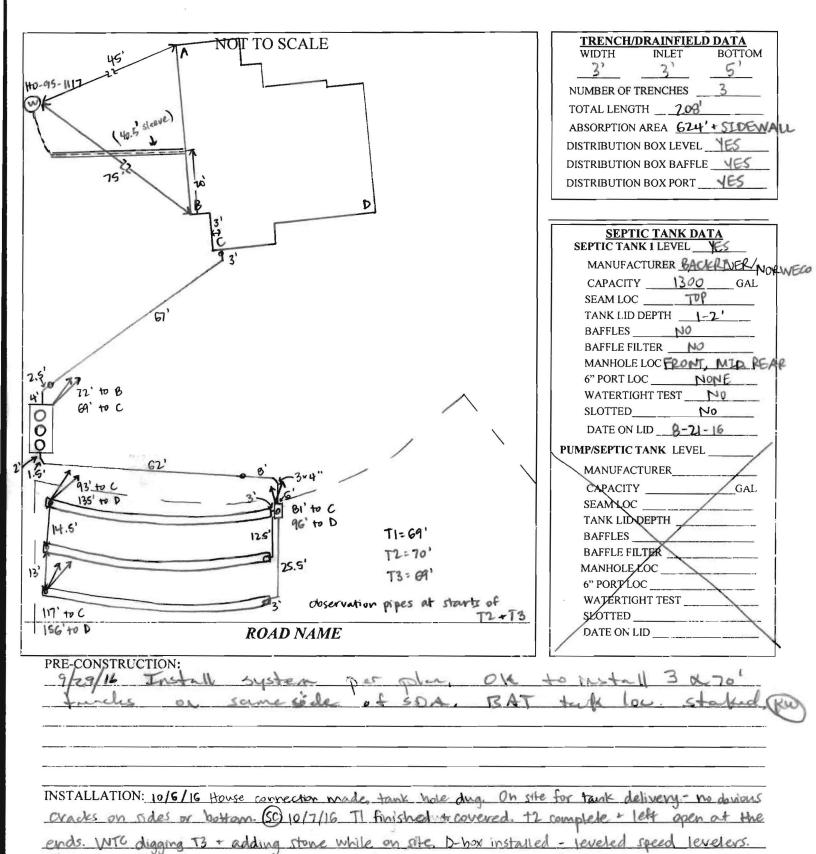
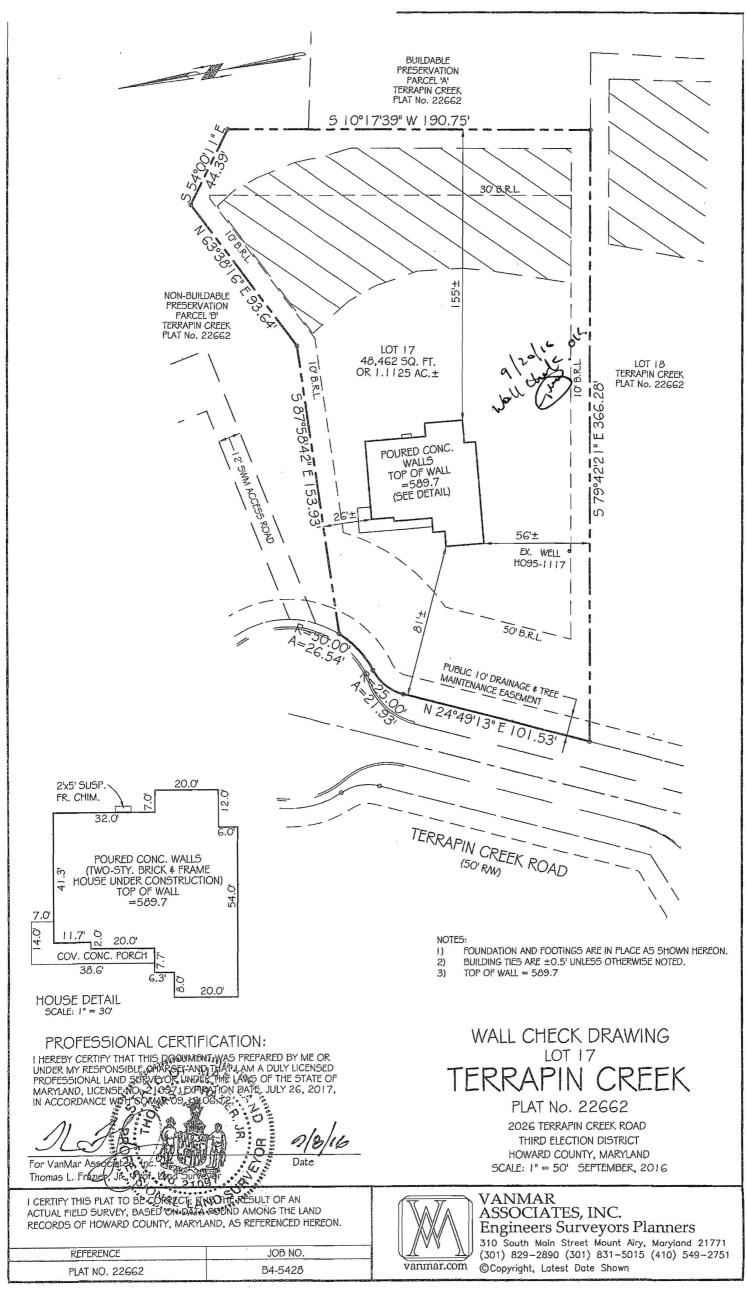
| I-I | ÷ | Bureau of Environmental Health 8930 Stanford Boulevard, Columbia, MD 21045 Main: 410-313-2640 Fax: 410-313-2648 TDD 410-313-2323 Toll Free 1-866-313-6300 | | | | | |
|------------------------|---|---|------------------------|-------------------|------------------|--|--|
| | loward County lealth Department | | | chealth.org | | | |
| <u></u> | | Maura J. Rossman, M.E | | ebook.com/noconea | lith | | |
| RECEIPT | | NSITE SEWAGE DIS | | Ρ | 639111-B | | |
| APPROVAL | DATE: 10/18/16(Sec) | PERMIT: <u>co</u> | ONSTRUCTION | Α_ | | | |
| PROPERTY A | DDRESS: 2026 Terrap | n Creek Road | | | | | |
| SUBDIVISION | I: Terrapin Creek | | LOT: 17 | TAX ID: | 8-596040 | | |
| CONTRACTO | R: WTC Contractors | | EMAIL: | | | | |
| CONTRACTOR | ADDRESS: 3033 Salem | Bottom Road, Westminst | er, MD 21157 | PHONE: | 443-458-7024 | | |
| CONTRACT | OR CERTIFIED FOR BAT INST | ALLATION: MDE | | TURER: | | | |
| PROPERTY O | WNER: LDG Inc. | | EMAIL: | | | | |
| OWNER ADDR | ESS: 8601 Georgia Ave | nue, Silver Spring, MD 20 | 110 | PHONE: 301 | -585-7000 | | |
| BAT UNIT MO | DDEL: Norweco TNTLP | 500 PUMP SIZE: | PUMP TANK | CAPACITY: | | | |
| OPERATION & | MAINTENANCE AGREEMEN | T DATE SIGNED: 08/10 | DATE | RECORDED: 08 | 3/10/16 | | |
| DISTRIBUTIO | N SYSTEM: 🛛 GRAVI | TY PRESSURE DO | DSED BEDROOMS: | 5 APPLICAT | TION RATE: | | |
| | LINEAR FEET REQUIRED: | 207.5 | | INLET DEPTH: | 3 | | |
| TRENCHES: | TRENCH WIDTH: 3 MAXIMUM BOTTOM DEPTH: 5 | | | | | | |
| | BETWEEN TRENCHES: | | EFFECTIVE AREA BEGI | | | | |
| LOCATION: | tern an antiserrouter and Production land | | | | | | |
| NOTES: | | | | | 1) | | |
| ISSUED BY: | Hank Oswald | ISSUE DA | TE: 01/20/1/0 | EXPIRATION DAT | F: 90017 | | |
| | | A PRE-CONSTRUCTION INSP | Herein | | | | |
| NOTE: CONT | FRACTOR MUST SCHEDULE A | N INSPECTION AND GAIN AF | PPROVAL OF ALL COMPO | NENTS PRIOR TO | COVERING | | |
| NOTE CONTRACTOR | ERTIGHT SEPTIC TANKS REQ | | | | | | |
| | | ALL BE AT LEAST 100 FEET DO ALL SEPTIC TANKS AND PUM | | NY WATER WELL | | | |
| | · · · · | RED FOR INSTALLATION OF | ANY ELECTRICAL COMP | ONENTS OF THE S | YSTEM | | |
| NOTE: AN IN | | E 16004215 DE AND THE MANUFACTURE | ER FOR BAT INSTALLATIO | ON MUST BE PRES | ENT AT ALL TIMES | | |
| NOTE: MDE | | KS, BAT, AND OTHER PRETR DT DISCHARGED TO THE DISI | | MPED AT A FREQU | JENCY ADEQUATE | | |
| | | TY COUNCIL NOR THE H | | T IS RESPONSI | BLE FOR THE | | |
| | | UCCESSFUL OPERATION | | | | | |
| | | NSIBLE FOR OBTAINING | | | т. | | |
| | CAL | L 410-313-1771 TO SCH | | 5. | | | |



3' wide 2.5' to stone also ve met pipe, 5' to bottom WTC finished T3 during site visit. Need BAT startup certification @ 10/18/16 BAT startup certification received. @ 3/20/17 On site for Norwees startup. Alarm sounds, aerator runs. (S)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 10/18/16



Back River Pre-Cast, LLC

PO BOX 329 Glyndon, MD 21071 Phone # 410-833-3394 Fax # 410-833-4116

Letter of Certification

This is to certify that the Norweco Singulair TNT 600 GPD Septic Tank installed at 2026 Terrapin Creek Rd., Sykesville, MD 21784 October 6, 2016 was installed according to the manufacture's specifications.

Installer: Walter Coon

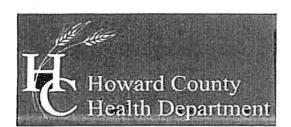
Property Owner: Manan Shah

Permit #

THIS CERTIFICATION IS FOR INSTALLATION ONLY. THE 5-YEAR OPERATIONS & MAINTENANCE AGREEMENT FROM DATE OF INSTALLATION WILL ONLY GO INTO EFFECT AFTER BACK RIVER PRE-CAST, LLC RECEIVES FINAL AND FULL PAYMENT FOR THE SYSTEM.



MATTHEW GECKLE Vice-President



Bureau of Environmental Health 8930 Stanford Boulevard, Columbia, MD 21045 Main: 410-313-2640 | Fax: 410-313-2648 TDD 410-313-2323 | Toll Free 1-866-313-6300 www.hchealth.org Facebook: www.facebook.com/hocohealth Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

OPERATION AND MAINTENANCE AGREEMENT FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM HAVING AN ADVANCED PRE-TREATMENT SYSTEM

THIS AGREEMENT is made this 10th day of 40057 2016, <u>Catonsville Homes, L.L.C.</u>, among "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 2026 Terrapin Creek Road, Sykesville, MD 21784 (Lot 17), in the <u>03</u> Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber <u>01988</u> Folio <u>00258</u>.

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013. The pre-treatment device being installed is Norweco Singulair TNT 600

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.

B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.

C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.

D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.

E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require

maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. There are no additional terms other than as contained in this agreement. This agreement may not be modified, except in writing signed by each of the parties or by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above.

Howard County Health Department CATONSHITE HOME'S, LL

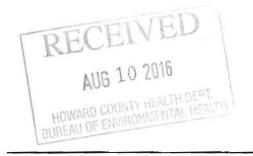
R Owner #1 Signature Date

Owner #1 Print Name

7/12/16 Buver ature

MANAN SHAH

Buyer #1 Print Name



Owner#2 Signature

Date

Owner #2 Print Name

Buyer #2 Signature

Date

MONALI

Buyer #2 Print Name

CATONSVILLE HOMES, LLC **OPERATING MAINTENANCE AGREEMENTS**

| 1. | TC4-Mallampati-Devonshire | 0&M | |
|----|----------------------------|-----------|---------|
| | 2015 Terrapin Creek Road 2 | B16000079 | 8/10/16 |
| 2. | TCA-Gladstein-Ashland | | 0&M |
| | 12707 Milo Court 21784 | B16000971 | 8/10/16 |
| 3. | TC10-Apte-Devonshire | | O&M |
| | 12726 Milo Court 21784 | B16001641 | 8/10/16 |
| 4. | TC6-Mehta-Charleston II | | 0&M |
| | 12721 Milo Court 21784 | B16001946 | 8/10/16 |
| 5. | TC17-Shah-Charleston II | | O&M |
| | 2026 Terrapin Creek Road 2 | B16002635 | 8/10/16 |
| 6. | TC2-Challagulla-Devonshire | | O&M |
| | 2007 Terrapin Creek Road 2 | B16002795 | 8/10/16 |
| 7. | TC14-Gandhi-Devonshire | | O&M |
| | 12710 Milo Court 21784 | B16003009 | 8/10/16 |

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Clerk of the Circuit Court for Howard County Land Records/Licensing The Thomas Dorsey Building 9250 Bendix Road Columbia, MD 21045 410-313-5850 LR - Agreement Recording Fee 1x 20.00 20.00 Grantor/Grantee Name: catonsville homes Reference/Control #: 69 LR - Agreement Surcharge 40.00 40.00 1x LR - Agreement Recording Fee 1x 20.00 20.00 Grantor/Grantee Name: catonsville homes Reference/Control #: 70 LR - Agreement Surcharge 40.00 40.00 1x LR - Agreement Recording Fee 1x 20.00 20,00 Grantor/Grantee Name: catonsville homes Reference/Control #: 71 LR - Agreement Surcharge 40.00 1x 40.00 LR - Agreement Recording Fee 1x 20.00 20,00 Grantor/Grantee Name: catonsville homes Reference/Control #: 72 LR - Agreement Surcharge 40.00 40.00 1x LR - Agreement Recording Fee 1x 20.00 20.00 Grantor/Grantee Name: catonsville homes Reference/Control #: 73 LR - Agreement Surcharge 40.00 LR - Agreement Recording Fee 1x 20.00 40.00 Grantor/Grantee Name: catonsville homes Reference/Control #: 74 LR - Agreement Surcharge 1x 40.00 40.00 LR - Agreement Recording Fee 1x 20.00 20.00 Grantor/Grantee Name: catonsville homes Reference/Control #: 75 LR - Agreement Surcharge 40.00 40.00 1x 420.00 SubTotal: 420.00 Total: _____ **REV-Check-BOA** 420.00 Number : 23140 08/10/2016 14:15 CC13 #6702903 /496/109 Thank you for visiting us today CC13-SB

8/10/2016

Ron Thompson

From: Sent: To: Subject: Oswald, Hank <hoswald@howardcountymd.gov> Thursday, June 30, 2016 2:14 PM Ron Thompson RE: BAT Plan_Terrapin Creek Lot 17

Hi Ron:

I forgot to mention that a 6 bedroom SFD using a Norweco, the model unit will be TNT LP 1000gpd. The depth of the this unit is no more than 3'. Please revise.

Thanks,

Hank

From: Ron Thompson [mailto:ron@vanmar.com] Sent: Wednesday, June 29, 2016 4:10 PM To: Oswald, Hank Subject: RE: BAT Plan_Terrapin Creek Lot 17

Thank you Hank.

FF Elevation = 591.00 BF Elevation =581.00

Ronald E. Thompson, PE VANMAR ASSOCIATES 310 South Main Street PO Box 328 Mount Airy, Maryland 21771 301-829-2890 (O) 443-421-2164 (C) 301-831-5603 (F)

From: Oswald, Hank [mailto:hoswald@howardcountymd.gov]
Sent: Wednesday, June 29, 2016 4:02 PM
To: Ron Thompson <<u>ron@vanmar.com</u>>
Subject: BAT Plan_Terrapin Creek Lot 17

Hi Ron:

The plan shows conflicting FF and B elevations for the house. Which is it and I will red line the plan?

Thanks,

Hank

Hank Oswald, L.E.H.S. Howard County Health Department Bureau of Environmental Health Well & Septic Program 8930 Stanford Boulevard Columbia, MD 21045 410.313.1786 (Office) 410.313.2648 (Fax)

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Hank Oswald, L.E.H.S. Howard County Health Department Bureau of Environmental Health Well & Septic Program 8930 Stanford Boulevard Columbia, MD 21045 410.313.1786 (Office) 410.313.2648 (Fax)

Oswald, Hank

| From: | Pam Walter < PWalter@catonsvillehomes.com> | | | |
|----------|---|--|--|--|
| Sent: | Wednesday, June 29, 2016 4:20 PM | | | |
| То: | Oswald, Hank | | | |
| Subject: | RE: Terrapin Creek Lot 17_Floor Plan Question | | | |

The basement is unfinished with a 3 piece rough-in (standard in our homes). The BAT design is for 6 bedrooms, however.

Pam Walter

Catonsville Homes, LLC 11175 Stratfield Court Marriottsville, MD 21104 410-442-2211 x 202 410-442-2215 Fax pwalter@catonsvillehomes.com

From: Oswald, Hank [mailto:hoswald@howardcountymd.gov]
Sent: Wednesday, June 29, 2016 3:59 PM
To: Pam Walter
Subject: Terrapin Creek Lot 17_Floor Plan Question

Hi Pam:

Is the basement finished or unfinished because its showing a full bathroom rough in with potential for at least one bedroom.

Thanks,

Hank

Hank Oswald, L.E.H.S. Howard County Health Department Bureau of Environmental Health Well & Septic Program 8930 Stanford Boulevard Columbia, MD 21045 410.313.1786 (Office) 410.313.2648 (Fax) -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.

. Soil Preparation

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 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 suitable means. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil litions required for permanent vegetative establishment are:

Soil pH between 6.0 and 7.0. Soluble salts less than 500 parts per million (ppm) . 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 plus clay) would be acceptable.

Soil contains 1.5 percent minimum organic matter by weight.

Soil contains sufficient pore space to permit adequate root penetration. Application of amendments or topsoil is required if on-site soils do not meet the above conditions. Graded areas must be maintained in a true and even grade as specified on the approved plan, hen scarified or otherwise loosened to a depth of 3 to 5 inches. B.13 Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test. 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 not permit normal seedbed reparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular ondition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of bil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose

to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture ontent, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in hese 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 nish 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 contrasting 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. lopsoil Application Erosion and sediment control practices must be maintained when applying topsoil. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness

f 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations 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

ubsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading B.14 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 ertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a ecognized private or commercial laboratory. Soil samples taken for engineering purposes may also used for chemical analyses.

Fertilizers must be uniform in composition, free flowing and suitable for accurate application by ppropriate equipment. Manure may be substituted for fertilizer with prior approval from the ropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to e 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 vdroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium (ide). 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 isking 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 topsoil.

OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER

DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES

B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover.

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies: To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

A. Seeding Specifications

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.

. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must 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 hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective. d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

. Dry Seeding: This includes use of conventional drop or broadcast spreaders. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table 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 rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact. B.16 . 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 planting. i. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. . Hydroseeding: Apply seed uniformly with hydroseeder (siurry includes seed and fertilizer). 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; P2 05 (phosphorous), 200 pounds per acre; K2 0 (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 ime. Do not use burnt or hydrated lime when hydroseeding. ii. Mix seed and fertilizer on site and seed immediately and without interruption. v. When hydroseeding do not incorporate seed into the soil.

B. Mulching . Mulch Materials (in order of preference

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 dusty. Note: Use only sterile straw mulch in reas 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 provide an appropriate color to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, must contain no germination or growth inhibiting factors. i. 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.

iv. WCFM material must not contain elements or compounds at concentration levels that will 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,

h content of 1.6 percent maximum and water holding capacity of 90 percent minimum, B.17 . Application . Apply mulch to all seeded areas immediately after seeding.

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 upplication rate to 2.5 tons per acre. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per

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

upon the size of the area and erosion hazard: . A mulch anchoring tool is a tractor drawn implement designed to punch and anchor 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. If used on sloping land,

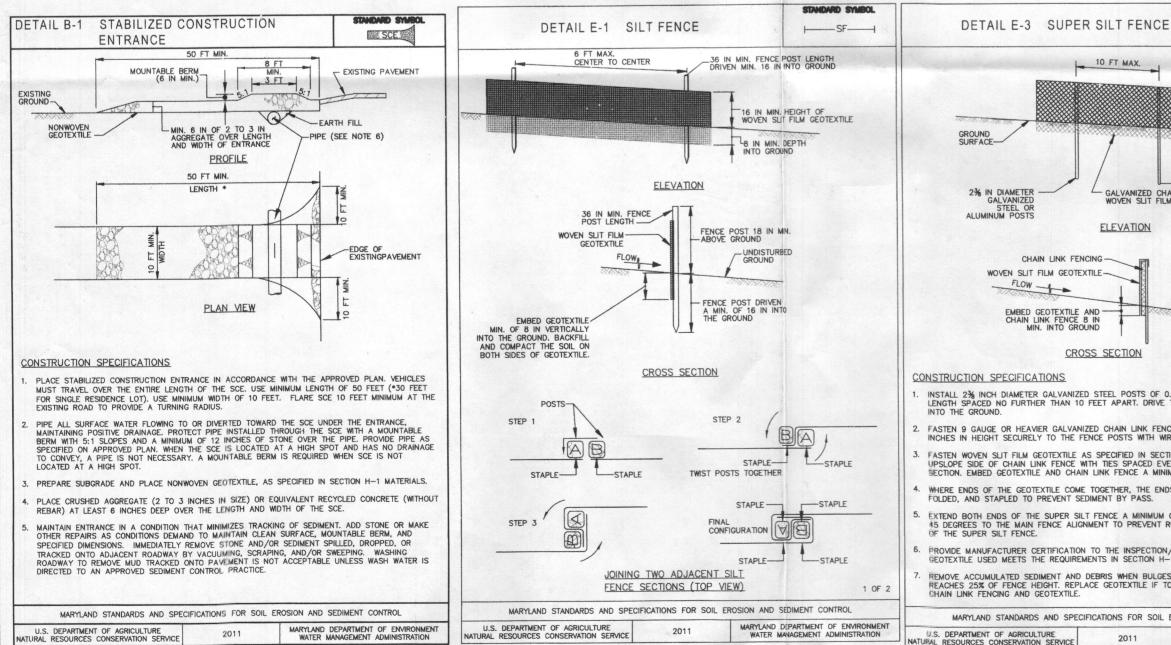
this practice should follow the contour. i. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra

ack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the 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 3,000 feet long.

| | | | | | | | recom | mendadia | ons. Netting is | | ND SEDI | | | | | | |
|---|---|---|---|--|--|--|---------------|--|---|---|--------------------|----------------------|-----------------------|-----------|-----------------------|---|----|
| | and the second second | | TEMPORARY | STABILIZATION | SPECIFICATIONS | TABLE | | | | j | active. | | | | | | |
| Hardiness Zone (from Figure B.3): <u>6b</u> Seed Mixture (from Table B.1): | | | | | | Fertilizer Rate | | me Rate | B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA | | | | | | | | |
| No. | Species | Application F | Rate (Ib/ac) | Seeding Dates | Seeding Depths | (10-20-20) | | | | Definition | <u>SEC</u> 1. | | | | | | |
| | ANNUAL RYEGRASS FOXTAIL | 40 | | MAR. 1 - MAY 15 AUG. 1 - OCT. 15 | 0.5 INCHES | 436 lb | | | tons/ac lb/1000 sf) | A mound or pile of soil protected by appropriately designed erosion and sediment control measures. | 2. | | | | | | |
| | MILLET | 30 | | JUNE 1 - JULY 31 | U.5 INCHES | | 000 51) | (90) | | To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns. | 3. | | | | | | |
| | | | | | PECIFICATIONS T | ABLE | | | | Conditions Where Practice Applies | 4. | | | | | | |
| | | | | | Fertilizer Rate (10-20-20) Lime Rate | | Lime Rate | Stockpile areas are utilized when it is necessary to salvage and store soil for later use. | 5. E | | | | | | | | |
| No. | Species | Application Rate (Ib/ac) | Seeding Dates | Seeding Dept | hs N | P205 | K | 20 | | <u>Criteria</u> 1. The stockpile location and all related sediment control practices must be clearly | 6. / | | | | | | |
| | kentucky bluegrass | 20 | Mar. 1-May 15 Aug. 1-Oct.15 | 1/4-1/2 in | 45 pounds | 90 lb/ac | | | | indicated on the erosion and sediment control plan. 2. The footprint of the stockpile must be sized to accommodate the anticipated | 7. | | | | | | |
| | | | | 1/4-1/2 in | (1.0 lb/ | per acre (2lb/1000 sf) (1.0 lb/ 1000 sf) | (2lb/1000 sf) | (2lb/1000 sf) | (21b/1000 st) | (21b/1000 sf) | 2lb/1000 sf) lb/10 | 21b/1000 st) 1b/10 | 21b/1000 st) 1b/100 | (1000 sf) |) (90 lb/ 1000 sf) | volume of material and based on a side slope ratio no steeper than 2:1. | 8. |
| | | | | 1/4-1/2 in | 1000 sf) | | | | | Benching must be provided in accordance with Section B-3 Land Grading. 3. Runoff from the stockoile area must drain to a suitable sediment control practice | | | | | | | |
| D FI S | ROM EXPOSED URFACES AT A D VEGETATIVE | METHOD FOR THIS SOIL SURFACES: C/ RATE THAT WILL K SPECS. FOR THIS S | ALCIUM CHLORIDE SH EEP SURFACE MOIST ITE AND AREAS TO E | OWING AND MOVEMEN IALL BE APPLIED TO UNTIL SOIL IS STABI BE PAVED ARE COMPL | exposed Lized According Leted. |] | | | | Access the stockpile area from the upgrade side. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. Stockpiles must be stobilized 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. If the stockpile is located on an impervious surface, a liner should be provided | 10. | | | | | | |

below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting. Maintenance The stockpile area must continuously meet the requirements for Adequate Vegetative

stablishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertcal height of a stockpile exceeds 20 feet for 2:1slopes, 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



6) Site Analysis:

Total Cut

Total Fill

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1) 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 area marked clearly in the field. A minimum of 48 hour notice to CID must be given a the following stages:

a. Prior to the start of earth disturbance, b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading, c. Prior to the start of another phase of construction or opening of another grading unit, d. Prior to the removal or modification of sediment control practices.

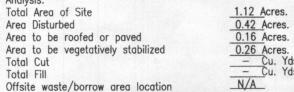
Other building or grading inspection approvals may not be authorized until this initial approval by inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.

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 2011 "MARYLAND STANDARDS AND SPECIFICATIONS FOR THE SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.

3) 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 aradina.

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 seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization (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 in operative condition until permission for their removal has been obtained from the CID.



7) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance. 8) 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 part 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 * Identification of plan deficiencies

* Identification of sediment controls that require maintenance * Identification 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). 9) 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. 11) 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 and approved by the CID. Unless otherwise specified and approved by the CID, no more than 30 acres cumulatively may be disturbed at a given time. 12) Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

13) Top soil 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 interval, with lower ends curled uphill by 2' in elevation.

15) 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 SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site

SEQUENCE OF CONSTRUCTION

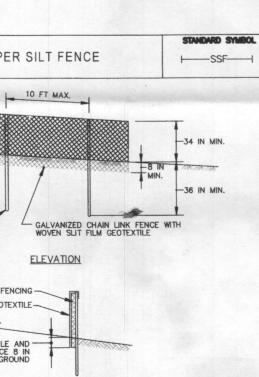
OBTAIN ALL REQUIRED GRADING, MDE PERMITS, APPROVALS AND LICENSES FROM APPROPRIATE AGENCIES. NOTIFY SEDIMENT CONTROL INSPECTOR AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING WORK.

3. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND OTHER SEDIMENT CONTROL DEVICES AS SHOWN IN THE SEDIMENT \CONTROL PLAN. 4. STABILIZE ALL THE GRADED AREAS UP TO 20' OUTSIDE OF THE LIMIT OF GRADING AS PER PERMANENT SEEDING NOTES. 5. EXCAVATE HOUSE FOUNDATION, HOUSE CONSTRUCTION. UTILITIES AND INSTALL SEPTIC.

6. ANY AREAS THAT CAN BE TEMPORARILY SEEDED DURING CONSTRUCTION MUST BE TEMPORARILY STABILIZED PER SEEDING NOTES. 7. INSTALL DRIVEWAY.

8. STABILIZE DISTURBED AREAS PER PERMANENT SEEDING NOTES. ice. 9. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR; REMOVE ALL TEMPORARY SEDIMENT CONTROL DEVICES FOR HOUSE CONSTRUCTION. 10. NOTIFY INSPECTOR FOR FINAL INSPECTION.

> TEMPORARY STOCKPILE NOTE TE EARTHWORK HAS BEEN BALANCED SUCH THAT A TEMPORARY STOCKPILE SHOULD NOT BE NECESSARY. HOULD CONTRACTOR DECIDE TO LISE & STOCKPILE CONTRACTOR SHALL PLACE STOCKPILE WITHIN THE RIGINALLY APPROVED L.O.D. AND FOLLOW TEMPORARY TABILIZATION NOTES.



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. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.

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 AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

