Permit #:	



**ROY COOPER • Governor** 

KODY H. KINSLEY • Secretary

MARK BENTON • Deputy Secretary for Health

**SUSAN KANSAGRA** • Assistant Secretary for Public Health

Division of Public Health

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)  County:  PIN/Lot Identifier:
PIN/Lot Identifier:
Issued To:
Property Location:
Subdivision (if applicable)         Lot #: Block: Section:
LSS Report Provided: Yes No No
If yes, name and license number of LSS:
New System Relocation Change of Use
Proposed Structure:
Number of bedrooms: Number of Occupants: Other:
Design Wastewater Strength:  domestic  high strength  industrial process
Proposed Design Daily Flow: GPD Proposed LTAR (Initial): Proposed LTAR (Repair):
Proposed Wastewater System Type*: (Initial) Pump Required: 🗌 Yes 🗍 No 🗍 May be required
Proposed Wastewater System Type*: (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): Usable Soil Depth (Repair):
Max. Trench Depth (Initial) <sup>‡</sup> : Max. Trench Depth (Repair) <sup>‡</sup> : <sup>‡</sup> 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:
Licensed Soil Scientist Print Name:  Licensed Soil Scientist Signature:  Date:

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

\*See attached site sketch\*

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



Permit #:
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## This Section for Local Health Department Use Only

Initial subn	nittal received:		by		
		Date	Initials	5	
G.S. 130A-335(a3) states the following:					
When an applicant for an Improvement Permit submits to department, the common form developed by the Departm within five business days of receiving the application, condepermit includes all of the required components. If the local shall notify the applicant of the components needed to condepartment to cure the deficiencies in the Improvement Pois complete within five business days after the local health act within any period set out in this subsection, the applications form for use as the Improvement Permit.	ent, and a soil evaluati duct a completeness rev I health department de mplete the Improvemer ermit. The local health o department receives ti	on pursuant to su view of the submit termines that the nt Permit. The app department shall he additional info	bsection (a2) of thi tal. A determinatic Improvement Pern Ilicant may submit make a final detern rmation from the a	is section, the local hea on of completeness me nit is incomplete, the lo additional information mination as to whether applicant. If the local he	Ith department shall, ans that the Improvement cal health department to the local health the Improvement Permit ealth department fails to
The review for completeness of this Improvem Permit is determined to be:	ient Permit was co	onducted in ac	cordance with (	G.S. 130A-335(a3)	. This Improvement
☐ Incomplete (If box is checked, information	ı in this section is r	equired.)			
The following items are missing:					
Copies of this were sent to the LSS and the Ap		Date			
State Authorized Agent:				Date:	
☐ Complete	3//0			121	
State Authorized Agent:				Date:	
This Improvement Permit is issued pursuant to attached here. The issuance of this permit by permit holder is responsible for checking with to revocation if the site plan, plat, or the interownership of the site. This permit is subject to Disposal and to the conditions of this permit.	y the Health Depar n appropriate gove nded use changes. to compliance witl	rtment in no we erning bodies . The Improve	ay guarantees in meeting the ement Permit s	the issuance of o ir requirements. T shall not be affecte	ther permits. The his permit is subject ed by a change in
The Department, the Department's authorize any liabilities, duties, and responsibilities imp evaluations, submittals, or actions from a lice	osed by statute o	r in common l	aw from any cl	laim arising out of	or attributed to
Improvement Permit Expiration Date:					

\*See attached site sketch\*



Permit #:	
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# **Re-submittal of Improvement Permit**

Г				$\neg$
	LHD USE ONLY: This IP resubmittal received:		by	
		Date	Initials	
The following it	ems are being resubmitted pursuant to G.S. 130A-335(	(a3) for issuance	of the Improvement Permit:	
	STA	The	A.	
	A THE SH	THE OF		
is accurate and o	hereby attest that cientist (Print Name) complete to the best of my knowledge and that the prolams, regulations, rules, and ordinances.		required to be included with ement Permit meets all appli	
Signature	e of Licensed Soil Scientist		Date	
	The section below is for Local Health Department use o	after submittal of	items noted as missing above.	
LHD Follow-u	p Completeness Review of Improvement Pe	ermit		
	ompleteness of this Improvement Permit re-submitta ermit is determined to be:	l was conducted	in accordance with G.S. 130	A-335(a3). This
☐ Incomplete	(If box is checked, information in this section is requir	red.)		
The following ite	ems are missing:			
	The second	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Copies of this we	ere sent to the LSS and the Applicant on			
State Authorized	d Agent:		Date:	
☐ Complete				
State Authorized	d Agent:		Date:	



Permit #:	
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### **CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)**

County:	
PIN/Lot Identifier:	
ssued 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?	
Type of Wastewater System*(Initial)(Rep	air)
*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?	
nstallation Requirements/Conditions	
Septic Tank Size: gallons Total Trench/Bed Length: feet Trench/Bed Spacing: feet on center	
Trench/Bed Width: inches LTAR: gpd/ft²	
Soil Cover: inches Slope Corrected Maximum Trench/Bed Depth <sup>‡</sup> : inches <sup>‡</sup> Measured on the downhill side of the trench	
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)]:	
Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: 🔲 Yes 🔲 No	
Declaration of Restrictive Covenants:	
Pre-Construction Conference Required: Yes No No	
Conditions:	
The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference	
nto this permit and shall be met. Systems shall be installed in accordance with the attached system layout.	
AOWE/PE Print Name: Expiration Date:	
AOWE/PE Signature: 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 #:
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# This Section for Local Health Department Use Only

	Initial submittal received:		у
		Date	Initials
G.S. 130A-335(a5) states the foll	_		
mprovement Permit and Construction A Department, and any necessary signed a singineer or a person certified pursuant to department shall, within five business do the Construction Authorization or Improved the English of the Components needed to conditional information to the local health Authorization. The local health department fails to act within five busing ply for the building permit for the project of the english of the building permit for the project of the englished engineer submitting the evaluation or Improvement Permit and engineer, the local health department shall he partment, the local health department, the local health department and the engineer, the local health department shall health shall heal	uthorization application together, the per and sealed plans or evaluations conducted to Article 5 of Chapter 90A of the General tys of receiving the application, conduct a tyement Permit and Construction Authorization or Improvement Permit and Construction Authorization of the department to cure the deficiencies in the stall make a final determination as to the stall make a final determination as to stall make a final determination as to stall make a	rmit fee charged by the lot by a person licensed pur Statutes as an Authorized a completeness review of a truction Authorization is it or Improvement Permit as the Construction Authorization are treceives the additional may treat the failure to a fail to act within five busing lest that the local health of Joon written request of the uthorization or Improvem	ation together, submits a Construction Authorization, or an an acal health department, the common form developed by the suant to Chapter 89C of the General Statutes as a licensed of On-Site Wastewater Evaluator, the local health the submittal. A determination of completeness means that required components. If the local health department nocomplete, the local health department shall notify the not Construction Authorization. The applicant may submit action or Improvement Permit and Construction and Information from the applicant. If the local health act as a determination of completeness. The applicant may reaction or Improvement Permit and Construction al information from the applicant. If the local health act as a determination of completeness. The applicant may reaction or Improvement Permit and Construction ress days. The Authorized On-Site Wastewater Evaluator or department revoke or suspend the Construction new Authorized On-Site Wastewater Evaluator or licensed then Permit and Construction Authorization pursuant to G.S.
The review for completeness of	this Construction Authorization v	was conducted in acc	cordance with G.S. 130A-335(a5). This
Construction Authorization is de	termined to be:		
☐ Incomplete (If box is checke	d, information in this section is re	equired.)	
The following items are missing:			
Copies of this were sent to the A	.OWE/PE and the Applicant on _	Date	4V 76 //
State Authorized Agent:			Date:
Complete	The factor of	S-2 7 67 67	
State Authorized Agent:	J. PRIL	12 1776	Date of Issuance:
attached here. This Construction Construction Authorization shall to compliance with the provision The Department, the Department in liabilities, duties, and respondans, evaluations, preconstructive General Statutes as a license Authorized On-Site Wastewater agents, and the local health department in the Status of the Stat	n Authorization is subject to revil not be affected by a change in ns of the Laws and Rules for Sevent's authorized agents, and the insibilities imposed by statute or tion conference findings, submited engineer or a person certified Evaluator in GS 130A-335(a2), (	ocation if the site pl ownership of the si wage Treatment and local health departn r in common law fro ctals, or actions from d pursuant to Article (a5), and (a7). The D nd bear liability for	ing the signed and sealed plans or evaluations an, plat, or the intended use changes. The te. This Construction Authorization is subject I Disposal and to the conditions of this permit.  Inents shall be discharged and released from any claim arising out of or attributed to a a person licensed pursuant to Chapter 89C of 5 of Chapter 90A of the General Statutes as an epartment, the Department's authorized their actions and evaluations and other pursuant to GS 130A-337.
Construction Authorization Exp	ration Date:		
·			
	dia .		

\*See attached site sketch\*



Permit #:	
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## **Re-submittal of Construction Authorization**

	LHD USE ONLY: This CA reculpmittal received:		by	
	LHD USE ONLY: This CA resubmittal received:	Date	by Initials	
The following in	tems are being resubmitted pursuant to G.S. 130A-33	35(a5) for issuance of	of the Construction Authoriza	ition:
		A TOTAL A		
l,		at the information re	equired to be included with	this re-submittal
is accurate and	nsite Wastewater Evaluator (Print Name) complete to the best of my knowledge and that the and local laws, regulations, rules, and ordinances.	proposed Construct	tion Authorization meets all	applicable
Signatur	re of Authorized On-Site Wastewater Evaluator		Date	
I HD Follow-ı	The section below is for Local Health Department us		ems noted as missing above.	
The review for o	completeness of this Construction Authorization re-son Authorization is determined to be:		ucted in accordance with G.S	. 130A-335(a5).
☐ Incomplete (	(If box is checked, information in this section is requi	ired.)		
The following it	ems are missing:			
	AUO 30° MI	M VIDER	19	
Copies of this w	vere sent to the AOWE/PE and the Applicant on	Date	-	
State Authorize	d Agent:		Date:	
☐ Complete				
State Authorize	d Agent:		Date:	

## Adams Soil Consulting, PLLC 1676 Mitchell Road Angier, NC 27501 919-414-6761

alexadams@bcsoil.com

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November 25, 2024 Project #1215

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335 (a2), (a5), and (a6)"

RE: Tobacco Road Subdivision - Lot #169 (332 Oriental St) NC for Smith Douglas Homes (Harnett County PIN#0693-35-5719)

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 18E. From this evaluation, ASC is providing the attached 480 gallon/day septic design.

The suitable soils found on the subject property were relatively consistent 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.

Please find the attached wastewater soil/site evaluation forms for specific soil properties found in the initial and repair areas as well as assigned soil long term acceptance rate (LTAR). Numerous soil borings were made throughout the property and representative soil profile descriptions for the primary septic field and repair area are provided. A location sketch for profile descriptions is also attached. The initial and primary septic fields were sized based on a flow rate of 480 gallons/day and utilizing Accepted Status. 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 and repair (if needed) system on contour, see attached site plan for the primary system and repair locations. No underground utilities, water lines, or sprinkler systems shall be placed into the initial or repair septic areas. Installation must meet all state and

Harnett County regulations for septic system installation. The trenches must be installed in the same location as the site plan. If the installation is in question at the time of installation call me (Alex Adams) at 919-414-6761.

This report discusses the location of provisionally suitable soils identified on the property and does not guarantee the future function of any waste water disposal system installed.

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

Sincerely,

Alex Adams

NC Licensed Soil Scientist #1247 AOWE Certification: 10021E





Tobacco Road S/D - Lot #169 Soil Boring Locations 332 Oriental St **Smith Douglass Homes** Harnett County PIN: 0693-35-5719 System: Pressure Manifold Lines: 1-5 (315') 0.4 LTAR 21" Max Trench Bottom Accepted Status System Repair: Pressure Manifold Lines: 6-9 (200') 0.4 LTAR 20" Max Trench Bottom í PPBPS - 50% reduction System PROPOSED MOSINNIS Profile Description #1 See Soil/Site Evaluation Data Form Profile Description #2 See Soil/Site Evaluation Data Form Profile Description #3 See Soil/Site Evaluation Data Form Profile Description #4 S10"25'33"W 101,10" See Soil/Site Evaluation Data Form ORIENTAL STREET 50' PUBLIC R/W & UTILITY EASEMENT Adams Soil Consulting GRAPHIC SCALE 919-414-6761 1" = 50'Job #1215 50 100 11-25-24

# Tobacco Road S/D - Lot #169 4-Bedroom Septic Design 332 Oriental St Smith Douglass Homes Harnett County PIN: 0693-35-5719

System: Pressure Manifold

Lines: 1-5 (315')

0.4 LTAR

21" Max Trench Bottom Accepted Status System Repair: Pressure Manifold

Lines: 6-9 (200') 0.4 LTAR

20" Max Trench Bottom

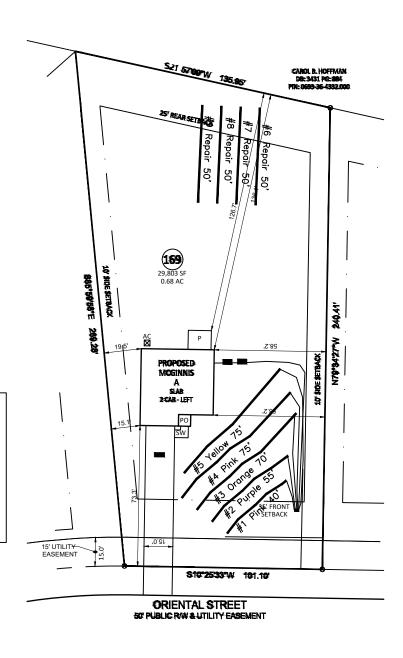
PPBPS - 50% reduction System

\*\*1000 Gallon Septic Tank

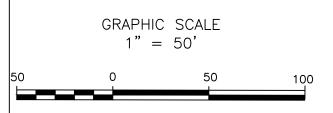
Tank and trenches to be located minimum of 10' from any property line and minimum of 5'

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.



Adams
Soil Consulting
919-414-6761
Job #1215
11-25-24



# Lot 169 - Tobacco Road PRESSURE MANIFOLD DESIGN -Initial SYSTEM

# of BDR: 4 Daily Flow: 480 gal/day L.T.A.R.: 0.4000 gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 945 System Type: Accepted

Number of Taps:  $\underline{4}$  Length of Trenches:  $\underline{315}$  ft(See Tap Chart for Details)

Depth of Trenches: <u>24</u> in Manifold Length: <u>42</u> in

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

Supply Line: length: 50 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss:  $\underline{2.73}$  ft(supply line length + 70' for fittings in pump tank)

Design Head:  $\underline{2}$  ft Elevation Head:  $\underline{7.00}$  ft

Total Head: 11.73 ft Pump to Deliver: 31.43 gals/min at 11.73 ft head

Dosing Volume: <u>143</u> gals,

Drawdown:  $\underline{143}$  gals divided by  $\underline{21.4}$  gals/in =  $\underline{6.7}$  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 Pump tank elev line	<u>0</u> v. color	is = $100.00$ $\frac{2}{\text{rod read}}$	set at 95.00 Elevation	Pump elev.	90.00 <b>hole size</b>	flow/tap	Design Head: Manifold elev. gal/day	2 97.00 trench area	LINE LTAR	# of Panels (PPBPS)	Change in Spacing of Panels (in)
1&2	White/Purple	5.70	94.30	95	3/4in SCH 80	10.10	154.25	285	0.5412		
3	Orange	6.40	93.60	70	1/2in SCH 40	7.11	108.58	210	0.5171		
4	Pink			75	1/2in SCH 40	7.11	108.58	225	0.4826		
5	Yellow			75	1/2in SCH 40	7.11	108.58	225	0.4826		
			Total Feet =	315	gal/min =	31.43		LTAR	0.4000		
					•			<u>LTAR =</u>			
T-4-1 # -4 D	I- (DDDDC)		Feet Required =		Velocity =	3.01		(ltar + 5%)	0.4200		
Total # of Pane		70		Des. Flow	<u>480</u>			(ltar w/25% red)	0.5333		
% of Dose Vol.		70		Pump Run=				(Itar + 5%)	0.5600		
Dose Volume		143		Tank Gal/IN	<u>21.4</u>						
Dose Pump Tir	ne	4.56		Elev. Head	7.00						
Drawdown in I		6.7									
Comments:	Lines #1	<u>&amp; #2 will be</u>	tied together to	form 1 line	<u>@95'</u>						

#### SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

(Complete all fields in full)

OWNER: Smith Douglas Homes

ADDRESS: Lot 169 332 Oriental Street Avenue - Angier, NC

PROPOSED FACILITY: Single Family, 4-bedroom PROPOSED DESIGN FLOW (.1949): 480gpd

LOCATION OF SITE: Lot 169 332 Oriental Street Avenue – Angier, NC

WATER SUPPLY: Public Water

EVALUATION METHOD: Auger Boring APPLICATION DATE:

DATE EVALUATED: 11-21-24

PROPERTY SIZE: ~0.68 Acres

TYPE OF WASTEWATER: Sewage

P R O F I L	.1940 LANDSCAPE	HORIZON DEPTH (IN.)	MORP	SOIL PHOLOGY 1941)	OTHER PROFILE FACTORS				
E I	POSITION/ SLOPE %		.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
	Linear	0-4	GR/SL	VFR,NS,NP,SEXP	N/A	N/A	N/A	N/A	P.S/.4
1	Slope/5%	4-36	SBK/SCL	FR,SS,SP,SEXP					
	Linear	0-12	GR/SL	VFR,NS,NP,SEXP	N/A	N/A	N/A	N/A	P.S/.4
2	Slope/5%	12-36	SBK/SCL	FR,SS,SP,SEXP	1771	1 1/1 1	1 1/1 1	1 1/1 1	1 .5/.1
	Linear	0-26	GR/SL	VFR,NS,NP,SEXP	N/A	N/A	N/A	N/A	P.S/.4
3	Slope/5%	12-36	SBK/SCL	FR,SS,SP,SEXP					
4	Linear	0-22	GR/SL	VFR,NS,NP,SEXP	N/A	N/A	N/A	N/A	P.S/.4
	Slope/5%	22-36	SBK/SCL	FR,SS,SP,SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946):
Available Space (.1945)	S	s	SITE CLASSIFICATION (.1948): U/PS
System Type(s)	Type III B	Type III B	EVALUATED BY:A. Adams OTHER(S) PRESENT:
Site LTAR	0.4	0.4	

COMMENTS: Updated February 2014

