

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: 12/23/19 **ONSITE SEWAGE DISPOSAL SYSTEM** P 567251

APPROVAL DATE: 3/20/20 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 13518 ALLNUTT LANE, HIGHLAND, MD 20777

SUBDIVISION: THE ESTATES AT RIVER HILL LOT: 11 TAX ID: 05-392284

CONTRACTOR: FREEDOM SEPTIC EMAIL: casey@freedomseptic.com

CONTRACTOR ADDRESS: 2809 LIBERTY ROAD, SYKESVILLE, MD 21784 PHONE: 410-795-2947

PROPERTY OWNER: MICHAEL PFAU EMAIL: tkeane@trnityhomes.com

OWNER ADDRESS: 3675 PARK AVENUE, SUITE 301, ELLICOTT CITY, MD 21043 PHONE: (443)324-9806

SEPTIC TANK SIZE (GALLONS): 1500 TANK MANUFACTURER: MAYER BROS., INC.

PUMP MODEL: n.a. PUMP SIZE n.a. PUMP TANK CAPACITY: n.a.

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>156</u>	INLET DEPTH: <u>3</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

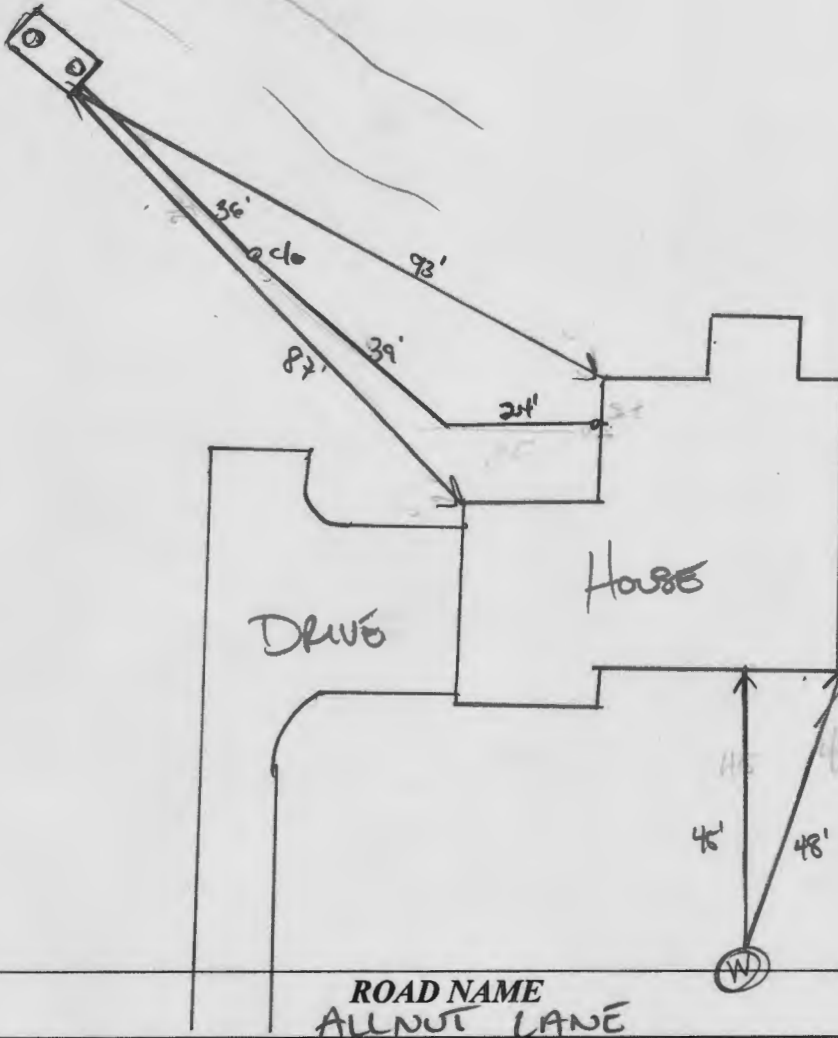
ISSUED BY: R Freemon ISSUE DATE: 12/23/19 EXPIRATION DATE: 12/23/20

- 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 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 n.a.
- 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



TRENCH/DRAINFIELD DATA

WIDTH _____ INLET _____ BOTTOM _____

NUMBER OF TRENCHES _____

TOTAL LENGTH _____

ABSORPTION AREA _____

DISTRIBUTION BOX LEVEL _____

DISTRIBUTION BOX BAFFLE _____

DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL

MANUFACTURER BABYLOON

CAPACITY 1500 GAL

SEAM LOC TOP

TANK LID DEPTH 2'

BAFFLES _____

BAFFLE FILTER NO

MANHOLE LOC FRONT/BACK

6" PORT LOC _____

WATERTIGHT TEST -

SLOTTED YES

DATE ON LID 6/12/2020

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:

02/05/2020 CONFIRMED SEWER OUT. TANK, SDA, TRENCHES STAKED.
CONFIRMED CONTOUR. OK TO START. (A)

INSTALLATION: 03/30/2020 SHC, SL AND ST INSTALLED. (A)

3/31/2020 COVID-19 RESTRICTIONS NO INSPECTION MADE. ENFORCED
CONTRACTOR TO SEND IN PICTURES AND AS-BUILT (A)

FINAL INSPECTOR _____

(Kmu) per COVID-19

DATE OF APPROVAL _____

3/31/2020

TRINITY HOMES MARY LAND LLC

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

6095 Marshalee Drive
Suite 120
Elkridge, MD 21075
410-313-5850

LR - Agreement Recording Fee
1x 20.00 20.00
Name: estates at river hill llc
Ref: 101

LR - Agreement Surcharge
1x 40.00 40.00

SubTotal: 60.00
Total: 60.00

REV-Check-WFB 60.00
Number : 001426

11/10/2020 11:37 CC13-KS
#14270849/1246/109

~ Thank you for visiting us today ~



Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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 The Estates at River Hill, LLC ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 13518 Alnutt Ln., Highland, MD 20777 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map #0034, Block # _____, Parcel # 389, Deed Reference # _____ and Tax Account # 05 601939 ("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 _____ 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.


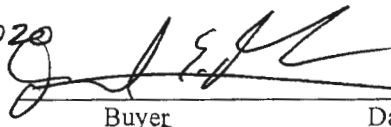
WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

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

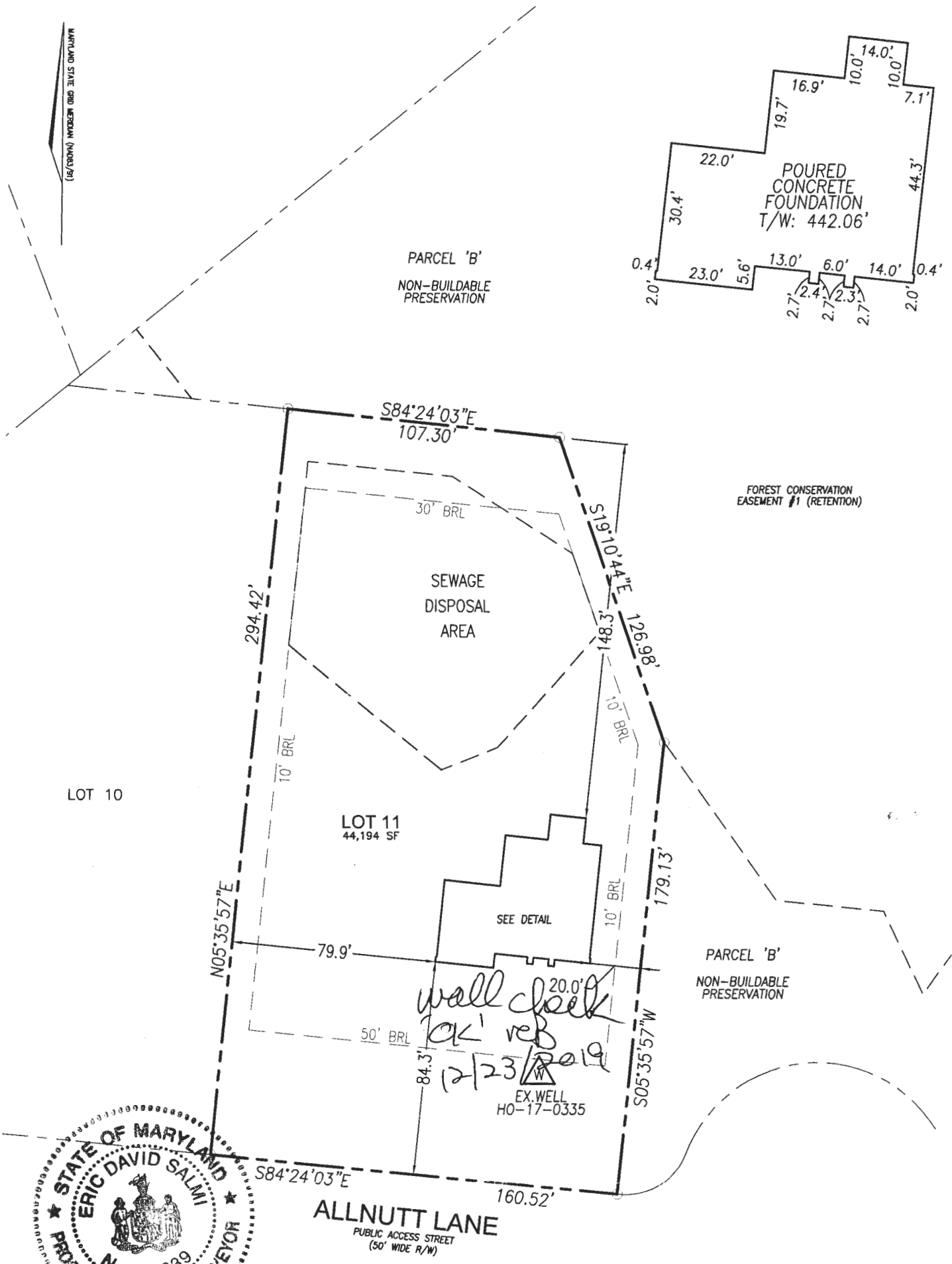
1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective 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 this Agreement on the dates set forth below.

<u>Estate at Pine Hill LLC</u>			<u>11/10/2020</u>
Owner	Date	Buyer	Date
<u>Michael J. Law, member</u>	<u>11/10/2020</u>		<u>11/10/2020</u>
Owner	Date	Buyer	Date
<u>Bert Ryan</u>	<u>11/10/2020</u>	<u>Amber C. Naeff</u>	<u>11/10/2020</u>
Howard County Health Department	Date		

THIS WALL CHECK DRAWING CONTAINS A HORIZONTAL TOLERANCE IN ACCURACY OF 0.1' AND A VERTICAL TOLERANCE IN ACCURACY OF 0.2'



I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE IMPROVEMENTS ARE LOCATED AS SHOWN AND THERE ARE NO ENCROACHMENTS EXCEPT AS SHOWN.

PROFESSIONAL CERTIFICATION; I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21639, EXPIRATION DATE JANUARY 3, 2020.

[Signature] 12/18/2019
ERIC D. SALMI, PROFESSIONAL LAND SURVEYOR #21639 DATE

SCALE 1" = 50'	DATE 11/11/2019
DRAWN BY J.A.P.	CHECKED BY E.D.S.
PLAT NUMBER 25085-25094	JOB NUMBER 15-39

VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

WALL CHECK DRAWING
 13518 ALLNUTT LANE
 LOT 11
 ESTATES AT RIVER HILL
 PLAT NO. 25088
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND



THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECONSTRUCTION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.

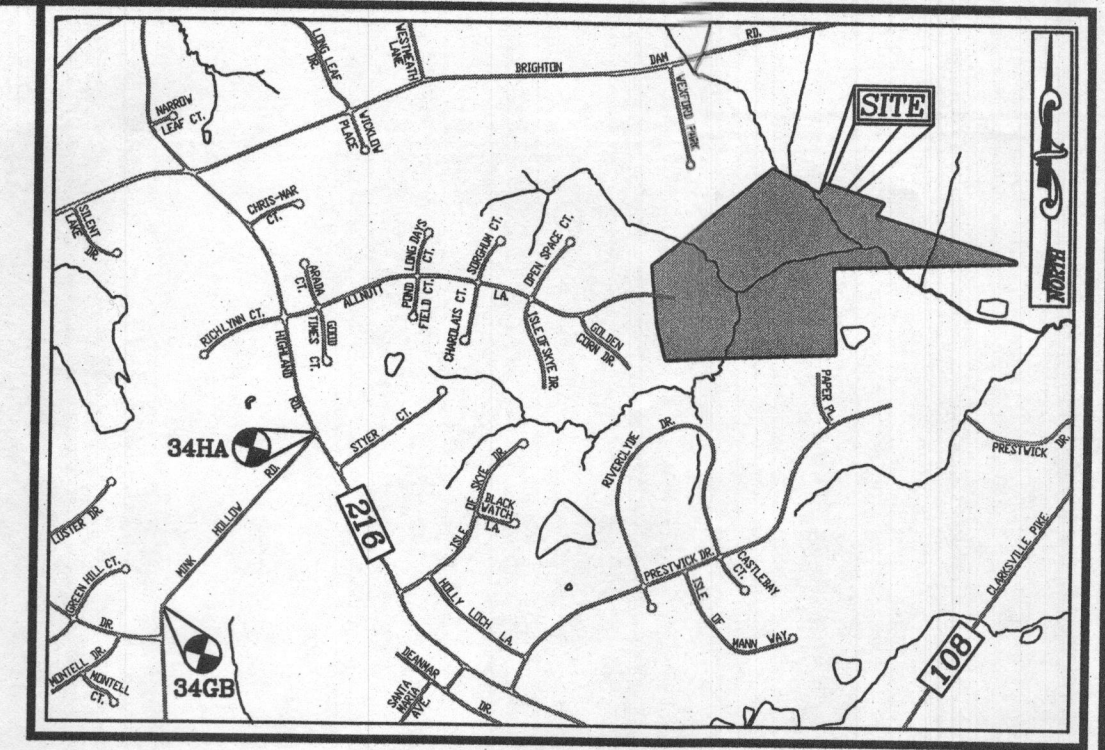
TRENCH	TRENCH LENGTH	INVERT	TRENCH WIDTH	EXISTING GROUND
1	78'	434.87	428.41	436.41
2	78'	433.41	428.41	436.41

SYSTEM CALCULATIONS:

INITIAL SYSTEM:
 5 BEDROOMS AT 750gpd / 0.8 ABSORPTION RATE = 938 SF. FT.
 938 SF. FT. / 3 (TRENCH WIDTH) x .50 (SIDEWALL REDUCTION) = 156 LINEAR FEET
 156 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE INITIAL SYSTEM.
 (2 TRENCHES OF 78 FEET IN LENGTH)

FIRST REPLACEMENT SYSTEM:
 5 BEDROOMS AT 750gpd / 1.2 ABSORPTION RATE = 625 SF. FT.
 625 SF. FT. / 2 (TRENCH WIDTH) x .29 (SIDEWALL REDUCTION) = 91 LINEAR FEET
 170 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE FIRST REPLACEMENT SYSTEM.
 (2 TRENCHES OF 85 FEET IN LENGTH)

SECOND REPLACEMENT SYSTEM:
 5 BEDROOMS AT 750gpd / 1.2 ABSORPTION RATE = 625 SF. FT.
 625 SF. FT. / 2 (TRENCH WIDTH) x .29 (SIDEWALL REDUCTION) = 91 LINEAR FEET
 91 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE SECOND REPLACEMENT SYSTEM.
 (1 TRENCH OF 91 FEET IN LENGTH)

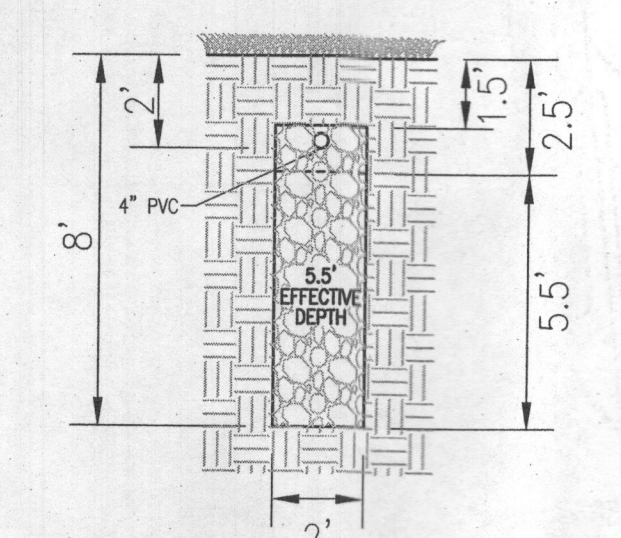
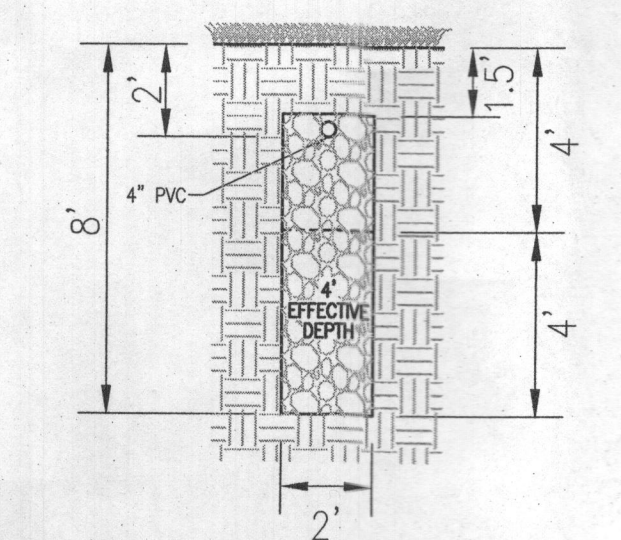
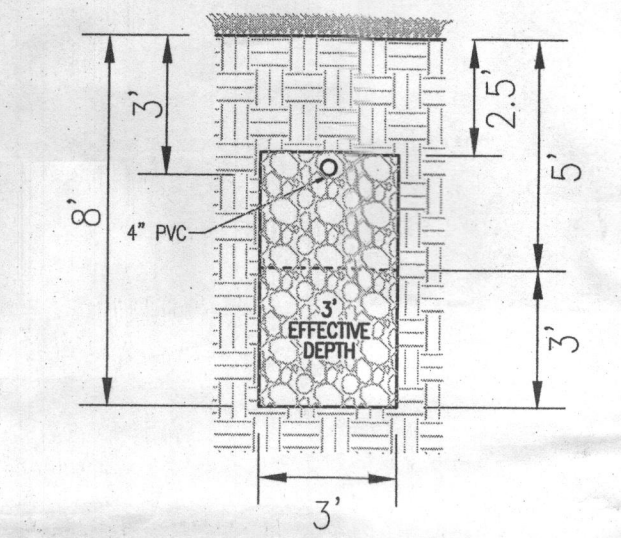


BENCHMARKS

HOWARD COUNTY BENCHMARK 34GB (CONC. MON.)
 N 553966.73 E 1317792.53 ELEV. 505.18
 LOCATION: MINK HOLLOW RD. 0.45 MI. SW OF HIGHLAND RD.

HOWARD COUNTY BENCHMARK 34HA (CONC. MON.)
 N 555780.15 E 1319355.57 ELEV. 535.23
 LOCATION: CORNER OF HIGHLAND RD. & MINK HOLLOW RD.

- LEGEND:**
- PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - ADJACENT PROPERTY LINE
 - EXISTING EDGE OF PAVING
 - EXISTING STREAM BUFFER
 - EXISTING TREELINE
 - PROPOSED TREELINE
 - EXISTING SPECIMEN TREES
 - EXISTING WOOD FENCE
 - EX. PUBLIC 100-YEAR FLOOD PLAN
 - PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
 - PROP. PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
 - EXISTING 1' CONTOUR
 - EXISTING 2' CONTOUR
 - PROPOSED 1' CONTOUR
 - PROPOSED 2' CONTOUR
 - APPROVED SEWAGE DISPOSAL AREA (SDA)
 - APPROVED WELL AREA
 - EXISTING WELL
 - APPROVED ALTERNATE WELL LOCATION
 - PASSED PERC. TEST
 - FAILED PERC. TEST



Approved Sewer System Plan
 Howard County Health Department
 5/23/2019
 Date

- GENERAL 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 EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
 - THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM HOWARD COUNTY GIS AND SUPERIMPOSED WITH FIELD RUN TOPOGRAPHICAL SURVEYS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MARCH AND MAY OF 2016.
 - ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 - EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 500' DOWNDRAINAGE OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN USING ALL REASONABLE EFFORTS.
 - THE LOT SHOWN HEREON COMPLEES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.

OWNER
 ESTATES AT RIVER HILL, LLC
 MICHAEL PFALL, MEMBER
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

DEVELOPER
 TRINITY HOMES MARYLAND, LLC
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

THE ESTATES AT RIVER HILL - LOT 11
 13518 ALLNUTT LANE
 HIGHLAND, MD 20777

PARCEL: 389
 TAX MAP: 34 GRID: 23
 5TH ELECTION DISTRICT

ZONED: RR-DEO
 L. 18487 / F. 282
 HOWARD COUNTY, MARYLAND

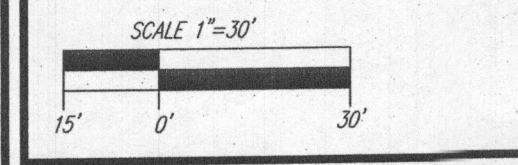
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 N. RIDGE ROAD, SUITE 110
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

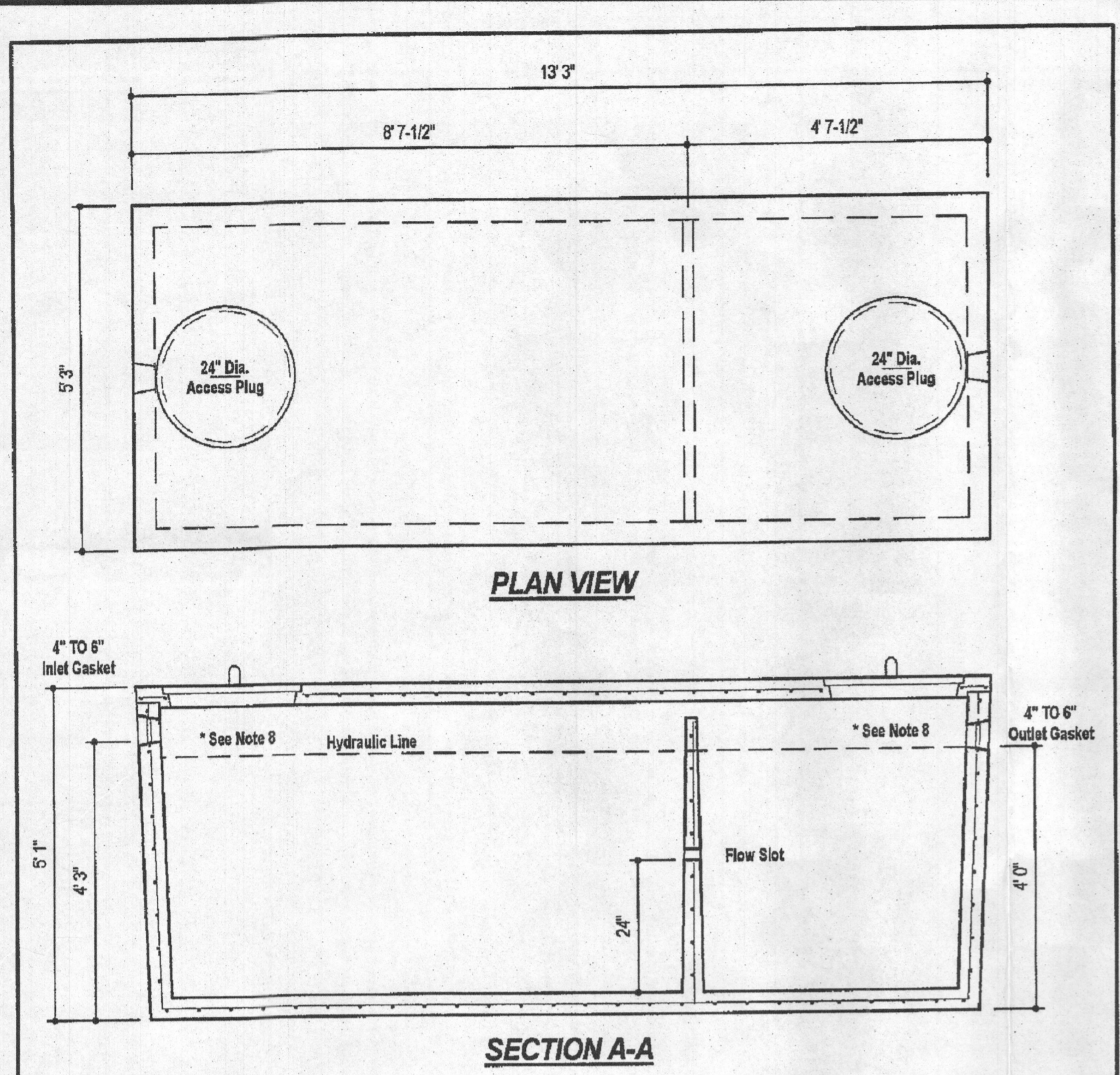
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183, EXPIRATION DATE: 09-27-2020

DESIGN BY: RHV
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: MAY 2019
 SCALE: AS SHOWN
 W.O. NO.: 15-39

1 SHEET OF 2



WELL LOCATION CERTIFICATION:
 THE EXISTING WELL SHOWN FOR LOT 11 (TAG #HO-17-0335) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN



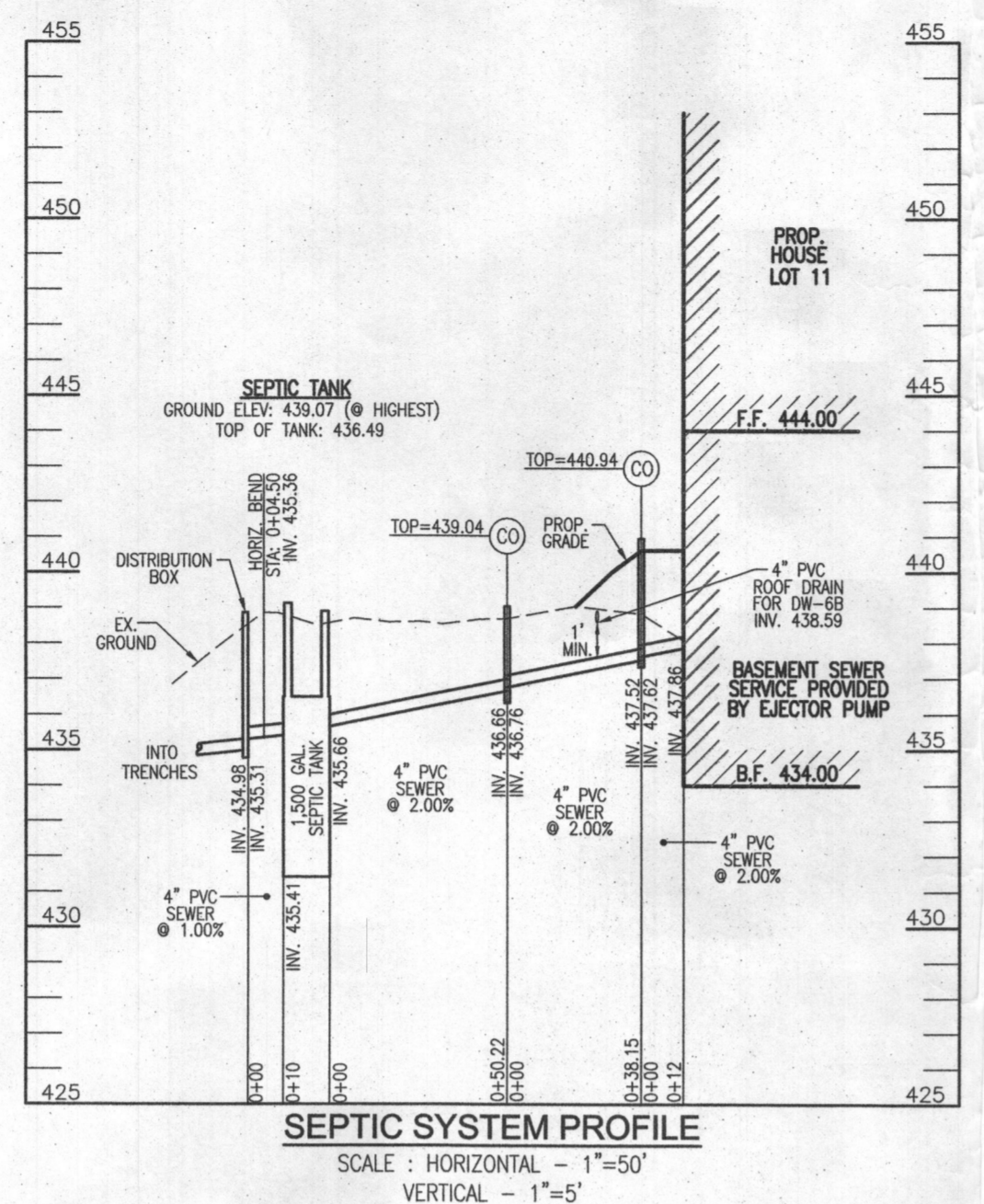
PLAN VIEW

SECTION A-A

- DESIGN DATA & GENERAL NOTES**
- [1] Concrete strength $f'_{c}=4,000$ p.s.i. @ 28 days. Density = 150 pcf.
 - [2] Cement - Portland Type III per ASTM C 150-92.
 - [3] Admixtures & plasticizers per ASTM C 299-93 & C 494-92.
 - [4] Reinforcing per ASTM A198. Min. 1-1/2" cover.
 - [5] Top slab sealed with butyl rope mastic.
 - [6] 4" wall, base, & top thickness.
 - [7] Max 3-1/2" of cover
 - [8] Depending on use of tank, Inlet & Outlet baffles may be required by code.

WEIGHT = 16,750 lbs.

<p>6254 Race Road Elkridge, Maryland 21075 Tel. 410.798.1434 Fax. 410.798.1438 www.mayerbrosprecast.com</p>	<p>1,500 GALLON TANK (Non-Traffic) 2-Compartment</p> <p>Stock Item</p>	
	Dwg. No. 1600-2C	Aug. 11, 2008



SEPTIC SYSTEM PROFILE

SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

OWNER
ESTATES AT RIVER HILL, LLC
MICHAEL PFAU, MEMBER
3675 PARK AVE., SUITE 301
ELLCOTT CITY, MD 21043
(410) 480-0023

DEVELOPER
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3675 PARK AVE., SUITE 301
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ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

THE ESTATES AT RIVER HILL - LOT 11
13518 ALLNUTT LANE
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PARCEL: 389
TAX MAP: 34 GRID: 23
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ROBERT H. VOGEL
ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
3300 N. RIDGE ROAD, SUITE 110 TEL: 410.461.7665
ELLCOTT CITY, MD 21043 FAX: 410.461.8961

	DESIGN BY: RHV	<p>PROFESSIONAL CERTIFICATE</p> <p>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. 16193, EXPIRATION DATE: 08-27-2020</p>
	DRAWN BY: JMR	
	CHECKED BY: RHV	
	DATE: MAY 2019	
	SCALE: AS SHOWN	
W.O. NO.: 15-39	2 SHEET OF 2	