

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: 2/16/23 **ONSITE SEWAGE DISPOSAL SYSTEM** P 572791

APPROVAL DATE: 11/30/2023 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 13605 NOBLE WAY, HIGHLAND, MD 20777

SUBDIVISION: THE ESTATES AT RIVER HILL LOT: 8 TAX ID: 05-601936

CONTRACTOR: FREEDOM SEPTIC EMAIL: _____

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

PROPERTY OWNER: ESTATES AT RIVER HILL LLC EMAIL: tkeane@trinityhomes.com

OWNER ADDRESS: 3675 PARK AVE., SUITE 301, ELLICOTT CITY, MD 21043 PHONE: 443-324-9806

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

PUMP MODEL: WE03 PUMP SIZE 0.3Hp PUMP TANK CAPACITY: 1500

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>103</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>2</u>	MAXIMUM BOTTOM DEPTH: <u>8.0</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Install 2 trenches of 52' in length	

ISSUED BY: _____ ISSUE DATE: _____ EXPIRATION DATE: _____

- 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 23001539
- 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 separate sheet for As-Built

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
2	2	8
NUMBER OF TRENCHES		2
TOTAL LENGTH		102
ABSORPTION AREA		204 ft ²
DISTRIBUTION BOX LEVEL		5
DISTRIBUTION BOX BAFFLE		—
DISTRIBUTION BOX PORT		yes

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	Yes
MANUFACTURER	Budlyn
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	2 1/2'
BAFFLES	Yes
BAFFLE FILTER	—
MANHOLE LOC	Front/Rear
6" PORT LOC	None
WATERTIGHT TEST	—
SLOTTED	Yes
DATE ON LID	2/21/2023
PUMP/SEPTIC TANK LEVEL	Yes
MANUFACTURER	Budlyn
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	2.5'
BAFFLES	None
BAFFLE FILTER	—
MANHOLE LOC	Front/Rear
6" PORT LOC	None
WATERTIGHT TEST	—
SLOTTED	No
DATE ON LID	2/16/2023

PRE-CONSTRUCTION:

3/23/23 - laid out 2 trenches @ 52' each; septic tank, pump tank, c/o's, SBA & trenches were all staked. - Discovered after the fact that this house has no electrical permit, called Christie @ Freedom Septic and told her to have the E permit pulled @ DILP. she said she'd call Tim Keane the builder to get it done. (SP)

INSTALLATION: 4/6/2023 Both tanks set. SHC ran up to house.

Need sewer main reconstruction. OK to continue (SP)

4/10/2023 - PM is SMO 40 PSI 280.2" PVC. D box set. Trenches finished. T. only had front of trench open, called inspector to dig end of trench. Reinspect for plumbing out of house, c/o from SHC, & caps for obs port & D box. (SP)

4/11/23 - Saw caps for obs port & D box. Did not see c/o from SHC (SP)!!

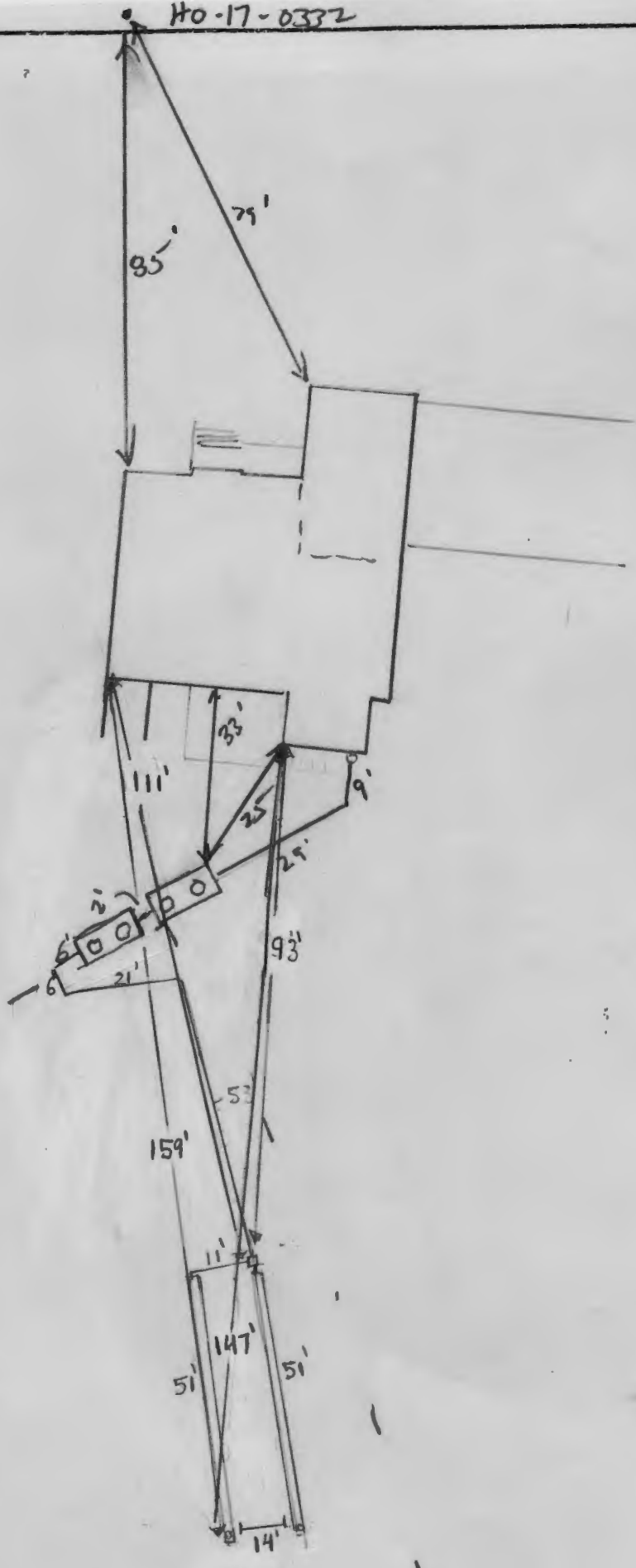
11/30/2023 - Alarm inside of house. Audible alarm successful when pulling float. Pump successfully sends water to d-box. (SP)

FINAL INSPECTOR S. Page , DATE OF APPROVAL 11/30/2023

H0-17-0332

1" = 30'

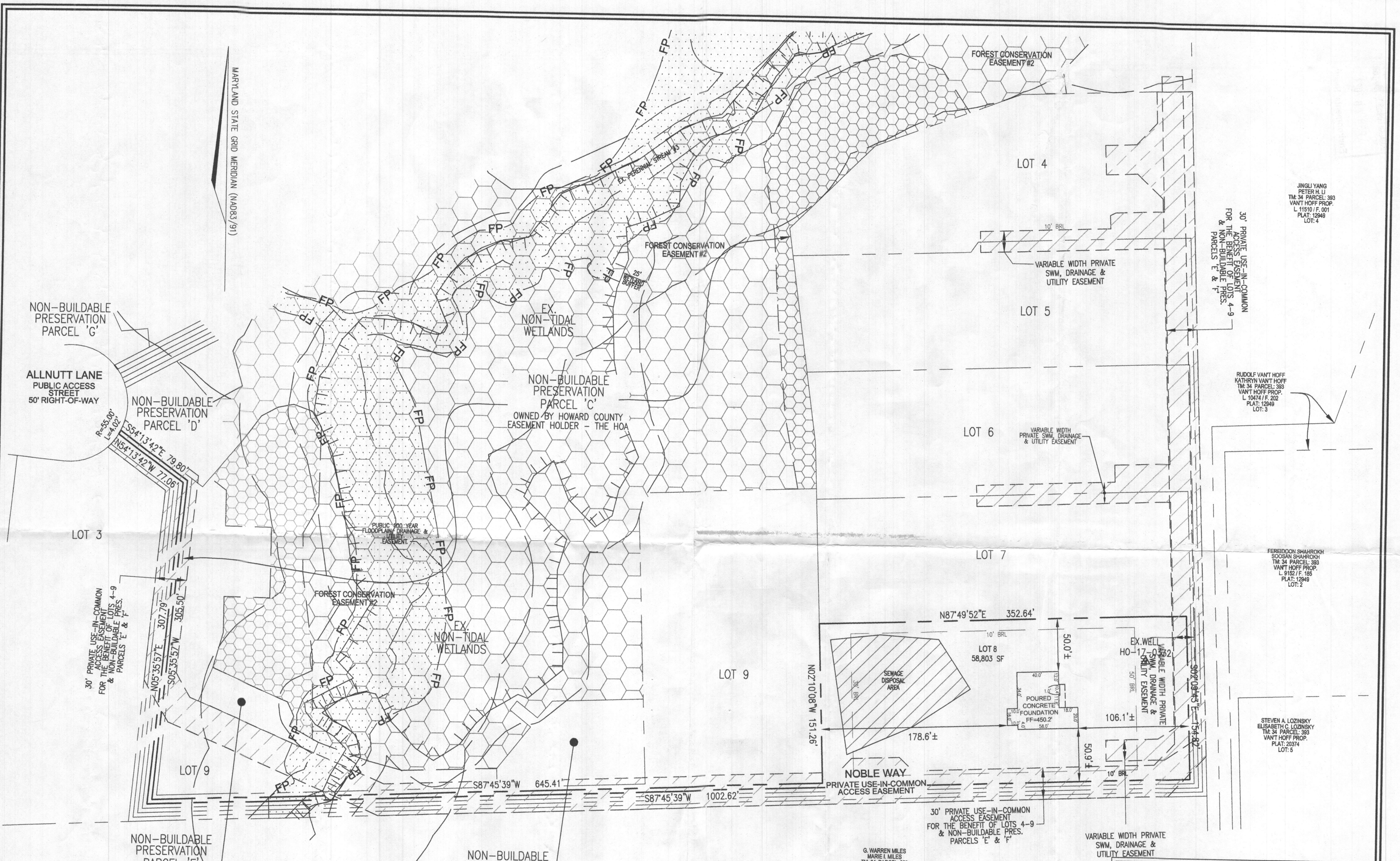
Prop. Line



NOT TO SCALE

Need Electrical
Permit prior to OSDS
Permit Issuance.
Wall Check OK
Otherwise

RJE 2/17/20
23



JINGLI YANG
PETER M. LI
TM 34 PARCEL 383
VANT HOFF PROP.
L 11510 / F. 001
PLAT: 12949
LOT: 4

RUDOLF VANT HOFF
KATHRYN VANT HOFF
TM 34 PARCEL 383
VANT HOFF PROP.
L 10474 / F. 202
PLAT: 12949
LOT: 3

FEREIDOON SHAHROKH
SOOSAN SHAHROKH
TM 34 PARCEL 383
VANT HOFF PROP.
L 8182 / F. 185
PLAT: 12949
LOT: 2

STEVEN A. LOZINSKY
ELISABETH C. LOZINSKY
TM 34 PARCEL 383
VANT HOFF PROP.
PLAT: 20374
LOT: 5

G. WARREN MILES
MARIE I. MILES
TM 34 PARCEL 252
L 1285 / F. 393

*Wall Check
OK
RTH 2/17/2023*

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE IMPROVEMENTS ARE LOCATED AS SHOWN AND THAT THERE ARE NO ENCROACHMENTS EXCEPT AS SHOWN; THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Thomas M. Hoffman Jr.
THOMAS M. HOFFMAN JR.
PROPERTY LINE SURVEYOR
LICENSE NO. 267
EXP. DATE: JULY 28, 2024
1/30/23
DATE



NON-BUILDABLE PRESERVATION PARCEL 'F'
OWNED BY THE HOA EASEMENT HOLDER - HOWARD COUNTY

NON-BUILDABLE PRESERVATION PARCEL 'E'
OWNED BY THE HOA EASEMENT HOLDER - HOWARD COUNTY

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

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
THE ESTATES AT RIVER HILL
LOT 8
13605 NOBLE WAY
HIGHLAND, MD 20777
PLAT NO. 25085-25094
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 60'
JANUARY 29, 2023

GRAPHIC SCALE
120 60 30 0 60 120
1 INCH = 60 FEET

COMPED BY: _____
DRAWN BY: J.M.M.
CHECKED BY: E.D.S.

W.O. NO.: 15-39
SHEET 1 of 1



USE: RESIDENTIAL
ZONED: RR-DEO

THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 1000 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. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.

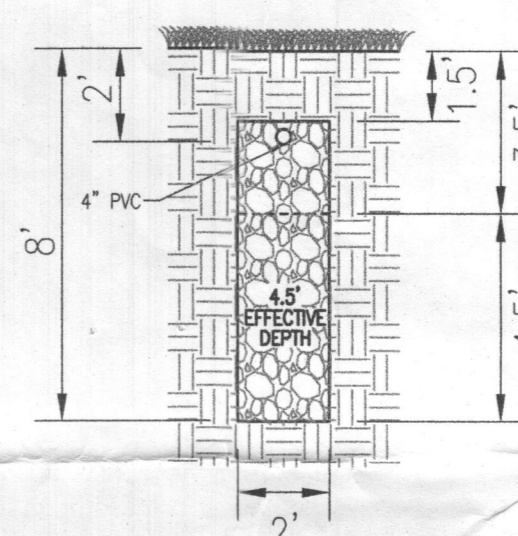
INITIAL SYSTEM TRENCH INFO.			
TRENCH	LENGTH	INVERT	BOTTOM OF EXISTING TRENCH
1	52'	447.93	441.93
2	52'	447.48	441.48

SYSTEM CALCULATIONS:

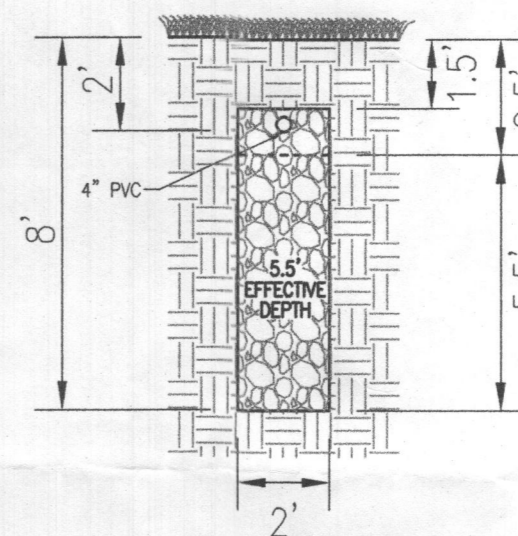
INITIAL SYSTEM:
5 BEDROOMS AT 750gpd / 1.2 ABSORPTION RATE = 625 SQ. FT.
625 SQ. FT. / 2 (TRENCH WIDTH) x .33 (SIDEWALL REDUCTION) = 103 LINEAR FEET
104 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE INITIAL SYSTEM.
(2 TRENCHES OF 52 FEET IN LENGTH)

FIRST REPLACEMENT SYSTEM:
5 BEDROOMS AT 750gpd / 1.2 ABSORPTION RATE = 625 SQ. FT.
625 SQ. FT. / 2 (TRENCH WIDTH) x .29 (SIDEWALL REDUCTION) = 91 LINEAR FEET
92 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE FIRST REPLACEMENT SYSTEM.
(2 TRENCHES OF 46 FEET IN LENGTH)

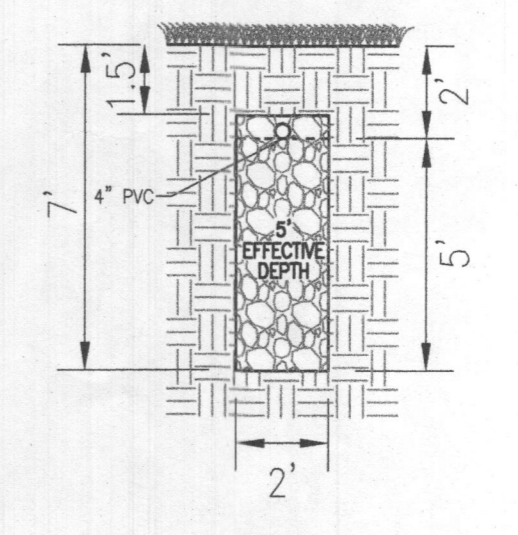
SECOND REPLACEMENT SYSTEM:
5 BEDROOMS AT 750gpd / 1.2 ABSORPTION RATE = 625 SQ. FT.
625 SQ. FT. / 2 (TRENCH WIDTH) x .31 (SIDEWALL REDUCTION) = 97 LINEAR FEET
98 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE SECOND REPLACEMENT SYSTEM.
(2 TRENCHES OF 49 FEET IN LENGTH)



INITIAL SYSTEM TRENCH DETAIL
NOT TO SCALE



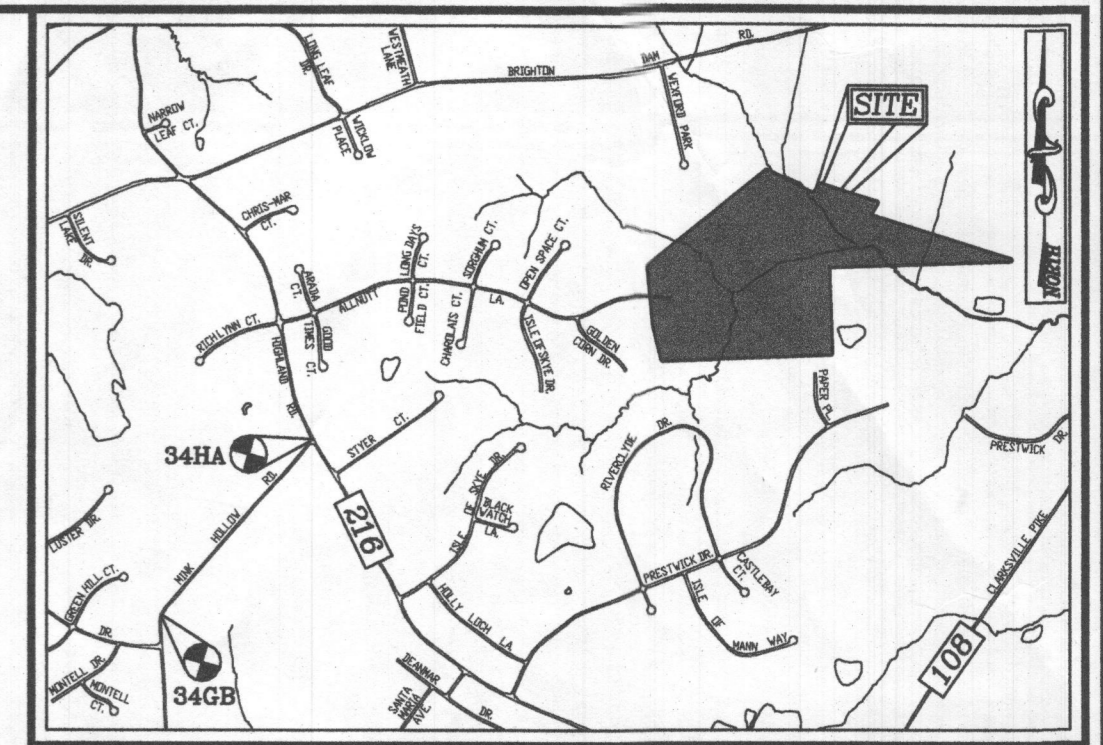
1ST REPLACEMENT SYSTEM TRENCH DETAIL
NOT TO SCALE



2ND REPLACEMENT SYSTEM TRENCH DETAIL
NOT TO SCALE

STEVEN A. LOZINSKY
ELISABETH C. LOZINSKY
TM: 34 PARCEL: 393
VANT HOFF PROP.
PLAT: 20374
LOT: 5
4.88 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

WELL LOCATION CERTIFICATION:
THE EXISTING WELL SHOWN FOR LOT 8 (TAG #HO-17-0332) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN



VICINITY MAP
SCALE: 1"=200'
ADC MAP: PAGE: 31 / GRID: B2, B3, & C2

BENCHMARKS
HOWARD COUNTY BENCHMARK 346B (CONC. MON.)
N 553966.73 E 1317752.53 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 PLAIN
- PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PROP. PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
- EXISTING 10' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- APPROVED SEWAGE DISPOSAL AREA (SDA)
- APPROVED WELL AREA
- EXISTING WELL
- PASSED PERC. TEST
- FAILED PERC. TEST

Approved Septic System Plan
Howard County Health Department
Hank Oswald 6/16/22
Signature Date

GENERAL 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 EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL (HO-17-0332) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
6. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
7. THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM HOWARD COUNTY GIS AND SUPPLEMENTED WITH FIELD RUN TOPOGRAPHICAL SURVEYS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MARCH AND MAY OF 2016.

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

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

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

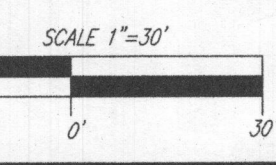
THE ESTATES AT RIVER HILL - LOT 8
13605 NOBLE WAY
HIGHLAND, MD 20777

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

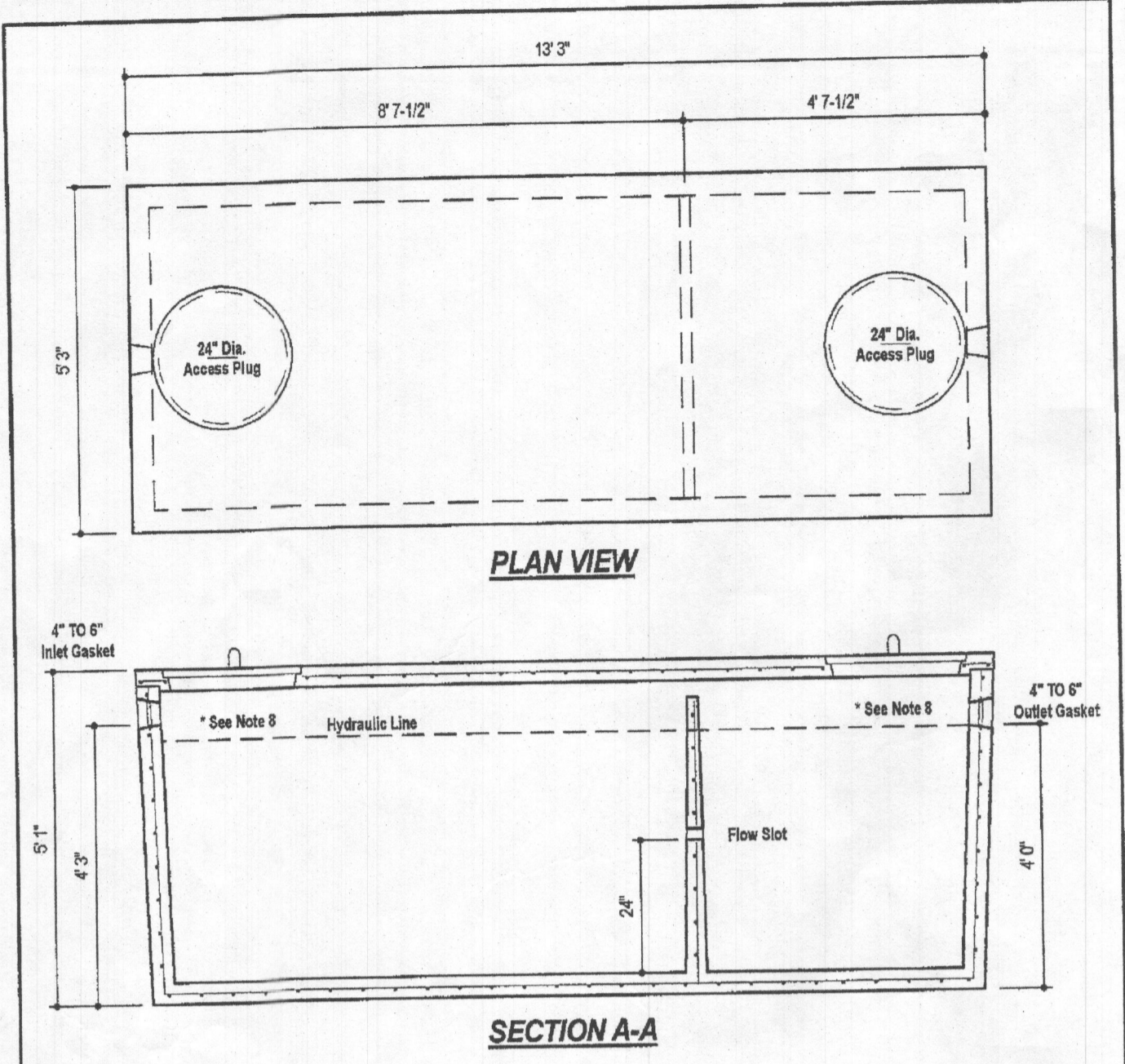
ZONED: RR-DEO
L 18487 / F 282
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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

	DESIGN BY: RHV	PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 06-27-2022.
	DRAWN BY: JMR	
	CHECKED BY: RHV	
	DATE: MAY 2022	
	SCALE: AS SHOWN	
W.O. NO.: 15-39	1 SHEET OF 2	



PLAN VIEW
SCALE: 1"=30'



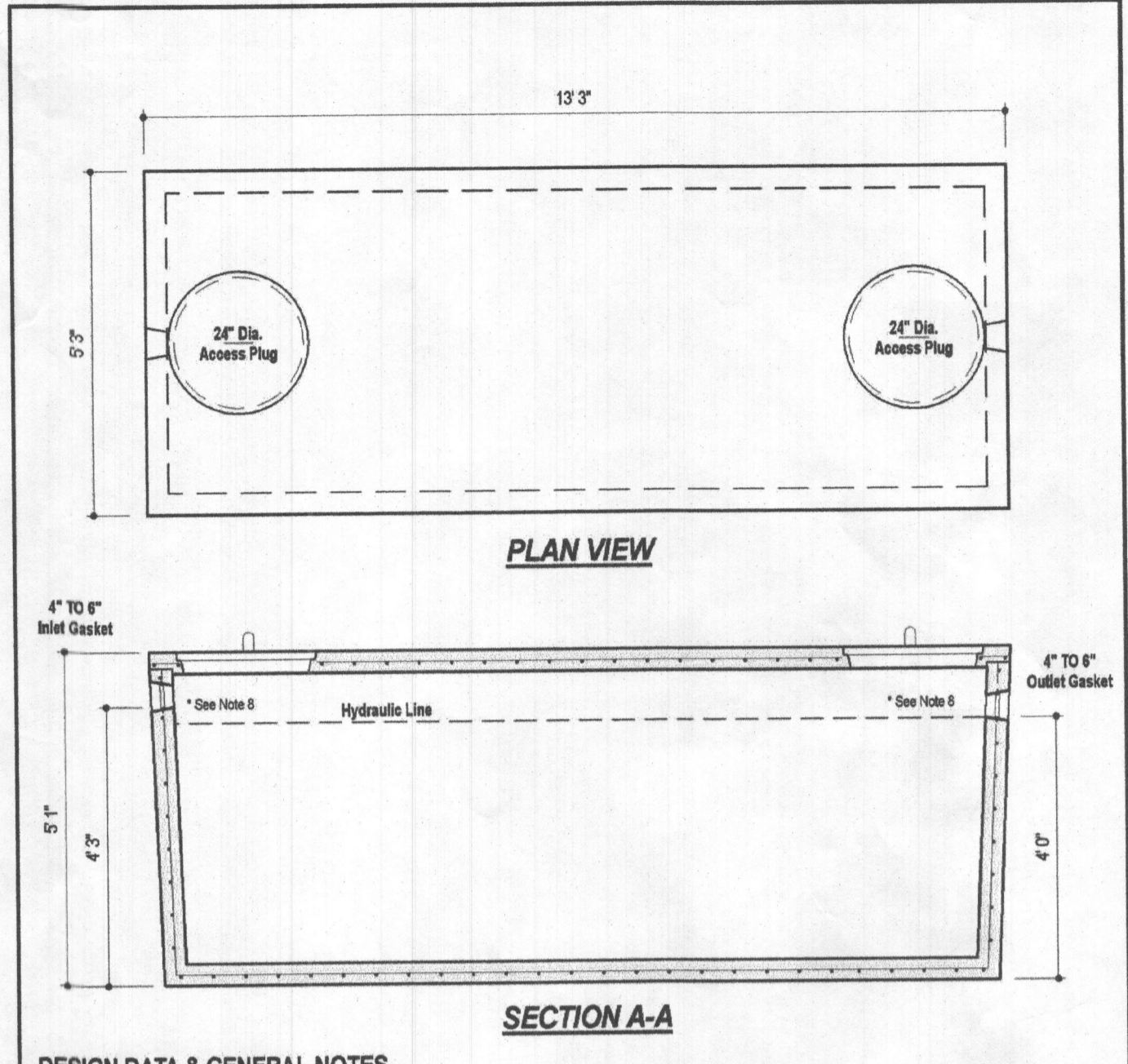
DESIGN DATA & GENERAL NOTES

- Concrete strength $f'_{c}=4000$ p.s.i. @ 28 days. Density = 150 pcf.
- Cement - Portland Type III per ASTM C 150-02.
- Admixtures & plasticizers per ASTM C 260-08 & C 494-02.
- Reinforcing per ASTM A195. Min. 1-1/2" cover.
- Top slab sealed with butyl rope mastic.
- 4" wall, base, & top thickness.
- Max 3-1/2" of cover.
- Depending on use of tank, Inlet & Outlet baffles may be required by code.

WEIGHT = 16,750 lbs.

Mayer Bros., Inc.
 6364 Race Road
 Ellicott City, Maryland 21075
 Tel. 410.796.1431
 Fax. 410.796.1438
 www.mayerbrosgroup.com

1,500 GALLON TANK (Non-Traffic) 2-Compartment
 Stock Item
 Dwg. No. 1500-2C No Scale Aug. 11, 2008



DESIGN DATA & GENERAL NOTES

- Concrete strength $f'_{c}=4000$ p.s.i. @ 28 days. Density = 150 pcf.
- Cement - Portland Type III per ASTM C 150-02.
- Admixtures & plasticizers per ASTM C 260-08 & C 494-02.
- Reinforcing per ASTM A195. Min. 1-1/2" cover.
- Top slab sealed with butyl rope mastic.
- 4" wall, base, & top thickness.
- Max 3" of cover.
- Depending on use of tank, Inlet & Outlet baffles may be required by code.

WEIGHT = 16,000 lbs.

Mayer Bros., Inc.
 6364 Race Road
 Ellicott City, Maryland 21075
 Tel. 410.796.1431
 Fax. 410.796.1438
 www.mayerbrosgroup.com

1,500 GALLON SEPTIC/PUMP TANK 1-Compartment
 NON-TRAFFIC MAX 3 ft. OF COVER
 Dwg. No. 1500-1C No Scale Aug. 11, 2008

Wastewater

APPLICATIONS
 Specifically designed for the following uses:
 • Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS

Pump

- Solids handling capabilities: 3/4" maximum
- Discharge size: 2" NPT
- Capacities: up to 140 GPM
- Total heads: up to 128 feet TDH
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

MOTORS

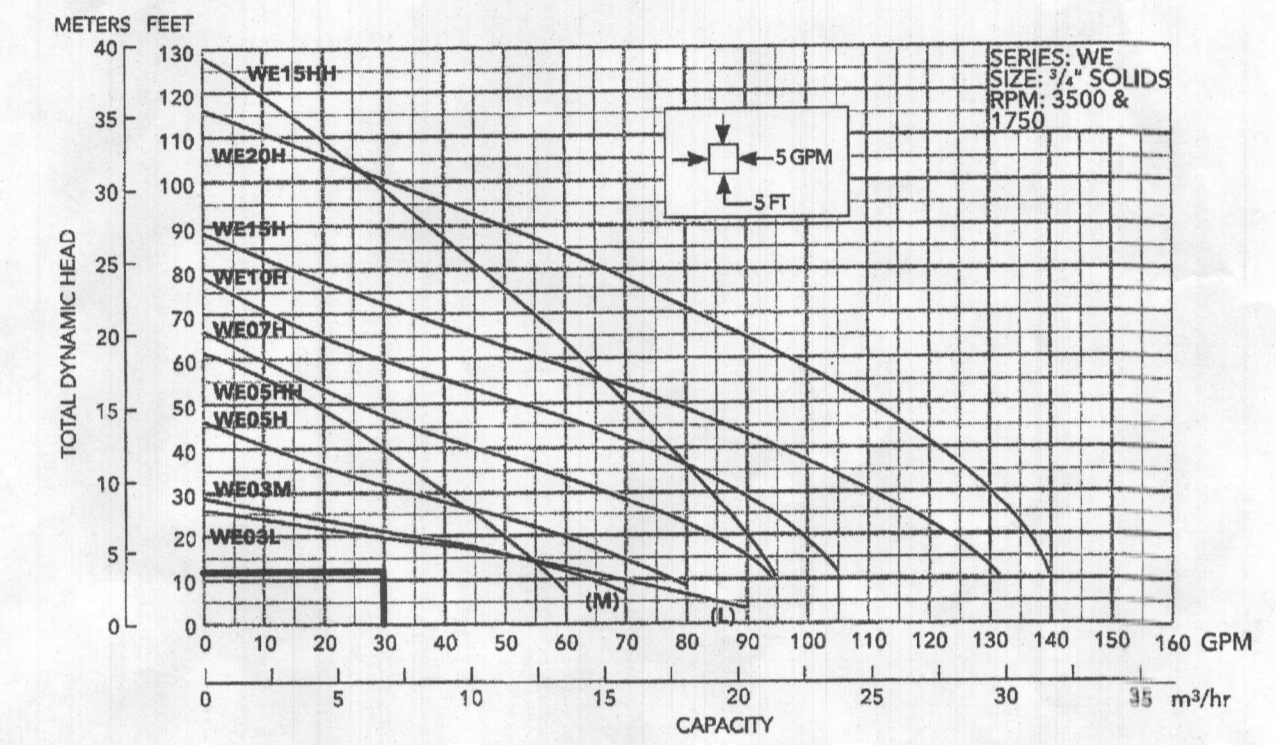
- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on 1/2 - 1 1/2 HP models.
- Class F insulation on 2 HP models.

Single phase (60 Hz):

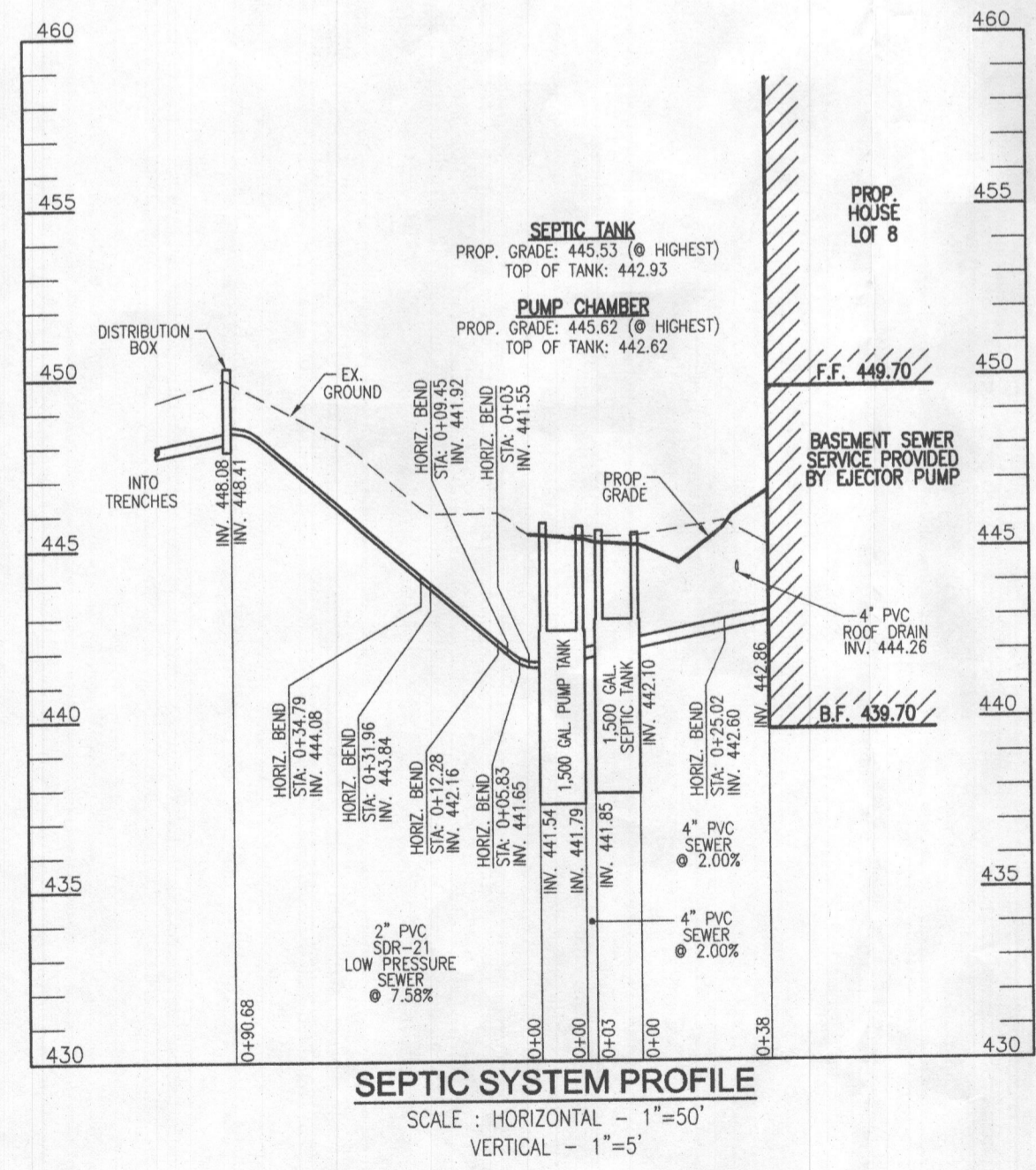
- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.

AGENCY LISTINGS

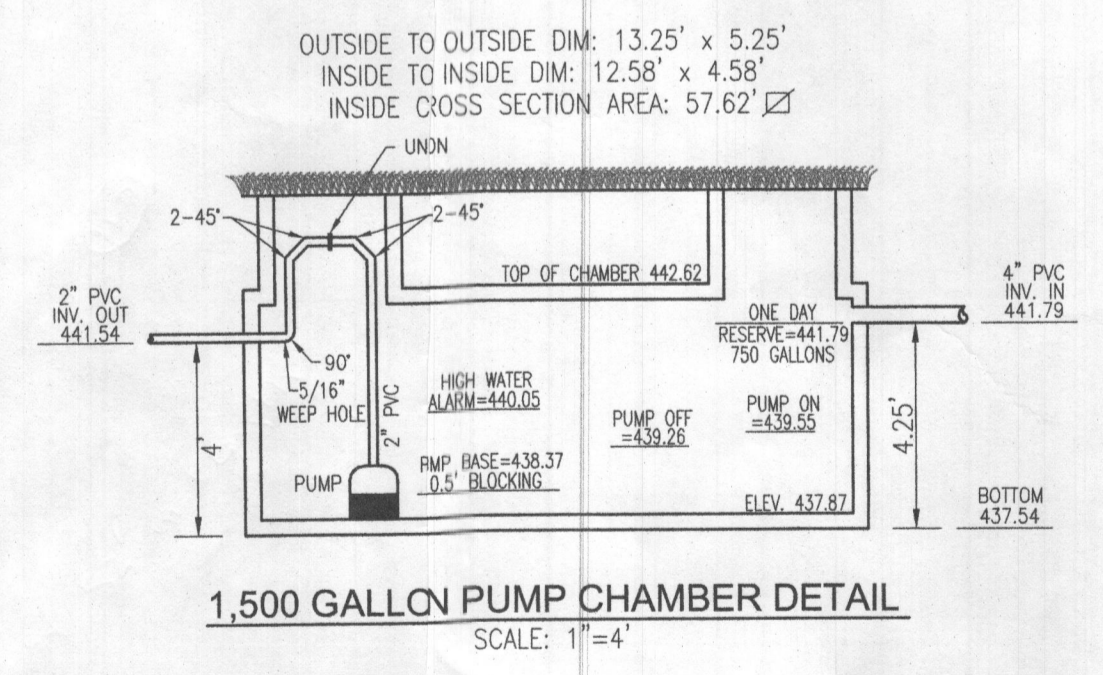
Tested to UL 778 and CSA 22.2 108 Standards
 By Canadian Standards Association File # 8.258549



FLOW: 30 GPM
 H=11.35'
 USE GOULDS WE03 (OR EQUIVALENT)



SEPTIC SYSTEM PROFILE
 SCALE: HORIZONTAL - 1"=50'
 VERTICAL - 1"=5'



1,500 GALLON PUMP CHAMBER DETAIL
 SCALE: 1"=4'

NO. BEDROOMS = 5
 DESIGN FLOW = 5(150 GPD) = 750 GPD
 DOSE: 1/8 DESIGN FLOW = 125 GPD
 125 GALLONS/7.48 FT³/GAL = 16.71 FT³
 16.71 FT³/57.62 SF = 0.29
 ONE DAY RESERVE: 750 GALLONS/7.48 FT³/GAL = 100.27 FT³
 100.27 FT³/57.62 SF = 1.74 FT

TDH (FRICTION + STATIC)
 FRICTION FITTINGS: UNION: 1x2 = 2
 45° ELBOW (H+V): 12x8 = 96
 90° ELBOW: 1x7 = 7

FITTING EQ. LENGTH: 105.0 LF
 PIPE LENGTH: 132.3 LF
 TOTAL LENGTH: 237.3 LF

FRICTION LOSS (30 GPM): (1.54)(237.3)/100 = 3.65'
 STATIC: 446.96 - 439.26 (PUMP OFF) = 7.70'
 TDH: 7.70 + 3.65 = 11.35'
 USE GOULDS WE03 (OR EQUIVALENT)

OWNER
 ESTATES AT RIVER HILL, LLC
 MICHAEL PFAU, 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 8
 13605 NOBLE WAY
 HIGHLAND, MD 20777

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

ZONED: RR-DEO
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 HOWARD COUNTY, MARYLAND

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

PROFESSIONAL CERTIFICATE

DESIGN BY: RHY
 DRAWN BY: JMR
 CHECKED BY: RHY
 DATE: MAY 2022
 SCALE: AS SHOWN
 W.O. NO.: 15-39

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: 09-27-2022

2 SHEET OF 2