# *OPERATION & MAINTENANCE CONTRACT*
# *ON-SITE SEWAGE DISPOSAL SYSTEM*
## *AQUASAFE SYSTEM PUMPED TO A CORRUGATED PIPE & GRAVEL AND T&J PANEL DRAINFIELD*

The following terms and conditions for the monitoring and inspection of the on-site sewage disposal system for the Echol Marshall Residence, 477 Stillwater Road, Troutman, 28166, Iredell County, NC are in compliance with the North Carolina Rules for Sewage Treatment and Disposal.

Tim Barbee (the Contractor) will provide the services of a Certified Sub-Surface Operator and will provide the required inspections, tests, maintenance, and monitoring services for a period of one year from the date of this agreement. The cost of one year is $500.00, payable as $250.00 following each bi-annual inspection and becomes binding. The homeowner and the contractor may renew this contractor annually if mutually agreeable.

Semi-Annual Inspections shall include the following:

A. Inspection of the septic tank inlet end for solids accumulation. Inspection of the outlet end and removal and cleaning of the effluent filter.
B. Inspection of the Aquasafe Unit to verify the airflow levels at the tank, clean the filter on the aerator housing cover, verify control panel operations including alarm and silence switch.
C. Inspection of the pump tank, including checking all floats, pump, and control panel operations.
D. Visual Inspection of the drainfield areas to check for leaks. Drainfield shall also be checked to make sure the area is protected from vehicular traffic and to verify no erosion issues exist.
E. Tim Barbee may incorporate the services of a sub-contractor to perform the system inspections but shall remain responsible for the system inspections.

System Warranty: The Aquasafe Unit is covered by a three-year manufacturer's warranty; Any system component failure during the applicable warranty period shall be repaired or replaced by the approved representative of the manufacturer at no charge to the homeowner for parts, unless over-ridden by a manufacturer's limitation. Labor rates shall be $60.00 per hour. The warranty does not cover system components damaged or destroyed due to system abuse, misuse, or by an Act of God.
The septic tank and pump tank are covered by a two warranty: The pump is covered by a three year warranty and the control panel is covered by a two year warranty.

Items not covered by this contract include the following:

A. The repair or replacement of any system component after expiration of the stated warranty.
B. Removal of obstructions in sewer pipes and supply lines.
C. Repair or replacement of any system piping, including drainfield components
D. Laboratory Analysis of effluent samples if required by the State.
E. Other special requests by the homeowner.

A copy of each inspection report shall be:

A. E-mailed to the property owner.
B. One copy shall be forwarded to the Engineer.
C. One copy sent as a courtesy to the County Health Department.
D. One copy shall be placed in a permanent job file to be maintained by the contractor.

Notification of any required system modifications, repairs, or component replacement shall be sent by e-mail to the homeowner and the homeowner shall be given an estimate of the price and time to make required repairs and shall notify the contractor of their intent to have said required repairs preformed as soon as possible, or as required by State regulations.

Agreed: Homeowner

ECHOL MARSHALL
477 STILLWATER RD
TROUTMAN, NC 28166
804-398-8209
echol.marshall@gmail.com

Contractor

Timothy K. Barbee 11- 2-19
1421 Hickory Woods Dr.
Monroe, NC 28112
704-589-0595
TBARBEE5@carolina.rr.com
Tim Barbee
Operators License #993958

1ST Choice Service, Inc.
3661 Eaker Road
Cherryville, NC 28021

*Trusted For Generations!*

704-447-5500 **Office**
980-217-8337 **Fax**
info@1stchoiceservicenc.com **Email**

October 28, 2019

Re: Echol Marshall
477 Stillwater Road
Troutman, NC 28166

The wastewater system was installed with no substantial changes from the engineered drawings and meets the requirements of the manufacturers of the components and North Carolina requirements and is ready for operation.

Please feel free to contact me with any questions.

Warm Regards,

*Jonathan A. Watts*
*President*

1st Choice Service, Inc.
Office 704-447-5500
Mobile 704-913-7685

2018 Angies list SUPER SERVICE AWARD
ELITE SERVICE HomeAdvisor
NCSTA NORTH CAROLINA SEPTIC TANK ASSOCIATION
BEST SERVICE BEST SERVICE BEST SERVICE
BBB ACCREDITED BUSINESS
BBB Rating: A+

Lash Engineering, Inc.
Civil/Consulting/Wastewater/Planning
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mikel@LashEngineering.com

Lash Engineering, Inc.

October 29, 2019

Echol Marshall
477 Stillwater Road
Troutman, NC. 28166

Re: **Marshall Wastewater - Sub-Surface Disposal, Certification**
EOP Permit for ATC - Iredell County, NC.

The following are items that were checked during our "Conference" and observations that were made throughout the installation and final process.

1. Echol Marshall (Owner), Jon Watts (Installer), Tim Barbee (Operator), Kathleen Saunders (Soil Scientist) and Michael Lash (Engineer) were present for the conference. Heath Snow (Health Department) was invited to attend on 10-31-2019 by email.
2. The existing Septic tank was removed and replaced.
3. The AquaSafe Pretreat chamber was opened and checked for completeness, wiring, control panel, caulking and alarms. The AquaSafe area was properly graded.
4. The system was tested with the floats and was set in "Auto" mode.
5. Prior to the installation of the system, the installer did a thorough evaluation of the existing gravel trenches and bed system. A different configuration for feeding the system was determined best to avoid the tree. The feeding was to begin near the steps and proceed downhill by gravity through step-down "D-boxes" and ending in the gravel pit area. The T&J panels were installed per plan. The Soil Scientist and Engineer were part of this field revision.
6. An as-built of the system was prepared and approved by the Installer. It is included in this submittal.
7. The Owner has a signed agreement for Service and Maintenance on the system. The Operator was present for the meeting and was very involved in the testing process. The Contract for their services is included in this submittal.

Based upon the above items;
I, **Michael Lash, PE.,** as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe periodically the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence were used in the observation of the construction such that the construction was observed to be built within substantial compliance of this permit and the approved plans and specifications.

Michael Lash, PE.

NORTH CAROLINA PROFESSIONAL SEAL 14265 ENGINEER MICHAEL W. LASH

10/29/19

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Lash Engineering, Inc.

Echol Marshall
477 Stillwater Road
Troutman, NC. 28166

10-29-2019

Engineer to Owner Package

The following is a list of documents that are required for submittal to the Owner or their representative (Sergio Luna) by the Engineer.

1. Engineer to Owner package Notarized Receipt.
2. EOP Engineer's Certification for ATO (Authorization to Operate)
3. A copy of the proposed plans updated to reflect the alignment of the drip tubing.
4. The Engineer's Report - which includes:
   a. Cover Sheet
   b. Table of Contents
   c. Soils Report
   d. Operation & Maintenance Form
   e. Contract for Operator
   f. Report for Contractor
   g. Installer Certification Letter

The Owner or their representative shall by their notarized signature below, document their acceptance of the wastewater system from the Engineer.

State of ~~North Caroline~~ Virginia
~~County~~ City of Richmond

The foregoing instrument was acknowledged before me this 30th day of October, 2019,

by Echol Marshall signature of owner or representative.
OWNER Company & Title.

In witness whereof, I have hereunto set my official signature and affixed my seal the day and year above written.
My commission expires: Notary Public

Feb 28th 2023 ; _____

Owner hereby accepts responsibility for the wastewater system from the Engineer. If there are any questions, please do not hesitate to call.

Thanks,
Michael Lash, PE.

MATTHEW WILLIAM RANDAZZO
Notary Public
Commonwealth of Virginia
Registration No. 7828440
My Commission Expires Feb 28, 2023