

Adams Soil Consulting, PLLC
1676 Mitchell Road
Angier, NC 27501
919-414-6761
alexadams@bcsoil.com

December 15, 2023
Project #1830

"This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-336.2

RE: 1516 NC 55 W - Coats, NC - 3-bedroom Single Family Residence (Harnett County
PIN: 0691-53-6093 for STS Construction, LLC.

To whom it may concern:

Adams Soil Consulting (ASC) conducted a preliminary soil evaluation on the above referenced parcel to determine the areas of soils which are suitable for subsurface wastewater disposal systems (conventional & LPP). The soil/site evaluation was performed using hand auger borings during moist soil conditions based on the criteria found in the State Subsurface Rules, 15ANCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". From this evaluation, ASC is providing the attached septic system design for a new single-family home sized for a 360 gallon/day septic system.

The suitable soils found on the subject property were somewhat variable in the initial and repair areas. The area designated for the initial/primary septic system (see attached septic plan) was found to contain soils with greater than 24 inches in depth before a restrictive horizon was encountered.

The initial and primary septic fields for the new home were sized based on a flow rate of 360 gallons/day and utilizing Accepted Status system for the initial and repair system. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

The septic installer contractor shall install the primary system on contour, see attached site plan for the primary system and repair. No underground utilities, water lines, or sprinkler systems shall be placed into the initial or repair septic areas. Installation must meet all state and local county regulations for septic system installation. The trenches must be installed in the same location as the site plan. If flags are missing at the time of installation, they must be remarked by Adams Soil Consulting staff. Contact Alex Adams at 919-414-6761. A preconstruction conference is required with the septic installer prior to construction activities at least 14 days in advance of construction activities.

This report does not guarantee the future function of any waste water disposal system installed.

If you have any questions regarding the findings on the attached site plan or in this report, please feel free to contact me anytime.

Sincerely,



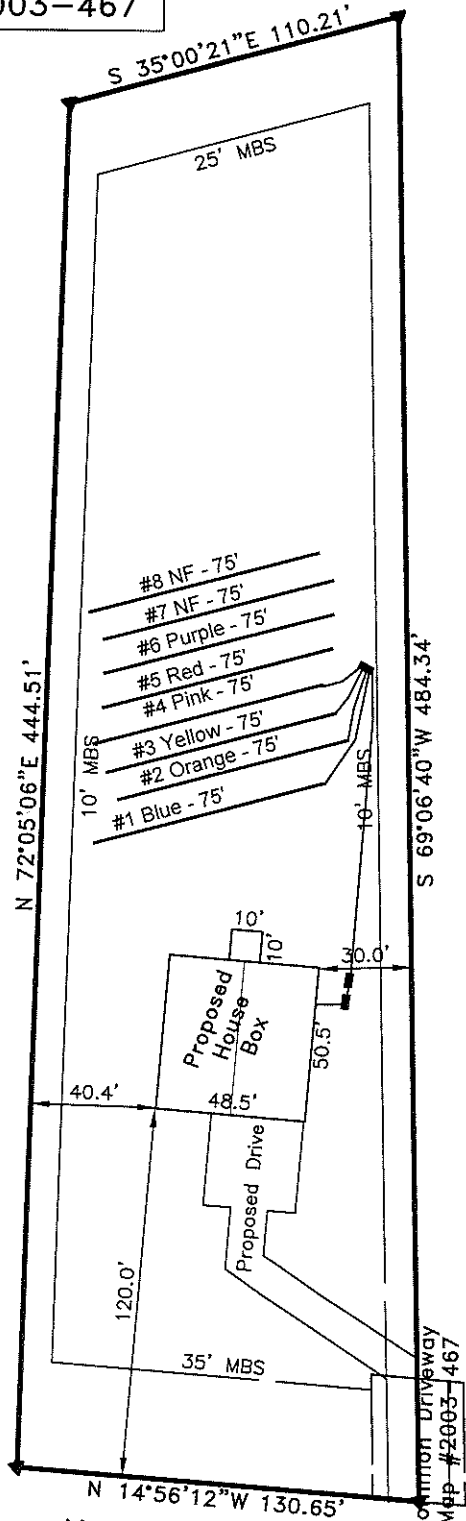
Alex Adams
NC Licensed Soil Scientist #1247
AOWE Certification: 10021E



~ Lot 2 ~
1.260 Ac.
Map #2003-467

*Not a Survey
Sketched from a plot plan supplied by owner

STS Construction, LLC
3-Bedroom - Septic Design
1516 NC 55 W - Coats
Harnett County PIN: 0691-53-6093



Permit Requirements

- *8-10" of soil cover required over initial drainfield
- *surface water diversion drain/swale required.
- *System area will need to be reflagged prior to
- *Installer to contact Alex Adams prior to construction
- *System Area must be fenced off and protected from construction traffic.

System: Pressure Manifold
Lines: 1-4 (300')
0.3 LTAR
15" Max Trench Bottom
Accepted Status System
Repair: Pressure Manifold
Lines: 5-8 (300')
0.3 LTAR
15" Max Trench Bottom
Accepted Status System

- **1000 Gallon Septic and Pump Tank
- Tank and trenches to be located minimum of 10' from any property line and minimum of 5' from any building foundation.
- *Do Not Cut, Fill, or Alter Drainfield or Repair Area
- *Comply with all setbacks
- *Contact local health dept. and/or Alex Adams prior to or during installation with any questions or concerns.

GRAPHIC SCALE
1" = 60'



NC 55 W - 60' Public R\W

Adams
Soil Consulting
919-414-6761
Job #1830
12-11-23

~ Lot 2 ~
 1.260 Ac.
 Map #2003-467

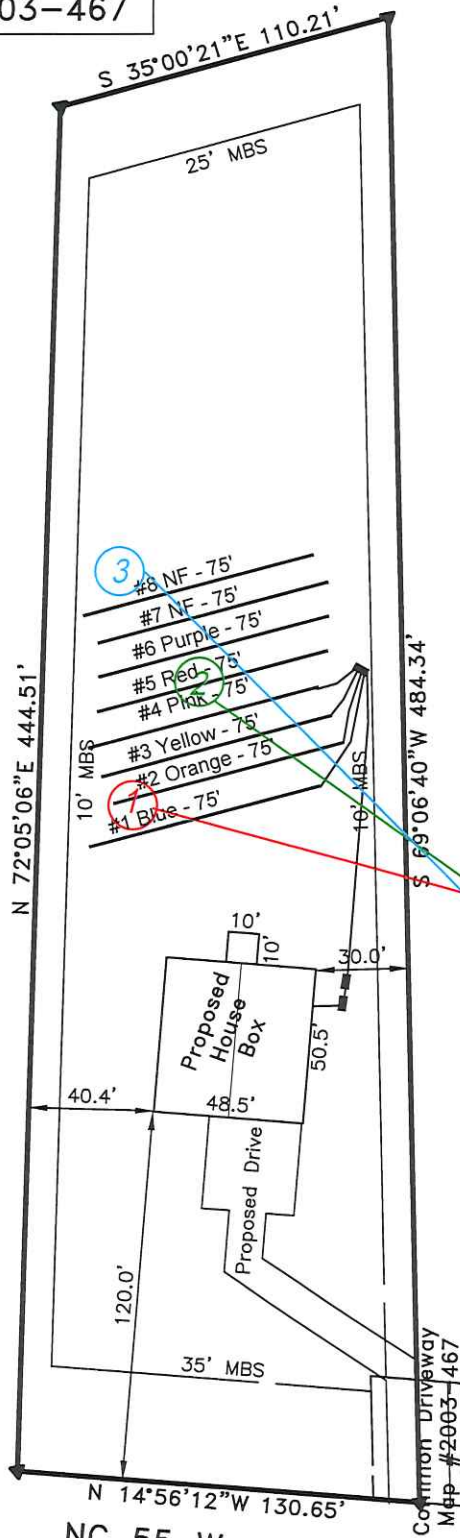
*Not a Survey
 Sketched from a plot plan supplied by owner

STS Construction, LLC
 3-Bedroom - Soil Boring Location Map
 1516 NC 55 W - Coats
 Harnett County PIN: 0691-53-6093

Permit Requirements

- *8-10" of soil cover required over initial drainfield
- *surface water diversion drain/swale required.
- *System area will need to be reflagged prior to
- *Installer to contact Alex Adams prior to construction
- *System Area must be fenced off and protected from construction traffic.

System: Pressure Manifold
 Lines: 1-4 (300')
 0.3 LTAR
 15" Max Trench Bottom
 Accepted Status System
 Repair: Pressure Manifold
 Lines: 5-8 (300')
 0.3 LTAR
 15" Max Trench Bottom
 Accepted Status System



- ① Profile Description #1
 See Soil/Site Evaluation Data Form
- ② Profile Description #2
 See Soil/Site Evaluation Data Form
- ③ Profile Description #3
 See Soil/Site Evaluation Data Form

GRAPHIC SCALE
 1" = 60'



NC 55 W - 60' Public R\W

Adams
 Soil Consulting
 919-414-6761
 Job #1830
 12-11-23

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

OWNER: STS Construction, LLC
 ADDRESS:

APPLICATION DATE:

PROPOSED FACILITY: Single Family, 3-bedroom PROPOSED DESIGN FLOW (.1949): 360gpd

DATE EVALUATED: 12-5-23

LOCATION OF SITE: 1516 NC 55 W – Coats, NC 27521

PROPERTY SIZE: ~1.26 Acres

WATER SUPPLY: Private Well

EVALUATION METHOD: Auger Boring

TYPE OF WASTEWATER: Sewage

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 WETNESS/ COLOR	.1943 SOIL DEPT H	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	Linear Slope/6%	0-16	GR/SL	FR/NS/NP/SEXP	28"	N/A	N/A	N/A	P.S/.3
		16-32	SBK/C	FI/SEXP/S/P					
2	Linear Slope/6%	0-8	GR/SL	FR/NS/NP/SEXP	30"	N/A	N/A	N/A	P.S/.3
		8-36	SBK/C	FI/SEXP/S/P					
3	Linear Slope/6%	0-8	GR/SL	FR/NS/NP/SEXP	30"	N/A	N/A	N/A	P.S/.3
		8-36	SBK/C	FI/SEXP/S/P					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946): _____ SITE CLASSIFICATION (.1948): U/PS EVALUATED BY: A. Adams OTHER(S) PRESENT:
Available Space (.1945)	S	S	
System Type(s)	Type III (b)	Type III (b)	
Site LTAR	0.3	0.3	

1516 NC 55 W - Coats NC
PRESSURE MANIFOLD DESIGN -Initial

STS Construction

of BDR: 3 Daily Flow: 360 gal/day L.T.A.R.: 0.3000 gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 900 System Type: Accepted

Number of Taps: 3 Length of Trenches: 300 ft(See Tap Chart for Details)

Depth of Trenches: 15 in Manifold Length: 36 in

Manifold Diameter: 4in sch 80pvc Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: 80 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 2.84 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft Elevation Head: 16.00 ft

Total Head: 20.84 ft Pump to Deliver: 28.44 gals/min at 20.84 ft head

Dosing Volume: 137 gals,

Drawdown: 137 gals divided by 21.4 gals/in = 6.4 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.

TAP CHART

Benchmark	0	is = 100.00	set at				Design Head:	2				Change in
Pump tank elev.	18	85.00	Pump elev.	80.00			Manifold elev.	96.00		# of Panels	Spacing of	Panels (in)
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)		
1		5.00	95.00	75	1/2in SCH 40	7.11	90.00	225	0.4000			
2		5.80	94.20	75	1/2in SCH 40	7.11	90.00	225	0.4000			
3		6.60	93.40	75	1/2in SCH 40	7.11	90.00	225	0.4000			
4		7.20	92.80	75	1/2in SCH 40	7.11	90.00	225	0.4000			
Total Feet =				300	gal/min =	28.44	LTAR =		0.3000			
Feet Required =				300	Velocity =	2.72	(ltar + 5%)		0.3150			
Total # of Panels (PPBPS)				Des. Flow		360	(ltar w/25% red)		0.4000			
% of Dose Vol.				Pump Run=		12.66	(ltar + 5%)		0.4200			
Dose Volume				Tank Gal/IN		21.4						
Dose Pump Time				Elev. Head		16.00						
Drawdown in Inches												
Comments:												

STX Construction LLC

Plot Plan For:

~ 1516 NC 55 W, Coats ~
 Lot 2, Map #2003-467
 Deed Book 4201, Page 1772

VICINITY MAP

Grove Township Harnett County
 Scale: 1" = 60' Date: 8/10/2023

Surveyed & Mapped By
STREAMLINE
LAND SURVEYING, Inc.
 NC FIRM C-1898
 870 NC 55 W, Coats, N.C. 27521
 Phone: 910-897-7715

~**PRELIMINARY PLOT PLAN**~
 - Not an actual survey -
 This plan represents proposed improvements to a lot of record. This plan is subject to review and approval by County Planning and Inspections Departments.

NOT FOR RECORDATION

Sydney A. Renne
 DB 3668, Pg. 856
 PC #F, Slide 386-D
 S 35°00'21"E 110.21'

[1546] STX Construction LLC
 DB 4201, Pg. 1772
 Map #2003-467 (Lot 3)

~ Lot 2 ~
 1.260 Ac.
 Map #2003-467

Proposed House Box
 Proposed Drive

Common Driveway
 Map #2003-467

3591' to C/L
 Intersection with
 SR 1547

NC 55 W - 60' Public R/W

GRID NORTH - MAD 83
 Map #2003-467

0 30' 60' 120'
 GRAPHIC SCALE

FEMA FLOOD HAZARD STATEMENT
 The subject property shown on this plat is located within the FEMA "Zone X" (Minimal Flood Risk) Area as shown on FIRRM Number: 3720068000J
 Effective date: 10/3/2006

LEGEND:
 - Subject Lot Boundary Line
 - Adjoining Boundary Line
 - R/W Right-of-Way Line
 - C/L Centerline
 - Easement Line
 - MBS...Minimum Building Setback
 - OHE...Overhead Electric Line
 - Calculated Point



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/7/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Wade Associates, LLC 250 Pollock St. New Bern NC 28560	CONTACT NAME: Angela Sensenig PHONE (A/C, No, Ext): (252) 631-5269 E-MAIL ADDRESS: asensenig@wadeict.com	FAX (A/C, No): (252) 649-2443
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Markel Insurance Company	NAIC # 38970
INSURED Alex Adams, DBA: Adams Soil Consulting 1676 Mitchell Rd. Angier NC 27501	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 23-24 Master

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPI/OP AGG \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Errors & Omissions			ME011181	1/31/2023	1/31/2024	General Aggregate \$1,000,000 Each Occurrence \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

FOR INFORMATIONAL PURPOSES ONLY

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

N Whitsett/RACHEL

© 1988-2014 ACORD CORPORATION. All rights reserved.