

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: 8/1/16 **ONSITE SEWAGE DISPOSAL SYSTEM** P 558812-A

APPROVAL DATE: 9/6/16 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 12707 Milo Court

SUBDIVISION: Terrapin Creek LOT: PAR 1 TAX ID: 03-596046

CONTRACTOR: WTC Contractors EMAIL: _____

CONTRACTOR ADDRESS: 3033 Salem Bottom Road, Westminster, MD 21157 PHONE: 443-458-7024

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:

PROPERTY OWNER: LDG Inc. EMAIL: _____

OWNER ADDRESS: 8601 Georgia Avenue, Silver Spring, MD 20110 PHONE: 301-585-7000

BAT UNIT MODEL: Norweco TNTLP-500 PUMP SIZE: _____ PUMP TANK CAPACITY: _____

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 8/10/16 DATE RECORDED: 8/10/16

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 4 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>132' 141'</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>4.5</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: Hank Oswald ISSUE DATE: _____ EXPIRATION DATE: 8/1/17

- 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 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 16003653
- 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

See separate sheet
for as-built

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES	2	
TOTAL LENGTH	147'	
ABSORPTION AREA	541' + SIDEWALL	
DISTRIBUTION BOX LEVEL	YES	
DISTRIBUTION BOX BAFFLE	YES	
DISTRIBUTION BOX PORT	YES	

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL YES

MANUFACTURER BACKRIVER/ NORWECO

CAPACITY 1300 GAL

SEAM LOC TDR

TANK LID DEPTH 1-1.5'

BAFFLES NO

BAFFLE FILTER NO

MANHOLE LOC FRONT, MID, REAR

6" PORT LOC NONE

WATERTIGHT TEST No

SLOTTED No

DATE ON LID 7-15-16

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:

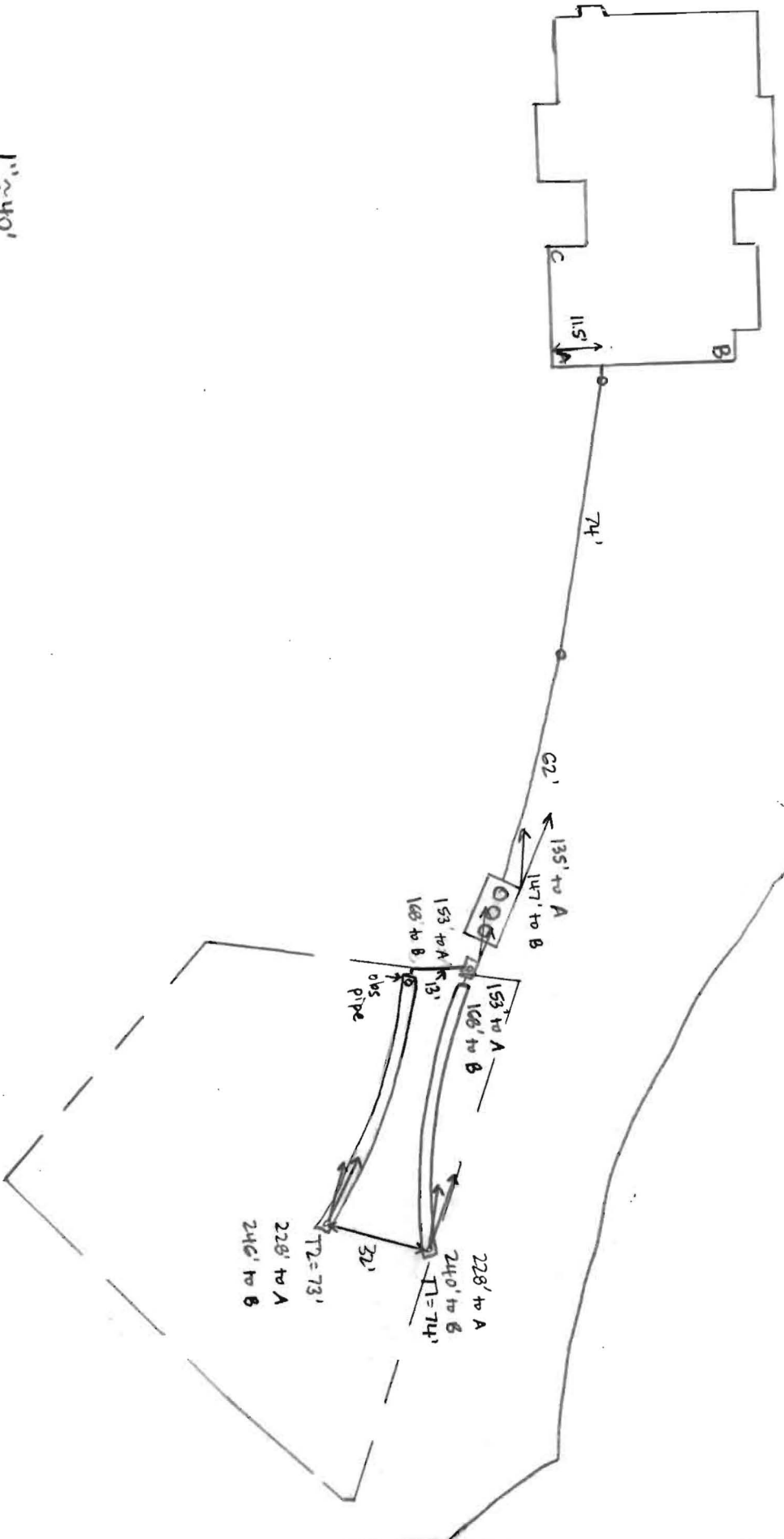
8/24/16 Met WTC on site for layout. All SDA + tank stakes present. Shot contour and laid out 2x7' trenches. Trench ends are farther apart than starts b/c contour changes. Well line may run between upper edge of SDA + road - must be sleeved if within 10' of SDA. (SC)

INSTALLATION: 8/25/16 Tank set, house connection made. D-box set. (SC) 8/29/16 T1 finished + left open at ends. WTC digging T2. 8' bottom, 3.5' to stone. leveled speed levelers on D-box. (SC) 8/29/16 T2 complete + left open, 3.5' to stone. Need BAT startup certification. (SC) 9/6/16 BAT startup certification received. (SC) 1/20/17 on site for Norweco startup. Alarm sounds, aerator runs. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 9/6/16

NOT TO SCALE

1" ≈ 40'



420' to A
441' to C
HO-95-1123
②

Back River Pre-Cast, LLC

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

Letter of Certification

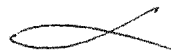
This is to certify that the Norweco Singlair TNT 600 GPD Septic Tank installed at 12707 Milo Ct., Sykesville, MD 21784 August 25, 2016 was installed according to the manufacture's specifications.

Installer: Walter Coon

Property Owner: Marlee Gladstein

Permit #

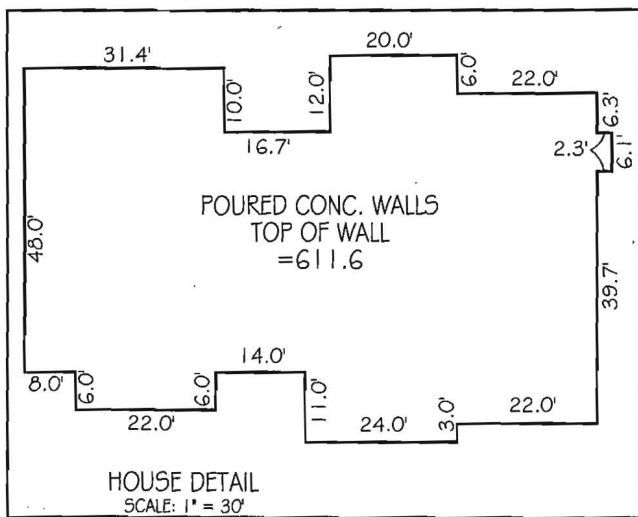
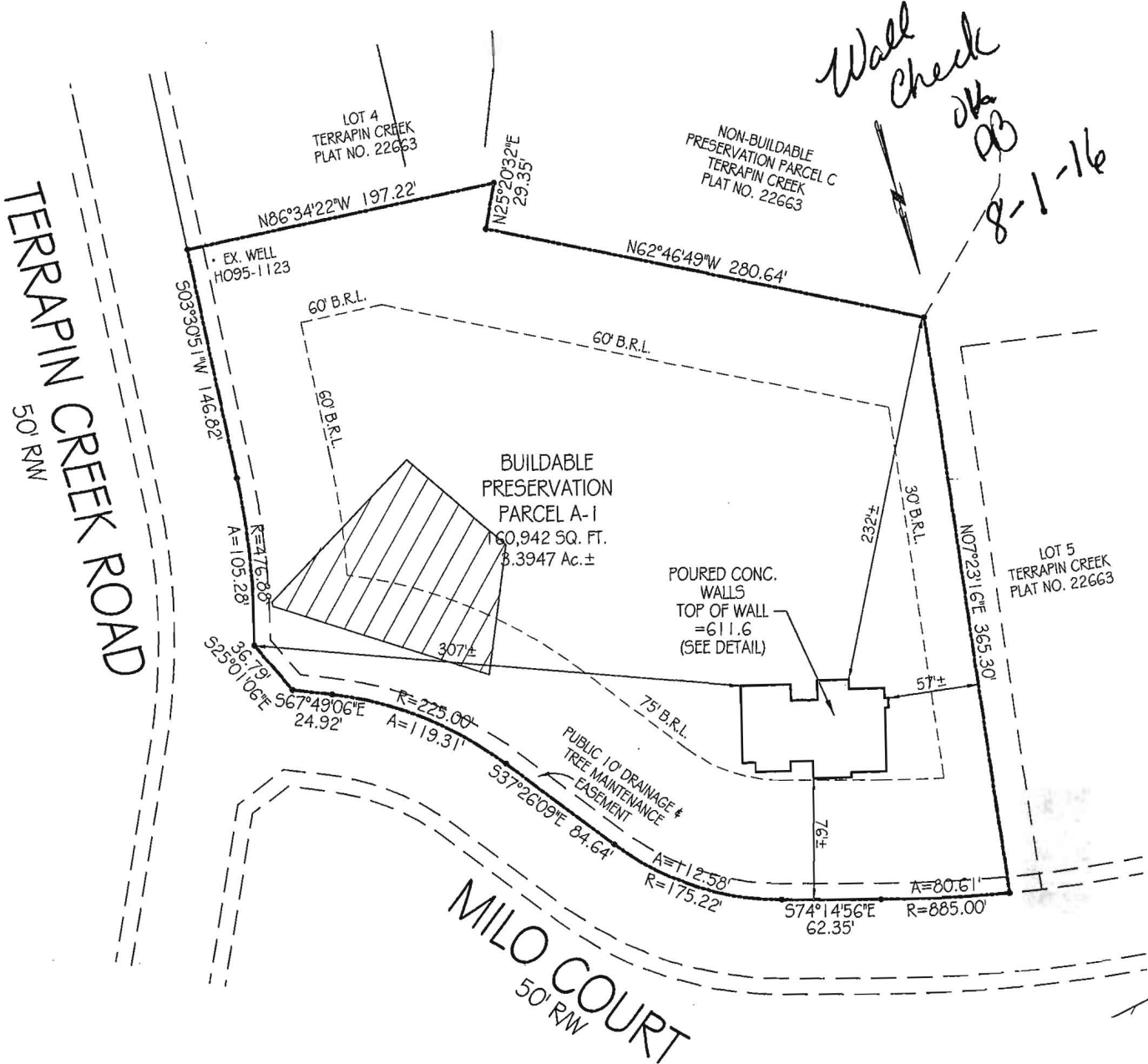
THIS CERTIFICATION IS FOR INSTALLATION ONLY. THE 5-YEAR OPERATIONS & MAINTENANCE AGREEMENT FROM DATE OF INSTALLATION WILL ONLY GO INTO EFFECT AFTER BACK RIVER PRE-CAST, LLC RECEIVES FINAL AND FULL PAYMENT FOR THE SYSTEM.



MATTHEW GECKLE

Vice-President

- NOTES:
- 1) FOUNDATION AND FOOTINGS ARE IN PLACE AS SHOWN HEREON.
 - 2) BUILDING TIES ARE $\pm 0.5'$ UNLESS OTHERWISE NOTED.
 - 3) TOP OF WALL = 611.6



PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A 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., Land Surveyor
 Date 7/8/16

**WALL CHECK DRAWING
 PRESERVATION PARCEL A-1
 TERRAPIN CREEK**

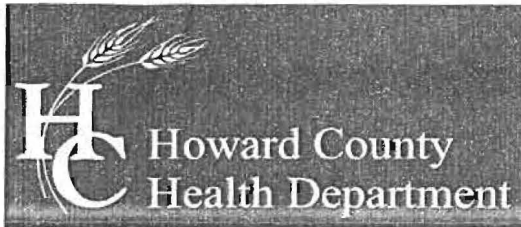
PLAT No. 22663
 12707 MILO COURT
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: 1" = 100' JULY, 2016

I CERTIFY THIS PLAT TO BE CORRECT AS 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
 ©Copyright, Latest Date Shown

REFERENCE	JOB NO.
PLAT NO. 23781	B4-5428



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TDD 410-313-2323 | Toll Free 1-866-313-6300

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Twitter: HowardCoHealthDep

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

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

THIS AGREEMENT is made this 10th day of AUGUST, among 10th AUGUST 2014
Catonsville Homes, L.L.C., 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
12707 Milo Court, Sykesville, MD 21784 (Parcel A1), in the 03 Election District of Howard
County, Maryland, and the deed to same is recorded or shall be recorded among the Land
Records of Howard County, Maryland in Liber 01988 Folio 00258.

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

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.
- B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.
- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require

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

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

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

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

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

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

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

Beit Rifon 8/10/2016

Howard County Health Department
CATONSVILLE HOMES, LLC

BY [Signature] 4/25/16
Owner #1 Signature / Date
ROBERT A. SCRANTON

Owner #2 Signature Date

Owner #1 Print Name

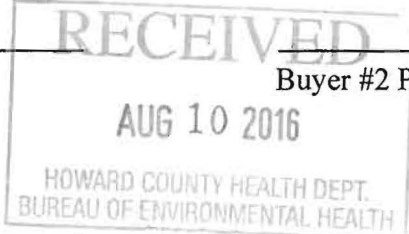
Owner #2 Print Name

[Signature] 4/20/2016
Buyer #1 Signature Date
MARLEE GLADSTEIN

[Signature] 4/20/16
Buyer #2 Signature Date
ILOR GLADSTEIN

Buyer #1 Print Name

Buyer #2 Print Name



**CATONSVILLE HOMES, LLC
OPERATING MAINTENANCE AGREEMENTS**

8/10/2016

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

Clerk of the Circuit Court for
Howard County
Land Records/Licensing

The Thomas Dorsey Building
9250 Bendix Road
Columbia, MD 21045
410-313-5850

=====
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 69

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 70

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 71

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 72

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 73

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 74

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: catonsville homes
Reference/Control #: 75

LR - Agreement Surcharge
1x 40.00 40.00

=====
SubTotal: 420.00
Total: 420.00

=====
REV-Check-BDA 420.00
Number : 23140

08/10/2016 14:15 CC13-SB
#6702903 /496/109
Thank you for visiting us today~

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, March 24, 2016 9:36 AM
To: ron@vanmar.com
Subject: BAT Plan Review_12707 Milo Court

Hi Ron:

Please find the following BAT plan review comments for the above referenced address.

- Show well line connection from house to well on plan. If well line falls within 10 foot of the easement, the line must be shown sleeved 10 feet in either direction from those points. If the line crosses over septic line, the well line must be shown sleeved 10 feet and be 12 inches above of septic line.
- Slow last 5 feet of septic line to 2 % prior to tank. Change profile and plan to match.

Should you have any questions, please don't hesitate to ask.

Best Regards,

Hank

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

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. 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 rippers mounted on construction equipment. After the soil is loosened, it must not be broken or dropped smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

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

2. Permanent Stabilization
a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
i. Soil pH between 6.0 and 7.0
ii. Soluble salts less than 500 parts per million (ppm)
iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lowgrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.

iv. Soil contains 1.5 percent minimum organic matter by weight.
v. Soil contains sufficient pore space to permit adequate root penetration.
vi. Application of amendments or topsoil required if on-site soils do not meet the above conditions.

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects, and remove stumps and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other suitable means to roughen the surface where site conditions are not uniform and smooth the 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 necessary on newly disturbed areas.

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 concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

2. Topsoil advanced from the source must meet the minimum standards set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.

3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material (such as pebbles, stones, or other objects) which are so large that treatment with limestone is not feasible.

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

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand.
b. Topsoil may be used if recommended by an agronomist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.

6. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, wild grass, and other weeds, thistles, or others as specified.

7. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

8. Topsoil Application
a. Erosion and sediment control practices must be maintained when applying topsoil.
b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from sodding or other operations must be corrected in order to prevent the formation of depressions or water pockets.

c. Topsoil must not be placed on the subsoil or subsoil in a rough or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading B.14 and seeded preparation.

d. Soil Amendments (Fertilizer and Lime Specifications)
i. Soil tests must be performed to determine the exact nutrient 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 analysis.

ii. 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 in the original container and must bear the applicable laws and must bear the name, trade name or trademark and warranty of the producer.

iii. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #200 mesh sieve.

iv. 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.

v. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 6 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

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iii. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #200 mesh sieve.

iv. 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.

v. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 6 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

vi. Soil Amendments (Fertilizer and Lime Specifications)
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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 used must have been tested within the 6 months immediately preceding the date of seeding on any project. Refer to Table B-4-4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding material must be applied when the ground thaws.

c. Inoculants: The inoculant for treating legume seed seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must be used later than the date indicated on the container. Add fresh inoculants as directed on the package.

d. Apply fertilizer and lime as prescribed on the plans. Fertilizer and lime are very important to keep inoculant as close as possible to seed. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.

e. 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.

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. Roll the seeders that with a weighted roller to provide good seed to soil contact. B.16 B. Ditch or Cutlip/Scooper Seeding: Mechanized seeders that apply seed in a single direction. Apply half the seeding rate in each direction. Roll the seeders that with a weighted roller to provide good seed to soil contact. B.16 B. Ditch or Cutlip/Scooper Seeding: Mechanized seeders that apply seed in a single direction. Apply half the seeding rate in each direction. Roll the seeders that with a weighted roller to provide good seed to soil contact. B.16 B. Ditch or Cutlip/Scooper Seeding: Mechanized seeders that apply seed in a single direction. Apply half the seeding rate in each direction. Roll the seeders that with a weighted roller to provide good seed to soil contact. B.16

b. Ditch or Cutlip/Scooper Seeding: Mechanized seeders that apply seed in a single direction. Apply half the seeding rate in each direction. Roll the seeders that with a weighted roller to provide good seed to soil contact. B.16 B. Ditch or Cutlip/Scooper Seeding: Mechanized seeders that apply seed in a single direction. Apply half the seeding rate in each direction. Roll the seeders that with a weighted roller to provide good seed to soil contact. B.16

c. 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.

d. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

e. Mulching: Mulch materials (in order of preference)
i. Straw consisting of lightly 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 highly moldy, coated, decayed, or excessively dirty. Note: Use only sterile straw mulch in areas where one species of grass is desired.

ii. Wood Cellulose Fibers (WCF) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
iii. WCFM including dye, must contain no germination or growth inhibiting factors.

iv. 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 better-size ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil while inhibiting the growth of the grass seedlings.

v. WCFM material must not contain elements or compounds at concentration levels that will be phytotoxic.

vi. 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 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.

3. Anchoring
a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion potential:
i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate 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 (Ago-Lock), DCA-70, Petroseal, Terra Tex II, Terra Lock AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.

iv. Lightweight plastic netting may be stocked over the mulch according to manufacturer recommendations. Netting is usually applied in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

v. Recommendations. Netting is usually applied in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

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