

Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110, Wake Forest, NC 27587
Office Number: 919-569-6704

Acknowledgment of Subsurface wastewater evaluation and septic design by Central Carolina Soil Consulting, PLLC. for Cotton Farms, Lot 57 (Parcel PIN: 0643-27-3687), for issuance of an IP and CA.

For Improvement Permit (IP) issuance:

"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)."

For Construction Authorization (CA) issuance:

"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)."

The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance G.S. 130A-335(a2), (a3), (a5) and (a6).

Owner:

Halcyon Homes, LLC

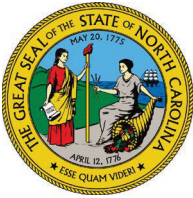
Owner's representative:

Christa Reletto

Date:

10/26/23

Permit #: _____



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: [x] (a2) Improvement Permit [x] (a2) Construction Authorization [] Fee \$ _____

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

County: Harnett
PIN/Lot Identifier: 0643-27-3687
Issued To: Halcyon Homes, LLC
Property Location: 48 Datton Court, Fuquay-Varina, NC 27526
Subdivision (if applicable) Cotton Farms Lot #: 57 Block: Section:
LSS Report Provided: Yes [x] No []
If yes, name and license number of LSS: Jason Hall, NC LSS #1248
New [x] Expansion [] System Relocation [] Change of Use []
Proposed Structure: Single Family, 4-Bedroom
Number of bedrooms: 4 Number of Occupants: <=8 Other:
Design Wastewater Strength: [x] domestic [] high strength [] industrial process
Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.35 Proposed LTAR (Repair): 0.35
Proposed Wastewater System Type*: IIIG, gravity to serial (accepted) (Initial) Pump Required: [] Yes [] No [x] May be required
Proposed Wastewater System Type*: IIIB, pressure manifold (accepted) (Repair) Pump Required: [x] 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 [x] No Saprolite System (repair): [] Yes [x] No
Fill System (Initial): [] Yes [x] 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 [x] 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): 34" Usable Soil Depth (Repair): 34"
Max. Trench Depth (Initial)*: 18" Max. Trench Depth (Repair)*: 18" * Measured on the downhill side of the trench
Artificial Drainage Required: [] Yes [x] No If yes, please specify details:
Type of Water Supply: [] Private well [] Public well [] Shared well [x] Municipal Supply [] Spring [] Other:
Drainfield location meets requirements of Rule .1945: Yes [x] No [] Drainfield location meets requirements of Rule .1950: Yes [x] No []
Permit valid for: [x] 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: Jason Hall
Licensed Soil Scientist Signature: [Signature] Date: 10/25/2023

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

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

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER



This Section for Local Health Department Use OnlyInitial 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 Applicant on _____
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

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:

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: _____ Date: _____



Central Carolina Soil Consulting, PLLC

1900 South Main Street, Suite 110, Wake Forest, NC 27587

Office Number: 919-569-6704

October 25, 2023

Job #4722

Halcyon Homes, LLC
Attention: Austin Robertson

RE: Preliminary soil/site evaluation for single family wastewater approval at Cotton Farms Subdivision, Lot 57 (4-bedroom) in Harnett County pursuant to and meets the requirements of G.S. 130A-335(a2)."

Dear Mr. Robertson:

Central Carolina Soil Consulting, PLLC conducted a preliminary soil evaluation on the aforementioned lot to determine the areas of provisionally suitable soils that are suitable for subsurface wastewater disposal systems (conventional, Accepted & Innovative). **"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."** The soil/site evaluation was performed using auger borings and pits in August 2023, under 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, CCSC laid out and located the septic layout and gps'd for site plan drawing purposes. **Please note that the lot lines must be clearly marked by your surveyor prior to system installation by your installer to verify all setbacks before digging.**

The lot is proposed to have a 4-bedroom system for the house. A septic system field layout was completed based on the house location and property lines surveyed in the field.

The proposed Initial system for the house is a Gravity to Serial distribution using lines 1-5 totaling 405 feet of accepted product (EZ-Flow). The proposed Repair system for the house is a Pressure Manifold distribution using lines 6-11 totaling 355 feet of accepted product (EZ-Flow). The septic tank for the house should be minimum 1,200 gallons with risers. The septic tank should also have pressed in rubber boots on both the inlets and the outlets of the tank.

Based on the findings during the field evaluation, the area on the attached map has at least 34 inches (initial) and 34 inches (repair) of provisionally suitable soils for a modified conventional septic system. The assigned LTAR for the site is 0.35 gal/day/ft² with a maximum depth of 18 inches for the initial system installation of the drain lines due to slope correction. The assigned LTAR for the site is 0.35 gal/day/ft² with a maximum depth of 18 inches for the repair system installation of the drain lines due to slope correction.

Septic Installation:

The septic system for the lot should be installed during dry soil conditions (no rain events within 72 hours). The septic system should be installed on contour while maintaining all required setbacks. **Lot lines must be clearly marked by your surveyor prior to system installation so your installer can verify all setbacks before digging.**

Setbacks: (see septic design page for locations)

- **Septic and Pump Tanks** (see septic design)
 - 10' minimum from property lines
 - 5' minimum from house
- **Septic Lines** (see septic design)
 - 10' minimum from property lines
 - 5' minimum from house
- **Manifold's and D-Box's** (see septic design)
 - 10' minimum from property lines
- **Supply Lines** (see septic design)
 - 5' minimum from property lines

Grading:

No grading should be completed within the initial and repair septic areas that change the natural grade of the area. There should be no cutting or filling within the septic areas as well. When grading the lot, no cuts of 2' or greater should be within 15' of the septic areas. If a cut is required near the septic area, keep the cut around 6-8 inches in depth.

HOUSE:

- Initial System: Gravity to Serial Distribution, lines 1-5 totaling 405' (see layout)
- Repair System: Pressure Manifold Distribution, lines 6-11 totaling 355' (see layout)
- 480 gal/day flow rate (4-bedroom)
- 1,200 gallon septic tank with risers and pressed in rubber boots on both the inlet and outlet ends
- 18" max trench depth for Initial System
- 18" max trench depth for Repair System
- 0.35 LTAR for Initial
- 0.35 LTAR for Repair
- No grading/filling septic areas
- No cuts >2' within 15' of septic areas
- Keep tanks and drain lines 10' from property lines
- Keep supply line >5' property lines
- Install in dry soil conditions (No rain events within 72 hours)
- Maintain natural contours when clearing the lot

This letter discusses the location of provisionally suitable soils for subsurface wastewater disposal systems and does not guarantee the future function of any wastewater system on sites. Central Carolina Soil Consulting, PLLC is a professional consulting firm specializing in soil delineations and designs for on-site wastewater disposal systems.

If you have any questions regarding the findings on the attached map or in this report, please feel free to contact me at any time. Thank you for allowing Central Carolina Soil Consulting to perform this site evaluation for you.

Sincerely,



Jason Hall

NC Licensed Soil Scientist #1248

AOWE certification number 10004E



Encl: Soil Map & septic layout

Sheet:
 Property ID: 0643-27-3687
 Lot #: 57
 File #:
 AppID:

**CCSC SOIL/SITE EVALUATION
 for ON-SITE WASTEWATER SYSTEM**

Owner: Halcyon Homes, LLC

Address:

Proposed Facility: 4-Bedroom Design Flow (.1949) 480 gal/day

Location of Site: Cotton Farms, Lot 57

Water Supply: Public Individual Well Spring Other

Evaluation Method: Auger Boring Pit Cut

Type of Wastewater: Sewage Industrial Process Mixed

Applicant:

Date Evaluated: 10/1/2023

Property Size: 0.6089 Acres

Property Recorded:

P R O F I L E #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941		b PROFILE FACTORS				Profile Class & LTAR	
			.1941 Texture/ Structure	.1941 Consistence Mineralogy	.1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz		
1	LS, ~8%	AE, 0-21	SL, GR	VFR, NS, NP	10YR 7/2	UN			PS, 0.6	
		B1, 21-32	SL, GR	VFR, NS, NP					PS	PS, 0.4
		B2, 32-45	SL, GR	VFR, NS, NP					PS	PS, 0.4
		B3, 45-48	SL, GR	VFR, NS, NP					UN	UN
2	LS, ~8%	AE, 0-24	SL, GR	VFR, NS, NP	10YR 7/2	UN			PS, 0.6	
		Bt1, 24-36	SCL, SBK	FR, SS, SP, SEXP					PS	PS, 0.35
		Bt2, 36-41	CL, SBK	FR, SS, SP, SEXP					UN	UN
3	LS, ~8%	AE, 0-32	SL, GR	VFR, NS, NP	10YR 7/2	UN			PS, 0.6	
		Bt1, 32-38	CL, SBK	FR, SS, SP, SEXP					PS	PS, 0.35
		Bt2, 38-41	CL, SBK	FR, SS, SP, SEXP					UN	UN
4	LS, ~8%	AE, 0-14	SL, GR	VFR, NS, NP	10YR 7/2	UN			PS, 0.5	
		B, 14-34	SL, GR	VFR, NS, NP					PS	PS, 0.5
		Bt, 34-38	SCL, SBK	FR, SS, SP, SEXP					UN	UN

Description	Initial System	Repair System
Available Space (.1945)	Yes	Yes
System Type(s)	IIIB, Accepted	IIIB, Accepted
Site LTAR	0.35	0.35

Other Factors (.1946):

Soil Evaluation By:

Others Present:

Site Classification (.1948): Provisionally Suitable

Site Evaluation By: Jason Hall, Jamie Rice

Others Present: Michael Seewald

<u>Landscape Position</u>	<u>Group</u>	<u>Texture</u>	<u>.1955 LTAR</u>	<u>Structure</u>
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay		PR-Prismatic
T-Terrace		Loam		
FP-Flood Plain		CL-Clay Loam		
	IV	SCL-Sandy Clay	0.4 - 0.1	
		Loam		
		SC-Sandy Clay		
		SIC-Silty Clay		
		C-Clay		

Consistence

Moist

VFR-Very Friable
 FR-Friable
 FI-Firm
 VFI-Very Firm
 EFI-Extremely Firm

Consistence

Wet

NS-Non-Sticky
 SS-Slightly Sticky
 S-Sticky
 VS-Very Sticky
 NP-Non-Plastic
 SP-Slightly Plastic
 P-Plastic
 VP-Very Plastic

Mineralogy

SEXP-Slightly Expansive
 EXP-Expansive

Sketch of Soil Evaluation Locations



= profile description locations

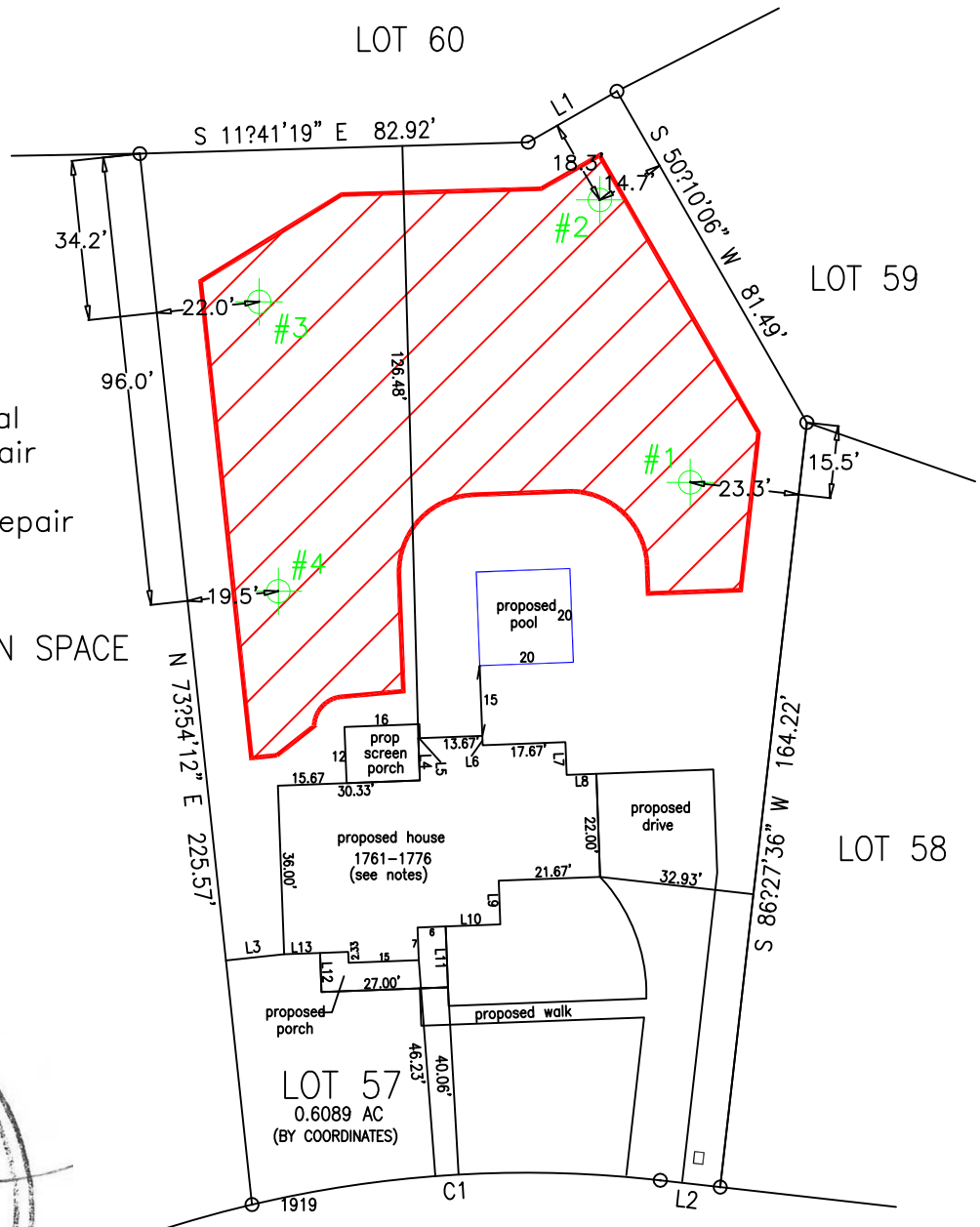
System and Repair Area:

- ~8,000ft²
- 0.35 soil LTAR for Initial
- 0.35 soil LTAR for Repair
- 4-bedroom: Accepted Product Primary and Repair

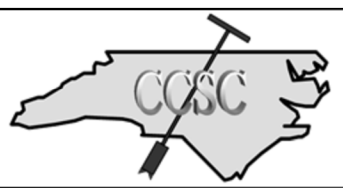
OPEN SPACE



GRAPHIC SCALE
1" = 40'



- *Keep tanks and drain lines 10' from property lines.
- *Not a survey.
- *Not a guarantee of a septic permit.
- *Keep supply lines >5' from property lines.
- *Some lines are flagged longer in the field than lengths indicate.
- *No grading septic area.
- *No adding soil within septic area
- *No rutting-up septic area
- *No cuts of >2' within 15' of septic areas



Central Carolina Soil Consulting, PLLC
 1900 South Main Street, Suite 110
 Wake Forest, North Carolina 27587
 Phone (919)569-6704 Fax (919)569-6703

Soils Map
 Lot 57, Cotton Farms Subdivision
 Harnett County, North Carolina

Job#: 4722
Drawn By: JR
Date: 10/25/2023
Revision: