



Caroline County Health Department
 PO BOX 6
 Bowling Green, VA 22427
 (804) 633-6237 Voice
 (804) 633-6349 Fax

OSE Construction Permit - ALLOW 5 BUS. DAYS FOR OP ISSUANCE
Well and Sewage Contractors: Please notify Health Department and OSE or PE 48 hours prior to installation to arrange for inspection - **THIS IS REQUIRED!**

January 18, 2023

Andrew & Rachel Nalls
 10321 Woodland Way
 King George, VA 22485

RE: 555 Main St., Port Royal, VA 22535
Tax Map: 13A-1-A-22 **HDID:** 033-23-0008-SP **Reserve:** no reserve area provided
System Capacity: Non-Residential, Store & Machine Shop, 6 Employees, 300
 GPD, Private Employee Restroom, PWS, **Permit Expires:** July 18, 2024

Dear Andrew & Rachel Nalls:

This letter and the attached drawings, specifications, and calculations (11 pages) dated June 21, 2021, and *email from the OSE dated January 13, 2023 reporting there has not been a change to the drainfield area on the property*, constitute your permit to install a sewage disposal system 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 construction were certified by Rodney Whittaker, 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. The attached drawing shows the approved area for the sewage disposal system; there are additional records on file with the Caroline County Health Department pertaining to this permit, including the Site and Soil Evaluation Report. 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 building, 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 Caroline County Health Department.

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 Caroline County Health Department 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 Caroline County Health Department.

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.

This permit expires: **July 18, 2024.**

Sincerely,



Vickie Vaughn
Environmental Health Specialist, Sr.
Caroline County Health Department

CC: Rodney Whittaker, Private OSE

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 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 Caroline County Health Department at (804) 633-6237 x 2215.

Nalls Permit Extension

Rodney Whittaker <whittakersoils@gmail.com>

Fri 1/13/2023 11:48 AM

To: Vaughn, Vickie (VDH) <Vickie.Vaughn@vdh.virginia.gov>

Hello Vickie,

There has not been a change to the drainfield area on the property, tax map 13-A-1-A-22. The owners are Andrew and Rachel Nalls and they want to extend the permit package. I am good with extending this permit, since the property has not been altered.

Thank you,
Rodney Whittaker

Commonwealth of Virginia

Application for: Sewage System Water Supply

Owner Rachel Walls + Andrew Walls

Mailing Address 10321 Woodland Way
King George, VA 22485

Agent _____

Mailing Address _____

Site Address 555 Main St
Port Royal, VA

Directions to Property: _____

Subdivision _____ Section _____ Block _____ Lot _____

Tax Map 13A-1-A-22 Other Property Identification _____ Dimension/Acreage of Property _____

Case # 13A-1-A-22
VDH Use Only
Health Department ID# 033-230008-5F
Due Date Receipt # 23071250
CR # 3554
Phone 540-314-0434
Phone _____
Fax _____
Phone _____
Phone _____
Fax _____
Email kgmobilerepair@aol.com

Sewage System (New Construction)
Construction permits are valid for 18-months. Owners are advised to apply for a construction permit if they intend to build within 18 months of completing this application. Certification letters do not expire, may be recorded in the land records, and transfer with a property sale. For which are you applying? Certification Letter Construction Permit

Sewage System (Existing Construction)
Check all that apply: Repair Modification Expansion Replacement Upgrade
Do you wish to apply for a betterment loan eligibility letter? _____ If yes, there is a \$50.00 fee for determination of eligibility.

Sewage System (New or Existing Construction)
 Single Family Home (Number of Bedrooms _____) Multi-Family Dwelling (Total Number of Bedrooms _____)
 Other (describe) Commercial Building
Basement? Yes/No (circle one). Walk-out Basement? Yes/No (circle one) Fixtures in Basement? Yes/No (circle one).
Conditional permit desired? Yes/No (circle one). If yes, which conditions do you want?
 Reduced water flow Limited occupancy Intermittent of seasonal use Seasonal or temporary use not to exceed 1 year

Water Supply
Will the water supply be Public or Private (circle one). Is the water supply Existing or Proposed (circle one).
If proposed, is this a replacement well? Yes/No (circle one). Will the old well be abandoned? Yes/No (circle one).
Will any buildings within 50' of the proposed well be termite treated? Yes/No (circle one).

Note: For sewage systems, a plat of the property may be required and a site sketch is always expected. For water supplies, a plat of the property is not required and a site sketch is always expected. The site sketch should show your property lines, actual and/or proposed buildings and the desired location of your well and/or sewage system. Your property lines, building location and the proposed well and sewage system sites must be clearly marked and sufficiently visible to see the topography.

I give permission to the Virginia Department of Health to enter onto the property during normal business hours for the purpose of processing this application and to perform quality assurance checks of evaluations and designs until an operation permit is approved.

R Walls
Signature of Owner/Agent

RECEIVED

1/13/23 Date

OSE/PE Report For:

- Construction Permit
- Repair Permit
- Voluntary Upgrade Permit
- Certification Letter
- Subdivision Approval

Property Location:
 911 Address: Main Street City: Port Royal
 Lot _____ Section _____ Subdivision _____
 GPIN or Tax Map # 13A-1-A-22 Health Dept ID # _____
 Latitude _____ Longitude _____

Applicant or Client Mailing Address:
 Name: Andrew & Rachel Nalls
 Street: 10321 Woodland Way
 City: King George State VA Zip Code 22485

Prepared by:
 OSE Name Rodney Whittaker License # 1940001126
 Address P.O. Box 874
 City Bowling Green State VA Zip Code 22427
 PE Name _____ License # _____
 Address _____
 City _____ State _____ Zip Code _____

Date of Report 6/21/2021 Date of Revision #1 _____
 OSE/PE Job # _____ Date of Revision #2 _____

Contents/Index of this report (e.g., Site Evaluation Summary, Soil Profile Descriptions, Site Sketch, Abbreviated Design, etc.)

<small>Wastewater Usage Letter Pg. 2 / Inspection Guidelines Pg. 3</small>	<small>Site Sketch Pg. 9</small>
<u>Construction Specs Pg. 4</u>	<u>Abbreviated Design Pg. 10</u>
<u>Construction Drawing Pg. 5</u>	<u>Plat Pg. 11</u>
<u>Site & Soil Evaluations Pgs. 6-8</u>	

Certification Statement
 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 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 that a (select one): construction permit certification letter subdivision approval repair permit voluntary upgrade be (select one) Issued Denied

OSE/PE Signature Rodney Whittaker Date 6/21/2021



Engineering, Surveying & Land Planning

April 15, 2021

Nalls Commercial Site
Back St./Main St. Intersection (TM #13A(1)-A-22)
Town of Port Royal; Caroline Co, VA
Sewage Flow Analysis

This sewage disposal system will serve the proposed 1,560± SF (30' x 52') retail store building and the 1,344± SF (24' x 56') small machine repair shop. The sewage disposal from these buildings will be directed to a proposed drainfield located on the southwest portion of TM Parcel 13A(1)-A-22 in the Town of Port Royal in Caroline County, Virginia. The analysis of the sewage flow and character is based on the following:

1. Sewage Capacity

- a. Flow is contributed by employee use of a restroom located in the 1,560 SF retail store building:
 - i. 5-6 Employees (On-Site 8-hr/day x SF = 1.5).....270 gpd
 - (1) Based on "Factories/Office Buildings" in the Code of Virginia 12VAC5-610-670, 15-35 gallons per employee per 8-hr shift (30 gallons used)

2. Wastewater Characterization

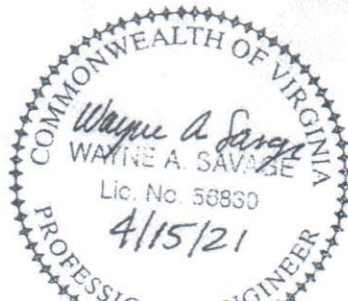
- a. The retail store building will have a private/employee restroom for employee use only. The small machine repair shop will not have bathrooms, but will rather use the restrooms contained in the retail store. Thus, based on the information provided, the wastewater from the office building will be generated by the six (6) employees.
- b. Typical Residential BOD
 - i. 4 persons/home @ avg 0.20#/person/day.....0.80#/day
 - ii. Typical sewage flow (4 persons @ 75 gpd).....300 gpd
 - iii. Typical residential BOD.....0.0027#/gal
- c. Proposed Facility BOD
 - i. 6 Employees @ 0.04#/day(toilet use)0.24#/day
 - ii. Design Flow270 gpd
 - iii. Facility BOD0.0009#/gal
- d. Typical residential TSS
 - i. 4 persons/home @ 0.20#/person/day0.80#/day
 - ii. Typical sewage flow (4 persons @ 75 gpd)300 gpd
 - iii. Typical residential TSS0.0027#/gal
- e. Proposed facility TSS
 - i. 6 Employees @ 0.04#/day(toilet use)0.24#/day
 - ii. Design Flow270 gpd
 - iii. Facility TSS.....0.0009#/gal

3. Conclusion

- a. Facility BOD is equivalent to or less than typical residential BOD estimates
- b. Facility TSS is equivalent to or less than typical residential TSS estimates
- c. As the overall wastewater strength and flow for the facility is comparable to residential strength wastewater, a sewage drainfield without pre-treatment will be satisfactory

Sincerely,

Wayne A. Savage
Wayne A. Savage, PE
Senior Engineer



40 Cross Street
Suite 100

Whittaker Soils & Design, LLC

22231 Rogers Clark Boulevard
Ruther Glen, Virginia. 22546
Phone: (804)-994-3142
Onsite Soil Evaluator License #1940001126

Inspection & Construction Guidelines:

- Area of Drainfield NOT to be excavated prior to drainfield installation. Disturbance of soils can result in revocation of permit.
- Excavation not to occur during wet periods.
- If sidewalls are smeared in trenches, raking of sidewalls will be required prior to covering system.
- AN INSPECTION FEE IS DUE AT THE TIME OF INSPECTION. You may call for details at the above phone number.
- Chambers are not allowed as a gravel substitute.
- All persons installing drainfields in Virginia MUST be a licensed installer with a current/valid Installers license number., Per VHD Regulations.
- NO construction activity is to occur over drainfield area prior to installation, if possible, the area should be flagged so no one may drive trucks or equipment over area. Excessive damage to soils can result in revocation of permit.
- Recommend Fencing off Drainfield area during construction.
- D-box to be set on undisturbed soils and bedded in place.
- Header lines to be hand bedded Prior to backfill. SPECIAL attention to be conducted at d-box header connection to reduce settling and header line disconnection.
- INSTALLATION NOT TO OCCUR DURING WET SOIL CONDITIONS. IF CONTRACTOR INSTALLS DURING WET CONDITIONS AND BACKFILLS; WSD IS NOT RESPONSIBLE FOR SYSTEM FAILURES, SHOULD THEY OCCUR.
- Septic tank to be sealed and Water tested Prior to backfill, to ensure tank is not leaking or damaged.
- Tank MUST NOT be Any Deeper than Rated Specs. Typical 30" MAXIMUM below grade.

If you have any questions regarding the placement of the drainfield, or any other concerns, please call me at the above phone number.

Sincerely,



Rodney Whittaker, OSE
Owner

Thank you!

Sewage System Construction Specifications

General Information

Construction Type: New

Job #: 3417

Owner: Andrew & Rachel Nalls

Telephone: 804-693-2993

Address: 10321 Woodland Way, King George, VA 22485

For a Type: I Sewage Disposal System which is to be Located on/at Main Street, Port Royal

Tax Map: 13A-1-A-22

Install System type: Conventional

Actual/Estimated Water Use: 300 gpd (See Wastewater Characterization)

Design

Water Supply: Proposed Public

Building Sewer:

4 Inch I.D. PVC 40, or Equivalent

Slope 1.25" per 10 feet (Minimum)

Other: _____

Septic Tank: 1,500 gallon

Other: _____

Inlet/Outlet Structure: 8" Orenco Effluent Filter & Riser on outlet

PVC 40, 4" tees or Equivalent

Other: _____

Pump and Pump Station:

No: Yes: _____

If Yes, see design plans

Gravity Mains/Conveyance Line: 4" or Larger I.D.; minimum of 6" fall per 100'; Sch. 40 PVC

Other: _____

Distribution Box:

Precast Concrete or equivalent: 6 ports (minimum)

Other: _____

Header Lines:

Material: 4" I.D.; 1500lb. Crush strength (or equivalent) from d-box to 2ft. Into trench. Slope 2" minimum

Other: _____

Percolation Lines:

Gravity 4" 1000lb. Per foot bearing load or equivalent; slope 2" min. to 4" (Max.) per 100 feet

Material: 4" plastic pipe with a minimum of 1000lb/ft bearing

Other: _____

Absorption trenches (slope 2" min. 4" max. per 100 feet; stone to be .5" to 1.5" in size):

Square ft. required: 450; inches from ground surface to bottom of trench 96; trench width 3 feet

Depth of aggregate 36*; inches; trench length 50 ft.; Number of Trenches 3; Center to Center spacing 9 ft.

* OSHA codes to be observed when constructing trenches

Notes: Pre-Construction Meeting Mandatory. *Call for aggregate depth if using Drag Box

Date of evaluation: 1/13/2017

Profile Description

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Soil Evaluation

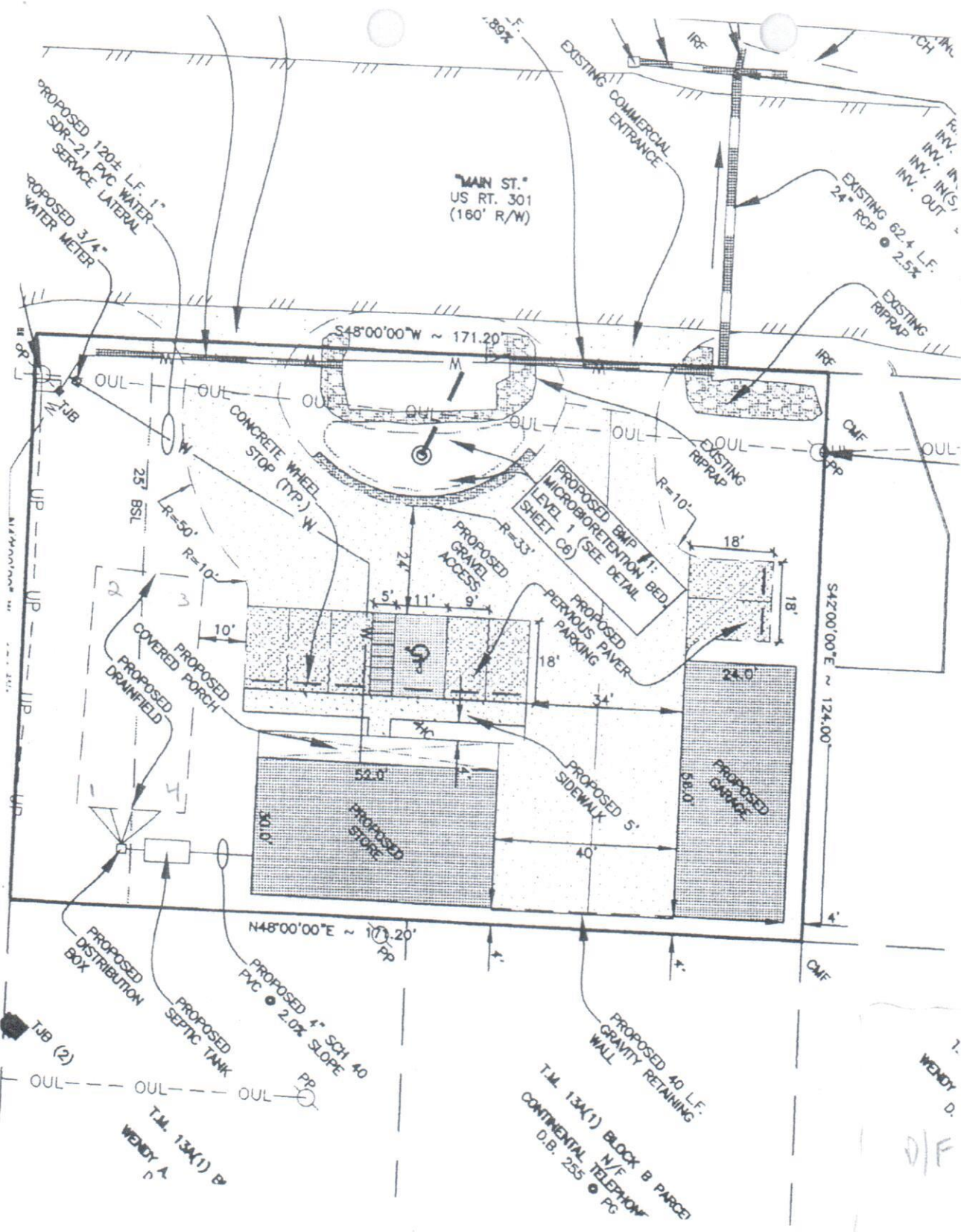
Property ID: TM: 13A-1-A-22

Sanitary Survey: All features within 200' of profile locations were investigated for setback requirements and were found to meet Regulation requirements.

Hole#	Horizon	Depth	Description of color, texture, etc.	Texture Group
H-1	Fill 1	0-12"	7.5YR 5/6, 5/4, 3/3 Sandy Clay Loam, friable	II
	Fill 2	12-30"	7.5YR 6/8, 7/6 Sandy Loam with gravels, friable	II
	Fill 3	30-66"	7.5YR 5/6, 6/6, 7/4 Light Sandy Clay Loam, friable	II
	C1	66-94"	7.5YR 6/8 Sandy Loam, very friable	II
	2C2	94-124"	7.5YR 7/6, 5/6 Loamy Sandy very friable	I
H-2	Fill 1	0-18"	7.5YR 5/8, 7/8 Light Sandy Clay Loam, friable	II
	Fill 2	18-36"	7.5YR 7/8, 6/6 Sandy Clay Loam, few asphalt gravels	II
	Fill 3	36-56"	7.5YR 4/4, 5/8, 6/6 Light Clay Loam, friable-firm	III
	Ae	56-62"	7.5YR 4/4 Sandy Loam, very friable	II
	Bt	62-90"	7.5YR 6/8, 5/6 Heavy Sandy Clay Loam, fri-firm	II
	C	90-124"	7.5YR 5/8, 6/8, 7/6 Loamy Sand, few gravels, very friable	I
H-3	Fill 1	0-18"	7.5YR 5/8, 7/8 Light Sandy Clay Loam, friable	II
	Fill 2	18-36"	7.5YR 7/8, 6/6 Sandy Clay Loam, friable	II
	Fill 3	36-58"	7.5YR 4/4, 5/8, 6/6 Light Clay Loam, friable-firm	III
	Ae	58-66"	7.5YR 4/4 Sandy Loam, very friable	II
	Bt	66-84"	7.5YR 6/8, 5/6 Heavy Sandy Clay Loam, fri-firm	II
	C	84-124"	7.5YR 5/8, 6/8, 7/6 Loamy Sand, few gravels, very	I
Remarks:				

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SITE SKETCH



SANITARY SURVEY

all cont off site features within 200' of proposed O/F were investigated & shown to the best

O/F

1. WENDY D. O/F

T.M. 134(1) B WENDY A

Abbreviated Design

System type (Conv., Drip, Puraflo, Advantex, etc.)	Conventional
Estimated or Measured Percolation Rate	20
Slope	2
Depth of Evaluation	124"
Proposed Installation Depth	96"
Installing Below Restriction? _____	Fill
Minimum installation Depth (slope, system type, etc.)	Below Fill
Type of limiting feature	None
Depth of limiting feature	124" +
Minimum required stand-off to limiting feature	18"
Stand-off distance provided in design	28" +
Design (See Letter)	See WW Characterization
Loading Rate	146 sq. ft./ 100 gals
Available Length	50'
Proposed Length of system	50'
Width of Trench	3'
Center to center spacing	9'
Number of Trenches	3
Available Width	24'
Proposed Width	21'
Total square footage required for installation	438
Total square footage in design	450

Does the site require a reserve? No
 Is there a Reserve area included in this design? No

Notes: See Wastewater Characterization Engineer Letter for Usage.