANDARDS AND SPECIFICATIONS Definition The application of seed and mulch to establish vegetative cover.

To protect disturbed soils from erosion during and at the end of construction Fo the surface of all perimeter controls, slopes, and any disturbed area not under active grading

a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate. b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws. culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseedin above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less

d. Sod or seed must not be placed on soil which has been treated with soil sterilants of chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table 3/ B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rat in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.

b. Drill or Cultipacker Seeding; Mechanized seeders that apply and cover seed with soil . 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 ii. Apply seed in two directions, perpendicular to each other. Apply half the

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium), 200 pounds per acre. ii. 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 or hydrated lime when

ii. Mix seed and fertilizer on site and seed immediately and without interruption

iv. When hydroseeding do not incorporate seed into the soil.

a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dust Note: Use only sterile straw mulch in areas where one species of grass is desired b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state. i. WCFM is to be dyed green or contain a green dye in the package that will

> ii. WCFM, including dye, must contain no germination or growth inhibiting iii. WCFM materials are to 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 must form a blotter-like ground cover, on application,

having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. concentration levels that will be phyto-toxic.

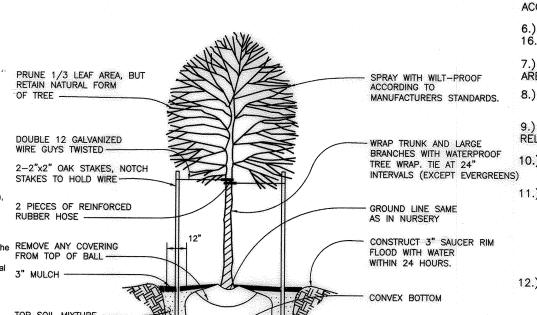
b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the

acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending

mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. f used on sloping land, this practice should follow the contour. ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II,

edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to



TREE PLANTING DETAIL

515

12/29/2020

Table B.1: Temporary Seeding for Site Stabilization Seeding Rate 1/ Seeding Depth 2/ Recommended Seeding Dates by Plant Hardiness Zone 3/ Plant Species 7a and 7b lb/ac lb/1000 ft2 (inches) 5b and 6a 40 1.0 0.5 Mar 1 to May 15; Aug 1 to Oct 3 Rarlev (Hordeum vulgare) Mar 1 to May 15; Aug 1 to Oct 3: Mar 1 to May 15; Aug 1 to Oct 31 heat (Triticum aestivum 120 2.8 1.0 Mar 1 to May 15; Aug 1 to Oct 31 Cereal Rye (Secale cereale) 112 2.8 1.0 Var 1 to May 15; Aug 1 to Nov 1 Warm-Season Grasses 30 0.7 0.5 May 16 to Jul 31 ırl Millet (Pennisetum glaucum May 16 to Jul 31

1/ Seeding rates for the warm season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, ling rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed abov

for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtall millet), do not exceed more than 5% (by weight) of the overall permanent

Tall Fescue/Kentucky Bluegras:

1/4 - 1/2 in

1/4 - 1/2 in

Seeding

Mar 1 to May 15

Aug 1 to Oct 15

Mar 1 to May 15

Fertilizer Rate

(10-20-20)

P205

90 lb/ac

1000 sf)

per acre

100 sf)

K20

1000 sf)

seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur very late fall beyond the seeding dates for other temporary seeding

Hardiness Zone (from Figure B.3):

Seed Misture (from Table B.3):

Fescue, Tall

Bluegrass, Kentucky

The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone. **Permanent Seeding Summary**

Rate (lb/ac.

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and

seeding rate in each direction.

provide an appropriate color to facilitate visual inspection of the

v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and a. Apply mulch to all seeded areas immediately after seeding.

Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per

ipon the size of the area and erosion hazard: i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor

Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier a

FACILITY SP MBR FLANT LIST 190 PLALIT NAME TYPE COMMONNAME QUANTITY BETUK NICKA KIVER BIRCH TIZEE COMMON PERCHANCE HERBACEARS WELL REPTAINS CEECHIG POGLEWED HERBACEOUS HERPACEOUS MAS VEASICAO EUHUS VIRGINIOUS MIRGINIADINIADIRUS HERBACEOUS VACCINIUM ATROCOCCUM | LIGHTEREN LIGHTERER

XALL FLANTS DUID BIORSTENTION MUTERIALS TO BE FOR APPENDIX BUT OF THE MIDE SWAN DESIGN MANUAL BNTHUGO' CONSTRUCTION SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES

1.) THE PROPOSED LANDSCAPING SHALL BE PROVIDED BY THE PLANTINGS AS SHOWN ON

2.) THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL INTERNAL PLANTINGS; THE PRESERVATION OF THE EXISTING PERIMETER VEGETATION; AND FOR THE PERIMETER PLANTINGS AS SHOWN ON THESE PLANS. BONDING FOR THE PROPOSED PLANTINGS IS THE OBLIGATION OF THE DEVELOPER AS PART OF THE DEVELOPERS AGREEMENT.

3.) TREES MUST BE A MINIMUM OF FOUR (4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE (5) FEET FROM ANY STORM DRAIN. 4.) A MINIMUM DISTANCE OF TWENTY (20) FEET MUST BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND FROM STREET LIGHTS.

5.) TREE MUST BE PLANTED A MINIMUM OF FIVE (5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN(10) FEET FROM A DRIVEWAY 6.) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION

ARE NO SIDEWALKS. 8.) ALL LANDSCAPING PLANT TYPES SHOWN ON THESE PLANS ARE RECOMMENDATIONS AND MAY B SUBSTITUTED WITH APPROVED EQUIVALENTS FROM THE HOWARD COUNTY LANDSCAPE MANUAL.

10.) THE SURETY FOR THE 11 SHADE TREES (\$3,300.00) HAS BEEN POSTED AS PART OF

WITH APPLICABLE REGULATIONS. ALL OTHER REQUITED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR

12.) AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

90 lb/ac 2 tons/ac MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTRO MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION 2011 U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

2011

MARYLAND DEPARTMENT OF ENVIRONME
WATER MANAGEMENT ADMINISTRATION PERIMETER LANDSCAPE PLANTING LIST SCHEDULE A PERIMETER LANDSCAPE EDGE SYMBOL | QUANTITY NAME REMARKS ADJACENT TO ROADWAY YES NO NO NO TOTAL CATEGORY 1/2"-2" CAL ADJACENT TO PERIMETER PROPERTIES NO YES YES YES 1) NA | (2) A | (3) A | (4) A PERIMETER NO. / LANDSCAPE TYPE DEVELOPER'S / BUILDER'S CERTIFICATE LINEAR FEET OF PERIMETER (PERIMETER/ROADWAY 272 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CREDIT FOR EXISTING VEGETATION: CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED) CERTIFY THAT UPON COMPLETION OF A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING LINEAR FEET OF REQUIRED PERIMETER LANDSCAPING NA 217 140 CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FFFT) (DESCRIBE BELOW IF NEEDED) NUMBER OF PLANTS REQUIRED 12-29.20 SHADE TREES(1:60) DEVELOPER EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)

Same to the second of the seco

3 FT -

4000

-EARTH FIL

-PIPE (SEE NOTE 6)

DETAIL E-3

SUPER SILT

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE

FENCE

ELEVATION

INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE A 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENE OF THE SUPER SILT FENCE.

CROSS SECTION

WOVEN SLIT FILM GEOTEXTILE -

EMBED GEOTEXTILE AND — CHAIN LINK FENCE 8 IN MIN. INTO GROUND

PLOW -

ONSTRUCTION SPECIFICATIONS

⊢—SSF——I

TOTAL FILL:

OFFSITE WASTE/BORROW AREA LOCATION

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

PROFILE

PLAN VIEW

PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5.1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.

PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS

PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

CONSTRUCTION SPECIFICATIONS

OPERATION AND MAINTENANCE SCHEDULE PRIVATELY OWNED AND MAINTAINED

DRY WELLS (M-5)

THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NO DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION

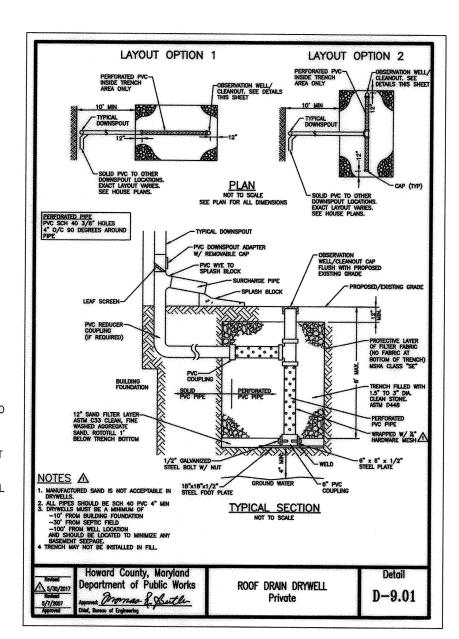
SHALL BE TAKEN THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA

OPERATION AND MAINTENANCE SCHEDULE BIORETENTION(M-6) AND SWALES(M-8)

INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY, MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASHOUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALI BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II. TABLE A.4.1 AND : B. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FAL F EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED

EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS. WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



STANDARD SEDIMENT CONTROL NOTES

A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID PRIOR TO THE START OF FARTH DISTURBANCE

UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING

ONT;

D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS. DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1

VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.

4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5). TEMPORARY EEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).

. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED I OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID SITE ANALYSIS TOTAL AREA OF SITE: *CUT/FILL NUMBERS 0.05 ACRES
0.05 ACRES ARE FOR SEDIMENT AREA TO BE ROOFED OR PAVED: CONTROL PURPOSES AREA TO BE VEGETATIVELY STABILIZED: ACRES ONLY. CONTRACTOR

TO VERIFY.

ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY: AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS ART OF EVERY INSPECTION AND SHOULD INCLUDE: INSPECTION DATE INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 NAME AND TITLE OF INSPECTOR

WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION) BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES EVIDENCE OF SEDIMENT DISCHARGES DENTIFICATION OF PLAN DEFICIENCIES ENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE

DENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS PHOTOGRAPHS MONITORING/SAMPLING

MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED

OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER. 10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.

DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AN APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST B TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE. . TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE. 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.

STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE): · USE I AND IP MARCH 1 - JUNE 15 · USE III AND IIIP OCTOBER 1 - APRIL 30 USE IV MARCH 1 - MAY 31 16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSIO AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE

> SEQUENCE OF CONSTRUCTION NOTIFY SEDIMENT CONTROL DIVISION 48 HOUR PRIOR TO START OF CONSTRUCTION

1.) OBTAIN GRADING PERMIT. DAY 1 2.) INSTALL STABILIZED CONSTRUCTION ENTRANCE AND PERIMETER CONTROLS. 3.) EXCAVATE FOR FOUNDATIONS, ROUGH GRADE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES. 4.) CONSTRUCT HOUSES, BACKFILL AND INSTALL DRYWELLS 1 & 2. DAY 11-80 5.) WITH THE HOUSE COMPLETED AND DRYWELLS CONNECTED TO ROOF DAY 81-94 LEADERS OBTAIN A TEMPORARY USE-IN-OCCUPANCY PERMIT FOR THE NEW HOUSE. WITH APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE EXISTING HOUSE AND

STABILIZE THE AREA. DAY 95-102 6.) WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, CONSTRUCT THE DRIVEWAY AND INSTALL MBR-1 AND OUTFALL. 7.) FINAL GRADE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED DAY 103-108 NOTES AND INSTALL PERIMETER LANDSCAPING.

ANY REMAINING DISTURBED AREAS. EROSION CONTROL MATTING SHALL BE PLACED IN SWALES WHERE DEEMED NECESSARY UNTIL VEGETATION IS ESTABLISHED OR SOLID SOD SHOULD

REVISION

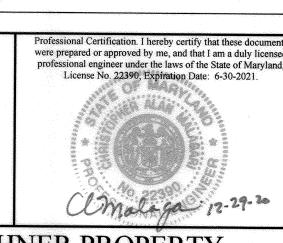
8.) WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL

INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE

Stone Depth | Grade Top of Bottom Stone of Stone 4.00 509.3 508.3 504.3 4.00 509.1 508.1 504.

> **BENCHMARK** ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 180 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM OWNER:

DATE



DAY 109-112

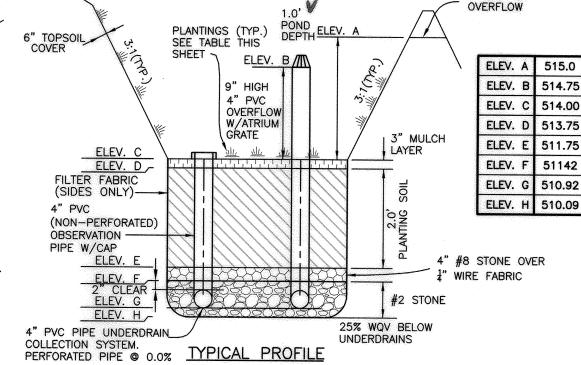
RAUSCHNER PROPERTY JAMES RAUSCHNER 4928 MONTGOMERY ROAD ELLICOTT CITY, MARYLAND 21043 4928 MONTGOMERY ROAD 410-868-7551 TAX MAP: 31 GRID: 14 PARCEL: 171 ZONED: R-20 ELECTION DISTRICT NO. IST HOWARD COUNTY, MARYLAND RESIDENTIAL SITE DEVELOPMENT PLAN SWM, GRADING, SEDIMENT & EROSION CONTROL NOTES AND DETAILS

DESIGN: JCO | DRAFT: JCO SCALE: AS SHOWN SHEET

J:\2936-4928 MONTGOMERY ROAD\dwg\8000V2.dwg, 12/28/2020 3:07:43 PM

-EX. GROUND 4"PERF.PVC-510 510.92-509.6 47LF PVC @2.8%

9" HIGH 4" PVC WITH ATRIUM GRATE (NON-PERFORATE OVERFLOW PIPE " WIRE FABRIC -#2 STONE UNDERDRAINS



8.00

DW-2 8.00

TYPICAL MICRO-BIORETENTION FACILITY(M-6)

MBR PROFILE

500

' TOP AT

515.5

16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. 7.) STREET TREES SHALL BE PLANTED SIX (6) FEET BEHIND FACE OF CURB WHEN THERE

3.) NO TREES SHALL BE PLACED WITHIN 10' BEHIND A RETAINING WALL OR WITHIN A RÉLATED MAINTENANCE EASEMENT, WHICHEVER IS GREATER.

11.) THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH MATERIALS AND BERMS, FENCES ANS WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY. REPLACE WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE

AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS

5' WIDE WEIR OVERFLOW -_ AVG. LENGTH

GRADE SEE TABLE THIS

TYPICAL SECTION

4" #8 STONE OVER 4" PVC PIPE UNDERDRAIN COLLECTION SYSTEM. PERFORATED PIPE @ 0.0%-

25% WOV BELOW

2" CLR.

ELEV. C 514.00 ELEV. D 513.75 ELEV. E 511.75 ELEV. F 51142 ELEV. G 510.92 ELEV. H 510.09

4" #8 STONE OVER

DEVELOPER: JAMES RAUSCHNER 4928 MONTGOMERY ROAD ELLICOTT CITY, MARYLAND 21043 410-868-7551

DECEMBER 2020 BEI PROJECT NO. 2936

2 of 2 SDP-20-056