



HOWARD COUNTY HEALTH DEPARTMENT

46231

CODES

DATE 1/21/14

P5

CASH
 CHECK

Received From

Hatfields Equip

For

Septic Permit - 3901 Red Oak Ln.

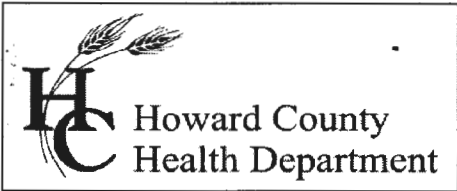
NO.
3222

Three hundred ninety six ~~and no/100~~ ~~7/100~~ Dollars

\$ 396 00

Received By

J Kemp



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: 1/21/2014 **ONSITE SEWAGE DISPOSAL SYSTEM** P 546231

INSTALLATION APPROVAL DATE: 5-20-15 **PERMIT** A _____
Kmw
CONSTRUCTION

PROPERTY ADDRESS: 3701 Red Oak Lane, Ellicott City, 21042

SUBDIVISION: Low Property LOT: 1 TAX ID: _____

CONTRACTOR: Hatfield's Equipment EMAIL: _____

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 20701 PHONE: (301) 440-4289

PROPERTY OWNER: _____ EMAIL: _____

OWNER ADDRESS: 3701 Red Oak Lane PHONE: _____

SEPTIC TANK SIZE (GALLONS): 2000

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

NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. ±3900 APPLICATION RATE: 1.2

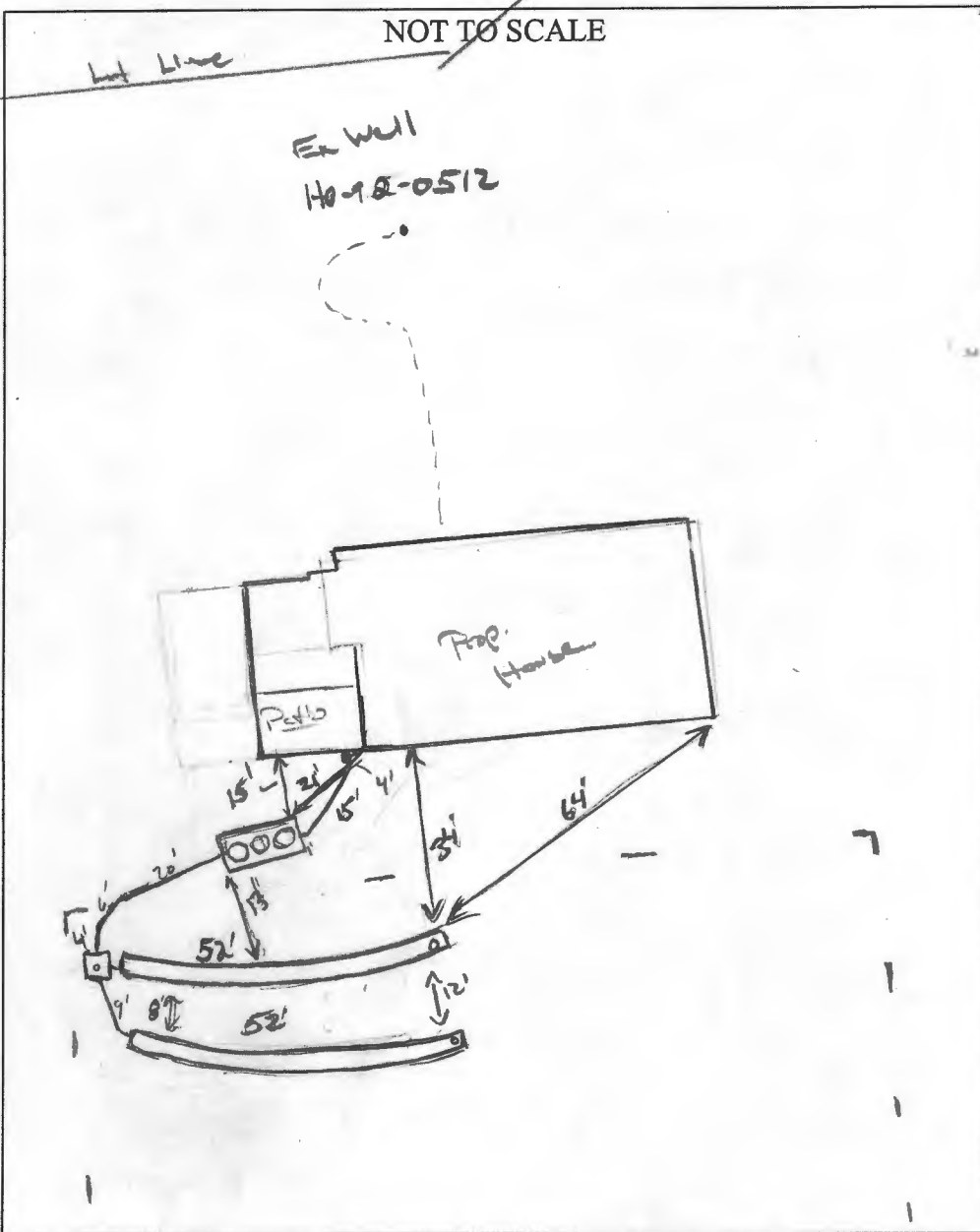
DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>103.33</u> ✓	INLET DEPTH: <u>3</u> ✓
	TRENCH WIDTH: <u>3</u> ✓	MAXIMUM BOTTOM DEPTH: <u>5</u> ✓
	MINIMUM SPACE BETWEEN TRENCHES: <u>9</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3</u> <i>o.k.</i>
LOCATION:	PER APPROVED SITE PLAN, SEWAGE DISPOSAL AREA MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	1. Septic area, house, and septic tank must be staked out prior to pre-construction inspection. 2. BAT System Use is the Norweco-Model TNTLP-600GPD- BNR System. 3. Wall check will be needed at the time of the house connection.	

ISSUED BY: Dana Bernard ISSUE DATE: 1-21-2014 EXPIRATION DATE: 1-21-2015

- 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

**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.**



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	3'	5'
NUMBER OF TRENCHES		2
TOTAL LENGTH		109'
ABSORPTION AREA		312'±sq
DISTRIBUTION BOX LEVEL		Level
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

NORWECO SINGULAIR TNT	
CAPACITY	TNT 600 GAL
SEAM LOC	Top
TANK LID DEPTH	2'
BAFFLES	Yes
BAFFLE FILTER	Yes (Bio/Chem)
MANHOLE LOC	Front/Left/Rear
6" PORT LOC	none
WATERTIGHT TEST	—
BLOWER TEST	—
BLOWER ALARM TEST	—

PUMP TANK LEVEL	—
CAPACITY	— GAL
SEAM LOC	—
TANK LID DEPTH	—
BAFFLES	—
MANHOLE LOC	—
6" PORT LOC	—
WATERTIGHT TEST	—
PUMP TEST	—
PUMP ALARM TEST	—

PRE-CONSTRUCTION:

2/10/14 Jeff Williams OK'd w/ contractor to put system in prior to house getting built. Septic area and BAT

INSTALLATION: location staked per approved BAT site plan.

2/10/14 on site w/ contractor. SRA & BAT offset stakes verified. House loc now staked. OK to set BAT per approved BAT site plan, install 2x 52' trenches as shot in field. Set DB @ top center of SRA.

Trenches will run on outer SW towards dead lot line. Call for map. (KW)

2/19/14 Tank set. Issues w/ tank material inside SRA where DB @ 3' above ground. Re locate DB @ top left most corner of SRA. Contractor re-shot. Keep same trench layout. 2/20/14 Trenches complete. Need SHC and BAT

FINAL INSPECTOR John W... **DATE OF APPROVAL** 5/20/15
 start-up when house gets built. (KW) 10/1/14 SHC complete, As-Built completed w/ setbacks distances. Need field start-up of BAT unit (KW)

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 3701 Red Oak Lane, Ellicott City, MD 21042 on February 19, 2014 was installed according to the manufacture's specifications.

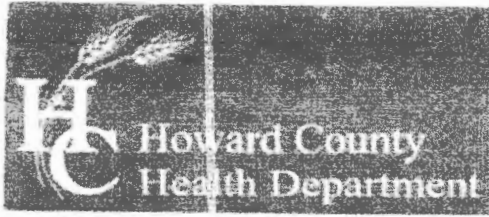
Installer: Ken Hatfield Jr.



MATTHEW GECKLE

Vice-President

Need Permit



Bureau of Environmental Health

2178 Columbia Gateway Drive, Columbia, MD 21046-2147

Phone: 410-314-6401 Fax: 410-314-2148

1-800-391-3333 ext. 2148

www.chealth.org

Facebook: www.facebook.com/health

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 4th day of December among
Bill & Julie Hester, 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
3701 Red Oak Ln, Ellicott City in the _____ 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 _____ Folio _____ Plot # 11194 PARCEL 360

20
40
VP

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 26.04.03.02, 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 agent or employees either officially or individually, indemnifies 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.

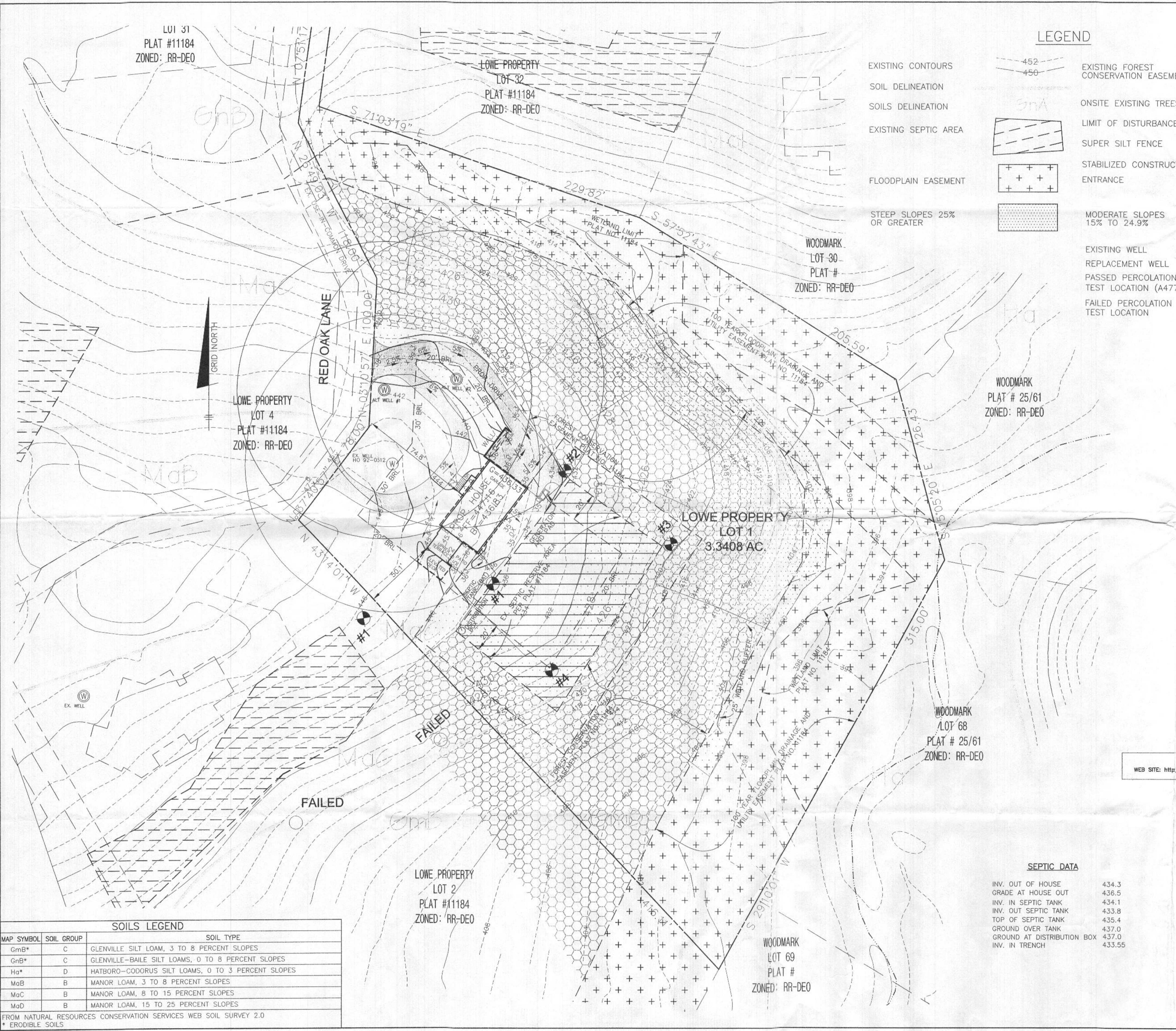
IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above

[Signature] 12/4/13
Owner Date

Kathryn Fay Hester 12/4/2013
Owner Date
Katie Hester

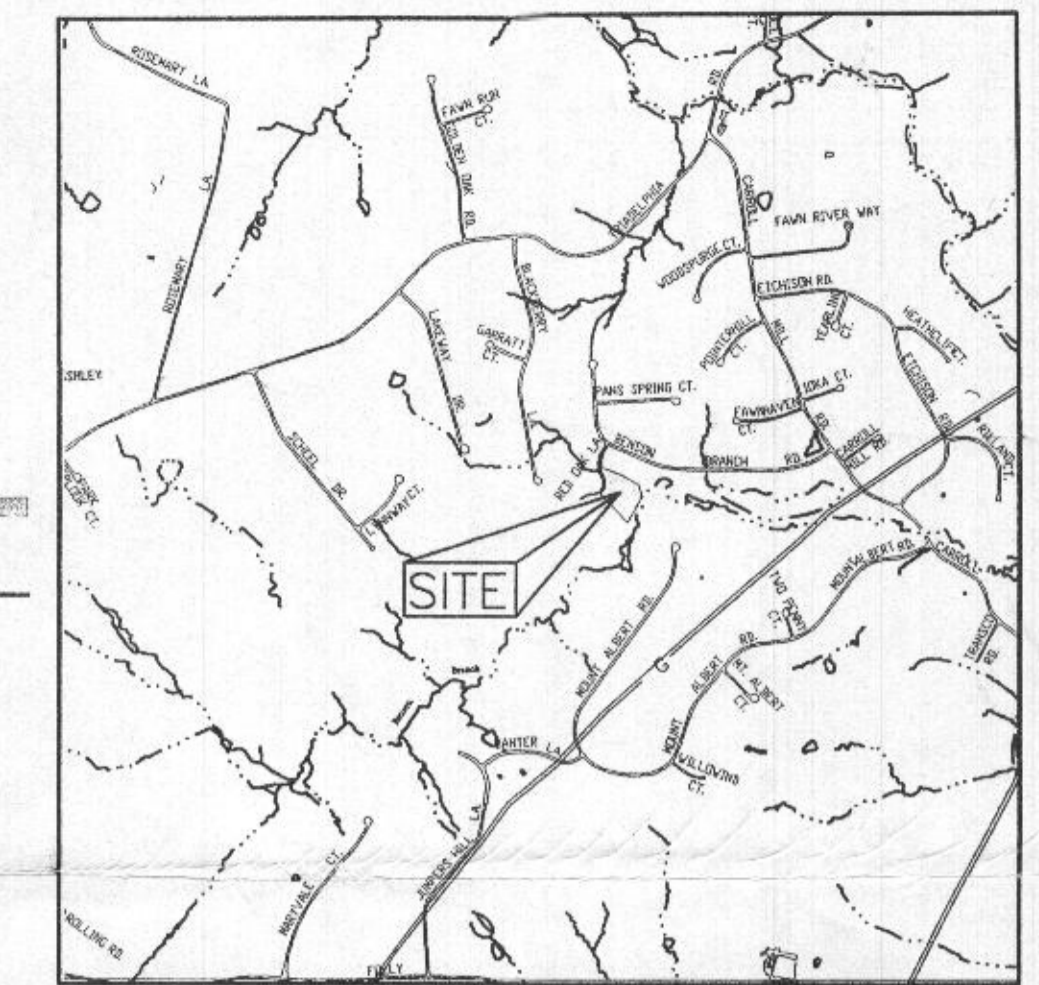
✓ Bill Hester
Bill Hester 12/16/13
Howard County Health Department

LR - Agreement
Recording Fee 20.00
Grantor/Grantee Name:
Hester
Reference/Control #
183
LR - Agreement
Surcharge 40.00
Subtotal 60.00
Total 60.00
#2352585-1 02:54
01/07/2014
#2352585 000503 -
Howard Co
Columbia/CO05 03.05 -
Regi Ter 05 497
C18-V6



LEGEND

- EXISTING CONTOURS 452 450
- SOIL DELINEATION 3nA
- SOILS DELINEATION
- EXISTING SEPTIC AREA
- FLOODPLAIN EASEMENT
- STEEP SLOPES 25% OR GREATER
- EXISTING FOREST CONSERVATION EASEMENT
- ONSITE EXISTING TREES
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- MODERATE SLOPES 15% TO 24.9%
- EXISTING WELL
- REPLACEMENT WELL
- PASSED PERCOLATION TEST LOCATION (A47765)
- FAILED PERCOLATION TEST LOCATION



GENERAL NOTES

- 1.) THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
- 3.) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
- 4.) TOPOGRAPHY SHOWN IS BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. DATED MARCH 2012 AND HOWARD COUNTY GIS.
- 5.) THE EXISTING DRILLED WELL (HO-92-0512) ON LOT 1 IS TO REMAIN.
- 6.) THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE 2-2-2004 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7-28-2006.
- 7.) TRACT BOUNDARY IS BASED ON A RECORD PLAT FOR LOWE PROPERTY PLAT NO. 11184.
- 8.) THE EXISTING TOPOGRAPHY SHOWN IS BASED ON A FIELD RUN SURVEY BY BENCHMARK ENGINEERING, INC. DATED MARCH 2012 WITH 2-FOOT CONTOUR INTERVALS.
- 9.) STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED BY SHEETFLOW TO BUFFER. AN ECP HAS BEEN APPROVED BY DEO ON APRIL 24, 2013.
- 10.) A REVISED PERCOLATION CERTIFICATION PLAN HAS BEEN APPROVED FOR THIS LOT DATED MAY 6, 2013.

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS IN ACCORDANCE WITH THE HEALTH DEPARTMENT'S BEST AVAILABLE TECHNOLOGY FOR NITROGEN REMOVAL (BAT) SITE PLAN REQUIREMENTS AND BASED ON THE REVISED PERCOLATION CERTIFICATION PLAN DATED MAY 6, 2013.

J. CHRIS OGLE
 J. CHRIS OGLE
 PLAN PREPARER

BAT TECHNOLOGY SHALL BE IN COMPLIANCE WITH THE CURRENT LIST APPROVED BY MDE ON THE FOLLOWING WEB SITE: http://www.mde.state.md.us/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Pages/water/cbwrt/oads/brf_bat_process.aspx

SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
GmB*	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
GnB*	C	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES
Ho*	D	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES
MoB	B	MANOR LOAM, 3 TO 8 PERCENT SLOPES
MoC	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES
MoD	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES

FROM NATURAL RESOURCES CONSERVATION SERVICES WEB SOIL SURVEY 2.0
 * ERODIBLE SOILS

SEPTIC DATA	
INV. OUT OF HOUSE GRADE AT HOUSE OUT	434.3
INV. IN SEPTIC TANK	434.1
INV. OUT SEPTIC TANK	433.8
TOP OF SEPTIC TANK	435.4
GROUND OVER TANK	437.0
GROUND AT DISTRIBUTION BOX	437.0
INV. IN TRENCH	433.55

BENCHMARK
 ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 315 • ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6644

75 THOMAS JOHNSON DRIVE • SUITE-E • FREDERICK, MARYLAND 21702
 (P) 301-371-3505 (F) 301-371-3506
WWW.BEI-CIVILENGINEERING.COM

OWNER: WILLIAM AND KATHRYN HESTER
 5241 PATRIOT LANE
 COLUMBIA, MARYLAND 21045

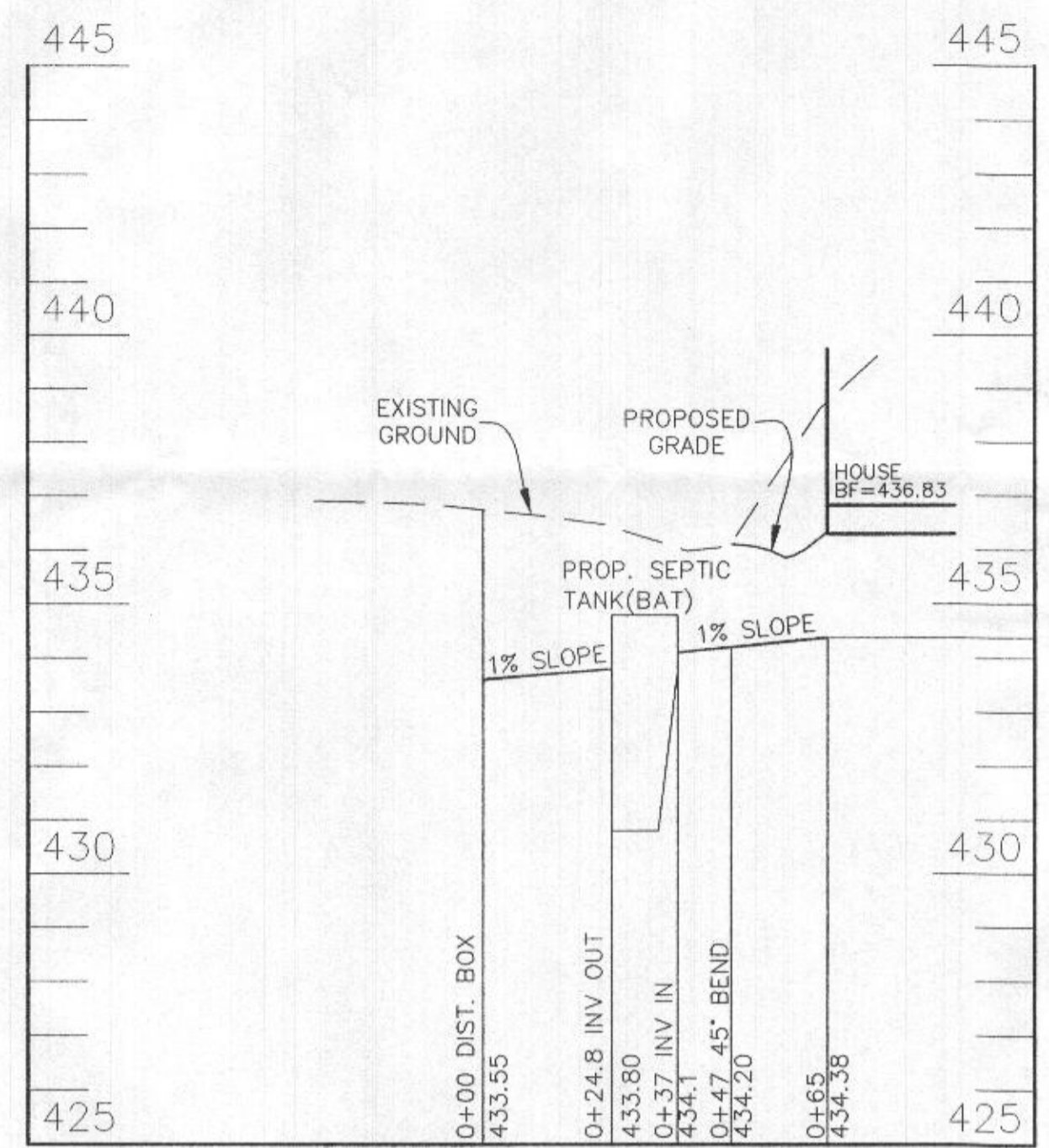
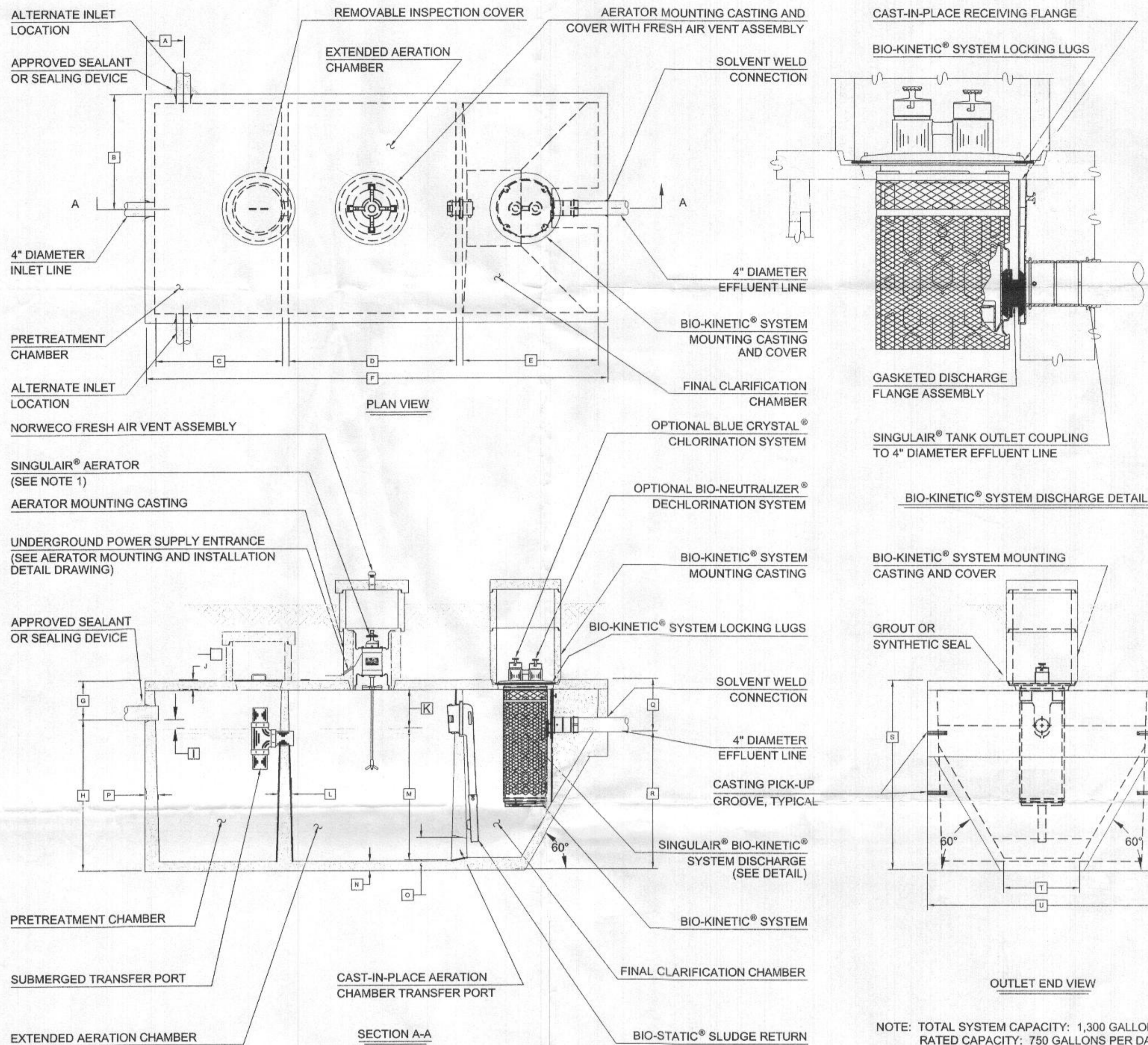
PROJECT: **LOWE PROPERTY LOT 1**
 3701 RED OAK LANE

LOCATION: TAX MAP-22 GRID-12 PARCEL-360
 3RD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **CIVIL SITE PLAN AND PLAN FOR BAT INSTALLATION**

DATE: MAY 2013 PROJECT NO. 2495
 OCTOBER 2013

DESIGN: CAM/JCO DRAFT: JCO SCALE: 1"=30' C-1 CIVIL SITE PLAN



SEPTIC PROFILE
SCALE: VERTICAL 1"=5'
HORIZONTAL 1"=30'

- 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.
 - The blower may not be located further from the tank than the manufacturer's specifications.
 - 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.

- 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.

SEE MANUFACTURER'S SPECIFICATIONS FOR DETAILS. WWW.NORWECO.COM

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	

U.S. AND FOREIGN PATENTS PENDING	norweco	3-26-07	B
© MMVII	LOW-PROFILE SINGULAIR® BIO-KINETIC® WASTEWATER TREATMENT SYSTEM MODEL TNTLP-600 GPD		BDS
			JMM
		10-16-06	NTS
			PC-5-7091

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PLAN PREPARER

BAT TECHNOLOGY SHALL BE IN COMPLIANCE WITH THE CURRENT LIST APPROVED BY MDE ON THE FOLLOWING
WEB SITE: http://www.mde.state.md.us/programs/Water/BoyRestorationFund/OnsiteDisposalSystems/Pages/water/cbwr1/osds/brf_bot_process.aspx

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 6480 BALTIMORE NATIONAL PIKE & SUITE 315 • ELLICOTT CITY, MARYLAND 21103 (P) 410-485-6105 (F) 410-485-6644 75 THOMAS JOHNSON DRIVE • SUITE E • FREDERICK, MARYLAND 21702 301-770-5686 WWW.BEI-CIVILENGINEERING.COM	
OWNER:	PROJECT:
WILLIAM AND KATHRYN HESTER 5241 PATRIOT LANE COLUMBIA, MARYLAND 21045	LOWE PROPERTY LOT 1 3701 RED OAK LANE
LOCATION:	TAX MAP--22 GRID--12 PARCEL--360 3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE:	BAT INSTALLATION DETAILS
DATE:	APRIL 2013 OCTOBER 2013
PROJECT NO.:	2495
DESIGN:	CAM/JCO
DRAFT:	JCO
SCALE:	AS SHOWN
	C-2 CIVIL SITE PLAN

THE DETAILS SHOWN HEREON ARE BASED ON TYPICAL MANUFACTURER'S DRAWINGS PROVIDED BY NORWECO, ACTUAL MANUFACTURER MAY DIFFER. CONTRACTOR TO VERIFY THAT ALL DIMENSION ARE IN COMPLIANCE WITH THE HEALTH DEPARTMENT REQUIREMENTS.