BIDR-2023-36934

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2023-36007

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4721-72-4012

PPLICANT / OWNER: Kent Shaw & Sons Construction, Inc. APPLICANT ADDRESS: P.O. Box 1061, Troutman, NC 28166

TE ADDRESS: 103 MONBO MEADOWS LN, STATESVILLE, NC 28677 PHONE: (704) 902-0086 ALT. PHONE: 7049024339

TE DIRECTIONS: SAP CONTROLLED: YES ☐ NO ☑

UBDIVISION: Monbo Meadows SECTION: LOT #: 1 LOT AREA: 0.92 DESIGN FLOW: 480 L.T.A.R.: 0.25

eptic Tank: 1000 (gal)	STB: 7600	Date: 1/21/24	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 4	Water Supply: New Well
ump Tank: 1000 (gal)	PT: 3603	Date: 1/13/24	System Description: Pressure Manifold 50% reduction		☐ Business	No. Persons: 6	
ump Make:	Model:	Serial #:	Repair System Description: Pressure Manifold 50% reduction		☐ Other	No. Employees:	
Nitrification Fields: 1	# Lines: 4	Linear Ft.: 320	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
rench Width: 24	Trench Bottom Depth (Low side): 36		Gravel Depth:	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

omments / Conditions: This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) ttached here. This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here.

INITIAL SITE SKETCH

AS BUILT SKETCH

LINES AS DRAWN SW 3/11/2024
TANKS
- FLOATS
- ALARM BCW 4-22-2024
- ELECTRICAL
- P.11
- P.H

rmit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION

] IMPROVEMENT PERMIT with plat valid without expiration. ☑ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☑ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

wner / Applicant Signature: Date:

IPROVEMENT PERMIT by: Benjamin A. Boffey Date: 9/26/2023

UTHORIZATION TO CONSTRUCT by: Benjamin A. Boffey Date: 9/26/2023

Installed By: CRAIG THOMPSON

OPERATION PERMIT by: Bryant C. White Date: 4-22-2024

Existing System Inspected By: Date:

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 BETWEEN 8am-9am the day the inspection is needed.

Permit #: 05WP-2023-36007

This Section for Local Health Department Use Only

Initial submittal received: 9/22/2023 (Date) by BB (Initials)

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A. Botts Date: 9/26/2023

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This permit is subject to revocation if the site plan, plat, or the intended use changes. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 9/26/2028.

See attached site sketch

Permit #: OSWR-2023-36007

This Section for Local Health Department Use Only

Initial submittal received: 9/22/2023 (Date) by BB (Initials)

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A Butts Date of Issuance: 9/26/2023

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: 9/26/2028

See attached site sketch

Permit #: CSWP-2023-36007

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Submittal Includes: ☑ (a2) Improvement Permit ☑ (a2) Construction Authorization ☐ Fee $_____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)

County: IREDELL
PIN/Lot Identifier: 4721-72-4012.000
Issued To: SHAW CUSTOM BUILDERS
Property Location: EAST MONBO RD. TO MONBO MEADOWS LN.
Subdivision (if applicable) MONBO MEADOWS Lot #: 1 Block: _____ Section: _____
LSS Report Provided: Yes ☑ No ☐
If yes, name and license number of LSS: GARY EASTER 1073
New ☑ Expansion ☐ System Relocation ☐ Change of Use ☐
Proposed Structure: SINGLE FAMILY RESIDENCE (4BR) HSE
Number of bedrooms: 4 Number of Occupants: 8 MAX Other: _____
Design Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process
Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): .25 Proposed LTAR (Repair): .25
Proposed Wastewater System Type*: VERTICAL 50% REDUCTION PPBPS (Initial) Pump Required: ☑ Yes ☐ No ☐ May be required
Proposed Wastewater System Type*: VERTICAL 50% REDUCTION PPBPS (Repair) Pump Required: ☐ Yes ☐ No ☑ May be required
**Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*
Saprolite System (initial): ☐ Yes ☑ No Saprolite System (repair): ☐ Yes ☑ No
Fill System (Initial): ☐ Yes ☑ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Fill System (repair): ☐ Yes ☑ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Usable Soil Depth (Initial): 53 Usable Soil Depth (Repair): 53
Max. Trench Depth (Initial)‡: 36 Max. Trench Depth (Repair)‡: 36 ‡ *Measured on the downhill side of the trench*
Artificial Drainage Required: ☐ Yes ☑ No If yes, please specify details: _____
Type of Water Supply: ☑ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☐ Other: _____
Drainfield location meets requirements of Rule .1945: Yes ☑ No ☐ Drainfield location meets requirements of Rule .1950: Yes ☑ No ☐
Permit valid for: ☑ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:
SEE ATTACHED INSTALLERS INFORMATION SHEET

Licensed Soil Scientist Print Name: Gary L Easter
Licensed Soil Scientist Signature: 1073 8/31/23 Date:

LICENSED SOIL SCIENTIST GARY L. EASTER 1073 STATE OF NORTH CAROLINA

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.

Applicant Signature: [redacted] Date: 9-6-23

Owner's Signature: [redacted] Date: 9-6-23

Permit #: O&WP-2023-36007

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: IREDELL

PIN/Lot Identifier: 4721724012.000

Issued To: SHAW CUSTOM BUILDERS

Property Location: EAST MONBO RD. TO MONBO MEADOWS

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: GARY EASTER 10014E

Facility Type: SINGLE FAMILY RESIDENCE (4BR)

☑ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☐ No

Type of Wastewater System* 50% REDUCTION (Initial) 50% REDUCTION (Repair)

**Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*

Design Daily Flow: 480 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☑ No
(if yes, please provide engineering documentation)

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 320 feet Trench/Bed Spacing: 8 feet on center

Trench/Bed Width: 24 inches LTAR: .25 gpd/ft²

Soil Cover: 14 inches Slope Corrected Maximum Trench/Bed Depth‡: 36 inches ‡ ***Measured on the downhill side of the trench***

Aggregate Depth: _____inches above pipe _____inches below pipe _____inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 21.68 ft. TDH vs. 28.44 GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☑ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ☑ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

Pre-Construction Conference Required: Yes ☑ No ☐

Conditions: SEE ATTACHED INSTALLERS INFORMATION SHEET

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Gary L Easter Expiration Date: 8/31/28

AOWE/PE Signature: [signature] Date: 8/31/23

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

NC ONSITE WASTEWATER EVALUATOR Certification Number 10014E

MONBO MEADOWS (LOT #1)

INITIAL (PPBPS) (320FT.) (4) 2'x80'

REPAIR AREA (PPBPS) (320FT.)

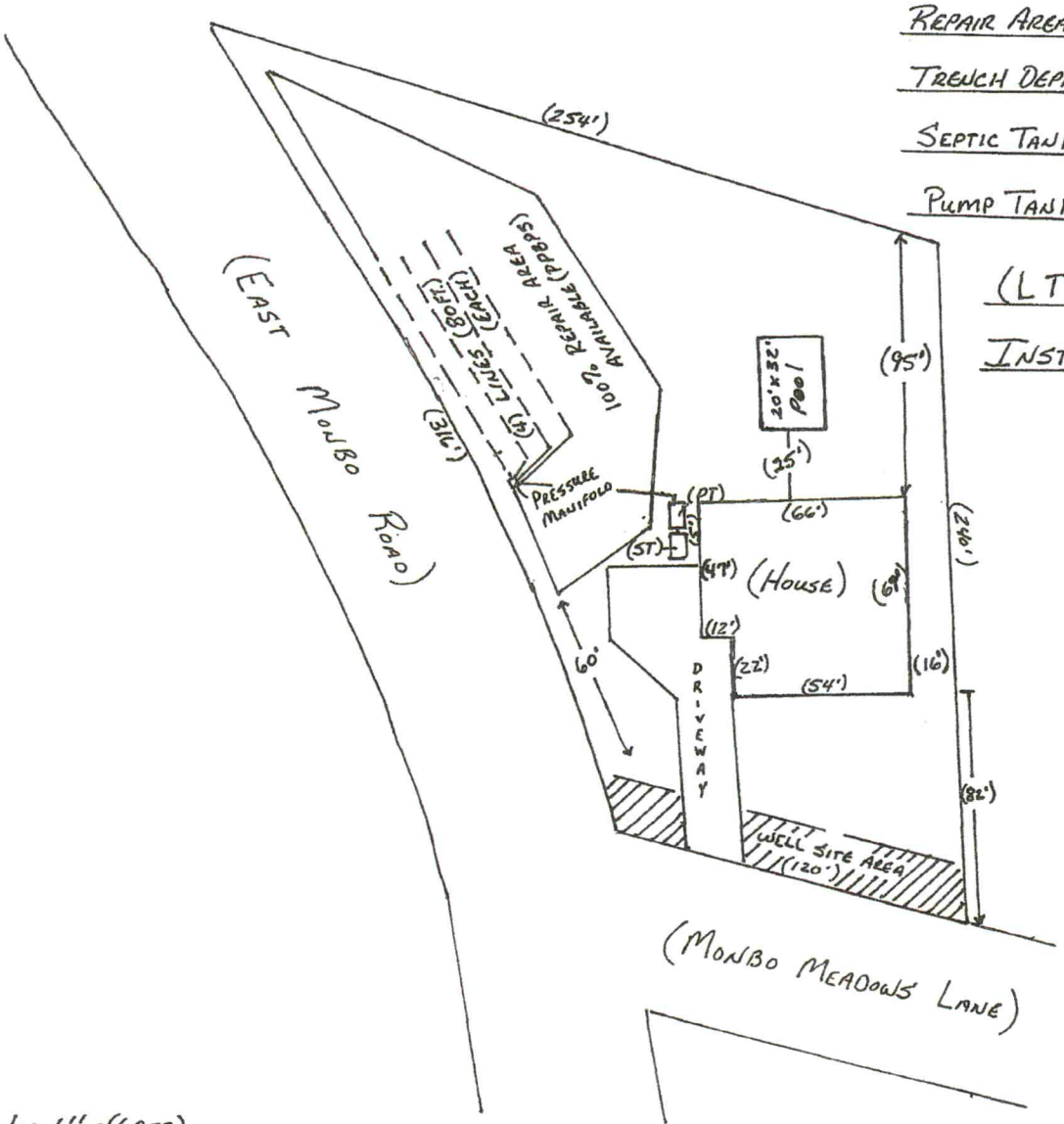
TRENCH DEPTH (36 INCHES MAX.)

SEPTIC TANK (1000gal.)

PUMP TANK (1000gal.)

(LTAR .25)

INSTALL PRESSURE MANIFOLD



Scale: 1" = (60FT.)

N

CALCULATIONS

Location Monbo Meadows
Lot No: 1

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.25	$^{gpd/ft^2}$
PPBPS RED.? (YES OR NO)	YES	
Supply Line Length	60	ft.
Supply Line Volume	10.44	gal.
Required Feet of Line	320	ft.
Amount of Line from Layout	320	ft.
Gallons per Minute	28.44	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	
Number of Panels	76	
Dosing Volume	273.60	gal.

Note: Dosing Volume based on 100% of # of panels times 3.6gal/panel

Tank Draw Down	13.0	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	9.62	minutes
Elevation Head	15	ft.
Pressure Head	2	ft.
Friction Factor	1.78	ft./100 ft. *(From the interpolater.)*
Friction Head	1.07	ft.
Total Dynamic Head (+20%)	21.68	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

PRESSURE MANIFOLD TAPSHEET
Monbo Meadows Lot 1

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Line GPD	Line Capacity	# of Panels
1	*Blue*		*80*	*SCH 40 1/2*	*7.11*	*68*	*68*	*19*
2	*Pink*		*80*	*SCH 40 1/2*	*7.11*	*68*	*68*	*19*
3	*Red*		*80*	*SCH 40 1/2*	*7.11*	*68*	*68*	*19*
4	*White*		*80*	*SCH 40 1/2*	*7.11*	*68*	*68*	*19*
						0		
	total	feet =	320	gal/min =	28.44			76
			Des. Flow	480				
			Pump Run=	9.62				
			soil LTAR	0.25				

MONBO MEADOWS (LOT #1)

INITIAL (PPBPS) (320 FT.) (4) 2' x 80'

REPAIR AREA (PPBPS) (320 FT.)

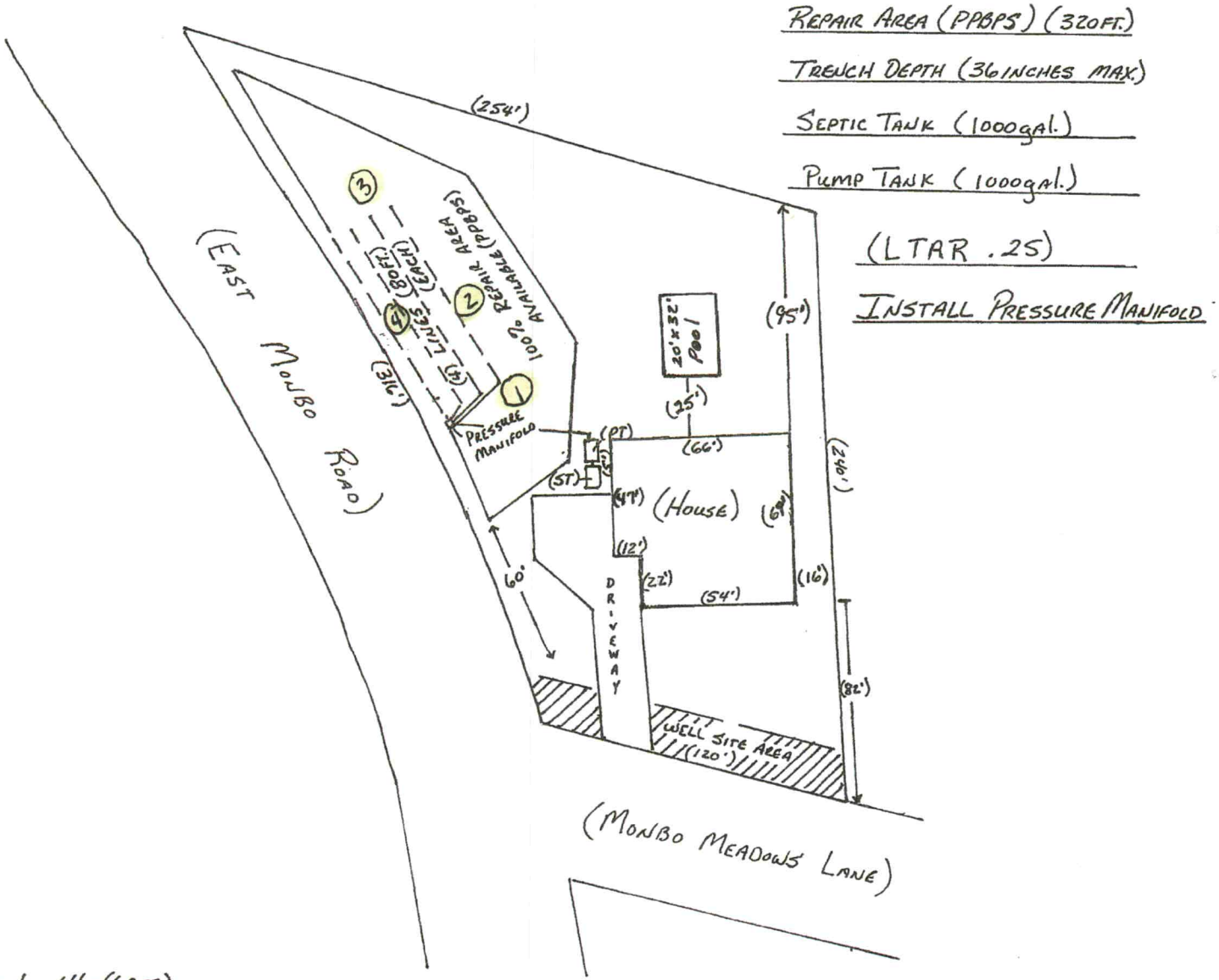
TRENCH DEPTH (36 INCHES MAX.)

SEPTIC TANK (1000 gal.)

PUMP TANK (1000 gal.)

(LTAR .25)

INSTALL PRESSURE MANIFOLD



SCALE: 1" = (60 FT.)

N

Sheet ___ of ___
PROPERTY ID #: 4721-12-5703
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
(Complete all fields in full)

OWNER: Ken Shaw APPLICATION DATE ____

ADDRESS: EAST MONBO RD. DATE EVALUATED: 5/1/23

PROPOSED FACILITY: 4BR/ House PROPOSED DESIGN FLOW (.1949): 480 PROPERTY SIZE: .92 Ac

LOCATION OF SITE: MONBO MEADOWS LOT #1 PROPERTY RECORDED: ____

WATER SUPPLY: (Private) . Public . (Well) . Spring . Other ____

EVALUATION METHOD: . Auger Boring . (Pit) . TYPE OF WASTEWATER: . (Sewage) . Industrial Process . Mixed

Lot 1

Landscape Position (1940)	L	L	L	L						
Slpoe%	5	5	5	5						
H 1 Depth (1943)	0-12	0-12	0-10	0-10						
H1 texture 1941	CL	CL	SCL	SCL						
H1 Structure 1941	Bk	Bk	Bk	Bk						
H1 Consistance 1941	Fr SP	Fr SP	Fr SS	Fr SS						
H1 Mineralogy 1941	SE	SE	SE	SE						
H 2 Depth (1943)	12-33	12-53	10-44	10-46						
H2 texture 1941	C	C	C	C						
H2 Structure 1941	Abk	Abk	Abk	Abk						
H2 Consistance 1941	Fi P	Fi P	Fi P	Fi P						
H2 Mineralogy 1941	SE	SE	SE	SE						
H 3 Depth (1943)	33-54		44-57	46-56						
H3 texture 1941	BC		BC	BC						
H3 Structure 1941	Abk-M		Abk-M	Abk						
H3 Consistance 1941	Fr-P		Fi SP	Fi SP						
H3 Mineralogy 1941	SE		SE	SE						
H 4 Depth (1943)			57-67							
H4 texture 1941			SL SAP							
H4 Structure 1941			RC							
H4 Consistance 1941			Fi SP							
H4 Mineralogy 1941			SE							
LTAR	.25	.25	.25	.25						

Description	Initial System	Repair	Other Factors 1946
System Type	50%	50%	Site Classification PS
LTAR	.25	.25	

LICENSED SOIL SCIENTIST
GARY L. EASTER
7073
STATE OF NORTH CAROLINA

Evaluated by Jeff Link Gene Young Gary Easter

Installer Information

The following details must be considered along with all other considerations:

Preconstruction Conference required with the installer, contractor, and AOWE before installation.

•Installation inspections by the AOWE (designer) must be scheduled 5 weekdays in advance

• Concrete Septic Tank shall be used an approved by NC DHHS, (Shoaf or HPPP 1000-gallon STB 760 1-piece septic tank and Shoaf or HPPP PT-363 1 piece pump tank required)

•All tanks shall be properly back filled and compacted to prevent slump in the future

•The installer is responsible for final grades and returning that grade to original, with the exception of added structural features

•The supply trench shall be compacted to eliminate any cavities left during initial fill placement continuous fall of 1/8 inches per foot required or sewage effluent pump will be required

•Installation of the system shall be completed during dry conditions in order to protect the soil structure

•All fittings shall be pressure rated fitting

•All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints

•Trenches shall be carefully excavated so the bottom has no more than ¼" fall in 10 feet, with no high or low areas within. **Do not over excavate trenches!** Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.

•All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the rise.

•Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.

•No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.

•Elevations at pin flag locations should be checked by the installer prior to beginning trenches to ensure accuracy

•If septic tank risers are used, they should be a minimum of 6" above finished grade or within 6" of final grade if buried

See Design Specification Sheet for Onsite Wastewater System information.

•If grading for slab foundation is utilized, do not grade/create greater than 2 feet of elevation difference within 15 feet of any component of the septic or repair. If back filling, do not backfill over any initial or repair septic line.

Onsite Wastewater Initial System is specified as a pressure manifold Vertical PPBPS system . Replacement System is a Vertical PPBPS system.

The system must be installed in accordance with the T & J PANEL DESIGN INSTALLATION manual.

•All Onsite Wastewater System components shall be 25' upslope, 15' side slope, and 10' downslope from any foundation drain

Divert all surface water from system area, and seed and landscape.