

NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor

KODY H. KINSLEY • Secretary

MARK BENTON • Chief Deputy Secretary for Health

SUSAN KANSAGRA • Assistant Secretary for Public Health

Division of Public Health

Submittal Includes: ☐ (a2) Improvement Permit ☐ (a2) Construction Authorization ☐ Fee \$ _____

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

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Property Location: _____

Subdivision (if applicable) _____ Lot #: _____ Block: _____ Section: _____

LSS Report Provided: Yes ☐ No ☐

If yes, name and license number of LSS: _____

New ☐

Expansion ☐

System Relocation ☐

Change of Use ☐

Facility Type: _____

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

Design Wastewater Strength: ☐ Domestic ☐ High Strength ☐ Industrial Process Wastewater

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 Rule .1301 Table XXXII*

Effluent Standard: ☐ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

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 Depth to LC (Initial)*: _____ Usable Depth to LC (Repair)*: _____ *** Limiting Condition**

Max. Trench Depth (Initial)*: _____ Max. Trench Depth (Repair)*: _____ *** 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 .0508: Yes ☐ No ☐ Drainfield location meets requirements of Rule .0601: 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

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 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 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 15A NCAC 18E 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: _____

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

County: _____

Pre-Construction Conference Required: Yes ☐ No ☐

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: _____

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

☐ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☐ No Basement Fixtures? ☐ Yes ☐ No

Crawl Space? ☐ Yes ☐ No Slab Foundation? ☐ Yes ☐ No

Type of Wastewater System* _____ (Initial) _____ (Repair)

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: _____ GPD Wastewater Strength: ☐ Domestic ☐ High Strength ☐ Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☐ No
(if yes, please provide engineering documentation)

Effluent Standard: ☐ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☐ Other: _____

Installation Requirements/Conditions

Septic Tank Size: _____ gallons Total Trench/Bed Length: _____ feet Trench/Bed Spacing: _____ feet on center

Trench/Bed Width: _____ inches LTAR: _____ gpd/ft² Usable Depth to LC (Initial)*: _____ ^xLimiting condition

Soil Cover: _____ inches Slope Corrected Maximum Trench/Bed Depth*: _____ inches ^{*}Measured on the downhill side of the trench

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 [.0204(g)]: ☐ Yes ☐ No Declaration of Restrictive Covenants: ☐ Yes ☐ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ☐ No

Management Entity Required: ☐ Yes ☐ No Minimum O&M Requirements: _____

Permit conditions:

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. ***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 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: _____

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

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

State Authorized Agent: _____ Date: _____

☐ Complete

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

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ by _____
Date Initials

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

I, _____ hereby attest that the information required to be included with this re-submittal
Authorized Onsite Wastewater Evaluator (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

Signature of Authorized On-Site Wastewater Evaluator

Date

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

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal 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

State Authorized Agent: _____

Date: _____

☐ Complete

State Authorized Agent: _____

Date: _____



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

July 11th, 2025

“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: Single Barrel Ct. Lillington NC 27546 (Harnett County)
Wellors Knoll Lot 11. Davidson Homes, PIN # (0529-89-5155)

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, State Subsurface Rules, 15ANCAC 18E. From this evaluation, ASC is providing the attached 2-bedroom 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 240 gallons/day and utilizing Accepted Status. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

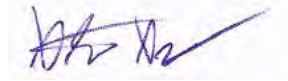
The septic installer contractor shall install the primary and repair (if needed) system on contour, see attached site plan for the primary system and repair

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 local 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



Wellors Knoll Lot 11 2 BR Harnett County

*House footprint to be field staked by surveyor and system verified prior to any construction

**Septic area must not be altered by construction activities.

***No cuts of 2' or greater within 15' of septic area

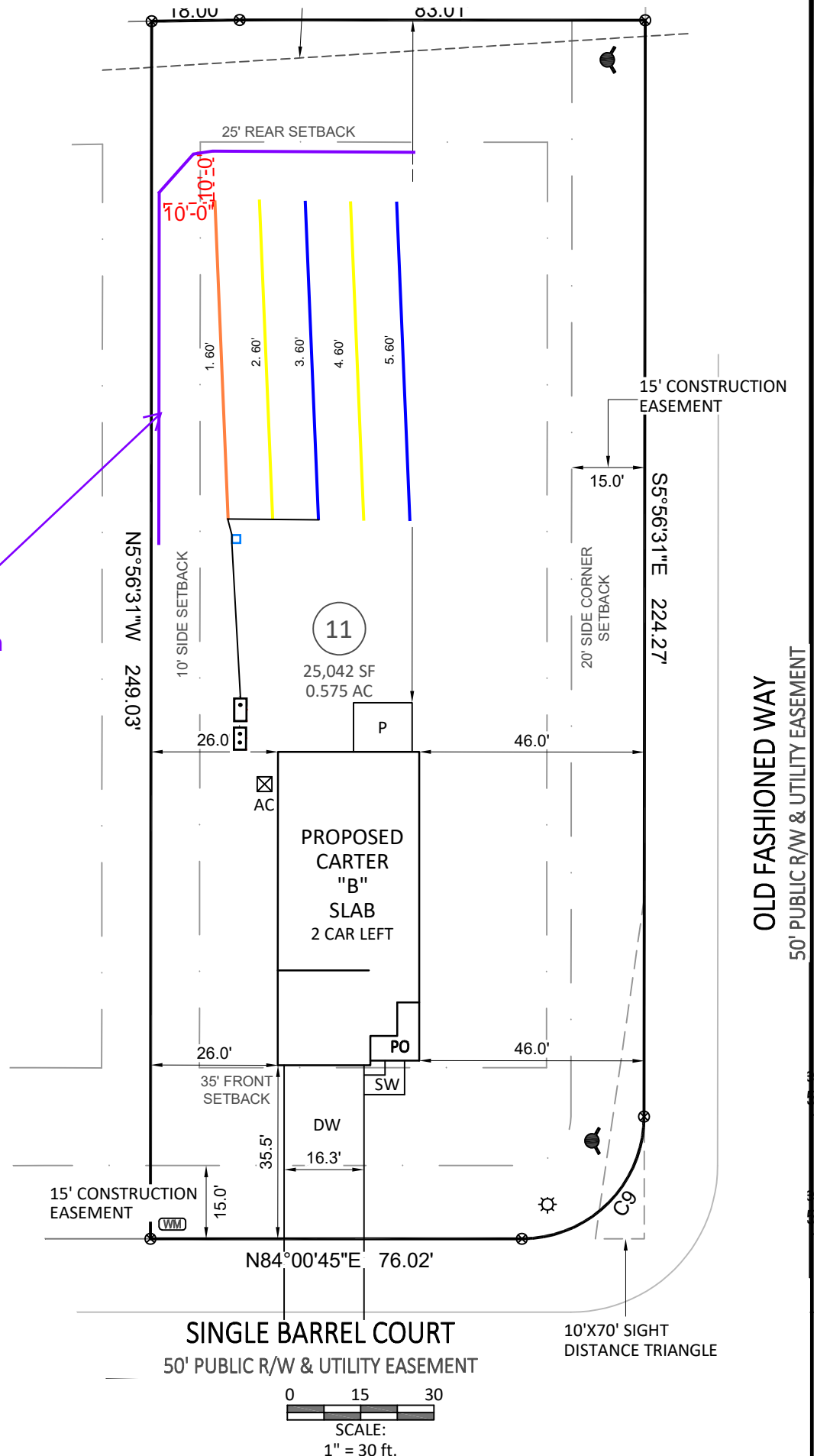
**** Recommend protective barrier around septic field during construction.

*If plumbing is not sufficient a pump tank will be required to septic field

Curtain Drain

Adams
Soil Consulting
919-414-6761

INITIAL:
Lines 1-3: (180')
Accepted Status
Pressure Manifold
REPAIR:
Lines 4-5: (120")
PPBPS
Pressure Manifold



Wellors Knoll Lot 11 2 BR Harnett County

*House footprint to be field staked by surveyor and system verified prior to any construction

**Septic area must not be altered by construction activities.

***No cuts of 2' or greater within 15' of septic area

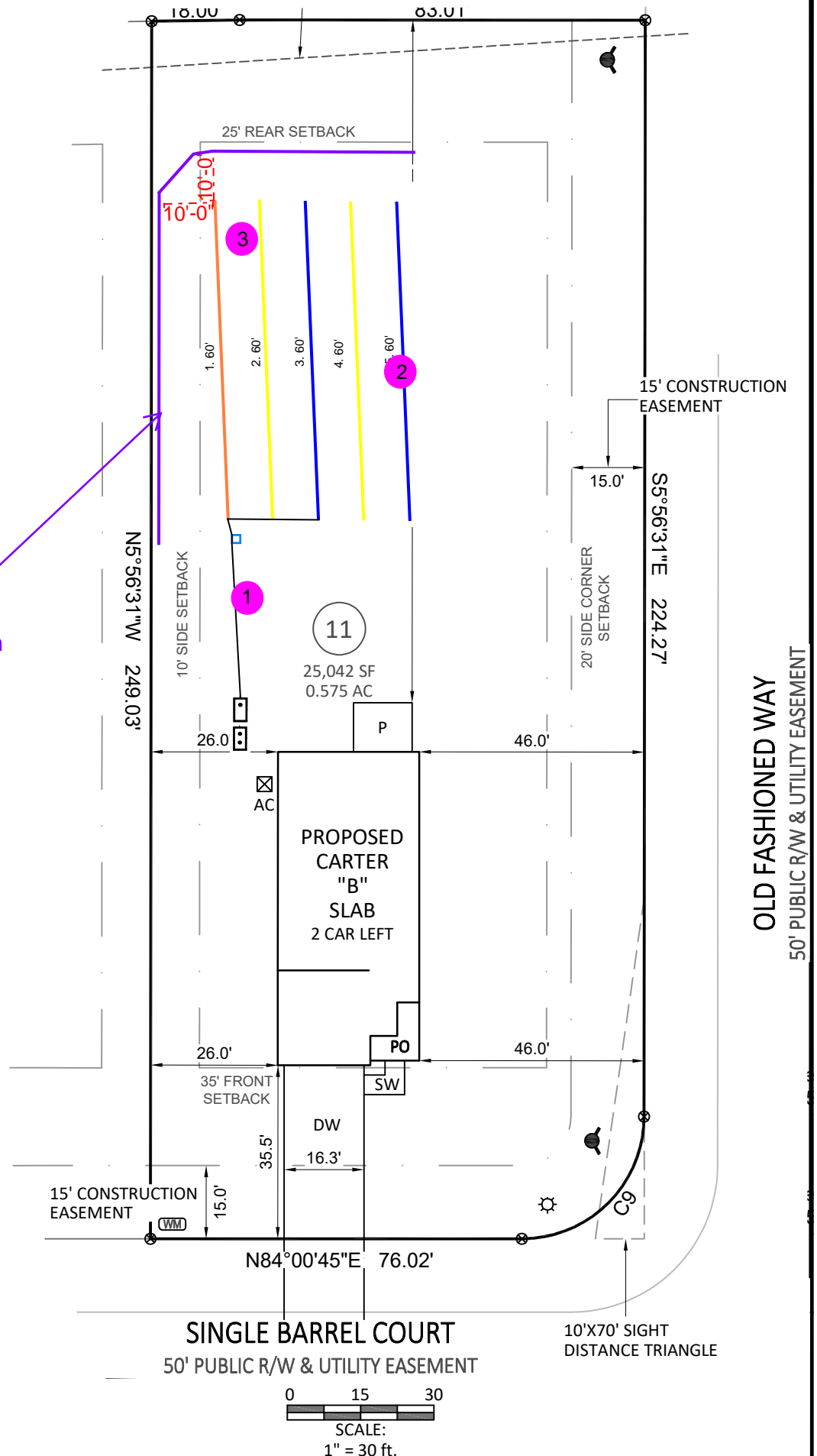
**** Recommend protective barrier around septic field during construction.

*If plumbing is not sufficient a pump tank will be required to septic field

Curtain Drain

Adams
Soil Consulting
919-414-6761

INITIAL:
Lines 1-3: (180')
Accepted Status
Pressure Manifold
REPAIR:
Lines 4-5: (120")
PPBPS
Pressure Manifold



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

OWNER: Davidson Homes DATE EVALUATED: 7/11/2025
ADDRESS: _____
PROPOSED FACILITY: Single Family 2 BR PROPOSED DESIGN FLOW (.0400): 240 gpd PROPERTY SIZE: .57 Acres
LOCATION OF SITE: Single Barrel Ct. Lillington NC 27546 PROPERTY RECORDED: Y
WATER SUPPLY: ☒ Public ☐ Single Family Well ☐ Shared Well ☐ Spring ☐ Other _____ WATER SUPPLY SETBACK: _____
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Domestic ☐ High Strength ☐ IPWW

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
1	Linear 2%	0-18	GR/LS	VFR,SEXP,NS	34"	34"	N.O	N.O	U/P.S .35	1"
		18-34	SBK SCL	FI,SEXP,S						
2	Linear 2%	0-22	GR/LS	VFR,SEXP,NS	N.O	36"	N.O	N.O	P.S .4	1"
		22-36	SBK SCL	FI,SEXP,S						
3	Linear 2%	0-22	GR/LS	VFR,SEXP,NS	N.O	36"	N.O	N.O	P.S .4	1"
		22-36	SBK SCL	FI,SEXP,S						
4										

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFICATION (.0509): U/P.S EVALUATED BY: Bobby Weaver/Alex Adams OTHER(S) PRESENT: _____
Available Space (.0508)	S	S	
System Type(s)	III B	III B	
Site LTAR	.35	.35	
Maximum Trench Depth	18"	18"	

Comments: _____

RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Wellors Knoll Lot 11

of BDR: 2 **Daily Flow:** 240 gal/day **L.T.A.R.:** 0.3500 gal/day/sq.ft

Septic Tank: 1000 gals **Pump Tank:** 1000 gals **Sq. Foot:** 540 **System Type:** Accepted

Number of Taps: 3 **Length of Trenches:** 180 **ft(See Tap Chart for Details)**

Depth of Trenches: 18 in **Manifold Length:** 36 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: 1.33 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft **Elevation Head:** 6.00 ft

Total Head: 9.33 ft **Pump to Deliver:** 21.33 gals/min at 9.33 ft head

Dosing Volume: 88 gals,

Drawdown: 88 gals divided by 20 gals/in = 4.4 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

[illegible]