

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

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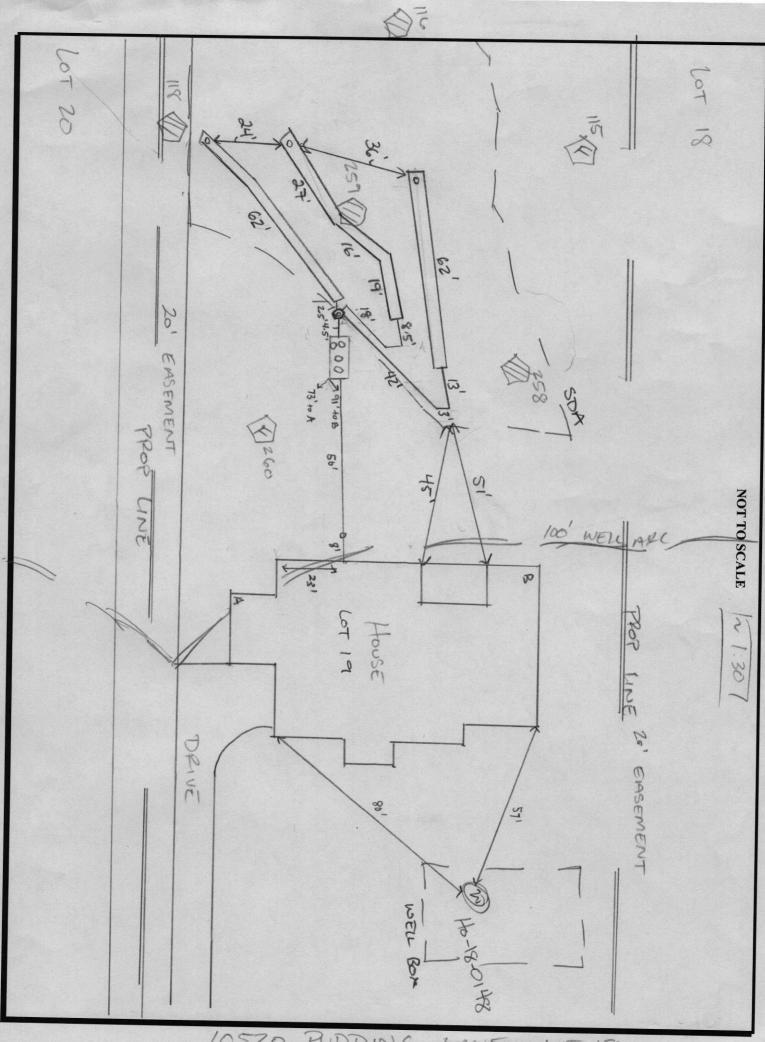
Maura J. Rossman, M.D., Health Officer

RECEIPT I	DATE: 67/26/2000 ONSITE SEWAGE DISPOSAL SYSTEM P 572106					
APPROVAL I	DATE: 08/15/2022 PERMIT: CONSTRUCTION A					
PROPERTY ADDRESS: 10520 Pudding Lane, Ellicott City, MD 21042						
SUBDIVISION	Example 1: Kings Forest, Kingsly Woods LOT: 19 TAX ID:					
CONTRACTO	R: Chavis Enterprises, LLC EMAIL:					
CONTRACTOR	ADDRESS: PO Box 451, Jarrettsville, MD 21084 PHONE: (410) 557 - 2455					
CONTRACT	FOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER: Backriver Precast					
PROPERTY O	PROPERTY OWNER: Toll Mid-Atlantic Inc EMAIL: SRiley1@Tollbrothers.com					
OWNER ADDR	ESS: 7164 Columbia Gateway Drive, Suite 230 PHONE: (410) 872 - 9105					
BAT UNIT MODEL: Norweco TNT 758 PUMP SIZE: PUMP TANK CAPACITY:						
OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 7/1/2022 DATE RECORDED: 7/13/202						
DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 7 APPLICATION RATE: 1.2						
	LINEAR FEET REQUIRED: 184' INLET DEPTH: 3'					
TRENCHES:	TRENCH WIDTH: 3' MAXIMUM BOTTOM DEPTH: 6'					
	MINIMUM SPACE BETWEEN TRENCHES: 10' EFFECTIVE AREA BEGINNING DEPTH: 4'					
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED					
NOTES:						
ISSUED BY:	Dana Bernard ISSUE DATE: 12/13/2021 EXPIRATION DATE: 12/13/2022					
NOTE: CON	TRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION					
NOTE: CON	NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING					
NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.						
NOTE: WATERTIGHT SEPTIC TANKS REQUIRED NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL						
	NHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS					
NOTE: AN E	IOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM ELECTRICAL PERMIT ISSUED E 22002654					
NOTE: AN II	E: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES					
DURING BAT INSTALLATION. NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA						

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT. CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE	TRENCH/DRAINFIELD DATA WIDTH INLET BOTTOM
	3' 2' 6'
	NUMBER OF TRENCHES 3
	TOTAL LENGTH 186 F
	ARSORPTION AREA 558 SC + 25 DE
	DISTRIBUTION BOX LEVEL SPEED WALL
	DISTRIBUTION BOX BAFFLE CONC
	DISTRIBUTION BOX PORT 425
	BAT
	SEPTIC TANK DATA SEPTIC TANK 1 LEVEL
	MANUFACTURER Back River Norweg
	CAPACITY 750 GAL
	SEAM LOC
	TANK LID DEPTH 18"- 2'
	BAFFLES
	BAFFLE FILTER
	MANHOLE LOC front/middle/back 6" PORT LOC
	WATERTIGHT TEST _
	SLOTTED
	DATE ON LID 8/9/22
	PUMP/SEPTIC TANK LEVEL
	MANUFACTURER
	CAPACITYGAL
	SEAM LOC
	TANK LID DEPTH
	BAFFLES
	BAFFLE FILTER
	MANHOLE LOC
	6" PORT LOC
	WATERTIGHT TEST
DO AD MANE	SLOTTED DATE ON LID
ROAD NAME	DATE ON LID
PRE-CONSTRUCTION: ORIO 1072 LAID OUT 3×62' TRS. SHIFTED UPPE	R AND MID TRS
TO MEET ± 6" CONTOUR. P	
DICTALLATION AS IN SECTION AS IN THE	0.000 000000000000000000000000000000000
INSTALLATION: 08/11/2072 SEWER OUT 18 TOO LOW.	RAISE TANK; BED IN
#ST STONE, BED SEWER LINE IN STONE; RE	Plums THE HOUSE (H)
8/12/22-Contractor onsite, ST now sitting on bed of Stone and has been s	rised, New Sewer out hole has not
been drilled yet, old soverout at wrong elevation has been abandoned, ok to cont	
	1
FINAL INSPECTOR DATE OF APPR	OVAL 08 15 7072 .



10520 LOT



BACK RIVER PRE-CAST, LLC PO BOX 329 GLYNDON, MD 21071 PH# 410-833-3394

NORWECO CERTIFICATION

PROPERTY OWNER: TOLL MID-ATLANTIC	INSTALLATION COMPANY: CHAVIS SEPTIC
ADDRESS: 10520 PUDDING LANE	CERTIFIED INSTALLER: JOSH CHAVIS
CITY, ZIPCODE & COUNTY: ELLICOTT CITY, 21042, HOWARD	PERMIT#
SIZE OF SYSTEM INSTALLED:	DATE INSTALLED: 08-10-22
750 GPD CONCRETE	START-UP DATE: 09-13-22
NUMBER OF BEDROOMS:	DATE OF FINAL INSPECTION:
TYPE OF INSTALLATION: NEW	DATE OF ELECTRICAL INSPECTION:
ELECTRICAL WIRING PER ELECTRICAL INSTRUCTIONS: YES	TANK LEVEL: YES
HT. OF CONTROL PANEL ABOVE FINAL GRADE: 34"	BURIAL DEPTH OF TANK: 36"
SYSTEM WIRED ON A 15-AMP DEDICATED CIRCUIT WITH STD. BREAKER: YES	RISERS 4" - 6" ABOVE GRADE: YES
LENGTH(S) OF UF WIRE PAST LAST AERATION RISER(S): 30"	VENTED LID(S) ON AERATION CHAMBER(S): YES
FEMALE PLUG(S) WIRED TO UF WIRE: YES	ANY GROUND SETTLING AROUND TANK:
CONDUIT(S) ENTERING AERATION RISER MADE WITH A WATERTIGHT CONNECTION: YES	NO
ISTHE INSIDE OF THE CONDUIT ENTERING THE CONTROL PA	NEL(S) AND AERATION RISER(S) SEALED

ON 2^{NO} PAGE MAKE A ROUGH SKETCH OF THE HOUSE ,WHERE THE SYSTEM IS LOCATED, WHERE THE CONTROL PANEL IS LOCATED, WHERE THE FRONT OF THE IS AND DIRECTIONS TO THE PROPERTY.

DIRECTIONS CAN START A FEW STREETS AWAY

EXAMPLE: RT. X LEFT ONTO XX STREET RIGHT ONTO PRIVATE DRIVEWAY 5TH HOUSE OF THE LEFT.

I certify that the Norweco Singulair TNT Wastewater Treatment System was installed according to the manufacture's specifications.

Matthew Geckle

September 13,2022

Signature of BRP Representative

Vice-President

Date

BOOK: 21623 PAGE: 476

THIS AGREEMENT is made this 200 day of



Bureau of Environmental Health 8930 Stanford Blvd | Columbia, MD 21045 410.313.2640 - Voice/Relay 410.313.2648 - Fax 1.866.313.6300 - Toll Free

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

, among Jessica Winkles, hereinafter collectively referred to as

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

200



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

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

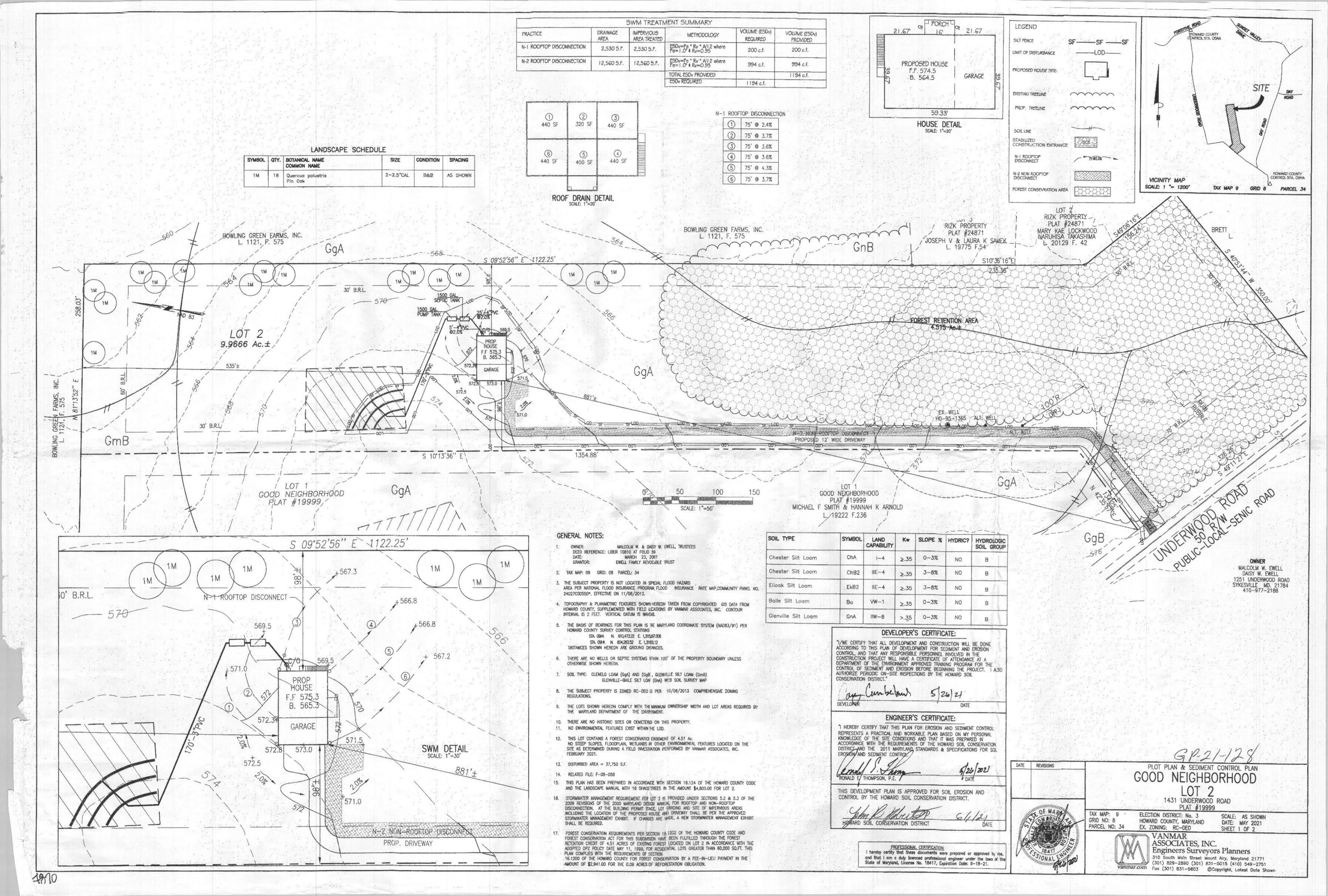
4.17
THIS AGREEMENT is made this day of, among, among, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".
WHEREAS, Owner is the owner or contract owner of a parcel of land located at Lot 19 10520 Productive Ellection United to Election District of Howard County, Maryland, and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 23, Block # 23, Parcel # 148, Deed Reference # 2576468 and Tax Account # 603429 ("the Property").
WHEREAS, The Property 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 November 24, 2016. The pre-treatment device being installed is Noccess TMUP 750 GPP.
NOW, THEREFORE, the parties hereto agree as follows:
A. Owner hereby grants to the County the right to enter upon the Property at any reasonable time with prior notice 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.
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 Property 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 Property that the system shall require maintenance or other attention. Upon taking title to the Property, 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 this agreement on the date indicated above.

Howard County Health Department		
Owner #1 Signature Date	Owner#2 Signature Date	2
Jessica Winkles Owner #1 Print Name	Owner #2 Print Name	
Buyer #1 Signature Date	Buyer #2 Signature Date	
Buyer #1 Print Name	Buyer #2 Print Name	



B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS Definition:
The process of preparing the soils to sustain adequate vegetative stabilization. Purpase:
To provide a suitable soil medium for vegetative growth. Conditions Where Practice Applies: Where vegetative stabilization is to be established A. Soil Preparation
1. Temporary Stabilization
a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable
a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable
a. 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.

b. Apply fertilizer and lime as prescribed on the plans. Incorporate time and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

Permanent Stabilization a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are. Soil pH between 6.0 and 7.0. i. Soluble salts less than 500 parts per million (ppm) iii. 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.
iv. Soil contains 1.5 percent minimum organic matter by weight,
iv. Soil contains 1.5 percent minimum organic matter by weight, v. Soil contains sufficient pare space to permit adequate root penetration.
b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions. 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. B.13

d. 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 lown 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 requipment to roughen the surface where site conditions will not 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. Topsoiling
Topsoil is placed over prepared subsoil prior to establishment of permonent vegetation. The 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 gradation.

2. Topsoil salvaged from an existing site may be used provided if 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.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible. d. The soil is so accele that treatment with limestone is not teasible.

4. Areas having slopes steeper than 2:1 require special consideration and design.

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

a. 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, stag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.

5. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison by, thistle, or others as specified.

c. Topsoll 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. 6. Topsoil Application
a. Erosion and sediment control practices must be maintained when applying topsoil.
b. 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 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.

c. 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 detrimental to proper grading 8.14 and seedbed preparation. 1. Soil tests must be performed to determine the exact ratios and application rates for both time and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Sail samples taken for engineering purposes may also be used for chemical analyses.

2. Fertilizers must be uniform in composition, free flowing and suitable for occurate 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 warronty of the producer. 3. 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 magnesium 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.
4. 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.

5. 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.

Hardiness Zone (from Figure B.3): __6b

Hardiness Zone (from Figure B.3): 6b Seed Mixture (from Table B.3): 11

PROFILE

PLAN VIEW

MARYLAND STANDARDS AND SPECYFICATIONS FOR SQU. EROSION AND SEDIMENT CONTROL

50 FT MIN.

20

DETAIL B-1 STABILIZED CONSTRUCTION

ENTRANCE

CONSTRUCTION SPECIFICATIONS

Seeding Dales

Seeding Dates

JUNE 1 - JULY 31 0.5 INCHES

Seeding Depths

1/4-1/2 in

1/4-1/2 in

1/4-1/2 in

-EARTH FILL

-PIPE (SEE NOTE 6)

Seeding Depths

0.5 INCHES

45 pounds

per acre

(1.0 lb/

1000 sf)

Seed Mixture (from Table B.1):

Species

RYEGRASS

No. | Species

Application Rate (1b/ac)

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.

All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject 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 8.4 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.
c. 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. Nate: 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.

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.

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 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 sail contact. 8.16 b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with sail.

L. 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.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). 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 time. Do not use burnt or hydroseed lime when hydroseeding.

Si. Mix seed and fertilizer on site and seed immediately and without interruption. . When hydroseeding do not incorporate seed into the soil. Mulch Materials (in order of preference)

a. Straw consisting of thoroughly threshed wheat, rye, out, or barley and reasonably bright in color. Straw is to be free of naxious 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 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 provide an appropriate color to facilitate visual inspection of the uniformly spread sturry. ii. WCFM, including dye, must contain no germination or growth inhibiting factors.

iii. WCFM including dye, must contain no germination or growth inhibiting factors.

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 absorpt and percolation properties and must cover and hold grass seed in contact with the soi 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, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum. B.17 . Apply mulch to all seeded areas immediately after seeding. b. When straw mulch is used, spread it over all seeded areas at the rote 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 polication rate to 2.5 tons per acre.

. Wood dellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood callulose fiber with water to officin a mixture with a maximum of 50 pounds wood cellulose fiber per 100 gallons of water. Anchoring . 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 pon the size of the area and erosion hazard:

i. 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 safety. If used an sloping land, s practice should follow the contour. Wood cellulase 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, 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 at the edges where wind cotches mislich, 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.

Lime Rate

2 tons/ac

Lime Rate

(90 lb/

Fertilizer Rate

436 lb/ac

(2lb/1000 sf) | lb/1000 sf)

Fertilizer Rate (10-20-20)

P205

90 lb/oc

(10-20-20)

(10 lb/1000 sf) (90 lb/1000 sf)

K20

90 lb/ac (90 | 2 tons/ac

HOWARD SOIL CONSERVATION DISTRICT 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 area marked clearly in the field. A minimum of 48 hour notice to CID must be given a the 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 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. 8-4-2, permanent seeding (Sec. 8-4-5), temporary seeding (Sec. 8-4-4) 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 credible greas shall receive soil stabilization matting (Sec. B-4-6).

5) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been abtained from the CID.

6) Site Analysis: Total Area of Site Area Disturbed 37 Acres. Area to be roofed or paved 0.35 Acres. 0.32 Acres. Area to be vegetatively stabilized Offsite waste/borrow area location

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 * 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

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 HSCO-approved field changes. 1) Disturbance shall not occur outside the LO.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 HCSC, no more than 30 acres cumulatively may be disturbed at a given time.

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.

12) Wash water from any equipment, vehicles, wheels, pavement, and other sources must be

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 N 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 is active.

B-4-8 STANDARDS AND SPECIFICATIONS STOCKPILE AREA

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Construction Activities (NPDES, MDE).

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and

Conditions Where Practice Applies
Stockpile areas are utilized when it is necessary to solvinge and store soil for later use.

1. The stockolle location and all related sediment control practices must be clearly indicated on the erosion and sediment

control plan.

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.

3. Runoff from the stockpile area must drain to a suitable sediment control practice.

4. Access the stockpile area from the upgrade side.

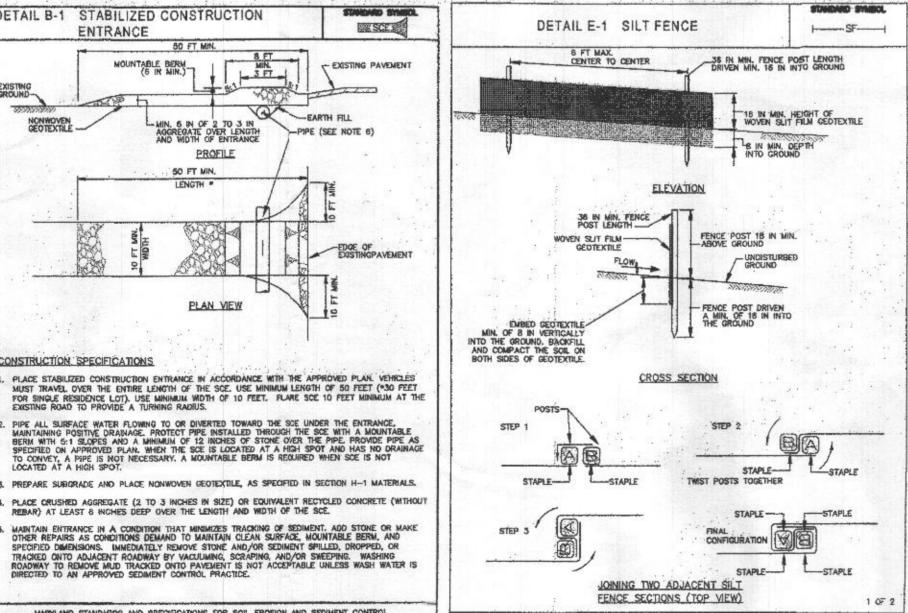
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erasive manner.

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. 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. tockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance

The stackpile 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 2:1 ratio. The stackpile area must be kept free of erasion. If the vertical height of a stackpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slapes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

B-4-5 STANDARDS AND SPECIFICATIONS PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed

Conditions Where Practice Applies xposed soils where ground cover is needed for 6 months or more

Seed Mbdures 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 8.3) and based on the site condition or purpose found on

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. b. 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 Guide, Section 342 - Critical Area Planting.

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. 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

shown in the Permanent Seeding Summary. Turferass 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 of purpose. 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.

2. Sod Installation

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod. 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 is 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 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.

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 irrigating for any piece of sod within eight hours.

ii. Kentucky Bluegrass/Perennial Rve: Full Sun Mixture: For use in full sun areas whererapid establishment is necessary and when turf will receive medium to management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass

Rate: 2 pounds 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 iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas

for 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. lv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in

v. 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: 1½ to 3 pounds per 1000 square feet.

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland" 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. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

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 1½ inches in diameter. The resulting seedbed must be in such condition

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

that future mowing of grasses will pose no difficulty. e. If soll moisture is deficient, supply new seedings with adequate water for plant growth (% to 1 inch 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. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

General Specifications Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.

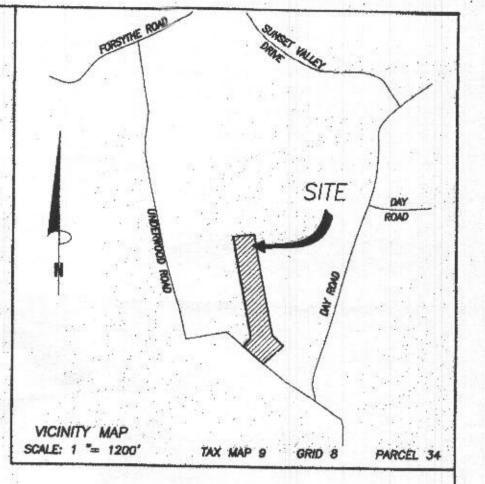
Sod must be machine cut at a uniform soil thickness of % inch, plus or minus % inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable. ik. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the

upper 10 percent of the section. il. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

Im. 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

> PROFESSIONAL CERTIFICATION hereby certify that these documents were prepared or approved by me,

and that I am a duly licenced professional engineer under the laws of the State of Maryland, License No. 18417. Expiration Date: 9-18-21.



SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL REQUIRED GRADING, MDE PERMITS, APPROVALS AND LICENSES FROM APPROPRIATE AGENCIES. (1 WEEK)

2. NOTIFY SEDIMENT CONTROL INSPECTOR AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING WORK. (1 WEEK)

3. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE AND OTHER SEDIMENT CONTROL DEVICES AS SHOWN IN THE SEDIMENT ONTROL PLAN. (2 WEEKS)

4. STABILIZE ALL THE GRADED AREAS UP TO 20' OUTSIDE OF THE LIMIT OF GRADING AS PER PERMANENT SEEDING NOTES. (3 WEEKS) 5. EXCAVATE HOUSE FOUNDATION, HOUSE CONSTRUCTION, UTILITIES AND

NSTALL SEPTIC. (2 WEEKS) 6. ANY AREAS THAT CAN BE TEMPORARILY SEEDED DURING CONSTRUCTION

MUST BE TEMPORARILY STABILIZED PER SEEDING NOTES. INSTALL DRIVEWAY. (2 WEEKS)

8. CONSTRUCT M-6 MICRO BIO-RETENTION FACILITY 9. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR: REMOVE ALL

10. NOTIFY INSPECTOR FOR FINAL INSPECTION. (1 WEEK)

TEMPORARY SEDIMENT CONTROL DEVICES FOR HOUSE CONSTRUCTION. (1 WEEK)

DUST CONTROL

FROM EXPOSED SOIL SURFACES: CALCIUM CHLORIDE SHALL BE APPLIED TO EXPOSED SURFACES AT A RATE THAT WILL KEEP SURFACE MOIST UNTIL SOIL IS STABILIZED ACCORDING TO VEGETATIVE SPECS. FOR THIS SITE AND AREAS TO BE PAVED ARE COMPLETED.

DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES

STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR

TEMPORARY STOCKPILE NOTE

SITE EARTHWORK HAS BEEN BALANCED SUCH THAT A TEMPORARY STOCKPILE SHOULD NOT BE NECESSARY. SHOULD CONTRACTOR DECIDE TO USE A STOCKPILE. CONTRACTOR SHALL PLACE STOCKPILE ON SUITABLE AREA OF THE SITE AND FOLLOW TEMPORARY STABILIZATION NOTES.

DEVELOPER'S CERTIFICATE:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

5/26/21 DATE

1/26/2021

SCALE: AS SHOWN

ENGINEER'S CERTIFICATE:

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT AND THE 2011 MARKAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

THOMPSON, P RONALD THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

WARD SOIL CONSERVATION DISTRICT

TAX MAP: 9 GRID NO: 8 PARCEL NO: 34 MONAL

DATE REVISIONS

PLOT PLAN & SEDIMENT CONTROL PLAN GOOD NEIGHBORHOOD

1431 UNDERWOOD ROAD PLAT #19999

ELECTION DISTRICT: No. 3 HOWARD COUNTY, MARYLAND

VANMAR ASSOCIATES, INC. Engineers Surveyors Planners 310 South Main Street Mount Airy, Maryland 21771

DATE: MAY 2021 EX. ZONING: RC-DEO SHEET 2 OF 2 (301) 829-2890 (301) 831-5015 (410) 549-2751 vanmar.com Fax (301) 831-5603 @Copyright, Latest Date Shown

 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. PLANE SCE 10 FEET MINIMUM AT THE
EXISTING ROAD TO PROVIDE A TURNING RADIUS. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SOE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAWAGE, 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 DRAWAGE 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 8 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

