



202300583
7 pages

THREE RIVERS HEALTH DISTRICT
P.O. BOX 415
SALUDA, VIRGINIA 23149

March 14, 2023

R→ Nick Medlin
3-28-23 179 Muriel Dr.
Heathsville, VA 22473

Subject: **Alternative Onsite Sewage Disposal System, Owner Responsibilities**
Health Department ID Number: 166-23-064
Tax Map Number: 11B(11)26

Dear Nick Medlin:

Records on file at the Three Rivers Health District indicate that you are the owner of an Alternative Onsite Sewage System (AOSS). This letter is to provide you with important information regarding owner responsibilities for the operation and maintenance of your AOSS.

The Regulations for Alternative Onsite Sewage Systems (the "AOSS Regulations," 12 VAC 5-613) became effective on December 7, 2011. These regulations can be found online at <http://www.vdh.virginia.gov/EnvironmentalHealth/Onsite/regulations/index.htm>.

The Commonwealth of Virginia State Board of Health Alternative Onsite Sewage Regulation outline the owner's responsibilities for alternative onsite sewage systems. Owners are now required to:

1. Have the **AOSS operated and maintained by a licensed operator**. A list of licensed operators can be obtained by visiting the Department of Professional and Occupational Regulation at www.dpor.virginia.gov. Select "License Lookup" from the menu, type an asterisk (*) in the name field, check the "Operators" box under "Onsite Sewage Systems Professionals" and click "search."
2. Have a **licensed operator** visit the AOSS at the frequency required by the regulations.
3. Have a licensed operator collect any **samples** required by the regulations (specific laboratory sampling requirements depend on the date your application was filed, the size of the treatment system, the approval status of the treatment unit, whether or not disinfection was required, and whether or not there is direct dispersal to groundwater. Laboratory sampling is not required for any small AOSS with an installed soil treatment area that is sized for septic tank effluent and complies with the requirements of 12VAC5-610 for septic tank effluent. Please consult your Operation and Maintenance Manual, the system designer, an Operator, or the Health Department if you have questions.).

4. Keep a copy of the **maintenance log** provided by the operator on the property where the AOSS is located, make the log available to the health department upon request, and transfer the log to any future owner of the property.

5. Keep a copy of the **Operation and Maintenance (O&M) Manual** for the AOSS on the property where the system is located, make the manual available to the health department upon request, and transfer the O&M Manual to any future owner.

6. Comply with the onsite sewage disposal requirements contained in any local ordinance adopted pursuant to the Chesapeake Bay Preservation Act (§10.1-2100 of the Code of Virginia) and the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20) if the AOSS is located within a designated Chesapeake Bay preservation area.

Proper operation and maintenance of an AOSS is required by law and is necessary to ensure continued functioning of the system and may prevent premature failure of the system. Operation and maintenance information for your system may be found by contacting the system designer, the local health department, or by visiting the VDH website at <http://www.vdh.virginia.gov/EnvironmentalHealth/Onsite/newsofinterest/index.htm>.

If you have any questions regarding this letter or believe that you received this letter in error, please contact me at (804)-580-3731. Your cooperation and timely response will be appreciated.

Sincerely,

Virginia Department of Health



THREE RIVERS HEALTH DISTRICT
P.O. BOX 415
SALUDA, VIRGINIA 23149

Subject: Recordation of Future Operation Permit

Health Department ID Number: 166-23-064

Tax Map Number: 11B(1)26

Locality: Northumberland County, VA.

Dear Nick Medlin:

Your application to construct an alternative sewage disposal system to serve a residence at the above location, filed on March 9, 2023 with the Three Rivers Health District, has been evaluated in accordance with the requirements contained in Section 32.1-164.1 of the Code of Virginia, 12 VAC 5-610-250 of the Sewage Handling and Disposal Regulations, and current agency policies and procedures.

Your application is approved and your construction permit is attached to this letter. After your alternative sewage disposal system is constructed and approved for use, the local health department will issue an Operation Permit. The Operation Permit will be valid as long the sewage disposal system is properly operated and maintained. In accordance with Section 15.2-2157 of the Code of Virginia, operation permits for alternative systems serving residential facilities must be conditioned. Before you receive an operation permit for your alternative onsite sewage disposal system, you must record a notice in the land records of the Clerk of the Circuit Court in the locality where the system is located. You must furnish to the local health department a certification from the Clerk of the Circuit showing the deed book number and page number (or instrument number) upon which the notice was recorded. The notice must be indexed in the grantor index under your name.

The notice will state the following:

This permit is issued in accordance with the provisions of Title 32.1, Chapter 6 of the Code of Virginia as Amended, and § 12VAC5-610-340 of the Sewage Handling and Disposal Regulations of the Virginia Department of Health. The continued validity of this permit is contingent upon compliance with the operation and maintenance requirements contained in the Owner's Operation and Maintenance Manual and Regulations for Alternative Onsite Sewage Systems of the Virginia Department of Health (12VAC5-613-100 et seq.). Owners are advised to be aware of the operation and maintenance instructions for their alternative onsite sewage system and to follow them. Copies of the operation and maintenance instructions can be found by contacting the local health department for the locality where the onsite sewage disposal system is located.

If you have any questions or if this office can be of further service to you, please call us at (804)-580-3731.

Sincerely,

Hank Becker

Environmental Health Specialist, Sr.



THREE RIVERS HEALTH DISTRICT
P.O. BOX 415
SALUDA, VIRGINIA 23149

March 9, 2023

Notice for Recordation: AOSS Operation and Maintenance Required

TO: Nick Medlin
FROM: Hank Becker, Environmental Health Specialist, Sr.
RE: Tax Map: 11B(11)26
HDID #: 166-23-064

TO WHOM IT MAY CONCERN:

The Three Rivers Health District has approved an alternative onsite sewage system (AOSS) for use for the property identified above as long as the system is properly operated and maintained and performs in accordance with the Sewage Handling and Disposal Regulations(12 VAC 5-610-10 et seq.) and the Regulations for Alternative On-Site Sewage Systems (12 VAC 5-613-10 et seq.)

This permit is issued in accordance with the provisions of Title 32.1, Chapter 6 of the Code of Virginia as Amended, and §12VAC5-610-340 of the Sewage Handling and Disposal Regulations of the Virginia Department of Health. The continued validity of this permit is contingent upon compliance with the operation and maintenance requirements contained in the Owner's Operation and Maintenance Manual and the Regulations for Alternative Onsite Sewage Systems of the Virginia Department of Health (12VAC5-613-100 et seq.). Owners are advised to be aware of the operation and maintenance instructions for their alternative onsite sewage system and to follow them. Copies of the operation and maintenance instructions should have been given to the original owner by the system designer and should be passed on from owner to owner; they can also be found by contacting the local health department for the locality where the onsite sewage disposal system is located.

This Notice must be recorded in the owner's name in the grantor's index of the land records of the Clerk of the Circuit Court of the county having jurisdiction over the property. You must furnish the Three Rivers Health District (Northumberland County Health Dept.) with certification from the Clerk of the Circuit Court showing the deed book and page number or the instrument number upon which the notice was recorded before you can receive your permit to operate the on-site sewage treatment and disposal system.

Tax Map: 11B(11)26
HDID: 166-23-064

Page 2 of 2

As owner of the property, I acknowledge that the sewage disposal system designed to serve the dwelling requires adherence to the Owner's Operation and Maintenance Manual and to Part III, Operation and Maintenance, found in the Regulations for Alternative Onsite Sewage Systems of the Virginia Department of Health (12VAC5-613-100 et seq.).

Nick Medlin
Nick Medlin

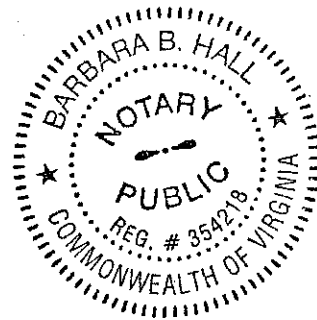
3-28-2023
Date

COMMONWEALTH OF VIRGINIA, COUNTY/CITY OF Northumberland, to wit:
March 28, 2023 by Nicholas Medlin.

Barbara B. Hall
NOTARY PUBLIC for the

Registration #: 354218

COMMONWEALTH OF VIRGINIA AT LARGE My Commission expires May 31, 2024





THREE RIVERS HEALTH DISTRICT
P.O. BOX 415
SALUDA, VIRGINIA 23149

OSE Construction Permit

Well and Sewage Contractors: Please notify Health Department and OSE or PE 48 hours prior to installation to arrange for inspection
March 14, 2023

**Nick Medlin
179 Muriel Dr.
Heathsville, VA 22473**

RE: **Tax Map:** 11B(11)26
HDID: 166-23-064
System Capacity: Residential; 3 Bedrooms, 450 gallons per day

Dear Nick Medlin:

This letter and the attached drawings, specifications, and calculations (21 pages) dated October 20, 2022, constitute your permit to connect to a sewage disposal system and well if applicable on the property referenced above. Your application for a permit was submitted pursuant to §32.1-163.5 of the Code of Virginia, which requires the Health Department to accept private soil evaluations and designs from an Onsite Soil Evaluator (OSE) or a Professional Engineer working in consultation with an OSE for residential development. VDH is not required to perform a field check to verify the private evaluations of OSEs or PEs and such a field check may not have been conducted for the issuance of this permit.

The soil absorption area ("site"), sewage system design, and the well location and construction if applicable were certified by Harold E. Bradley, Jr., Private OSE as substantially complying with the Board of Health's regulations (and local ordinances if the locality has authorized the local health department to accept private evaluations for compliance with local ordinances). This permit is issued in reliance upon that certification. VDH hereby recognizes that the soil and site conditions acknowledged by this permit are suitable for the installation of an onsite sewage system. This construction permit is null and void if any substantial physical change in the soil or site conditions occurs where a sewage disposal system is to be located.

If modifications or revisions are necessary between now and when you construct your dwelling, please contact the OSE/PE who performed the evaluation and design on which this permit is based. Should revisions be necessary during construction, your contractor should consult with the OSE/PE that submitted the site evaluation or site evaluation and design. The OSE/PE is authorized to make minor adjustments in the location or design of the system at the time of construction provided adequate documentation is provided to the Three Rivers Health District.

The OSE/PE that submitted the certified design for this permit is required to conduct a final inspection of this sewage system when it is installed and to submit an inspection report and completion statement. As the owner, you are responsible for giving reasonable notice to the OSE/PE of the need for a final inspection. If the designer is unable to perform the required inspection, you may provide an inspection report and completion statement executed by another OSE/PE. The Three Rivers Health District is not required to inspect the installation but may perform an inspection at its sole discretion. No

part of this installation shall be covered until it has been inspected by the OSE/PE as noted herein. The sewage system may not be placed into operation until you have obtained an Operation Permit from the Three Rivers Health District.

This Construction Permit is null and void if conditions are changed from those shown on your application or if conditions are changed from those shown on the Site and Soil Evaluation Report and the attached construction drawings, specifications, and calculations. VDH may revoke or modify any permit if, at a later date, it finds that the site and soil conditions and/or design do not substantially comply with the Sewage Handling and Disposal Regulations, 12 VAC 5-610-20 et seq., or if the system would threaten public health or the environment.

This permit approval has been issued in accordance with applicable regulations based on the information and materials provided at the time of application. There may be other local, state, or federal laws or regulations that apply to the proposed construction of this onsite sewage system. The owner is responsible at all times for complying with all applicable local, state, and federal laws and regulations. This construction permit is transferrable until expired or deemed null and void. A permit transfer form may be found on the VDH website at <http://www.vdh.virginia.gov/environmental-health/gmp-2015-01-forms/>.

If you have any questions, please contact me at (804)-580-3731.

This permit expires: September 14, 2024

Sincerely,

A handwritten signature in black ink, appearing to read "Hank Becker", is written over a circular stamp. The signature is fluid and cursive.

Hank Becker,
Environmental Health Specialist, Sr.
Three Rivers Health District

CC: Harold E. Bradley, Jr., Private OSE

INSTRUMENT 202300583
RECORDED IN THE CLERK'S OFFICE OF
NORTHUMBERLAND CIRCUIT COURT ON
MARCH 28, 2023 AT 01:09 PM
DEBORAH T. BINGHAM, CLERK
RECORDED BY: SMH

WHAT YOU WILL NEED TO GET YOUR SEPTIC SYSTEM OPERATION PERMIT

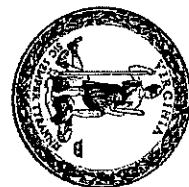
- Your system must have a satisfactory inspection at the time of installation. This will be done by either a representative of the local Health Department, a private OSE, or a PE, depending on the designer of your permitted system. If your system is designed/inspected by an OSE or PE, they must submit a copy of the inspection results, complete with an as-built diagram, to the Health Department.
- Please ensure that your contractor turns in a Completion Statement to the local Health Department after installation.
- If your permit is for an alternative system, you must sign, have notarized, and record the attached Notice of Recordation in your locality's land records. Please bring proof of this recordation to the local Health Department
- If you have a conditional permit then you must sign, have notarized, and record the permit in your locality's land records. Please bring proof of this recordation to the Health Department.

IF YOUR PERMIT IS FOR BOTH A SEPTIC SYSTEM AND WELL YOU WILL ALSO NEED

- Your well must have satisfactory inspection results after installation. Please give the Health Department several days notice to schedule this inspection before your Operation Permit will be requested.
- The Health Department must receive a copy of your water sample test result being negative/satisfactory for coliform bacteria. You are responsible for performing this test and ensuring the results are received at the Health Department
- Please ensure that your Well Driller submits a Uniform Water Well Completion Statement or GW-2 to the Health Department, including documentation of a proper well abandonment if required by permit

Allow 5 business days after the last piece of documentation is received for the Operation Permit to be issued. To avoid delays, clearly label each piece of documentation with the property Tax Map/GPIN number and HDID number shown above and on your construction permit. Please note that due to the individual circumstances of your permit there may be additional required items not covered by this checklist.

If you have any questions about any of the items on this list, please do not hesitate to contact the Three Rivers Health District at (804)-580-3731.



OFFICIAL RECEIPT
NORTHUMBERLAND CIRCUIT COURT
DEED RECEIPT

DATE : 03/28/2023 TIME : 13:10:55 CASE # : 133CLR202300583

RECEIPT # : 23000001487 TRANSACTION # : 23032800022

CASHIER : SMH REGISTER # : H622

INSTRUMENT : 202300583 BOOK : PAGE : FILING TYPE : CSTP

GRANTOR : MEDLIN, NICK GRANTEE : THREE RIVERS HEALTH DISTRICT RECORDED : 03/28/2023 EX : N PAYMENT : FULL PAYMENT

RECEIVED OF : MEDLIN, NICK ADDRESS : EX : N LOC : CO PCT : 100%

CREDIT/DEBIT CARD : \$28.00

DESCRIPTION 1 : AOSS OPERATION AND MAINTENANCE REQUIRED

NAMES : 0

CONSIDERATION : \$0.00 AMAL : \$0.00

PAGES : 007 OP : 0

PIN OR MAP : 11-B-11-26

ACCOUNT CODE	DESCRIPTION	PAID
035	VIRGINIA OUTDOOR FOUNDATION	\$3.00
106	TECHNOLOGY TRST FND	\$5.00
145	VSLF	\$3.50

ACCOUNT CODE	DESCRIPTION	PAID
301	CLERK RECORDING/INDEXING FEE	\$14.50
407	CONVENIENCE FEE	\$2.00

TENDERED : \$ 28.00

AMOUNT PAID : \$ 28.00

OSE/PE Report for Construction Permit¹

Location of property:	Lot 26 & 27 Section K, Subdivision Bay Quarter Shores, <u>Northumberland County</u> 911 Address: <u>0 Delaware Dr, Heathsville, VA 22473</u> GPIN or Tax Map # <u>11B-11-26 & 11B-11-27</u> Latitude/Longitude <u>37°57'56.6"N 76°25'29.1"W</u>
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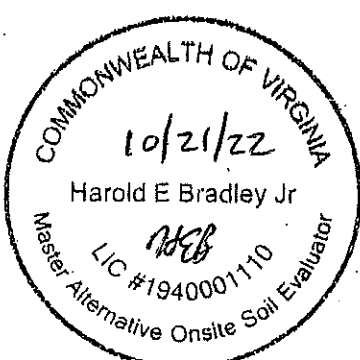
Applicant or Client and address: <u>Nick Medlin</u> <u>179 Muriel Dr</u> <u>Heathsville, VA 22473</u>	Prepared by AOSE/PE (name and address): Harold Bradley, MAOSE #1940001110 8252 N Mayfield Lane Mechanicsville, VA 23111 804-399-5002 / haroldbradleysoil@hotmail.com
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Date of Report: <u>10-21-2022</u>	AOSE/PE Job Number: <u>1323</u> (optional)
Revision Date: _____	Health Dept ID # <u>166-23-0064</u>

Contents/Index of this report

<u>Pg 1 Cover Page</u>	<u>Pgs 10-11 Specs</u>	<u>Pg 21 Cert. Statement</u>	
<u>Pg 2 Application</u>	<u>Pgs 12-13 GeoMat Views</u>	_____	_____
<u>Pgs 3-6 Soil Reports</u>	<u>Pgs 14-15 Notes</u>	_____	_____
<u>Pgs 7 Survey Plat</u>	<u>Pgs 16-17 Pump Data</u>	_____	_____
<u>Pg 8 Sanitary Survey</u>	<u>Pgs 18-19 Cut-Sheets</u>	_____	_____
<u>Pg 9 Construction Drawing</u>	<u>Pg 20 Abbr. Design</u>	_____	_____

Certification Statement

<p>I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the applicable provisions of the Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-630), the Regulations for Alternative Onsite Sewage Systems (12VAC5-613) and all other applicable laws, regulations and policies implemented by the Virginia Department of Health. I further certify that I currently possess any professional license required by the laws and regulations of the Commonwealth that have been duly issued by the applicable agency charged with licensure to perform the work contained herein. The potential for both conventional and alternative onsite sewage systems has been discussed with the owner/applicant.</p> <p><input checked="" type="checkbox"/> The work attached to this cover page have been conducted under an exemption to the practice of engineering, specifically the exemption in Code of Virginia Section 54.1-402.A.11</p> <p>I recommend a <u>construction permit</u>² be <u>issued</u>³</p> <p>OSE/PE Signature <u>Harold Bradley</u> Date <u>10-21-2022</u></p>	
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¹ Insert appropriate title: "Construction Permit", "Subdivision Approval", "Certification Letter", "Repair Permit" or "Voluntary Upgrade Permit"

² Fill in this blank with the appropriate term: "certification letter", "construction permit", "subdivision approval", "repair permit" or "voluntary upgrade permit"

³ Fill in this blank with the appropriate term: "issued", or "denied"

Commonwealth of Virginia

Application for: Sewage System Water Supply

VDH Use only
Health Department ID# 1066-23-0064
Due Date _____

Owner Nick Medlin

Phone 434-774-4535

Mailing Address 179 Muriel Dr

Phone freemasonconstructionllc@gmail.com

Heathsville, VA 22473

Fax _____

Agent Harold Bradley

Phone 804-399-5002

Mailing Address 8252 N Mayfield Ln

Phone haroldbradleysoil@gmail.com

Mechanicsville, VA 23111

Fax _____

Site Address 0 Delaware Dr

Email _____

Heathsville, VA 22473

Directions to Property: On the NW corner of Delaware Dr & Colorado Dr

Subdivision Bay Quarter Shores Section K Block _____ Lot 26 & 27

Tax Map 11B-11-26 Other Property Identification 11B-11-27 Dimension/Acreage of Property 0.48 ac

Sewage System

Type of Approval: Applicants for new construction are advised to apply for a certification letter to determine if land is suitable for a sewage system and to apply for a construction permit (valid for 18 months) **only when ready to build.**

Certification Letter Construction Permit Voluntary Upgrade Repair Permit Minor Modification

Proposed Use:

Single Family Home (Number of Bedrooms 3) Multi-Family Dwelling (Total Number of Bedrooms _____)

Other (describe) _____

Basement? Yes No Walk-out Basement? Yes No Fixtures in Basement? Yes No

Conditional permit desired? Yes No If yes, which conditions do you want?

Reduced water flow Limited Occupancy Intermittent or seasonal use Temporary use not to exceed 1 year

Do you wish to apply for a betterment loan eligibility letter? Yes No *There is a \$50 fee for determination of eligibility.

Water Supply

Will the water supply be Public or Private? Is the water supply Existing or Proposed?

If proposed, is this a replacement well? Yes No If yes, will the old well be abandoned? Yes No

Will any buildings within 50' of the proposed well be termite treated? Yes No

Well Type (e.g. domestic use, agricultural, irrigation, etc.) _____

All Applicants

Is this property intended to serve as your (owners) principal place of residence? Yes No

All applications must be accompanied by private sector evaluations and designs, unless a petition for VDH services is approved. Is a Petition for Service form attached? Yes No

In order for VDH to process your application for a sewage system you must attach a plat of the property and a site sketch. For water supplies, a plat of the property is recommended and a site sketch is required. The site sketch should show your property lines, actual and/or proposed buildings and the desired location of your well and/or sewage system. When the site evaluation is conducted the property lines, building location and the proposed well and sewage sites must be clearly marked and the property sufficiently visible to see the topography. I give permission to the Virginia Department of Health to enter onto the property described during normal business hours for the purpose of processing this application and to perform quality assurance checks of evaluations and designs certified by a private sector Onsite Soil Evaluator or Professional Engineer as necessary until the sewage disposal system and/or private water supply has been constructed and approved.

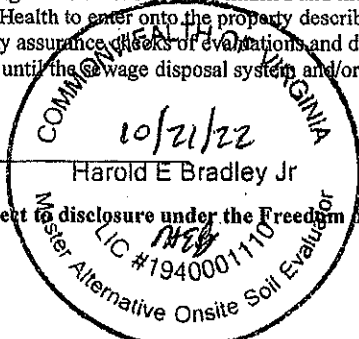
Harold Bradley
Signature of Owner/ Agent

Harold E Bradley Jr

10-20-2022

Date

This form contains personal information subject to disclosure under the Freedom of Information Act. Revised 7/1/2019




Pg
2
of 21

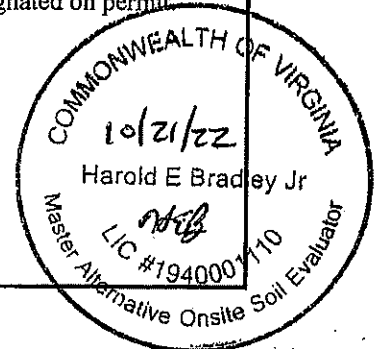
Site & Soil Evaluation Report

VDH Use Only
 Health Department ID# 166-23-0064
 Due Date _____

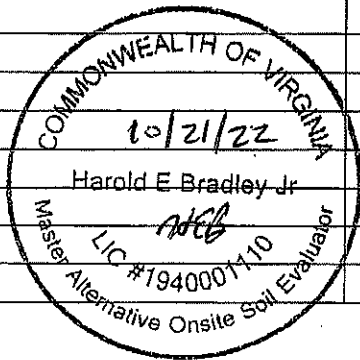
General Information		
Date: <u>1-19-2022</u>	Northumberland County Health Department	
Applicant: <u>Nick Medlin</u>	Telephone Number: <u>434-774-4535</u>	
Address: <u>179 Muriel Dr, Heathsville, VA 22473</u>		
Owner: <u>same as above</u>	Address: <u>same as above</u>	
Location: <u>0 Delaware Dr, Heathsville, VA 22473; TM #11B-11-26 & 27</u>		
Subdivision <u>Bay Quarter Shores</u>	Block/Section <u>___/K</u>	Lot <u>26 & 27 (Primary DF)</u>

Soil Information Summary		
1. Position in landscape satisfactory	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Describe: <u>Upland Flat</u>
2. Slope <u>0</u> %		
3. Depth to rock/impervious strata	Max. _____ Min. _____	None <input checked="" type="checkbox"/>
4. Free water present	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Range in inches _____
5. Depth to seasonal water table (gray mottling or gray color)	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>	<u>12"+ inches</u>
6. Soil percolation rate estimated	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Texture group <input type="checkbox"/> I <input type="checkbox"/> II <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Estimated rate <u>60</u> min/inch at <u>6"-7"</u>
7. Percolation test performed	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Number of percolation test holes _____ Depth of percolation test holes _____ Average percolation rate _____ mpi
Name and title of evaluator: <u>Harold Bradley, M.A.O.S.E. #1940001110</u>		
Signature: 		

Department Use	
<input type="checkbox"/>	Site approved: Drain field trench bottoms to be placed at _____ (inches) depth at site designated on permit.
<input type="checkbox"/>	Site disapproved:
Reasons for rejection: (check all that apply)	
1.	<input type="checkbox"/> Position in landscape subject to flooding or periodic saturation.
2.	<input type="checkbox"/> Insufficient depth of suitable soil over hard rock.
3.	<input type="checkbox"/> Insufficient depth of suitable soil to seasonal water table.
4.	<input type="checkbox"/> Rates of absorption too slow.
5.	<input type="checkbox"/> Insufficient area of acceptable soil for required drain field, and/or Reserve Area.
6.	<input type="checkbox"/> Proposed system too close to well.
7.	<input type="checkbox"/> Other (Specify)



Date of Evaluation: <u>1-19-2022</u>		Profile Description		
SOIL EVALUATION REPORT				
Property ID: <u>Bay Quarter Shores, Sect K, Lots 26 & 27 (Primary DF); #1323</u>				
<p>Where the local health department conducts the soil evaluation the location of profile holes may be shown on the schematic drawing on the construction permit or the sketch submitted with the application. If soil evaluations are conducted by a private soil scientist, location of profile holes and sketch of the area investigated including all structural features i.e. sewage disposal systems, wells, etc. within 200 feet of site (See section 4) and reserve site shall be shown on the reverse side of this page or prepared on a separate page and attached to this form.</p> <p> <input type="checkbox"/> See application sketch <input type="checkbox"/> See construction permit <input checked="" type="checkbox"/> See sketch on reverse side or page attached to this form </p>				
Hole #	Horizon	Depth (Inches)	Description of color, texture, etc.	Texture Group
11	AE	0-12	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt	12-24	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 3"	
12	AE	0-13	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt	13-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 2.25"	
13	AE	0-14	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt	14-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 2"	
14	AE	0-10	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt1	10-14	Light yellowish brown; friable sandy clay loam	2
	Bt2	14-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 2.75"	




REMARKS: Install level sand pad at 6" at hole #11 using TL-2 treatment and GeoMat; 35' long by 20' wide area

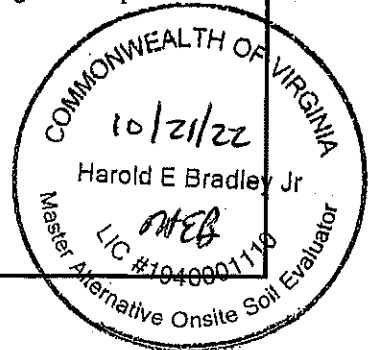
Site & Soil Evaluation Report

VDH Use Only
 Health Department ID# 766.23.0044
 Due Date _____

General Information	
Date: <u>1-19-2022</u>	<u>Northumberland</u> County Health Department
Applicant: <u>Nick Medlin</u>	Telephone Number: <u>434-774-4535</u>
Address: <u>179 Muriel Dr, Heathsville, VA 22473</u>	
Owner: <u>same as above</u>	Address: <u>same as above</u>
Location: <u>0 Delaware Dr, Heathsville, VA 22473; TM #11B-11-26 & 27</u>	
Subdivision <u>Bay Quarter Shores</u>	Block/Section <u>/K</u> Lot <u>26 & 27 (Reserve DF)</u>

Soil Information Summary	
1. Position in landscape satisfactory	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Describe: <u>Upland Flat</u>
2. Slope <u>0%</u>	
3. Depth to rock/impervious strata	Max. _____ Min. _____ None <input checked="" type="checkbox"/>
4. Free water present	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Range in inches _____
5. Depth to seasonal water table (gray mottling or gray color)	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> <u>12"+ inches</u>
6. Soil percolation rate estimated	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Texture group <input type="checkbox"/> I <input type="checkbox"/> II <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Estimated rate <u>60 min/inch at 6"-8"</u>
7. Percolation test performed	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Number of percolation test holes _____ Depth of percolation test holes _____ Average percolation rate _____ mpi
Name and title of evaluator: <u>Harold Bradley, M.A.O.S.E. #1940001110</u>	
Signature: 	

Department Use	
<input type="checkbox"/>	Site approved: Drain field trench bottoms to be placed at _____ (inches) depth at site designated on permit.
<input type="checkbox"/>	Site disapproved:
Reasons for rejection: (check all that apply)	
1.	<input type="checkbox"/> Position in landscape subject to flooding or periodic saturation.
2.	<input type="checkbox"/> Insufficient depth of suitable soil over hard rock.
3.	<input type="checkbox"/> Insufficient depth of suitable soil to seasonal water table.
4.	<input type="checkbox"/> Rates of absorption too slow.
5.	<input type="checkbox"/> Insufficient area of acceptable soil for required drain field, and/or Reserve Area.
6.	<input type="checkbox"/> Proposed system too close to well.
7.	<input type="checkbox"/> Other (Specify)

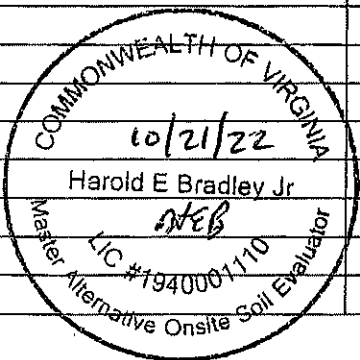


Date of Evaluation: 1-19-2022 Profile Description
SOIL EVALUATION REPORT
 Property ID: Bay Quarter Shores, Sect K, Lots 26 & 27 (Reserve DF); #1323

Where the local health department conducts the soil evaluation the location of profile holes may be shown on the schematic drawing on the construction permit or the sketch submitted with the application. If soil evaluations are conducted by a private soil scientist, location of profile holes and sketch of the area investigated including all structural features i.e. sewage disposal systems, wells, etc. within 200 feet of site (See section 4) and reserve site shall be shown on the reverse side of this page or prepared on a separate page and attached to this form.

See application sketch See construction permit See sketch on reverse side or page attached to this form

Hole #	Horizon	Depth (Inches)	Description of color, texture, etc.	Texture Group
13	AE	0-14	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt	14-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 2"	
14	AE	0-10	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt1	10-14	Light yellowish brown; friable sandy clay loam	2
	Bt2	14-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 2.75"	
15	AE	0-12	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt	12-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 1"	
161	AE	0-14	Dark brown 10YR 4/3 to light yellowish brown 2.5Y 6/4; friable sandy loam	2
	Bt	14-26	Light yellowish brown 2.5Y 6/4 with few fine distinct strong brown 7.5YR 5/8 & light gray 10YR 7/2 Redox; friable light clay loam	3
			* Inverse relative elevation = 3' 0.75"	



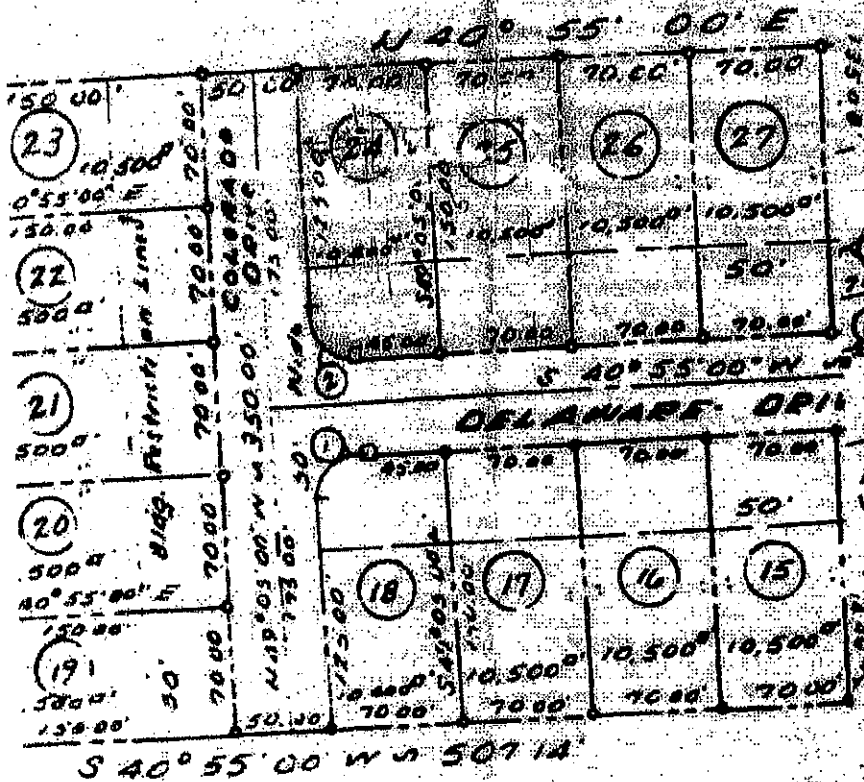
REMARKS: Install level sand pad at 6" at hole #14 using TL-2 treatment into GeoMat; 35' long by 20' wide area

BAY QUARTER

SECTION

HEATHSVILLE MAGISTER
NORTHUMBERLAND COUNTY

Pg 7 of 21
1" = 100'



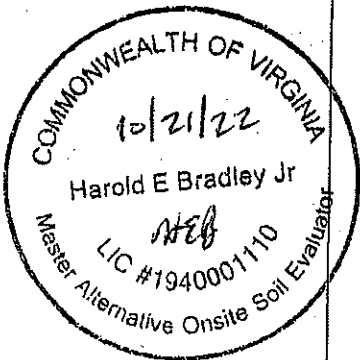
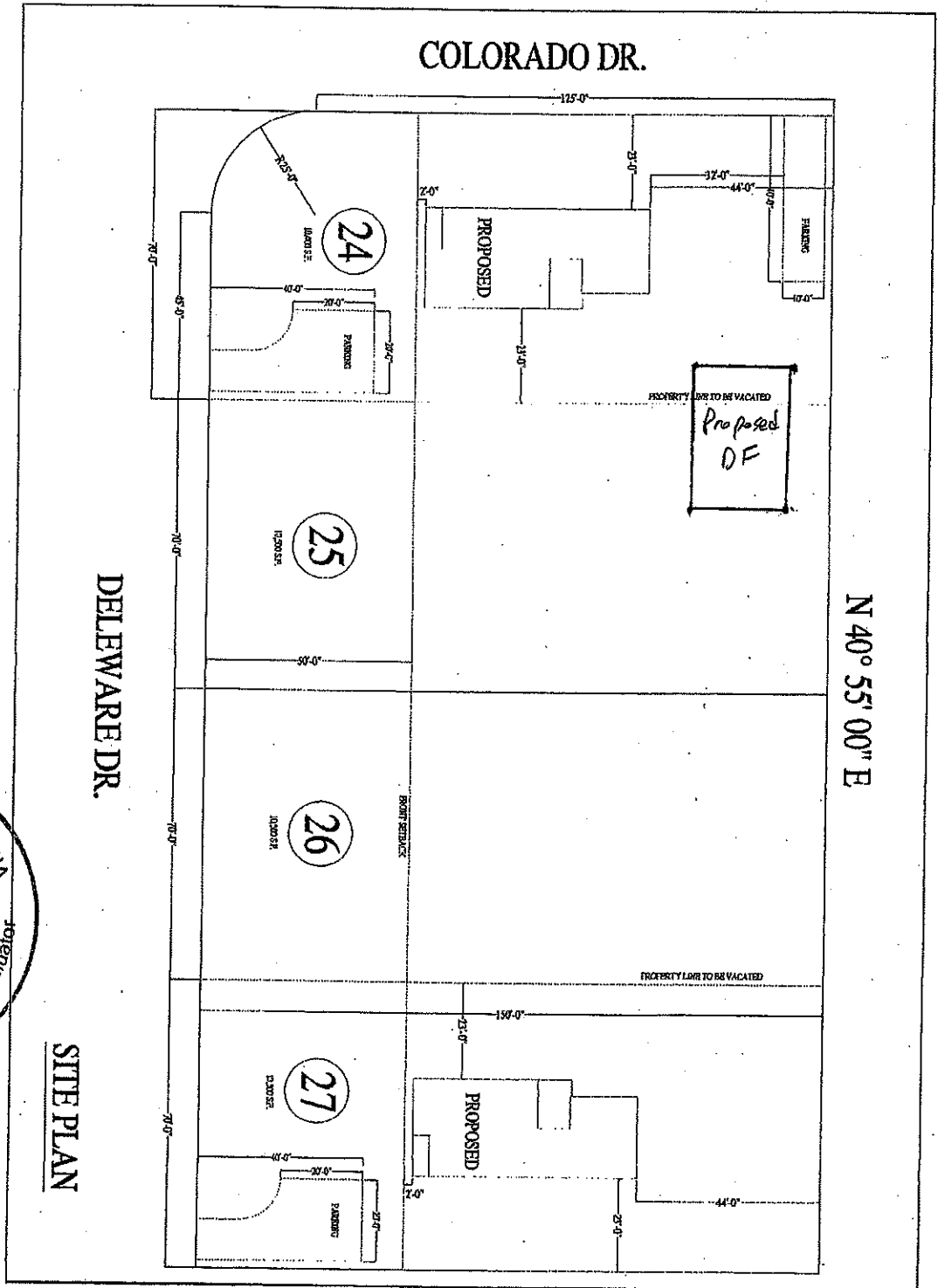
PLEASE JUST ONE PERK WITH
CAN BE ON EITHER LOT.

PVEYOR'S CERTIFICATE

Charles E. Tomlin, Jr., of & by
id Land Surveyor, certify that
a shown on this plat is accurate
and is in the name of Amer
Central Corporation of Virginia
the section of land acquired from

Sanitary Survey

There are no existing wells within 200' and only the proposed DF on lots 24+25



SITE PLAN

	SHEETS: A1.0	DATE: 10-01-2021	SCALE: 1:120	REVISIONS: DATE: _____ BY: _____	LOT 24-27 BQS
	RIVER MILL DEVELOPMENT RIVERMILLDEVELOPMENT@GMAIL.COM PLANNING (919) 774-1811				

Install

Construction Drawing

1" = 30'

1.) 1,500 gallon concrete baffled PuraSys SBR reactor tank

2.) Anna PuraSys SBR model PSI-5 (500 gpd)

3.) Ebra Optima Model Pump

4.) ~9' of 2" schedule 40 PVC force main w/ 5' of 4" PVC coming into D Box (~14' total)

5.) 10' + part distribution box

6.) 20' x 35' level sand pad

7.) 7 rows of 12" wide GeoMat; 33' long; 2.5' centers;

w/ 2" schedule 40 PVC centered on GeoMat on 6" of ASTM C33 sand

* Remove 6" of soil at hole 11 + dry level pad (20' x 35') + replace w/ 6" of sand

* 10"-12" of clean sandy soil over the 6" of sand + GeoMat

* Extend pad 2' from all 4 sides

* Taper pad 3' from all 4 edges

* Header lines must be 4" schedule 40 PVC

* Central Water Supply *

* Owner's Nick Medlin

* Bay Quarter Shores, Sect K, Lots 26 + 27

* 0.48 acres

* Delaware Dr, Heathsville, VA 22473

* TM # 11B-11-26 + 27

* Northumberland County, VA

* Apply by OSHA rules

* Install under dry soil conditions

* 3 bedroom TL-2 sand pad w/ GeoMat

* Time Dose (4 doses/day)

* See pgs 11 + 12 of 21 for pad details

* All utilities are overhead + underground along the front property line *

* PuraSys tank must be 10' + from the house

* 1" difference in pad elevations

Inverse Relative Elevations

11 = 3'3"

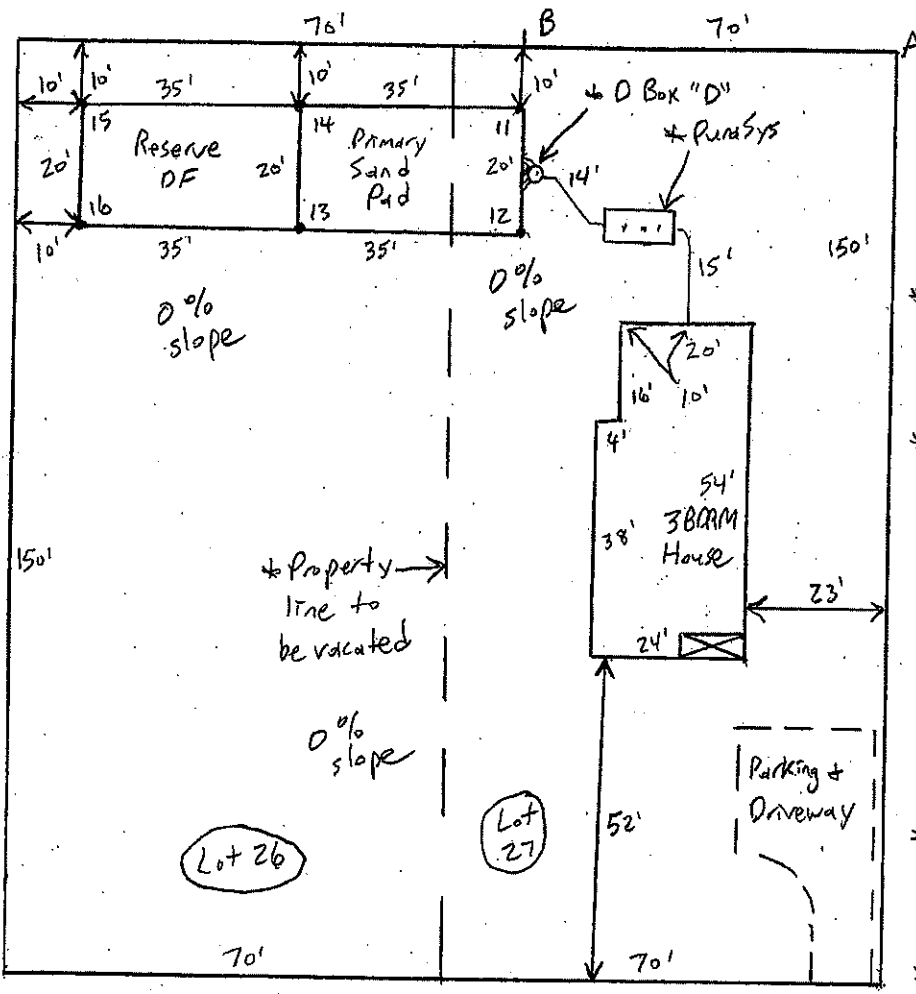
12 = 3'2 1/4"

13 = 3'2"

14 = 3'2 3/4"

* Hole 11 is the lowest + hole 13 is the highest

* See pg 8 of 21 for sanitary



* Property line to be vacated

0% slope

0% slope

Lot 26

Lot 27

Delaware Dr
50' R/W

A-B = 60'
A-D = 61'
B-D = 21'



Sewage Disposal System Construction Specifications for Use with Pad System

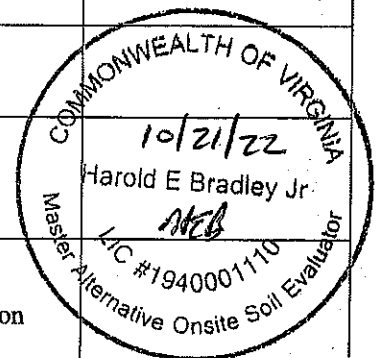
General Information

New Repair Expanded Owner Nick MedlinTelephone 434-774-4535Address 179 Muriel Dr, Heathsville, VA 22473For a Type II Sewage disposal system which is to be constructed on/at 0 Delaware Dr, Heathsville, VA 22473; TM #11B-11-26 & 27Subdivision Bay Quarter ShoresSection K

Block _____

Lot 26 & 27Actual or estimated water use 450 gallons per day or 3 bedroom house

DESIGN	NOTES
Water supply, existing: (describe) <u>Central Supply</u> To be installed; class _____ cased _____ grouted _____	
Building sewer: <u>3"-4" I.D. PVC 40 or equivalent.</u> Slope <u>1.25" per 10' (minimum).</u> <input type="checkbox"/> Other _____	
Septic tank: Capacity _____ gals. (minimum). <input checked="" type="checkbox"/> <u>1,500 gallon baffled concrete PuraSys tank (1,000 gallons + 500 gallons)</u>	
Inlet-outlet structure: PVC 40, 4" tees or equivalent. <input type="checkbox"/> Other _____	
Pump and pump station: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> describe and show design If yes: <u>See pump data sheets: Ebara Opitma Pump; Time Dose; 4 doses per day</u>	
Gravity mains: <u>3" or larger I.D., minimum 6" fall per 100', 1500 lb. Crush strength or equivalent.</u> <input checked="" type="checkbox"/> Other <u>~9' of 2" schedule 40 PVC force main w/ 5' of 4" PVC coming into D Box (~14' total)</u>	
Distribution box: Precast concrete or HDPE with _____ ports. <input checked="" type="checkbox"/> Other <u>10+ port HDPE D Box</u>	
Header lines: Material: <u>4" I.D. 1500 lb. Crush strength plastic or equivalent from distribution box to 2' into absorption pad. Slope 2" per 100' (minimum).</u> <input checked="" type="checkbox"/> Other <u>4" schedule 40 PVC</u>	
Pad Area: ** Level surface Square ft. required <u>700; Length 35'; Width 20'; Depth of sand 6"</u>	
GeoMat Design: Use <u>2" schedule 40 PVC GeoMat pipe run along the center of the GeoMat</u> Number of rows <u>7</u> ; Length of GeoMat <u>33'</u> ; Width of GeoMat <u>12'</u> ; Center to center spacing <u>2.5'</u>	* Dispersal point is the bottom of the GeoMat / Not the bottom of the sand *
Secondary Treatment: Type of System: <u>TL-2</u> <input checked="" type="checkbox"/> Components: <u>Anua PuraSys SBR Model PS1-5 (500 gpd)</u>	



Pg 11 of 21

**Specifications for GeoMat
Using ASTM C33 Sand or Equivalent
O DELAWARE DRIVE
HEATHSVILLE, VA**

Water Supply:

Existing: Central Supply Proposed: _____

Sewage Systems:

System Type: TL-2 PS1-5 (PuraSys)

Gallons Per Day: 450

Septic Tank: 1000

Treatment Reactor Tank: 500

Conveyance: 2" HDPE 1-1/4" PVC Sch. 40

Distribution Box: YES Is It Centered on the system? YES

Total System Length: 35 ft. Length Available: 35 ft.

Total System Width: 20 ft. Width Available: 20 ft.

Area of System Finishing Above Grade 41 L x 26 W (Plus 3' stabilization fill all around unless sloping. See sketch.)

Sand Bed Installation Depth: -6" to -7"

Finish Height: +12" (18" - Install depth)
above original grade

Square Foot of GeoMat Used: 231 Square Foot Required: 225

Layout of GeoMat: 7 Rows Sand Width of Rows: ft. GeoMat Row length: 33 ft.

Spacing between rows of GeoMat: 1.5 ft. or between rows of Sand: ft.

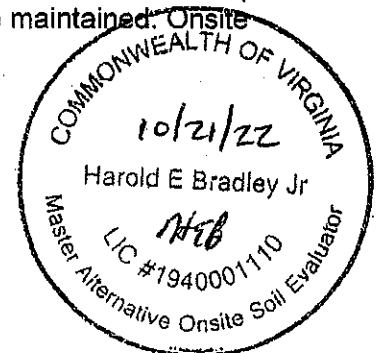
Approx. tons of Sand: 20 Approx. yards sandy soil cover to support mound:

Perk Rate: 60 min/in Hydraulic Loading Rate: 0.65 gpd/sq.ft.

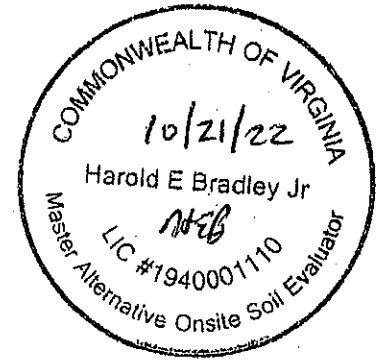
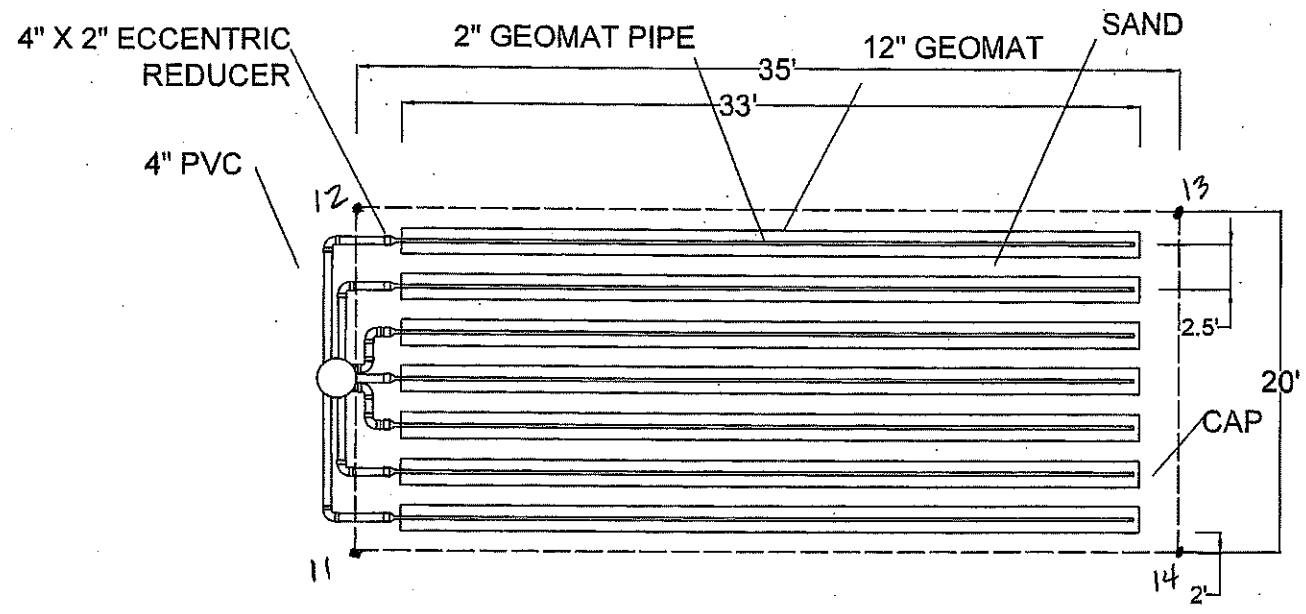
Area Required: 450 gpd ÷ 0.65 gpd/sq.ft. = 693 Area in Design: 700 sq.ft.

Note:

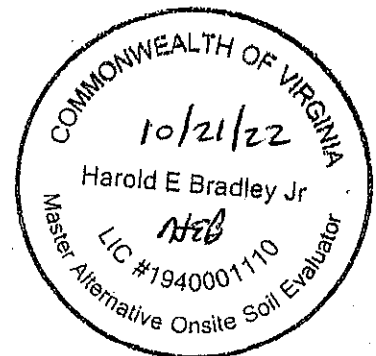
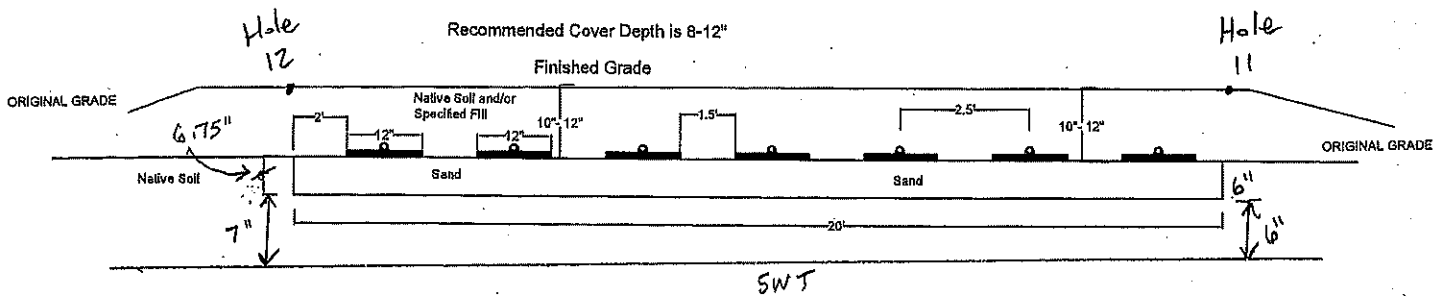
Mound must be stabilized with 3-6" clean loam and grass seed. Installer to seed and straw when complete. Depth of cover over Sand must be under 18" at all points, 8-12" of cover should be maintained. Onsite material may be used.



(Top View)
0 DELAWARE DRIVE
HEATHSVILLE, VA

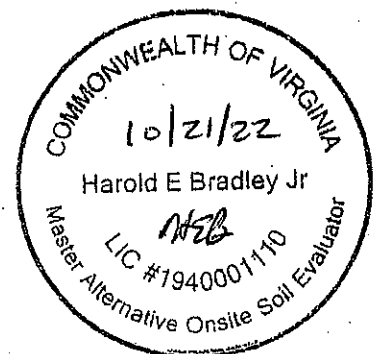


(End View)
0 DELAWARE DRIVE
HEATHSVILLE, VA



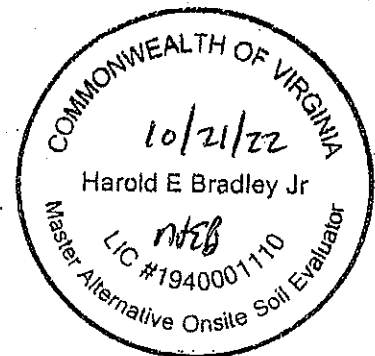
Septic System Construction Notes

- No buried utility service shall be closer than 10 feet to any part of the system.
- Installation **MUST** follow OSHA codes.
- Do not install drain field system during periods of wet weather or wet soil conditions.
- Harold Bradley, MAOSE #1940001110, does not recommend the use of garbage disposals with septic systems unless an additional dedicated grease trap is installed.
- If a water softener/conditioner system is used do not connect the back-wash to the septic system. Doing so can result in premature failure of the septic system.
- The drain field trenches/pad shall be placed on contour (following level grade).
- Roof drains, basement sump discharges (non-sewage), floor drains, footing drains, etc. are prohibited from being connected to this system.
- Keep all permanent structures and driveways off the drain field area and reserve area.
- Trees and plants such as weeping willows, maples, gums, willow oaks and other water loving species should be removed if within 50 feet of the drain field or any component of the septic system. *Entire drain field must be clear of all vegetation in order to properly install drain field trenches!*
- Protect primary and reserve drain field areas from vehicular traffic during construction. Disturbance of these areas may be grounds to render this permit null and void.
- This sewage disposal system and/or water supply is to be constructed as specified by the permit, this drawing and the attached specifications. Harold Bradley, MAOSE #1940001110, must be notified prior to any suggested changes to the design. **Any changes made to drainfield area, depth, or materials without this notification may be grounds to render this permit null and void.**
- **Harold Bradley, MAOSE #1940001110, must be notified at least 2 business days prior to the final inspection.** Unless agreed upon beforehand, the inspection will take place for the **uncovered** installed septic system. *If any part of the installation has been covered prior to approval, it shall be uncovered if necessary, at the time and expense of the contractor.* A pump tank draw down is required for pump systems. **There is a charge for this inspection.** If pump tank is not ready to be drawn down upon initial inspection, an additional charge will be added to the invoice. *Please call (804) 399-5002 to arrange for the inspection.*



Special Site Clearing and Preparation Notes

1. This system must be installed during dry weather conditions and when soil moisture conditions within the disposal area merit installation without smearing drainfield trench/pad walls. If the conditions are in question, please contact Harold Bradley, MAOSE, at (804) 399-5002 at least 2 business days before construction of the drainfield is scheduled to begin, and the site conditions will be confirmed.
2. Refer to the Construction Drawing for any special requirements.
3. *In order to avoid compaction and other damaging impact to the soil in the drainfield area (primary & reserve), do not allow any access to the area by construction traffic of any type, this includes heavy equipment and personal vehicles. The owner/applicant is ultimately responsible for the protection of the drainfield area(s).*
4. Trees within the disposal area must be removed in the following manner. Fell trees by cutting the trunks close to the ground surface. Remove trunks and limbs from the disposal area by cutting them into pieces and transporting by hand or by using ropes or chains that allow equipment sitting outside the disposal area to drag the material offsite. Stumps in the trench or pad area that are 10" or more in diameter must be ground to a depth of at least 2 inches below the absorption trench/pad installation depth. Wood chips from the stump pulverizing process must be removed as much as possible, and the resulting holes filled with sand, loamy sand or sandy loam which is granular, free of organic matter, and will not sort or compact and form impediments to water movement. Stumps less than 10" in diameter may be left to be removed as needed by the absorption trench/pad installation process. *All clearing should be done in dry weather, when the disposal site is dry.*
5. No machinery is to be operated on the drain field site other than the minimum necessary to construct the absorption system. **Under no circumstances shall machinery be operated on a disposal site when the soils are wet.** *Machinery used within the disposal site to install and backfill the system and restore final grade to the site shall be lightweight, low ground pressure type track equipment.*



Pump Chamber / Dosing Volume / Drawdown Calculations

Health Department I.D. #:
 Property Identification Bay Quarter Shores, Sect K, Lots 26 & 27

Number of Trenches 1
 Length of Trenches 35 Feet
 Width of Trenches 20 Feet
 Width of Pump Chamber 3.0 Feet 36 Inches
 Length of Pump Chamber 4.6 Feet 55 Inches
 Estimated Gallons per Day 450 G.P.D.
 Size of Force Main 2 Inches (1.5, 2, 3)
 Total Length of Force Main 14 Feet
 Length of Force Main on Slope 14 Feet
 Degree of Slope (Percent) 0 Percent
 Number of 90 Degree Bends 3 Each
 Number of 45 Degree Bends 2 Each
 Min./Max. Design Flow: Min. 16 gpm Max. 84 gpm
 Design Flow for System 36 gpm

Simplex System may be used, as System is less than 1,800 Linear Feet

Tank size	500 gallons
Number of Gallons per Inch	9 Gallons / Inch
Drawdown Required	14 Gallons
Drawdown In Inches	2 Inches
Quarter Day Storage Required	113 Gallons
Quarter Day Storage In Inches	13 Inches

Time Dose
 * up to 450 gpd
 * 4 doses/day

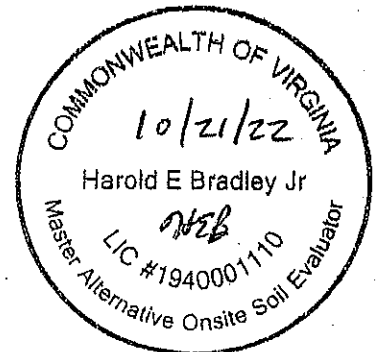
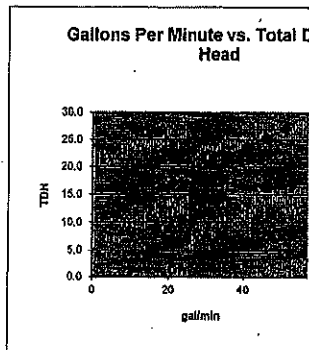
Minimum Design Flow 21 G.P.M.
 Drawdown Time 0.7 Minutes
 Maximum Design Flow 84 G.P.M.
 Drawdown Time 0.2 Minutes

Design Flow for System	36 G.P.M.
Drawdown Time	0.4 Minutes

Total Elevation Head 4 Feet
 Total Friction Loss 6.29 Feet
 Total Head to Overcome 10.29 Feet

Projected Pump Curve Data:

G.P.M.	T.D.H.	Feet
21	17.2	Feet
26	18.8	Feet
31	20.5	Feet
36	22.1	Feet
41	23.8	Feet
46	25.4	Feet
51	27.1	Feet



Model EPD/OPTIMA

Features

- High quality stainless steel (*Note:* Optima has Noryl impeller)
- Available in 1/3, 1/2, 3/4, 1, 1 1/2 HP models
- Single and three phase models available
- Air filled, continuous duty rated, permanent split capacitor motors
- Built-in thermal protection with automatic reset
- Built to operate whether fully or partially submerged
- Oil lubricated double mechanical shaft seal (1/2 - 1 1/2 HP models)
- Temperature rating to 122°F/50°C; 140°F/60°C intermittent duty
- 20' UL/CSA approved, water resistant #16 AWG cord
- Capacities to 88 GPM, heads to 62 feet
- Optima and EPD slimline automatic models can operate in a 12" diameter or 8" x 8" square basin

Applications

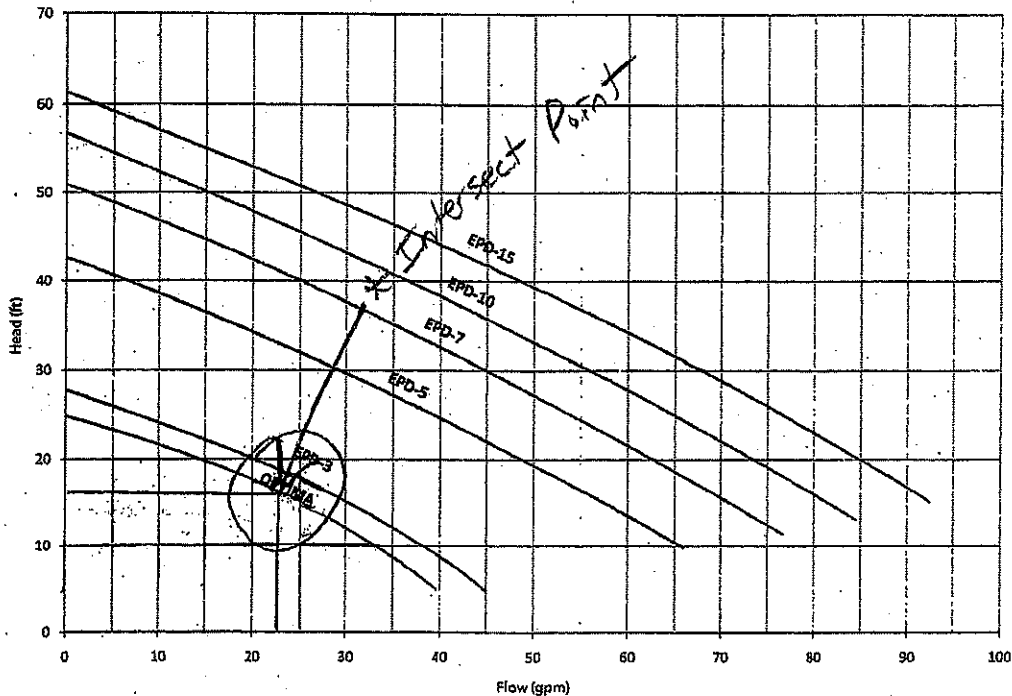
- Residential
- Commercial
- Industrial
- Drainage
- Seepage
- Effluent/containment transfer
- Waste water (from trays, wet bars, washing machines)
- Empty water storage structures
- Decorative fountains
- Irrigation
- Mound systems, leach fields
- Move water/effluent to sewage systems

Pg
17
of
21



*Note: UL and CSA listed; Model Optima UL certified only.

EPD, Optima selection chart



the optima pump is projected to deliver 23 gpm



EBARA Fluid Handling

1651 Cedar Line Drive • Rock Hill, SC 29730 • telephone: (803) 327-5005 • fax: (803) 327-5097

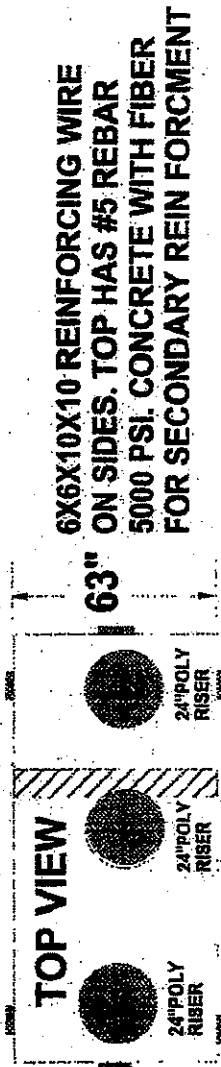
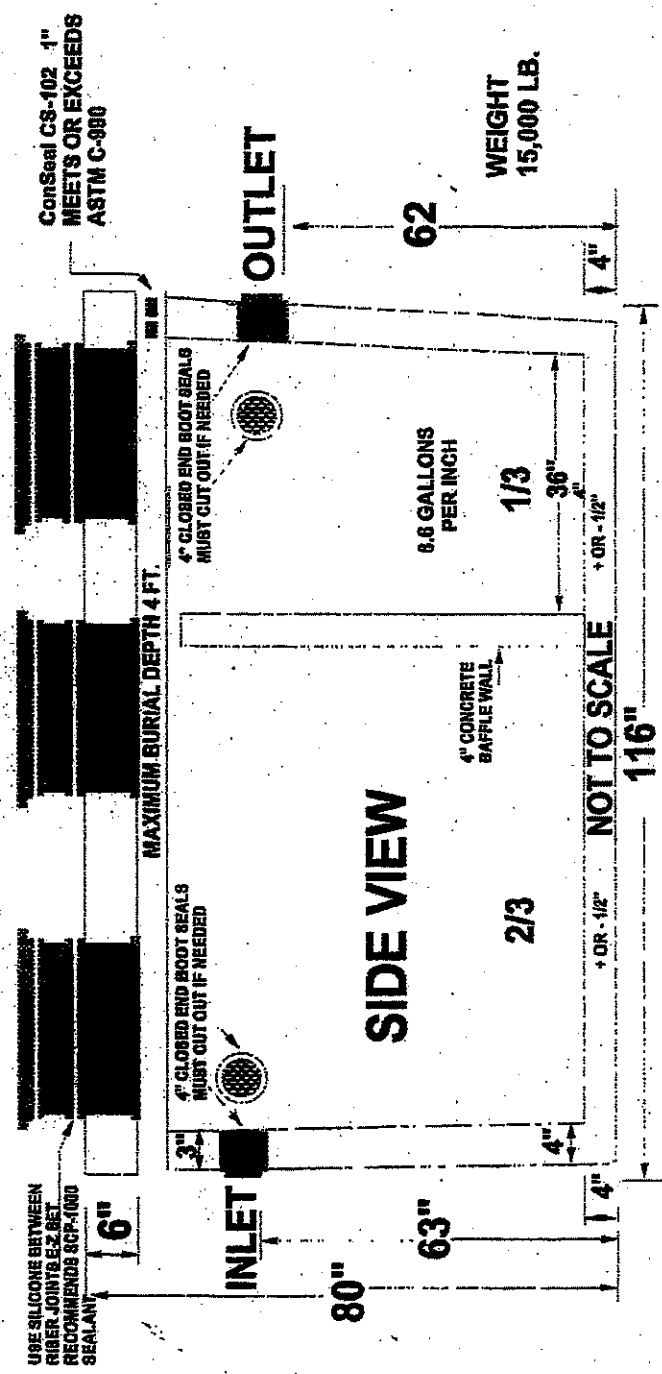
www.pumpsebara.com

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EFHEPD 1011

HANOVER PRECAST

1500 GALLON PURASYS SBR COMBINATION SEPTIC REACTOR TANK "2,3&4 BEDROOMS"



INLET & OUTLET HAVE 4 INCH CLOSED END BOOT SEALS MEETS OR EXCEEDS ASTM 1227 & ASTM 923

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(804) 798-2336 FAX (804) 798-2331 REVISED JUNE 2018 COMBO SEPTIC /REACTOR

GeoMat Abbreviated Design Form (Advanced Secondary / TL-2 or TL-3)

For use with gravity and pump drain fields when applying for a certification letter, construction permit or subdivision approval.

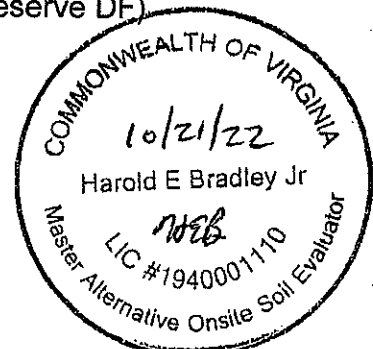
Design Basis

- A. Estimated Percolation Rate 60
- B. Absorption area, square feet required per bedroom (from GeoMat sand sizing chart for VA) 230.8
- C. Number of bedrooms 3

Area Calculations

- D. Length of pad 35' Length of available area 70'
- E. Width of pad 20' Width of available area 20'
- I. Total square footage required (line B times line C) 692
- J. Square footage in design [(D*E)] 700
- K. Is a reserve area required? Yes No
- L. Depth of install 6"-7"

Lot: Bay Quarter Shores, Sect K, Lots 26 & 27 (Primary & Reserve DF)



Certification Statement

County: Northumberland

Date: 10-20-2022

Property Identification: Bay Quarter Shores, Sect K, Lots 26 & 27; Tax Map #11B-11-26 & 27; 0.48 acres; 0 Delaware Dr, Heathsville, VA 22473

Submitted by: Nick Medlin / Harold Bradley

This is to certify according to §32.1-163.5 of the *Code of Virginia* that work submitted for the referred property is in accordance to and complies with *the Sewage Handling and Disposal Regulations* of the Virginia Department of Health. I recommend a construction permit¹ be issued².

AOSE Harold Bradley Date: 10-20-2022
Harold Bradley, MAOSE #1940001110, (804) 399-5002

Soil Consultant _____ Date: _____

If the submission contains a certification by a professional engineer in consultation with an AOSE, the following statement shall be signed and sealed:

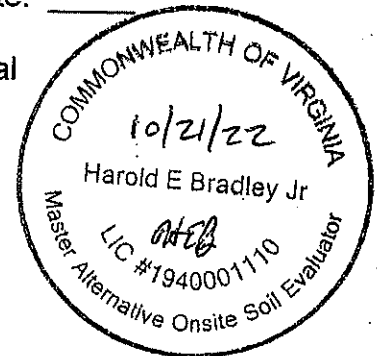
I hereby certify that the evaluations and designs contained herein (refer to subdivision, lot, etc.) were conducted in accordance with the *Sewage Handling and Disposal Regulations* (12 VAC 5-610-10 et. Seq., the "*Regulations*") and the policies of the Virginia Department of Health for implementation of those *Regulations*. Furthermore, I certify that the evaluations and designs comply with the minimum requirements of the *Regulations*.

I recommend a _____¹ be _____².

Licensed PE: _____

Date: _____

Seal



¹ This blank must be filled in with one of the following terms: 'construction permit', 'certification letter', 'subdivision approval', 'voluntary upgrade', or 'repair permit'.

² This blank must be filled in either the term 'issued' or 'denied'.