

Permit #: SC02407-0239



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: 0539-90-2638
Issued To: Smith Doughlass Homes
Property Location: 352 Double Barrel St. - Lillington, NC
Subdivision (if applicable): Duncans Crossing Lot #: 62 Block: Section:
LSS Report Provided: Yes [x] No [ ]
If yes, name and license number of LSS: Alex Adams - LSS #1247
New [x] Expansion [ ] System Relocation [ ] Change of Use [ ]
Proposed Structure: SFH
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\*: Type III (b) - Accepted Status (Initial) Pump Required: [x] Yes [ ] No [ ] May be required
Proposed Wastewater System Type\*: Type III (b) - Accepted Status (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): 30 Usable Soil Depth (Repair): 30
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 [ ] 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: Alex Adams
Licensed Soil Scientist Signature: Alex Adams Date: 7-9-24

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 27699-1632
www.ncdhs.gov • TEL: 919-707-5854 • FAX: 919-845-3972

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

**This Section for Local Health Department Use Only**Initial submittal received: 7-11-24 by uo  
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:

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Copies of this were sent to the LSS and the Applicant on \_\_\_\_\_  
Date

State Authorized Agent: \_\_\_\_\_ Date: \_\_\_\_\_

 CompleteState Authorized Agent: Moh A. R. H. Date: 7-12-24

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: 12-31-25**\*See attached site sketch\***

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

County: Harnett

PIN/Lot Identifier: 0539-90-2638

Issued To: Smith Douglas Homes

Property Location: 352 Double Barrel St. - Lillington, NC

AOWE/PE Plans/Evaluations Provided: Yes  No  If yes, name and license number of AOWE/PE: Alex Adams - AOWE#10021E

Facility Type: SFH

New  Expansion  Repair  System Relocation  Change of Use

Basement?  Yes  No Basement Fixtures?  Yes  No

Type of Wastewater System\* Type III (b) - Accepted Status (Initial) Type III (b) - Accepted Status (Repair)

*\*Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*

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  
(if yes, please provide engineering documentation)

**Installation Requirements/Conditions**

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 345 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.35 gpd/ft<sup>2</sup>

Soil Cover: 6 inches Slope Corrected Maximum Trench/Bed Depth<sup>†</sup>: 18 inches <sup>† Measured on the downhill side of the trench</sup>

Aggregate Depth: 6 inches above pipe 6 inches below pipe 12 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump?  Yes  No

Pump Requirements: 10 ft. TDH vs. 21.3 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

Pre-Construction Conference Required: Yes  No

Conditions: No Foundation or Gutter Drains directed towards septic field.

If plumbing is sufficient then septic field may be dosed with gravity dispersal and pump tank removed.

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: Alex Adams

Expiration Date: 12-31-25

AOWE/PE Signature: Alex Adams

Date: 7-9-24

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: 7-11-24 by ME  
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: Moh A REHS Date of Issuance: 7-12-24

**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: 12-31-25

**\*See attached site sketch\***

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

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July 9, 2024  
Project #1146

*"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: 352 Double Barrel St. – Lillington, NC -Lot #62 – Duncan's Crossing for Smith Douglas Homes (Harnett County PIN# 0539-90-2638  
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 4-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 480 gallons/day and utilizing Accepted Status. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

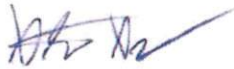
The septic installer contractor shall install the primary and repair (if needed) system on contour, see attached site plan for the primary system and repair locations. No underground utilities, water lines, or sprinkler systems shall be

placed into the initial or repair septic areas. Installation must meet all state and 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



Duncan's Crossing - Lot #62  
 4-Bedroom Septic Design  
 352 Double Barrel St - Lillington, NC  
 Smith Douglas Homes  
 Johnston County PIN: 0539-90-2638

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

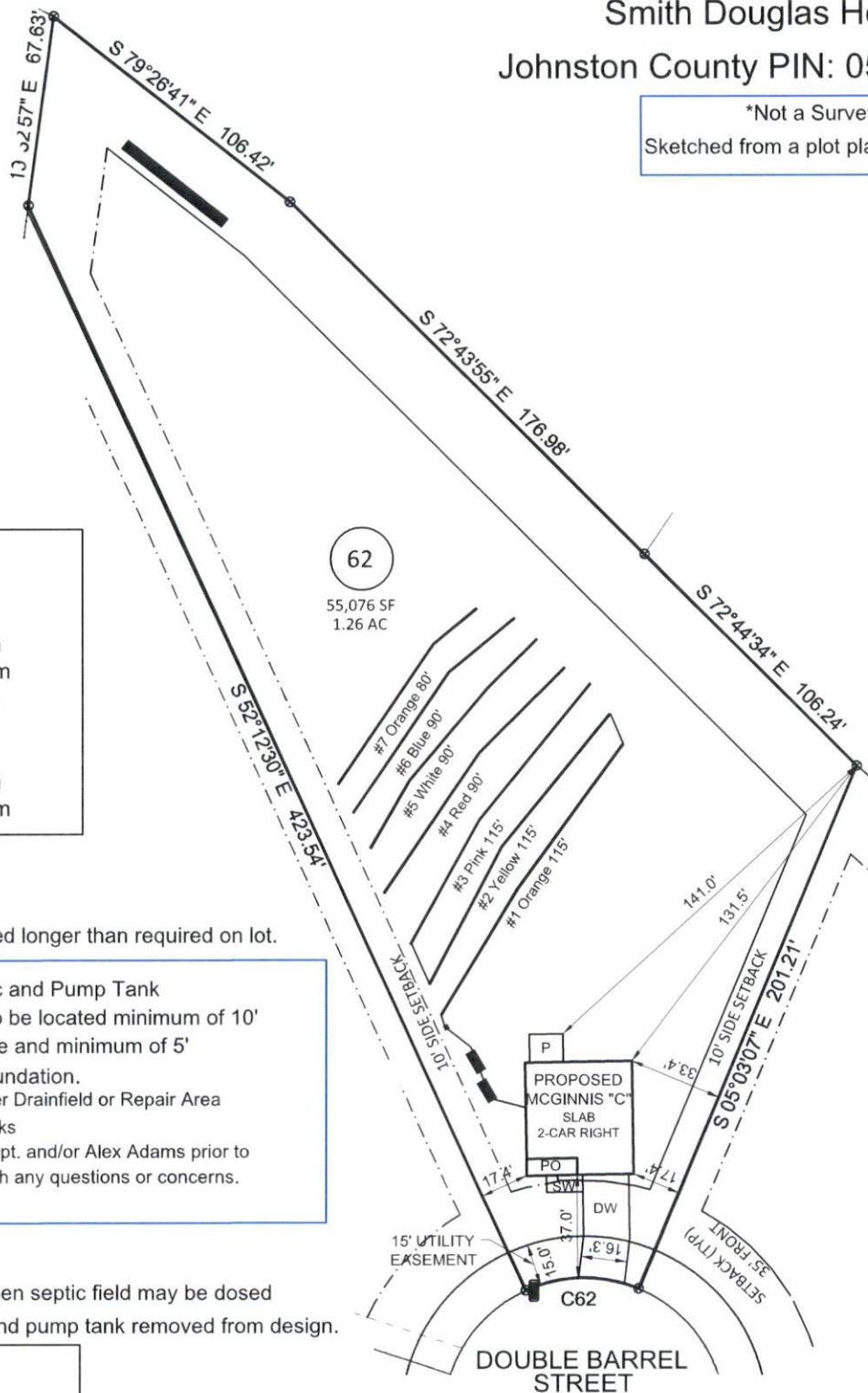
Pump to Serial  
 Lines: 1-3 (345')  
 0.35 LTAR  
 18" Max Trench Bottom  
 Accepted Status System  
 Repair: Pump to Serial  
 Lines: 4-7 (360')  
 0.35 LTAR  
 18" Max Trench Bottom  
 Accepted Status System

\*Septic lines may be flagged longer than required on lot.

\*\*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.

\*If plumbing is sufficient then septic field may be dosed  
 with gravity to a D-Box and pump tank removed from design.

Adams  
 Soil Consulting  
 919-414-6761  
 Job #1146  
 6-25-24

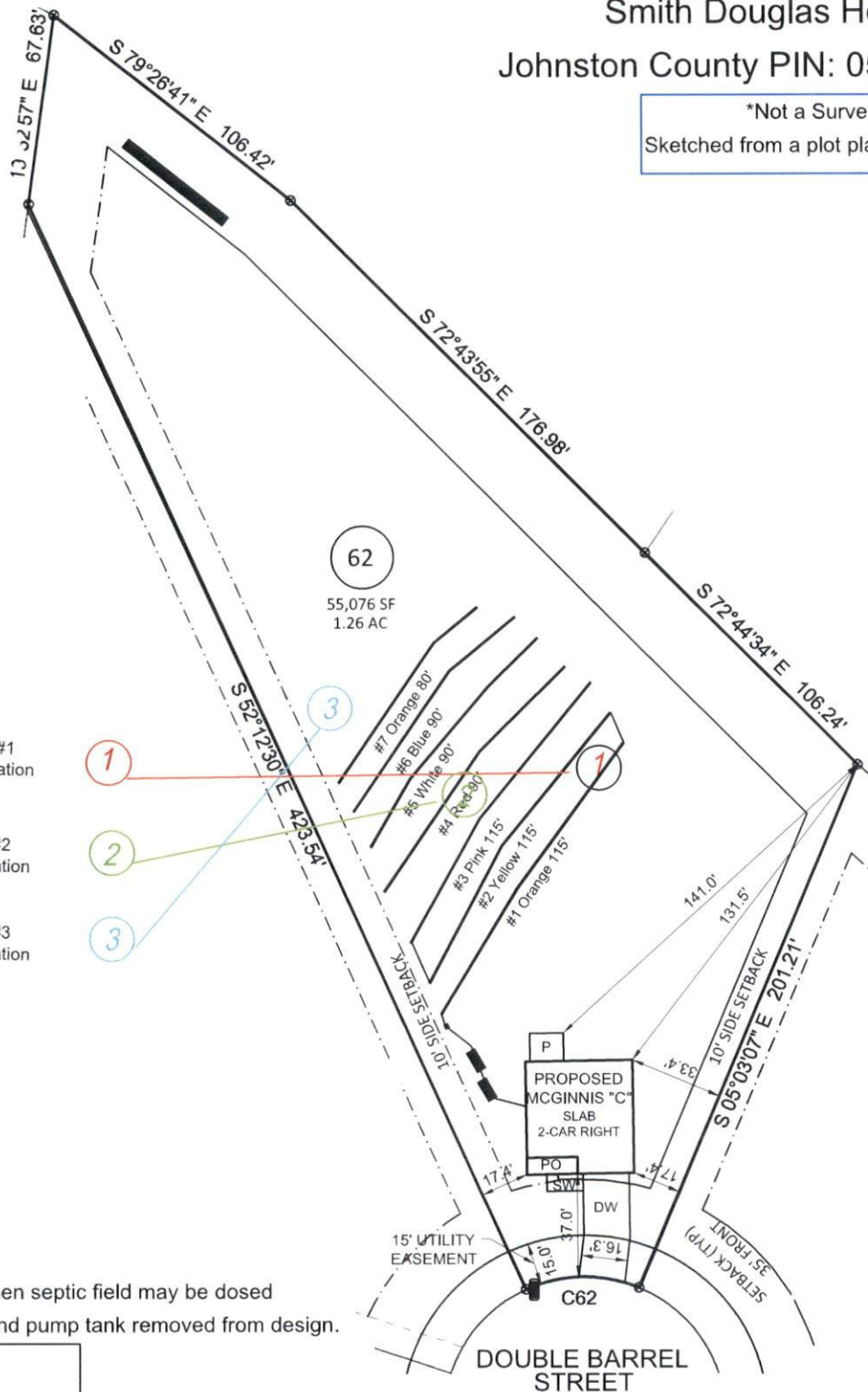


GRAPHIC SCALE  
 1" = 60'



Duncan's Crossing - Lot #62  
 Soil Boring Locations  
 352 Double Barrel St - Lillington, NC  
 Smith Douglas Homes  
 Johnston County PIN: 0539-90-2638

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



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

\*If plumbing is sufficient then septic field may be dosed with gravity to a D-Box and pump tank removed from design.

Adams  
 Soil Consulting  
 919-414-6761  
 Job #1146  
 6-25-24

GRAPHIC SCALE  
 1" = 60'





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

OWNER: Smith Douglas Homes  
 PROPOSED FACILITY: Single Family, 4-bedroom PROPOSED DESIGN FLOW (.1949): 480gpd  
 LOCATION OF SITE: 352 Double Barrel St – Lillington, NC 27546  
 WATER SUPPLY: Public Water  
 EVALUATION METHOD: Auger Boring

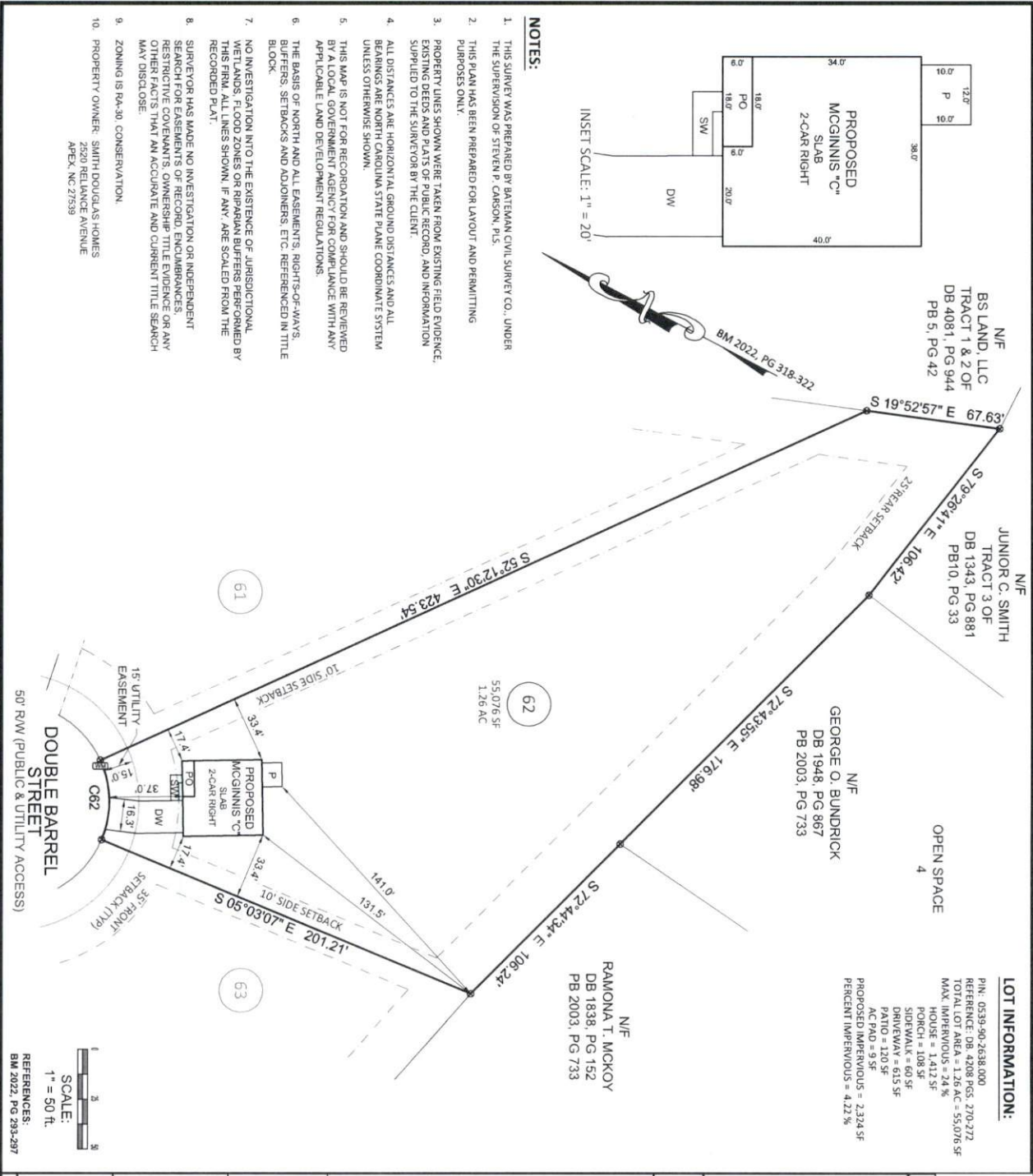
APPLICATION DATE: 7-9-24  
 PROPERTY SIZE: ~1.26 acres

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 DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	Linear Slope/3%	0-5	GR/LS	FR/SEXP/NS	N/A	28"	N/A	N/A	PS/0.35
		5-28	SBK/CL	FI/SEXP/SS					
2	Linear Slope/3%	0-10	GR/LS	FR/SEXP/NS	N/A	32	N/A	N/A	PS/0.35
		10-32	SBK/SCL	FI/SEXP/SS					
3	Linear Slope/3%	0-5	GR/LS	FR/SEXP/NS	N/A	30"	N/A	N/A	PS/0.35
		5-30	SBK/CL	FI/SEXP/SS					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946): _____
Available Space (.1945)	>5,000 ft <sup>2</sup>	>5,000 ft <sup>2</sup>	SITE CLASSIFICATION (.1948): PS
System Type(s)	Type III (g)	Type III (g)	EVALUATED BY: A. Adams
Site LTAR	0.35	0.35	OTHER(S) PRESENT:

COMMENTS: \_\_\_\_\_



N/F  
BS LAND, LLC  
TRACT 1 & 2 OF  
DB 4081, PG 944  
PB 5, PG 42

N/F  
JUNIOR C. SMITH  
TRACT 3 OF  
DB 1343, PG 881  
PB 10, PG 33

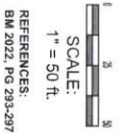
N/F  
GEORGE O. BUNDRICK  
DB 1948, PG 867  
PB 2003, PG 733


N/F  
RAMONA T. MCKOY  
DB 1838, PG 752  
PB 2003, PG 733

**LOT INFORMATION:**  
PIN: 0239-90-2638-000  
REFERENCE: DB 4208 PGS. 270-272  
TOTAL LOT AREA = 1.26 AC = 55,076 SF  
MAX IMPERVIOUS = 24 %  
HOUSE = 1,412 SF  
PORCH = 108 SF  
SIDE WALK = 60 SF  
DRIVEWAY = 61.5 SF  
P = 110 SF  
AC PAD = 9.5F  
PROPOSED IMPERVIOUS = 2,324 SF  
PERCENT IMPERVIOUS = 4.22 %

**NOTES:**

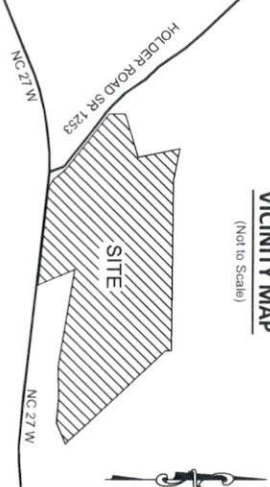
1. THIS SURVEY WAS PREPARED FOR BATEMAN CIVIL SURVEY CO., UNDER THE SUPERVISION OF STEVEN P. CARSON, P.L.S.
2. THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.
3. PROPERTY LINES SHOWN WERE TAKEN FROM EXISTING FIELD EVIDENCE, EXISTING DEEDS AND PLATS OF PUBLIC RECORD, AND INFORMATION SUPPLIED TO THE SURVEYOR BY THE CLIENT.
4. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES AND ALL BEARINGS ARE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM UNLESS OTHERWISE SHOWN.
5. THIS MAP IS NOT FOR RECOGNITION AND SHOULD BE REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.
6. THE BASIS OF NORTH AND ALL EASEMENTS, RIGHTS-OF-WAYS, BUFFERS, SETBACKS AND ADJOINERS ETC. REFERENCED IN TITLE BLOCK.
7. NO INVESTIGATION INTO THE EXISTENCE OF JURISDICTIONAL WETLANDS, FLOOD ZONES OR RIPARIAN BUFFERS PERFORMED BY THIS FIRM. ALL LINES SHOWN, IF ANY, ARE SCALED FROM THE RECORDED PLAN.
8. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT MAY ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
9. ZONING IS RA-30 CONSERVATION.
10. PROPERTY OWNER: SMITH DOUGLAS HOMES  
2520 BELANCE AVENUE  
APEX, NC 27539





**Bateman Civil Survey Company**  
Engineers • Surveyors • Planners  
2524 Belance Avenue, Apex, NC 27539 | PH: 919.577.1080 | FAX: 919.577.1081  
www.batemancivilsurvey.com | info@batemancivilsurvey.com  
NCELS Form No. C-2379

**VICINITY MAP**  
(Not to Scale)



**LEGEND**

- PO = PORCH
- P = PATIO
- SP = SCREEN PORCH OR PATIO
- WD = WOOD DECK
- SW = SIDEWALK
- DW = CONC DRIVEWAY
- IP = IRON PIPE FOUND
- IP(S) = IRON PIPE SET (IP(S))
- WM = WATER METER
- AC = AIR CONDITIONER
- CB = CABLE BOX
- LP = TELEPHONE PEDestal
- CI = CURB INLET
- YI = YARD INLET
- MI = METER INLET
- PP = POWER POLE

**BUILDING SETBACKS:**  
FRONT = 35' R  
REAR = 25' R  
CORNER = 9' 0" R

**BUILDER TO VERIFY HOUSE LOCATION, DIMENSIONS AND REVIEW TOTAL IMPERVIOUS NOTED ON THIS PLOT PLAN**

**PRELIMINARY PLOT PLAN**  
FOR  
**SMITH DOUGLAS HOMES**

**DUNCANS CROSSING - LOT 62**  
3522 DOUBLE BARREL STREET, LILLINGTON, NC  
UPPER LITTLE RIVER TOWNSHIP, HARNETT COUNTY  
DATE: 6/18/24 DRAWN BY: ALT CHECKED BY: SPC  
REFERENCE: BM 2022, PG 318-322 PROJECT # 220482 SCALE: 1" = 50'