

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

Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5). [hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:				
□ (a2) Improvement Pern	nit 🗆 (a2)) Construction Authorization	□ (a2) Repair/Cons	truction Authorization
Please check one of the fo	llowing:			
New Construction	Expansion	System Relocation	Change of Use	🗆 Repair
□ 5 Year Expiration Reque	ested (site plan pro	ovided)		
□ Non-Expiring Permit Re	equested (plat prov	vided, as defined in G.S. 130A-3	334(7a)	
		,		
Property Owner Phone Nu	mber:			
Property Owner Email Add	lress:			
Applicant Name:				
Applicant Mailing Address	:			
Applicant Email Address: _				
Does the property include,	, or is subject to, a	ny of the following:		
🗆 Yes 🛛 No	Previously identifi	ied jurisdictional wetlands		
🗆 Yes 🛛 No	Existing or propos	ed easements, rights-of-way, e	encroachments, or other ar	reas subject to legal restrictions
🗆 Yes 🗆 No	Approval by other	public agencies		
		etch submitted from the LSS/AG		owing:
		ctures, appurtenances, and wa	-	
		ng setbacks to property line(s)	or other fixed reference po	vint(s)
(C) existing and propo		ic areas s, wells, springs, and water line	act and	
		d all existing and proposed artit		e.
Requesting DHHS review:	🗆 Yes 🗆 No			
I understand that the doc	umentation and fe	ees, as required in G.S. 130A-33	35(a2), (a3), (a5), and (a6),	attached to this application
		mit and/or Construction Author	•	
	-	e officials are granted right of e		
		e compliance with applicable la t and/or Construction Authoriz		
		Authorization shall become inv		of the site is allered, then
Angliaget Cimeture			Data	

Applicant Signature:	Date:
Owner's Signature:	Date:

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH

LOCATION: 5605 Six Forks Road, Building 3, Raleigh, NC 27609 MAILING ADDRESS: 1632 Mail Service Center, Raleigh, NC 27699-1632 www.ncdhhs.gov • TEL: 919-707-5854 • FAX: 919-845-3972

		Permit #:	
NC DEPARTMENT OF HEALTH AND HUMAN SERVICES	SUSAN KANSAGRA Division of Public Heal	Secretary puty Secretary for Health • Assistant Secretary for P Ith	
] (a2) Construction Authorizat		
		(42)	
County: PIN/Lot Identifier:			
Issued To:			
Property Location:			
Subdivision (if applicable)			Section:
LSS Report Provided: Yes No			
If yes, name and license number of LSS:			
NewExpansion		Change of Use	
Proposed Structure:	· —	-	
Number of bedrooms: Number of Occupants:			
Design Wastewater Strength: domestic			
Proposed Design Daily Flow: GPD Pro			
Proposed Wastewater System Type*: 0.2			
Proposed Wastewater System Type*:			
*Please include system classification for proposed wastewater			
Saprolite System (initial): Yes No Saprolite Syst		-	
Fill System (Initial): Yes No If yes, specify: New		han 6 inches of fill to system	area provide a fill plan)
Fill System (repair): Yes No If yes, specify: New			
Usable Soil Depth (Initial): Usable Soil Depth			
Max. Trench Depth (Initial) [‡] : Max. Trench I			nhill side of the trench
Artificial Drainage Required: Yes No If yes, please spe			
Type of Water Supply: Private well Public well S			
Drainfield location meets requirements of Rule .1945: Yes 🗌	No Drainfield location m	neets requirements of Rule .1	.950: Yes 🗌 No 🗌
Permit valid for: 🔲 Five years [site plan submitted pursuant to	GS 130A-334(13a)] 🗌 No exp	piration [plat submitted pursu	uant to GS 130A-334(7a)]
Permit conditions:			
Licensed Soil Scientist Print Name:			
Licensed Soil Scientist Signature:		Date:	
Sound Republic	attached site sketch*		2].
NC DEPARTMENT OF HEALTH AN			
MAILING ADDRESS: 1632 I	Forks Road, Building 3, Raleigh, I Mail Service Center, Raleigh, NC TEL: 919-707-5854 • FAX: 919-8	27699-1632	

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER



This Section for Local Health Department Use Only

Initial submittal received: ______ by _____

Date 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 Applica	int on		
951-08	Date		
State Authorized Agent:		Date:	
Complete			
State Authorized Agent:		Date:	

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: _____

See attached site sketch



Permit #: _

Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received:		by
	Date	Initials

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

I, _______hereby attest that the information required to be included with this re-submittal Licensed Soil Scientist (Print Name) is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

Signature of Licensed Soil Scientist

Date

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Improvement Permit

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

Date

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 ____

State Authorized Agent: _____

Complete

State Authorized Agent: _____

Date: _____

Date: _____



Permit #: ____

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

County:
PIN/Lot Identifier:
Issued To:
Property Location:
AOWE/PE Plans/Evaluations Provided: Yes No If yes, name and license number of AOWE/PE:
Facility Type:
New Expansion Repair System Relocation Change of Use
Basement? Yes No Basement Fixtures? Yes No
Type of Wastewater System*(Initial)(Repair)
*Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)
Design Daily Flow: 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: gallons Total Trench/Bed Length: feet Trench/Bed Spacing: feet on center
Trench/Bed Width: inches LTAR: gpd/ft ²
Soil Cover: inches Slope Corrected Maximum Trench/Bed Depth [‡] : inches <i>* Measured on the downhill side of the trench</i>
Aggregate Depth:inches above pipeinches below pipeinches total
Pump Tank Size (if applicable): gallons Requires more than 1 pump? 🔲 Yes 🗌 No
Pump Requirements:ft. TDH vs 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:
ACTUMIN
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: A
AOWE/PE Signature: Date: Date: This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5)
See attached site sketch



Permit #:

This Section for Local Health Department Use Only

Initial submittal received: ______ by

Date 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	AV781				
State Authorized Agent:		Date:				
Complete		518				
State Authorized Agent:		Date of Issuance:				

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: _____

See attached site sketch



Permit #:

Re-submittal of Construction Authorization

	LHD USE ONLY:	This CA resubmittal receiv	ved:	by		_
			Date		Initials	
The following i	items are being resul	omitted pursuant to G.S. 13	80A-335(a5) for issuan	ce of the Cons	struction Author	ization:
l,		hereby att	est that the information	on required to	be included wit	h this re-submitta
is accurate and		tor (Print Name) st of my knowledge and th ations, rules, and ordinanc		ruction Autho	rization meets a	all applicable
Signatu	re of Authorized On-Site	Wastewater Evaluator		Date	3	
	82	LANK			n	
	The section belo	w is for Local Health Departm	nent use after submittal	of items noted	as missing above.	
LHD Follow-ı	up Completenes	s Review of Construct	ion Authorization			
	completeness of thi on Authorization is (s Construction Authorization determined to be:	on re-submittal was co	onducted in ac	cordance with G	G.S. 130A-335(a5).
Incomplete	(If box is checked, ir	nformation in this section is	s required.)			
The following it	tems are missing:					
		SSE O	LIAM VIDES	19		
Copies of this w	vere sent to the AON	NE/PE and the Applicant o	n Date	2		
State Authorize	ed Agent:				Date:	
Complete						
State Authorize	ed Agent:				Date:	

Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321 Fayetteville, NC 28311 Phone/Fax (910) 822-4540 Email mike@southeasternsoil.com

January 22, 2025

Mr. Mateo Burbano Clayton Properties Group 2521 Schieffelin Rd., Suite 116, Apex, NC 27502

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-335(A2)/SL 2022-11), 62 Atherton Circle, Angier, NC 27501, Lot 39, Cambridge Reserve Subdivision, Harnett County, North Carolina

Dear Mr. Burbano,

A soil/site evaluation has been conducted on the aforementioned property at your request. The purpose of the investigation was to determine if soils were suitable or provisionally suitable for a subsurface waste disposal system (conventional, accepted and innovative) to serve a proposed single-family residence (4-bedroom home). All ratings and determinations were made in accordance with "Laws and Rules for Wastewater Treatment and Dispersal Systems, 15A NCAC 18E". This LSS evaluation is being submitted to meet the requirements of GS 130A-335(a2)/SL 2022-11.

The soil evaluation was completed on January 15, 2025. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a footslope landscape (3-7% slope). Soil borings conducted in most of this area consisted of 24 or more inches of loamy sand/sandy loam underlain by sandy clay loam to 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 48inches below the soil surface (initial and repair system). All other soil characteristics were suitable to at least 48 inches. Rounded rock was observed in several borings and presented auger refusal at depths at 39-40 inches below the land surface.

Based on soil borings and site conditions, the site would be designated Suitable for a pump to accepted subsurface waste disposal drainfield (0.5 gal/day/ft2 LTAR; initial system). There is enough suitable soil area to allow for a pump to accepted subsurface septic system repair (0.5 gal/day/ft2). A map showing the approximate location of the site and proposed septic layout accompanies this report. **[Note: No grading, rutting or other soil disturbance can occur in or**]

near the proposed septic area. Any grading can alter the findings of this report and render the site unusable. As such, we recommend the builder protect the proposed septic areas with rope, flagging, fencing, etc.]

Design Summary

- Pump to Accepted product with pressure manifold (240', see septic layout)
- 480 gal/day flow rate (4BR)
- 20" maximum trench depth (initial system)
- Initial System 0.5 gpd/ft2 LTAR
- Repair System 0.5 gpd/ft^2 LTAR
- Pump to produce 27.3 gpm at 13.8 TDH
- Pump dose 105 gallons (5.3" drawdown-pending final pump tank gallons/inch)
- 1000-gallon septic and pump tank (each certified watertight)
- No grading, rutting or filling in septic areas
- No vertical cuts (greater than 2') within 15' of septic lines/areas
- Keep tanks and drainlines 10' from property lines
- Keep supply line 5 or more feet from property lines
- Install in dry soil conditions
- Maintain natural contours when clearing the lots
- Direct gutter water away from septic system

During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend all lot clearing activity be delayed until the local health department issues a permit.

To the extent possible, we have identified the soil types that will impact the flow of wastewater on this site and have provided a professional opinion as to the best septic system layout. This report does not guarantee that the proposed septic system will properly function for any specific length of time.

Sincerely,

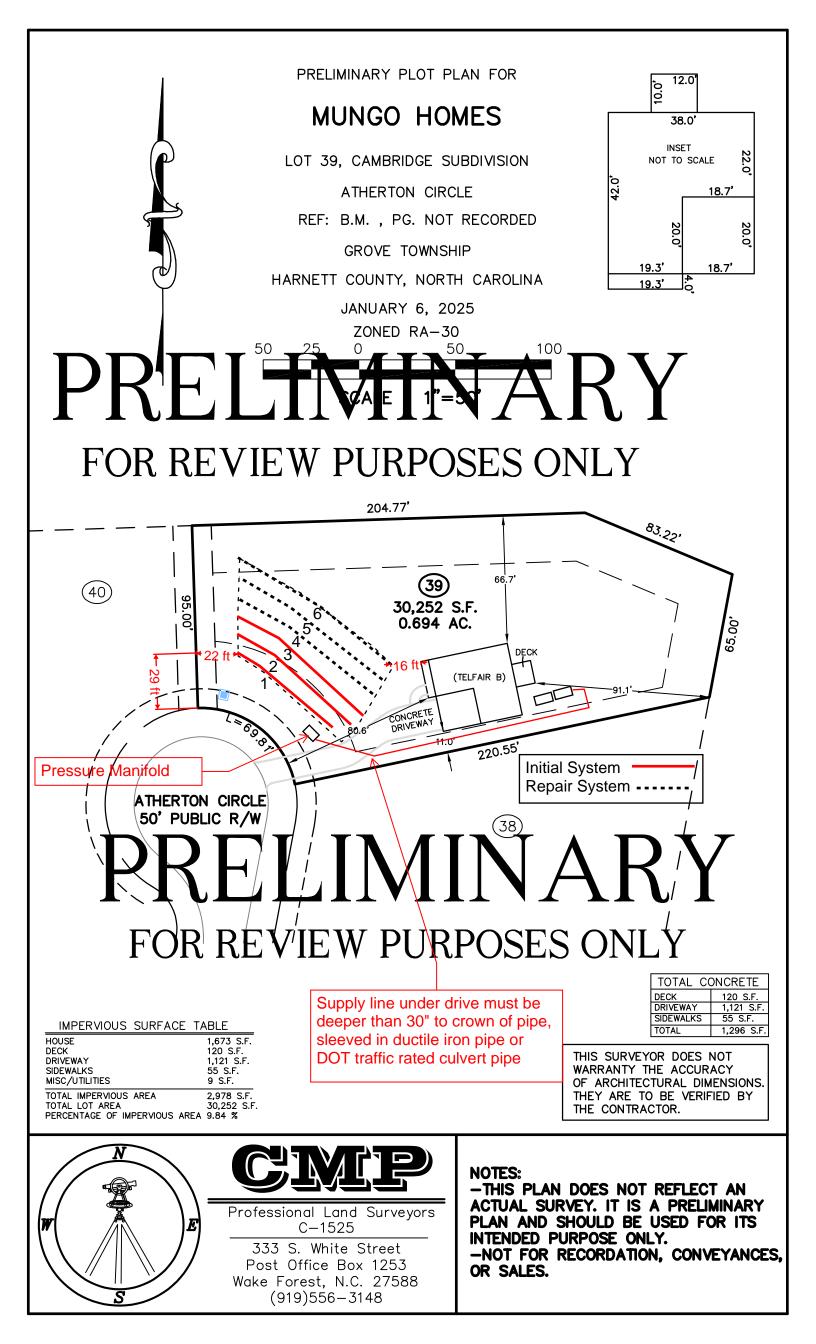
John Kase NC Licensed Soil Scientist #1323 NC Authorized Wastewater Evaluator #10060E NC REHS #1785



SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC.

PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET

<u>SUBDIVISI</u>	ON:		LOT			
INITIAL SY	STEM:		REPAIR: DISTRIBUTION			
DISTRIBUT	FION:					
BENCHMA	NRK: 100.0		LOCATION			
NO. BEDR	OOMS:		LTAR			
<u>SEPTIC TA</u>	NK SIZE		PUMP TANK SIZE			
<u>LINE</u>	FLAG COLOR	ELEVATION	<u>LENGTH</u>			
ВҮ		_	DATE			
<u>TYPICAL P</u>	ROFILE	_	THERE SHALL BE NO GRADING,			
		_	CUTTING, LOGGING OR OTHER SOIL			
		_	DISTURBANCE IN SEPTIC AREA			
		_	HEALTH DEPARTMENT USE ONLY.			
			DESIGNS DO NOT GURANTEE FUNCTIONALITY			



SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC. RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # <u>62</u>	Atherton Circle	e, Angier						
# of BDR: <u>4</u>	Daily Flow:	<u>480</u>	gal/day	L.T.A.R.:	<u>0.5000</u>	gal/day/sq.ft		
Septic Tank: <u>1200</u>	gals	Pump Tank:	<u>1200</u>	gals	Sq. Foot:	<u>735</u>	System Type:	Accepted
Number of Taps:	<u>3</u>	Length o	of Trenches:	<u>245</u>	ft(See Tap	Chart for Deta	iils)	
Depth of Trenches:	<u>20</u>	in	Ма	nifold Length:	<u>36</u>	in		
Manifold Diameter:	4in sch 80pv	<u>c</u>	Tap Config	uration: 6 in sp	bacing	<u>1</u>	side(s) of man	ifold
Supply Line: length:	<u>100</u>	ft		Diameter:	<u>2</u>	in sch 40pvc		
Friction Loss + Fitting L	oss:	<u>2.98</u>	ft(supply li	ne length + 70'	for fitting	s in pump tank))	
Design Head:	2	ft	Elevation H	lead:	<u>8.90</u>	ft		
Total Head:	<u>13.88</u>	ft	Pu	mp to Deliver:	<u>27.31</u>	gals/min at	13.88	ft head
Dosing Volume:	<u>105</u>	gals,						
Drawdown: 105	_gals divided	by	<u>20</u>	gals/in =	<u>5.3</u>	inches		

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

			Т							
Benchmark	3.5	is = 100.00	set at	water meter			Design Head:	2		
Pump tank elev.		9	94.50	Pump elev.	89.50		Manifold elev.	98.40		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)
1	Pink	6.10	97.40	65	1/2in SCH 40	7.11	124.97	195	0.6408	
2	Blue	6.80	96.70	85	3/4in SCH 80	10.1	177.52	255	0.6961	
3	Green	7.40	96.10	95	3/4in SCH 80	10.1	177.52	285	0.6229	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			Total Feet =	245	gal/min =	27.31		LTAR =	0.5000	
			Feet Required =	240	Velocity =	2.61		(ltar + 5%)	0.5250	
Total # of Panels (P	PBPS)			Des. Flow	480			(Itar w/25% red)	0.6667	
% of Dose Vol.		66		Pump Run=	17.58			(ltar + 5%)	0.7000	
Dose Volume		105		Tank Gal/IN	20					
Dose Pump Time		3.85		Elev. Head	8.90					
Drawdown in Inches	s	5.3								
Comments:										

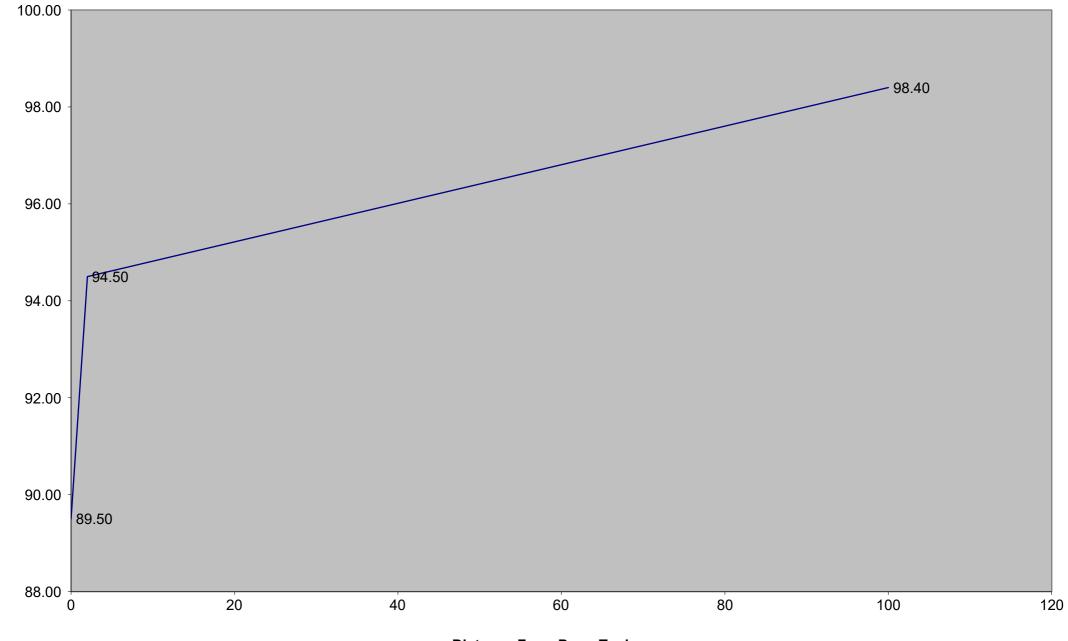
SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC. PRESSURE MANIFOLD DESIGN - REPAIR SYSTEM

# of BDR: <u>4</u>	Daily Flow:	<u>480</u>	gal/day	L.T.A.R.:	<u>0.5000</u>	gal/day/sq.ft		
Septic Tank: 1200	gals	Pump Tank:	<u>1200</u>	gals	Sq. Foot:	<u>720</u>	System Type:	Accepted
Number of Taps:	<u>3</u>	Length of	Trenches:	240	ft(See Tap	Chart for Detail	s)	
Depth of Trenches:	<u>20</u>	in	Manifo	old Length:	<u>36</u>	in		
Manifold Diameter:	4in sch 80pv	<u>'C</u>	Tap Confi	guration: 6	in spacing	<u>1</u>	side(s) of mai	nifold
Supply Line: length:	<u>100</u>	ft		Diameter:	<u>2</u>	in sch 40pvc		
Friction Loss + Fitting	J Loss:	<u>1.89</u>	ft(supply l	line length	+ 70' for fitti	ngs in pump ta	nk)	
Design Head:	2	ft	Elevation	Head:	<u>7.10</u>	ft		
Total Head:	<u>10.99</u>	ft	Pump	to Deliver:	<u>21.33</u>	gals/min at	<u>10.99</u>	ft head
Dosing Volume:	<u>103</u>	gals,						
Drawdown: 103	gals divided	l by	<u>20</u>	gals/in =	<u>5.1</u>	inches		

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

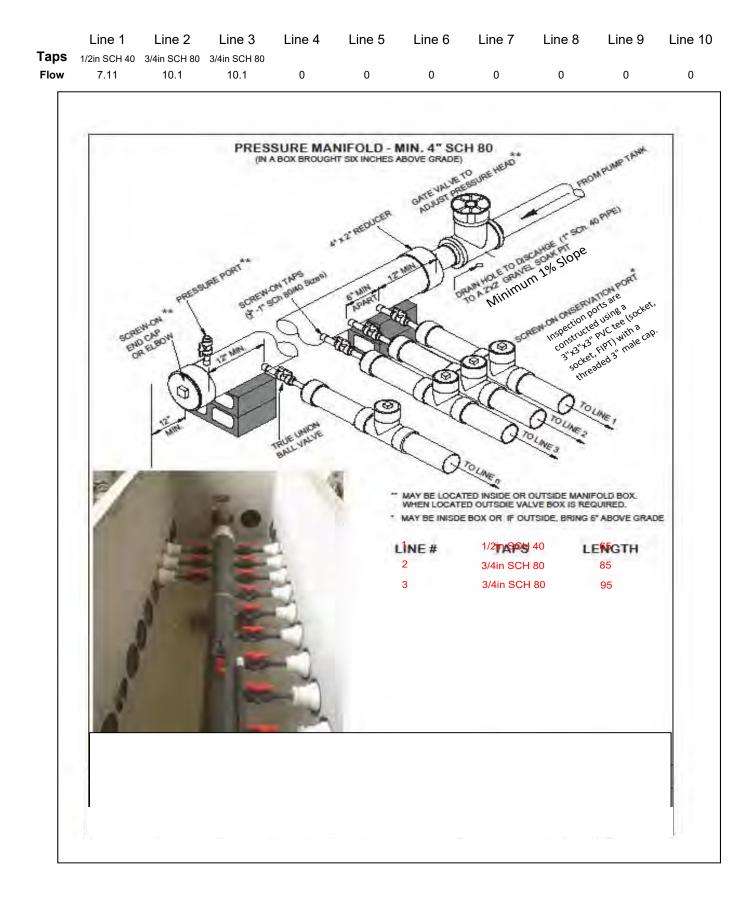
			T	АР СНАР	RT					
Benchmark	<u>3.5</u>	is = 100.00	set at				Design Head:	2		
Pump tank elev.		<u>9</u>	94.50	Pump elev.	89.50		Manifold elev.	96.60		# of Panels
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)
4	Red	7.90	95.60	80	1/2in SCH 40	7.11	160.00	240	0.6667	
5	Pink	8.50	95.00	80	1/2in SCH 40	7.11	160.00	240	0.6667	
6	Blue	8.80	94.70	80	1/2in SCH 40	7.11	160.00	240	0.6667	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			103.50			0	0.00	0	#DIV/0!	
			Total Feet =	240	gal/min =	21.33		LTAR =	0.5000	
			Feet Required =	240	Velocity =	2.04		(ltar + 5%)	0.5250	
Total # of Panels ((PPBPS)			Des. Flow	<u>480</u>			(Itar w/25% red)	0.6667	
% of Dose Vol.		66		Pump Run=				(ltar + 5%)	0.7000	
Dose Volume		103		Tank Gal/IN	20					
Dose Pump Time		4.83		Elev. Head	7.10					
Drawdown in Inch	nes	5.1								
Comments:										

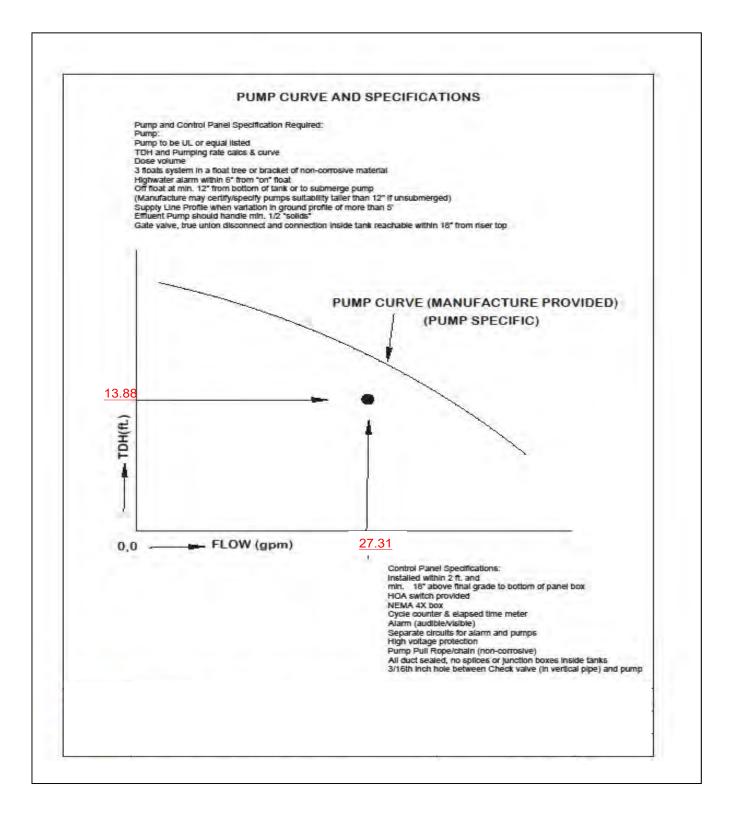
Hydraulic Profile



Elevation related to TBM

PM Draw





TERN SOIL	L & ENVIRONMENTAL TES, INC.	SOI	L/SITE EVALUAT		Sheet #:		1	
P. NAME:	Clayton Properties Grou	ıp		SUBDIV./LOT#	Cambridge Reserve Lot 39			•
OF SITE:	62 Atherton Circle, Angi					0		
	Harnett	PROPERTY ID #: 0681-45-6463			DATE EVALUATED: 1/15/202			
FACILITY:	SFR	PROPOSED DESIGN	480	PROPER	RTY SIZE	s		
PLY:	Public		SETBACK:	10'	10'			
TYPE OF WASTEWATER:		Domestic		EVALUATION METH	Auger			
.0502	HORIZON DEPTH (IN.)	SOIL MORPH		OTHER ILE FACTORS			.0509	
ANDSCAPE POSITION/ SLOPE %		.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	PROFILE CLASS & LTAR
	0-39	LS / Gr	VFR/NS/NP			Not Observe d	Not Observe d	S-0.8
	39	Auger Refusal		Not Observed				
5%					39			
.0502(d) SLOPE RRECTION								
"								
	0-20	LS / Gr	VFR/NS/NP		-		N.O.	S-0.5
5%	20-48	SCL / Sbk w	FR/SS/SP		-	N.O.		
.0502(d)					48			
SLOPE RRECTION				Not Observed				
	0-20	LS / Gr	VFR/NS/NP		-	N.O.	N.O.	S -0.5
5%	20-29	SCL / Sbk w	FR/SS/SP		-			
.0502(d) SLOPE	29-36	SCL-CL / Sbk w	FR/SS/SP		48			
RRECTION	36-48	SCL / Sbk w	FR/SS/SP		-			
1.8"				Not Observed				
	0-34	LS / Gr	VFR/NS/NP		-	N.O.	N.O.	S - 0.5
5%	34-40	SL / Gr	VFR/NS/NP		-			
.0502(d) SLOPE	40	Auger Refusal			40			
RRECTION				Not Observed	-			
DN:	INITIAL SYSTEM	REPAIR SYSTEM SITE CLASSIFIC		· · · · ·	Suitable	the second s		
ace	Suitable	Suitable	EVALUATED BY:		John Ka	se	100	SOUS
(s):	25% Reduction	25% Reduction	OTHER(S) PRES	ENT:			1000	L. C.
	0.350	0.400				- 1	11%	14 EN
		18"				1	MA 66	
tem:						6	tot er	
	I rench bottoms depth n	neasure on downslope	side of trench			1	121 4	1323 5
		25% Reduction 0.350 18" No	25% Reduction 25% Reduction 0.350 0.400 18" 18" No 18"	25% Reduction 25% Reduction OTHER(S) PRES 0.350 0.400 18" 18"	25% Reduction 25% Reduction OTHER(S) PRESENT: 0.350 0.400 18" 18" No 18" 18" 18"	25% Reduction 25% Reduction OTHER(S) PRESENT: 0.350 0.400 18" 18" No	25% Reduction 25% Reduction OTHER(S) PRESENT: 0.350 0.400	25% Reduction 25% Reduction OTHER(S) PRESENT: 0.350 0.400 18" 18" No 0.000

Standard Abbreviations									
LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL LTAR	SAPROLITE	LPP LTAR	MINERALOGY/ CONSISTENCE	STRUCTURE		
CC (Concave Slope)	1	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 - 0.6	SEXP (Slightly Expansive)	G (Single Grain)		
CV (Convex Slope)		LS (Loamy Sand)	0.0 - 1.2	0.5 - 0.7		EXP (Expansive)	M (Massive)		
D (Drainage Way)							GR (Granular)		
FP (Flood Plain)		SL (Sandy Loam)	0.6 - 0.8	0.4 - 0.6 0.2 - 0.4	0.3 - 0.4	MOIST	SBK (Subangular Blocky)		
FS (Foot Slope)		L (Loam)	0.0 - 0.8			VFR (Very Friable)	WSBK (Weak Subangular Blocky)		
H (Head Slope)						FR (Friable)	ABK (Angular Blocky)		
L (Linear Slope)		SiL (Silt Loam)		0.1 - 0.3		FI (Firm)	PL (Platy)		
N (Nose Slope)		SCL (Sandy Clay Loam)		0.05 - 0.15*		EFI (Extremely Firm)	PR (Prismatic)		
R (Ridge/Summit)		CL (Clay Loam)	0.3 - 0.6	N/A	0.15 - 0.3		MA-RCF (Massive Rock Controlled Fabric		
S (Shoulder Slope)		SiCL (Silty Clay Loam)				WET	AR (Auger Refusal)		
T (Terrace)		Si (Silt)				NS (Non-Stick)			
TS (Toe Slope)					SS (Slightly Sticky)	OTHER			
		SC (Sandy Clay)	0.1 - 0.4	N/A	0.05 - 0.2	S (Sticky)	NO (Not Observed)		
	IV	SiC (Silty Clay)				VS (Very Sticky)			
		C (Clay)				NP (Non-plastic)			
					SP (Slightly Plastic)				
	O (Orgar	nic)	N/A N/A		N/A	P (Plastic)			
						VP (Very Plastic)			
NOTES:									
SAPROLITE*	*Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.								
HORIZON DEPTH	In inches below natural soil surface								
DEPTH OF FILL	In inches from land surface								
RESTRICTIVE HORIZON		Thickness and depth from land surface							
SAPROLITE	`	S (suitable) or U (unsuitable)							
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation								
CLASSIFICATION		le) or U (Unsuitable)							
Long-term Acceptance Rate (L	TAR): gal/da	y/ft2							

