



# HOWARD COUNTY HEALTH DEPARTMENT

58017

PS

DATE 3/3/16

Received From

Precise Bookkeeping

PHONE #

443-398-0988

For

Upgrade-septic / 2101 Millers Mill Rd.

CASH

CHECK

NO.

2489

Three hundred ninety-six

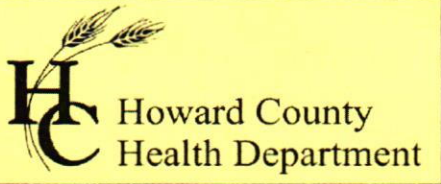
Dollars

\$

396.00

Received By

J King



**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](http://www.hchealth.org)  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

RECEIPT DATE: 3/3/16      **ONSITE SEWAGE DISPOSAL SYSTEM**      P 558017

INSTALLATION APPROVAL DATE: 3/17/16 (SEC)      **PERMIT**      A UPGRADE  
**UPGRADE**

PROPERTY ADDRESS: 2101 Millers Mill Road      TAX ID: 04-320026

CONTRACTOR: Freedom Septic      EMAIL: kristin@freedomseptic.com

CONTRACTOR ADDRESS: 2809 Liberty Road, Sykesville, MD 21784      PHONE: 410-984-6863

PROPERTY OWNER: Rainmaker Development      EMAIL: \_\_\_\_\_

OWNER ADDRESS: 6755 Business Parkway Suite 103, Elkridge, MD 21075      PHONE: 410-379-1525

TREATMENT TANK MODEL: Existing      TREATMENT TANK SIZE: \_\_\_\_\_

GREASE TRAP SIZE: \_\_\_\_\_

PUMP CHAMBER CAPACITY (GALLONS): \_\_\_\_\_      PUMP SIZE: \_\_\_\_\_

FLOW RATE (GALLONS PER DAY): 750      APPLICATION RATE: 0.8

DISTRIBUTION SYSTEM:    GRAVITY FED       LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u><del>170</del> 197 (64')</u>	INLET DEPTH: <u>4</u> ✓
	TRENCH WIDTH: <u>2</u> ✓	MAXIMUM BOTTOM DEPTH: <u>8</u> ✓
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>7</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:	<ul style="list-style-type: none"> <li>- Shortening two existing trenches must use appropriate fill at new end of trench to prevent bleeding into abandoned sections.</li> <li>- Adding new approved 3rd trench in approved area.</li> </ul>	

ISSUED BY: Jeff Williams      ISSUE DATE: 3/10/16      EXPIRATION DATE: 3/10/17

- 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**
- 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 As-Built Drawing  
On Separate Sheet

ROAD NAME

**TRENCH/DRAINFIELD DATA**

WIDTH INLET BOTTOM

2' 4' 0'

NUMBER OF TRENCHES 3

TOTAL LENGTH 194'

ABSORPTION AREA 398' + SIDEWALL

DISTRIBUTION BOX LEVEL YES

DISTRIBUTION BOX BAFFLE YES

DISTRIBUTION BOX PORT NO

**SEPTIC TANK DATA**

SEPTIC TANK 1 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:

3/15/2016 Couldn't locate trenches. Fill was put on top of them. Top trench under deck - not usable. Need backhoe to expose trenches. (BB)

3/16/16 Existing trenches (Ends) exposed. 6' deep to inlet on upper trench, 5' to inlet on lower. Upper trench can not be excavated to meet 20' setback to pool. Upper trench to be abandoned (cut-off @ D-box) shot 2x64 trenches below existing trench. Elevation diff 12" higher @ end. Hold

INSTALLATION: same contract. (adjust elevation accordingly). Laser must be used.

Call for trench insp. and verification of upper trench removal. (KW)

3/17/16 End of <sup>existing</sup> lower trench removed - perforated pipe cut, stone taken out. Existing upper trench remains, disconnected from D-box. Two trenches added below - 3' to stone. 2' wide cave-in at middle ~20' of lowest trench makes it slightly wider in that area. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 3/17/16

HO-81-2787

~45'

~141'

2101 Millers  
Mill Road

20'  
21'  
36'

96'

63'

trench disconnected from  
system (end under deck)  
portion of existing trench  
removed

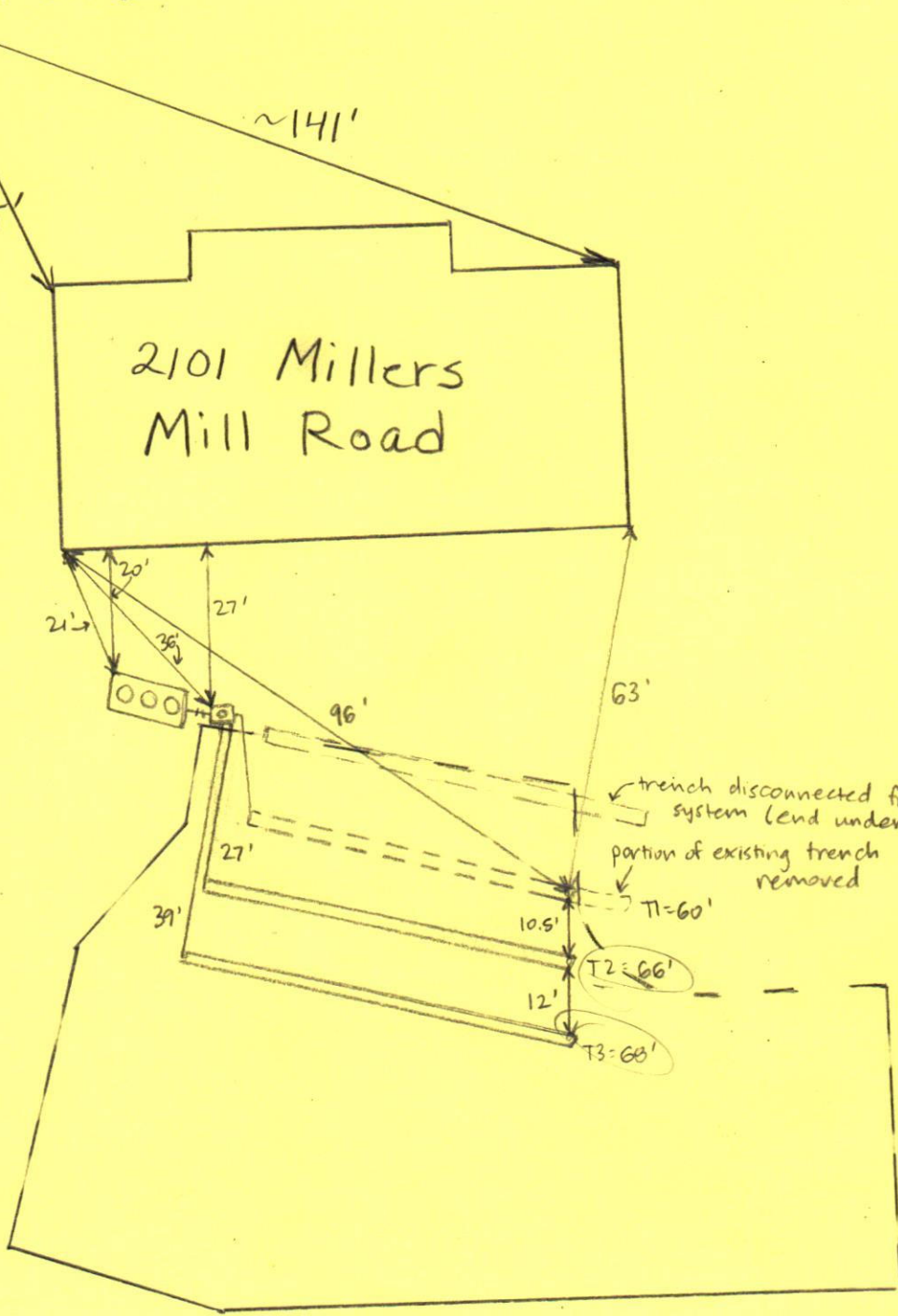
39'

10.5'

T2=66'

12'

T3=60'





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 Twitter: HowardCoHealthDep

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

**INFORMATION FORM – SEPTIC SYSTEM REPAIR/UPGRADE**

Reason for Request:

- Failing System
- System relocation for proposed addition
- System upgrade for proposed addition
- Inadequate treatment zone *pool*
- Collapsed septic tank
- Collapsed drywell

Existing system design

- Drywell
- Trench
- Mound
- Unknown
- Other: \_\_\_\_\_

Is discharge surfacing on the ground?

- Yes
- No

Has the septic tank been pumped within the last month?

- Yes Date pumped: \_\_\_\_\_
- No

Was a visual inspection of the septic tank and/or drain fields conducted?

- Yes Explain observations: \_\_\_\_\_
- No

Was a visual inspection of the sewage line conducted?

- Yes
  - Blockage leading to the tank
    - Yes Explain: \_\_\_\_\_
    - No
  - Blockage leading to the field
    - Yes Explain: \_\_\_\_\_
    - No
- No

Additional Comments:

*Moving drain fields for pool on existing septic system*

\*For REPAIRS, are the owners proposing, or do they plan to add in the future, any additions or modifications to the property, i.e. pools, living space additions, garages, etc? This information must be disclosed at the time of this application. The Health Department will not be able to accommodate requests in the field for property modifications unrelated to the repair request. Such requests may require an additional fee, testing, and submittal of a Percolation Certification Plan, if the property does not meet current Code and Regulation.

Septic Contractor: Freedom Septic Contractor's Phone: 410-984-6843  
 Contractor's Address: 3809 Liberty Rd Sykesville, MD 21784

Property Address: 3101 Millers Mill Rd County file: \_\_\_\_\_

Subdivision: Princeton Mill Lot: 12 Year Built: \_\_\_\_\_

Owner's Name: Bainmaker Development Owner's Phone: 443-939-9334

Name of previous owners: \_\_\_\_\_ Existing bedrooms: \_\_\_\_\_  
 Proposed bedrooms: \_\_\_\_\_

Has this request been previously discussed with a Sanitarian? (Name): \_\_\_\_\_  
 Public Sewer available/nearby: \_\_\_\_\_

\*A Sanitarian will be in contact within three business days, depending upon the urgency of the situation, to coordinate the scheduling/review of the repair or upgrade.

\*Prior to scheduling inspections, scaled plans should be submitted to clarify the nature of the addition.\*

Print out a copy of Real Property Data via Dept. of Taxation website \_\_\_\_\_ Indexed file found \_\_\_\_\_

If public sewer may be nearby, verify whether sewer is technically "available" through the Bureau of Engineering.

If sewer is available and the property is within the Metropolitan District, connection to sewer is required. If the owner believes reason for exemption exists, the owner should justify the request in writing.

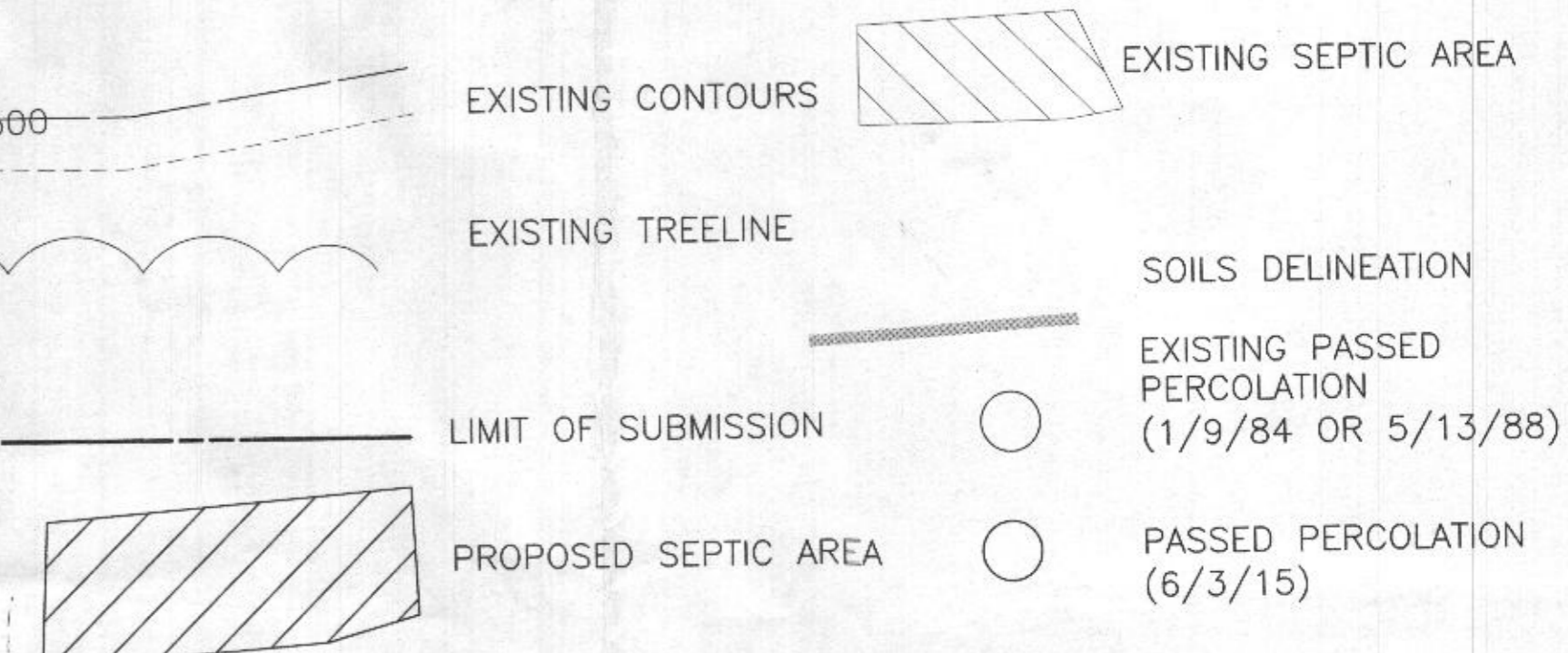
If soil/site conditions are limited and sewer and/or Metro District status is not conducive to connection, the Sanitarian may recommend pursuit of Emergency Sewer Extension or Emergency Metro District Inclusion. The Owner should contact the Bureau of Utilities for details.

No permit is to be issued nor inspection to be scheduled without prior fee collection at the office unless an emergency situation exists. The contractor is to notify office of the emergency situation as soon as possible.

SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
GnB2	C	GLENVILLE, SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
-	-	-

\* INDICATES HYDRIC SOILS  
TAKEN FROM SOILS SURVEY, ISSUED JULY 1968, MAP NO. 33

**LEGEND**



**BUILDING PERMIT PLAN NOTES:**

- THE LOT SHOWN HEREON WAS RECORDED AS PARCEL 2 IN A DEED RECORDED AS LIBER 16333 FOLIO 329 AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND, DATED JULY 10, 2015.
- SEDIMENT AND EROSION CONTROLS ARE NOT REQUIRED FOR THIS PERMIT PLAN.
- TOPOGRAPHY SHOWN HEREON IS TAKEN FROM HOWARD COUNTY GIS DEPARTMENT DATA AND FILED RUN TOPOGRAPHY BY BENCHMARK ENGINEERING, INC., DATED JULY, 2015.
- ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE REQUIREMENTS OF COMAR AND HOWARD COUNTY CODE.
- THE EXISTING WELL SHOWN ON THIS PLAN, HO-81-2787, HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC., AND IS ACCURATELY SHOWN.
- THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
- ANY CHANGES TO A PRIVATE SEWAGE EASEMENT OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- THE PURPOSE OF THIS REVISED BAT PLAN IS TO SHOW THE LOCATION OF THE PROPOSED POOL, THE SEPTIC ARE REVISION AND THE NEW TRENCH DESIGN.

INV. OUT OF HOUSE	594.8
INV. IN TANK	594.2
INV. OUT SEPTIC TANK	593.9
TOP OF SEPTIC TANK	595.2
GROUND OVER SEPTIC TANK	596.8
INV. INTO BOX	592.5
INV. OUT OF BOX	592.4
GROUND AT BOX	596.4



**BENCHMARK**  
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315  
ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 ▲ FAX: 410-465-6644  
BEI@BEI-CIVILENGINEERING.COM

Approved Septic System Plan  
Howard County Health Department

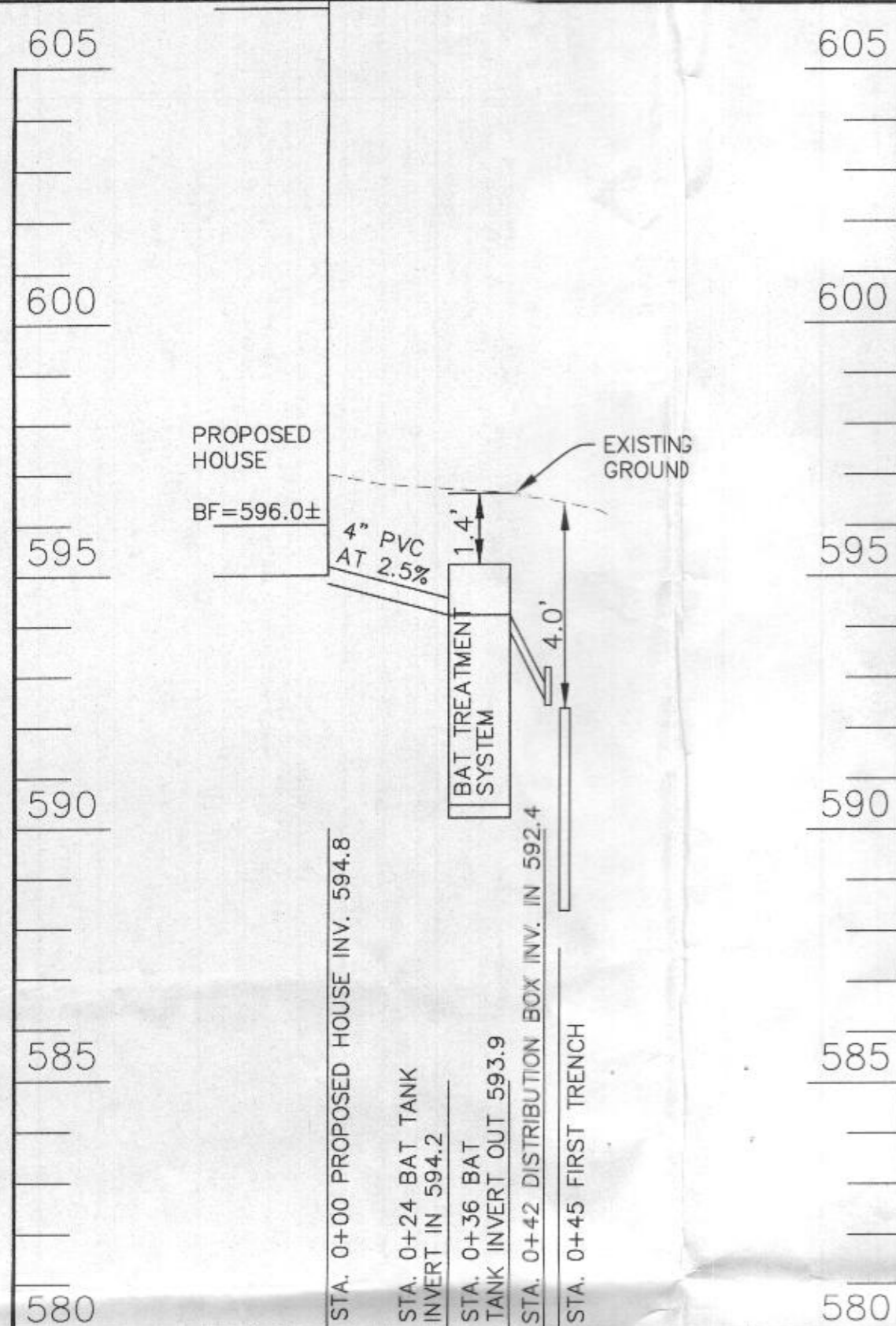
Signature: *[Signature]* Date: 3/10/16

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OWNER: TODD AND LINDA ARTERBURN 5111 AVOCA AVENUE ELLICOTT CITY, MARYLAND 21043 443-829-9224	PROJECT: <b>PRINCETON MILL PARCEL 2</b>
	LOCATION: 2101 MILLERS MILL ROAD COOKSVILLE, MD 21723 TAX MAP: 14 GRID: 4 PARCEL: 76 4TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND TAX ID NUMBER: 04-320026
	TITLE: REVISED BAT SITE PLAN
	HOUSE TYPE: EXISTING HOUSE REMODEL
DATE: SEPTEMBER, 2015 MARCH, 2016	PROJECT NO. 2696
DESIGN: JMC DRAFT: JMC	SCALE: 1" = 30' DRAWING 1 OF 2

PLAN VIEW  
1" = 30'





SEWER PROFILE  
SCALE: VERTICAL 1"=3', HORIZONTAL 1"=30'

TRENCH INFORMATION

TRENCH	TRENCH LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
TRENCH 1-1	65 LF	596.3	592.3	588.3
TRENCH 1-2	68 LF	595.1	591.1	587.1
TRENCH 1-3	64 LF	594.2	590.2	586.2
TRENCH 2-1	86.7 LF	592.5	588.5	584.5
TRENCH 2-2	86.7 LF	591.0	587.0	583.0
TRENCH 2-3	86.7 LF	589.0	585.0	581.0

INITIAL SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4	ft
Bottom Max Depth	8	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall reduction credit	0.36	
Trench width	2	
Effective Area Depth	4	
Linear Length of trench Required	170	lf

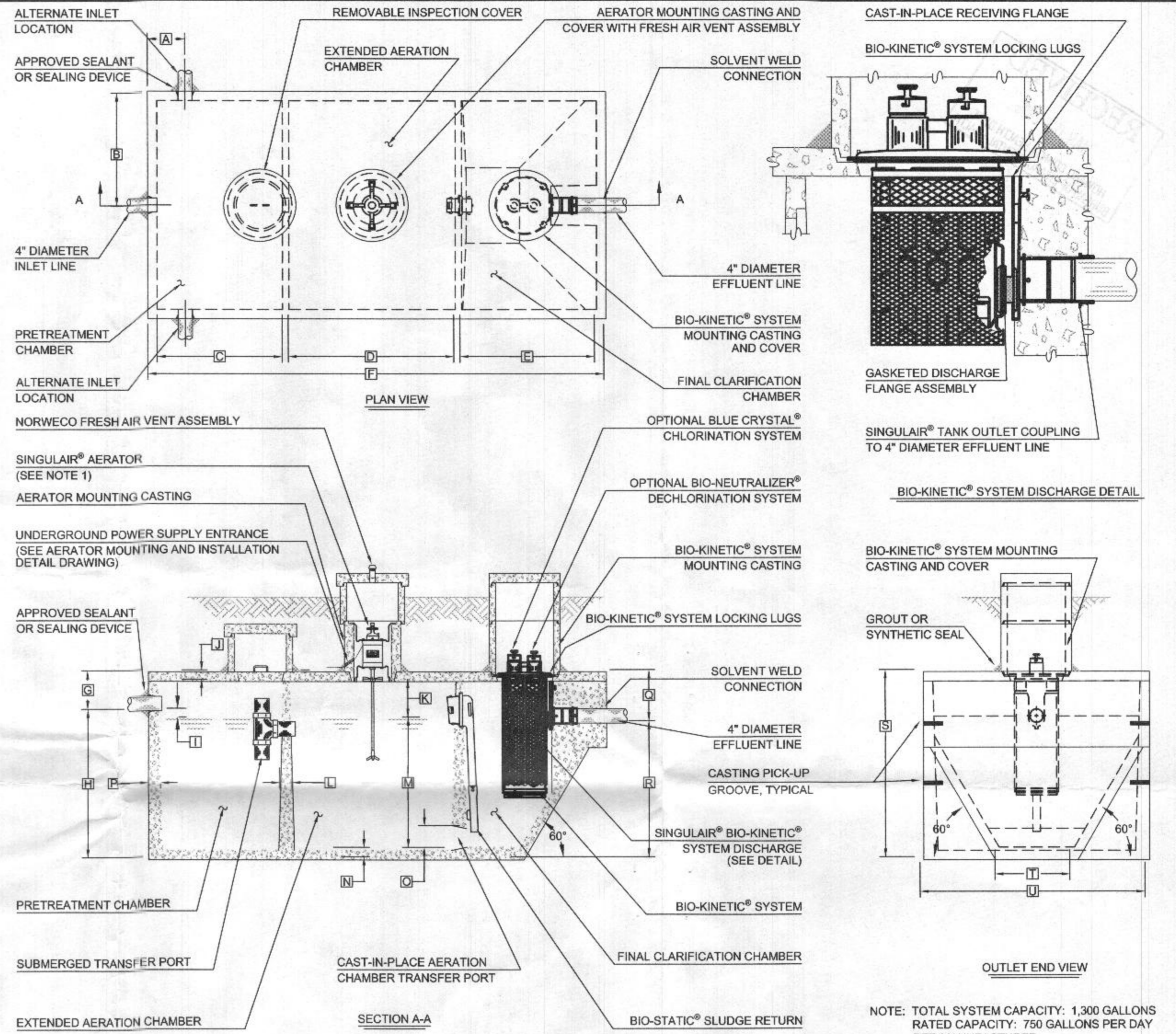
1st REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	7	ft
Bottom Max Depth	8	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	260	lf

2nd REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	7	ft
Bottom Max Depth	8	ft
Design Flow	750	gpd
Drainage Field square footage	938	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	260	lf

- GENERAL NOTES:**
- SINGULAIR® AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
  - FALL THROUGH SINGULAIR® PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
  - ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC® SYSTEM MOUNTING CASTING TO GRADE.
  - TANK REINFORCED PER ACI STD. 318-05.
  - REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
  - CONTACT THE LOCAL, LICENSED SINGULAIR® DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

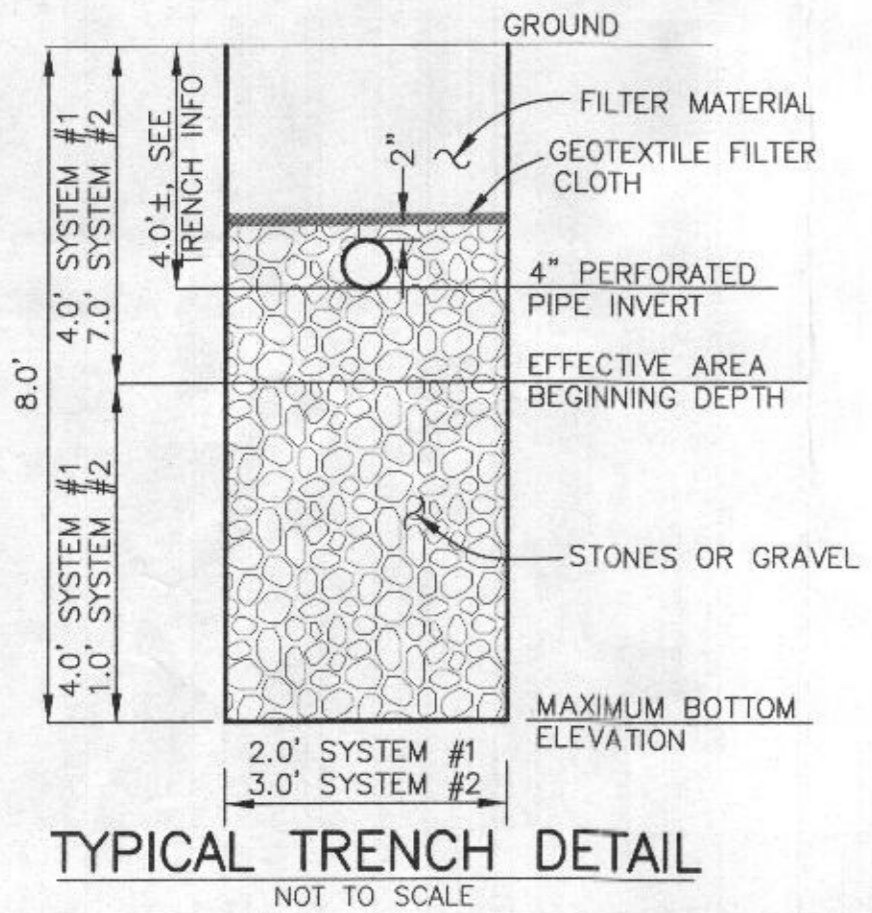
CRITICAL DIMENSIONS			
A	1'-0"	N	0'-3"
B	3'-0"	O	0'-6"
C	3'-4"	P	0'-3"
D	4'-5"	Q	1'-4"
E	3'-7"	R	3'-8"
F	12'-2"	S	5'-0"
G	1'-0"	T	2'-0"
H	4'-0"	U	6'-0"
I	0'-3"	V	
J	0'-3"	W	
K	1'-0"	X	
L	0'-2"	Y	
M	3'-6"	Z	

norweco			
U.S. AND FOREIGN PATENTS PENDING	3-26-07	BDS	JMM
LOW-PROFILE SINGULAIR® BIO-KINETIC® WASTEWATER TREATMENT SYSTEM MODEL TMTLP-800 GPD	10-16-06	NTS	PC-5-7091



SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS. WWW.NORWECO.COM

NOTE: TOTAL SYSTEM CAPACITY: 1,300 GALLONS  
RATED CAPACITY: 750 GALLONS PER DAY PER MANUFACTURER.



- Required BAT Site Plan Notes**
- 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.
  - The maximum depth of the BAT shall be per the manufacturer's specification, 3.0'.
  - The blower may not be located further from the tank than the manufacturer's specifications, 75'.
  - The BAT system shall be maintained and operated for the life of the system.
  - The BAT shall be operated by and maintained by a certified service provider.
  - Within one month of installation, a person installing the BAT system shall report to the Maryland Department of the Environment (MDE) in a manner acceptable to MDE, the address and date of completion of the BAT installation and the type of BAT installed.
  - Electrical work for the BAT installation must be performed by a licensed electrician.
  - An agreement and Easement must be completed and signed by all applicable parties, and recorded in Land Records of Howard County.
  - The Health Department requires documentation for the start-up certification from the manufacturer prior to final approval of the installation.

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8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315  
ELLCOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 ▲ FAX: 410-465-6644  
BEI@BEI-CIVILENGINEERING.COM

SIGNATURE AND SEAL ARE FOR PROFILE ONLY:  
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. 45577, Expiration Date: 06-08-2016.

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