

Bureau of Environmental Health
 7178 Gateway Drive Columbia, MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

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

RECEIPT DATE: 8-5-14 **ONSITE SEWAGE DISPOSAL SYSTEM**

P SS4567

INSTALLATION APPROVAL DATE: 8/26/2014

**PERMIT
CONSTRUCTION**

A _____

PROPERTY ADDRESS: 6231 Heather Glen Way

SUBDIVISION: Preserve at Clarksville LOT: 27 TAX ID: _____

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

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

PROPERTY OWNER: Compass Homes EMAIL: _____

OWNER ADDRESS: 6206 Heather Glen Way, Clarksville, MD 21029 PHONE: _____

BAT UNIT MODEL: Norweco TNTLP BAT UNIT SIZE: 600GPD

PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____

NUMBER OF BEDROOMS: 6 HOUSE SQ. FT. _____ APPLICATION RATE: 1.0

DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 162'</u>	INLET DEPTH: <u>SEE BAT PLAN 3'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 2'</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 7'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>SEE BAT PLAN 8'</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>SEE BAT PLAN 3'</u>

LOCATION: PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.

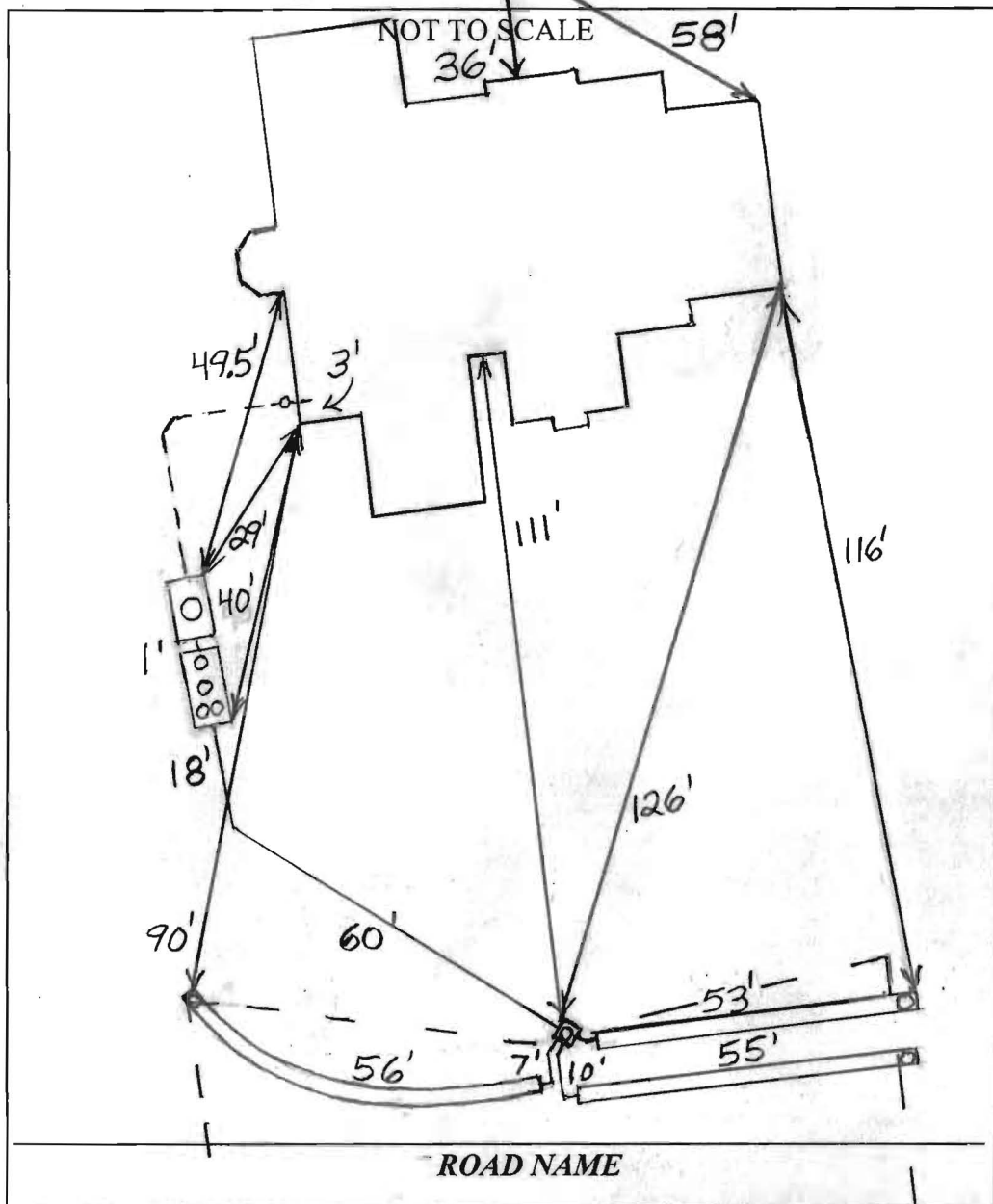
NOTES: Set BAT unit per plan.
3x54' Trenches

ISSUED BY: Jeff Williams ISSUE DATE: 8-5-14 EXPIRATION DATE: 8-5-15

- 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 DOWNGRAIENT 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

**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.**

H0-95-0239



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
2'	3.5'	7-7.5'
NUMBER OF TRENCHES 3		
TOTAL LENGTH 164'		
ABSORPTION AREA 574+		
DISTRIBUTION BOX LEVEL Levelers		
DISTRIBUTION BOX BAFFLE Yes		
DISTRIBUTION BOX PORT Yes		

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	Yes
MANUFACTURER	Maryland Concrete
CAPACITY	1000 GAL
SEAM LOC	Top
TANK LID DEPTH	0.5-1.5'
BAFFLES	N/A
BAFFLE FILTER	N/A
MANHOLE LOC	Middle
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	No
DATE ON LID	Dry
SEPTIC TANK 2 LEVEL	Yes
MANUFACTURER	Norweco
CAPACITY	1300 GAL
SEAM LOC	Top
TANK LID DEPTH	0.5-1.5'
BAFFLES	N/A
BAFFLE FILTER	N/A
MANHOLE LOC	N/A
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	N/A
DATE ON LID	Dry

PRE-CONSTRUCTION: 8/21/2014 Install the dist. box at the top middle of the easement. Install three 54' trenches on contour across the top of the easement. Set the tanks where shown on the plan. (BB)

INSTALLATION: 8/26/2014 Septic approved by Back River Precast. Everything finished. O.K. to backfill. (BB)

FINAL INSPECTOR B. Baker DATE OF APPROVAL 8/26/2014

Back River Pre-Cast, LLC

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

Letter of Certification

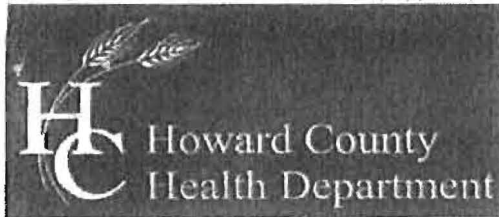
This is to certify that the Norweco Singulair TNT 1000 GPD Septic Tank installed at 6231 Heather Glen Way, Clarksville, MD 21029 August 25, 2014 was installed according to the manufacture's specifications.

Installer: Jeff Reiter



MATTHEW GECKLE

Vice-President



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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 26 day of February, among
Maaza Abdi + Eyasu Mekonen, hereinafter collectively referred to as
"Owner", and the Howard County Health Department hereinafter referred to as the
"County".

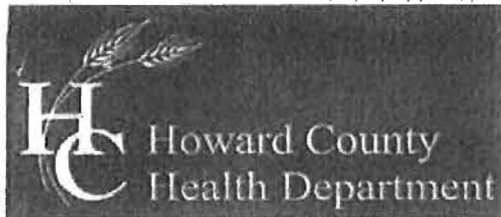
WHEREAS, Owner is the owner or contract owner of a parcel of land located at
6231 Heather Glen Way, in the 5th Election District of Howard
County, Maryland, and the deed to same is recorded or shall be recorded among the Land
Records of Howard County, Maryland in Liber 15236 Folio 00041

Handwritten notes: 20, 40, and initials.

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.

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



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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 26 day of February, among Mazza Abdi + Eyasu Mekonen, 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 6251 Heather Glen Way, in the 5th 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 15236 Folio 0001

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.

NOW, THEREFORE, the parties hereto agree as follows:

- 20
40
CH
- 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.

Maaya sarda 2/26/14
Owner MAAZA Abdi Date

AA 02/26/14
Owner EYASU MEKONEN Date

Bert Nixon 2/27/2014
Howard County Health Department
BERT NIXON

LR - Agreement
Recording Fee 20.00
Grantor/Grantee Name:
Abdi
Reference/Control #: 110
LR - Agreement Surcharge 40.00
Subtotal: 60.00
Total: 120.00
#2528361-5
03/05/2014 08:39
#2528361 00503 - CC13-CH
Howard Co
Columbia/CO05.03.03 -
Register 03 495



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 Twitter: HowardCoHealthDep

LR - Agreement
 Recording Fee 20.00
 Auditor/Grantee Name: Abdi
 Reference/Control #: 100
 LR - Agreement
 Surcharge 40.00
 SubTotal: 60.00
 Total: 120.00

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

AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Eyad Mekonen + Marge Abdi ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 6231 Heather Glen Way, Clarksville MD 21029 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 0034, Block # _____, Parcel # 0077, Deed Reference # 15236/00041 and Tax Account # 440417 ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have and individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit HO-95-0239 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi/L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

NOW THEREFORE, the parties have agreed to the following terms and conditions:

#2526361-1
 03/05/2014 08:39
 #2526361 CC0503 -
 Howard Co
 Columbia/CC05.03.03 -
 Register 03 495
 CC12-CH

20
 20
 20

1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).
3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warranty or guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department 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 their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

<u>Maaza Abdi</u>	<u>2/26/14</u>	<u>[Signature]</u>	<u>2/26/14</u>
Owner <u>MAAZA Abdi</u>	Date	Witness <u>BOB CORBETT</u>	Date
<u>[Signature]</u>	<u>02/26/14</u>	<u>[Signature]</u>	<u>2/26/14</u>
Owner <u>EYASU MEKOWEN</u>	Date	Witness <u>BOB CORBETT</u>	Date
<u>[Signature] for Mauria Rossman</u>	<u>2/27/2014</u>		
Health Officer <u>PERT NIXON</u>	Date		

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: Abdi
Reference/Control #: 109

LR - Agreement Surcharge
1x 40.00 40.00
LR - Agreement Recording Fee
1x 20.00 20.00
Grantor/Grantee Name: Abdi
Reference/Control #: 110

LR - Agreement Surcharge
1x 40.00 40.00
=====
SubTotal: 120.00
Total: 120.00
=====
REV-Check-BOA 120.00
Number : 1612

03/05/2014 08:38 CC13-CH
#2526361 /495/109
Thank you for visiting us today~

RECORDING OF SEPTIC AGMT
+ RADIUM AGMT FOR
PAC 027

Williams, Jeffrey

From: Williams, Jeffrey
Sent: Friday, April 11, 2014 3:27 PM
To: 'David Thompson'
Subject: preserve lot 27 BAT

Hi Dave. I reviewed the BAT plan for Preserve at Clksville lot 27. We just need some additional trench info. We want to see how many bedrooms are being proposed to get to the linear length shown. We want to see the details of trench width and elevations for trench invert (already shown), ground over trench, and trench bottom. I think you already have the specs here, which give 45.' Effective depth and 7' bottom depth.

Jeff Williams
Program Supervisor, Well & Septic Program
Bureau of Environmental Health
Howard County Health Dept.
410-313-4261
jewilliams@howardcountymd.gov

CONFIDENTIALITY NOTICE

This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from reading, disseminating, distributing, or copying this communication. If you have received this email in error, please notify the sender immediately and destroy the original transmission.

PRESERVE TRI-PARTY AGREEMENT

THIS PRESERVE TRI-PARTY AGREEMENT made this 13th day of November, 2014 (the "Agreement") by and among EYDSU MEKONEN and MAAZA ABDI (collectively the "Buyers"), WILLIAMSBURG GROUP L.L.C. ("Williamsburg") and the HOWARD COUNTY HEALTH DEPARTMENT ("Health Department").

WHEREAS, the Buyers and the Health Department previously entered into Agreement for Approval of an Individual Drinking Well with an On-Site Treatment System dated March 17, 2014 ("Prior Agreement"); and

WHEREAS, the Prior Agreement established certain requirements for the removal of radium from the drinking water at the property located at Lot 27 in the Preserve with a street address of 6231 Heather Glen Way, Clarksville, Maryland; and

WHEREAS, the Prior Agreement was recorded in the Land Records of Howard County Maryland ("Land Records"); and

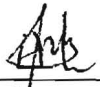
WHEREAS, the Buyers, the Health Department and Williamsburg have collectively determined that the remedial measures contemplated by the Prior Agreement are no longer necessary and need not be implemented, being that the initial levels were misapplied to this lot and that current, corrected gross alpha and gross beta values are within acceptable limits.

WHEREAS, the parties wish this Agreement to serve as a recorded instrument negating the Prior Agreement and rendering such Prior Agreement null and void.

NOW THEREFORE BE IT AGREED:

1. The recitals set forth above are deemed an integral part of this Agreement.
2. This Agreement can and will be recorded in the Land Records upon execution by the Buyers, the Health Department and Williamsburg.
3. The effect of this Agreement shall be to terminate the Prior Agreement as set forth in the recitals.
4. This Agreement shall be binding on the parties, their heirs, successors and assigns.

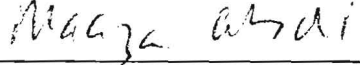
IN WITNESS WHEREOF, the parties have put their hands and seals on the date first above written.



Eydsu Mekonen

HOWARD COUNTY HEALTH DEPARTMENT

By: 
Health Officer

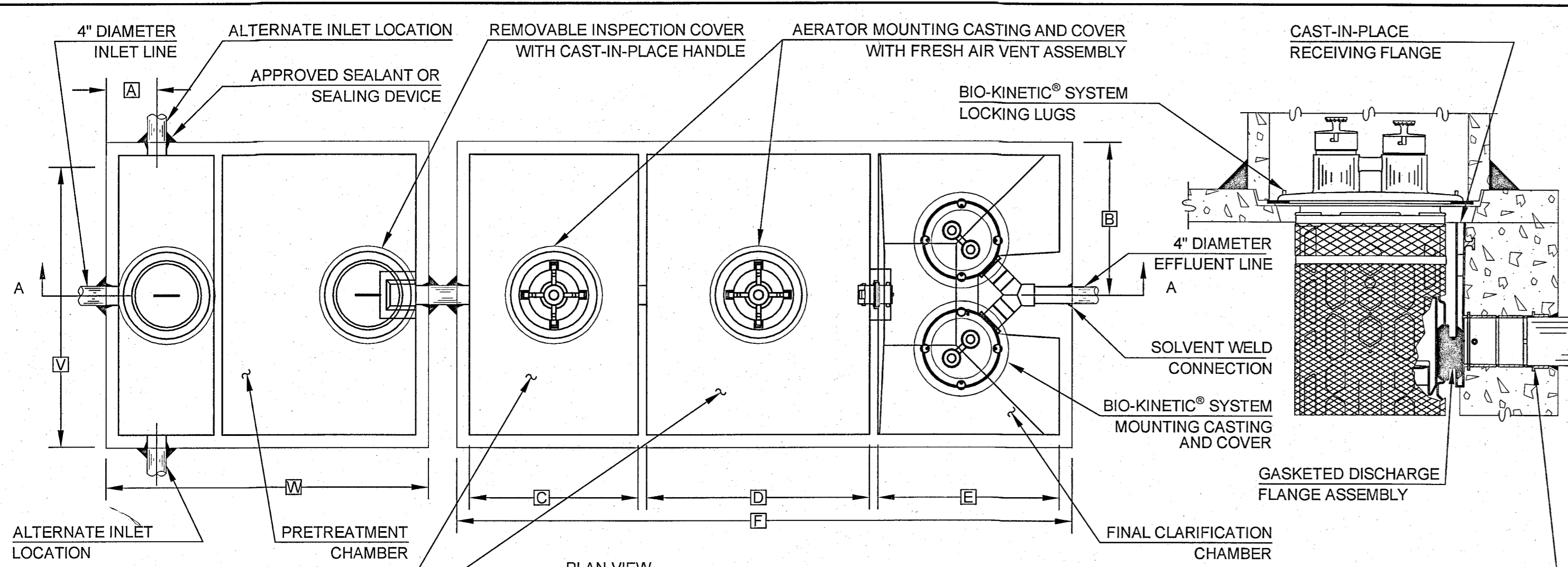


Maaza Abdi

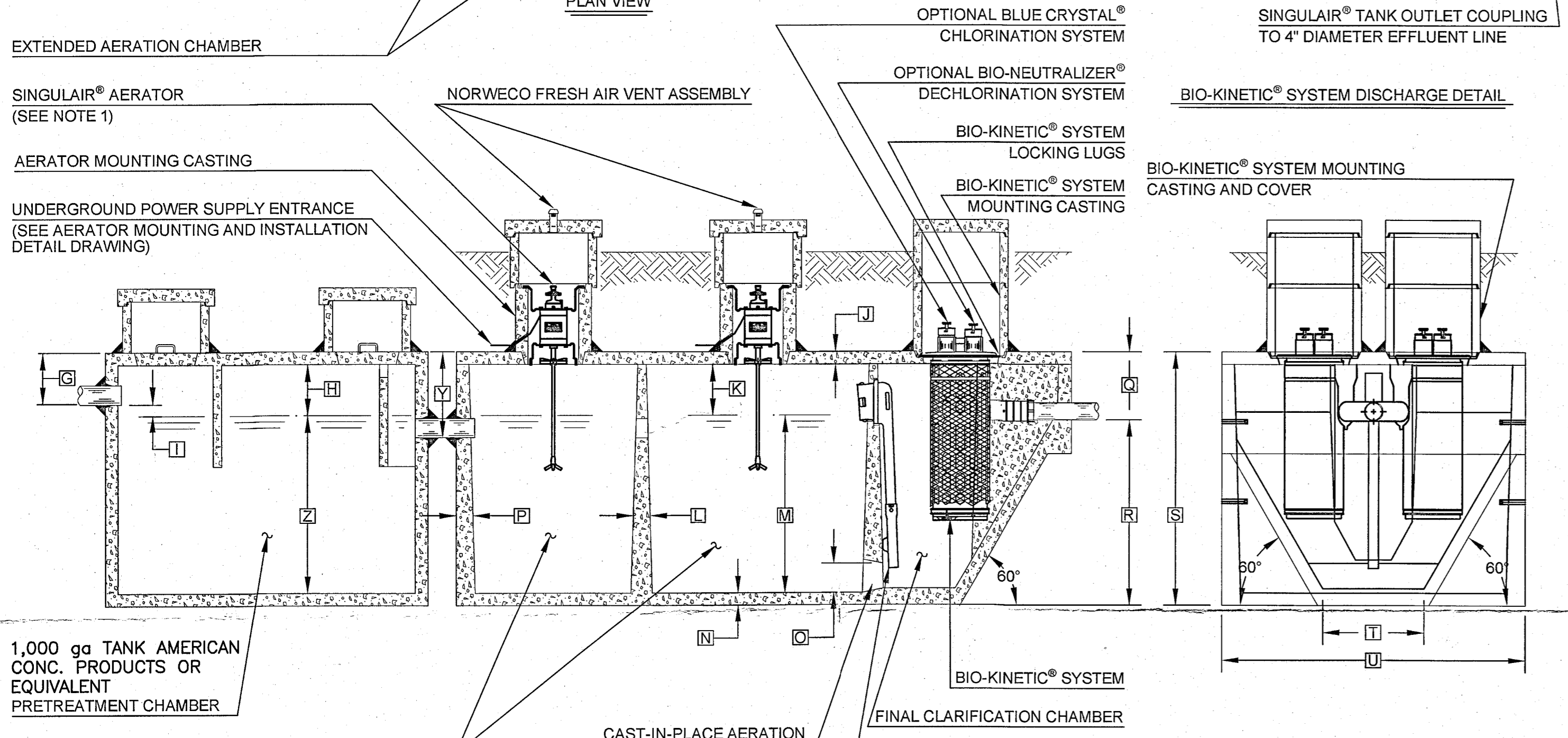
WILLIAMSBURG GROUP L.L.C.

By: 

Bob Corbett, Vice President



- GENERAL NOTES:**
- SINGLAIR® AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
 - FALL THROUGH SINGLAIR® 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. INSPECTION COVER ON PRETREATMENT CHAMBER MUST BE DEVELOPED TO WITHIN TWELVE INCHES OF GRADE.
 - TANK REINFORCED PER ACI STD. 318.
 - REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
 - CONTACT THE LOCAL, LICENSED SINGLAIR® 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	1'-0"	U	6'-0"
I	0'-3"	V	5'-0"
J	0'-3"	W	8'-0"
K	1'-0"	X	
L	0'-2"	Y	1'-8"
M	3'-6"	Z	

NOTE: PRETREATMENT CHAMBER MINIMUM REQUIREMENTS SHALL BE: 1,000 GALLONS CAPACITY, 15 GALLONS PER INCH OF LIQUID LEVEL AND 12 INCHES OF FREEBOARD.

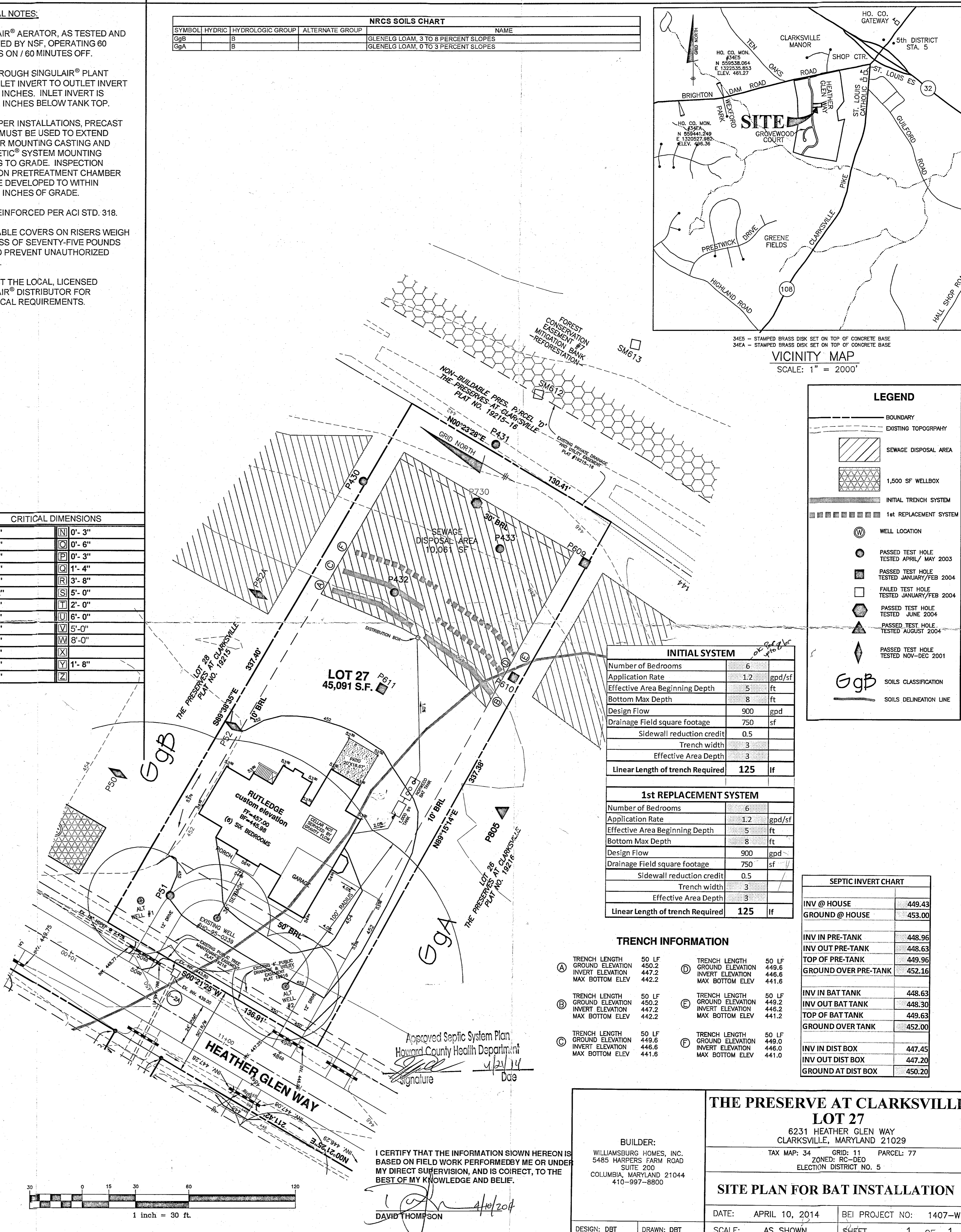
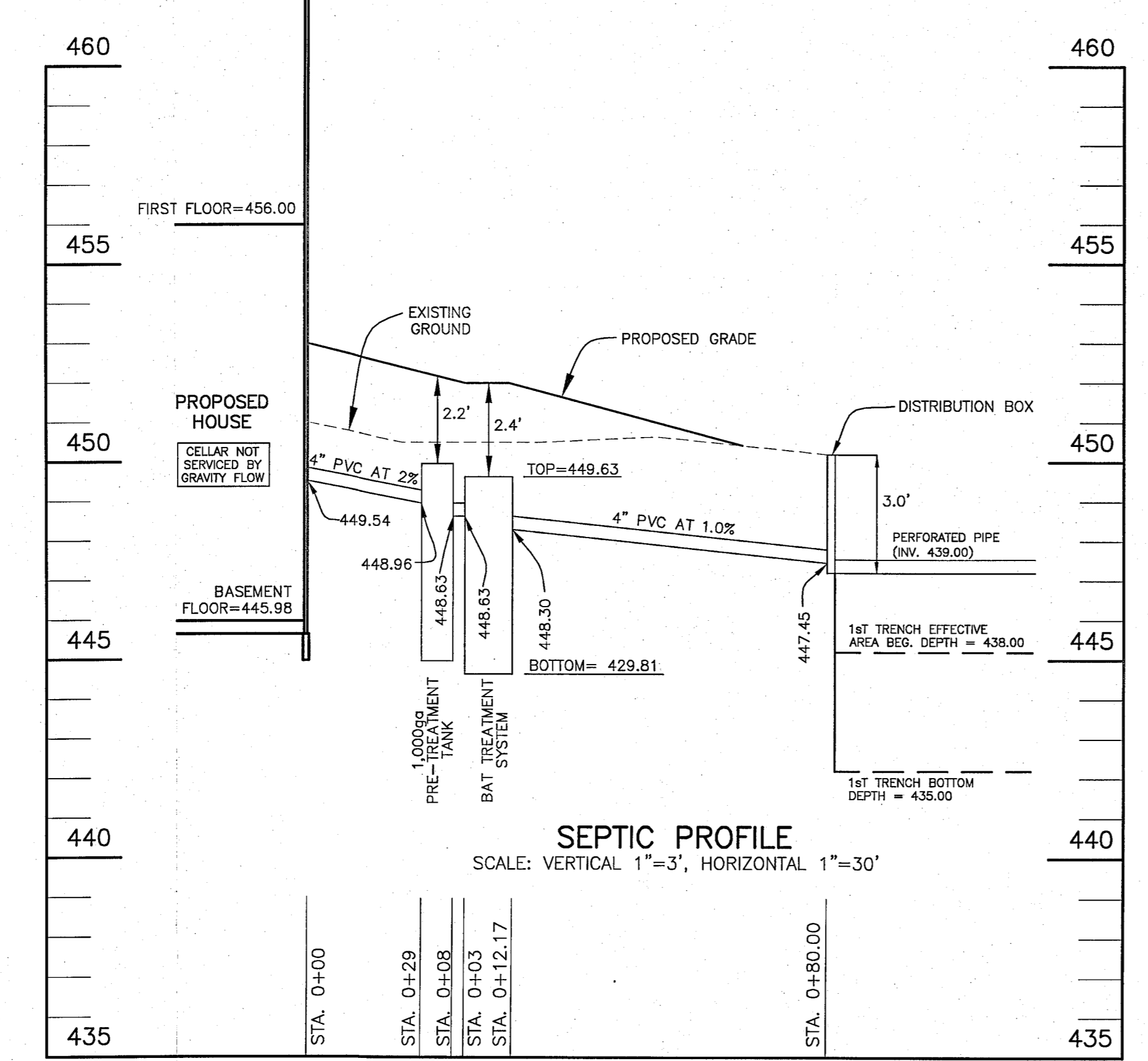
NOTE: SOME CRITICAL DIMENSIONS ARE INTENTIONALLY LEFT BLANK TO BE FILLED IN PER INDIVIDUAL JOB SITE SPECIFICATIONS.

NOTE: TOTAL SYSTEM CAPACITY: 2,300 GALLONS RATED CAPACITY: 1,000 GALLONS PER DAY

SEE MANUFACTURER SPECIFICATIONS FOR DETAILS. WWW.NORWECO.COM

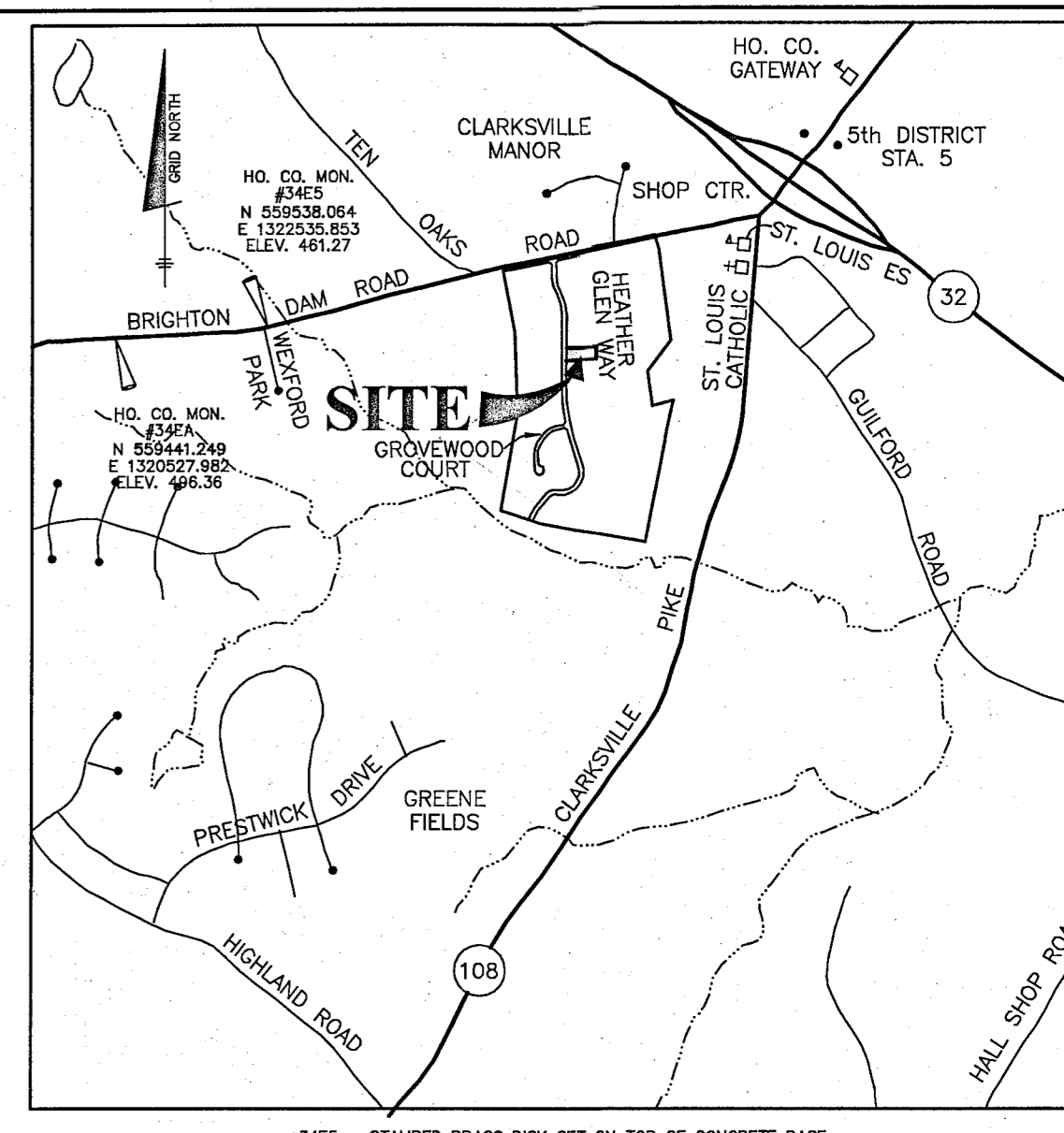
- NOTES:**
- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
 - THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET.
 - THE BAT SYSTEM SHALL 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 (1) 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.

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE SUITE 215 ELICOTT CITY, MARYLAND 21043
 (P) 410-465-8105 (F) 410-465-6644
 WWW.BC-ENGINEERING.COM



NRCS SOILS CHART

SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME
GaB		B		GLENELG LOAM, 3 TO 8 PERCENT SLOPES
GgA		B		GLENELG LOAM, 0 TO 3 PERCENT SLOPES



LEGEND

- BOUNDARY
- EXISTING TOPOGRAPHY
- SEWAGE DISPOSAL AREA
- 1,500 SF WELLBOX
- INITIAL TRENCH SYSTEM
- 1st REPLACEMENT SYSTEM
- WELL LOCATION
- PASSED TEST HOLE TESTED APRIL / MAY 2003
- PASSED TEST HOLE TESTED JANUARY/FEB 2004
- FAILED TEST HOLE TESTED JANUARY/FEB 2004
- PASSED TEST HOLE TESTED JUNE 2004
- PASSED TEST HOLE TESTED AUGUST 2004
- PASSED TEST HOLE TESTED NOV-DEC 2001
- SOILS CLASSIFICATION
- SOILS DELINEATION LINE

INITIAL SYSTEM

Number of Bedrooms	6
Application Rate	1.2 gpd/sf
Effective Area Beginning Depth	5 ft
Bottom Max Depth	8 ft
Design Flow	900 gpd
Drainage Field square footage	750 sf
Sidewall reduction credit	0.5
Trench width	3
Effective Area Depth	3
Linear Length of trench Required	125 lf

1st REPLACEMENT SYSTEM

Number of Bedrooms	6
Application Rate	1.2 gpd/sf
Effective Area Beginning Depth	5 ft
Bottom Max Depth	8 ft
Design Flow	900 gpd
Drainage Field square footage	750 sf
Sidewall reduction credit	0.5
Trench width	3
Effective Area Depth	3
Linear Length of trench Required	125 lf

TRENCH INFORMATION

TRENCH	TRENCH LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX BOTTOM ELEV
A	50 LF	450.2	447.2	442.2
B	50 LF	450.2	447.2	442.2
C	50 LF	449.6	446.6	441.6
D	50 LF	449.6	446.6	441.6
E	50 LF	449.2	446.2	441.2
F	50 LF	449.0	446.0	441.0

SEPTIC INVERT CHART

INV @ HOUSE	449.43
GROUND @ HOUSE	453.00
INV IN PRE-TANK	448.96
INV OUT PRE-TANK	448.63
TOP OF PRE-TANK	449.96
GROUND OVER PRE-TANK	452.16
INV IN BAT TANK	448.63
INV OUT BAT TANK	448.30
TOP OF BAT TANK	449.63
GROUND OVER TANK	452.00
INV IN DIST BOX	447.45
INV OUT DIST BOX	447.20
GROUND AT DIST BOX	450.20

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DAVID THOMPSON 4/10/2014

THE PRESERVE AT CLARKSVILLE LOT 27
 6231 HEATHER GLEN WAY CLARKSVILLE, MARYLAND 21029
 TAX MAP: 34 GRID: 11 PARCEL: 77
 ZONED: RC-DEO ELECTION DISTRICT NO. 5

SITE PLAN FOR BAT INSTALLATION

DATE: APRIL 10, 2014 BEI PROJECT NO: 1407-W
 SCALE: AS SHOWN SHEET 1 OF 1