HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS
P.O. Box 400, Lillington, NC 27546-0400
Phone (910) 893-8743 / Fax (910) 893-3594
www.halowensoil.com

Site Address: 10665 and 10709 US 401 N, Fuquay Varina

County: Harnett **PIN** 0655-40-7686

LHD Reference: BCOM2506-0008 **HOA Permit #:** HOA-AOWE-2508-1

Applicant:

Name: Brandon Gaster, Rawls Baptist Church

Address: 10665 US 401 N, Fuquay-Varina NC 27526

I, _____, acknowledge receipt of the Licensed Soil Scientist Report which includes:

- Signed and sealed copy of the AOWE's report that includes the information in G.S. 130A-336.2(k)
- Authorization to Operate
- Operation and Management Program

I accept the septic system installation and understand that I will be responsible for continued adherence to the Operations and Management program established by the AOWE.

_____ _____
Signature Date

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15 September 2025

Brandon Gaster, Rawls Baptist Church
10665 US 401 N
Fuquay-Varina NC 27526

Reference: LSS Report for Authorization to Operate (ATO)
10665 and 10709 US 401 N, Fuquay Varina
LHD # BCOM2506-0008
AOWE # HOA-AOWE-2508-1

Dear Mr. Gaster,

This LSS Report is being provided pursuant to and meets the requirements of G.S. 130A-336. This report is based on information provided by the property owner or their representative. Hal Owen & Associates, Inc. is not responsible for false or misleading information that may have been provided to us in pursuit of this permit, nor for concealed conditions on the property. Hal Owen & Associates Inc. does not warrant that the septic system will continue to function satisfactorily in the future.

The septic system for the above referenced property was inspected by Hal Owen & Associates staff on 2 September 2025 and 4 September 2025. The septic tanks were pumped and visually inspected and the septic system was tested and found to be operating within operation parameters.

Enclosed with this report are the *Septic System Final Inspection Report*, As-Built map (Figure 1), and *Operation and Management Program.*

You will need to sign a document confirming receipt of this report and acceptance of the installed system (pg 1) and submit this report to the Local Health Department (LHD). The LHD shall issue a certificate of occupancy upon receipt of a complete ATO.

I appreciate the opportunity to provide this service. If you have any questions or need additional information, please contact me at your convenience.

LICENSED SOIL SCIENTIST HAL OWEN 1102 STATE OF NORTH CAROLINA

NC ONSITE WASTEWATER Certification Number 10036E EVALUATOR

Sincerely,

Hal Owen
Licensed Soil Scientist
Authorized Onsite Wastewater Evaluator

Contacts

APPLICANT

Applicant Name	Brandon Gaster, Rawls Baptist Church
Mailing Address	10665 US 401 N, Fuquay-Varina NC 27526
Telephone Number	919-924-1140
E-mail Address	pastorbrandongaster@gmail.com

SOIL SCIENTIST

Company Name	Hal Owen & Associates, Inc.
Mailing Address	PO Box 400, Lillington, NC 27546
Telephone Number	910-893-8743 Fax: 910-893-3594
E-mail Address	hal@halowensoil.com
Licensed Soil Scientist	Hal Owen, LSS#1102 and AOWE# 10036E
System Designer	Krissina Newcomb
System Inspector	Jocelyn Proulx #9943I

LOCAL HEALTH DEPARTMENT

Agency Name	Harnett County Health Department Environmental Health Division
Mailing Address	307 W Cornelius Harnett Blvd, Lillington, NC 27546
Telephone Number	(910) 893-7547
LHD Application #	BCOM2506-0008

Authorization to Operate

Property Identifiers

County	Harnett	PIN	0655-40-7686
Size (Acre)	2.73	County PID	080655 9002
Site Address	10665 US 401 N, Fuquay-Varina NC 27526 and 10709 US 401 N, Fuquay Varina NC 27526		
S/D Name and Lot#			

Owner's Name

Owner Name	Brandon Gaster, Rawls Baptist Church
Mailing Address	10665 US 401 N, Fuquay-Varina NC 27526
Telephone Number	919-924-1140
E-mail Address	pastorbrandongaster@gmail.com

System Description

Wastewater System	Change of Use	.0403 Eng Low Flow	No
Wastewater Strength	Domestic	Effluent Standard	DSE
Facility Type	Mixed Use	Water Supply	Public
Design Wastewater Flow	639 gpd- Flow equalization		

Existing System	Flow Equalization, 4 X 120' X3' Conventional Drainlines
	See Septic System Final Inspection Report
System Type*	Ve Flow Equalization
*Types V and VI systems expire in 5 years in accordance with 18E .1300. Owner must contact health department 6 months prior to expiration for permit renewal.	
Operator Required	Yes
If yes, min frequency	LHD Insp. Interval: 1 every 3 years ORC Insp. Interval: 2 per year

This system has been installed in compliance with applicable NC General Statutes, Rules for Wastewater Treatment and Dispersal Systems, and all conditions of the AOWE Permit. The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. This Operation Permit is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

Date of Issuance 9/15/2025
Date of Expiration (Type V and VI Systems): 9/15/2030

Operation and Management Program

In accordance with G.S. § 130A-336.2, the owner is responsible for continued adherence to the operations and management program. Septic systems safely treat and dispose of wastewaters produced in the bathroom, kitchen, and laundry. These wastewaters may contain disease-causing germs and pollutants that must be treated to protect human health and the environment. Septic systems must be properly used, operated, and maintained by the homeowner to assure the long-term performance of the system.

PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with Section .1300.

II. Monitoring: As required by Section .1300.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

Other: _____

Subsurface system operator required? Yes __X__ No_____

If yes, see attached sheet for additional operation conditions, maintenance and reporting.

IV. Operation: A contract for operation and maintenance of a wastewater system required to be maintained by a Management Entity, as specified in rule .1301(b), shall be in effect for as long as the system is in use.

V. Other:

Basis for Flow

church	180	# seats	3	gal/seat
school	20	# students	6	gal/student
house	3	#bedrooms	120	gal/bedroom

Flow Events

Churches typically operate at full capacity 1-2 days per week (Sunday + another day) and at half capacity one day per week (ie evening bible study)
The school will operate 5 days per week
The SFR home operates 7 days a week

Flow Balance:

Day	DDF House	Church	School	Flow (gallons) Input	Output	Residual
Saturday	360	540		900	639	261
Sunday	360	540		900	639	523
Monday	360		120	480	639	364
Tuesday	360		120	480	639	206
Wednesday	360	270	120	750	639	317
Thursday	360		120	480	639	159
Friday	360		120	480	639	0
Total	2520	1350	600	4470	4470	0

Max projected inflow/day (Q)	900	gallons	(max daily input)
Equalization Volume	523	gallons	(max residual ST volume)
Flow Equalization cycle	7	days	
Total Flow per cycle	4470	gallons	(total input for the week)
Equalized Daily Flow (EQ)	639	gpd	(Total Flow/ Flow Equalization cycle)

480 Linear Feet existing conventional drainline

Tank Sizing

Septic Tank = 1.17Q+500 = 1553 gallons

Pump Tank Volume will be the sum of the following

Dose Volume	223	+	71 % pipe volume
Equalization Volume	523	+	(maximum residual volume)
Emergency Storage Vol	450	+	(highest daily flow per day/24hr/12hr
Pump submergence Vol	923		(~18" * tank GPI [51.3])
Pump Tank Volume	2969	gallons	at minimum

Dosing Regime:

Dose Volume: 223 gallons
Pump Rate: 23 gpm
Cycles: 2.9 per day

Set Cycle timer 10 minutes "on" and 8.4 hours "off"

INNOVATIVE WASTEWATER SYSTEM NO: IWWS-2004-01
FOR: Flow Equalization System

Operation, Maintenance and Monitoring Requirements

a. System manag… stem in Rule .1961(b), Tab… requency requirements … ed based on the pretreatment … e Operation Permit):

> System Management shall be in accordance with 18E .1301 Table XXXII
>
> LHD Insp. Interval: 1 every 3 years
> ORC Insp. Interval: 2 per year

Equalized Flow	ORC Insp. Interval	LHD Insp. Interval
<1500 gpd	2/year	1/year
1500 – 3000 gpd	4/year	1/year
3000 – 10000 gpd	12/year	1/year
> 10000 gpd	1/week	1/year

If telemetry is provided and the ORC response time is 2 hours or less per the maintenance contract, the inspection frequency may be reduced as follows (unless more frequent visits are required based on the pretreatment or effluent distribution system and specified in the Operation Permit):

Equalized Flow	ORC Insp. Interval	LHD Insp. Interval
<1500 gpd	1/year	1/year
1500 – 3000 gpd	2/year	1/year
3000 – 10000 gpd	6/year	1/year
> 10000 gpd	1/14 days	1/year

b. The Operator in Responsible Charge (ORC) shall provide monitoring reports to the local health department within 30 days of each required inspection. The ORC shall maintain a log of all malfunction incidences/notifications, observations, maintenance activities, and meter readings of pump run events, pump run times, override events, and high-level alarm events at each visit. Minimum maintenance during each required inspection shall include visual observation of the drainfield, checking/cleaning filter screen(s), measuring delivery rate, and recording flow meter reading, pump run times, cycle counts, high-level events, and water meter readings where applicable. At least once per year, orifice control devices shall be flushed, pressure head measurements made, and solids accumulation in the tanks shall be measured and recorded. Necessary adjustments to timer settings shall be pre-approved by the local health department, and adjustment times noted in the monitoring log and reports.

c. The ORC shall also conduct other additional observations, measurements, monitoring, and maintenance activities as specified in the Operation Permit and as recommended by the timer control panel manufacturer.

Septic System Final Inspection Report

Property Identifiers

County	Harnett	PIN	0655-40-7686
Size (Acre)	2.73	County PID	080655 9002
Site Address	10665 US 401 N, Fuquay-Varina NC 27526, and 10709 US 401 N, Fuquay Varina NC 27526		
S/D Name and Lot#			

System Description

Facility Type	Mixed Use
Basement	No
Basis of flow	3 bedrooms- 120 gal/bedroom 180 seats- 3 gal/seat 20 students- 6 gal/student
Wastewater Strength	Domestic
Design Wastewater Flow	639 gpd
Water Supply	Public
.0403 Eng Low Flow	No
Soil LTAR	0.47
System Type	Ve

Inspection:

Date	2 September and 4 September 2025
System Inspector	Jocelyn Proulx, #9943I

Existing Septic Tank:

Volume (gallons)	1500
Brand and Tank ID#	
Date of Manufacture	
Certified watertight	NA
Distance to Structure	5’
Elevation of tank inlet	
Elevation of tank outlet	

Existing Effluent Filter:

Make and Model	Polylok PL-122

Existing Pump Tank:

Volume (gallons)	3200
Brand and Tank ID#	MCP PT-36
Date of Manufacture	
Certified watertight	NA
Elevation of tank inlet	
Elevation of tank outlet	

Existing Pump:

GPM (actual)	23

Existing Control Panel:

Manufacturer	SJE Rhombus Serial # 210513X-17347

Distribution:

Supply Line Length to Distribution	65’
Supply Line Diameter	2”

Existing Drainfield:

Type	Conventional Gravel
Distance to Well	50’

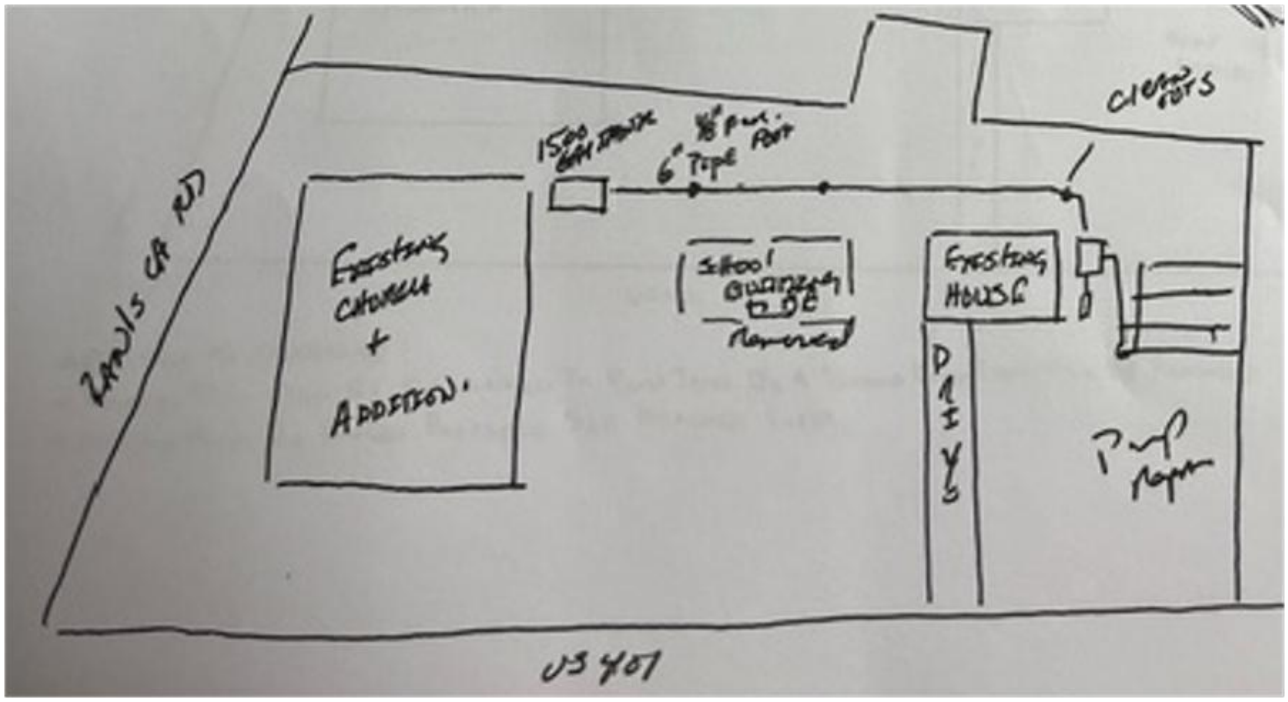
Trench Depth		12-24”	Trench width	36”
Trench Spacing		9’	Aggregate	gravel
	Length (ft)	Start	Middle	End
Line 1	120			
Line 2	120			
Line 3	120			
Line 4	120			
Total				

All elevations are given as relative grade rod reading.

Notes:

See Harnett County Operations Permit #21214

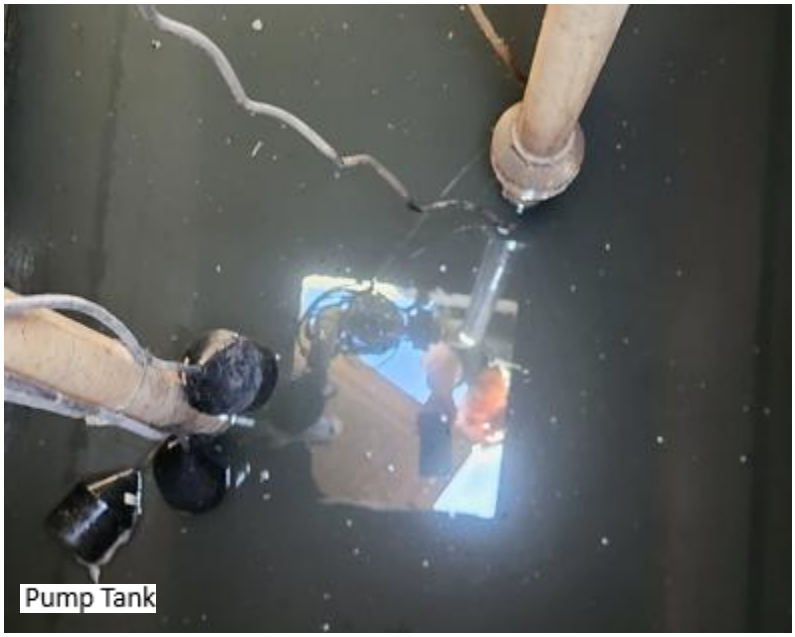
Figure 1. As-built Septic System Installation



(From Harnett County Operations Permit 21214)


Effluent Filter


Clean Outs


Pump Tank

Control Panel


Drainfield

KNOW WHERE YOUR SEPTIC SYSTEM IS LOCATED

Your property has an onsite subsurface sewage waste disposal system. Familiarize yourself with the location of the system including the tanks, distribution devices, and disposal fields (including repair area). These areas shall be protected from excavation, building additions, outbuildings, pool construction, and soil disturbing activities. Prohibit vehicular traffic over the ground absorption field.

DAY-TO-DAY MANAGEMENT

Don't use too much water.

- The drainfield does not have unlimited capacity.
- Typical daily water use is 50 gallons per person.
- The soil drainfield usually has a maximum daily design capacity of 120 gallons per bedroom, even for short periods of time.
- Overloads can occur seasonally, daily, or on the weekend.
- Water conservation will extend the life of your system.
- Repair dripping faucets and toilets.

Limit disposal to sewage.

- Don't use your septic tank as a trash can for cigarette butts, tissues, sanitary napkins, cotton swabs, cat box litter, coffee grounds, or disposable diapers.
- Restrict the use of your garbage disposal. These add quite a lot of extra solids.
- Don't pour grease or cooking oil down the drain.
- Don't poison your system with harmful chemicals such as solvents, oils, paints, thinners, discarded medications, disinfectants, pesticides, poisons, and other substances.
- Save money. Commercial septic tank additives are usually not necessary.

Protect the system from physical damage (site maintenance).

- Keep the soil over the drainfield covered with vegetation to prevent soil erosion.
- Don't drive vehicles over the system.
- Avoid construction over the system and repair area.
- Don't cover the tank or drainfield with asphalt or concrete.
- Do not install irrigation systems over your drainfield as these could damage the system and/or hydraulically overload the soils.

Dispose of all wastewater in an approved system.

- Don't put in a separate pipe to carry wash waters to a side ditch or the woods. This is illegal.
- Don't connect pipes from air conditioners or ice makers to the septic system.

PERIODIC MAINTENANCE AND REPAIR

Home and yard (site maintenance):

- Protect and maintain the site of your septic tank and drainfield.
- In the drainfield area, cut down and remove trees that like wet conditions. This includes willows, elms, sweetgums, and some maples.
- Landscape the yard to divert surface waters away from the tank and drainfield. Eliminate depressional areas within the drainfield.
- Be sure that the water from the roof, gutters, and foundation drains does not flow over the system.
- Maintain drainage ditches, subsurface tiles, and drainage outlets so that water can flow freely from them.

Septic tank:

- Ensure tank risers remain accessible for measuring and pumping solids as well as cleaning the effluent filter.
- Measure how quickly sludge and scum accumulate in the tank. Pump septage when solids occupy 1/3 to 1/4 of the liquid capacity of the tank (frequency 1 to 3 years).
- Don't wait until your drainfield fails to have your tank pumped. By then, the drainfield may be ruined. With septic systems, an ounce of prevention is worth a ton of cure!

Table 1. Estimated septic tank inspection and pumping frequency (in years). Tank Size (gallons)

	Number of People Using the System				
Tank Size (gallons)	**1**	**2**	**4**	**6**	**8**
900	11	5	2	1	<1
1000	12	6	3	2	1
1250	16	8	3	2	1
1500	19	9	4	3	2

SIGNS OF POSSIBLE SEPTIC SYSTEM PROBLEMS

- Sewage backing up into your toilets, tubs, or sinks.
- Slowly draining fixtures, particularly after it has rained.
- The smell of raw sewage accompanied by soggy soil or sewage discharged over the ground or in nearby ditches or woods.
- Note: pump systems sewage may come to the ground surface when the pump is turned on and then disappear after the pump turns off. This is still a system failure and must be repaired.
- An alarm flashing (red light) or beeping in the house or in the yard indicating a pump is not working properly or that the water level in a pump tank is too high and close to failure.
- Don't attempt to repair a failing system yourself. Get a repair permit and hire an experienced contractor.

REGULATIONS AND PRECAUTIONS:

- Be sure the pump and electrical components continue working properly between scheduled maintenance visits.
- Sewage contains germs that can cause diseases. Never enter a septic tank. Toxic and explosive gases in the tank present a hazard. Old tanks may collapse. Electrical controls present a shock and spark hazard. Secure the septic tank lid so that children cannot open it.

For more information about septic systems, contact your county Extension agent or local health department. https://content.ces.ncsu.edu/septic-system-owners-guide

Experience and study have shown that pressure manifold systems require routine maintenance in order to function properly. Items 1, 4, and 6 are also recommended for conventional septic systems. The maintenance schedule frequency is as follows:

System Component	Frequency	Maintenance
Septic Tank	6-12 months 1-3 years	Check riser condition (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Check and clean septic tank filter. Pump septage when 1-3 to ¼ of the liquid capacity of the tank is occupied by solids.
Pump or Dosing Tank	6-12 months	Check riser conditions (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Pump sludge accumulation as required and when septic tank is pumped. Check pump(s), controls, floats, electrical connections, and alarm for proper operation. Wash (hose) sludge accumulation from pump housing.
Supply Lines (Manifold)	6-12 months	Check for settling, pipe exposure and leakage
Ground Absorption Field	1-4 weeks 6-12 months	Maintain vegetative cover (mow grass and remove weeds and brush). Check for settling, erosion and surfacing effluent. Check site drainage, eliminate low or settled areas and divert surface or shallow groundwater movement around fields.
Pressure Manifold	6-12 months	Flush sludge from pressure manifold (any discharge sludge and effluent is to be treated with a chlorine solution). Check and reset pressure head.
General	At all times	Prohibit vehicular or equipment traffic on ground absorption field. Prohibit tillage (gardening) or other soil disturbance over septic field. Practice water conservation to reduce wastewater load on system. Do not permit entry of grease and non-domestic waste to system. Use of garbage disposal is prohibited. Addition of chemical or biological additives has not been demonstrated to be necessary to maintain proper system function. Prevention of root intervention on lateral lines and trenches may be necessary on certain sites. Surface and groundwater diversion structures must be maintained.

PREVENTIVE MAINTENANCE RECORD

Your Septic System Pumper

Name:_____

Address:_____

Phone:_____ Email:_____

Date System Installed:

Date	Work Done	Firm	Cost