



GeoEnvironmental Services, Inc.

MAOSE Report for

Subdivision Approval Letter	
Location of property: East Side of Secretarys Sand Road	Secretarys Ridge Lot 10; Part of Parcel ID: 11900-00-00-05200; Albemarle County; Acreage: 6.90 ac;

Applicant or Client and address: Lee's Branch LLC 206 South Avenue Harrisonburg, VA 22801	Prepared by OSE: Keith M. McQuiddy GeoEnvironmental Services, Inc. P.O. Box 1555 Mechanicsville, VA 23116 804-730-8220
Date of this report: 6/22/22	OSE/PE Job Number: n/a
Revision Dates: n/a	Health Dept. ID No.: n/a

Contents of this report:

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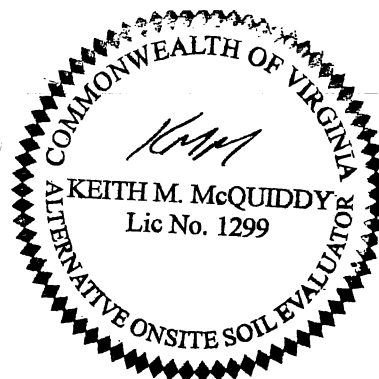
Certification Statement:

I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-615), and other applicable policies of the Virginia Department of Health. Furthermore, I certify that my evaluation and/or design contained herein complies with all applicable laws, regulations, and policies implemented by the Virginia Department of Health.

The work attached to this cover page has been conducted under an exemption to the practice of engineering, specifically the exemption in Code of Virginia Section 54.1-402.A.11.

I recommend a Subdivision Approval be approved.

OSE Keith M. McQuiddy # 1940 001299
Keith M. McQuiddy



*The OSE wishes to be contacted if a Level II review is necessary.

Commonwealth of Virginia

Application for: X - Sewage System X -Water Supply

VDH Use Only

Health Department ID# _____

Date Received _____

Owner: Lee's Branch LLC

Phone (540) 908-8757

Mailing Address: 206 South Avenue, Harrisonburg, VA 22801

Phone _____

Agent: n/a

Phone _____

Mailing Address: n/a

Phone _____

Site Address: East side of Secretarys Sand Road

Email _____

Directions to Property: From Albemarle County Health Department: Get on US-250 W/US-250 BYP W from Rugby Ave 3 min (0.7 mi) Take US-29 S to N Garden Ln in North Garden 14 min (12.9 mi) Take Plank Rd and Alberene Rd to Secretarys Sand Rd in Schuyler 17 min (10.2 mi)

Subdivision: Secretarys Ridge Section: n/a Block: n/a Lot: 10

Part of Parcel ID: 11900-00-00-05200 Tax Map#: n/a Dimension/ Acreage Of property 6.90 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.

X Certification Letter Construction Permit Voluntary Upgrade Repair Permit Minor Modification

Proposed Use:

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

Other (describe) _____

Basement? Yes X No

Walk-out Basement? Yes X No

Fixtures in Basement? Yes X No

Conditional permit desired? Yes X 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 X No * A \$50 fee for determination of eligibility.

Water Supply

Will the water supply be X Private or Public?

Is the water supply Existing or X Proposed?

If proposed, is this a replacement well? Yes X No

If yes, will the old well be abandoned? Yes No

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

Well type (e.g. domestic use, agricultural, irrigation, etc.) Domestic Use

All Applicants

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

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

In order for VDH to process your application for a sewage system you must attached 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.

Signature of Owner/ Agent

Date

ABBREVIATED DESIGN FORM
PRIMARY
TYPE I – CONVENTIONAL GRAVITY

DESIGN BASIS

- A. a. Estimated Percolation Rate: 50 min/inch
 b. Recommended trench bottom 22-24 in
 c. Depth to seasonal high water table _____ or to impervious strata X 42 in
 d. Minimum separation required 18 in
 e. Separation distance in inches provided in design (Ac-Ab) 18-20 in
 f. Minimum trench bottom due to slope $[(\% \text{ slope}-8)/2 + (12 \text{ or } 18)]$ 18 in
 g. Is the slope greater than 10% No
 h. If Ag is Yes, does greater than 24 inches to rock exist below Ab n/a
 i. If yes to Ah, add 1 ft. to the minimum center to center spacing beginning at 20% slope and continue for each 10% slope increase above 20%. If no to Ah, add 1 ft. to the minimum center to center spacing beginning at 10% slope and continue for each 10% slope increase above 10%. (Report the value of the increase in center-to-center spacing above the minimum.) n/a
- B. Trench bottom area required per bedroom
 (From Table 5.4 based on Gravity X LPD _____): 376 sq.ft.
- C. Number of bedrooms: 3

TRENCH CALCULATIONS

- D. Length of Trench 70 ft. Length of Available Area 70 ft.
- E. Width of Trench 3 ft.
- F. Number of Trenches 6
- G. Center-to-Center Spacing 9 ft.
- H. Width Required 48 ft. Width of Available Area 58 ft.
- I. Total Area Required (BxC) 1,128 sq.ft.
- J. Design Area (D x E x F) 1,260 sq.ft.
- K. Reserve Area Required? Yes X No _____
 a. Percent required 100%
 b. Percent available 100% - see separate design on page 4

ABBREVIATED DESIGN FORM
RESERVE
E-Z TREAT to PAD

DESIGN BASIS

Install Pad Bottom: 22-24 in.

Estimated Percolation Rate: 50 min/in.

Design Flow: 450 gal./day

Active Pad area required
 (450 gal/day) / (0.67 gal/day/sq.ft): 672 sq.ft.
 calculated using Table 1 of *The Regulations for Alternative Onsite Sewage Systems*
 (TL-3 effluent quality)

Septic Tank Size: 1000 gal X

PERCOLATION AREA DESIGN

Total Pad Area Required 672 sq.ft.

Design Area 70' x 10' = 700 sq.ft.

Length of Pad 70 ft.

Width of Pad 10 ft.

Pad Thickness 22-24 inches *Stone aggregate required

MINIMUM SEPARATION DISTANCES

To Bedrock or Impervious Strata 42 in.

To Wetness Features n/a in.

Other Restrictions:
limit of evaluation n/a in.

SOIL SUMMARY REPORT

SOIL INFORMATION SUMMARY

Position in Landscape: Satisfactory X Unsatisfactory Slope: 4-6%

Description: Proposed drainfield occupies an upland sideslope topographic position and has good surface drainage.

Depth to Rock or Impervious Strata: None Max. X Min. 42 Inches

Depth to Seasonal Water Table (Gray Mottling or Gray Matrix Color): None X ; Inches

Free Water Present: No X ; Range: Inches

Soil Percolation Rate 50 min/inch Estimated X Field Test ; Soil Texture Group III

Permeability Test Performed: No X Yes

Recommended Trench Bottom 22-24 Inches

Reserve Drainfield Required: Yes X No Percent Available Area 100%

System Type: Gravity X Pump / Enhanced Flow

Water Supply: Public ; Class IIIA ; Class IIIB ; Class IIIC X

NOTE: See the site sketch for the location of the homesite, drainfield, well, and driveway (when applicable).

SOIL PROFILE DESCRIPTIONS REPORT *

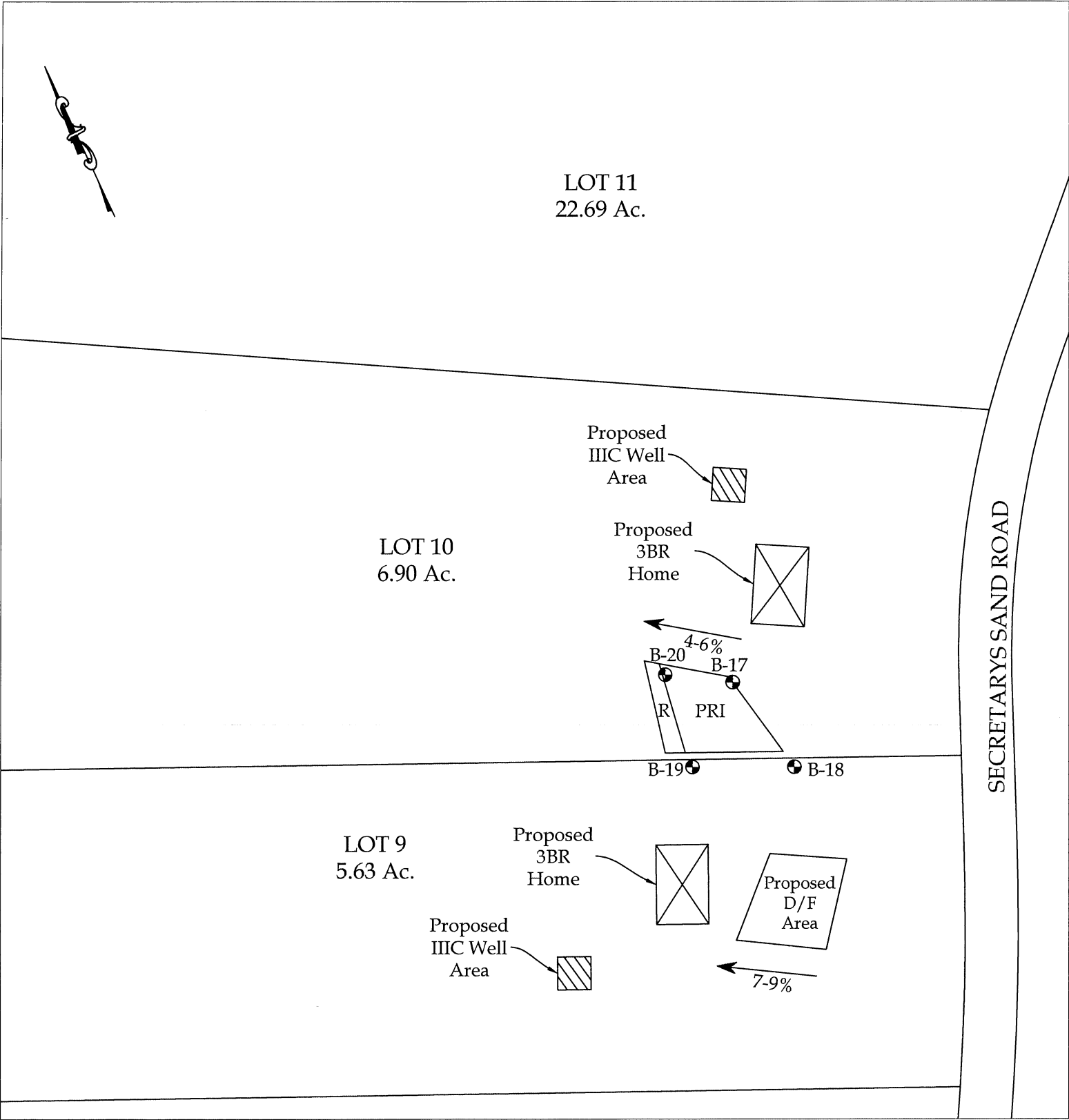
Site Evaluation: March 30th, 2022 & April 20th, 2022

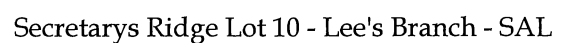
HORIZON	DEPTH INCHES	DESCRIPTION OF COLOR, MOIST CONSISTENCE, TEXTURE, STRUCTURE	TEXTURE GROUP
Boring# 17			
A	0-8	Brown (10YR 4/3); friable; sandy clay loam	IIB
BC	8-32	Yellowish red (5YR 5/6); friable; light clay loam with few mica flakes present	III
C	32-42	Yellowish red (5YR 5/6) mottled with common medium distinct reddish yellow (5YR 6/8), yellowish brown (10YR 5/6), and brownish yellow (10YR 6/6); friable; loam to micaceous loam with many mica flakes present	IIB
Boring# 18			
A	0-6	Brown (10YR 4/3); friable; light sandy clay loam	IIB
Bt	6-40	Red (2.5YR 4/6); friable; clay loam with few mica flakes present	III
BC	40-54	Red (2.5YR 4/6) mottled with common medium distinct strong brown (7.5YR 5/6); friable; loam with many mica flakes present	IIB
C	54-60	Variegated yellowish brown (10YR 5/6), red (2.5YR 4/6), reddish yellow (5YR 6/8), and strong brown (7.5YR 5/6); friable; micaceous loam with parent material fragipans present	IIB
Boring# 19			
A	0-8	Brown (10YR 4/3); friable; sandy clay loam	IIB
BC	8-32	Yellowish red (5YR 5/6); friable; light clay loam with few mica flakes present	III
C	32-42	Yellowish red (5YR 5/6) mottled with common medium distinct reddish yellow (5YR 6/8), yellowish brown (10YR 5/6), and brownish yellow (10YR 6/6); friable; loam to micaceous loam with many mica flakes present	IIB
Boring# 20			
A	0-8	Brown (10YR 4/3); friable; sandy clay loam	IIB
BC	8-32	Yellowish red (5YR 5/6); friable; light clay loam with few mica flakes present	III
C	32-42	Yellowish red (5YR 5/6) mottled with common medium distinct reddish yellow (5YR 6/8), yellowish brown (10YR 5/6), and brownish yellow (10YR 6/6); friable; loam to micaceous loam with many mica flakes present	IIB
Remarks: The soils of this site have developed from the weathering products of granite gneiss and mica schist of the Piedmont Physiographic Province. These soils are deep and well drained. This site occupies an upland topographic position and has good surface drainage.			

* The location of soil evaluation profile holes is shown on the site sketch, which accompanies this report. The site sketch includes the estimated or measured location of all known wells, sewage disposal systems, springs and structural features within 200 feet of the proposed drainfield and reserve drainfield sites.

SITE SKETCH

Scale: 1" = 100'





**Addendum to OSE/PE Certification Statement
For Private Well Construction Permit
Secretarys Ridge Lot 10; Part of Parcel ID: 11900-00-00-05200; 6.90 Acres**

Instructions: Please check one box in 1-3 below. Statement templates for item #2 and #3 are on the following pages.

The proposed well site shown herein,

- ☒ 1. Is located a minimum of 50 feet from all property lines.
- ☐ 2. Is located within 50 feet of the adjacent property line(s) but I have determined that the adjacent property is not used for an agricultural operation.
 - ☐ i. Written affirmation from the adjacent property owner(s) that their property is not used for an agricultural operation.
 - ☐ ii. Other confirmation that land use is not an agricultural operation, please describe: See recorded subdivision plat
- ☐ 3. Is located within 50 feet of adjacent property line where the property is used for an agricultural operation. For confirmation, I have attached the appropriate documentation pursuant to § 32.1-176.5:2 of the *Code of Virginia*. (check one below)
 - ☐ i. Written permission from the adjacent property owner(s) for the well construction.
 - ☐ ii. I certify that on other site on the property complies with the Board's Regulations for the construction of a private well.

NOTICE TO OWNERS AND SEPTIC SYSTEM INSTALLATION CONTRACTORS

GeoEnvironmental Services, Inc. (GESI) will be required to inspect the installation of the septic system and generate a completion statement for the health department. **There will be a fee charged to the installation contractor for this inspection.** Installation contractors may call GESI at 804-730-8220 prior to bidding the installation of the system to determine fees for this inspection. *A Completion Statement from GESI will not be released until our invoice for the inspection(s) is paid in full.*

GESI requires a minimum 48 hours notice be given prior to an inspection. It is recommended that as many of the components of the septic system as possible be installed, exposed, and operational during the inspection (including pumps) in order to limit the number of site visits. Failure to give an advanced notice of 48 hours to schedule an inspection may result in additional inspection fees for potential scheduling conflicts. Multiple site visits to inspect incomplete work or work that requires modifications will result in additional inspection fees.

Virginia law requires all septic systems be installed by a DPOR Licensed Onsite Sewage System (Septic) Installer. Owners that contract with an installer that is not properly licensed may be subject to action that relieves the OSE and the septic system design Company from any and all liability for the performance of the sewage disposal system. Failure of the installation contractor to prepare the soil absorption area or install the sewage disposal system in accordance with the plans and specifications of the design professional will result in action that relieves the OSE and the septic system design Company from any and all liability for the performance of the sewage disposal system.

ATTENTION

The installation contractor must install the sewage disposal system in accordance with the plans and specifications contained herein. No modifications or component substitutions should be made without prior authorization from the OSE. Failure to install the sewage disposal system as planned and specified by the OSE may result in action to void the permit.

A pre-construction investigation may be required prior to the installation of the sewage disposal system. The installation contractor must contact the OSE prior to the installation to schedule the pre-construction meeting if there are any questions about the plans and specifications contained herein or the soil absorption area has been altered or impacted in any way.

Soil absorption areas (drainfield) are very sensitive and require protection from grading and compaction or encroachment by heavy equipment and any other construction activity not related to the septic system installation. Regardless of the depth of the proposed installation, the soil absorption area is an extremely sensitive environmental resource that requires protection. The drainfield must be installed during "DRY SOIL CONDITIONS". It is important that clearing, grading and construction work in the vicinity of the drainfield be carefully planned to protect the septic system being proposed. The drainfield should be protected from vehicular and construction traffic and cannot be used for storage of construction materials.

If trench lines in the drainfield are designed to be installed at 18-24" additional protection is required. No heavy machinery may be used to clear the drainfield. It is very important that the soils are not compacted and that topsoil is not removed during clearing. Wooded sites should have the leaf litter remaining after the trees are removed. Trees larger than 12 inches in diameter 3.0 feet above the soil surface are to be cut as near the soil surface as possible and the stump left in place. Stumps are not to be removed by excavation with a backhoe! Stump removal should be done with a stump grinder. The maximum depth of stump grinding is 18 inches below the natural soil surface. The site is not to be "root-raked".

FACTS EVERY SEPTIC SYSTEM OWNER SHOULD KNOW

Before installing your system:

- Rope off the area of your system and protect it from vehicles.
- Caution your builder to avoid system area during home construction.
- Do not allow stripping of top soil or grading in the area of the system.
- Do not allow system installation in wet or frozen soil conditions. Soil must be loose, dry, unsmeared, and uncompacted.
- Keep downspout and footer drains out of your septic system.
- Seed your system area as soon as weather permits.
- Divert all surface water from system area.

Conserve water:

- Water conservation prolongs your system life, saves you money, and need not be a personal inconvenience.
- Install low flow showerheads, faucet aerators, and install toilet bottle kits or tank displacement devices (if new construction purchase low flow commodes). These devices can save a family of four over 100 gallons per day. Cost for these devices is only about \$20-70 and will save \$100-300 each year.
- See your local plumbing supplier and most major department stores.
- Purchase a front loading washer, they use 1/3 less water than top loaders.
- Take showers, they use less water than baths.
- Promptly repair leaky faucets.
- Use the clothes washer and dishwasher only when you have full loads.
- Contact your local DER office for more information.

Pump your septic tank:

- Septic tanks must be pumped regularly (at least every 2-3 years)
- Tank pumping helps prevent more expensive system problems. Waiting for evidence of system problems (spongy lawn or sluggish toilet) may be too late for pumping to help.
- Pump your tank through large central manhole, not the small baffle opening.
- Be sure tank pumper agitates tank contents before pumping. Solids and floating scum must be mixed before removal.
- Carefully mark the location of your septic tank.
- Sewage grinders and garbage disposals increase solids build-up in your tank. More frequent pumping should occur.
- Never enter a septic tank.
- Information on septic system maintenance can be obtained from the local VDH office.

Helpful Hints:

- Place a copy of your sewage permit and yellow application in a safe place. This information will be important for future use.
- No septic tank additives have been proven beneficial for septic tank operation. Some may even be harmful. Regular tank pumping is the best advice to prolong your system's life.
- Before repairing or replacing your system (even a new septic tank), a new sewage permit from the municipal sewage enforcement officer will be needed.