

**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](http://www.hchealth.org)  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 11/13/25 **ONSITE SEWAGE DISPOSAL SYSTEM** P 590270

APPROVAL DATE: 2/2/26 **PERMIT: NEW CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 1719 Brickell Way

SUBDIVISION: Brickell Property LOT: 3 TAX ID: \_\_\_\_\_

CONTRACTOR: South Carroll Backhoe EMAIL: scbackhoe@comcast.net

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618

PROPERTY OWNER: NVR, Inc. EMAIL: \_\_\_\_\_

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

SEPTIC TANK SIZE: 2000 PUMP SIZE: Mod 153 PUMP TANK CAPACITY: 1500 2,000

DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>118 @ 120'</u>	INLET DEPTH: <u>3' 2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>15</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>2</u>
LOCATION:	<b>SYSTEM TO BE STAKED BY DESIGNER AND VERIFIED BY APPROVING AUTHORITY DURING PRE-CONSTRUCTION INSPECTION.</b>	
NOTES:		

ISSUED BY: Hank Oswald 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 n/a E25005498
- 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.**

NOT TO SCALE

11/18/2025 - Installer onsite for inspection. PM running out of tank manhole. PM saw 40 ft pressure rated D-box installed w/ 90° turn down. Greater length @ 61, inlet @ 2'-2.5'. Distance between trenches 16'. Stone & fabric OK. ST has 4" baffle. OK to backfill all work. (SP)

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	2'	8'
NUMBER OF TRENCHES <u>2</u>		
TOTAL LENGTH <u>120'</u>		
ABSORPTION AREA _____		
DISTRIBUTION BOX LEVEL _____		
DISTRIBUTION BOX BAFFLE <u>90° turn down</u>		
DISTRIBUTION BOX PORT <u>yes</u>		

**SEPTIC TANK DATA**

SEPTIC TANK 1 LEVEL yes

MANUFACTURER Babylon

CAPACITY 2000 GAL

SEAM LOC Top

TANK LID DEPTH 27" - 10"

BAFFLES 6" Front / 4" back baffle

BAFFLE FILTER -

MANHOLE LOC Front/Back

6" PORT LOC -

WATERTIGHT TEST -

SLOTTED Yes

DATE ON LID 9-9-25

**PUMP/SEPTIC TANK LEVEL yes**

MANUFACTURER Babylon

CAPACITY 2000 GAL

SEAM LOC Top

TANK LID DEPTH 1' - 2.5'

BAFFLES -

BAFFLE FILTER -

MANHOLE LOC Front/Back

6" PORT LOC -

WATERTIGHT TEST -

SLOTTED -

DATE ON LID 8-6-25

\*See Separate Sheet for As-Built drawing\*

ROAD NAME

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

**PRE-CONSTRUCTION NOTES:**

11/14/25 Reviewed design plan with installer OR with tank locations. Will be shifting the d. box so that it is in front of trench 1. SDA, tanks and trenches are staked accurately per plan. Locations where trenches will be installed have a hump in the middle with the trenches having a 7" difference from the middle to the end. Per KW ok for 7" difference, contractor to keep trench bottom level and therefore deeper in the middle.

**INSTALLATION NOTES:**

11/14/25 Tank hole and front line being dug while on site. Tank hole and front line has some large stones being excavated. (MB)  
11/14/25 PM inspection. Waiting for septic tank to arrive. Front line dug. Pipe is balled. SDC not made yet. Schedule 40 pipe used. Tank arrived & installed and is level. Front line is stepped in two places to make fall to ST. 6" baffle installed. OK to backfill tank hole. (MB)  
11/17/25 Pump tank delivered. Tank is level and has fall from ST to PT. Contractor to start trench. Stone being delivered. Stone is good. (MB)  
11/17/25 Contractor has d box and Trench 1 dug. Trench 1 has 2' inlets on ends of trench and 2.5' inlet towards center of trench. Geotextile fabric added along with observation port OK to backfill trench 2/2/26 - P&A OK. (MB)

**CONTROL PANEL DATA**

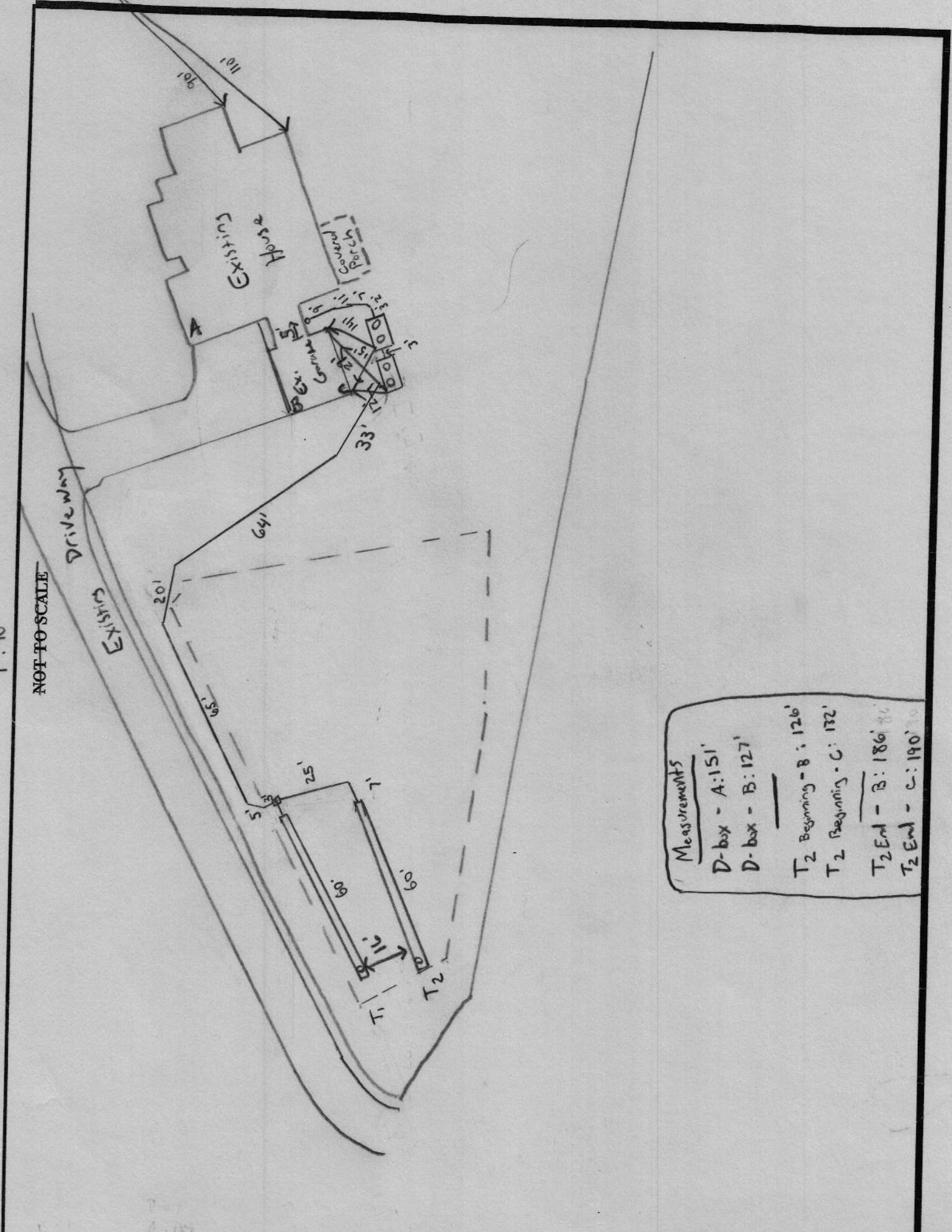
CONTROL PANEL HEIGHT \_\_\_\_\_  
(MIN 30")  
INSPECTION DATE \_\_\_\_\_  
INSPECTION: PASS/FAIL (CIRCLE ONE)

FINAL INSPECTOR R. Rappaport DATE OF APPROVAL 2/2/26

Ex. Well  
HO-22-0111

1" = 40'

NOT TO SCALE



Measurements  
 D-box - A: 151'  
 D-box - B: 127'  
 T<sub>2</sub> Beginning - B: 126'  
 T<sub>2</sub> Beginning - C: 132'  
 T<sub>2</sub> End - B: 186'  
 T<sub>2</sub> End - C: 190'

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**From:** Hart, Amy <AHart@howardcountymd.gov>

**Sent:** Tuesday, February 10, 2026 11:48 AM

**To:** Duong, Yeuk <YDuong@howardcountymd.gov>; Martin, Sharhonda <smmartin@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>; Bernard, Dana <dbernard@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>

**Cc:** Hoffman, Mark <jahoffman@howardcountymd.gov>; Miscbilling <Miscbilling@howardcountymd.gov>; msrour@nvrinc.com

**Subject:** RE: U&O Release - Brickell Property

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**Subject:** U&O Release - Brickell Property

Good afternoon. February 9, 2026, we witnessed the successful start-up of the grinder pump serving the following properties:

1735 Brickell Way – Lot 6  
Marriottsville, MD 21104

Real Property indicates that he builder still owns the property:

NVR Inc.  
7080 Samuel Morris Drive, Ste 100  
Columbia, MD 21046

The Bureau of Utilities releases it's hold on this property for U&O.

Thank you,  
Amy

## **Rappaport, Ryan**

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**From:** Huskins, Thomas  
**Sent:** Tuesday, December 2, 2025 10:11 AM  
**To:** Harding, Derrick  
**Cc:** Rappaport, Ryan  
**Subject:** FW: Brickell Way - LP tank installs without permits - Thompson Gas (Brickell Property Subdivision)

Look at these permits. Who is the builder (assuming this is new construction), contact builder and we will suspend all trade inspections until issues are resolved I applicable.

LMK.

Tom

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**From:** Rappaport, Ryan <RRappaport@howardcountymd.gov>  
**Sent:** Tuesday, December 2, 2025 9:43 AM  
**To:** Michelle Clancy <michelle@appliedandapproved.com>  
**Cc:** Huskins, Thomas <thuskins@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>; tfaris@elmstreetdev.com; msroure@nvrinc.com; Wolf, Kevin <KWolf@howardcountymd.gov>; Page, Shepsura <spage@howardcountymd.gov>; Burns, Matthew <mburns@howardcountymd.gov>; 'brohrer@thompsongas.com' <brohrer@thompsongas.com>; rhinkleman@thompsongas.com  
**Subject:** RE: Brickell Way - LP tank installs without permits - Thompson Gas (Brickell Property Subdivision)

Michelle, I completed site inspections for the 8 bp's that were submitted for lp tank installs at the properties in this subdivision. So far, I'm finding some issues with ones that have already installed without a permit.

B25005272 – 1730 Brickell Way – this is one that's already been installed and if the scale is right on the plan you submitted with the building permit, it's less than 50' away from the well box on the neighboring property – please follow up on this one with either having them dig it up and move it, check the scale on the plan (make sure it's right) or fill out the County waiver request form.

B25005266 – 1711 Brickell Way – Thompson Gas was onsite yesterday installing the lp tank in a different location than you have it on the submitted plan – provide a revised plan for review as soon as possible

B25005267 – 1719 Brickell Way – the plan isn't showing the onsite septic system for the property and the proposed location for the lp tank on the plan you submitted is in close proximity to the septic tanks. Please get the septic tanks and setback on the plan and resubmit.

B25005273 – 1727 Brickell Way – lp tank was installed as of 12/1/2025 prior to permit release.

B25005271 – 1731 Brickell Way – lp tank was installed as of 12/1/2025 prior to permit release.

1734, 1735 and 1739 Brickell Way – lp tanks not installed yet and the bp is still under review.

If you have any questions or concerns, please don't hesitate to reach out.

Ryan

**From:** Michelle Clancy <[michelle@appliedandapproved.com](mailto:michelle@appliedandapproved.com)>  
**Sent:** Monday, December 1, 2025 2:32 PM  
**To:** Rappaport, Ryan <[RRappaport@howardcountymd.gov](mailto:RRappaport@howardcountymd.gov)>  
**Subject:** Re: Brickell Way

**WARNING!!!**

This email originated from someone outside of Howard County  
**\*\*\*DO NOT CLICK LINKS OR OPEN ATTACHMENTS\*\*\***  
unless you recognize the sender and know for sure that the content is safe

Oh thanks!

I had no idea they started with out them...

Please keep me posted in what's next.

Thank you in advance for all your help.

Sent from my iPhone

Please excuse any spelling, grammar, wording & any others errors that I have made or this auto correct thing decided to make.

On Dec 1, 2025, at 2:25 PM, Rappaport, Ryan <[RRappaport@howardcountymd.gov](mailto:RRappaport@howardcountymd.gov)> wrote:

Michelle, I was out to the site of the subdivision today. Thompson Gas was onsite installing the propane tanks before the release of the permit. Most of these have already been installed. I'll need to speak with my supervisor and DILP before anything else is done on these reviews.

Ryan

Get Outlook for iOS

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**From:** Michelle Clancy <[michelle@appliedandapproved.com](mailto:michelle@appliedandapproved.com)>  
**Sent:** Monday, December 1, 2025 1:09:23 PM  
**To:** Rappaport, Ryan <[RRappaport@howardcountymd.gov](mailto:RRappaport@howardcountymd.gov)>  
**Subject:** Brickell Way

**WARNING!!!**

This email originated from someone outside of Howard County  
**\*\*\*DO NOT CLICK LINKS OR OPEN ATTACHMENTS\*\*\***  
unless you recognize the sender and know for sure that the content is safe

Good Afternoon-

I hope you had a great Thanksgiving!

If you would be able to look at these permits sooner rather than later, that would be an immense help.

B25005273

B25005272

B25005271

B25005270

B25005269

B25005268

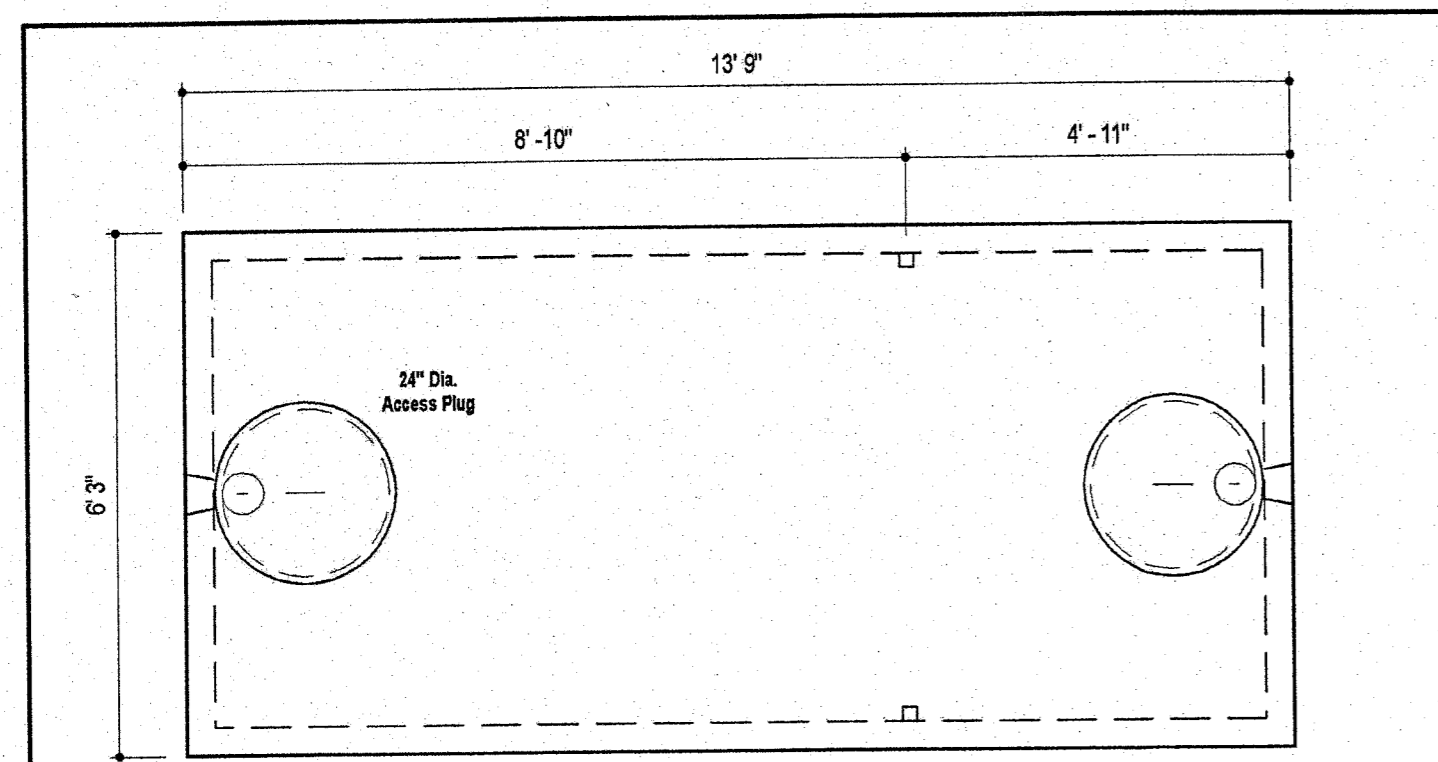
B25005267

B25005266

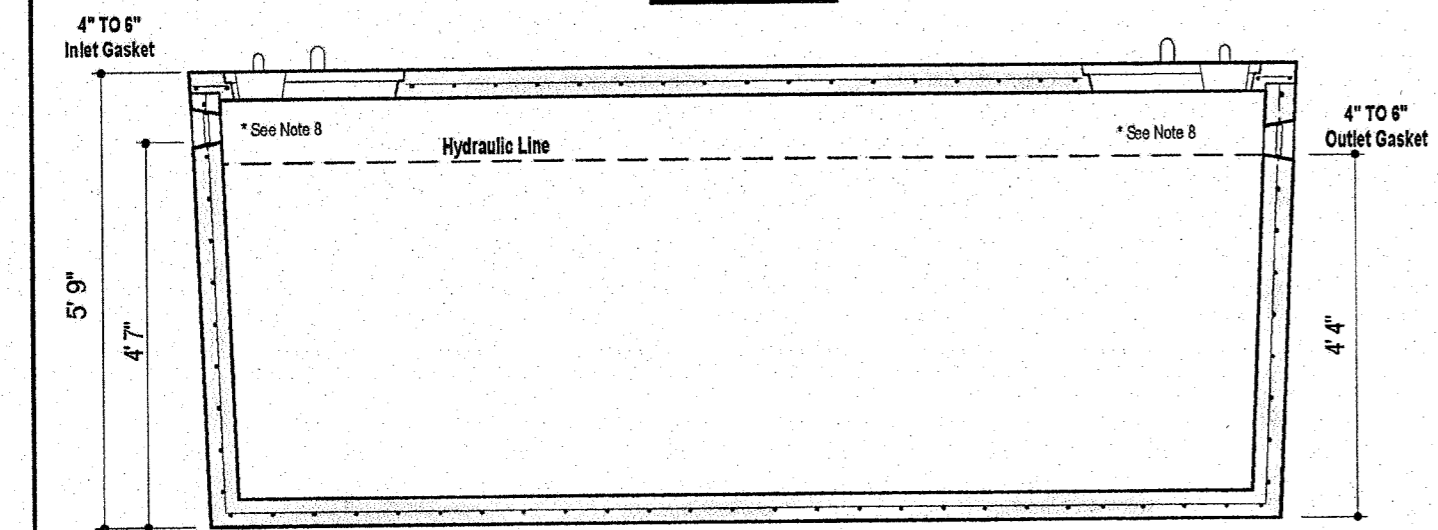
Thank you!!!

Michelle Clancy  
Applied & Approved Permit Service  
appliedandapproved.com  
443-610-7514





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 150-02.
- 3) Admixtures & plasticizers per ASTM C 260-00 & C 494-02.
- 4) Reinforcing per ASTM A63. Min. 1-1/2" cover.
- 5) Top slab sealed with butyl rope mastic.
- 6) 4" wall, 4" base, & 6" top thickness.
- 7) Max 7' of cover.
- 8) Depending on use of tank, Inlet & Outlet baffle may be required by code.

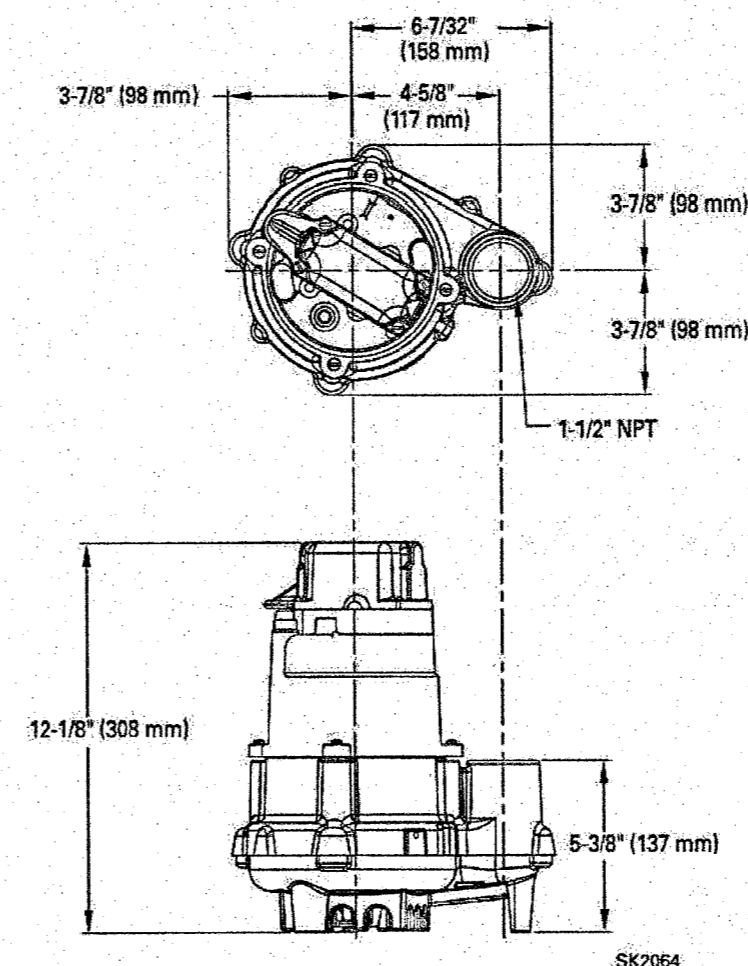
WEIGHT = 19,000 lbs.

**BACK RIVER PRE-CAST, LLC**  
 P.O. Box 329  
 Glyndon, MD 21071  
 410-833-3384 office  
 410-833-4116 fax  
 www.backriverprecast.com

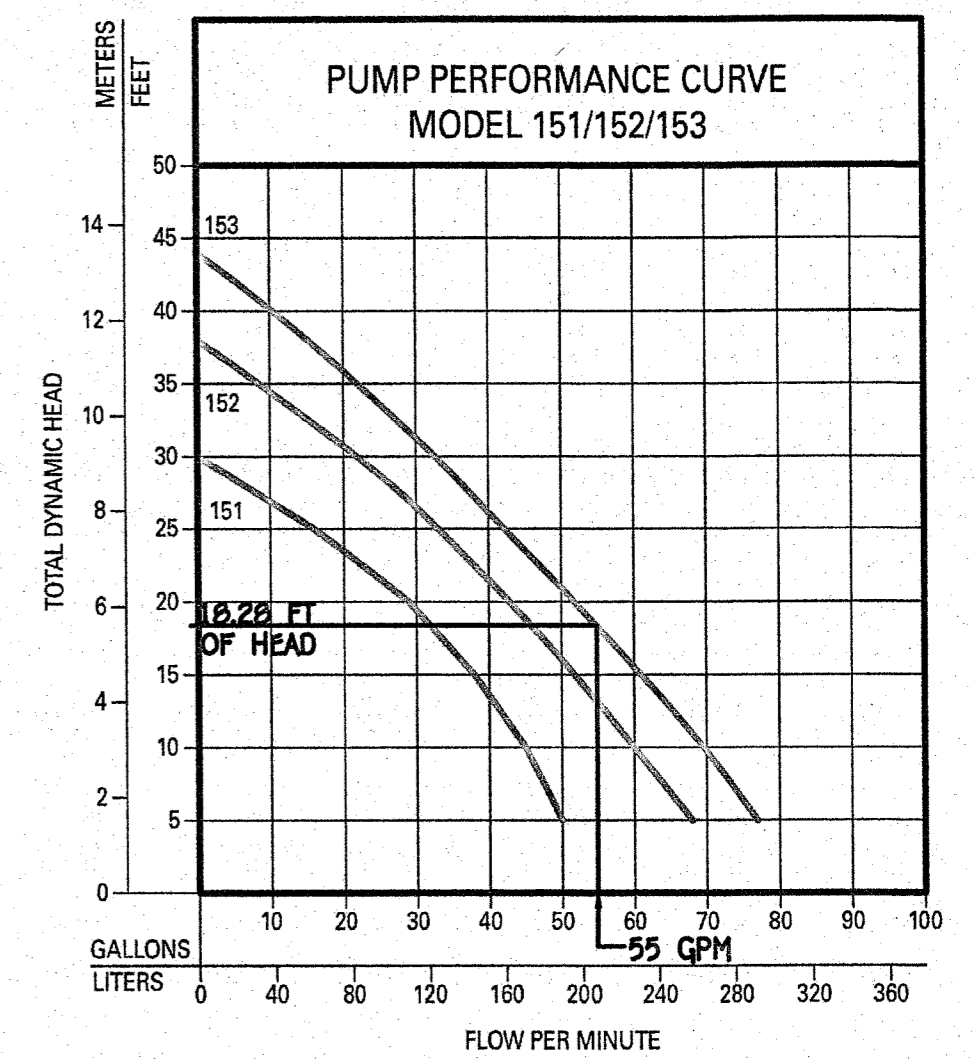
**2,000 GALLON PUMP TANK**  
**1-Compartment**  
 Stock Item [Approx. 19,000 lbs]

Dwg. No. 2000-1C No Scale Aug. 11, 2008

**ZOELLER PUMP DETAIL**  
 NOT TO SCALE  
**MODELS 152 & 153**



**2,000 GAL. TANK**



- 1" UNION @ 2 EQUIVALENT FEET = 181.25 LF
- 4 1/8" HD @ 4 EQUIVALENT FEET = 16 LF
- 1 1/16" HD @ 4 EQUIVALENT FEET = 4 LF
- TOTAL LINEAR FEET OF 2" SDR-21 PVC PVC = 203.25 LF

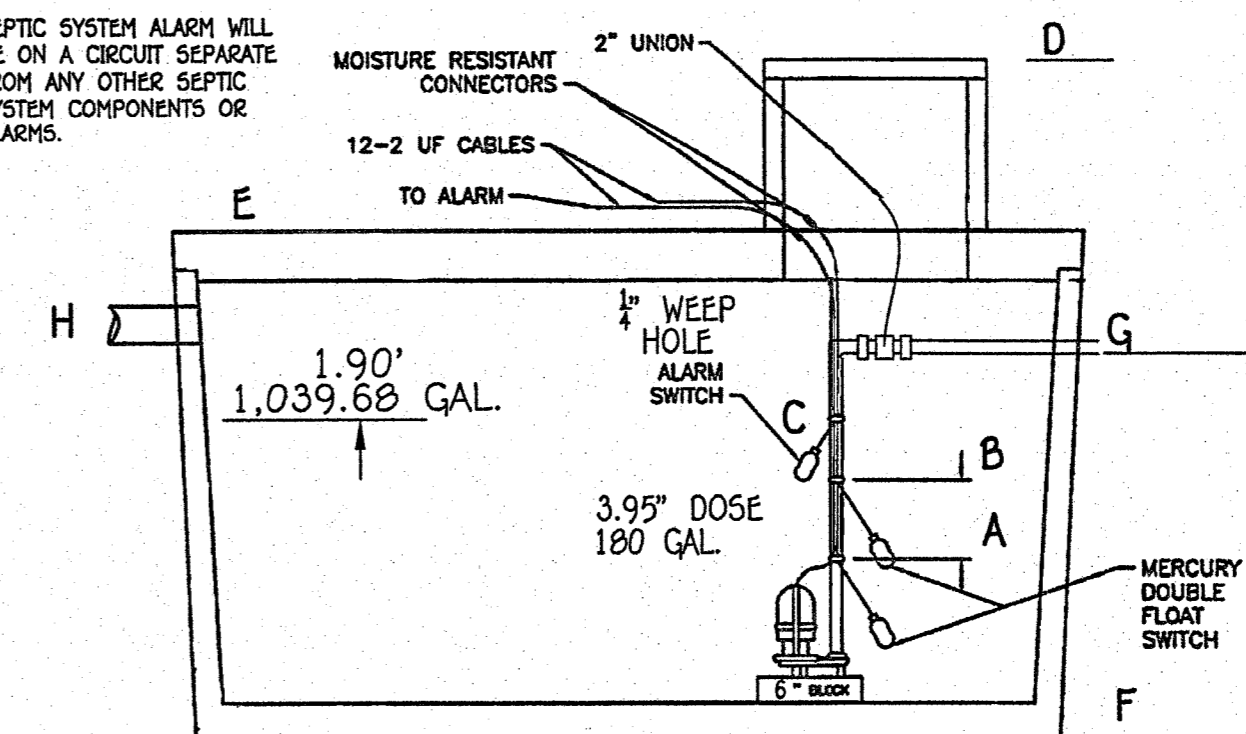
DYNAMIC HEAD

203.25 LF X 2.05 FT PER 100 LF OF 2" PIPE = 4.17 FT OF FRICTION HEAD  
 VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 1.98 FT OF HEAD  
 HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 12.13 FT (PUMP OUT IS THE HIGHEST POINT)  
 TOTAL DYNAMIC HEAD = 10.20 FT

1/6" DESIGN FLOW (900/6=150) PLUS VOLUME OF 2" PIPE (23.58 GALLONS)  
 USE 180 GALLON DOSE (150 GALLON MINIMUM)  
 RUN TIME = 3.27 MIN (55 GPM X 3.27 = 180 GALLON DOSE)

PUMP NEEDS TO HANDLE 55 GPM AT 10.20 FT OF HEAD  
 USE 0.5 HP (ZOELLER MODEL 153 PUMP)

NOTE: SEPTIC SYSTEM ALARM WILL BE ON A CIRCUIT SEPARATE FROM ANY OTHER SEPTIC SYSTEM COMPONENTS OR ALARMS.



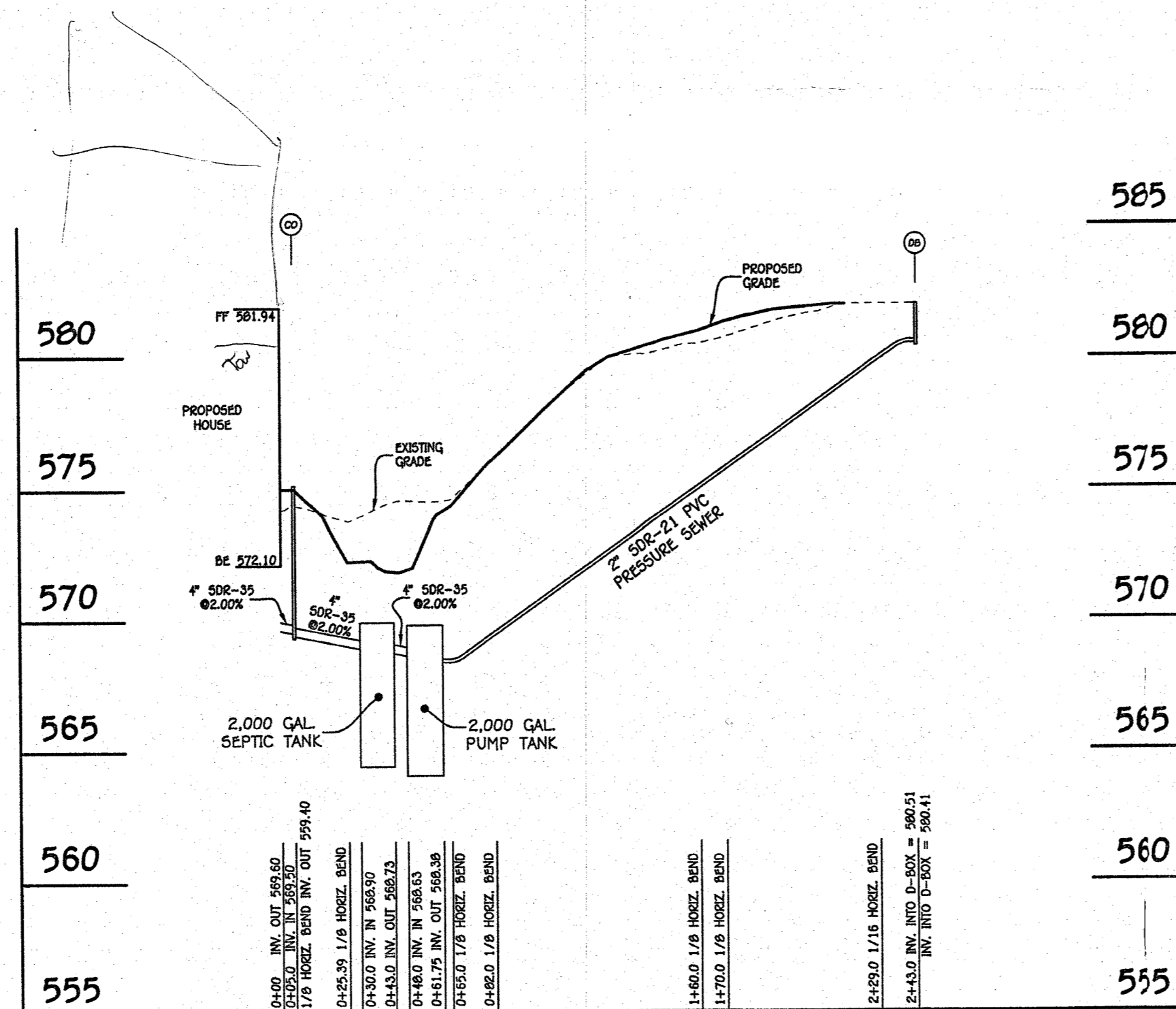
**PUMP TANK DETAIL**

1,039.68 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.

ONE 2,000-GAL SEPTIC TANK & ONE 2,000-GAL PUMP TANK W/ ZOELLER 153 PUMP OR EQUAL TO GRAVITY DISTRIBUTION FOR 6 BEDROOM SFD

- PUMP ALARMS / INFORMATION**
- A PUMP OFF : 566.40'
  - B PUMP ON : 566.73'
  - C HIGH WATER ALARM : 567.23'
  - D TOP OF ACCESS COVER : 571.97'
  - E TOP OF TANK : 569.80'
  - F BOTTOM OF TANK : 564.30'
  - G DISCHARGE OUT OF TANK : 568.38'
  - H INVERT INTO TANK : 568.63'

FF	561.94
BE	572.10'
INV. OUT OF HOUSE	= 569.60'
PROP. GROUND AT CLEANOUT	= 575.00'
INV. INTO CLEANOUT	= 569.50'
INV. OUT OF CLEANOUT	= 569.40'
EX. GROUND AT SEPTIC TANK	= 574.00'
PROP. GRADE ABOVE SEPTIC TANK	= 571.87'
TOP OF SEPTIC TANK	= 569.90'
INV. INTO SEPTIC TANK	= 568.90'
INV. OUT OF SEPTIC TANK	= 568.73'
EX. GROUND AT PUMP TANK	= 574.54'
PROP. GRADE ABOVE PUMP TANK	= 571.97'
TOP OF PUMP TANK	= 569.80'
INV. INTO PUMP TANK	= 568.63'
INV. OUT OF PUMP TANK	= 568.38'
EX. GROUND AT DISTRIBUTION BOX	= 582.01'
INV. INTO DISTRIBUTION BOX	= 580.51'
INV. OUT OF DISTRIBUTION BOX	= 580.41'

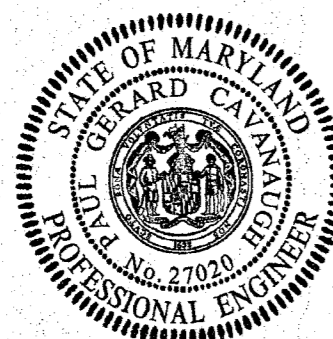


PROFILE SEPTIC LOT 3  
 SCALE HORZ. 1" = 50'  
 VERT. 1" = 5'

**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*  
 PAUL G. CAVANAUGH  
 DATE: JUNE 19, 2025



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLSWORTH CITY, MARYLAND 21114  
 (410) 461 - 2895

**OWNERS/BUILDERS**

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

**SEPTIC SYSTEM  
 INSTALLATION PLAN  
 BRICKELL PROPERTY**

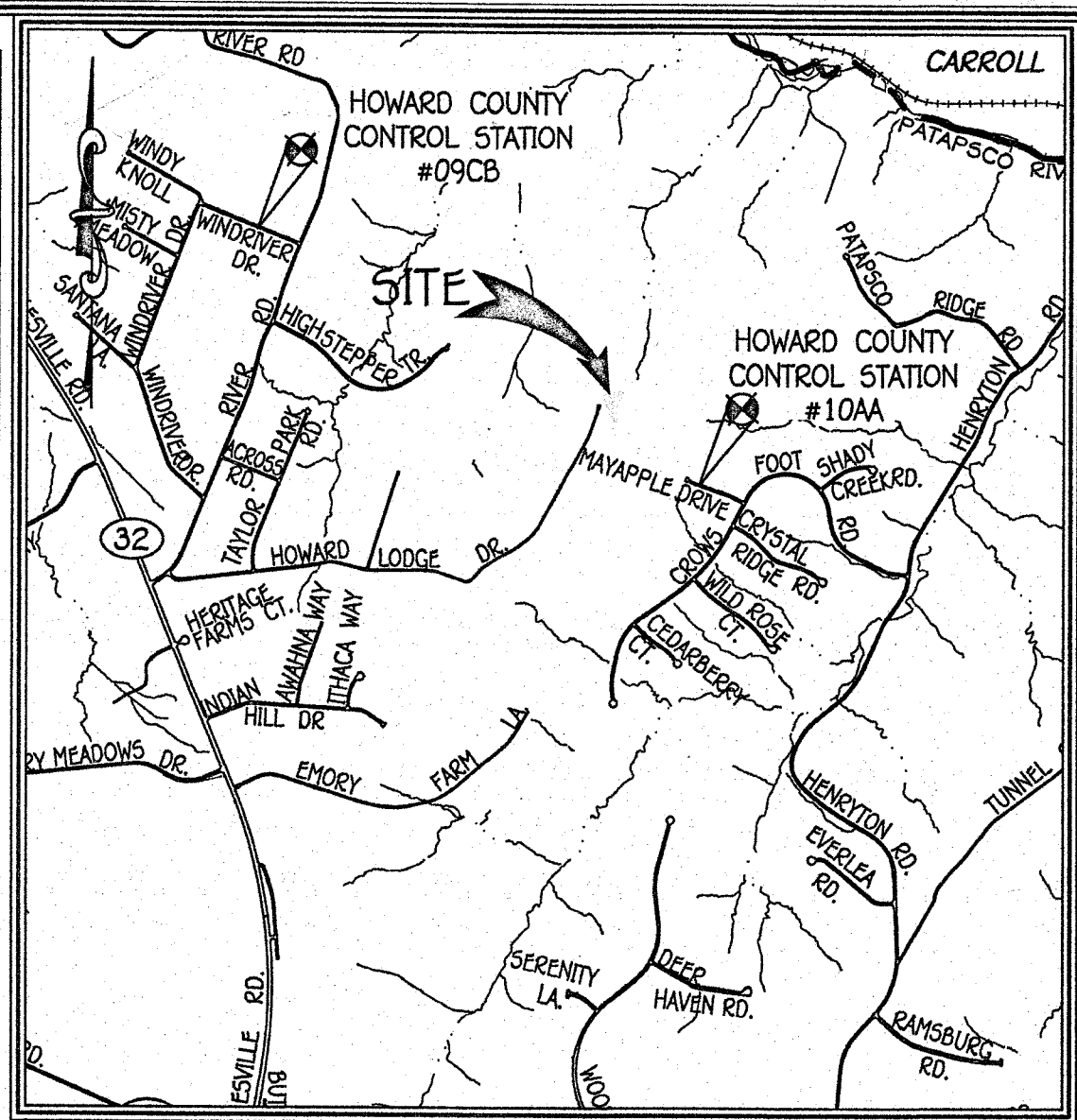
**LOT 3  
 (1719 BRICKELL WAY)**

ZONING: RR-DEO  
 TAX MAP No. 10 GRID No. 1 PARCEL No. 274  
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: JUNE, 2025  
 SHEET 2 OF 2

SOILS LEGEND		
SOIL	NAME	CLASS
GgB	Glenely loam, 3 to 8 percent slopes	B
MLF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B
LaB	Legore silt loam, 3 to 8 percent slopes	C

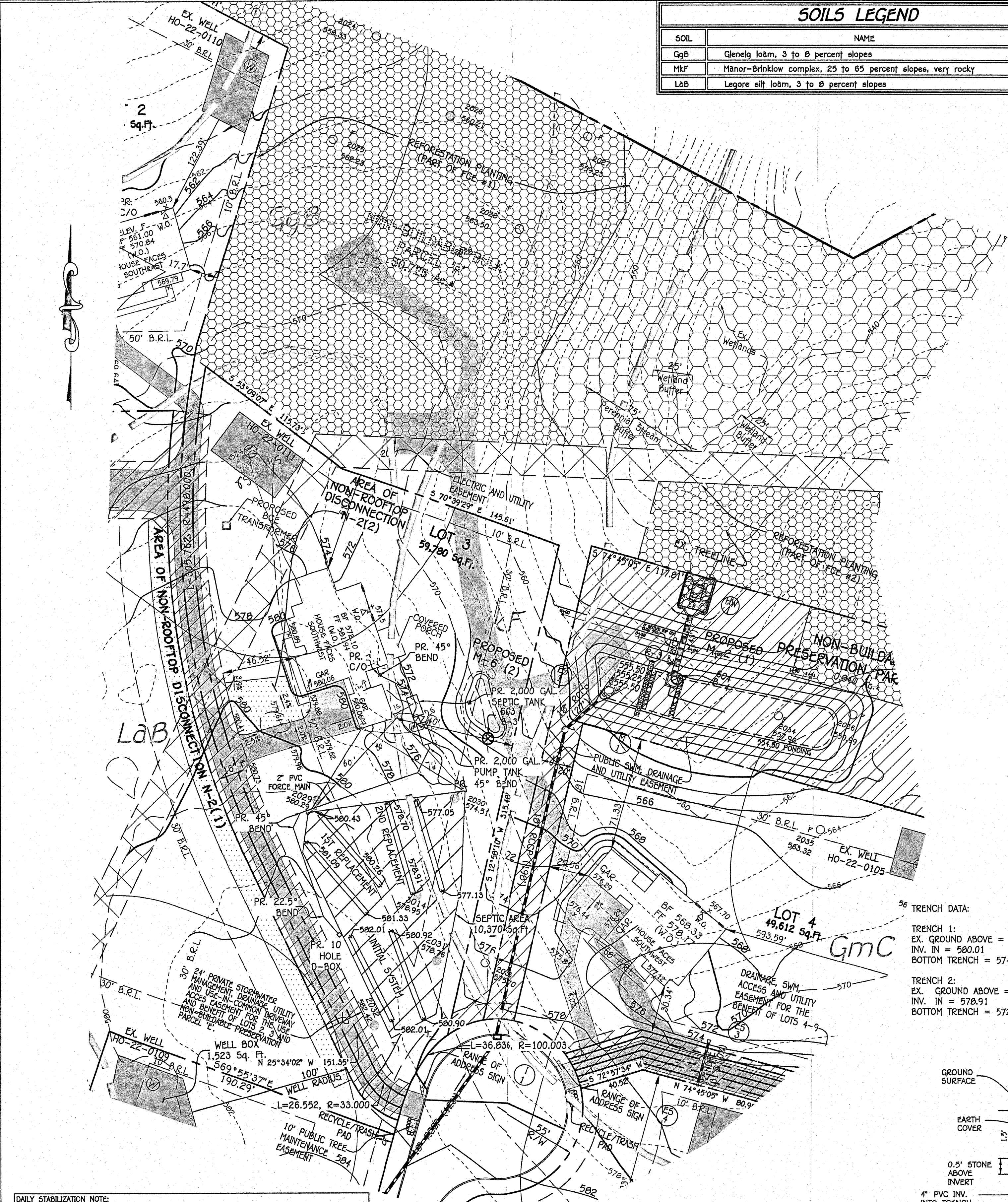
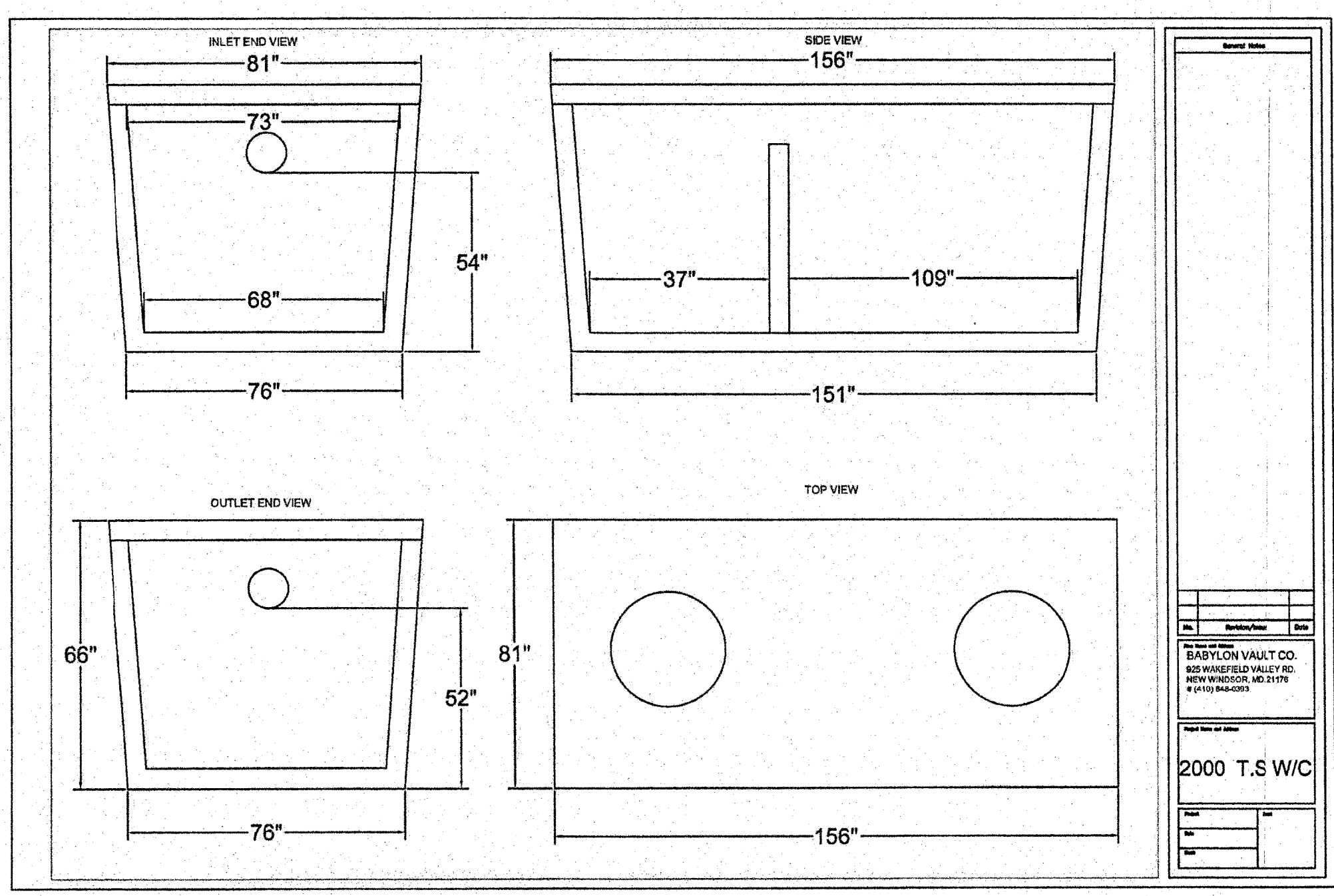
THE PURPOSE OF THIS SEPTIC INSTALL PLAN IS FOR THE CONSTRUCTION OF A NEW SINGLE FAMILY HOME.

LEGEND	
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
x 448.5	SPOT ELEVATION
---	EXISTING TREE LINE
GgB	SOIL LINES AND TYPES
GgC	SOIL LINES AND TYPES
---	SUBJECT PROPERTY LINE
---	ADJACENT PROPERTY LINE
○	IDENTIFIES WELL LOCATION
○	IDENTIFIES PASSED PERC TEST
○	IDENTIFIES FAIL PERC TEST
---	EXISTING SDA

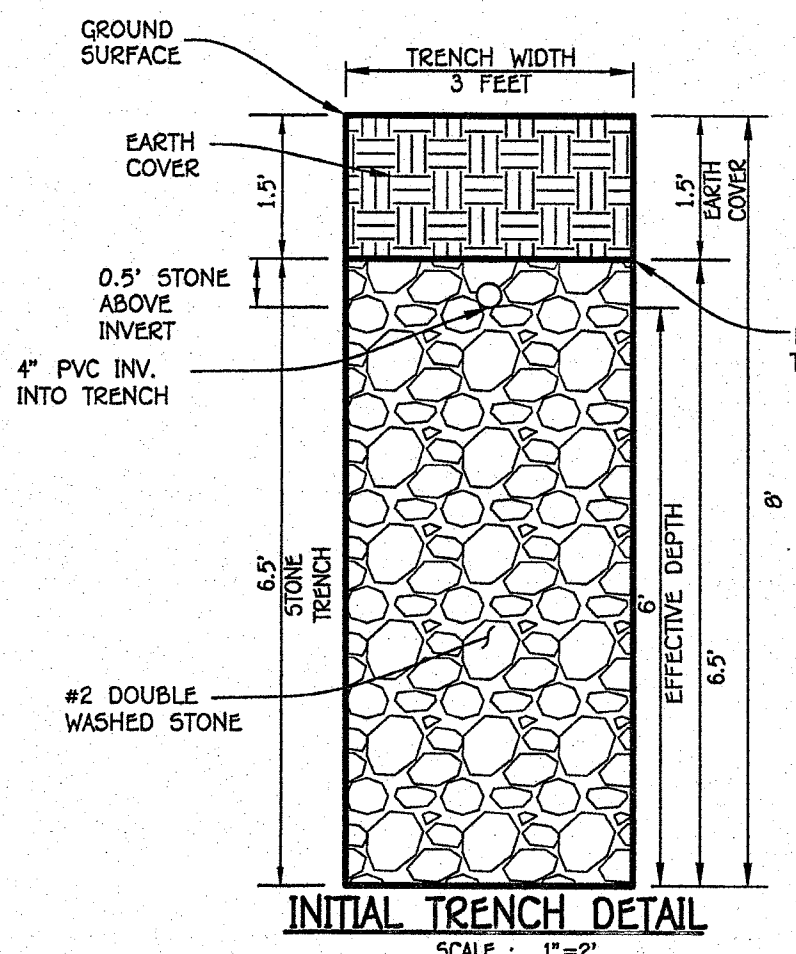


**VICINITY MAP**  
SCALE: 1" = 2000'  
**GEODETIC CONTROL STATIONS**  
HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 10AA  
N 609,753.356 E 1,331,668.825 ELEVATION: 563.097'  
HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 09CB  
N 612,571.114 E 1,326,795.332 ELEVATION: 558.523'

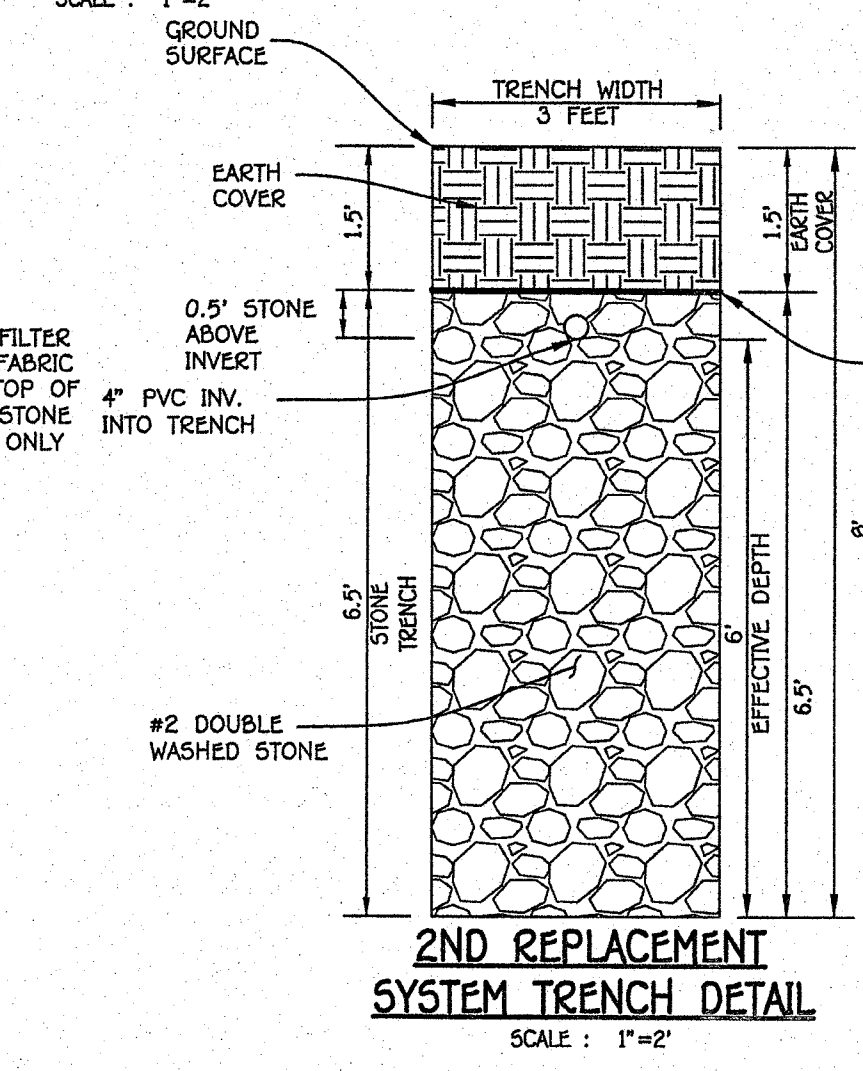
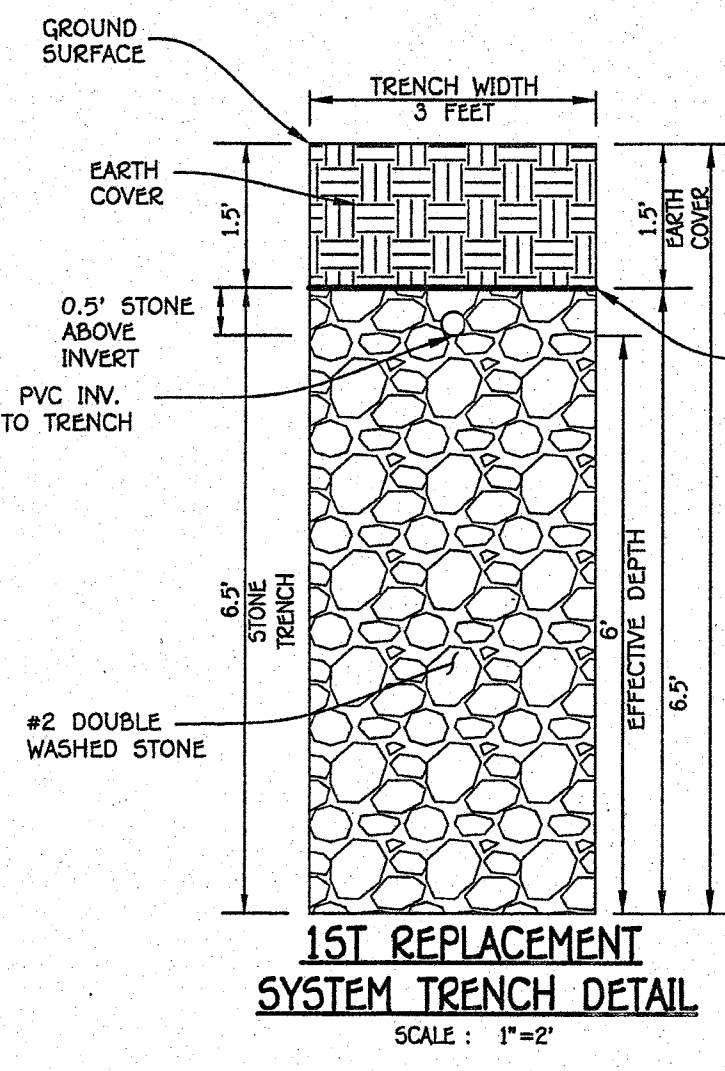
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HO-22-0111 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. 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.
5. THE ENGINEER IS REGISTERED WITH MDE TO PROVIDE ON-SITE WASTEWATER SERVICES IN MARYLAND.
6. CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER ON OR ABOUT FEBRUARY, 2024.
7. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN AND AN ELECTRICAL PERMIT MUST BE PULLED PRIOR TO SEPTIC PERMIT.
8. CONTRACTOR TO PERFORM CONSTRUCTION PER CURRENT OSHA STANDARDS.



**TRENCH DATA:**  
TRENCH 1:  
EX. GROUND ABOVE = 582.01  
INV. IN = 580.01  
BOTTOM TRENCH = 574.01  
TRENCH 2:  
EX. GROUND ABOVE = 580.91  
INV. IN = 578.91  
BOTTOM TRENCH = 572.91



FF 581.94  
BE 572.10  
INV. OUT OF HOUSE = 569.60  
PROP. GRADE AT CLEANOUT = 575.00  
INV. INTO CLEANOUT = 569.50  
INV. OUT OF CLEANOUT = 569.40  
EX. GROUND AT SEPTIC TANK = 574.00  
TOP OF SEPTIC TANK = 569.90  
INV. INTO SEPTIC TANK = 568.90  
INV. OUT OF SEPTIC TANK = 568.73  
EX. GROUND AT PUMP TANK = 574.54  
PROP. GRADE ABOVE PUMP TANK = 571.97  
TOP OF PUMP TANK = 569.80  
INV. INTO PUMP TANK = 568.63  
INV. OUT OF PUMP TANK = 568.38  
EX. GROUND AT DISTRIBUTION BOX = 580.01  
INV. INTO DISTRIBUTION BOX = 580.51  
INV. OUT OF DISTRIBUTION BOX = 580.41



**INITIAL SYSTEM**  
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS  
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 2 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 6 FEET  
SF OF DRAINFIELD = 900 GPD / 0.8 = 1,125 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x6)) = 0.313  
TRENCH LENGTH = (1,125 SF x 0.313)/W = 110 FEET  
2 TRENCHES AT 59'  
TRENCH SPACING = 2D+W = ((2x6) + 3) = 15' USE 15'

**1ST REPLACEMENT SYSTEM**  
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS  
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 2 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 6 FEET  
SF OF DRAINFIELD = 900 GPD / 0.8 = 1,125 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x6)) = 0.313  
TRENCH LENGTH = (1,125 SF x 0.313)/W = 110 FEET  
2 TRENCHES AT 59'  
TRENCH SPACING = 2D+W = ((2x6) + 3) = 15' USE 15'

**2ND REPLACEMENT SYSTEM**  
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS  
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 2 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 6 FEET  
SF OF DRAINFIELD = 900 GPD / 0.8 = 1,125 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x6)) = 0.313  
TRENCH LENGTH = (1,125 SF x 0.313)/W = 110 FEET  
2 TRENCHES AT 59'  
TRENCH SPACING = 2D+W = ((2x6) + 3) = 15' USE 15'

DAILY STABILIZATION NOTE:  
CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHE BE AS FOLLOWS.  
1. FOR AREAS TO BE PAVED, THAT APPLICATION OF STONE BASE.  
2. FOR AREAS TO BE VEGETATIVELY STABILIZED:  
A. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.  
B. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.  
ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWN SLOPE SIDE.

**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. 21020, EXPIRATION DATE: 01/25/26.  
PAUL G. CAVANAUGH  
DATE: JUNE 19, 2025



**FISHER, COLLINS & CARTER, INC.**  
LOCAL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SOURCE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
410-461-2899

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

**SEPTIC SYSTEM INSTALLATION PLAN**  
**BRICKELL PROPERTY**  
LOT 3  
(1719 BRICKELL WAY)  
ZONING: RR-DEO  
GRID No.: 274  
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: JUNE, 2025  
SHEET 1 OF 2