

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

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

RECEIPT DATE: 11/23/16 **ONSITE SEWAGE DISPOSAL SYSTEM** P 559850

APPROVAL DATE: 12/15/16 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 5319 Catalpa Court

SUBDIVISION: Walnut Creek LOT: 95 TAX ID: 05-597904

CONTRACTOR: Hatfield's Equipment EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 20701 PHONE: 301-490-4289

PROPERTY OWNER: BV Business Trust EMAIL: _____

OWNER ADDRESS: 15950 P.O. Box 482 PHONE: 410-489-7900

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Babylon

PUMP MODEL: N/A PUMP SIZE N/A PUMP TANK CAPACITY: N/A

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>187.5</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

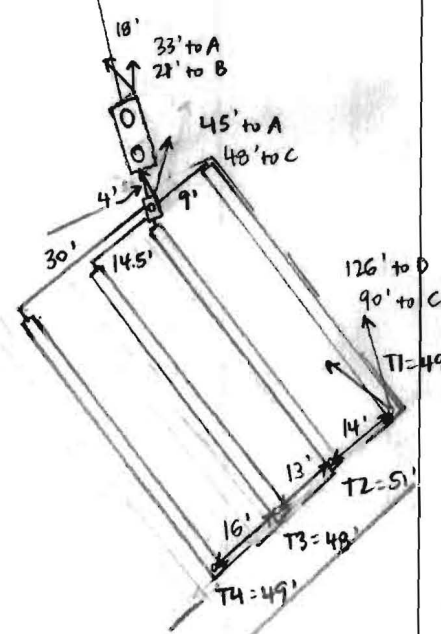
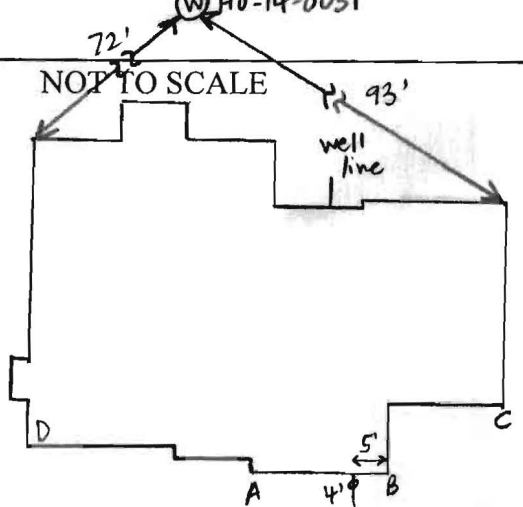
ISSUED BY: Robert Freemon ISSUE DATE: 12/14/16 EXPIRATION DATE: 12/14/17

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- 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 TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM
 ELECTRICAL PERMIT ISSUED E 16005944
- 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.**

W10-14-0031

NOT TO SCALE



ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES		4
TOTAL LENGTH		197'
ABSORPTION AREA		591' + SIDEWALL
DISTRIBUTION BOX LEVEL		YES
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	2-2.5'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	YES
DATE ON LID	9-14-16

PUMP/SEPTIC TANK LEVEL

MANUFACTURER	
CAPACITY	GAL
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

PRE-CONSTRUCTION:

12/1/16 (See layout notes on older permit issued 12/1/16)

INSTALLATION:

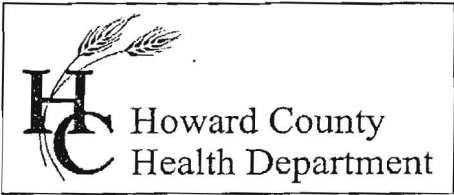
12/14/16 Tank set and house connection made. D-box installed and pipe laid from tank to D-box. Hatfield's starting to dig trenches. (SC) 12/15/16 Trenches finished, T1 left open and T2-T4 left open at ends. 3' wide, 3.5-4' to stone. Levelled speed levelers in D-box. (SC)

FINAL INSPECTOR

Sarah Collins

DATE OF APPROVAL

12/15/16



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

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

RECEIPT DATE: 11/23/16 **ONSITE SEWAGE DISPOSAL SYSTEM** P 559850
 APPROVAL DATE: _____ **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 5319 Catalpa Court
 SUBDIVISION: Walnut Creek LOT: 95 TAX ID: 05-597904
 CONTRACTOR: Hatfield's Equipment EMAIL: ken@hatfieldsequipment.com
 CONTRACTOR ADDRESS: P.O. Box 519 / Annapolis Junction, MD 20701 PHONE: 301-490-4289

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:

PROPERTY OWNER: BV Business Trust EMAIL: _____
 OWNER ADDRESS: 15950 North Ave / P.O. Box 482 PHONE: 410-489-7900

BAT UNIT MODEL: Norweco TNTLP 750 PUMP SIZE: N/A PUMP TANK CAPACITY: N/A

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 10/17/16 DATE RECORDED: 10/17/16

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>187.5</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Robert Freemon ISSUE DATE: 12/1/16 EXPIRATION DATE: 12/1/17

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- 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 DOWNGRADE FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM
 ELECTRICAL PERMIT ISSUED E 16665944
- NOTE: 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

OLD
Approved BAT
Plan. Switched
to conventional
Septic tank.

ROAD NAME

TRENCH/DRAINFIELD DATA
WIDTH INLET BOTTOM

NUMBER OF TRENCHES _____
TOTAL LENGTH _____
ABSORPTION AREA _____
DISTRIBUTION BOX LEVEL _____
DISTRIBUTION BOX BAFFLE _____
DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK I LEVEL _____
MANUFACTURER _____
CAPACITY _____ GAL
SEAM LOC _____
TANK LID DEPTH _____
BAFFLES _____
BAFFLE FILTER _____
MANHOLE LOC _____
6" PORT LOC _____
WATERTIGHT TEST _____
SLOTTED _____
DATE ON LID _____

PUMP/SEPTIC TANK LEVEL _____
MANUFACTURER _____
CAPACITY _____ GAL
SEAM LOC _____
TANK LID DEPTH _____
BAFFLES _____
BAFFLE FILTER _____
MANHOLE LOC _____
6" PORT LOC _____
WATERTIGHT TEST _____
SLOTTED _____
DATE ON LID _____

PRE-CONSTRUCTION:

12/1/16 Met Hatfield's on site for layout. All SDA stakes + BAT tank stake present. Shot contour and laid out 4 x 47' trenches on contour. Builder wants to install conventional tank, not BAT - need plans redlined + approved before tank install. Okay to dig trenches until plans are revised. (Sc)

INSTALLATION:

FINAL INSPECTOR _____ DATE OF APPROVAL _____



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 17th day of October, 2016, among
/ Mitchell Best Next Door LLC, 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
5319 Catalpa Ct. Ellicott City, MD, in the 5th 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 # 28, Block # -, Parcel # 49, Deed
Reference # and Tax Account # 05-59794 ("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 January 1, 2013. The pre-treatment device being installed is
Norweco Model TNTLP-750GPD.

20
40
LS

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 a
advanced pre-treatment system. The owner shall supply a copy of the contract to the County
when it is renewed or altered.

1W 2/22/2016

119

LR - Agreement 20.00
Recording Fee 20.00
Grantor/Grantee Name:
mitchell best
Reference/Control #:
119
LR Agreement 40.00
Surcharge 60.00
Total: 60.00
10/17/2016 12:46
CC13-LS
27182682 CC0503 -
Howard Co
Columbia/CC05.03.08 -
Register 08

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 and sealed this agreement on the date indicated above.

Michael J. Davis 10/24/16
/Howard County Health Department

[Signature] 10/24/16
Owner #1 Signature Date

Mark Quint - Mitchell & Best Next Door LLC
Operations Mgr.
Owner #1 Print Name

Owner #2 Signature Date

Owner #2 Print Name

[Signature] 10.19.16
Buyer #1 Signature Date

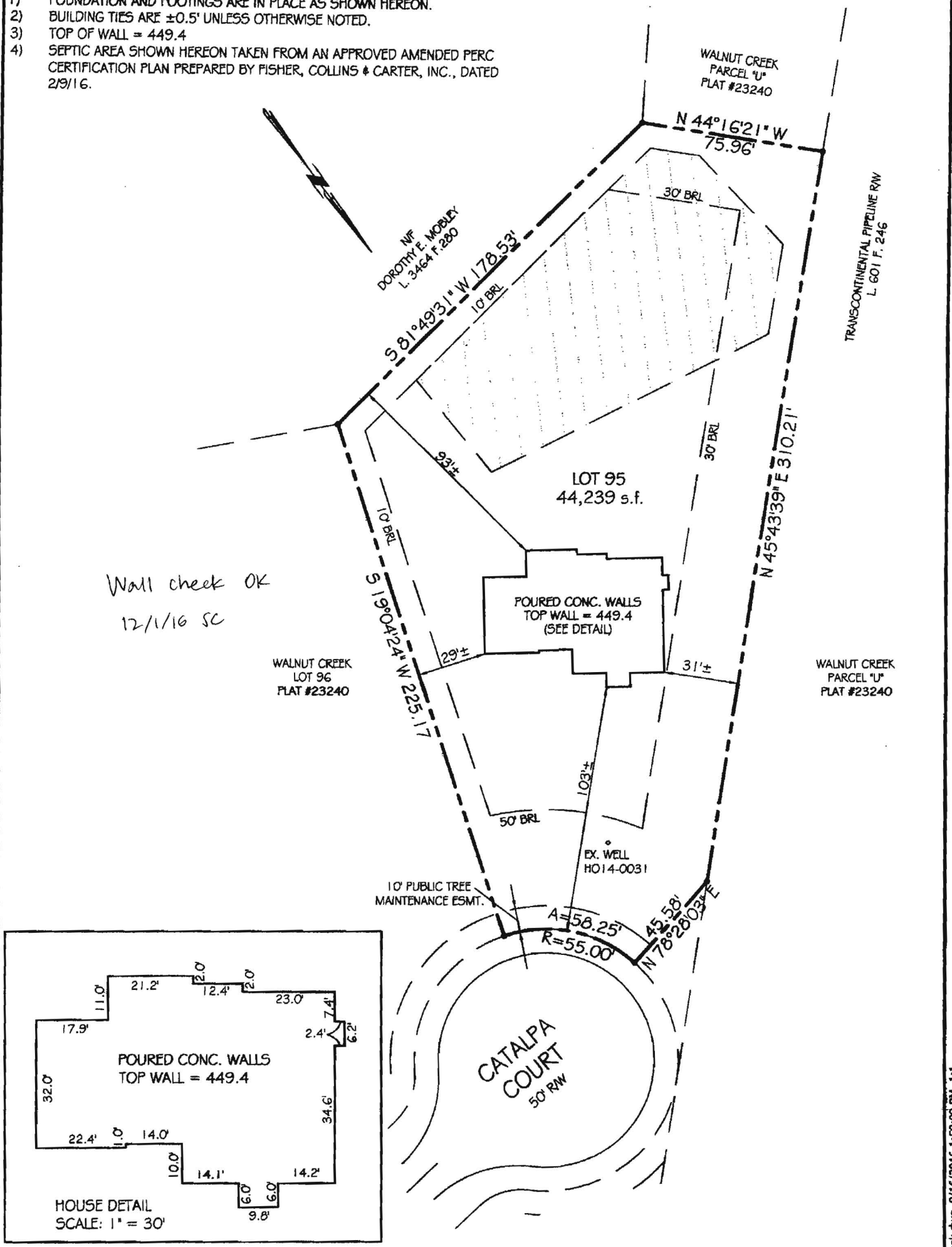
X Rebecca Huddle 10.19.16
Buyer #2 Signature Date

Matthew Huddle
Buyer #1 Print Name

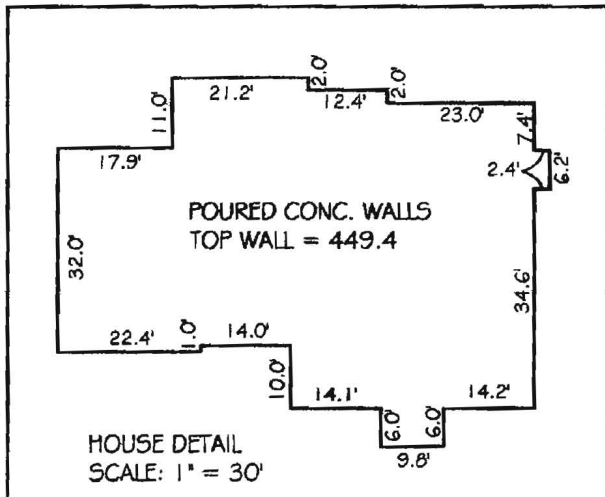
Rebecca Huddle
Buyer #2 Print Name

NOTES:

- 1) FOUNDATION AND FOOTINGS ARE IN PLACE AS SHOWN HEREON.
- 2) BUILDING TIES ARE ±0.5' UNLESS OTHERWISE NOTED.
- 3) TOP OF WALL = 449.4
- 4) SEPTIC AREA SHOWN HEREON TAKEN FROM AN APPROVED AMENDED PERC CERTIFICATION PLAN PREPARED BY FISHER, COLLINS & CARTER, INC., DATED 2/9/16.



Wall check OK
12/1/16 SC



PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21097, EXPIRATION DATE JULY 26, 2017, IN ACCORDANCE WITH COMAR 09.13.06.12

Thomas L. Frazier, Jr.
 For VanMar Associates, Inc.
 Thomas L. Frazier, Jr., Professional Land Surveyor
 Date 9/16/16

**WALL CHECK DRAWING
 LOT 95, PHASE THREE
 WALNUT CREEK**

PLAT #23240
 5319 CATALPA COURT
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND
 SCALE: 1" = 50' SEPTEMBER, 2016

I CERTIFY THIS PLAT TO BE CORRECT AND IS THE RESULT OF AN ACTUAL FIELD SURVEY, BASED ON DATA FOUND AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND, AS REFERENCED HEREON.



VANMAR ASSOCIATES, INC.
 Engineers Surveyors Planners
 310 South Main Street Mount Airy, Maryland 21771
 (301) 829-2890 (301) 831-5015 (410) 549-2751
 vanmar.com ©Copyright, Latest Date Shown

REFERENCE	JOB NO.
PLAT NO. 23240	B6-5571

C:\Autodesk\Jobs\B6-5571 Walnut Creek\Draw\B6-5569 Walnut Creek.dwg, 9/16/2016 1:50:09 PM, 1:1

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.

Purpose: To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies: Where vegetative stabilization is to be established.

- Criteria: A. Soil Preparation 1. Temporary Stabilization a. Seeding preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...

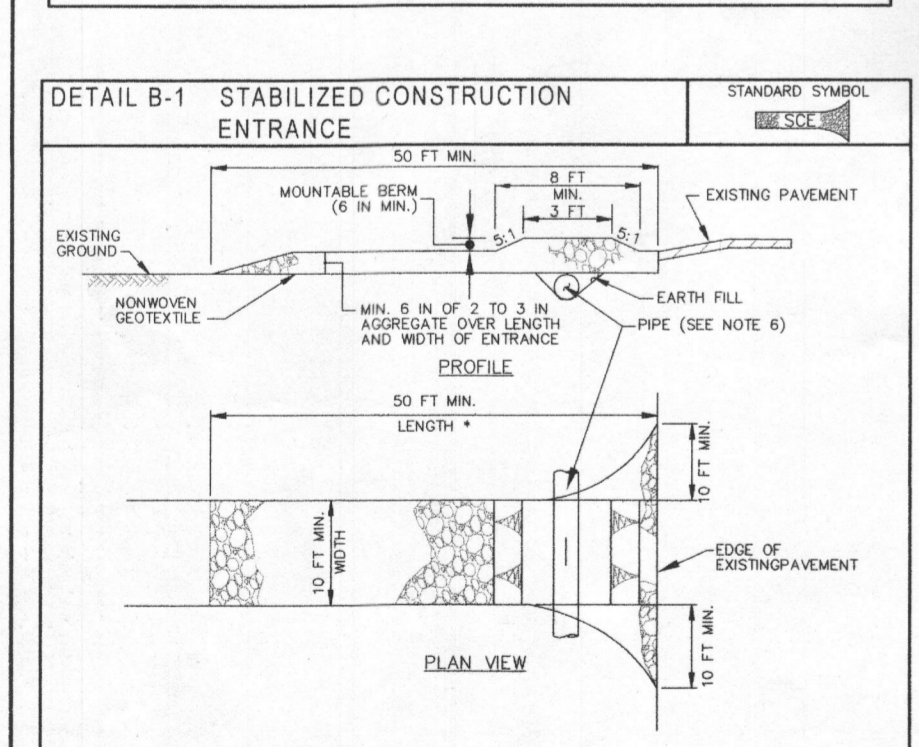
- 2. Application a. Incorporate seed into the subsoil of the notes prescribed on Temporary Seeding Table B.1. b. Permanent Seeding Table B.3, or site-specific seeding summaries. c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seeds and fertilizer)...

TEMPORARY STABILIZATION SPECIFICATIONS TABLE. Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths, Fertilizer Rate (10-20-20), Lime Rate.

PERMANENT STABILIZATION SPECIFICATIONS TABLE. Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths, N, P205, K20, Lime Rate.

DUST CONTROL. DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES...

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, SLOPES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1)...



- CONSTRUCTION SPECIFICATIONS 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTRANCE PORTION OF THE SIDE USE MINIMUM LENGTH OF 50 FEET (15 METERS) FOR SINGLE ENTRANCE (LOT) USE MINIMUM WIDTH OF 10 FEET. FLARE SIDE TO FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

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

Definition: The application of seed and mulch to establish vegetative cover.

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

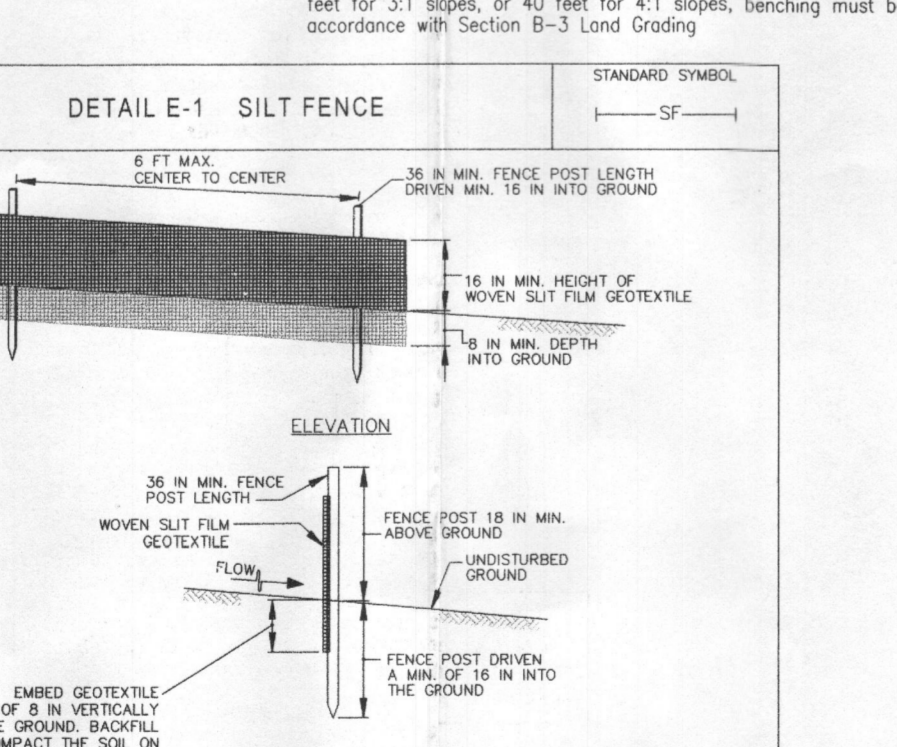
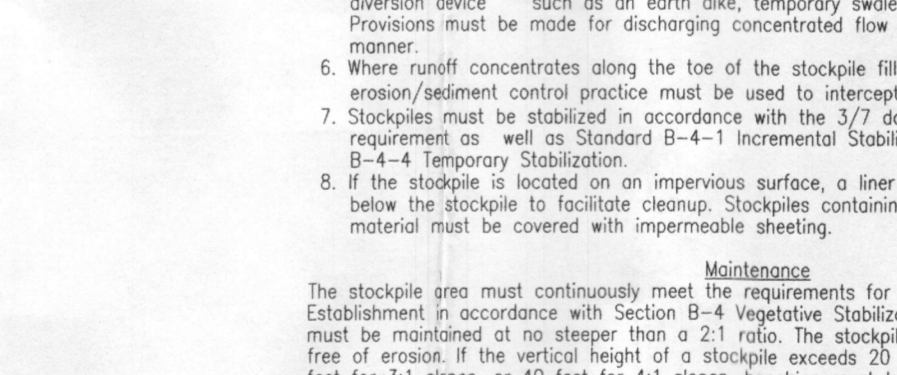
Conditions Where Practice Applies: To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

- Criteria: A. Seeding 1. 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 testing agency...

- 2. Application a. Drilling: This includes use of conventional row or broadcast seeders. b. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seeds and fertilizer)...

TEMPORARY STOCKPILE NOTE. SITE EARTHWORK HAS BEEN BALANCED SUCH THAT A TEMPORARY STOCKPILE SHOULD NOT BE NECESSARY. SHOULD CONTRACTOR DECIDE TO USE A STOCKPILE...

STANDARD STOCKPILE NOTE. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.



- 1. OBTAIN ALL REQUIRED GRADING, MDC PERMITS, APPROVALS AND LICENSES FROM APPROPRIATE AGENCIES. 2. NOTIFY SEDIMENT CONTROL INSPECTOR AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING WORK.

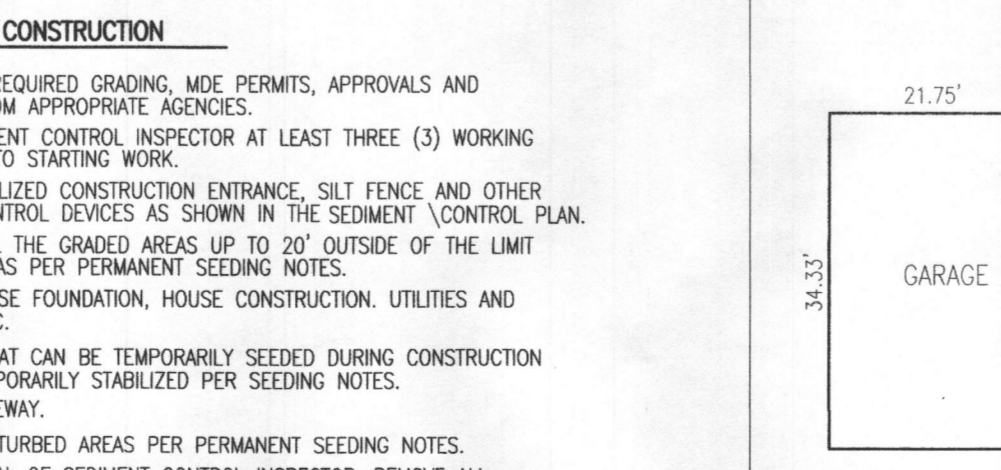
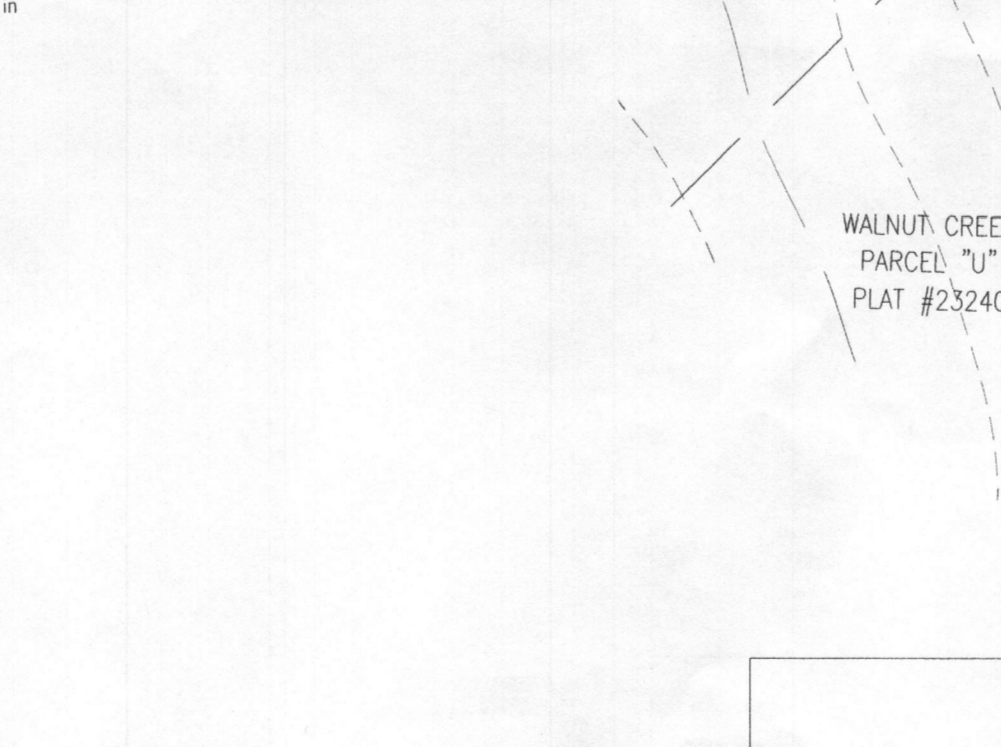
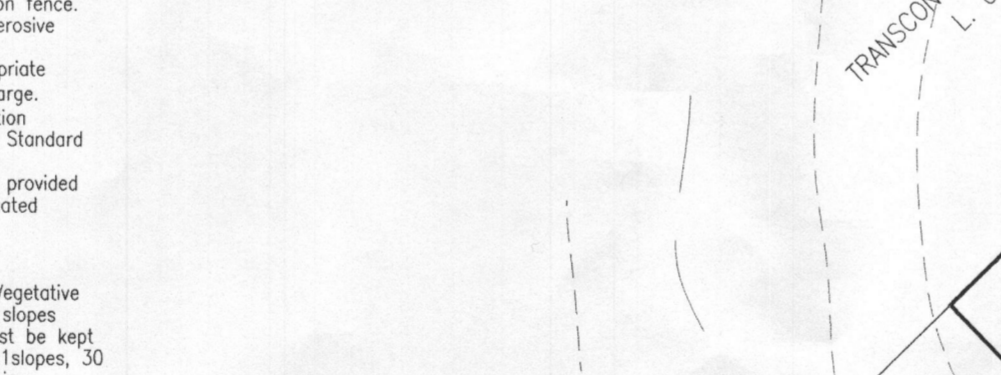
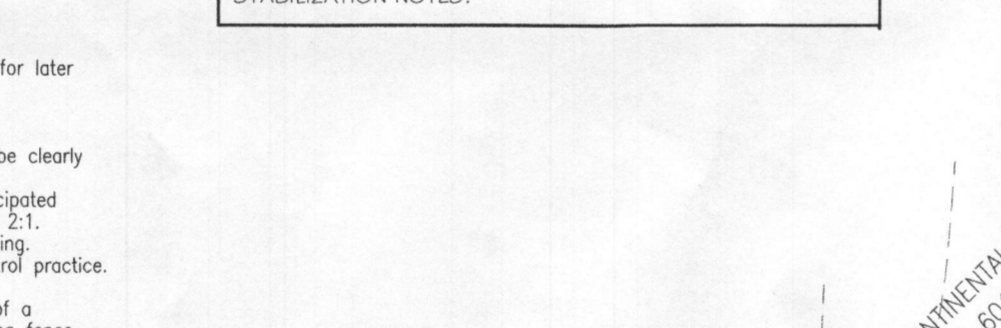
HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- 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...

- 6. Site Analysis: Total Area of Site: 1.02 Acres. Area to be vegetated or paved: 0.13 Acres. Area to be vegetatively stabilized: 0.36 Acres. Total Cut: - Cu. Yds. Total Fill: - Cu. Yds.

- 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...

- 13. Top soil shall be stockpiled and preserved on-site for redistribution into 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 cutted uphill by 2' in elevation.



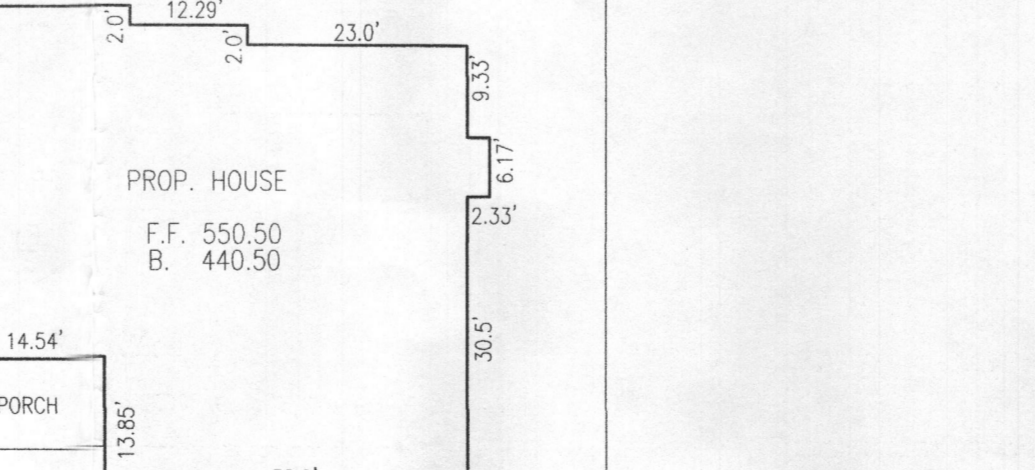
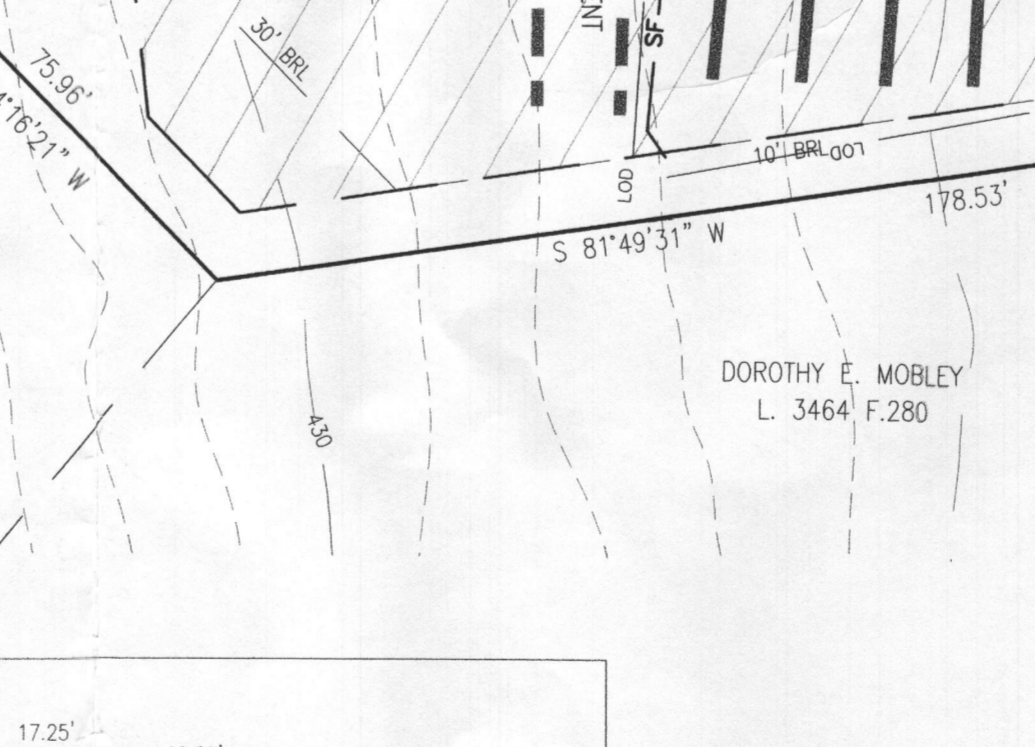
SEPTIC SYSTEM TRENCH DESIGN

Table with columns: INITIAL NUMBER OF BEDROOMS, APPLICATION RATE, DESIGN FLOW, TRENCH 1, TRENCH 2, TRENCH 3, TRENCH 4. Includes values for 6 bedrooms and 900 GPD flow.

BAT SITE PLAN NOTES: 1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.

DEVELOPER'S CERTIFICATE: I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF EROSION AND SEDIMENT CONTROL...

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...



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.

Purpose:
To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies:
Where vegetative stabilization is to be established.

Criteria:

- Soil Preparation**
 - Temporary Stabilization
 - Seeded 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 ripers mounted on construction equipment. After the soil is loosened, it must 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 plan.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
 - 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:
 - 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 all plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if leucosts will be planted, then a sandy soil less than 30 percent all 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 flat and even grade as specified on the approved plan. Then scarified or otherwise loosened to a depth of 3 to 5 inches. 8:1:3.
 - 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. Roll down 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 seeded 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. Seeded loosening may be unnecessary on newly disturbed areas.
- Topsoiling**
 - Topsoil is placed over prepared subsoil prior to establishment of permanent 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.
 - 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 applied 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 further containing 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: Topsoil must be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, or silty 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 organic matter, coarse sand, coarse gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free of noxious weeds 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 topsoil.
 - Topsoil 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 of 4 inches. Spreading is to be performed in such a manner that adding 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 ponds.
 - 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 B.14 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 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 which is substituted except when hydroxydizing 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 #200 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 topsoil.

TEMPORARY STABILIZATION SPECIFICATIONS TABLE

Hardness Zone (from Figure B.3): Sb
Seed Mixture (from Table B.1):

No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)	Lime Rate
ANNUAL RYEGRASS	40	MAR. 1 - MAY 15 AUG. 1 - OCT. 15	0.5 INCHES	436 lb/acre (10 lb/1000 sq ft)	2 tons/acre (90 lb/1000 sq ft)	
PERENNIAL RYEGRASS	30	JUNE 1 - JULY 31	0.5 INCHES			

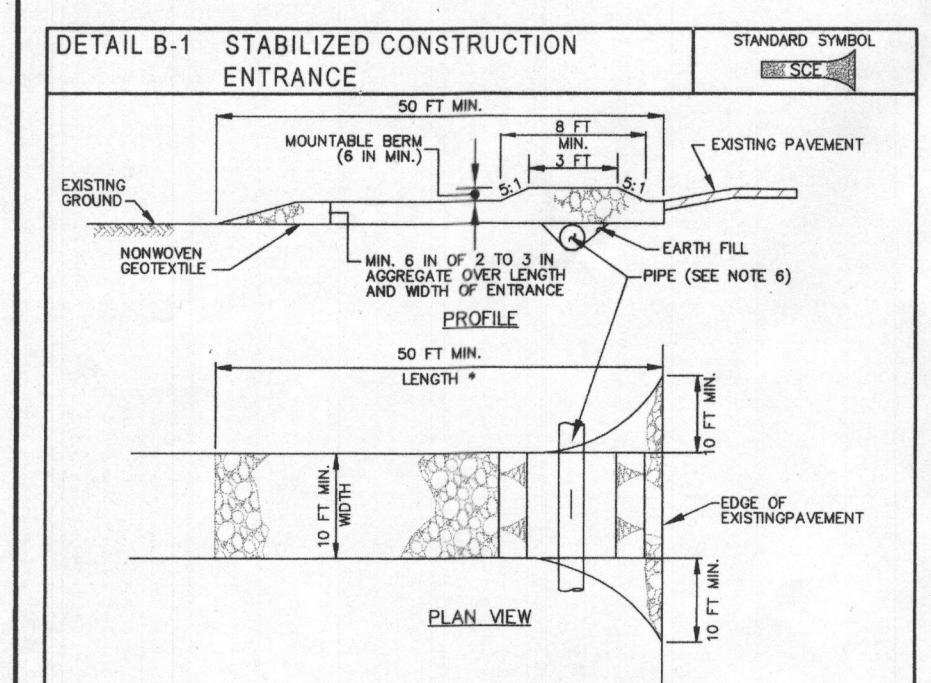
PERMANENT STABILIZATION SPECIFICATIONS TABLE

Hardness Zone (from Figure B.3): Sb
Seed Mixture (from Table B.3): 11

No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths	N	P205	K20	Lime Rate
PERENNIAL BROMEGRASS	20	MAR. 1 - MAY 15 AUG. 1 - OCT. 15	1/4 - 1/2 in 1/4 - 1/2 in 1/4 - 1/2 in	45 pounds per acre (10 lb/1000 sq ft)	80 lb/acre (20 lb/1000 sq ft)	90 lb/acre (90 lb/1000 sq ft)	2 tons/acre (900 lb/1000 sq ft)	

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

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.



CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE SIZE 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. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SOE WITH A MOUNTABLE BERN WITH 6:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SOE IS LOCATED AT A HIGH SPOT AND NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERN IS REQUIRED WHEN SOE 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 SOE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT AND STONE OR MAKE OTHER PREPARED AS CONDITIONS DEMAND TO MAINTAIN CLEAR SURFACE. MOUNTABLE BERN, AND OTHER SPECIFIED DEVICES, IMMEDIATELY REMOVE STONE AND SEDIMENT. WASHED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAYS BY VEHICLES, SCRAPERS, AND/OR SLEEPING. WASHING ROADWAY TO REMOVE AND TRACKED ONTO ADJACENT ROADWAYS IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

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

Definition:
The application of seed and mulch to establish vegetative cover.

Purpose:
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.

Criteria:

- Seeding**
 - Specifications
 - 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 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 tests must be available upon request to the inspector to verify type of seed and seeding rate.
 - 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 after 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. 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 use. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
 - Soil 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 phytotoxic materials.
 - Application
 - 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.
 - 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
 - Use of Gullipacker Seeding: Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide for 1/4 inch of soil covering. Seeder must be firm after seeding.
 - 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 O5 (phosphorus), 200 pounds per acre; K2 O (potassium), 200 pounds per acre.
 - 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 sulfur or hydrated lime when hydroseeding.
 - Mix seed and fertilizer on site and seed immediately and without interruption.
 - When hydroseeding do not incorporate seed into the soil.
 - Mulching
 - Mulch Materials (in order of preference)
 - 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 areas where one species of grass is desired.
 - Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - 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 spreading slurry.
 - WCFM, including dye, must contain no germination or growth inhibiting factors.
 - 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 porosity properties and must cover and hold ground grass in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material must not contain elements or compounds at concentrations levels that will be phytotoxic.
 - 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 50 percent minimum. B.17
 - Application
 - Apply mulch to all seeded areas immediately after seeding.
 - When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform soe depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is a minimum of 2 inches. This practice is most effective on steep areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour of the slope.
 - 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.
 3. 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 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 steep areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour of the slope.
 - 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 (Ago-Tech), DCA-70, Pelotex, Terra Tex 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 catches much as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
 - Lightweight plastic netting may be stretched 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.

B-4-8 STANDARDS AND SPECIFICATIONS

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 WITHIN THE ORIGINALLY APPROVED L.O.D. AND FOLLOW TEMPORARY STABILIZATION NOTES.

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

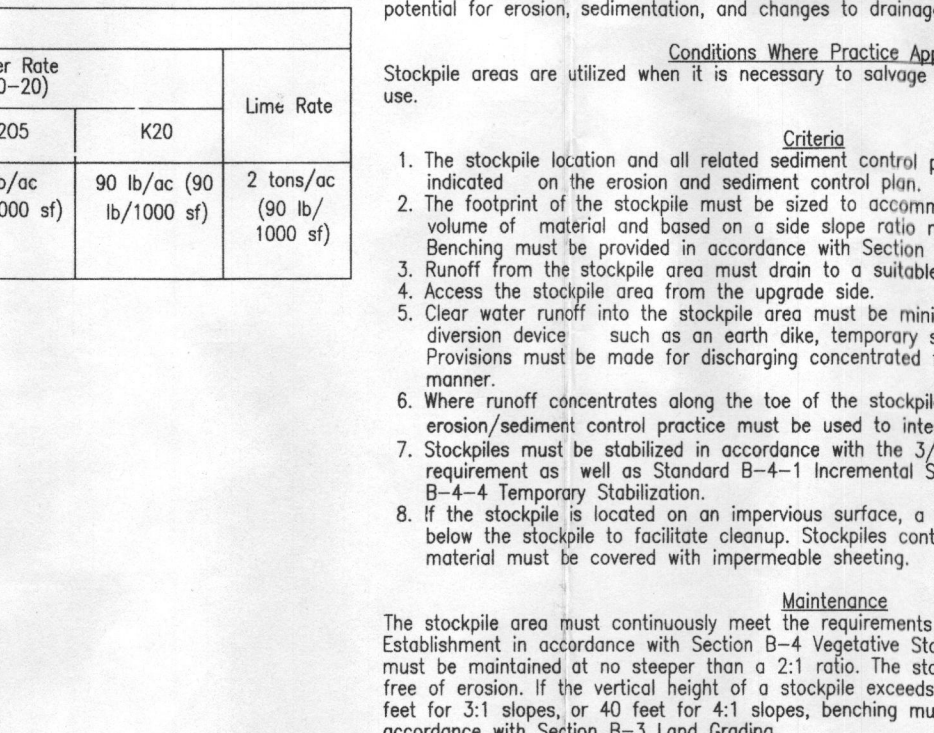
PURPOSE:
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

CONDITIONS WHERE PRACTICE APPLIES:
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

CRITERIA:

- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- 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.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- 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 weevil or diversion fence. Provisions must be made for discharging concentrated flow in a non-erodive 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 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.
- 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 impermeable sheeting.

MAINTENANCE:
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 2:1 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.



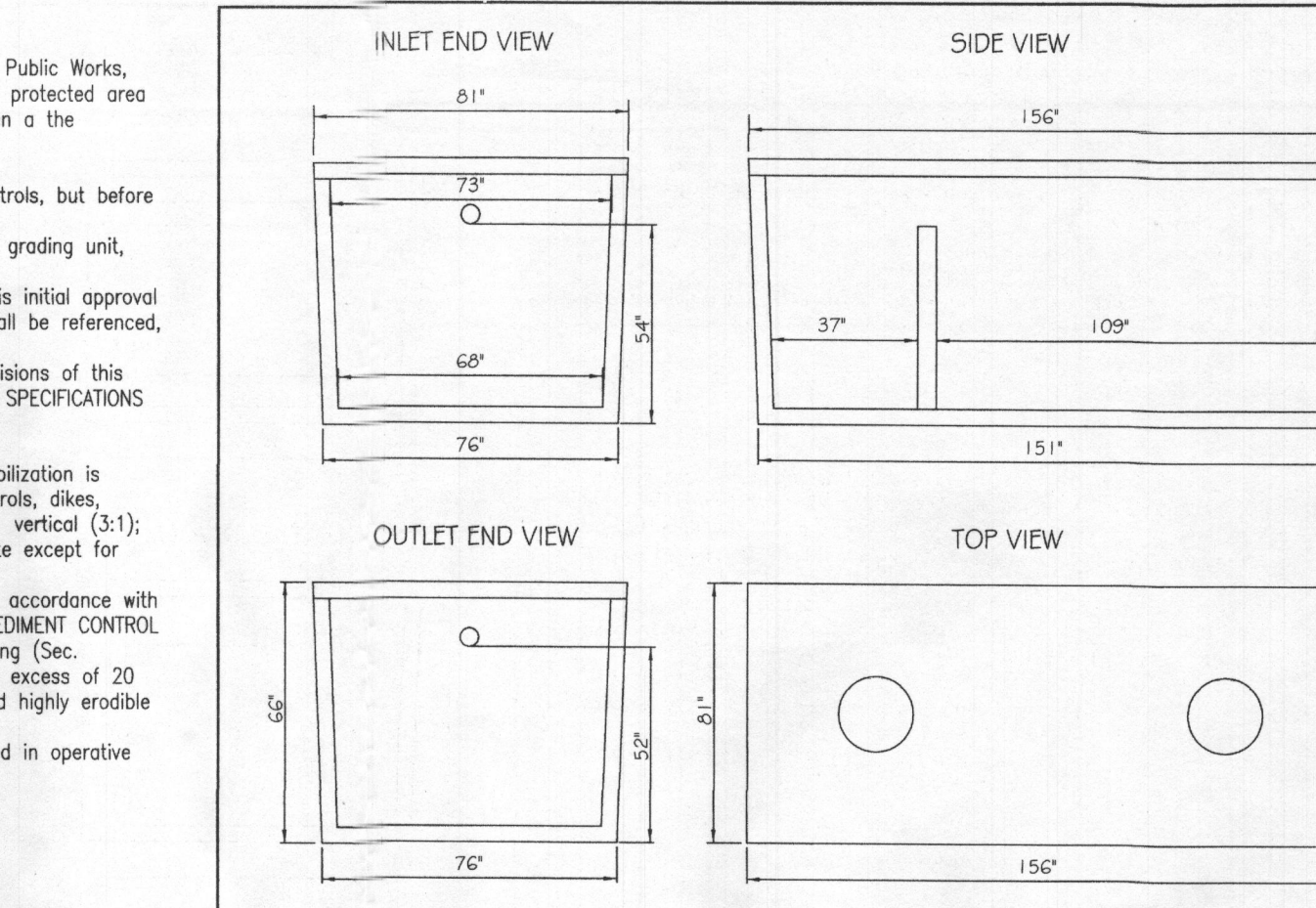
SEQUENCE OF CONSTRUCTION

- OBTAIN ALL REQUIRED GRADING, MDC PERMITS, APPROVALS AND LICENSES FROM APPROPRIATE AGENCIES.
- NOTIFY SEDIMENT CONTROL INSPECTOR AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND OTHER SEDIMENT CONTROL DEVICES AS SHOWN IN THE SEDIMENT CONTROL PLAN.
- STABILIZE ALL THE GRADED AREAS TO 10' OUTSIDE OF THE LIMIT OF GRADING AS PER PERMANENT SEEDING NOTES.
- EXCAVATE HOUSE FOUNDATION, HOUSE CONSTRUCTION, UTILITIES AND INSTALL SEPTIC.
- ANY AREAS THAT CAN BE TEMPORARILY SEEDING DURING CONSTRUCTION MUST BE TEMPORARILY STABILIZED PER SEEDING NOTES.
- INSTALL DRIVEWAY.
- STABILIZE DISTURBED AREAS PER PERMANENT SEEDING NOTES.
- UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT CONTROL DEVICES FROM HOUSE CONSTRUCTION.
- NOTIFY INSPECTOR FOR FINAL INSPECTION.

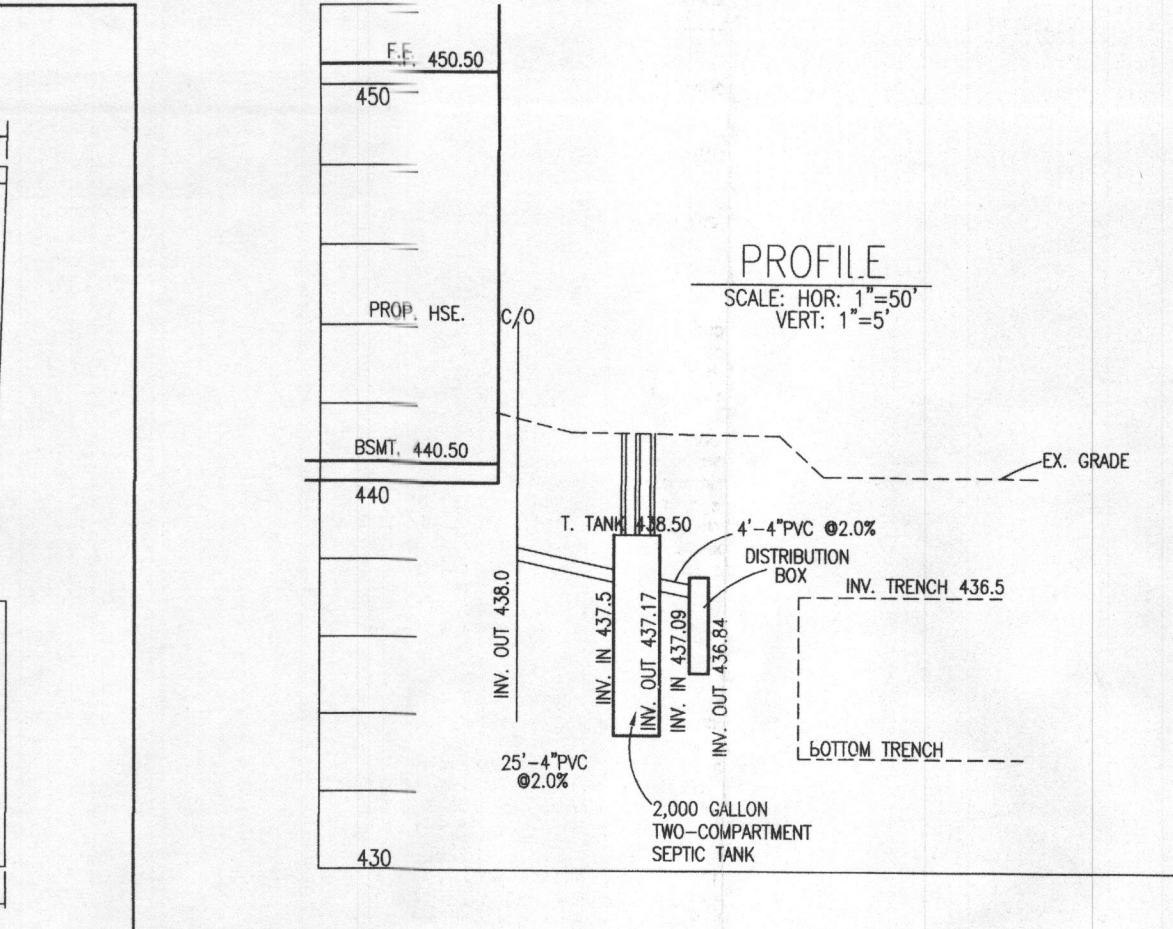
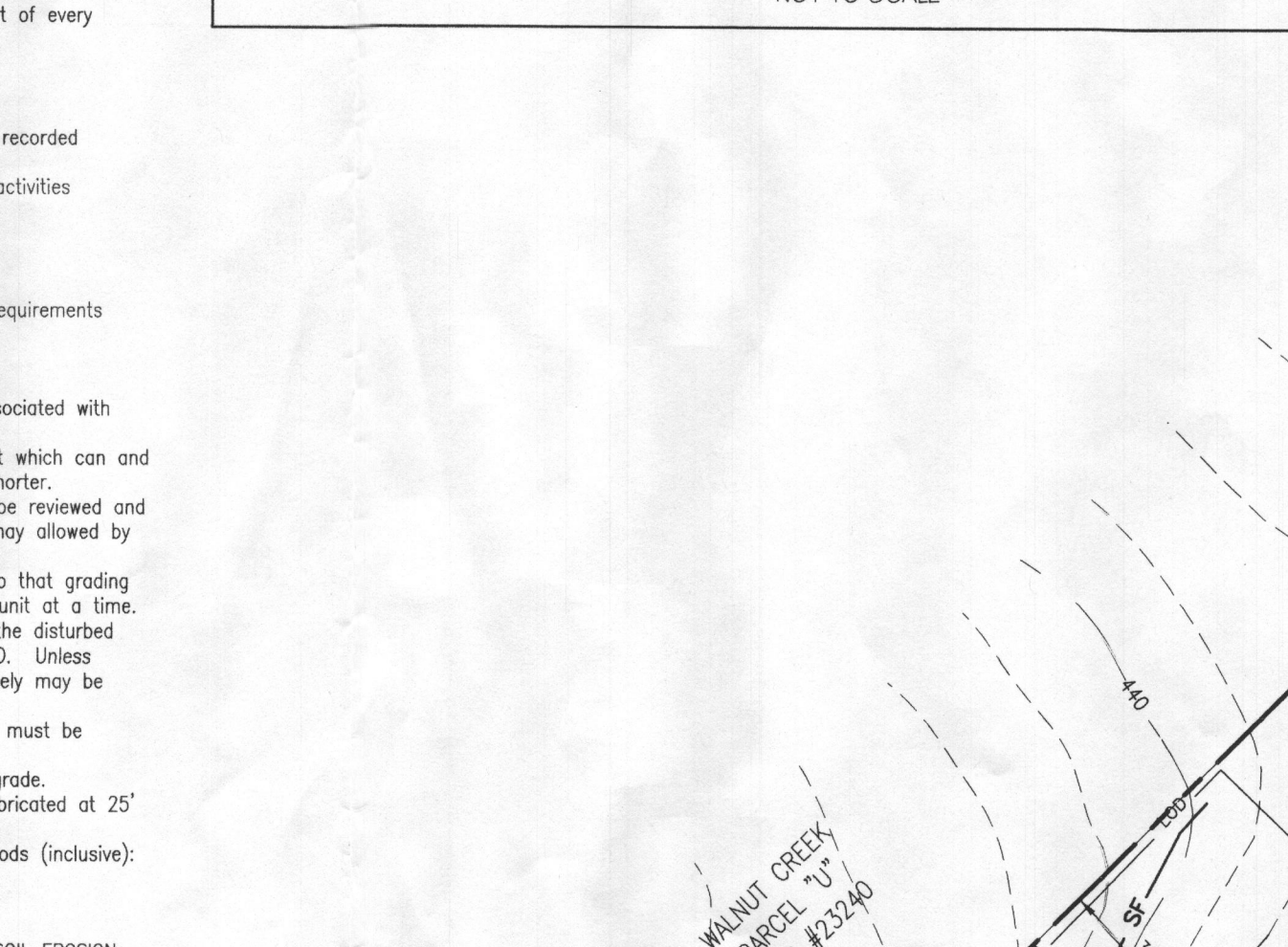
HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- 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 areas marked clearly in the field. A minimum of 48 hour notice to CID must be given a the following stages:
 - Prior to the start of earth 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 unit.
 - 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.
- 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.
- 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.
- All disturbed areas to 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.
- Site Analysis:**

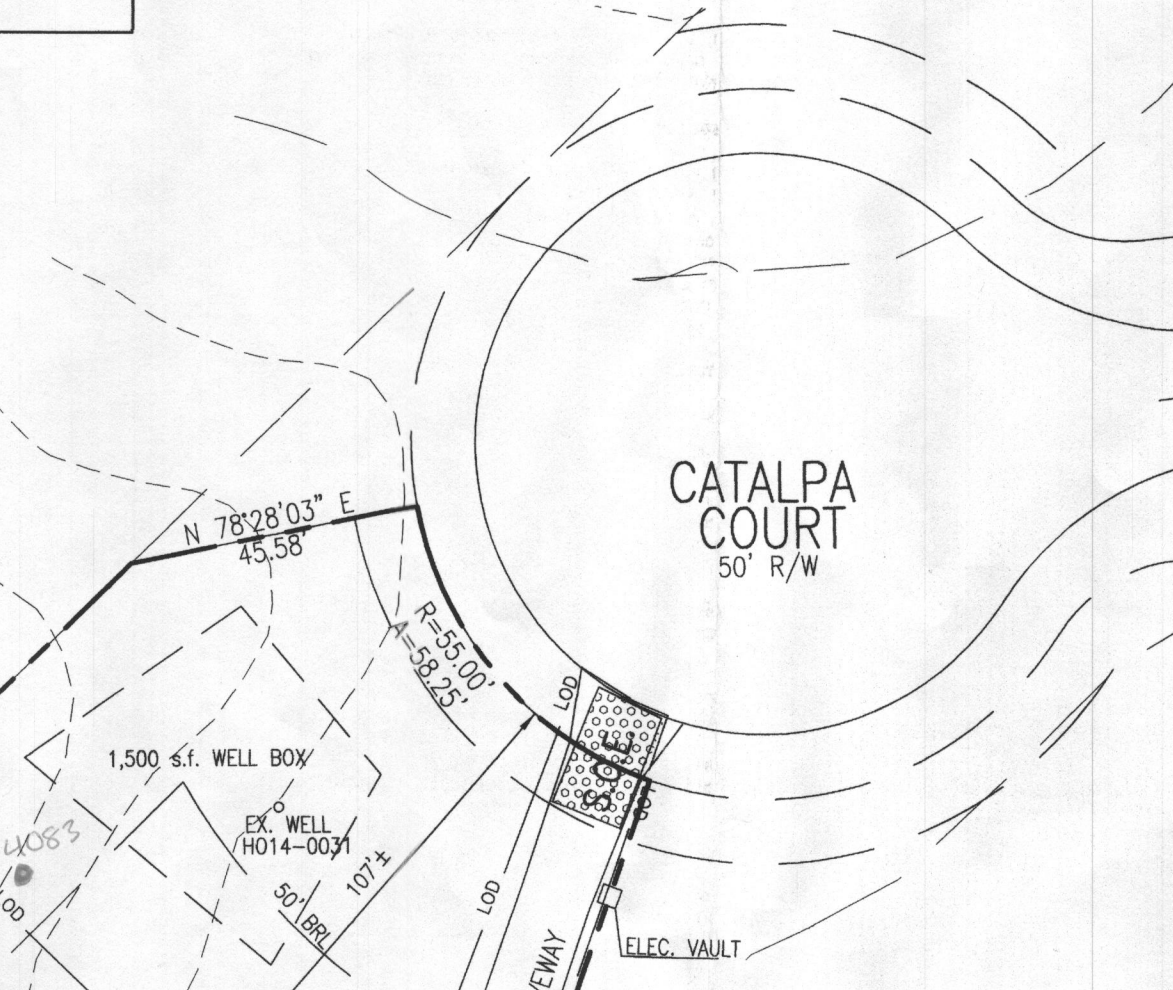
Total Area of Site	1.02 Acres.
Area Disturbed	0.43 Acres.
Area to be seeded or paved	0.13 Acres.
Area to be vegetatively stabilized	0.36 Acres.
Total Cut	— Cu. Yds.
Total Fill	— Cu. Yds.
Offsite waste/borrow area location	N/A.
- Any sediment control practice which is disturbed by grading activity for 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 part of every inspection and shall include:
 - Inspection date
 - 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).
- 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.
- 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 be 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 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.
- Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.
- Top soil shall be stockpiled and preserved on-site for redistribution onto final grade.
- All Site Fence and Super Site Fence shall be placed on-the-contour, and be fabricated at 25' minimum interval, with lower ends curbed uphill by 2" in elevation.
- Stream channels must not be disturbed during the following restricted time periods (inclusive):
 - Use I and II: March 1 - June 15
 - Use III and III: October 1 - April 30
 - Use IV: March 1 - May 31
- 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.



2,000 GALLON TWO-COMPARTMENT SEPTIC TANK DETAIL
NOT TO SCALE

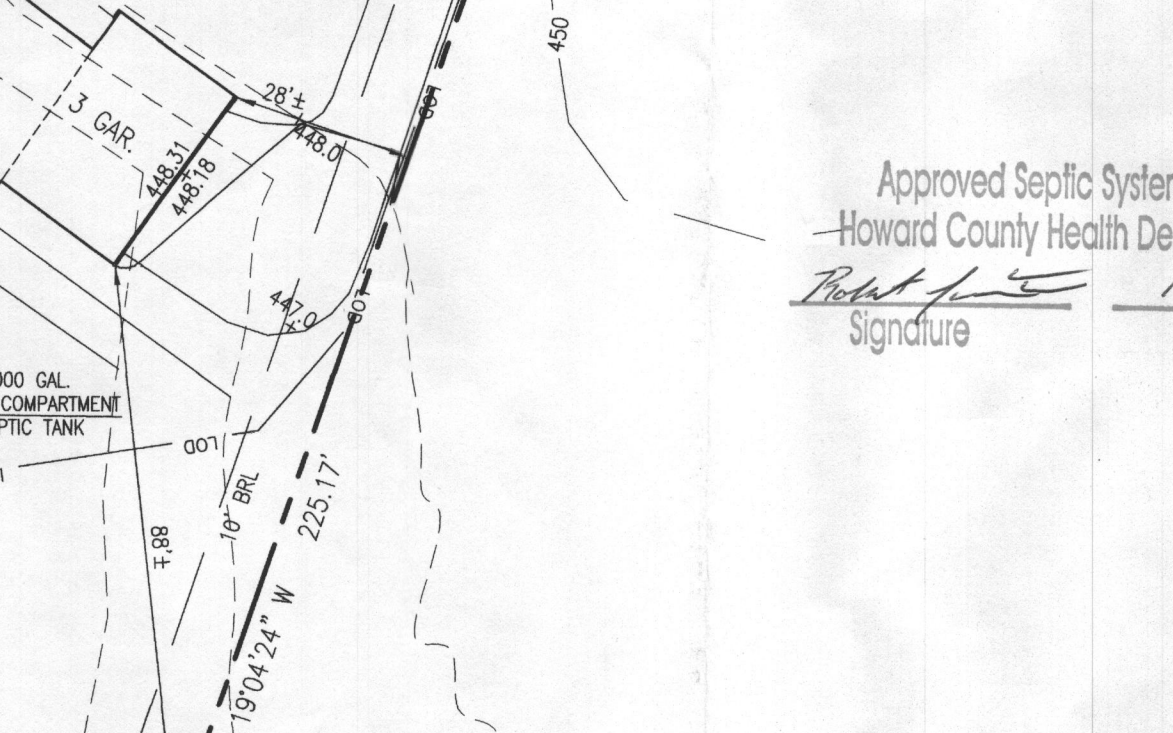


PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



GENERAL NOTES:

- TOPOGRAPHY & PLANNETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
- THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
- ZONING DISTRICT: RC-DEO
- LIMIT OF DISTURBANCE (LOD) = 21,300 SQ.FT.
- THERE ARE NO STREAMS, PONDS, FLOODPLAINS OR WELANDS ON THIS LOT.
- STORM WATER MANAGEMENT FOR THIS LOT IS PROVIDED BY EXISTING WALNUT CREEK PHASE THREE STORMWATER MANAGEMENT FACILITIES PROVIDED FOR AND CONSTRUCTED BY THE SUBDIVISION DEVELOPER UNDER PLAN F-13-026.



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.

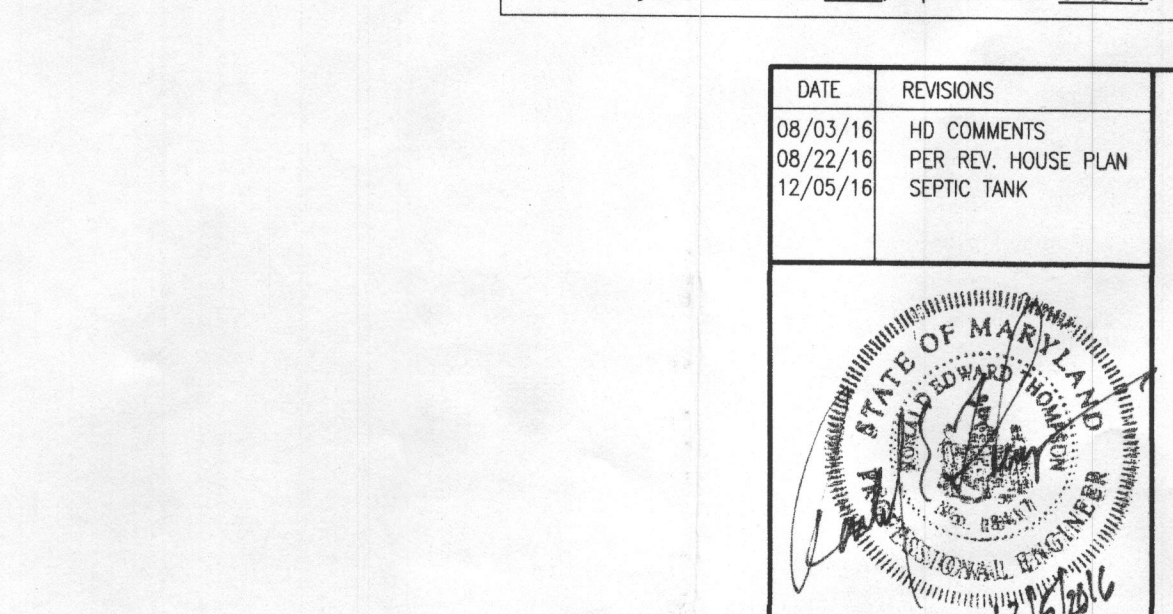
DEVELOPER: _____ DATE: _____

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE: _____

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 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

RONALD E. THOMPSON, P.E.
DATE: 12/5/2016



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 18417, Expiration Date: 9-18-17.

REVISIONS

DATE	REVISIONS
08/03/16	HD COMMENTS
08/22/16	PER REV. HOUSE PLAN
12/05/16	SEPTIC TANK

PLOT PLAN
LOT 95
WALNUT CREEK
PLAT 23240
3319 CATALPA COURT
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' JUNE, 2016

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street Mount Airy, Maryland 21771
(301) 829-2890 (301) 831-5015 (410) 544-2751
©Copyright, Latest Date Shown

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.

Purpose:
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.

Criteria:
A. Seeding
1. 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 must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4.1 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
b. Much alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding rate 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 specifically for the species inoculants must not be used. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until use. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
d. Soil seed must not be placed on soil which has elapsed (14 days min.) to permit desiccation of phyto-toxic materials.
2. Application
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. Run the spreader with a weighted roller to provide good seed to soil contact. B.16
iii. Drill or Cultipacker Seeding: Mechanized seeding that apply and cover seed with soil.
1. Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry 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 O5 (phosphorus), 200 pounds per acre K2 O (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 hydroseeding.
iii. Mix seed and fertilizer on site and seed immediately and without interruption.
iv. When hydroseeding do not incorporate seed into the soil.
1. 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, coated, 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 slurry. The 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.
i. WCFM including dye, must contain no germination growth inhibiting factors.
ii. 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 retention properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
iii. WCFM must not contain elements or compounds at concentration levels that will be phyto-toxic.
iv. WCFM must conform to the following physical requirements: Fiber length of approximately 10 millimeters, diameter 10 millimeters, pH range of 4.0 to 8.5, cation content of 1.6 percent maximum and water holding capacity of 90 percent minimum. B.17
2. Application
a. 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 application rate to 2.5 tons per acre.
c. 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.
d. Anchoring
i. 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 (in order of preference), depending upon the size of the area and erosion hazard:
1. 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 for large areas but is limited to flatter slopes where equipment can operate safely. If 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 (Agra-Tack), DCA-70, Petrosol, Terra Tex II, Terra Lock AR or other C-grooved resin may be used. Application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches much, 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.
B. Soil Amendments (Fertilizer and Lime Specifications)
1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 2 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 analysis.
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Measure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizer must be delivered to the site fully blended according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
3. Lime materials must be ground limestone (hydrated) and must 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.

TEMPORARY STABILIZATION SPECIFICATIONS TABLE

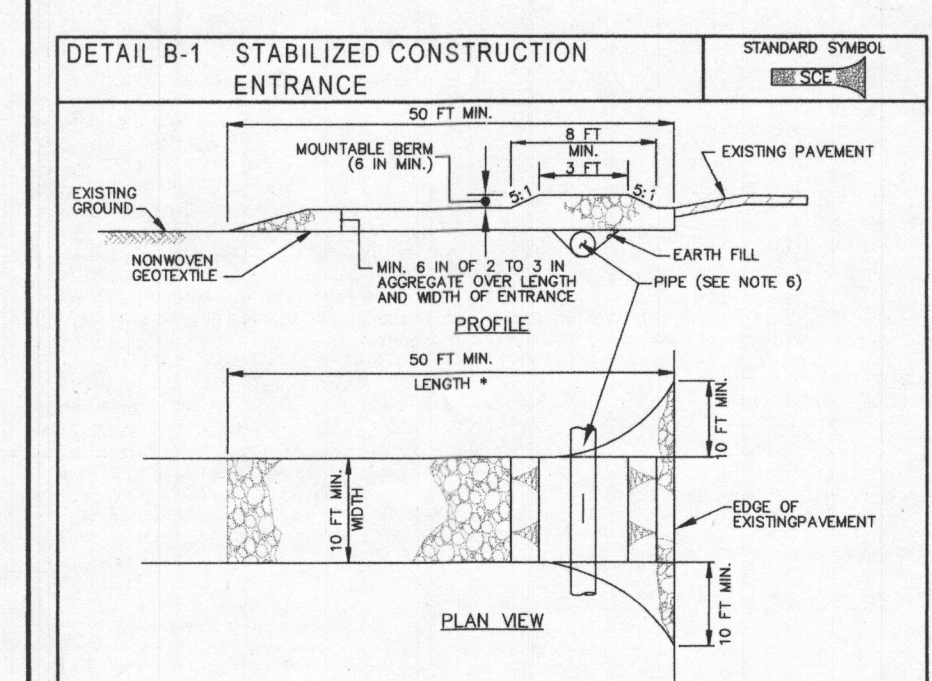
No.	Species	Application Rate (lb/acre)	Seeding Dates		Fertilizer Rate (10-20-20)	Lime Rate
			Seeding Dates	Seeding Depths		
ANNUAL PREGRASS	40	MAR 1 - MAY 15 AUG 1 - OCT 15	0.5 INCHES	436 lb/acre (10 lb/1000 sq ft)	2 tons/acre (90 lb/1000 sq ft)	
PERENNIAL PREGRASS	30	JUNE 1 - JULY 31	0.5 INCHES			

PERMANENT STABILIZATION SPECIFICATIONS TABLE

No.	Species	Application Rate (lb/acre)	Seeding Dates		N	P2O5	K2O	Lime Rate
			Seeding Dates	Seeding Depths				
HERBICIOUS BIOTURFS	20	MAR 1 - MAY 15 AUG 1 - OCT 15	1/4 - 1/2 in	45 pounds per acre (1.0 lb/1000 sq ft)	90 lb/acre (2lb/1000 sq ft)	90 lb/acre (90 lb/1000 sq ft)	2 tons/acre (90 lb/1000 sq ft)	
			1/4 - 1/2 in				1000 sq ft	

DUST CONTROL
DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES: CALCIUM CHLORIDE SHALL BE APPLIED TO EXPOSED SURFACES AT A RATE THAT WILL KEEP SURFACE MOST UNTIL SOIL IS STABILIZED ACCORDING TO VEGETATIVE SPECS. FOR THIS SITE AND AREAS TO BE PAVED ARE COMPLETED.

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 SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.



CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SOE. USE MINIMUM LENGTH OF 50 FEET (100 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. FLARE SIZE 5 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. MAINTAIN POSITIVE DRAINAGE THROUGH THE PIPE THROUGH THE SOE WITH MOUNTABLE BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE ORNISHED 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 SOE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS CHANGE TO MAINTAIN CLEAN SURFACE, MOUNTABLE BEAM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUATING, SCRAPING, AND/OR SWEEPING. MAINTAIN ROADWAY TO REMOVE MUD TRACKING INTO PARKING IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL STRUCTURE.

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

Definition:
The application of seed and mulch to establish vegetative cover.

Purpose:
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.

Criteria:
A. Seeding
1. 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 must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4.1 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
b. Much alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding rate 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 specifically for the species inoculants must not be used. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until use. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
d. Soil seed must not be placed on soil which has elapsed (14 days min.) to permit desiccation of phyto-toxic materials.
2. Application
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. Run the spreader with a weighted roller to provide good seed to soil contact. B.16
iii. Drill or Cultipacker Seeding: Mechanized seeding that apply and cover seed with soil.
1. Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry 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 O5 (phosphorus), 200 pounds per acre K2 O (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 hydroseeding.
iii. Mix seed and fertilizer on site and seed immediately and without interruption.
iv. When hydroseeding do not incorporate seed into the soil.
1. 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, coated, 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 slurry. The 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.
i. WCFM including dye, must contain no germination growth inhibiting factors.
ii. 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 retention properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
iii. WCFM must not contain elements or compounds at concentration levels that will be phyto-toxic.
iv. WCFM must conform to the following physical requirements: Fiber length of approximately 10 millimeters, diameter 10 millimeters, pH range of 4.0 to 8.5, cation content of 1.6 percent maximum and water holding capacity of 90 percent minimum. B.17
2. Application
a. 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 application rate to 2.5 tons per acre.
c. 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.
d. Anchoring
i. 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 (in order of preference), depending upon the size of the area and erosion hazard:
1. 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 for large areas but is limited to flatter slopes where equipment can operate safely. If 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 (Agra-Tack), DCA-70, Petrosol, Terra Tex II, Terra Lock AR or other C-grooved resin may be used. Application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches much, 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.

B-4-8 STANDARDS AND SPECIFICATIONS

STOCKPILE AREA

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

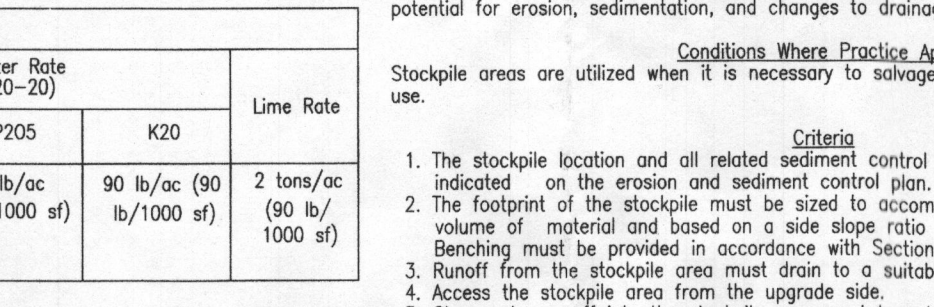
Purpose:
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

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

Criteria:

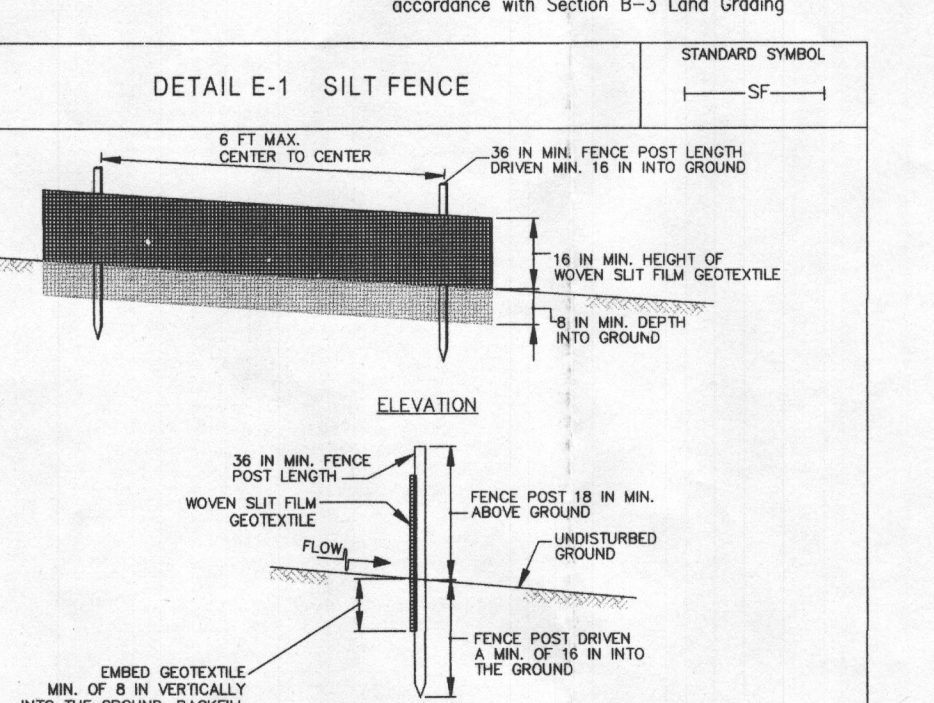
- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benches must be 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.
- 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 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.
- 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 impermeable sheeting.

Maintenance
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 2:1 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.



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.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND OTHER SEDIMENT CONTROL DEVICES AS SHOWN IN THE SEDIMENT CONTROL PLAN.
- STABILIZE ALL THE GRADED AREAS UP TO 20' OUTSIDE OF THE LIMIT OF GRADING AS PER PERMANENT SEEDING NOTES.
- EXCAVATE HOUSE FOUNDATION, HOUSE CONSTRUCTION, UTILITIES AND INSTALL SEPTIC.
- ANY AREAS THAT CAN BE TEMPORARILY SEEDED DURING CONSTRUCTION MUST BE TEMPORARILY STABILIZED PER SEEDING NOTES.
- INSTALL DRIVEWAY.
- STABILIZE DISTURBED AREAS PER PERMANENT SEEDING NOTES.
- UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT CONTROL DEVICES FOR HOUSE CONSTRUCTION.
- NOTIFY INSPECTOR FOR FINAL INSPECTION.



CONSTRUCTION SPECIFICATIONS

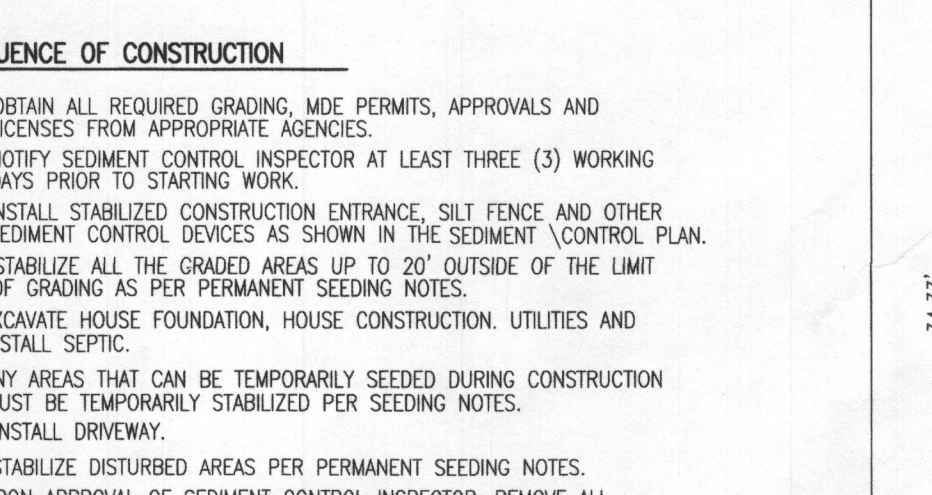
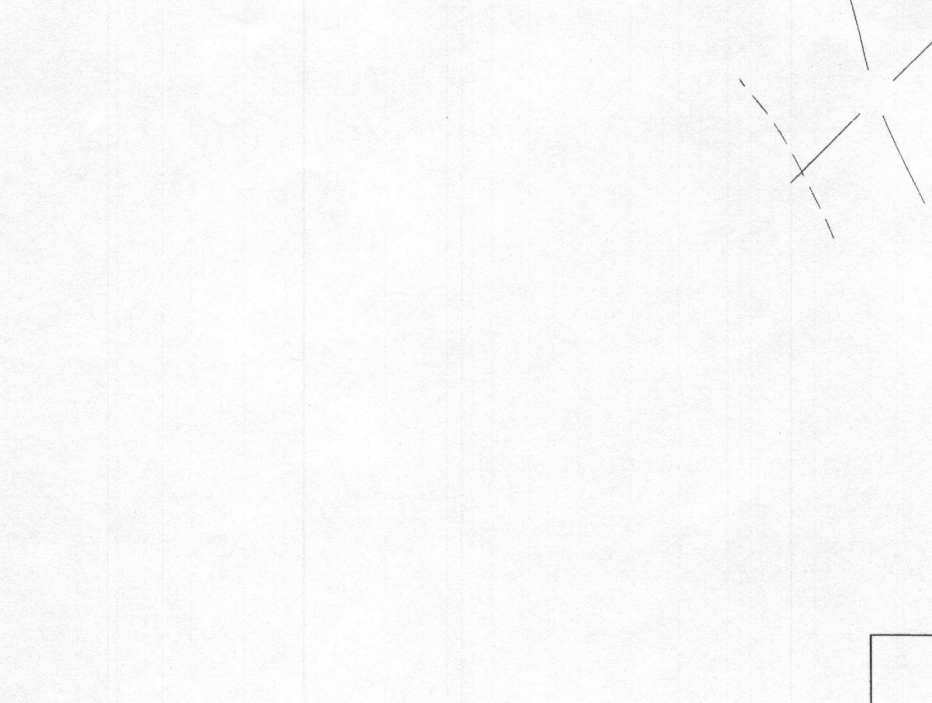
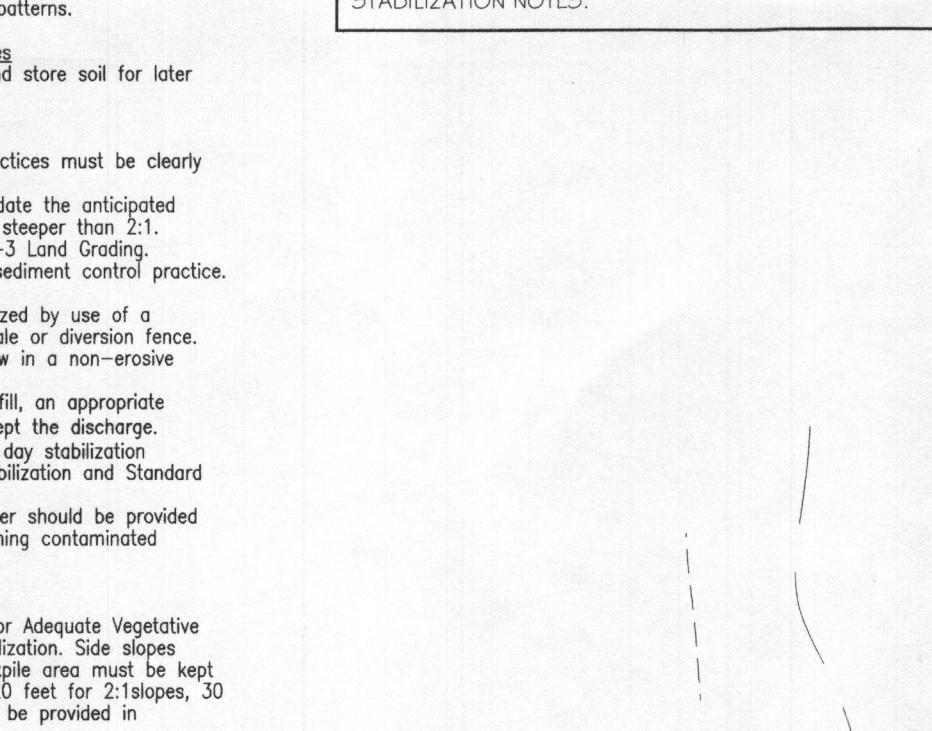
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SOE. USE MINIMUM LENGTH OF 50 FEET (100 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. FLARE SIZE 5 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SOE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE THROUGH THE PIPE THROUGH THE SOE WITH MOUNTABLE BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS BEAM WITH 6 IN SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE ORNISHED 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 SOE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS CHANGE TO MAINTAIN CLEAN SURFACE, MOUNTABLE BEAM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUATING, SCRAPING, AND/OR SWEEPING. MAINTAIN ROADWAY TO REMOVE MUD TRACKING INTO PARKING IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL STRUCTURE.

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 following slopes:
 - Prior to the start of earth 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 unit.
 - 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.
- 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.
- 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.
- 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 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 feet shall be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
- Stabilizing 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.
- Site Analysis:

Total Area of Site	1.02 Acres.
Area to be roofed or paved	0.49 Acres.
Area to be vegetatively stabilized	0.36 Acres.
Total Cut	1.13 Acres.
Total Fill	0.00 Yds.
Offsite waste/borrow area location	N/A.
- 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 a 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
 - Maintenance and/or corrective action performed
 - Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDC).
- 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 working day, whichever is shorter.
- 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 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.
- Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.
- Top soil shall be stockpiled and preserved on-site for redistribution onto final grade.
- All Soil Fence and Super Soil Fence shall be placed on-the-contour, and be marked at 20' minimum interval, with lower ends curd uphill by 2' in elevation.
- Stream channels must not be disturbed during the following restricted time periods (inclusive):
 - Use I and II March 1 - June 15
 - Use III and IIII October 1 - April 30
 - Use IV March 1 - May 31
- 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.

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 WITHIN THE ORIGINALLY APPROVED L.O.D. AND FOLLOW TEMPORARY STABILIZATION NOTES.



GENERAL NOTES:

- TOPOGRAPHY & PLANNING FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
- THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
- ZONING DISTRICT: RC-DEO
- LIMIT OF DISTURBANCE (LOD) = 21,300 SQ.FT.
- THERE ARE NO STREAMS, PONDS, FLOODPLAINS OR WETLANDS ON THIS LOT.
- STORM WATER MANAGEMENT FOR THIS LOT IS PROVIDED BY EXISTING WALNUT CREEK PHASE THREE STORMWATER MANAGEMENT FACILITIES PROVIDED FOR AND CONSTRUCTED BY THE SUBDIVISION DEVELOPER UNDER PLAN F-13-026.

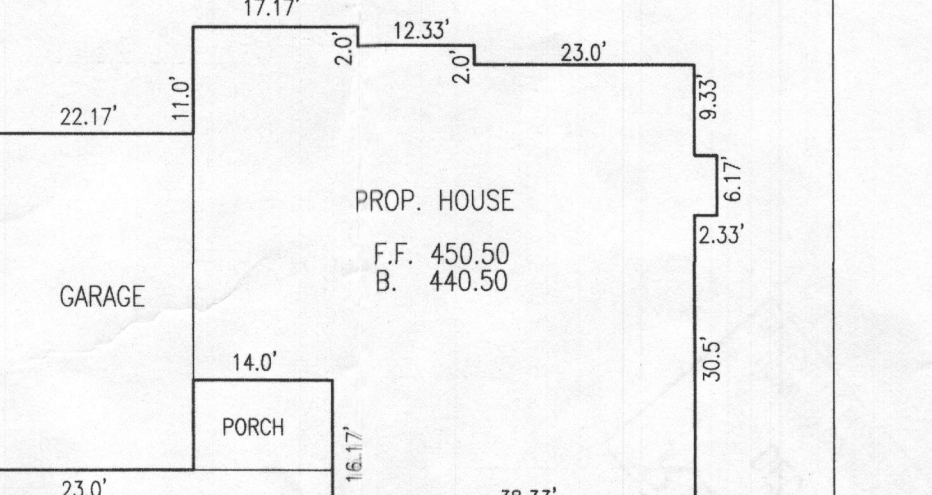
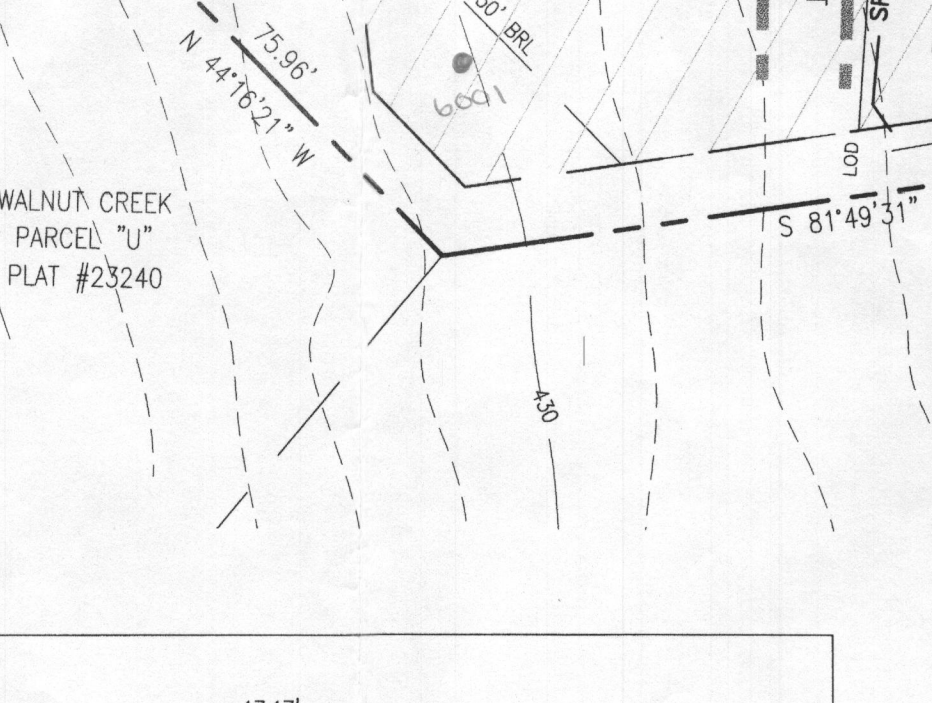
SEPTIC SYSTEM TRENCH DESIGN

INITIAL NUMBER OF BEDROOMS = 6
APPLICATION RATE = 0.8 GPD / sq.ft.
DESIGN FLOW: 150 GPD X 6 BEDROOMS = 900 GPD
900 GPD / 0.8 GPD/sq.ft. = 1125 sq.ft.
1125 sq.ft. / 3 ft. WIDE TRENCH = 375 LF TRENCH
375 LF TRENCH X 0.50 REDUCTION CREDIT = 187.5 LF TRENCH
TRENCH 1 (T1) EX. GRD=440.5 - INV. TRENCH=436.5 -B. TRENCH=432.5
TRENCH 2 (T2) EX. GRD=439.5 - INV. TRENCH=435.5 -B. TRENCH=431.5
TRENCH 3 (T3) EX. GRD=438.0 - INV. TRENCH=434.0 -B. TRENCH=430.0
TRENCH 4 (T4) EX. GRD=437.0 - INV. TRENCH=433.0 -B. TRENCH=429.0

1st REPLACEMENT APPLICATION RATE = 1.2 GPD / sq.ft.
DESIGN FLOW: 150 GPD X 6 BEDROOMS = 900 GPD
900 GPD / 1.2 GPD/sq.ft. = 750 sq.ft.
750 sq.ft. / 3 ft. WIDE TRENCH = 250 LF TRENCH
250 LF TRENCH X 0.45 REDUCTION CREDIT = 112.5 LF TRENCH

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 WITHIN THE ORIGINALLY APPROVED L.O.D. AND FOLLOW TEMPORARY STABILIZATION NOTES.



GENERAL NOTES:

- TOPOGRAPHY & PLANNING FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
- THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
- ZONING DISTRICT: RC-DEO
- LIMIT OF DISTURBANCE (LOD) = 21,300 SQ.FT.
- THERE ARE NO STREAMS, PONDS, FLOODPLAINS OR WETLANDS ON THIS LOT.
- STORM WATER MANAGEMENT FOR THIS LOT IS PROVIDED BY EXISTING WALNUT CREEK PHASE THREE STORMWATER MANAGEMENT FACILITIES PROVIDED FOR AND CONSTRUCTED BY THE SUBDIVISION DEVELOPER UNDER PLAN F-13-026.

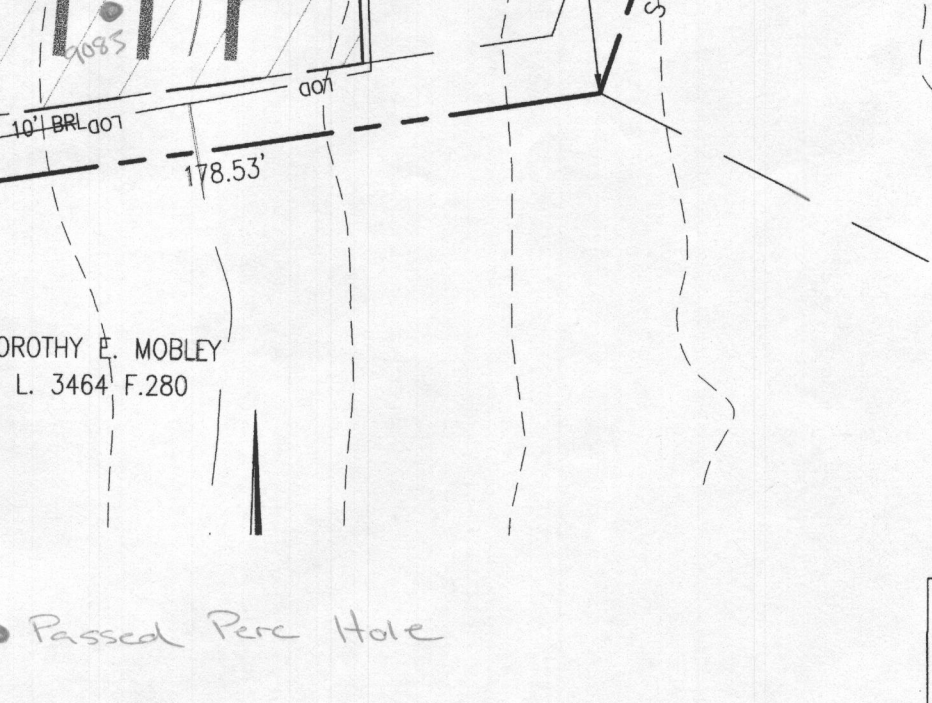
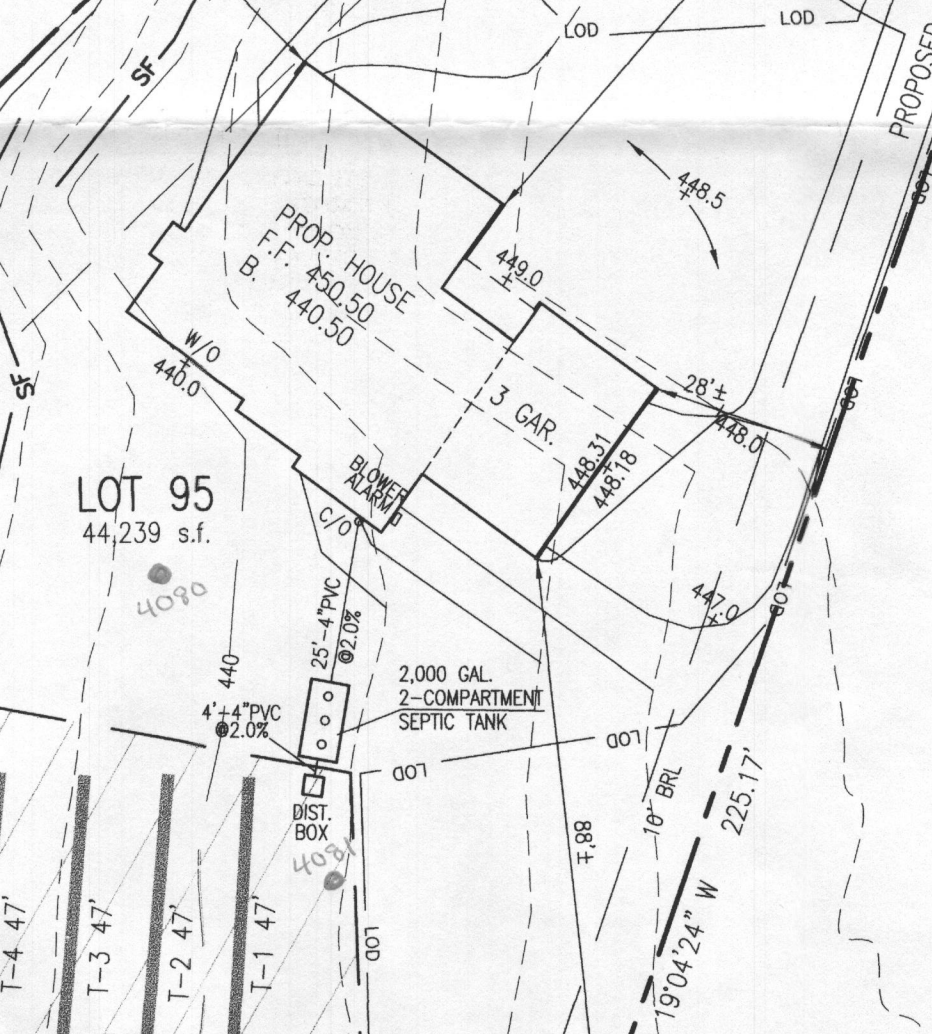
SEPTIC SYSTEM TRENCH DESIGN

INITIAL NUMBER OF BEDROOMS = 6
APPLICATION RATE = 0.8 GPD / sq.ft.
DESIGN FLOW: 150 GPD X 6 BEDROOMS = 900 GPD
900 GPD / 0.8 GPD/sq.ft. = 1125 sq.ft.
1125 sq.ft. / 3 ft. WIDE TRENCH = 375 LF TRENCH
375 LF TRENCH X 0.50 REDUCTION CREDIT = 187.5 LF TRENCH
TRENCH 1 (T1) EX. GRD=440.5 - INV. TRENCH=436.5 -B. TRENCH=432.5
TRENCH 2 (T2) EX. GRD=439.5 - INV. TRENCH=435.5 -B. TRENCH=431.5
TRENCH 3 (T3) EX. GRD=438.0 - INV. TRENCH=434.0 -B. TRENCH=430.0
TRENCH 4 (T4) EX. GRD=437.0 - INV. TRENCH=433.0 -B. TRENCH=429.0

1st REPLACEMENT APPLICATION RATE = 1.2 GPD / sq.ft.
DESIGN FLOW: 150 GPD X 6 BEDROOMS = 900 GPD
900 GPD / 1.2 GPD/sq.ft. = 750 sq.ft.
750 sq.ft. / 3 ft. WIDE TRENCH = 250 LF TRENCH
250 LF TRENCH X 0.45 REDUCTION CREDIT = 112.5 LF TRENCH

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 WITHIN THE ORIGINALLY APPROVED L.O.D. AND FOLLOW TEMPORARY STABILIZATION NOTES.



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.

Purpose:
To provide a suitable soil medium for vegetative growth.

- Conditions Where Practice Applies:**
Where vegetative stabilization is to be established.
- Criteria:**
1. Soil Preparation
 - a. Temporary Stabilization
 - b. Permanent Stabilization
 2. Application

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

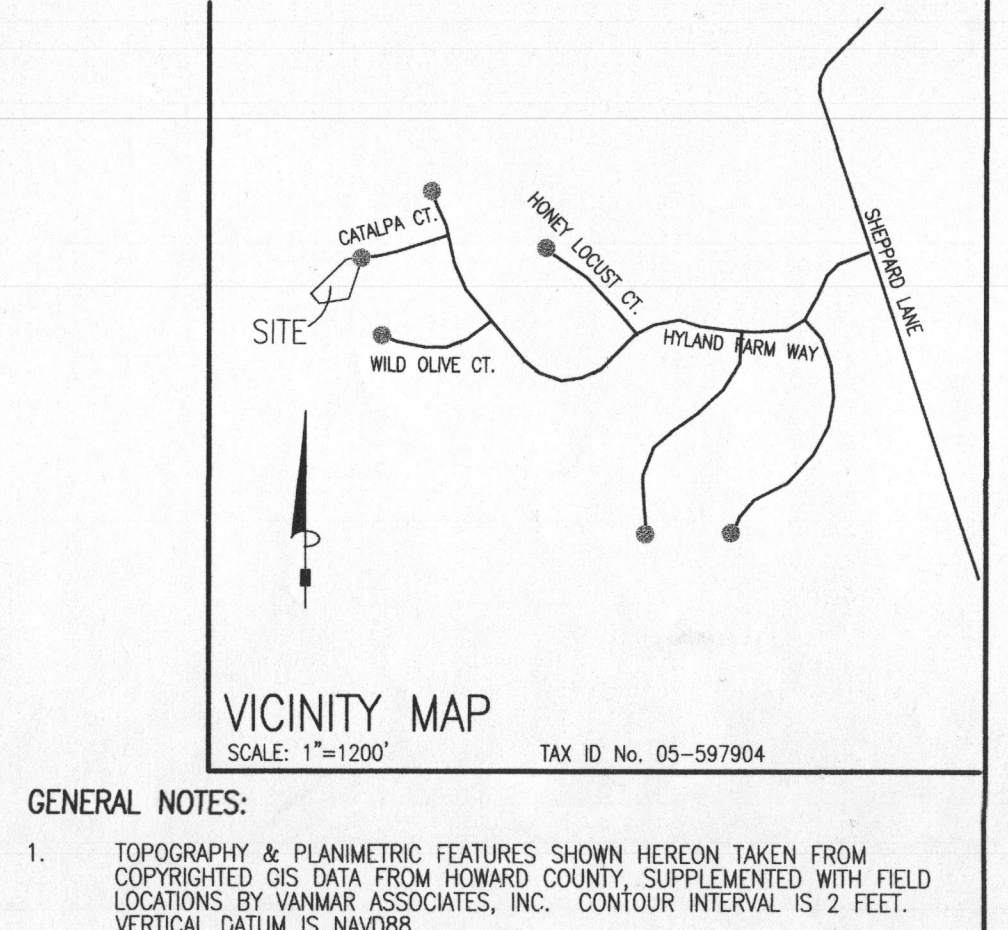
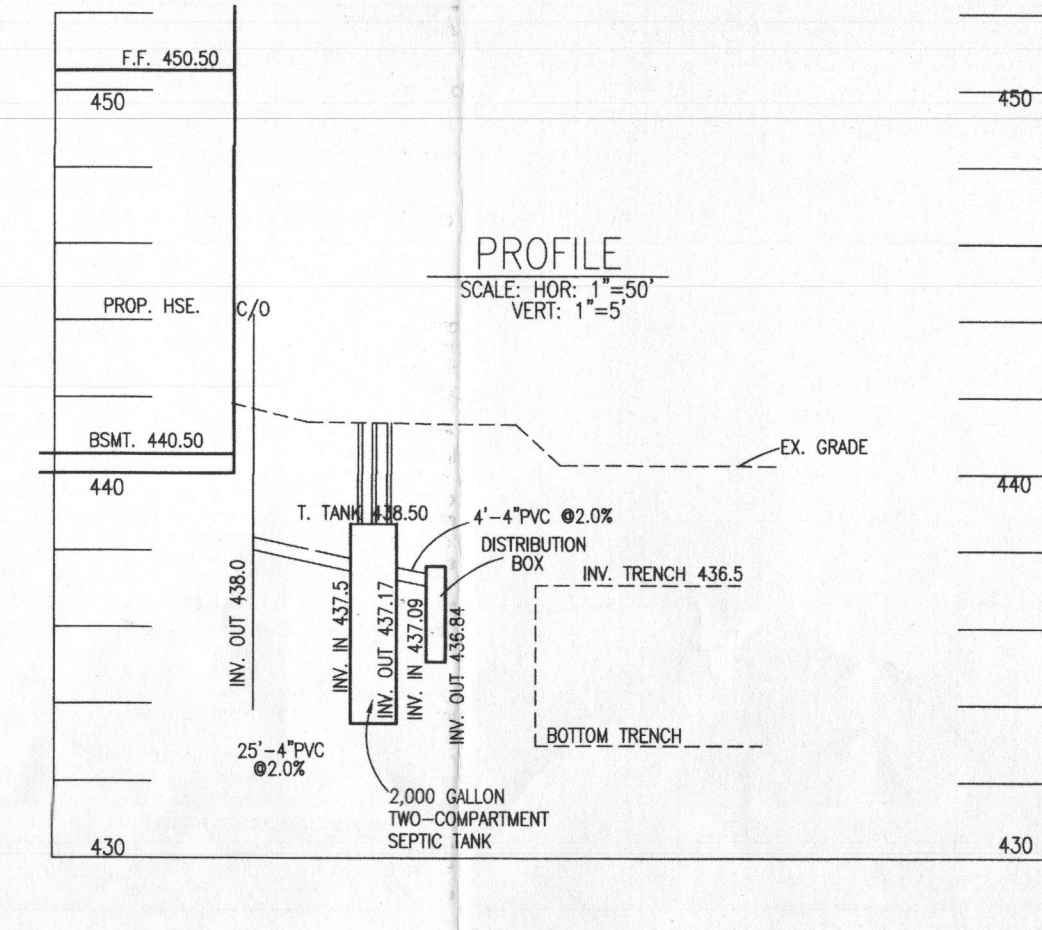
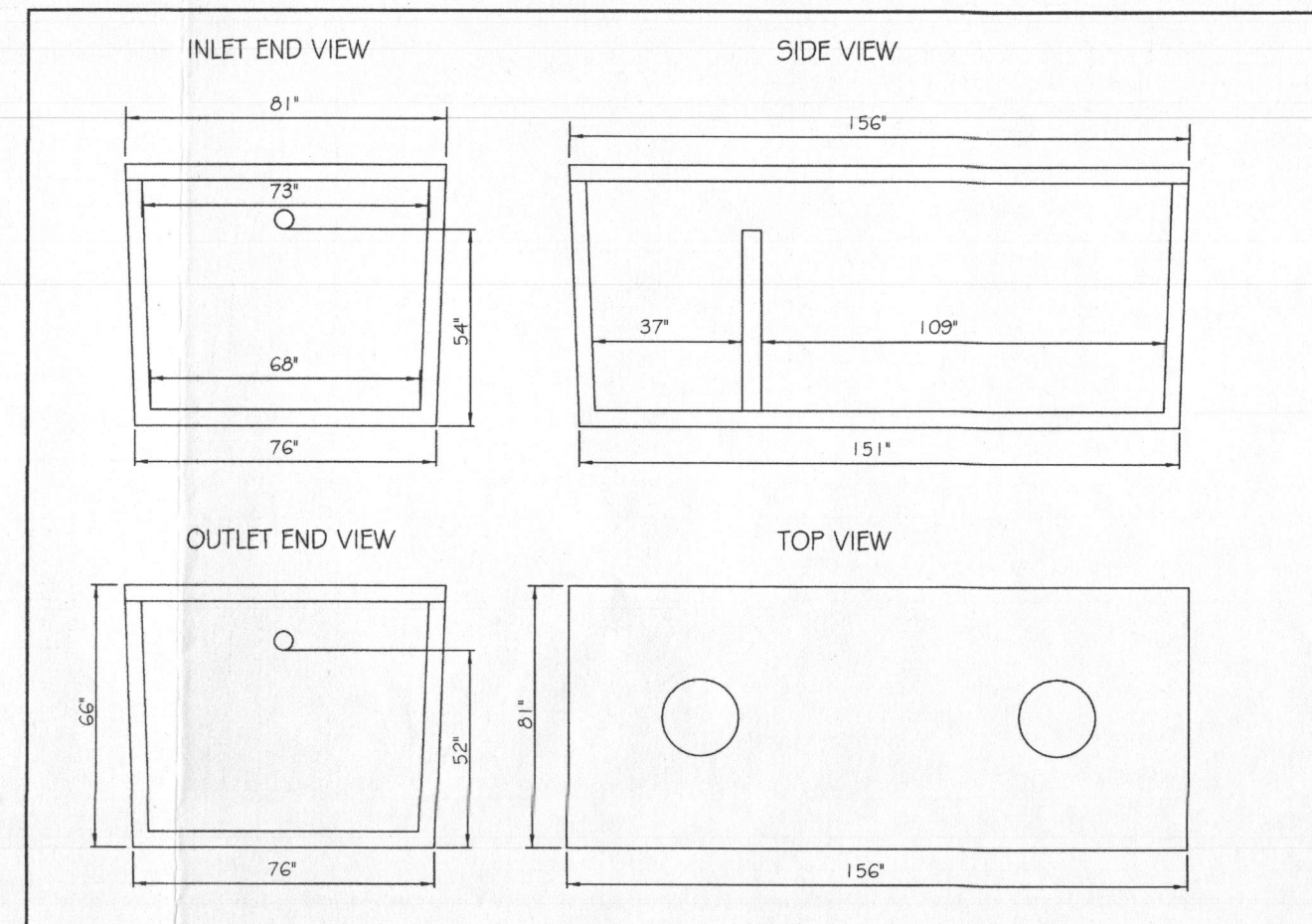
Definition:
The application of seed and mulch to establish vegetative cover.

Purpose:
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.
- Criteria:**
1. Seeding
 - 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 seeding such material on any project. Refer to Table B.4.3 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seed quantity.
 - 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. Incultants: The incultant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Incultants must not be used later than the date indicated on the container. Add fresh incultants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep incultant as cool as possible until use. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculum less effective.
 - d. Seed 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 phytotoxic materials.
 2. Application
 - a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
 - b. Incorporation: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - c. Permanent Stabilization: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - d. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - e. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - f. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - g. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - h. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - i. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - j. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - k. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - l. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - m. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - n. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - o. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - p. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - q. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - r. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - s. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - t. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - u. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - v. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - w. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - x. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - y. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.
 - z. Seeding: This includes use of the subsoil at the rates prescribed on Temporary Seeding Table B.1.

**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 L.O.D. 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 avoid conflict 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 3:1 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 seeding (Sec. B-4-4) and mulches (Sec. B-4-3). Temporary stabilization (Sec. B-4-4) 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).
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 obtained from the CID.
6. Site Analysis:
 - Total Area of Site: 1.02 Acres
 - Area to be Reroofed: 0.42 Acres
 - Area to be Reroofed or Paved: 0.13 Acres
 - Area to be Vegetatively Stabilized: 0.36 Acres
 - Subsoil Cut: 200 pounds per acre; K2 (potassium), 200 pounds per acre
 - Total Fill: 200 pounds per acre
 - Offsite waste/borrow area location: N/A
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 of the contractor, made available upon request, is part of every inspection and shall include:
 - Inspection date
 - Inspection type (routine, pre-start 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, MDC)
9. Trenches for the construction of utilities are 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, wheelbarrows, and other sources must be treated in a sediment basin or other approved washwater 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 impregnated at 25' minimum interval, with lower ends curled uphill by 12" in elevation.
15. Stream channels must not be disturbed during the following restricted time periods (inclusive):
 - Use I and II March 1 - June 15
 - Use III and IIII October 1 - April 30
 - Use V 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.



**2,000 GALLON TWO-COMPARTMENT SEPTIC TANK DETAIL
NOT TO SCALE**

TEMPORARY STABILIZATION SPECIFICATIONS TABLE

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)	Lime Rate
1.	ANNUAL RYEGRASS	40	MAR 1 - MAY 15 AUG 1 - OCT 15	0.5 INCHES	436 lb/ac	2 tons/ac
2.	PERMANENT RYEGRASS	30	JUNE 1 - JULY 31	0.5 INCHES	(10 lb/1000 sf)	(90 lb/1000 sf)

B-4-4 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

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

Purpose:
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

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

Criteria:

1. The stockpile 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.
3. Benching must be provided in accordance with Section B-3 Land Grading.
4. Runoff from the stockpile area must drain to a suitable sediment control practice.
5. Access the stockpile area from the upgrade side.
6. 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.
7. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
8. Stockpiles must be stabilized in accordance with the 3:1 stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
9. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate closure. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance:
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 2:1 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.

PERMANENT STABILIZATION SPECIFICATIONS TABLE

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	Lime Rate
1.	PERMANENT RYEGRASS	20	MAR 1 - MAY 15 AUG 1 - OCT 15	1/4-1/2 in	45 pounds per acre	90 lb/ac (90 lb/1000 sf)	90 lb/ac (90 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
2.	PERMANENT RYEGRASS	20	MAR 1 - MAY 15 AUG 1 - OCT 15	1/4-1/2 in	45 pounds per acre	90 lb/ac (90 lb/1000 sf)	90 lb/ac (90 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)

DUST CONTROL

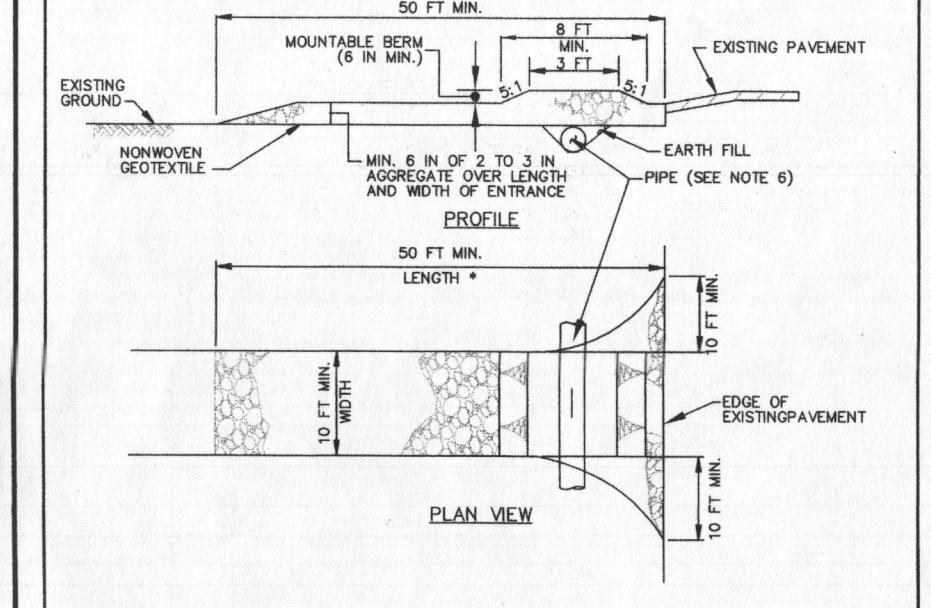
DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. CALCIUM CHLORIDE SHALL BE APPLIED TO EXPOSED SURFACES AT A RATE THAT WILL KEEP SURFACE MOIST UNTIL SOIL IS STABILIZED ACCORDING TO VEGEATION SPECS. FOR THIS SITE AND AREAS TO BE PAID ARE COMPLETED.

STANDARD STABILIZATION NOTE

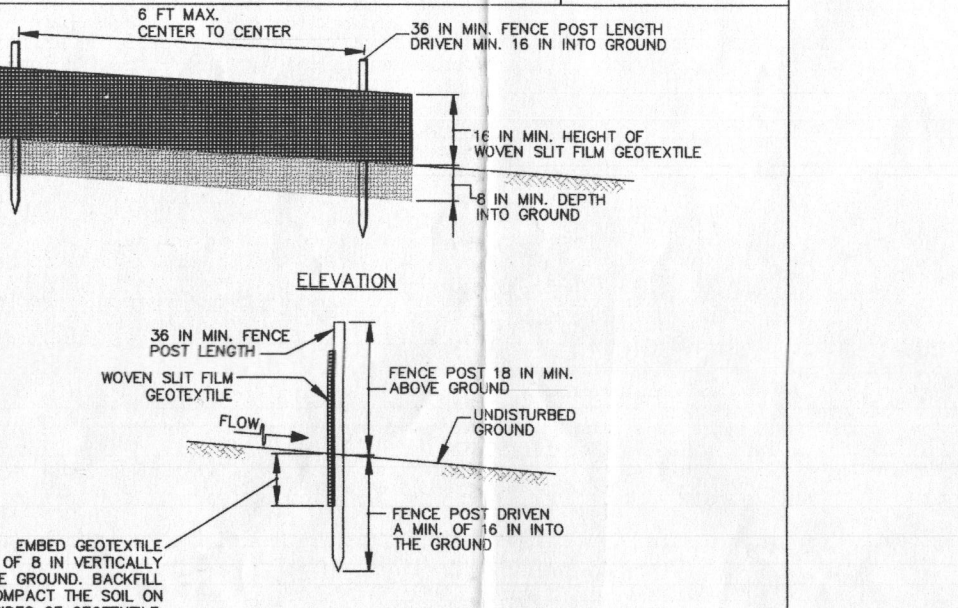
FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

- 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.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE



DETAIL E-1 SILT FENCE



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE ENTRANCE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SIZE TO FIT MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TOWARD THE SITE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SITE WITH A MOUNTABLE BERM AT LEAST 6 INCHES DEEP AND 18 INCHES WIDE. THE PIPE PROTECTIVE BERM SHALL BE SPECIFIED ON APPROVED PLAN. WHEN THE SIZE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO ADJACENT AREAS, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SIZE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT REINFORCED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP WITHIN THE LENGTH AND WIDTH OF THE SIZE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REFINEMENTS AS NECESSARY TO MAINTAIN CLEAN SURFACE. MOUNTABLE BERM, AND PROTECTIVE DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED INTO ADJACENT ROADWAYS BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO ADJACENT ROAD TRACED INTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATIONAL RESOURCE CONSERVATION SERVICE 2011

STANDARD SYMBOL

ENTRANCE: [Symbol]

SILT FENCE: [Symbol]

CROSS SECTION

STEP 1: [Diagram]

STEP 2: [Diagram]

STEP 3: [Diagram]

JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATIONAL RESOURCE CONSERVATION SERVICE 2011

SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL REQUIRED GRADING, MDC PERMITS, APPROVALS AND LICENSES FROM APPROPRIATE AGENCIES.
2. 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 SEEDING DURING CONSTRUCTION MUST BE TEMPORARILY STABILIZED PER SEEDING NOTES.
7. INSTALL DRIVEWAY.
8. STABILIZE DISTURBED AREAS PER PERMANENT SEEDING NOTES.
9. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR REMOVE ALL TEMPORARY SEDIMENT CONTROL DEVICES FOR HOUSE CONSTRUCTION.
10. NOTIFY INSPECTOR FOR FINAL INSPECTION.



APPROVED SEPTIC SYSTEM PLAN
Howard County Health Department
Signature: [Signature] Date: 12/4/16

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.

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 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 18417, Expiration Date: 9-18-17.

DATE REVISIONS

DATE	REVISIONS
08/03/16	HD COMMENTS
08/22/16	PER REV. HOUSE PLAN
12/05/16	SEPTIC TANK

ON-SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

PLAT PLAN
LOT 95
WALNUT CREEK
PLAT 23240
TAX ID NO. 05-597904
5319 CATALPA COURT
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30'
JUNE, 2016

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street Mount Airy, Maryland 21771
(301) 628-2880 (301) 831-5015 (410) 540-2720
© Copyright, Latest Date Shown

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.

Purpose: 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. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...

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

Definition: The application of seed and mulch to establish vegetative cover.

Purpose: 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
1. 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...

- B. Topsoiling
1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of coarse to medium texture, low nutrient levels, low pH, material toxic to plants, and/or unacceptable soil gradation...

TEMPORARY STABILIZATION SPECIFICATIONS TABLE

Table with columns: No., Species, Application Rate (lb/oc), Seeding Dates, Seeding Depths, Fertilizer Rate (10-20-20), Lime Rate. Includes rows for Annual Ryegrass and Fescue Mallet.

PERMANENT STABILIZATION SPECIFICATIONS TABLE

Table with columns: No., Species, Application Rate (lb/oc), Seeding Dates, Seeding Depths, N, P205, K20, Lime Rate. Includes rows for Kentucky Bluegrass and Fescue Mallet.

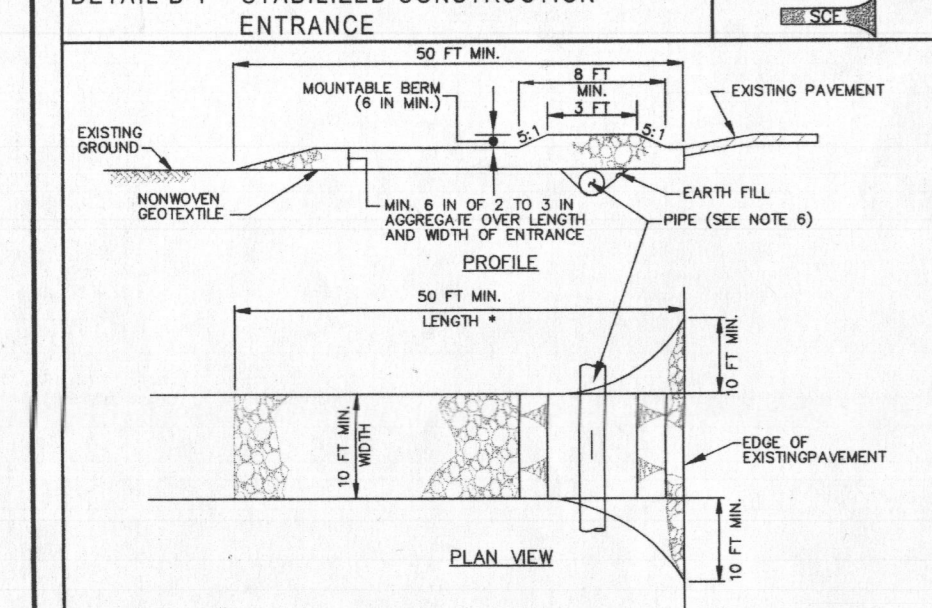
DUST CONTROL

DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. CALCIUM CHLORIDE SHALL BE APPLIED TO EXPOSED SURFACES AT A RATE THAT WILL KEEP SURFACE MOISTURE TO STABILIZED ACCORDING TO VEGETATIVE SPECS. FOR THIS SITE AND MUST BE PAID FOR BY CONTRACTOR.

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.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

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 LDD 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 until this initial approval by inspection agency is made.
c. Prior to the start of another phase of construction or opening of another grading unit.

- 6) Site Analysis
a. Total Area of Site
b. Area Disturbed
c. Area to be roofed or paved
d. Area to be vegetatively stabilized

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 WITHIN THE ORIGINALLY APPROVED L.O.D. AND FOLLOW TEMPORARY STABILIZATION NOTES.

TEMPORARY STOCKPILE AREA

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

STOCKPILE AREA

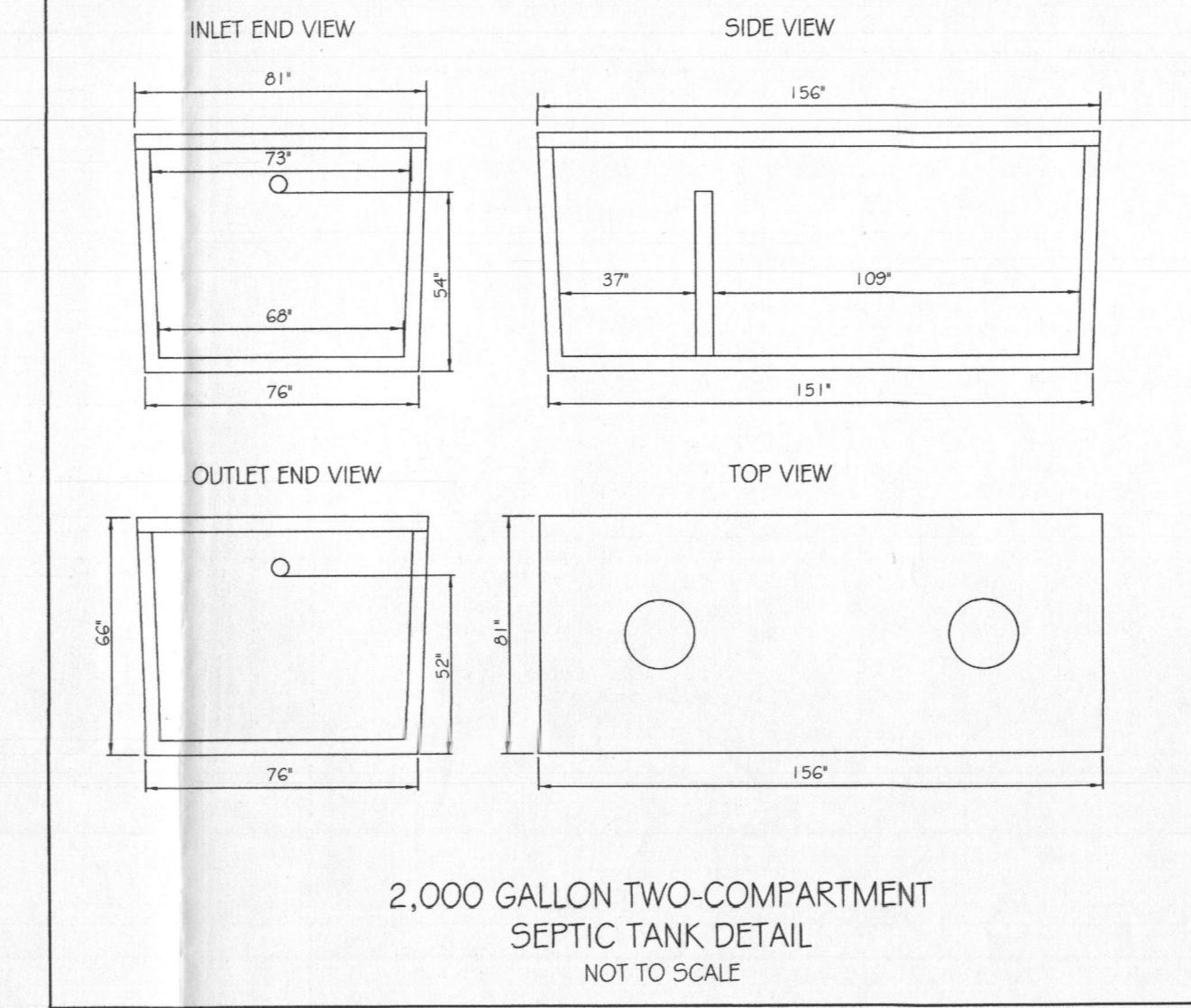
- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1.

MAINTENANCE

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4-3 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 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.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN ALL REQUIRED GRADING, WE PERMITS, APPROVALS AND LICENSES FROM APPROPRIATE AGENCIES.
2. 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.



2,000 GALLON TWO-COMPARTMENT SEPTIC TANK DETAIL NOT TO SCALE



PROFILE SCALE: HOR. 1"=50' VERT. 1"=5'



Approved Septic System Plan Howard County Health Department

Signature: [Signature] Date: 12/16/16

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SOIL EROSION 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.

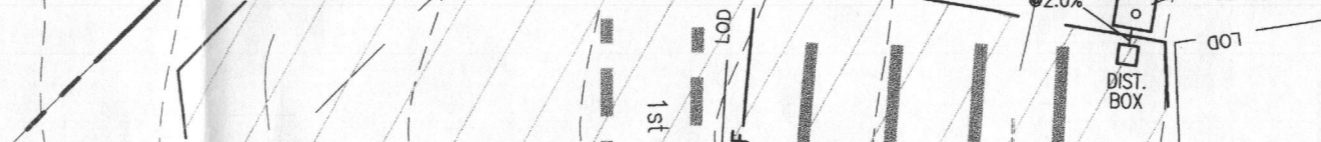
ENGINEER'S CERTIFICATE

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 MARYLAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

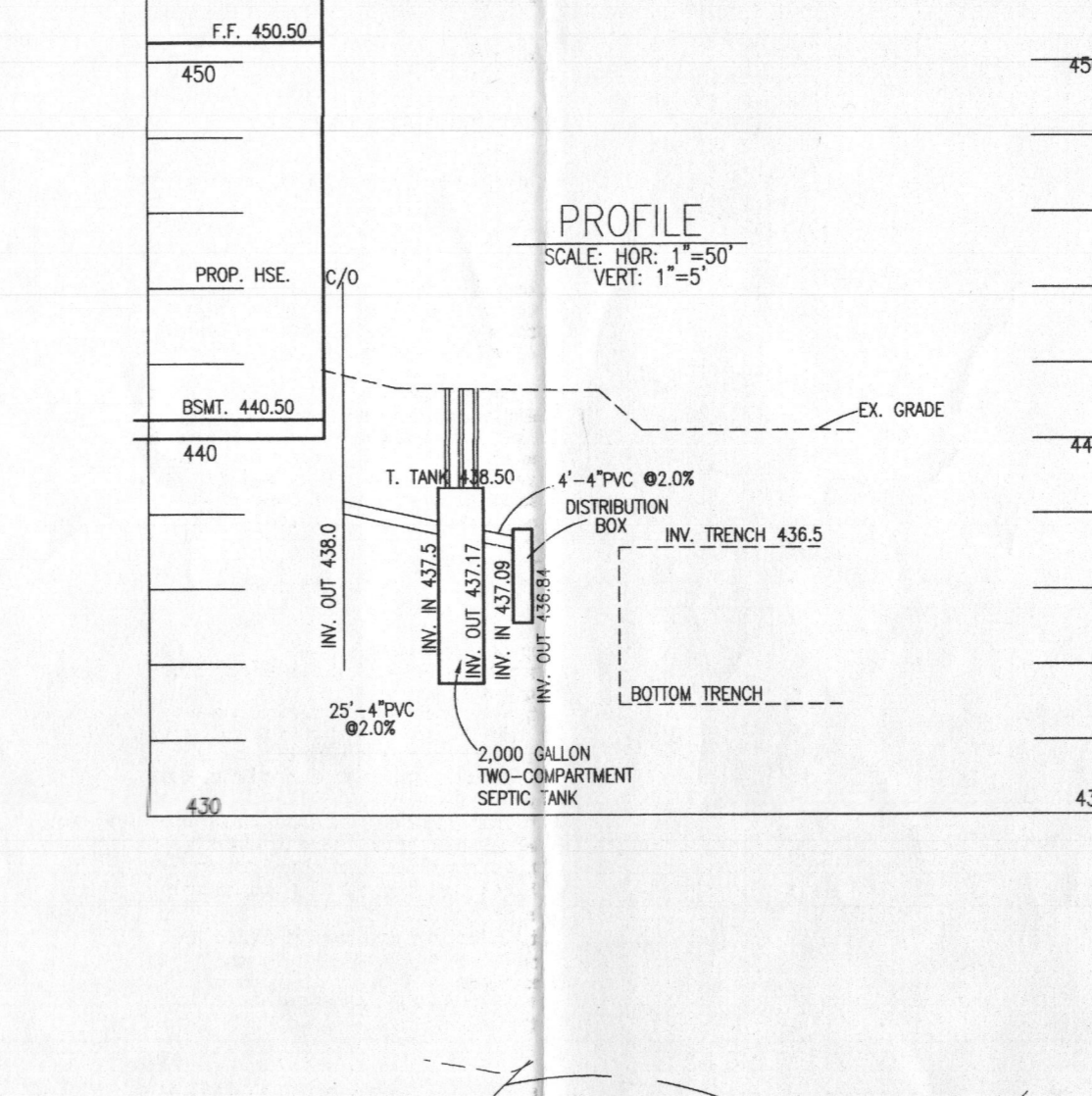
PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 18417, Expiration Date: 9-18-17.

HOUSE DETAIL



HOUSE DETAIL SCALE: 1"=20'



VICINITY MAP SCALE: 1"=1200'

GENERAL NOTES

- 1. TOPOGRAPHY & PLANIMETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
2. THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.

SEPTIC SYSTEM TRENCH DESIGN

Table with columns: INITIAL NUMBER OF BEDROOMS, APPLICATION RATE, DESIGN FLOW, TRENCH LENGTH, TRENCH WIDTH, TRENCH DEPTH, TRENCH SLOPE, TRENCH SPACING.

1st REPLACEMENT

Table with columns: APPLICATION RATE, DESIGN FLOW, TRENCH LENGTH, TRENCH WIDTH, TRENCH DEPTH, TRENCH SLOPE, TRENCH SPACING.

SITE PLAN NOTES

- 1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. MAXIMUM COVER OVER THE TANK IS 3 FEET. GREATER DEPTH WILL REQUIRE A HEAVY LOAD BEARING TANK.

CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

HOUSE DETAIL



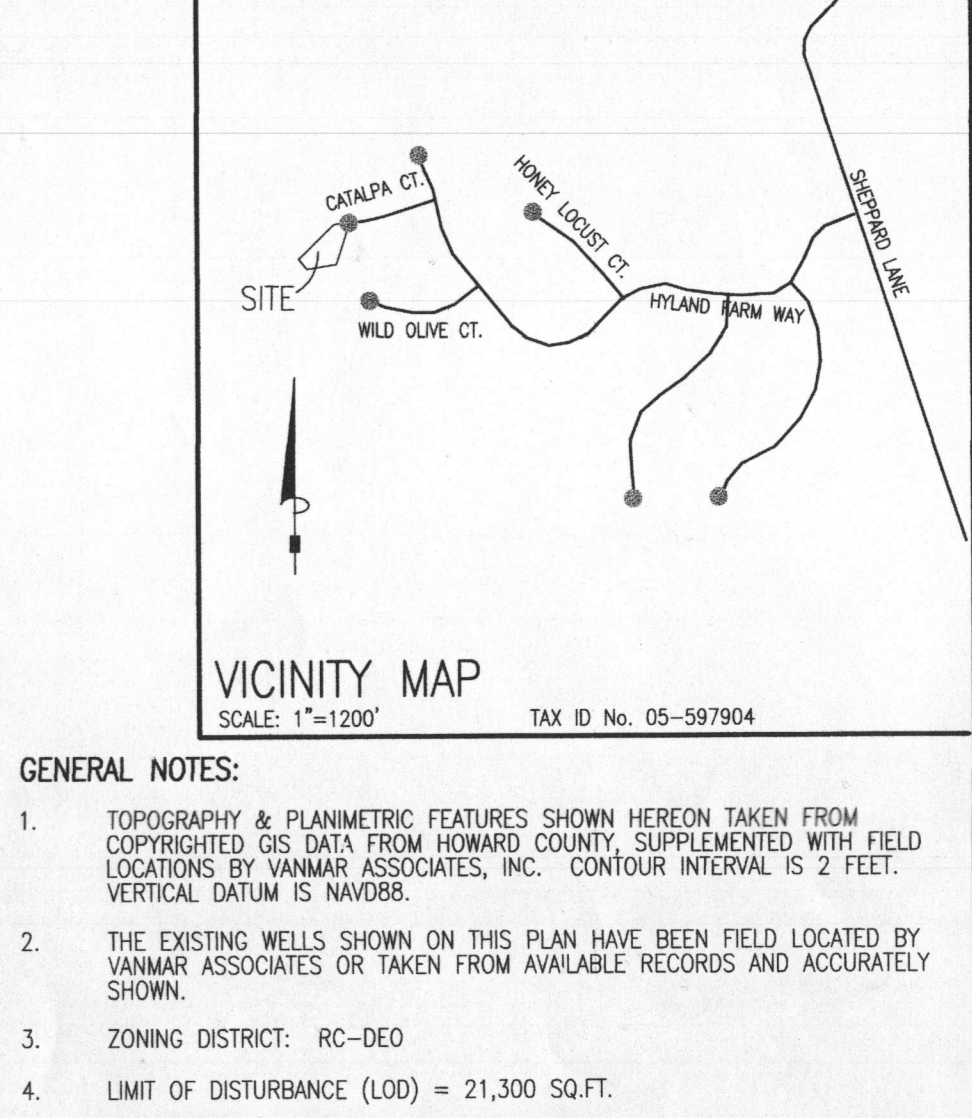
HOUSE DETAIL SCALE: 1"=20'

CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.



VICINITY MAP SCALE: 1"=1200'

GENERAL NOTES

- 1. TOPOGRAPHY & PLANIMETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
2. THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.

SEPTIC SYSTEM TRENCH DESIGN

Table with columns: INITIAL NUMBER OF BEDROOMS, APPLICATION RATE, DESIGN FLOW, TRENCH LENGTH, TRENCH WIDTH, TRENCH DEPTH, TRENCH SLOPE, TRENCH SPACING.

1st REPLACEMENT

Table with columns: APPLICATION RATE, DESIGN FLOW, TRENCH LENGTH, TRENCH WIDTH, TRENCH DEPTH, TRENCH SLOPE, TRENCH SPACING.

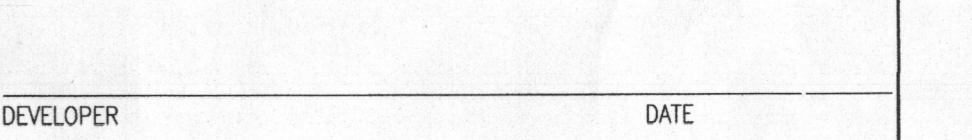
SITE PLAN NOTES

- 1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. MAXIMUM COVER OVER THE TANK IS 3 FEET. GREATER DEPTH WILL REQUIRE A HEAVY LOAD BEARING TANK.

CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

HOUSE DETAIL



HOUSE DETAIL SCALE: 1"=20'

CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

CONSTRUCTION SPECIFICATIONS

- 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 30 FEET (+30 FEET FOR SINGLE RESIDENCE LOTS). USE MINIMUM WIDTH OF 10 FEET. PLACE 30 TO 40 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.