

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: 11-13-25 **ONSITE SEWAGE DISPOSAL SYSTEM** P 590270-A

APPROVAL DATE: 11/14/2026 SP **PERMIT: NEW CONSTRUCTION** A _____

PROPERTY ADDRESS: 1711 Brickell Way

SUBDIVISION: Brickell Property LOT: 2 TAX ID: _____

CONTRACTOR: South Carroll Backhoe EMAIL: sbackhoe@gmail.com

CONTRACTOR ADDRESS: 440 Salem Bottom RD Westminster, MD 21157 PHONE: 410 596 3268

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:

PROPERTY OWNER: NVR. Inc. EMAIL: _____

OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046 PHONE: 443-932-9102

BAT UNIT MODEL: Norweco PUMP SIZE: Mod.151 PUMP TANK CAPACITY: 1500

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: _____ DATE RECORDED: _____

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

TRENCHES:	LINEAR FEET REQUIRED: <u>131 (2 x 66')</u>	INLET DEPTH: <u>3</u> ✓
	TRENCH WIDTH: <u>3</u> ✓	MAXIMUM BOTTOM DEPTH: <u>8' 6"</u> ✓
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4' 2"</u> ✓
LOCATION:	SYSTEM TO BE STAKED BY DESIGNER AND VERIFIED BY APPROVING AUTHORITY DURING PRE-CONSTRUCTION INSPECTION.	
NOTES:	**** Electrical Permit Needed Prior to Issuance****	

ISSUED BY: Hank Oswald M.D. ISSUE DATE: 11/13/25 EXPIRATION DATE: 11/13/26

NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
 NOTE: CONTRACTOR REGISTERED WITH THE STATE OF MD ON-SITE WASTEWATER PROFESSIONALS BOARD: CONFIRMED

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 DOWNGRADE FROM ANY WATER WELL
 NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

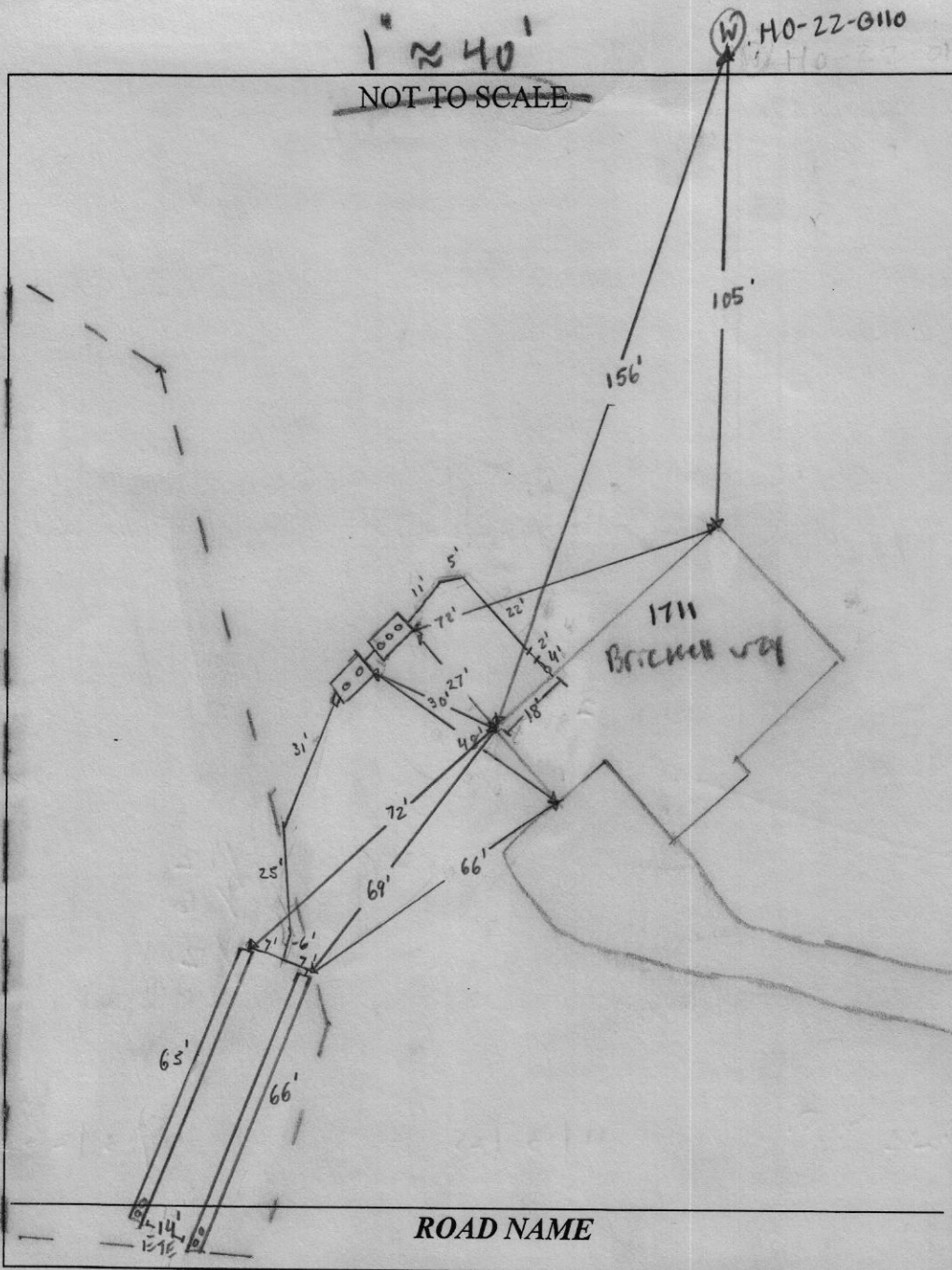
NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM
 ELECTRICAL PERMIT ISSUED E 25004976

NOTE: THE HCHD DOES NOT WARRANT ANY SYSTEM AND CANNOT GUARANTEE THE PERFORMANCE OF THIS SYSTEM AS DESIGNED. BY ACCEPTING THIS PERMIT, THE OWNER AND/OR APPLICANT ACKNOWLEDGE THAT THE SPECIFICATIONS DETAILED IN THIS DESIGN ARE ONE POSSIBLE OPTION AND THAT THE HCHD WILL REVIEW OTHER PROPOSALS. YOU HAVE THE OPTION TO SEEK THE ADVICE OF A QUALIFIED DESIGN CONSULTANT OR PROFESSIONAL ENGINEER FOR FURTHER GUIDANCE.

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.**



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	2'	6'
NUMBER OF TRENCHES		2
TOTAL LENGTH		131'
ABSORPTION AREA		393 ft ² + SW
DISTRIBUTION BOX LEVEL		—
DISTRIBUTION BOX BAFFLE		—
DISTRIBUTION BOX PORT		—

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	yes
MANUFACTURER	Nurweco
CAPACITY	600 GAL
SEAM LOC	Top
TANK LID DEPTH	1'-1.5'
BAFFLES	—
BAFFLE FILTER	—
MANHOLE LOC	Front middle + back
6" PORT LOC	—
WATERTIGHT TEST	—
SLOTTED	—
DATE ON LID	11/10/2025

PUMP/SEPTIC TANK LEVEL	yes
MANUFACTURER	B264/07
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	1.5'
BAFFLES	—
BAFFLE FILTER	—
MANHOLE LOC	Front + back
6" PORT LOC	—
WATERTIGHT TEST	—
SLOTTED	—
DATE ON LID	10/6/2025

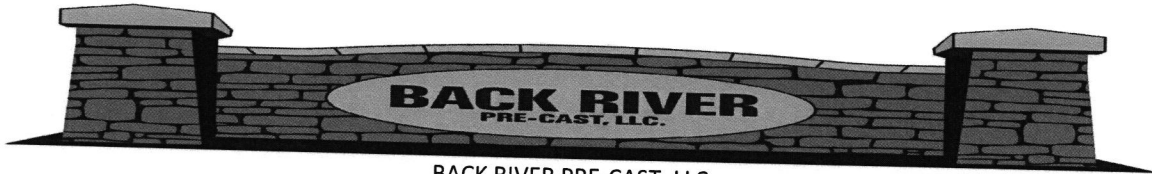
SEPTIC CONTRACTOR ONSITE INSTALLING SYTEM: Drew Schisler
 SEPTIC CONTRACTOR ONSITE LICENSED WITH THE STATE OF MD: YES/NO

PRE-CONSTRUCTION NOTES:
 11/18/2025 - Installer onsite for pre-con, tanks 28', 27'
 from house & > 100' from well # HO-22-0110. Trenches 66' & both on contour. Not ok to start work yet, builder needs to submit receipt of O & M Agreement from land records. (SP)
 11/19/2025 - Received O & M Agreement from land records. ok to start work. (SP)

INSTALLATION NOTES:
 11/20/2025 - Installer onsite for inspection. 600 Nurweco installed. Front line installed w/ 1 deep well foundation. SCHO 40 4" PVC installed. w/ 1-2% fall. Onsite while PT set. Tank is set on level ground, fall between 2 tanks. Receipt for PM + Trenches. (SP)
 11/21/2025 - Installer onsite for inspection. PM to Trench 1 installed, inlet @ 2' per ft in 13 holes spaced 3' 8" apart installed. PM from tank to trench installed, SCHO 40 2x0 PSI pipe used. onsite while pipe cured w/ stone & fabric installed. OK to Backfill. Reinspect tank 2. (SP) 11/24/2025 - Installer onsite for inspection. Lateral Hole size & spacing per plan. Trench 2 length 65' was. Inlet @ 2, stone & fabric ok. ok to Backfill. (SP)

CONTROL PANEL DATA	
CONTROL PANEL HEIGHT	4'
(MIN 30")	
INSPECTION DATE	11/13/2026
INSPECTION: PASS/FAIL (CIRCLE ONE)	

FINAL INSPECTOR S. Page DATE OF APPROVAL 11/14/2026
 11/3/2026 - Installer onsite for P+A. Control panel 4' above grade. Distal vent @ 2.5' + 3.5'. Need start of (SP)



BACK RIVER PRE-CAST, LLC
 PO BOX 329
 GLYNDON, MD 21071
 PH# 410-833-3394

NORWECO CERTIFICATION

PROPERTY OWNER: NVR	INSTALLATION COMPANY: SOUTH CARROLL
ADDRESS: 1711 BRICKELL WAY	CERTIFIED INSTALLER: DREW SCHISSLER
CITY, ZIPCODE & COUNTY: MARRIOTTSVILLE, 21104, HOWARD	PERMIT#
SIZE OF SYSTEM INSTALLED:	DATE INSTALLED: 11-20-25
600 GPD CONCRETE	START-UP DATE: 1-13-26
NUMBER OF BEDROOMS:	DATE OF FINAL INSPECTION:
TYPE OF INSTALLATION: NEW	DATE OF ELECTRICAL INSPECTION:
ELECTRICAL WIRING PER ELECTRICAL INSTRUCTIONS: YES	TANK LEVEL: YES
HT. OF CONTROL PANEL ABOVE FINAL GRADE: 36"	BURIAL DEPTH OF TANK: 36"
SYSTEM WIRED ON A 15-AMP DEDICATED CIRCUIT WITH STD. BREAKER: YES	RISERS 4" - 6" ABOVE GRADE: NO
LENGTH(S) OF UF WIRE PAST LAST AERATION RISER(S): 30"	VENTED LID(S) ON AERATION CHAMBER(S): YES
FEMALE PLUG(S) WIRED TO UF WIRE: YES	ANY GROUND SETTLING AROUND TANK: NO
CONDUIT(S) ENTERING AERATION RISER MADE WITH A WATERTIGHT CONNECTION: YES	
ISTHE INSIDE OF THE CONDUIT ENTERING THE CONTROL PANEL(S) AND AERATION RISER(S) SEALED WITH DUCT SEAL: YES	

ON 2ND PAGE MAKE A ROUGH SKETCH OF THE HOUSE ,WHERE THE SYSTEM IS LOCATED, WHERE THE CONTROL PANEL IS LOCATED , WHERE THE FRONT OF THE IS AND DIRECTIONS TO THE PROPERTY.

DIRECTIONS CAN START A FEW STREETS AWAY

EXAMPLE: RT. X LEFT ONTO XX STREET RIGHT ONTO PRIVATE DRIVEWAY 5TH HOUSE OF THE LEFT.

I certify that the Norweco Singlair TNT Wastewater Treatment System was installed according to the manufacture's specifications.

Matthew Geckle

January 13, 2026

Signature of BRP Representative

Vice-President

Date

Lot 2



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

**OPERATION AND MAINTENANCE AGREEMENT
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

THIS AGREEMENT is made this 14 day of November, 2025, among NVR INC, 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 1711 Brickell Way Marriottsville 21104, in the 3rd Election District of Howard County, Maryland, and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 10, Block # , Parcel # 274, Deed Reference # 22879/186 and Tax Account # 03-605459 ("the Property").

WHEREAS, The Property 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 November 24, 2016. The pre-treatment device being installed is BAT System - Norweco.

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the County the right to enter upon the Property at any reasonable time with prior notice 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.

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 Property 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 Property that the system shall require maintenance or other attention. Upon taking title to the Property, 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 this agreement on the date indicated above.

 11/17/25
Howard County Health Department

Sean Buggy 11/14/2025
Owner #1 Signature Date

Owner#2 Signature Date

NVR INC
Owner #1 Print Name

Owner #2 Print Name

Buyer #1 Signature Date

Buyer #2 Signature Date

Buyer #1 Print Name

Buyer #2 Print Name

Clerk of the Circuit Court for
Howard County
9250 Judicial Way
Ellicott City, MD 21043
410-313-2111
Receipt Ref# 1117251303001020
Terminal 13PRD478 Operator 46
11/17/2025 15:24:08

Agreement Recording Fee \$60.00
Name: NVR INC
Ref: 17
Fee Amount: \$20.00
Agreement Surcharge: \$40.00

Payments

Check
Check Number: 71601

\$60.00

Total Due \$60.00
Total Received \$60.00

~Thank you for visiting us today~

Clerk of the Circuit Court for
Howard County
9250 Judicial Way
Ellicott City, MD 21043
410-313-2111
Receipt Ref# 1117251303001021
Terminal: 13PRD478 Operator: 46
11/17/2025 15:25:25

Agreement Recording Fee \$60.00
Name: NVR INC
Ref: 18
Fee Amount: \$20.00
Agreement Surcharge \$40.00

Payments

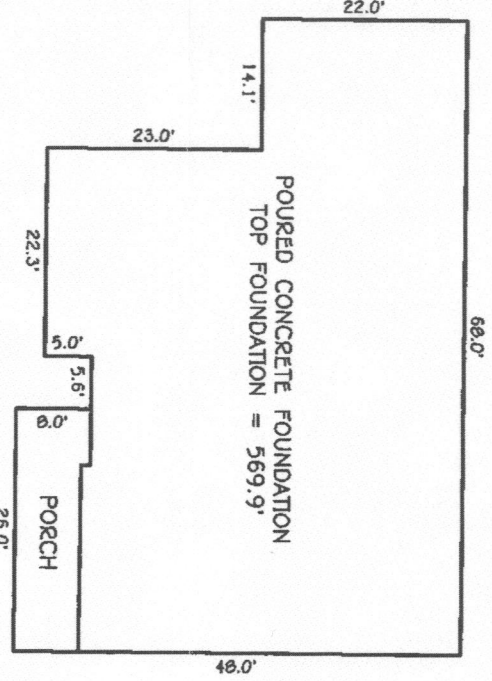
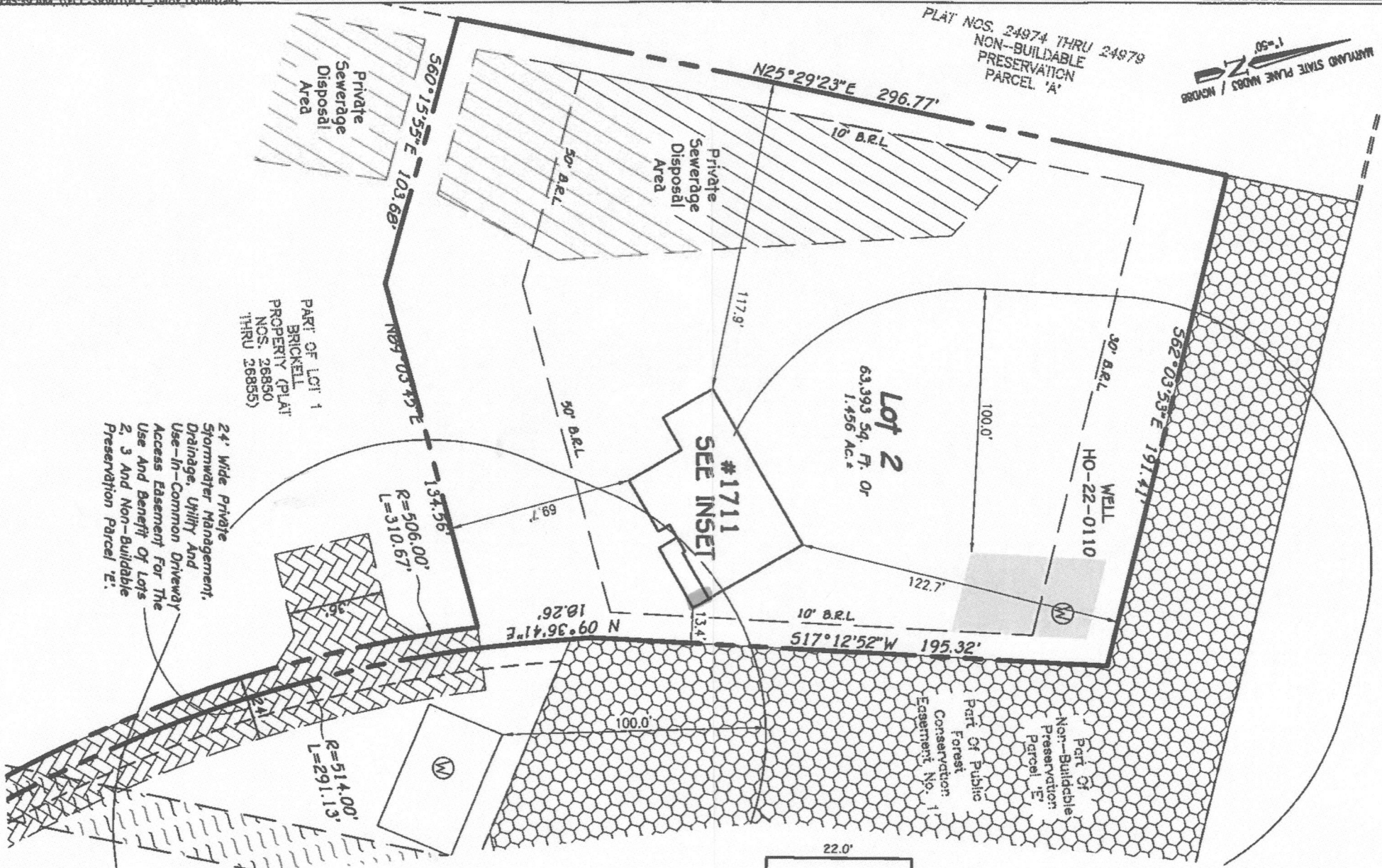
Check \$60.00
Check Number: 71600

Total Due \$60.00
Total Received \$60.00

~Thank you for visiting us today~

GENERAL NOTES:

- 1) THE PURPOSE OF THIS SURVEY IS TO REPRESENT THE POSITION OF THE POURED CONCRETE FOUNDATION AND OTHER VISIBLE IMPROVEMENTS AFFECTING THE SUBJECT PROPERTY BASED OFF OF A FIELD RUN SURVEY PERFORMED OCTOBER 10, 2025.
- 2) THIS SPECIAL PURPOSE SURVEY IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATION OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS; AND DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES.
- 3) DIMENSIONS TO THE BOUNDARY LINES SHOWN HEREON ARE PLUS OR MINUS ONE HALF FOOT (0.5').
- 4) THE SUBJECT PROPERTY LIES WITHIN FLOOD ZONE X, WHICH IS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD HAZARD, AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP FOR HOWARD COUNTY, MARYLAND, MAP NUMBER 24027C00600 WITH AN EFFECTIVE DATE OF NOVEMBER 06, 2013.
- 5) B.R.L. = BUILDING RESTRICTION LINE
- 6) BUILDING PERMIT: B25002456
- 7) THE EXISTING WELL SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-22-0110) HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN
- 8) NO TITLE REPORT WAS REVIEWED AND IS SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 9) SURVEYORS CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON WAS OBTAINED USING ACCEPTED LAND SURVEYING PRACTICES; AND THAT THE BOUNDARY INFORMATION SHOWN HEREON IS TAKEN FROM AVAILABLE DEEDS AND RECORDS; AND THAT THIS PLAT AND THE SURVEY ON WHICH IT IS BASED ON WERE PREPARED UNDER MY RESPONSIBLE CHARGE AND ARE IN COMPLIANCE WITH COMAR REGULATION 09.13.06.12; AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE JULY 14, 2027.



INSET
SCALE 1" = 20'

24' Wide Private Stormwater Management, Drainage, Utility And Use-In-Common Driveway Access Easement For The Use And Benefit Of Lots 2, 3 And Non-Buildable Preservation Parcel 2:

PART OF LOT 1 BRICKELL PROPERTY (PLAT NOS. 26850 THRU 26855)

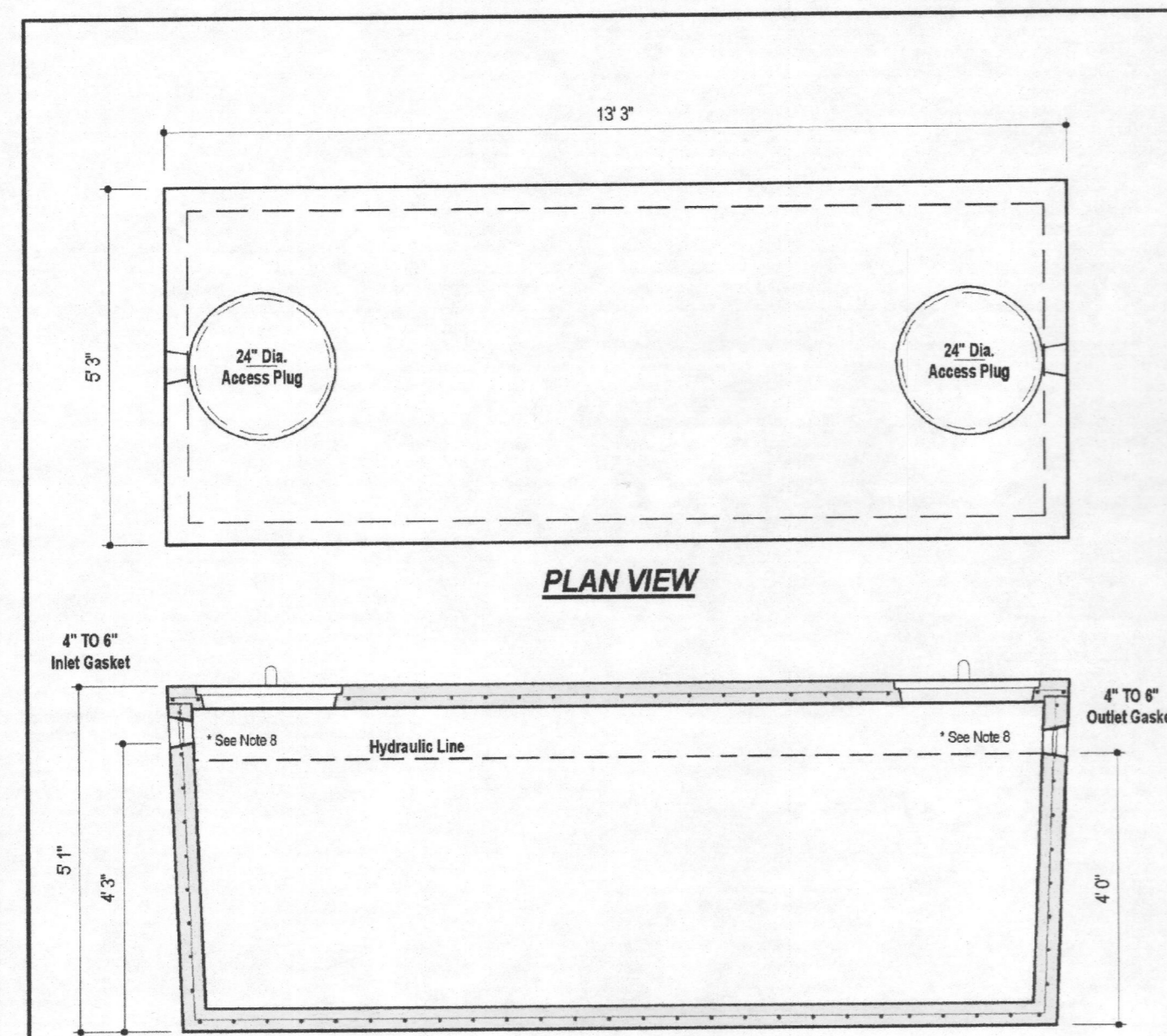
#1711 BRICKELL WAY
TAX MAP: 10, GRID: 1,
PARCEL: 274, LOT: 2
3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

11/13/25 - Wall Check
OKAY - H.O.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461 - 2955

STATE OF MARYLAND
FRANK JOHN MAAJANSAN II
PROFESSIONAL LAND SURVEYOR
No. 21476
REG. #21476 EXP. 07/14/2027
DATE 11/4/25

SPECIAL PURPOSE SURVEY
FOUNDATION LOCATION: 10/11/2025
BOUNDARY SURVEY:
SCALE: 1" = 50'
DATE: 11/5/2025
DRAWN BY: MD
CHECKED BY: EJM
PROJECT No.: 17040-6002



DESIGN DATA & GENERAL NOTES

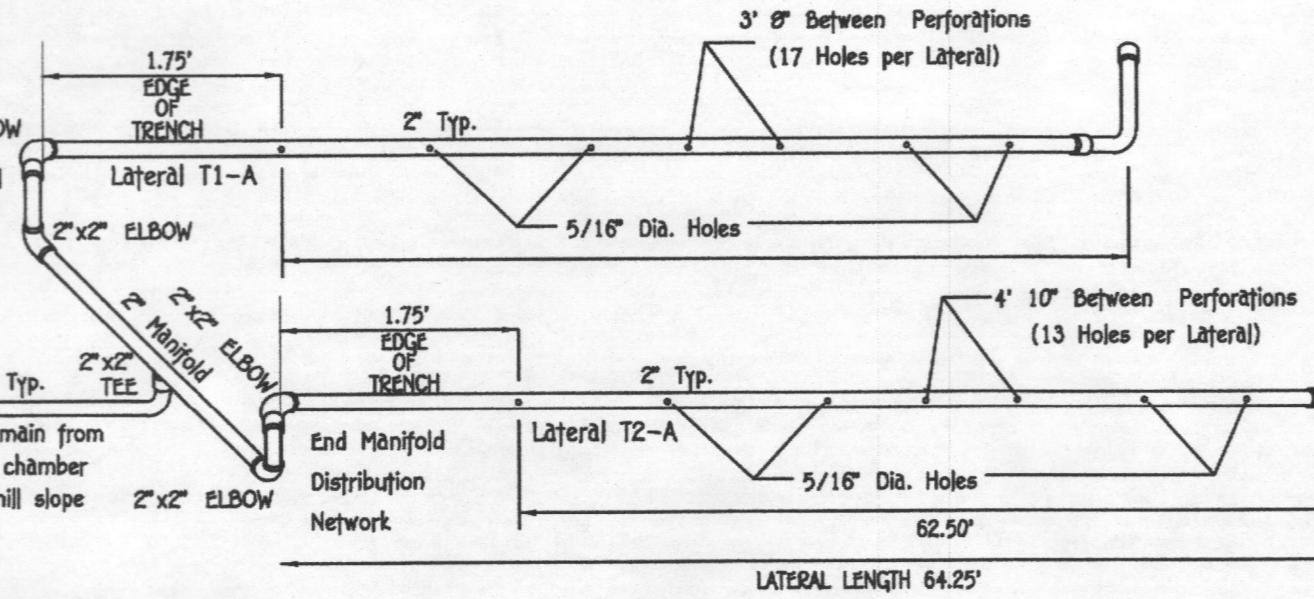
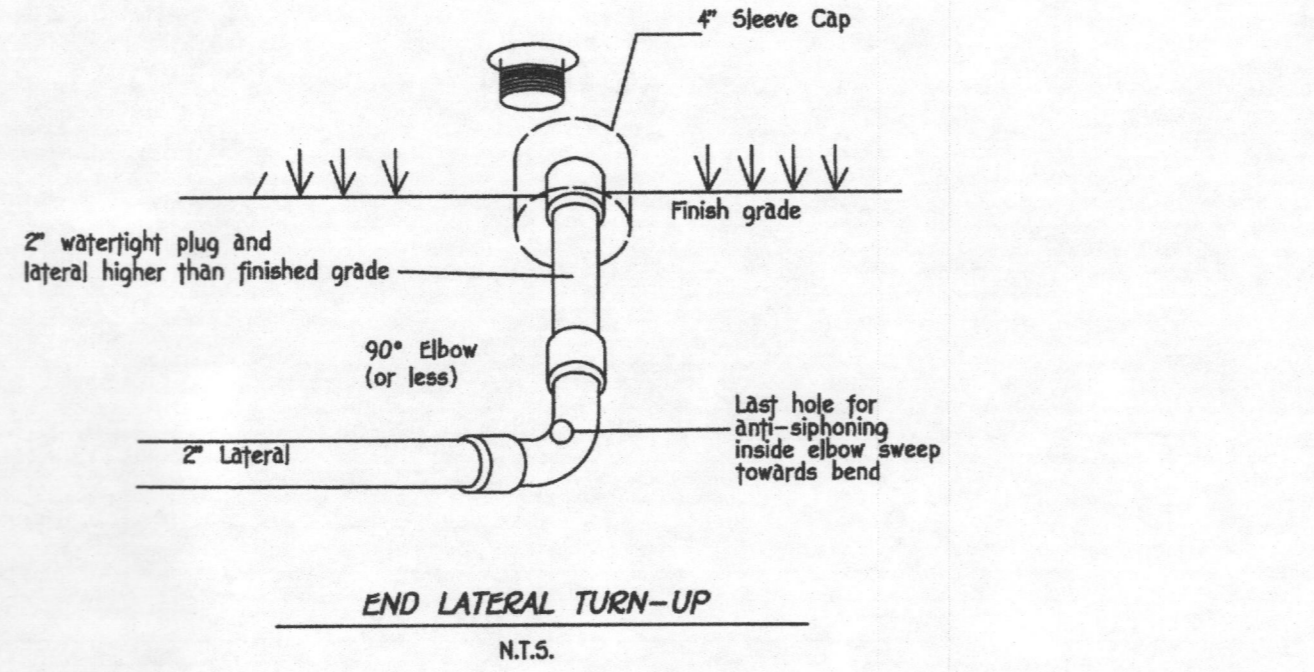
- Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 150 pcf.
- Cement - Portland Type III per ASTM C 150-82.
- Admixtures & plasticizers per ASTM C 260-88 & C 494-02.
- Reinforcing per ASTM A 605. Min. 1-1/2" cover.
- Top slab sealed with butyl rope mastic.
- 4" wall, base, & top thickness.
- Max 3" of cover.
- Depending on use of tank, inlet & outlet baffles may be required by code.

WEIGHT = 16,000 lbs.

BACK RIVER PRE-CAST, LLC
 P.O. Box 329
 Glyndon, MD 21071
 410-833-3394 office
 410-833-4116 fax
 www.backriverprecast.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



TRENCH LATERAL AERIAL/PLAN VIEW WITH LINEAR DIMENSIONS
 (Modified from EPA Design Manual) N.T.S.

EACH LATERAL SHALL HAVE 5/16" DIA. HOLES
 TRENCH LENGTH = 66'
 TWO END FEED LATERALS = 64.25'

LATERAL DETAIL CHART

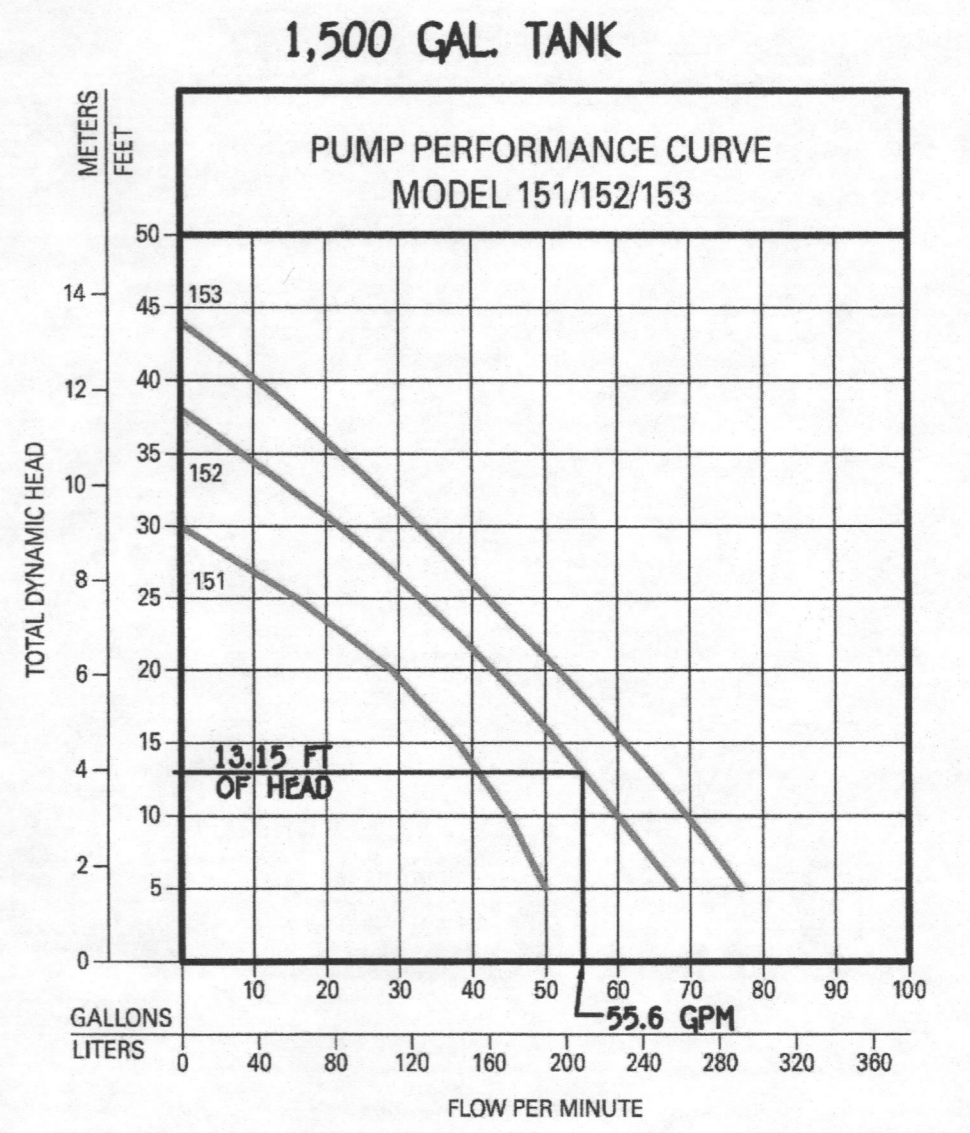
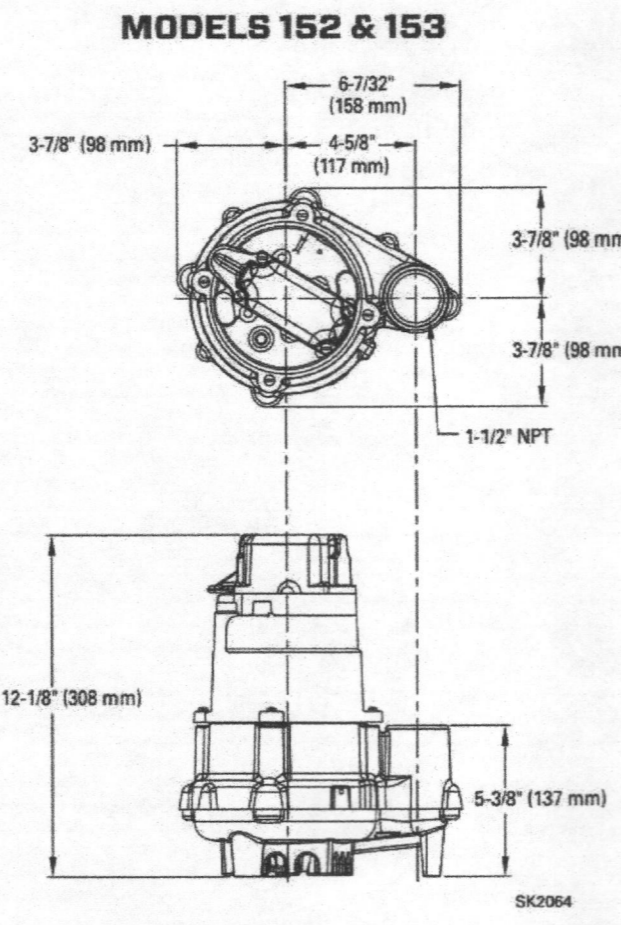
TRENCH NO.	LATERAL NO.	RELATIVE ELEV.	TRENCH LENGTH	LATERAL LENGTH	LATERAL DIA. (IN.)	HEAD (FT)	ORIFICE DIA. (IN.)	ORIFICE FLOW RATE (GPM)	ORIFICE SPACING (FT)	NO. OF ORIFICES	LATERAL FLOW RATE (GPM)
1	T1-A	559.20	66'	64'	6 1/2"	2"	2.0"	1.63	3' 0"	17	27.7
2	T2-A	557.90	66'	64'	6 1/2"	2"	3.3"	2.15	4' 10"	13	27.9

2" SCH. 40 PVC = 83.3 LF
 1 UNION @ 2 EQUIVALENT FEET = 2 LF
 1 45° BENDS @ 6 EQUIVALENT FEET = 6 LF
 1 22.5° BENDS @ 6 EQUIVALENT FEET = 6 LF
 4 90° ELBOW @ 10 EQUIVALENT FEET = 40 LF
 1 TEE @ 25 EQUIVALENT FEET = 25 LF
 2 2" SCHED. 40 PVC LATERALS = 128.5 LF
 TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 290.8 LF

DYNAMIC HEAD
 290.8 LF X 2.05 FT PER 100 LF OF 2" PIPE = 5.96 FT OF FRICTION HEAD
 VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 1.40 FT OF HEAD
 HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 3.79 FT (PUMP OUT IS THE HIGHEST POINT)
 2.0 FT DISTAL END HEAD
 TOTAL DYNAMIC HEAD = 13.15 FT

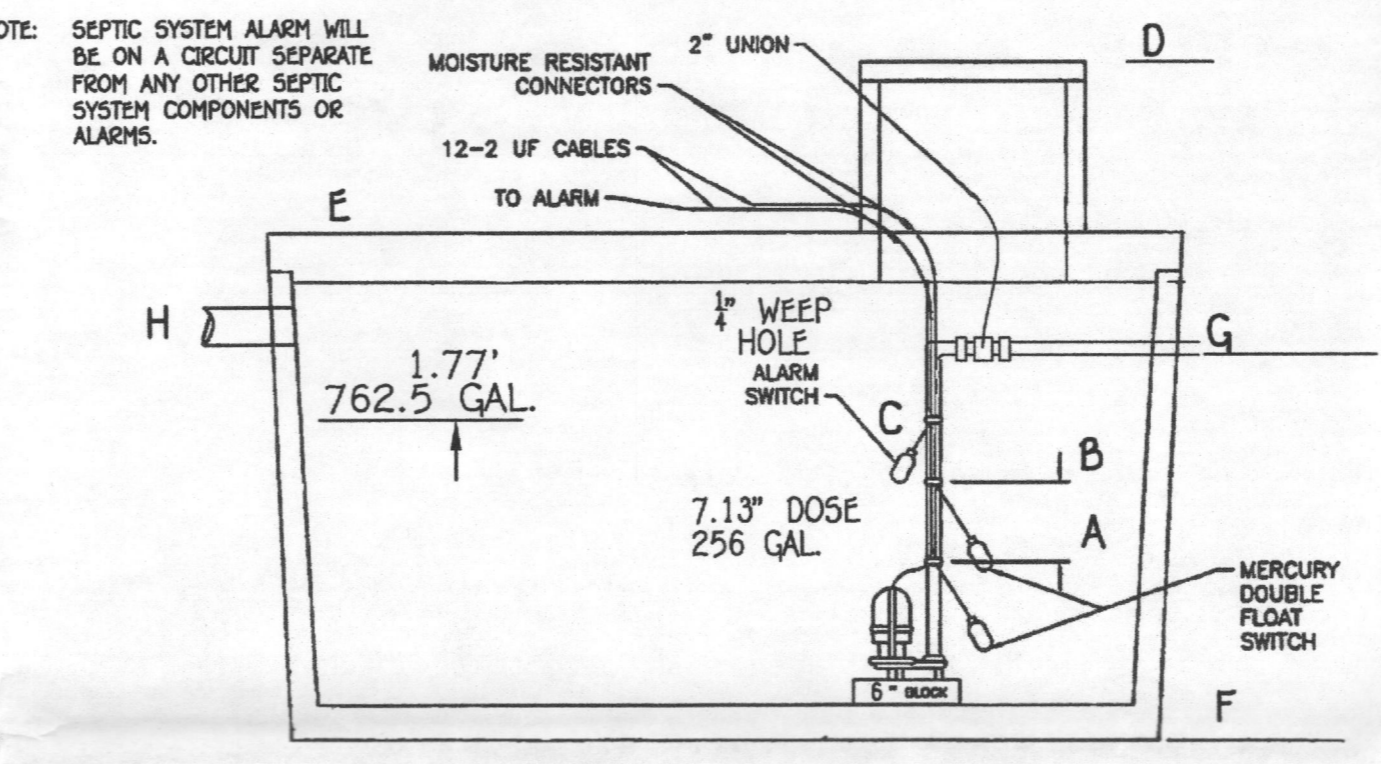
(VOLUME OF LATERALS) 128.5 FT OF 2" LATERALS X 0.174 = 22.4 GALLONS
 (VOLUME OF MANIFOLD) 14 FT OF 2" MANIFOLD X 0.174 = 2.4 GALLONS
 (VOLUME FORCE MAIN) 67 FT OF 2" FM X 0.174 = 11.7 GALLONS
 22.4 + 2.4 + 11.7 = 36.5
 MINIMUM DOSES = 36.5 GALLON X 7 = 256 GALLON DOSE
 (TOTAL DOSE FROM PUMP FOR EACH TRENCH)
 TRENCH 1 DOSE GPM = 1.63 (17 PERFORATION PER LATERAL) = 27.7 GPM
 TRENCH 2 DOSE GPM = 2.15 (13 PERFORATION PER LATERAL) = 27.9 GPM
 (TRENCH 1) 27.7 GPM + (TRENCH 2) 27.9 GPM = 55.6 GPM
 (RUN TIME = 3.15 MIN (55.6 GPM X 3.15 = 175 GALLON DOSE)
 PUMP NEEDS TO HANDLE 55.6 GPM AT 13.15 FT OF HEAD
 USE 4/10 HP (ZOELLER MODEL 152 PUMP)

ZOELLER 152 PUMP DETAIL
 NOT TO SCALE



TOTAL DYNAMIC HEAD CALCULATIONS

STATIC HEAD (FT)	5.96
FRICTION HEAD (FT)	5.19
DISTAL END HEAD (FT)	2
TOTAL DYNAMIC HEAD (FT)	13.15
GALLONS PER MINUTE	55.6 GPM
DOSE	256 GAL
PUMP RUN TIME	3.15 MIN



PUMP TANK DETAIL
 762.5 GAL EMERGENCY STORAGE
 NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL THIS SHEET FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

PUMP ALARMS / INFORMATION
 A PUMP OFF : 553.83'
 B PUMP ON : 554.33'
 C HIGH WATER ALARM : 554.89'
 D TOP OF ACCESS COVER : 559.01'
 E TOP OF TANK : 556.99'
 F BOTTOM OF TANK : 551.91'
 G DISCHARGE OUT OF TANK : 555.41'
 H INVERT INTO TANK : 555.66'

LOW PRESSURE DOSING TRENCH SEWAGE DISPOSAL SYSTEM INSPECTION CHECKLIST

I. SITE PREPARATION Date: _____

- Dosing trenches correctly staked out in proper location
- Area cleared of brush
- Fill cap (if required) properly placed:
 - Proper depth
 - Placed without compacting soil
 - Vegetation removed before placement
 - Site disked or plowed before placement
- Soil moisture level low enough to permit construction
- Location of pretreatment unit, septic tank (s) and pumping station properly staked out
- Site protected from compaction by vehicles or heavy equipment

II. CONSTRUCTION Date: _____

- Septic Tank (s) or BAT units**
 - Number of tanks
 - Tank type and construction meet specifications (i.e., top-seam, baffled, etc.)
 - Capacity requirements met
 - Proper installation
 - Inlet and outlet pipes at proper elevations and sealed at tank connections
 - Baffles and/or tees properly installed
 - Tank water tightness checked
 - Weep hole in tank wall/bottom sealed if present
 - 24-hour leakage test conducted if necessary
- Pump Chamber** Date: _____
 - Design specifications met
 - Six-inch block present under pump
 - Control panel meets specifications
 - Event counterlogged time meter/flow meter installed
 - Proper float elevations (on/off/alarm)
 - Quick disconnection hole present (if required)
 - Proper elevation of influent pipe
 - Pipes through tank walls sealed
 - Valves meet specifications
 - Tank joints above seasonal high water level
 - Access provided
 - One-day design flow storage capacity above high level alarm
 - Force main diameter as specified
 - High water alarm on separate circuit
- Trench Construction** Date: _____
 - Absorption trenches dug to proper depth
 - Absorption trenches of proper width
 - Absorption trenches level on bottom
 - Spacing of trenches correct
 - Eriecton dam in trenches (if required) properly installed
 - Trenches protected from slitting-in during construction
- Distribution System** Date: _____
 - Proper fittings used at joints (pressure-type)
 - Fitting adequately bonded
 - Proper diameter of manifold (s)
 - Proper diameter of lateral piping
 - Proper lateral length
 - Proper diameter of lateral perforations
 - Proper spacing of lateral perforations
 - Perforations oriented downward
 - End perforation suitable (sleeved/in end cap/on turn up radius)
 - Laterals at proper elevation in trench
 - Proper depth of gravel below lateral
 - Proper depth of gravel above lateral
 - Suitable gravel used in trenches
 - Size and type
 - Clean
- Trench Cover and Site Stabilization** Date: _____
 - Span Geotextile fabric in place above gravel layer
- Monitoring Apparatus** Date: _____
 - Observation ports
 - Proper location and number
 - Installed to proper depth
 - Lateral turn-ups in place (sleeved)
 - Groundwater monitoring wells (if required)
 - Specified diameter
 - Specified depth
 - Screened in proper stratum
 - Grouted
- Site Drainage (if required)** Date: _____
 - Surface water diversion
 - Curtain drain
 - Width
 - Depth
 - Length
 - Vertical drain
 - Width
 - Depth
 - Length
- Pumping System Test** Date: _____
 - Pump-on switch is operational
 - Pump-off switch is operational
 - High level alarm switch is operational
 - Volume of drawdown corresponds with specified dose
 - System achieves specified pressure
- Comments**

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. 27020, EXPIRATION DATE: 01/25/26.

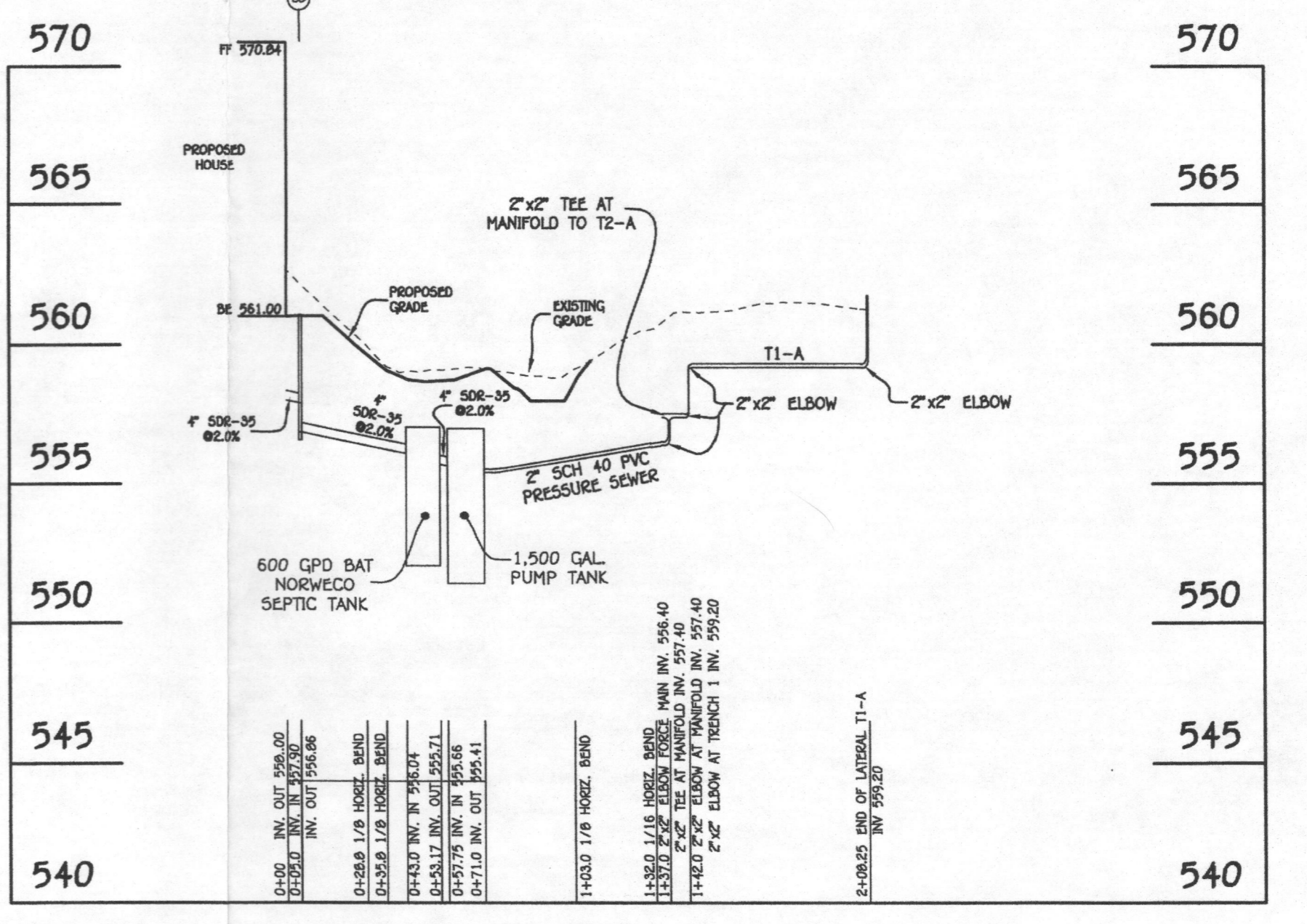
PAUL G. CAVANAUGH
 NOV. 4, 2025
 DATE

III. Pumping System Test Date: _____

- Pump-on switch is operational
- Pump-off switch is operational
- High level alarm switch is operational
- Volume of drawdown corresponds with specified dose
- System achieves specified pressure

IV. Comments

FF 570.84
 BE 561.00'
 INV. OUT OF HOUSE = 558.00'
 PROP. GROUND AT CLEANOUT = 561.00'
 INV. INTO CLEANOUT = 557.90'
 INV. OUT OF CLEANOUT = 556.96'
 EX. GROUND AT SEPTIC TANK = 559.04'
 PROP. GRADE ABOVE SEPTIC TANK = 558.67'
 INV. OUT OF SEPTIC TANK = 557.04'
 INV. INTO SEPTIC TANK = 556.04'
 INV. OUT OF SEPTIC TANK = 555.71'
 EX. GROUND AT PUMP TANK = 559.13'
 PROP. GRADE ABOVE PUMP TANK = 559.01'
 TOP OF PUMP TANK = 556.99'
 INV. INTO PUMP TANK = 555.66'
 INV. OUT OF PUMP TANK = 555.41'

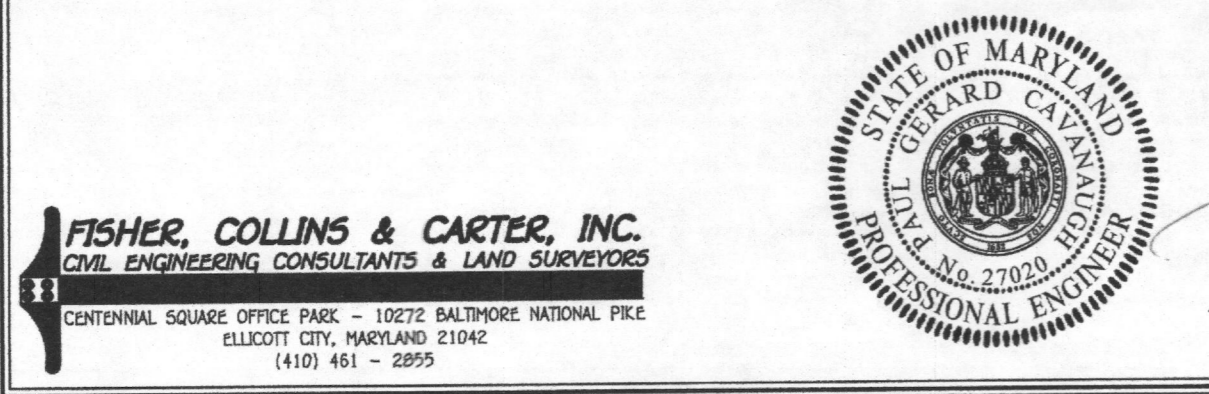


PROFILE SEPTIC LOT 2
 SCALE HORZ. 1" = 50'
 VERT. 1" = 5'

SEPTIC SYSTEM INSTALLATION PLAN
BRICKELL PROPERTY
 LOT 2
 (1711 BRICKELL WAY)

OWNERS/BUILDERS
 NVR, INC.
 9720 PATUXENT WOODS DRIVE
 COLUMBIA, MD 21046
 443-832-9102

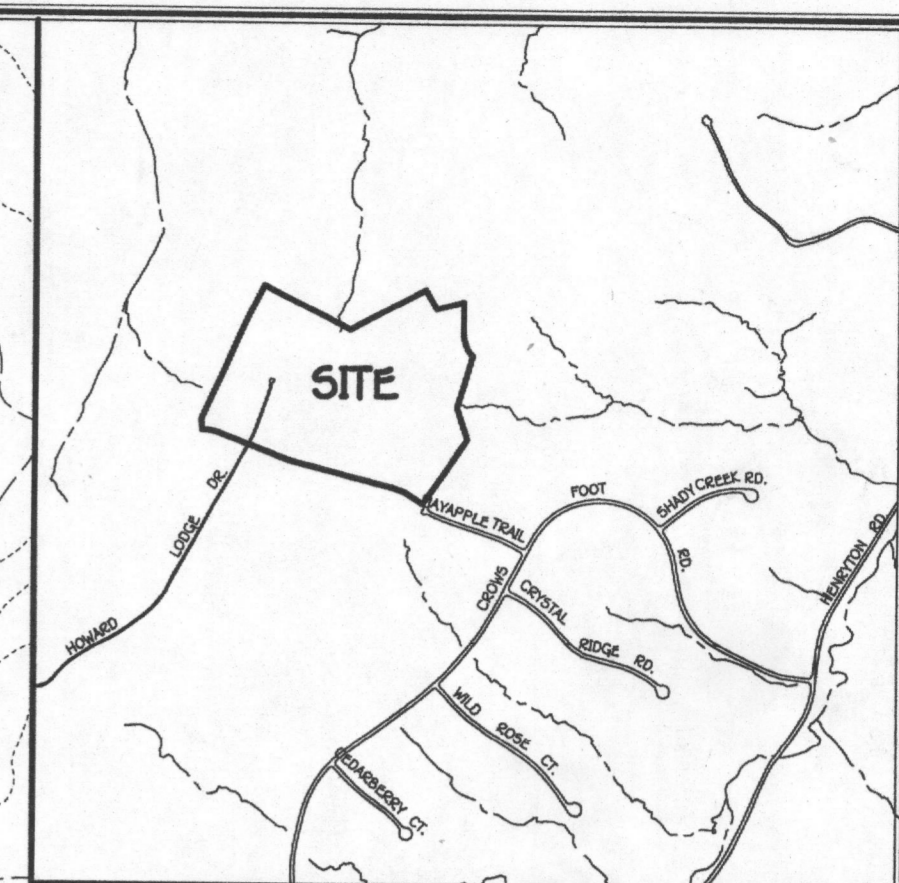
ZONING: R2-DEO
 GRID No. 1
 PARCEL No. 274
 TAX MAP No. 10
 THIRD ELECTION DISTRICT
 SCALE: AS SHOWN SHEET 2 OF 2



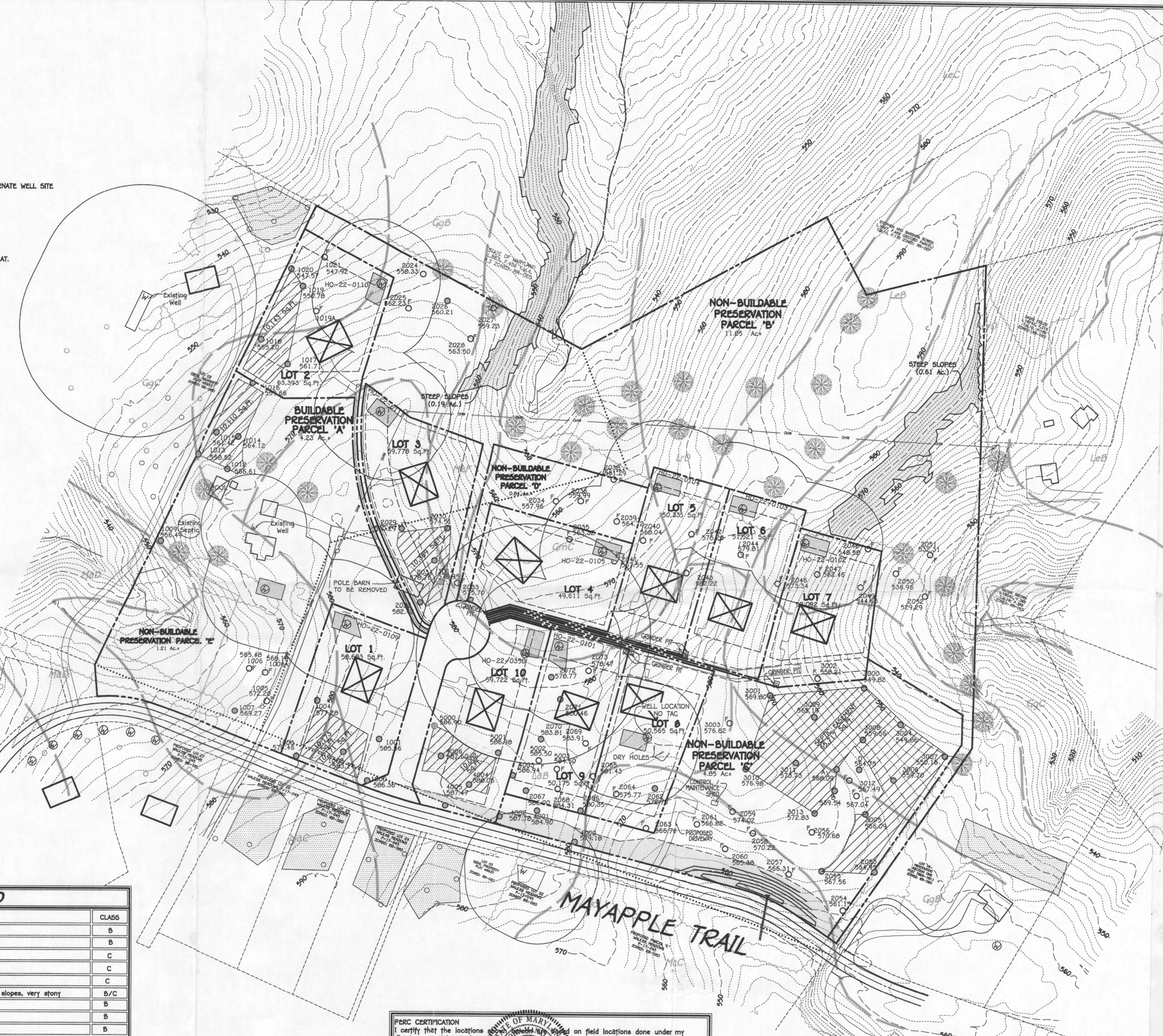
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

LEGEND

- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING TREE LINE
- SOIL LINES AND TYPES
- DENOTES PROPOSED WELL
- DENOTES FAILED PERC
- DENOTES PASSED PERC
- DENOTES PROPOSED HOUSE
- DENOTES PROPOSED 10'x10' GRINDER PIT
- DENOTES 25% AND GREATER SLOPE
- DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
- DENOTES PREVIOUS APPROVED 1500 Sq.Ft. ALTERNATE WELL SITE
- DENOTES PREVIOUS APPROVED SDA
- DENOTES PROPOSED PROPERTY LINES
- DENOTES PROPOSED RIGHT-OF-WAY LINES
- DENOTES EXISTING DEED PARCEL LINE OF LIBER 17744, FOLIO 337 AND LIBER 17744, FOLIO 331 TO BE REMOVED WITH SUBDIVISION PLAN.
- DENOTES OVERHEAD LINES
- DENOTES UTILITY POLE



VICINITY MAP
SCALE: 1" = 1200'



GENERAL NOTES:

1. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET 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 SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
2. ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
3. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
4. EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM ALL REASONABLE EFFORTS.
5. ALL HOUSE SITES SHOWN COMPLY WITH MINIMUM BUILDING RESTRICTION REGULATIONS.
6. ALL WELLS SHALL BE DRILLED PRIOR TO FINAL PLAT RECORDATION. IT IS THE DEVELOPERS RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO FINAL PLAT SUBMISSION. IT WILL NOT BE CONSIDERED "GOVERNMENT DELAY" IF THE WELL DRILLING HOLDS-UP THE HEALTH DEPARTMENT SIGNATURE OF THE RECORD PLAT.
7. TOPOGRAPHY SHOWN IS FROM HOWARD COUNTY GIS TOPOGRAPHY AT 2' CONTOUR INTERVAL AND FIELD VERIFIED BY FISHER, COLLINS & CARTER, INC.
8. BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED JANUARY, 2018.
9. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
10. DEED REFERENCES: LIBER 17744 FOLIO 331 & LIBER 17744 FOLIO 337.
11. THIS SUBDIVISION IS WITHIN THE GROWTH TIER III AREA, BUT NOT AFFECTED BY 5B-236 (SUSTAINABLE GROWTH AND AGRICULTURAL PRESERVATION ACT).
12. WELL AND SEPTIC CONTRACT PLAN FOR THE SHARED SYSTEM MUST BE SIGNED AND APPROVED PRIOR TO HEALTH SIGNATURE OF THE FINAL RECORD PLAT.
13. LOT YIELD AND BEDROOM COUNTS ARE SUBJECT TO REVIEW BY MARYLAND DEPARTMENT OF THE ENVIRONMENT, BUREAU OF UTILITIES, AND THE HOWARD COUNTY HEALTH DEPARTMENT WHEN THE WATER AND SEWER CONTRACT PLANS WITH THE SHARED SEWERAGE DISPOSAL SYSTEM ARE SUBMITTED.
14. APPROVAL OF THIS PERC CERTIFICATION PLAN DOES NOT GUARANTEE THAT THE SEWER DISPOSAL AREA ESTABLISHED WILL BE SUFFICIENT FOR A PROPOSED HOUSE. A SYSTEM DESIGN PLAN SHOWING 3 SYSTEMS FITTING IN THE AREA BASED ON THE PROPOSED NUMBER OF BEDROOMS MUST BE APPROVED BY THE HEALTH DEPARTMENT BEFORE HEALTH APPROVAL OF A BUILDING PERMIT. IF 3 SYSTEMS DO NOT FIT, THE AREA MAY NEED TO BE REVISED OR THE PROPOSED NUMBER OF BEDROOMS REDUCED.
15. DETAILS OF SHARED SYSTEM DESIGN INCLUDING LOT YIELD WILL BE SHOWN ON WELL AND SEPTIC CONTRACT PLAN TO BE APPROVED BEFORE HEALTH SIGNATURE OF THE FINAL PLAT. A NITROGEN BALANCE STUDY SHALL BE SUBMITTED TO THE HEALTH DEPARTMENT PRIOR TO SUBMISSION OF THE SEWER CONTRACT AND IF THE STUDY DOES NOT INDICATE SUFFICIENT NITROGEN DILUTION, PRE-TREATMENT UTILIZING AN INDIVIDUAL ENGINEERED BAT UNIT SHALL BE INSTALLED ON THE SHARED SYSTEM WITH DETAILS SHOWN ON THE SEWER CONTRACT.
16. MDE HAS APPROVED A VARIANCE TO ALLOW SOAS ON LOTS PPA, 2 AND 10 TO BE UPGRADE OF DIEHL PROP LOT 2 AND LOTS 10 & 9 OF THIS SUBDIVISION RESPECTIVELY. SUBJECT TO THE FOLLOWING CONDITIONS: 1) OSOS ON LOTS PPA, 2 & 10 MUST UTILIZE BAT TREATMENT UNITS AND LPO DRAINFIELD AND 6 FOOT MAX TRENCH BOTTOM DEPTH, STEEL CASING TO 50' OR 10' INTO BEDROCK WHICHEVER IS DEEPER ON THE WELLS. 2) WELLS ON LOTS 9 & 10 MUST HAVE STEEL CASING EXTENDING 50FT OR 10 FT INTO COMPETENT BEDROCK WHICHEVER IS DEEPER.
17. AS OF 7/19/2024 WITH ALL LOTS HAVING PRODUCED SUCCESSFUL DRILLING, ALL WELLS SHOWN ON THIS PLAN HAVE BEEN ADEQUATELY FIELD LOCATED.

SOILS LEGEND

SOIL	NAME	CLASS
GbB	Gladstone loam, 3 to 8 percent slopes	B
GbC	Gladstone loam, 8 to 15 percent slopes	B
GmC	Glenville silt loam, 8 to 15 percent slopes	C
LaB	Lagore silt loam, 3 to 8 percent slopes	C
LeB	Lagore silt loam, 3 to 8 percent slopes, stony	C
LrD	Lagore-Relay gravelly loams, 15 to 25 percent slopes, very stony	B/C
MaC	Mānor loam, 8 to 15 percent slopes	B
MaD	Mānor loam, 15 to 25 percent slopes	B
McC	Mānor-chānny loam, 8 to 15 percent slopes	B
MkF	Mānor-Brinklow complex, 25 to 65 percent slopes, very rocky	B

USE PROJECTIONS	
PROPERTIES SERVED	6
BEDROOMS PER PROPERTY	5
FLOW PER BEDROOM (GPD)	150
MDF (GPD)	4,500
ADF (GPD)	2,250
SETTING TANK VOLUME REQUIRED (GAL)	9,000

NOTES:
CALCULATED VALUES IN ITALICS
ADF = AVERAGE DAILY FLOW
MDF = MAXIMUM DAILY FLOW
UNIT RATES FROM HOWARD COUNTY WELL AND SEPTIC MEMO NOV 2014

USE PROJECTIONS

PERC CERTIFICATION
I certify that the locations shown on this plan are based on field locations done under my direct supervision and the accuracy of the same is to the best of my professional knowledge and belief.

Frank John Manalana II
Signature of Professional Land Surveyor No. 21476 Expires 7/14/25

Date: 7/22/24

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS, FOR BUILDABLE PRESERVATION PARCEL 'A', LOTS 1, 2, 3 AND 10 AND SHARED SEPTIC SYSTEM LOCATED ON NON-BUILDABLE PRESERVATION PARCEL 'C' FOR LOTS 4 THRU 9 HOWARD COUNTY HEALTH DEPARTMENT.

Frank John Manalana II
Signature of Professional Land Surveyor No. 21476 Expires 7/14/25

Date: 7/11/24

2019 PURPOSE NOTE:
THE PURPOSE OF THIS PERCOLATION CERTIFICATION PLAN IS TO IDENTIFY PROPOSED PRIVATE WELL LOCATIONS ON BUILDABLE PRESERVATION PARCEL 'A' AND LOTS 1 THRU 10; TO IDENTIFY ON-LOT PRIVATE SEWERAGE AREA ON BUILDABLE PRESERVATION PARCEL 'A' AND LOTS 1, 2, 3, AND 10; TO IDENTIFY PROPOSED GRINDER PUMP LOCATIONS ON LOTS 4 THRU 10; AND TO IDENTIFY A SHARED SEPTIC AREA ON NON-BUILDABLE PRESERVATION PARCEL 'C'.

2024 PURPOSE NOTE:
THE PURPOSE OF THIS PLAN IS TO UPDATE WELL BOXES ON LOTS 3, 10, & 8. UPDATE THE SDA ON LOT 10 AND SHOW FIELD LOCATION OF SUCCESSFUL WELLS THAT WERE DRILLED.

OWNER/DEVELOPER
JAMES AND SUSAN BRICKELL
12201 HOWARD LODGE DRIVE
SYKESVILLE, MD 21784-5404

**PERCOLATION CERTIFICATION PLAN
BRICKELL PROPERTY**

LOTS 1 THRU 10, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'E'
TAX MAP NO.: 9 GRID: 6 PARCEL: 254
TAX MAP NO.: 10 GRID: 1 PARCEL: 274

3RD ELECTION DISTRICT ZONING: RR-DEO HOWARD COUNTY, MARYLAND
DATE: APRIL 24, 2019
REVISOR: JULY 19, 2024
SCALE: 1"=100'