

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: 7/15/15 **ONSITE SEWAGE DISPOSAL SYSTEM** P 556536
 APPROVAL DATE: 11/6/15 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 11022 Blevins Drive
 SUBDIVISION: Blevins Property LOT: 7 TAX ID: _____
 CONTRACTOR: Hatfield's Equipment EMAIL: ken@hatfieldsequipment.com
 CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 20701 PHONE: 301-480-4289

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:
 PROPERTY OWNER: Williamsburg Group LLC EMAIL: marinamorris@williamsburgllc.com
 OWNER ADDRESS: 5485 Harpers Farm Road, Columbia, MD 21044 PHONE: 410-997-8800

NORWECO TNTLP-
 BAT UNIT MODEL: 500GPD PUMP SIZE: N/A PUMP TANK CAPACITY: N/A
 OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 3/21/15 DATE RECORDED: 4/1/15

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: _____

TRENCHES:	LINEAR FEET REQUIRED: <u>116</u> 174	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u> 2	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION. <u>≈ 87 tons stone</u>	
NOTES:	<u>Install 3x58' trenches</u>	

ISSUED BY: Robert Bricker ISSUE DATE: 8/6/15 EXPIRATION DATE: 8/6/16 HO.

- 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 15003955
- 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

well line in

W H0-95-2257

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
2'	4'	8'
NUMBER OF TRENCHES 3		
TOTAL LENGTH 175'		
ABSORPTION AREA 525' + SIDEWALL		
DISTRIBUTION BOX LEVEL YES		
DISTRIBUTION BOX BAFFLE YES		
DISTRIBUTION BOX PORT YES		

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	
MANUFACTURER	BACKRIVER
CAPACITY	1300 GAL
SEAM LOC	TOP
TANK LID DEPTH	1-3'
BAFFLES	NO
BAFFLE FILTER	NO
MANHOLE LOC	FRONT, MID + RE
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	NO
DATE ON LID	4-30-15

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	

ROAD NAME

PRE-CONSTRUCTION:

8/17/15 layout with Jeff from Hatfield's. All SDA stakes present; shot contour and laid out 3 x 58' trenches. Tank stake not present - spoke with Kip Stoker from Williamsburg Homes and confirmed that it is okay to measure off house to find tank location. Moved tank downhill a bit to set in native soil (fill on hill). (SC)

INSTALLATION: 8/18/15 On site during tank delivery. Chesapeake Bay Septic Tank delivering for Backriver. No visible cracks or defects on tank sides or bottom. ~2' fill on top portion of inlet side of tank but tank is sitting in native soil. House connection made. (SC) 8/18/15 D-box installed + connected to tank. Hatfield's currently digging 2' wide 2.5' to stone. Using laser to ensure level bottoms. (SC) 8/19/15 T2 + T3 finished. T2 open at ends and T3 left open. Levelled speed levelers in D-box Put in L-shaped piece of concrete as a baffle. Need BAT startup certification. (SC)

FINAL INSPECTOR

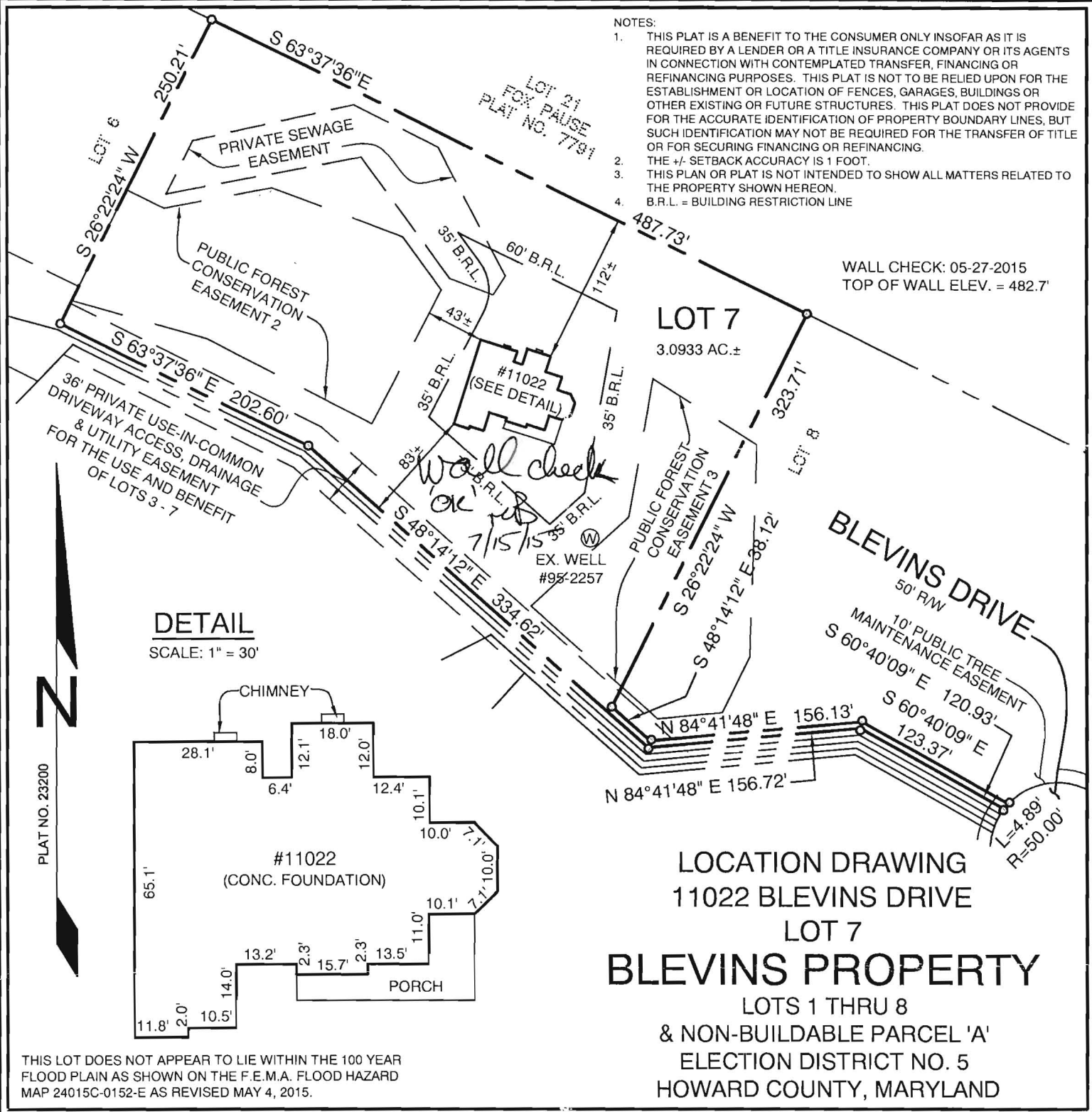
Jh Wolf

DATE OF APPROVAL

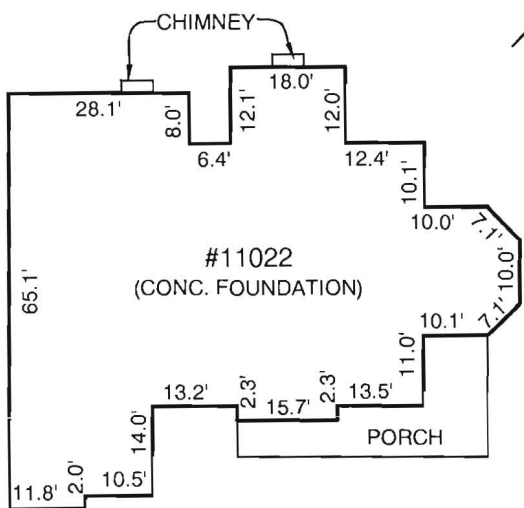
11/5/15

NOTES:

1. THIS PLAT IS A BENEFIT TO THE CONSUMER ONLY INsofar AS IT IS REQUIRED BY A LENDER OR A TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH CONTEMPLATED TRANSFER, FINANCING OR REFINANCING PURPOSES. THIS PLAT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATION OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE STRUCTURES. THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR FOR SECURING FINANCING OR REFINANCING.
2. THE +/- SETBACK ACCURACY IS 1 FOOT.
3. THIS PLAN OR PLAT IS NOT INTENDED TO SHOW ALL MATTERS RELATED TO THE PROPERTY SHOWN HEREON.
4. B.R.L. = BUILDING RESTRICTION LINE



DETAIL
SCALE: 1" = 30'



LOCATION DRAWING
11022 BLEVINS DRIVE
LOT 7
BLEVINS PROPERTY
LOTS 1 THRU 8
& NON-BUILDABLE PARCEL 'A'
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

THIS LOT DOES NOT APPEAR TO LIE WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN ON THE F.E.M.A. FLOOD HAZARD MAP 24015C-0152-E AS REVISED MAY 4, 2015.

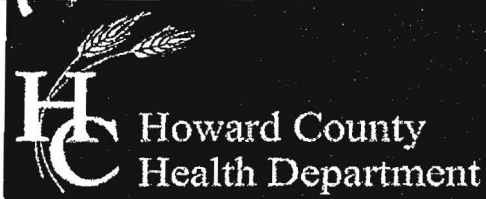
I HEREBY CERTIFY THAT I AM IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS LOCATION DRAWING AND THE SURVEY WORK REFLECTED IN IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN THE CODE OF MARYLAND TITLE 9, SUBTITLE 10, CHAPTER 65, REGULATION 12, AND THE POSITION OF EXISTING IMPROVEMENTS AS SHOWN HEREON, ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MICHAEL D. ADCOCK
PROFESSIONAL LAND SURVEYOR
NO. 21257, EXPIRATION DATE: 06-16-2017

Adcock & Associates · LLC

Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: mike@saaland.com

REFERENCE:	PLAT NO. 23200
DATE:	MAY 29, 2015
SCALE:	1"=100'
FILE NO.:	11-054



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 21 day of March, among Louis Cheng & Beth Stirling, 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 Lot 7 11022 Bledins Dr., Clarksville, 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 15765 Folio 325

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.

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.

Michael J. Davis 3/1/15
Howard County Health Department
MICHAEL J. DAVIS

[Signature] 2-23-15
Owner #1 Signature Date
BOB CORBETT
Williamsburg Group LLC
Owner #1 Print Name

Owner#2 Signature Date

Owner #2 Print Name

[Signature] 3/21/15
Buyer #1 Signature Date

[Signature] 3/28/15
Buyer #2 Signature Date

Louis Chang
Buyer #1 Print Name

Beth Stirling
Buyer #2 Print Name

Register 09
LR - Agreement 20.00
Recording Fee 20.00
Grantor/Grantee Name:
Chang
Reference/Control #: 147
LR - Agreement 40.00
Surcharge 00.00
Subtotal: 00.00
Total: 60.00
04/01/2015 10:23
4484812 C28503 -
Howard Co
Columbia/CO5.03.09 -
Register 09

Back River Pre-Cast, LLC

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

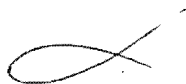
Letter of Certification

This is to certify that the Norweco Singlair TNT 600 GPD Septic Tank installed at 11022 Blevins Dr., Clarksville, MD 21029 installed on August 18, 2015 according to the manufacture's specifications.

Installer: Jeff Reiter

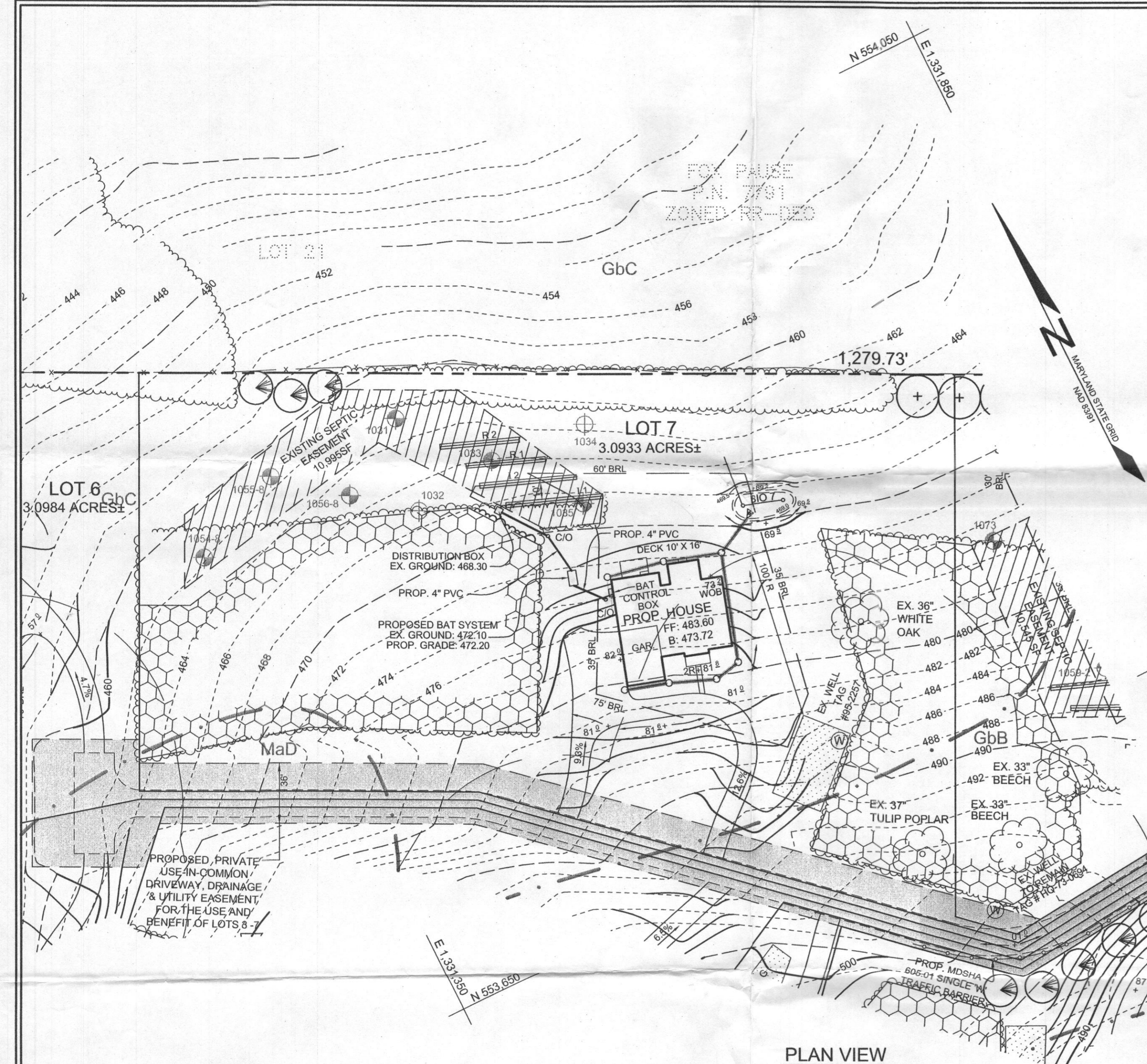
Property Owner: Williamsburg Group

Permit #



MATTHEW GECKLE

Vice-President



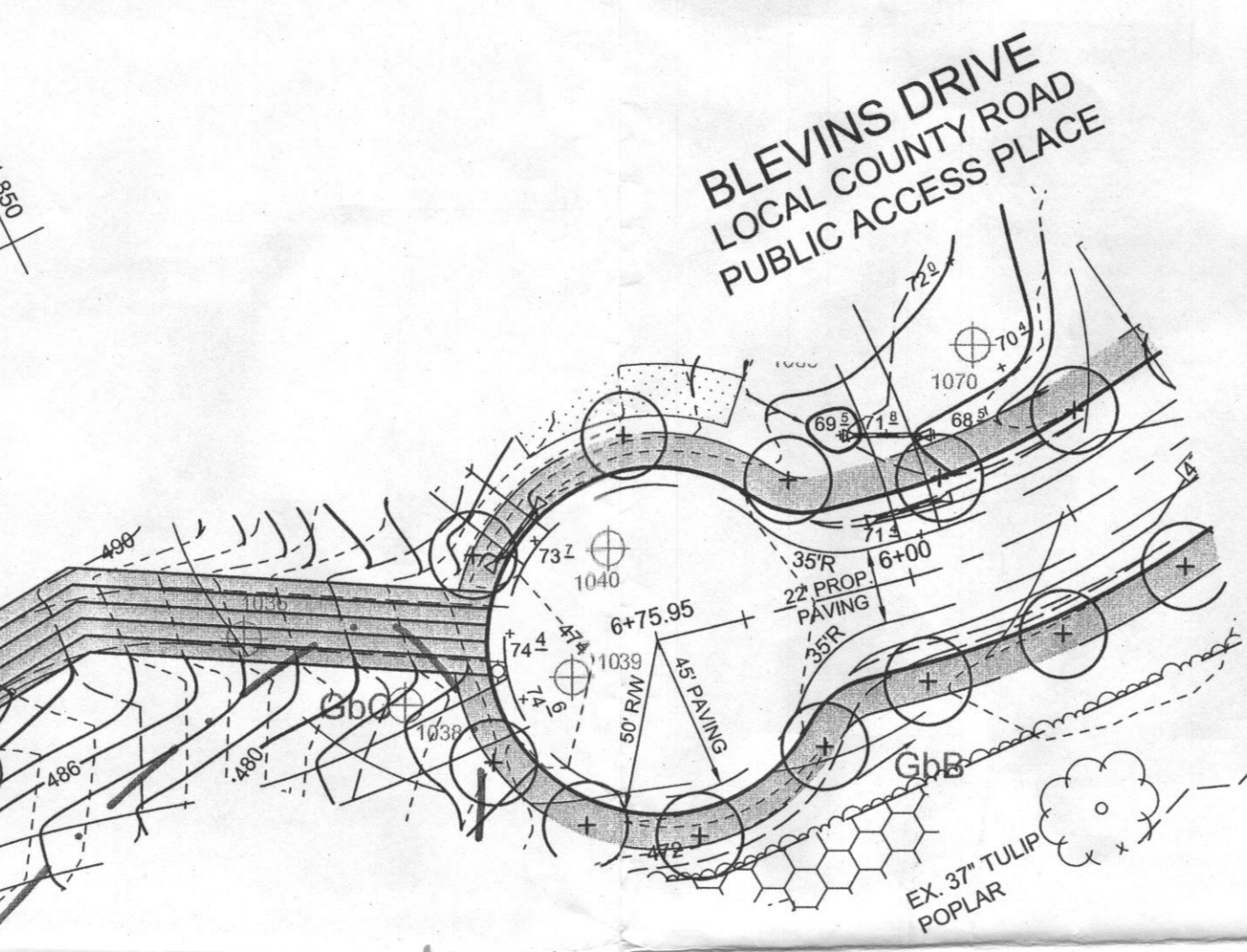
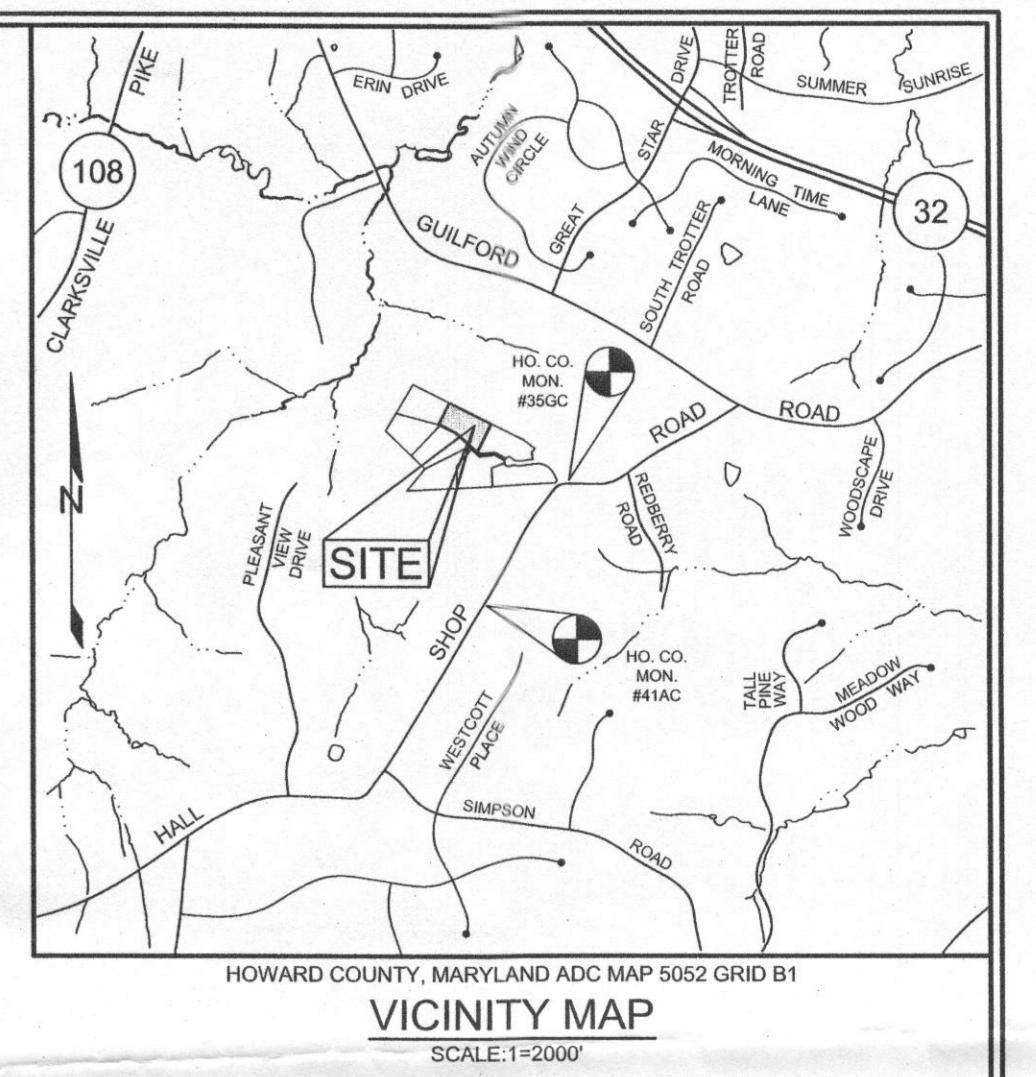
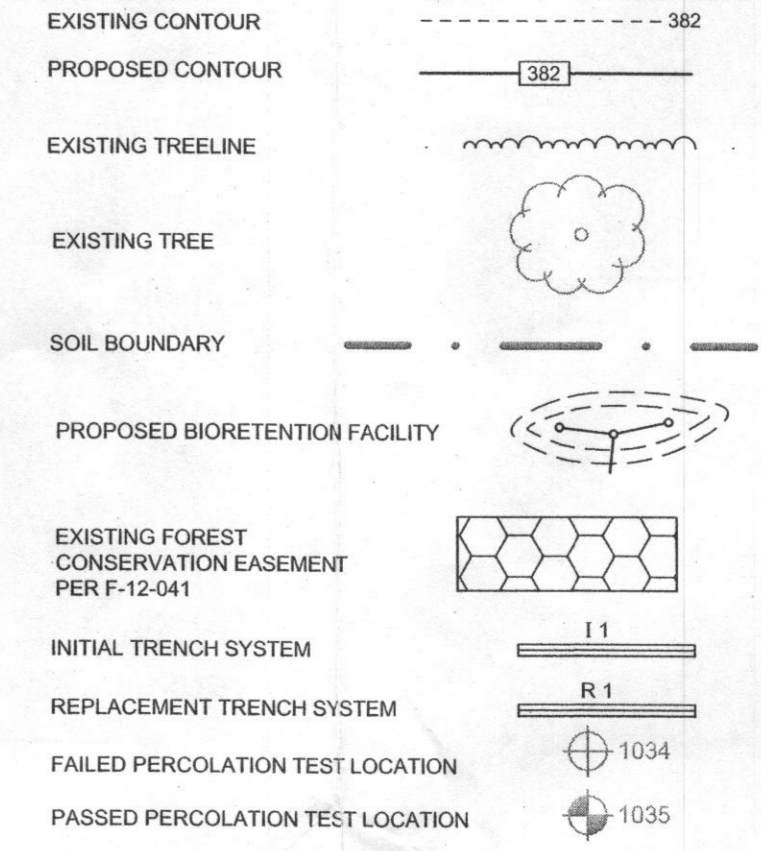
BAT NOTES

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. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 5 FEET.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 50 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GbA	GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES	B	0.20
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEBB SOIL SURVEY.
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLCPG GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

LEGEND

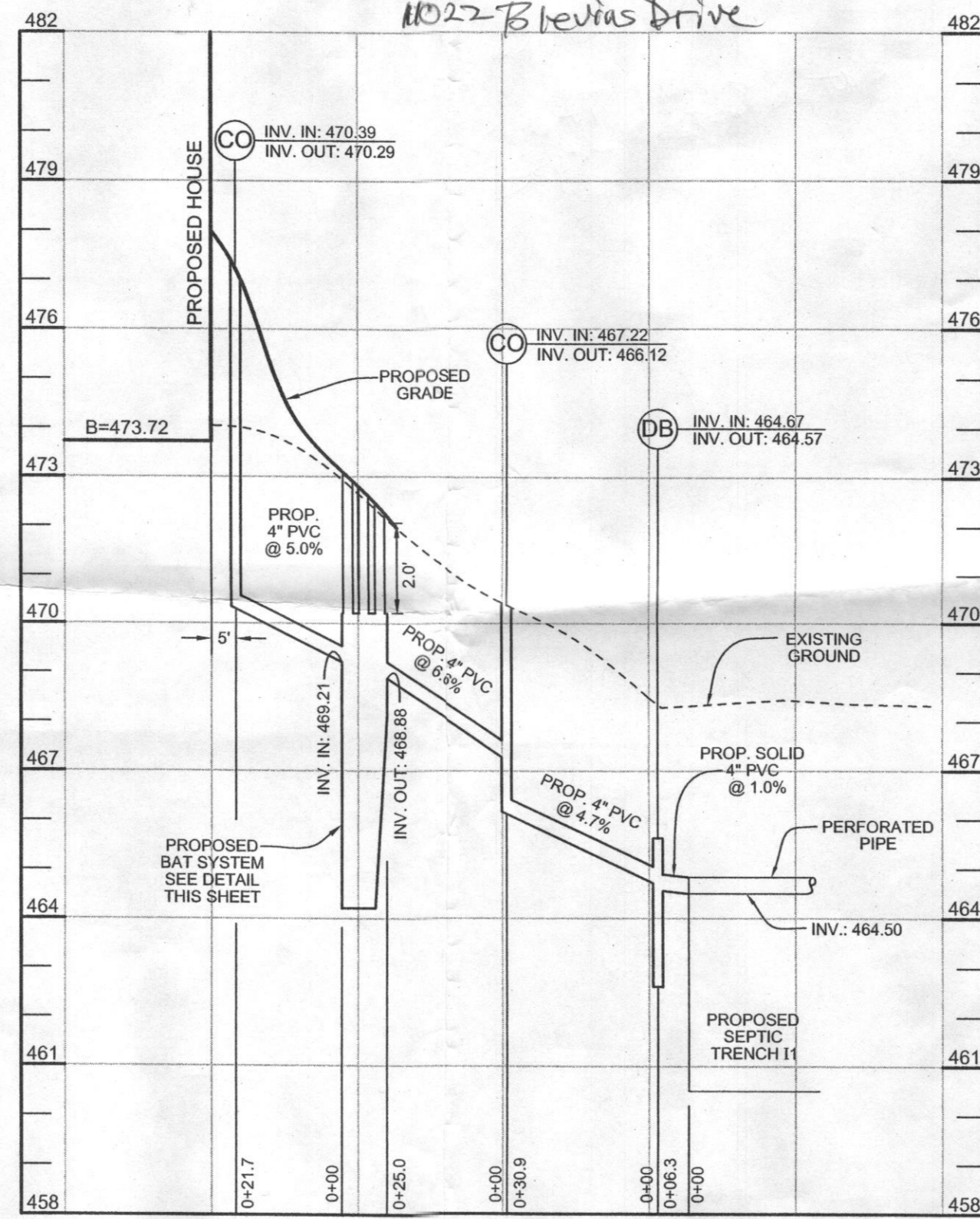


SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

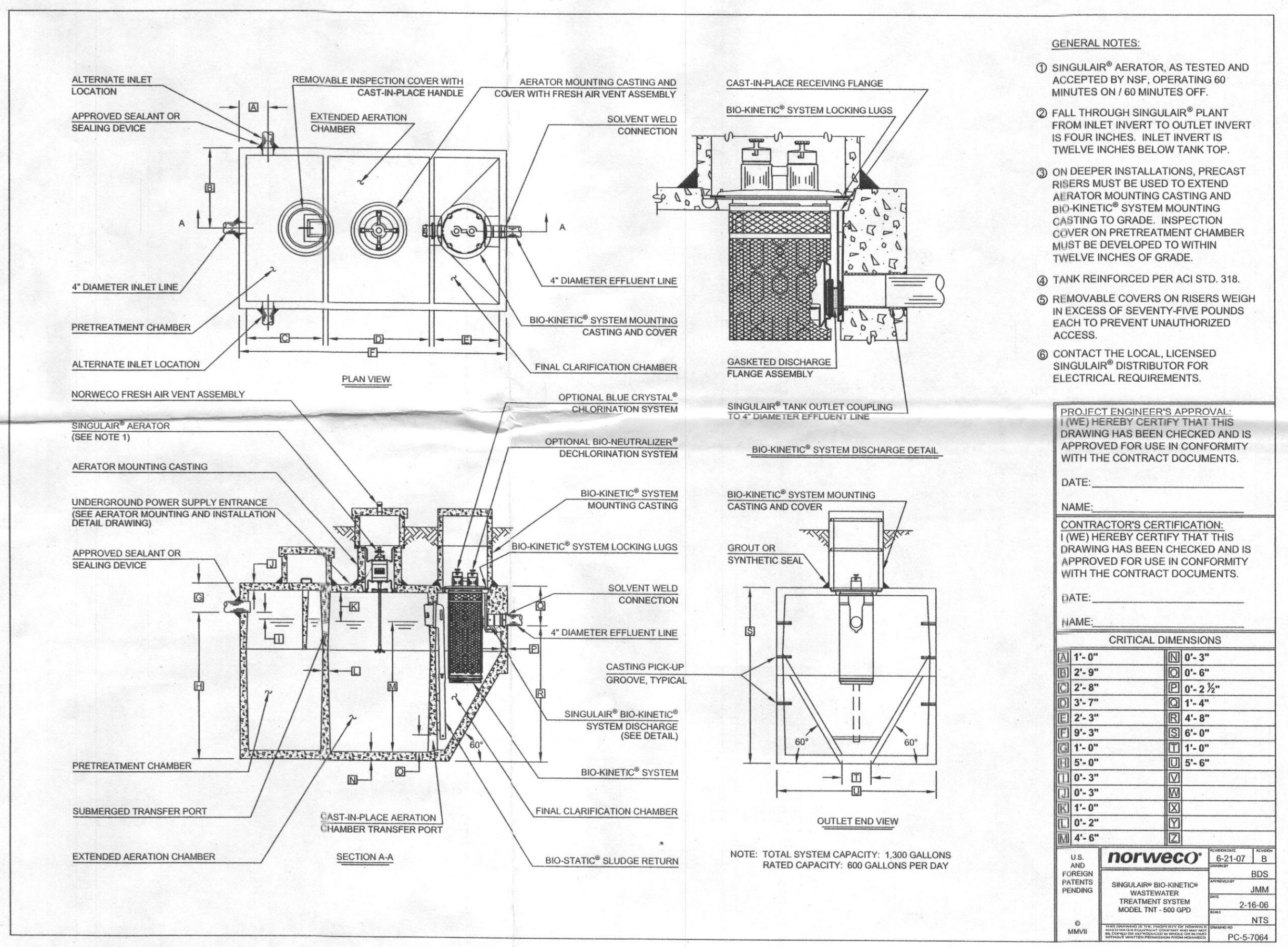
- INITIAL SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 5.5'
 - BOTTOM MAXIMUM DEPTH: 8'
- DESIGN FLOW:**
 - 5 BEDROOMS AT 150 GPD
 - 5x150 GPD = 750 GPD
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3'
 - TRENCH EFFECTIVE DEPTH (D) = 2.5'
 - (W+2) / (W+1+2D) X 100 = 55.5%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (625) X SIDEWALL REDUCTION CREDIT (55.5%) / TRENCH WIDTH (3') = 115.6'
- LINEAR LENGTH OF TRENCH PROVIDED = 116.0'**
 - TWO TRENCHES 58 LF EACH
- EX. GRADE:** TRENCH I1: 468.5, TRENCH I2: 467.2, TRENCH I1: 464.5, TRENCH I2: 463.2
- INVERT:** TRENCH I1: 468.2, TRENCH I2: 465.1, TRENCH I1: 462.2, TRENCH I2: 461.1

- REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 4.5'
 - BOTTOM MAXIMUM DEPTH: 8'
- DESIGN FLOW:**
 - 5 BEDROOMS AT 150 GPD
 - 5x150 GPD = 750 GPD
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3'
 - TRENCH EFFECTIVE DEPTH (D) = 3.5'
 - (W+2) / (W+1+2D) X 100 = 45.5%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (625) X SIDEWALL REDUCTION CREDIT (45.5%) / TRENCH WIDTH (3') = 94.8'
- LINEAR LENGTH OF TRENCH PROVIDED = 95.0'**
 - TWO TRENCHES 47.5 LF EACH
- EX. GRADE:** TRENCH R1: 468.2, TRENCH R2: 465.1, TRENCH R1: 462.2, TRENCH R2: 461.1
- INVERT:** TRENCH R1: 468.2, TRENCH R2: 465.1, TRENCH R1: 462.2, TRENCH R2: 461.1

Approved Septic System Plan
 Howard County Health Department
 NORWECO TWT LP 500 GPD
 TO Gravity Drainfield
 Bricks 4/17/2015
 Signature B15000-26 Date
 1022 Blevins Drive



BAT SYSTEM PROFILE
 SCALE: HORZ. 1"=30', VERT. 1"=3'



- GENERAL NOTES:**
1. SINGULAR AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
 2. FALL THROUGH SINGULAR PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
 3. 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.
 4. TANK REINFORCED PER ACI STD. 318.
 5. REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
 6. CONTACT THE LOCAL LICENSED SINGULAR DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

PROJECT ENGINEER'S APPROVAL
 I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.
 DATE:
 NAME:

CONTRACTOR'S CERTIFICATION
 I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.
 DATE:
 NAME:

CRITICAL DIMENSIONS

A 1'-0"	B 0'-3"
C 2'-9"	D 0'-6"
E 2'-8"	F 0'-2 1/2"
G 3'-7"	H 1'-4"
I 2'-3"	J 4'-8"
K 9'-3"	L 6'-0"
M 1'-0"	N 1'-0"
O 5'-0"	P 0'-6"
Q 0'-3"	R 0'-3"
S 1'-0"	T 1'-0"
U 0'-2"	V 1'-0"
W 4'-6"	X 1'-0"

NOTE: TOTAL SYSTEM CAPACITY: 1,300 GALLONS
 RATED CAPACITY: 600 GALLONS PER DAY

U.S. FOREIGN PATENT PENDING
 norweco
 SINGULAR BIO-KINETIC WASTEWATER TREATMENT SYSTEM MODEL TWT-500 GPD
 621-07 B
 10/08
 2-16-08
 NTL
 PC-S-7064

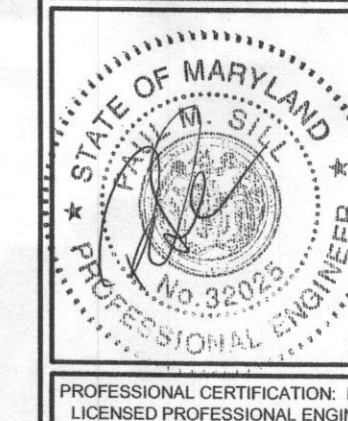
OWNER/DEVELOPER
 WILLIAMSBURG GROUP
 5485 HARPERS FARM ROAD
 COLUMBIA, MARYLAND 21044

Approved

**SITE PLAN FOR BAT INSTALLATION
 BLEVINS PROPERTY**

LOT 7

TAX MAP 35 GRID 19 5TH ELECTION DISTRICT
 PARCEL 310 HOWARD COUNTY, MARYLAND



SILL ENGINEERING GROUP, LLC
 11130 Dovedale Court, Suite 200
 Manassasville, Maryland 21043
 Phone: 443.325.5076
 Fax: 410.696.2022
 Email: info@sillengineering.com
 Civil Engineering for Land Development

DESIGN BY: PS
 DRAWN BY: KSZ
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 07, 2015
 PROJECT #: 14-040
 SHEET #: 1 of 1

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER _____ DATE _____
 HOWARD COUNTY HEALTH DEPARTMENT

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. 32025, EXPIRATION DATE: JUNE 20, 2015