

Southeastern Soil & Environmental Associates, Inc.

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

Subsurface wastewater evaluation by Southeastern Soil & Environmental Associates, Inc. for David Webb, Walker Road, Linden, NC in accordance with Session Law GS 130A-335(a2)/SL 2022-11.

The LSS evaluation attached is to be used to produce, design and demonstrate construction features for permitting in accordance with SL 2018-114 Section 11 (c).

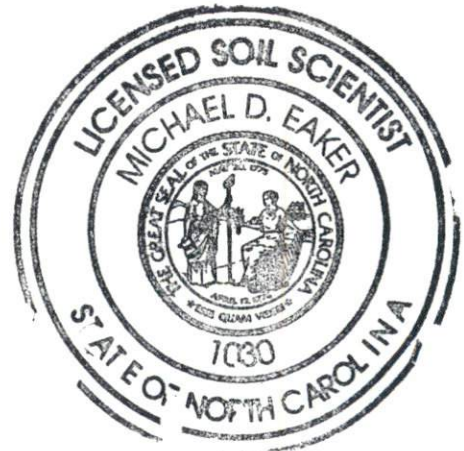
Owner:

Alpha

Owners Representative:

Date:

Apr 3 2023



IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 0546-30-3245.000

Issued To: David Webb, 230 Widgeon Way, Lillington, NC 27546

Property Location: 874 Walker Rd., Bunnlevel, NC 28323

Subdivision: Walker Road Lot #: 1 Block: _____ Section: _____

LSS Report Provided: Yes No

If yes, name and license number of LSS: Michael D. Eaker, #1030

New Repair Expansion System Relocation

Proposed Structure: Single Family Dwelling

Proposed Wastewater System Type: Accepted (Initial) Low Profile Chamber (Repair)

Fill System: Yes No If yes, specify: New Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3

Design Wastewater Strength: domestic high strength industrial process

Number of bedrooms: 4 Number of Occupants: _____ Other: _____

Pump Required: Yes No May be required based upon final location and elevations of facilities

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

Type of Water Supply: Private well Public 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:

Do not disturb soil (cut, rut, etc.) in initial or repair septic drainfield area. Any soil removal will nullify the permit.

Install at 12" trench depth. Add 6" approved soil cover after installation.

Licensed Soil Scientist Print Name: Michael D. Eaker

Licensed Soil Scientist Signature:  Date: 4/28/23

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

See attached site sketch

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

Permit Number: _____

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

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 Owner on _____
Date

State Authorized Agent: _____ Date: _____

Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date of Issuance: _____

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) 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 site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. 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 conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

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

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 0546-30-3245.000

Issued To: David Webb, 230 Widgeon Way, Lillington, NC 27546

Property Location: 874 Walker Rd., Bunnlevel, NC 28323

AOWE/PE Plans/Evaluations Provided: Yes No If yes, name and license number of AOWE/PE: Michael D. Eaker, AOWE 10013E

Facility Type: Single Family Dwelling

New Expansion Repair System Relocation

Basement? Yes No Basement Fixtures? Yes No

Type of Wastewater System** Accepted (Initial) Low Profile Chamber (Repair)

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

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 400 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1200 Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft²

Soil Cover: 6 inches Slope Adjusted Maximum Trench/Bed Depth: 15 inches

Aggregate Depth: NA inches above pipe NA inches below pipe _____ inches total

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

Pump Requirements: NA ft. TDH vs. NA 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

****If applicable:**
I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.
Owner/Legal Representative Print Name: _____
Owner/Legal Representative Signature: _____ Date: _____

Pre-Construction Conference Required: Yes No

Conditions: _____

Do not disturb soil (cut, rut, etc.) in initial or repair septic drainfield area. Any soil removal will nullify the permit.

Install at 12" trench depth. Add 6" approved soil cover after installation.

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: Michael D. Eaker

AOWE/PE Signature:  Date: 4/28/23

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

See attached site sketch

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

Permit Number: _____

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

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 Owner on _____
Date

State Authorized Agent: _____ Date: _____

Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) 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, or if information submitted in the application was falsified, inaccurate or misleading. 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 location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

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

Southeastern Soil & Environmental Associates, Inc.

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

April 28, 2023

Mr. David Webb
230 Widgeon Way
Lillington, NC 27546

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-335(a2)/SL 2022-11),
874 Walker Road, Lot 1, 15.31 acres, Bunnlevel, Harnett County, North Carolina

Dear Mr. Webb,

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 Sanitary Sewage Collection, Treatment, and Disposal, 15A NCAC 18A .1900". **This LSS evaluation is being submitted to meet the requirements of GS 130A-335(a2)/SL 2022-11.**

The soil evaluation was completed on April 26, 2023. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a linear slope landscape (3 - 6% slope). Soil borings conducted in most of this area consisted of 6 or more inches of loamy sand underlain by sandy clay loam, sandy clay, and/or sandy loam to depths of 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 28 inches below the soil surface (initial and repair system). All other soil characteristics were either suitable or provisionally suitable to at least 48 inches.

Based on soil borings and site conditions, the site would be designated provisionally suitable for a shallow accepted subsurface waste disposal drainfield (0.30 gal/day/ft² LTAR; initial system). There is enough provisionally suitable soil area to allow for a low-profile chamber subsurface septic system repair (0.30 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

- Accepted product (400', initial system; see septic layout)
- 480 gal/day flow rate (4BR)
- 15" maximum trench depth
- 0.30 gpd/ft² LTAR (initial and repair)
- 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**

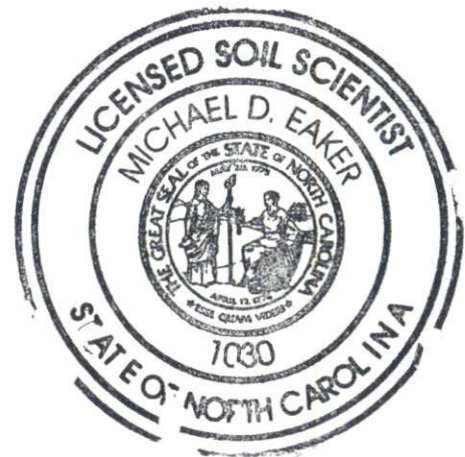
During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend 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,



Mike Eaker
NC Licensed Soil Scientist # 1030
NC Authorized Wastewater Evaluator 10013E



* may be able to avoid LAC in top lines

SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC. install $\text{\textcircled{E}}$ @ bottom lines (better soil)

PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET

SUBDIVISION: 874 Walker Rd

LOT 1

G-RAV

G-RAV

INITIAL SYSTEM: APPROVED 25% REDUCTION

REPAIR Low Profile Chamber

DISTRIBUTION: D-Box

DISTRIBUTION D-Box

BENCHMARK: 100.0

LOCATION House Box Back Left To S

NO. BEDROOMS: 4

LTAR 0.3 gpd/ft²

SEPTIC TANK SIZE: 1,000

PUMP TANK SIZE: N/A

LINE	FLAG COLOR	ELEVATION	LENGTH
1	P	95.50	110
2	W	95.00	110
3	R	94.33	110
4	Y	93.93	110
5	P	92.50	110
			<u>550'</u>

R {

6	W	92.17	100
7	R	91.75	100
8	L	91.33	100
9	O	91.00	100
			<u>400'</u>

INITIAL SEPTIC SYSTEM {

BY B.C. Raynor

DATE 04/30/2023

TYPICAL PROFILE (INITIAL SYSTEM)

THERE SHALL BE NO GRADING,

0-6 LS vfri gran

CUTTING, LOGGING OR OTHER SOIL

6-18 SCLAY firm SBK

DISTURBANCE IN SEPTIC AREA

18-48 SCL firm SBK

HEALTH DEPARTMENT USE ONLY.

CR2 ≥ 29"

DESIGNS DO NOT GUARANTEE FUNCTIONALITY

INSTALL AT 12". ADD 6" COVER

Southeastern Soil & Environmental Associates, Inc.

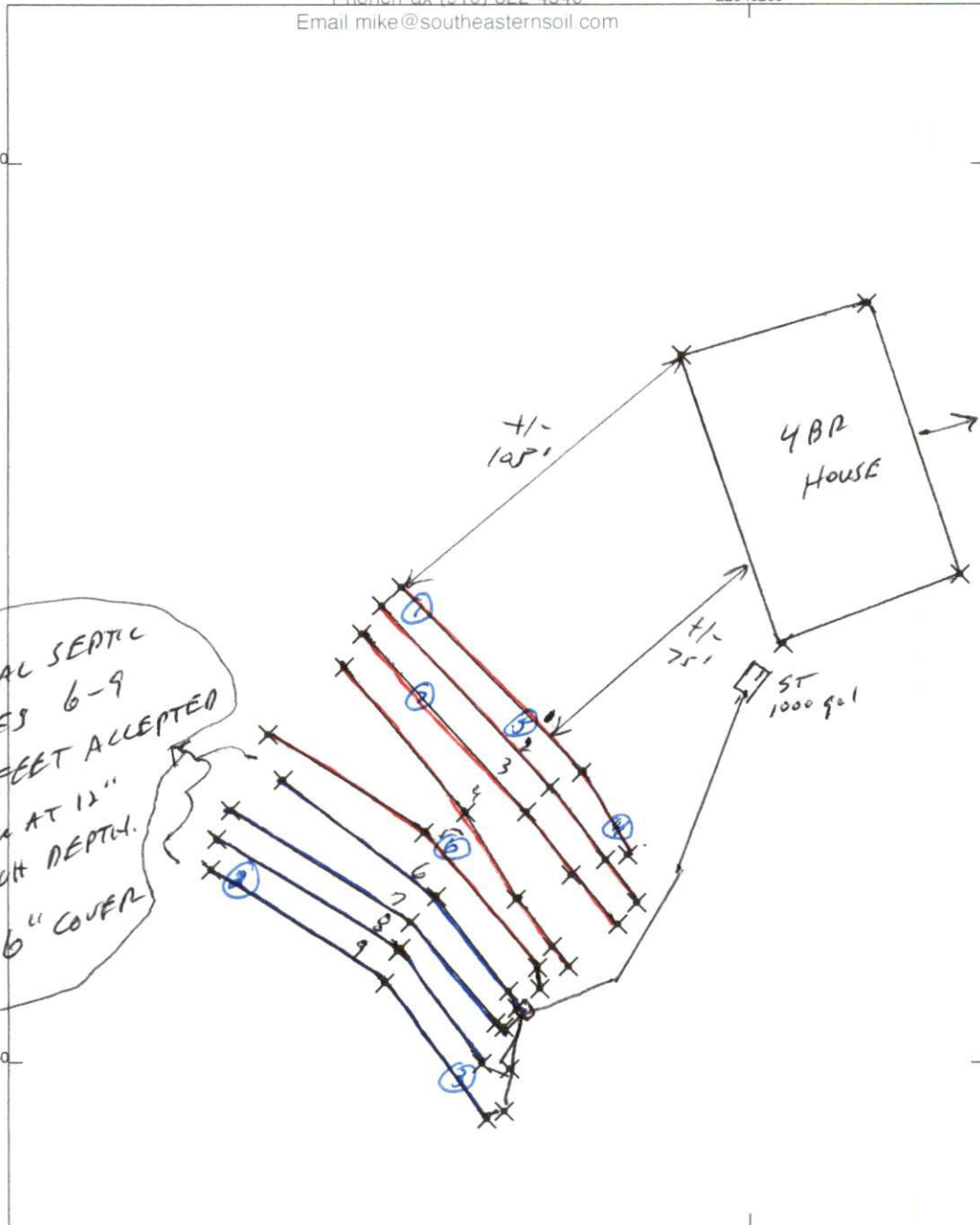
P.O. Box 9321
Fayetteville, NC 28311
Phone/Fax (910) 822-4540
Email mike@southeasternsoil.com

E2043250

N540500

N560250

INITIAL SEPTIC
LINES 6-9
400 FEET ACCEPTED
INSTALL AT 12"
TRENCH DEPTH.
ADD 6" COVER



TO WALKER ROAD

Proposed Septic Layout, David Webb, WALKER ROAD Harnett County, NC

US State Plane 1983
North Carolina 3200
NAD 1983 (Conus)



Scale 1:600



Feet

WALKER ROAD.SSF
4/27/2023

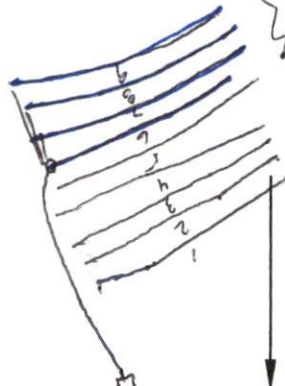
GPS Pathfinder® Office
Trimble

1" = 50'
Blowup

1" = 100'

INITIAL
SEPTIC
LINES 6-9
400 FEET
ACCEPTED

667,142 SQ.FT.
15.31 AC.



51

187.7'

05'27" E

509.8'

850.00'

412.1'

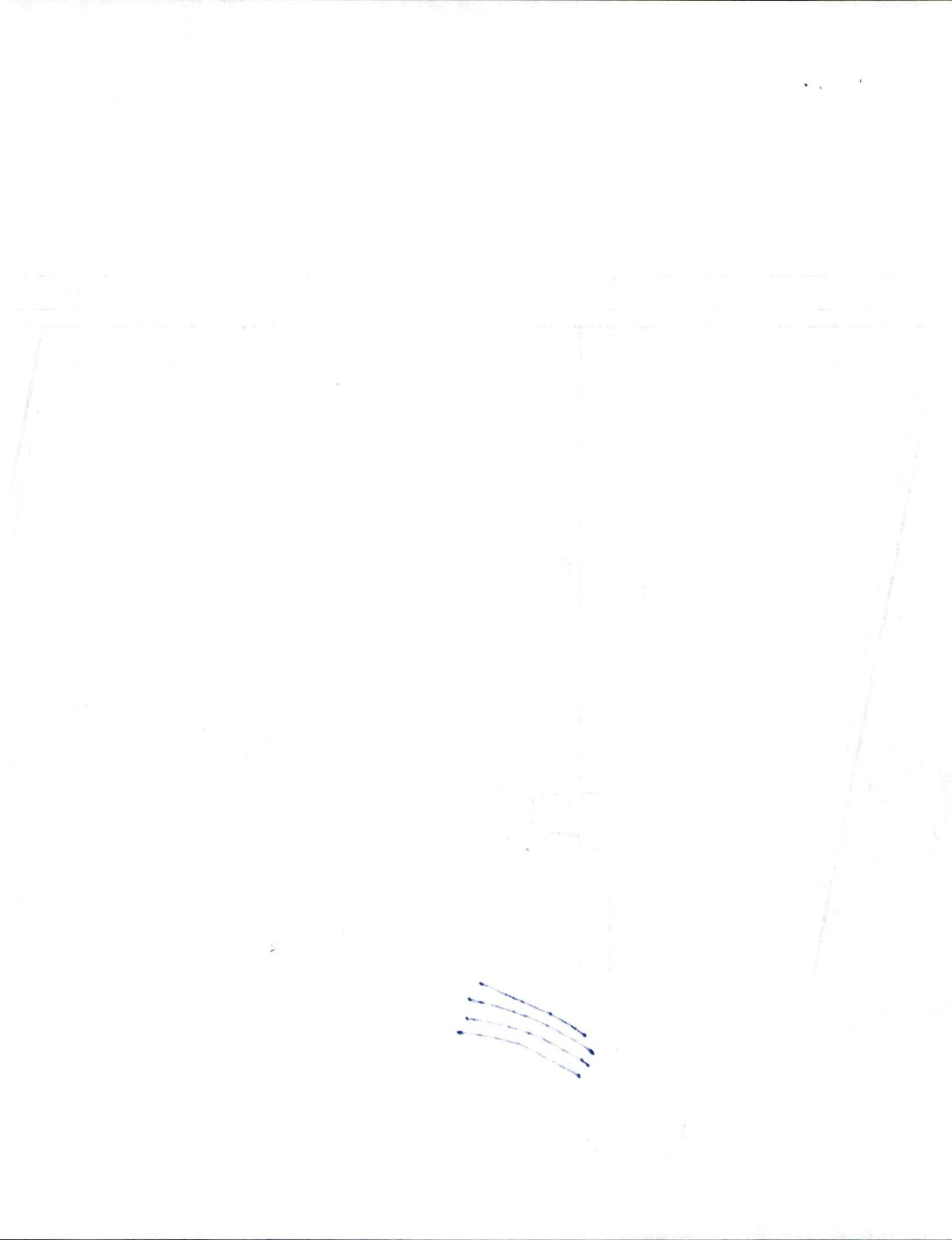
S 17°44'58" E

800.00'

EMENT

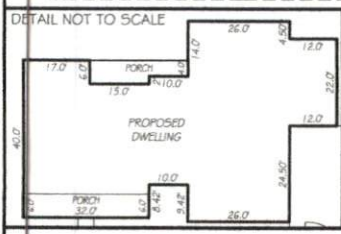
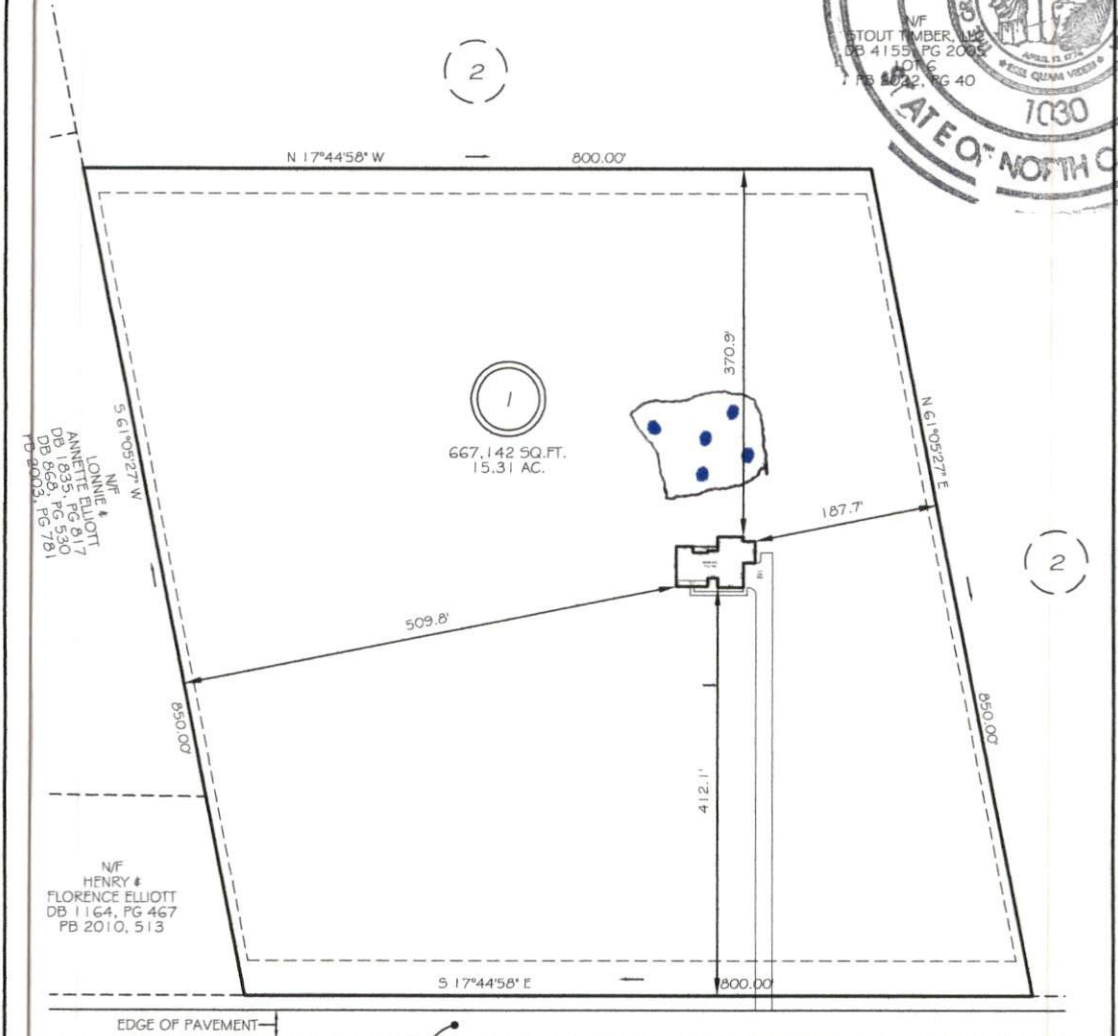
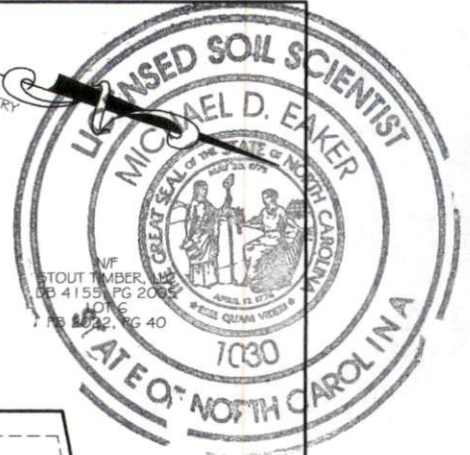
WATER ROAD

1" = 100'



I, MICHAEL P. GRIFFIN, certify that under my direction and supervision this map was drawn from an actual field survey; that the error of closure of the survey as calculated by coordinates is 1: 10,000+; that the area shown hereon was calculated by coordinates.
 Witness my hand and seal this day of MONTH 2023.

BK 2022 PG 630-631
 HARNETT CO. REGISTRY



WALKER ROAD 0546-30-3245.000

60' PUBLIC RW (SR 2039)
 = Provisionally SURVEYED
 OWNER INFO:
 DAVID WEBB
 910-635-6408
 ZONING: RA-20R
 SETBACKS
 FRONT 35'
 REAR 25'
 SIDE 10'
 CORNER SIDE 20'

PRELIMINARY
 NOT FOR RECORDATION,
 SALES OR CONVEYANCE

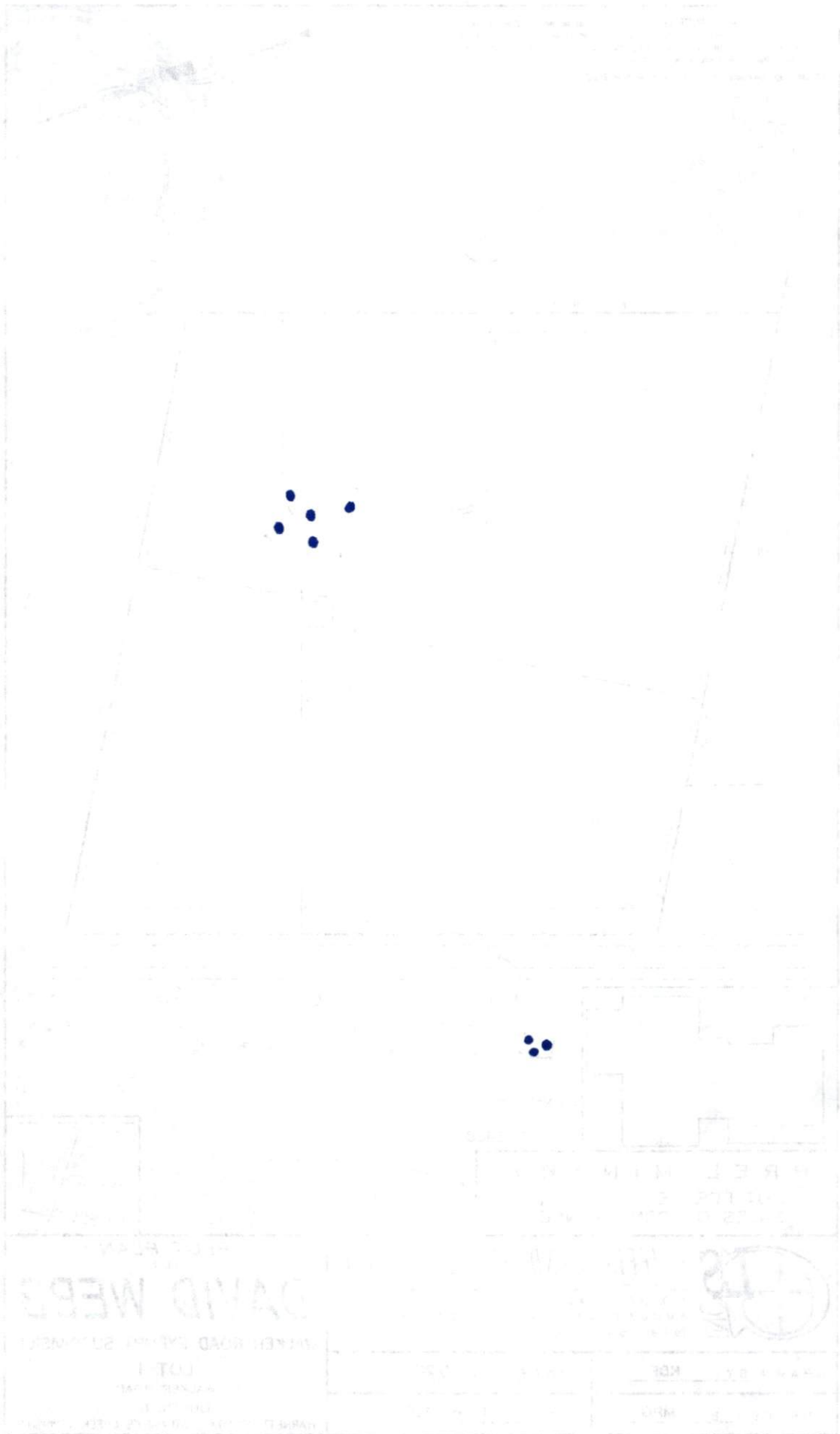
EIP	EXISTING IRON PIPE	FES	FLARED END SECTION
IPS	IRON PIPE SET	WM	WATER METER
RAW	RIGHT OF WAY	CO	CLEAN OUT
N/F	NOW OR FORMERLY	FH	FIRE HYDRANT
EIS	EXISTING IRON STAKE	CB	CATCH BASIN



GRiffin LAND SURVEYING, INC.
 P.O. BOX 148
 FUQUAY-VARINA, NC 27526
 (919) - 567-1963

PLOT PLAN
 FOR
DAVID WEBB
 WALKER ROAD EXEMPT SUBDIVISION
 LOT 1
 WALKER ROAD
 LINDEN, N.C.
 HARNETT COUNTY STEWART'S CREEK TOWNSHIP

DRAWN BY KDF	DATE 3/27/23
CHECKED BY MPG	SCALE 1" = 150'



DAVID WEBB

SHAKEN ROAD 247-1111

OUT 1

SHAKEN ROAD

DAVID WEBB



NO. 100

NO. 100

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

OWNER: David & Ashley Webb
 ADDRESS: 474 Walker Rd Bunnlevel, NC
 PROPOSED FACILITY: SFD PROPOSED DESIGN FLOW (.1949): 490 GPD
 LOCATION OF SITE: SEE ADDRESS

APPLICATION DATE:
 DATE EVALUATED: 04/26/23
 PROPERTY SIZE: 15.31 ACRES
 PROPERTY RECORDED:

WATER SUPPLY: Private Public Well Spring Other

EVALUATION METHOD: Auger Boring Pit Cut TYPE OF WASTEWATER: Sewage Industrial Process Mixed

P R O F I L E #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WEITNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPR O CLASS	.1944 RESTR HORIZ	
1	5 3-5% LS	0-9	Gran/LS	fri/NEXP	pm, CR2 <u>CR2</u> <u>229</u>				PS 0.3
		9-23	SBK/SCLAY	Fi/SEXP	104R 5/6 (10%) 7.54R 4/6				
		23-25	SBK/SCL	Fi/SEXP	104R 5/9 2.54 6/4 (20%)	N/A	N/A	N/A	
		25-29	SBK/SCL	Fi/SEXP	104R 6/9				
		29+	SBK/SCL	Fi/SEXP	7.54R 5/9 576 2.54 7/2				
2	3% LS	0-14	gran/LS	fri/NEXP	2.54 4/2			PS 0.4	
		14-24	gran/LS	fri/NEXP	2.54 6/4				
		24-45	SBK/SCL	Fi/SEXP	104R 5/6	N/A	N/A		N/A
		45-49+	SBK/SCL	Fi/SEXP	104R 6/9 (10%) 7.54R 5/6 CR2 <u>249</u>				
3	2.5%-3%	0-10	gran/LS	fri/NEXP	CR2 <u>245</u>			PS 0.4	
		10-29	SBK/SCL	Fi/SEXP	104R 5/6				
		29-39	SBK/SCL	Fi/SEXP	7.54R 5/9 (10% 54R 5/6)	N/A	N/A		N/A
		39-45	gran/SL	fri/NEXP	104R 5/9 (10%) 2.54 6/4				
		45-49+	gran/SL	fri/NEXP	11 (5%) 104R 9/1				
4	5%	0-6	GRAN/SL	Fi/NEXP	CR2 <u>238</u>			PS 0.3	
		6-19	SBK/SCLAY	Fi/SEXP	104R 5/9				
		19-29	SBK/SCL	Fi/SEXP	104R 6/9	N/A	N/A		N/A
		29-35	GRAN/SL	fri/NEXP	104R 5/6 30% 2.54 7/2				
		35-49	SBK/cloam	Fi/SEXP	104R 5/9 2.54 7/2 (30)				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946):
Available Space (.1945)	4x5 (400')	4x5 (500')	SITE CLASSIFICATION (.1948): <u>Provisionally Suitable</u>
System Type(s)	<u>Accepted</u> 25% Reduction	<u>Low Profile</u> Chamber	EVALUATED BY: <u>M. EAKER</u>
Site LTAR	0.3	0.3	OTHER(S) PRESENT: <u>B.L. Raymond</u>

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
 DIVISION OF PUBLIC HEALTH
 ENVIRONMENTAL HEALTH SECTION
 ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 120546010706
 DATE OF EVALUATION: 04/26/23
 COUNTY: Harnett

P R O F I L E #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZ ON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 5%	0-9	gran/SL	fri/NEXP	PM MIX 33"	N/A	N/A	N/A	PS 0.3
		9-22	SBK/CLOAM	fi/SEXP	7.54R 5/9 20) 5.4R 5/6				
		22-27	gran/SL	fri/NEXP	104R 6/9 (15) 104R 7/1				
		27-35	gran/SL	fri/NEXP	104R 5/9 (25) 2.547/2				
		35-49	gran/SL	fri/NEXP	104R 5/9				
6	LS 5%	0-9	gran/LS	fri/NEXP	2.547/3	N/A	N/A	N/A	PS 0.35
		9-30	SBK/SCL	fi/SEXP	104R 5/9				
		30-39	gran/SL	fri/NEXP	7.54R 6/9 (15%) 2.546/3				
		39-49+	gran/SL	fri/NEXP	(24) 2.546/2 " (5%) 6/2				
					CR 2 @ 30"				
7	LS 3-5%	0-9	gran/LS	vfri/NEXP	2.545/3	N/A	N/A	N/A	PS 0.4
		9-33	SBK/SCL	fi/SEXP	7.54R 4/6				
		33-44	gran/SL	fri/NEXP	104R 5/9 (5) 2.547/1				
		44-49+	gran/SL	fri/NEXP	7.54R 5/9				
					PM @ 33"				

COMMENTS: _____