

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

OPERATIONS PERMIT

PERMIT # WRP-115612-2023

APPLICATION DATE: 12/19/2023

BLDG. PERMIT#:

PIN: 0781644265

RECORDED: Yes

TOWNSHIP: 18 - Swift Creek

JURISDICTION: Wake County

ZONING: R-40W

APPLICANT: Christopher Ackerman
6016 Brass Lantern Ct.

BUSINESS PHONE:

HOME PHONE:

MOBILE PHONE: (919) 656-7604

HD USE: 436D RESIDENTIAL DETACHED GARAGE

EXISTING USE: 101A CONVENTIONAL ONE-FAMILY HOUSE

SITE ADDRESS: 6016 BRASS LANTERN CT

SUBDIVISION: BRASS LANTERN SUB

LOT: 11

ACRES: 0.92

DIRECTIONS: 6016 BRASS LANTERN CT., Raleigh, NC 27606

Systems defined as either type III-b, III-g with a pump, IV, V or VI, in accordance with the North Carolina administrative code 15A NCAC 18a .1961, table V as adopted by reference in the "Regulations Governing Wastewater Treatment Dispersal Systems in Wake County", requires Wake County Environmental Services to conduct periodic inspections of the system type pursuant to 15A NCAC 18a. 1961 (j). Fees for these inspections will be charged as per the approved Fee Schedule. In addition, all systems are to be operated and maintained as specified in 15A NCAC 18A .1961. This permit is based in part on information provided by the homeowner and/or his/her representative in the application submitted for this permit. The Environmental Health Specialist is not responsible for false or misleading information contained in the application. The environmental health specialist is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him/her in the application. Neither Wake County nor the Environmental Health Specialist warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

OPERATION PERMIT VALID FOR: No Expiration

INSTALLED BY: EXISTING

PROPRIETARY SYSTEM: GTR - Gravel Trench

PRETREATMENT SYSTEM:

SYSTEM TYPE INSTALLED: II A

OPERATION PERMIT: STATUS: Issued

ISSUED BY: John Bowers

ISSUED DATE: 01/10/2024

SEPTIC TANK: EXISTING

DATE OF MANUFACTURE:

FILTER:

GREASE TRAP:

DATE OF MANUFACTURE:

FILTER:

DOSING PUMP TANK:

DATE OF MANUFACTURE:

FILTER:

CC1: ETM1:

CC2:

ETM2:

RECIRCULATION TANK:

DATE OF MANUFACTURE:

CC1: ETM1:

CC2:

ETM2:

SEPTIC TANK ELEVATION:

GREASE TRAP ELEVATION:

DOSING PUMP TANK ELEVATION:

RECIRCULATION TANK ELEVATION:

DISTRIBUTION DEVICE ELEVATION:

INSTALLED TRENCH DEPTH	INSTALLED AGGREGATE DEPTH	INSTALLED TRENCH LENGTH	INSTALLED TRENCH BOTTOM ELEVATION
EXISTING	EXISTING	EXISTING	EXISTING

ACTUAL PRESSURE HEAD:

ACTUAL FLOW RATE:

ACTUAL DOSE VOLUME: 0

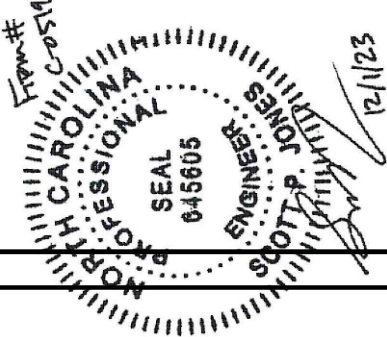
SPECIFIC OPERATION REQUIREMENTS:

- Permit is for relocation of repair area to accommodate for proposed detached garage addition.
- No modifications to existing septic system are permitted.
- Existing system showed no signs of malfunction at the time of inspection.
- System designed for 3 bedroom residence, having 360 gals/day.
- Site serviced by existing private onsite well water.
- Future Repair is a type III B/E. pump to PPBPS - Horizontal Placement - system with a max trench depth of 18" and a 0.30 LTAR.
- 33 inches to auger refusal - rock in repair system area.
- Repair system is at-grade/shallow placement, which requires imported soil cover at time of installation. This imported soil must cover the entirety of the system area and extend beyond the system area 5 feet on all sides. A minimum of 6" of soil cover is required after settling, additional soil cover beyond 6" may be required to account for settling. Imported soil cover must be approved by WCES prior to placement. System area must be seeded and strawed for stabilization.

ISSUED BY:



DATE: 01/10/2024



RABS-114852-2023

WAKE COUNTY N.C. P.D.I.
AS-BUILT SURVEY REQUIRED



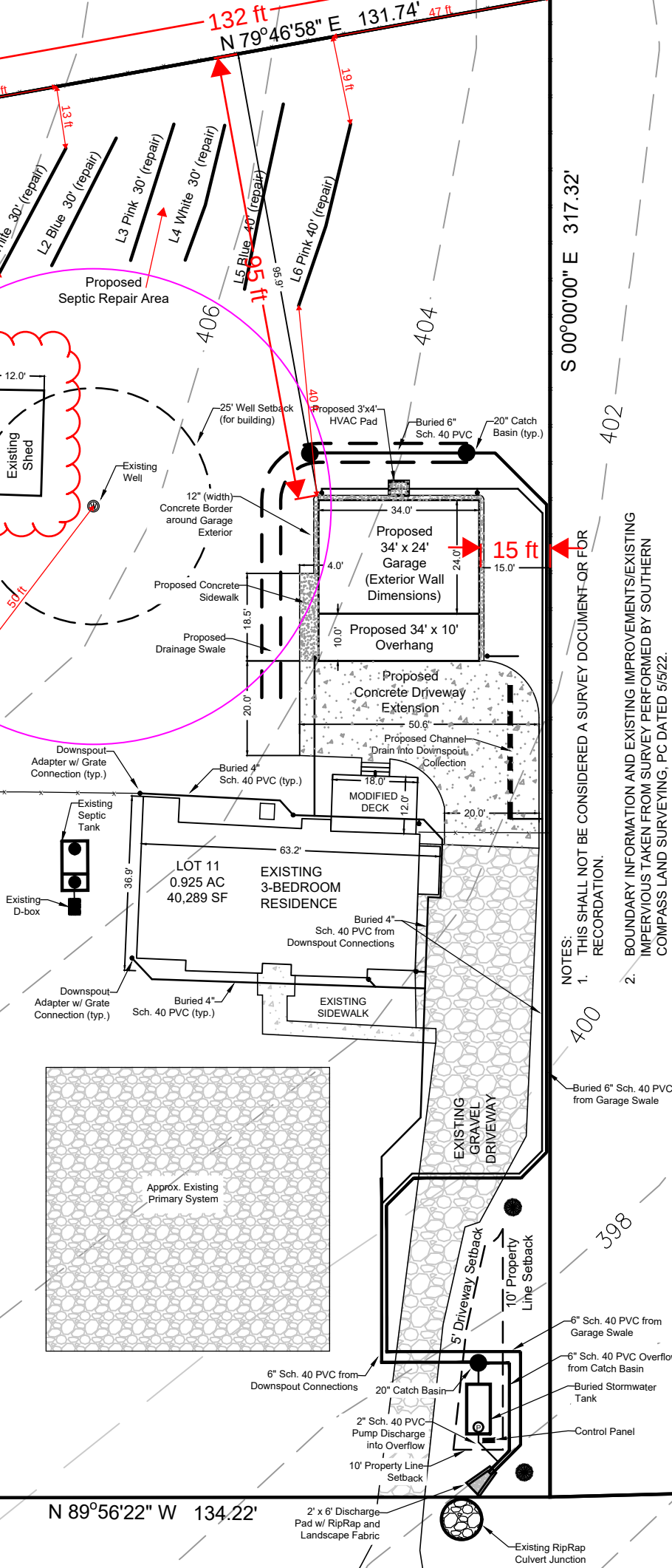
Permit
RAS-115269-2023

CAPTURE AREA SUMMARY:
EXISTING ROOF TOTAL 1,932 SQFT
PROPOSED GARAGE ROOF TOTAL 1,156 SQFT
PROPOSED DRIVEWAY TOTAL 1,030 SQFT
CAPTURE TOTAL 4,118 SQFT
(*refer to plans for capture locations)

PROPOSED NEW MISA:
EXISTING IMPERVIOUS AREA 4,644 SQFT
PROPOSED NEW IMPERVIOUS AREA 2,961 SQFT
PROPOSED NEW IMPERVIOUS TOTAL 7,605 SQFT (18.88%)
PROPOSED NEW MISA 8,952 SQFT (22.22%)
(*based on capture area shown)

IMPERVIOUS SURFACE AREA	
LOT AREA	40,289 SQFT
MISA	4,834 SQFT (12%)
EXISTING IMPERVIOUS AREA:	
HOUSE	1,932 SQFT
WALKWAY	115 SQFT
GRAVEL DRIVE	2,332 SQFT
SHED	265 SQFT
TOTAL EXISTING	4,664 SQFT (11.53%)
PROPOSED ADDITIONS:	
CONCRETE DRIVE	1,418 SQFT
GARAGE	1,156 SQFT
CONCRETE SIDEWALK	74 SQFT
CONCRETE APRON	85 SQFT
HVAC PAD	12 SQFT
FUTURE COVERED DECK	216 SQFT
TOTAL PROPOSED	2,961 SQFT

N 00°53'24" E 293.85'



NOTES:
1. THIS SHALL NOT BE CONSIDERED A SURVEY DOCUMENT OR FOR RECORDATION.

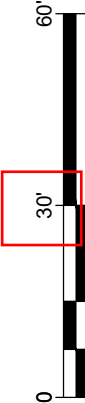
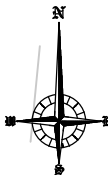
2. BOUNDARY INFORMATION AND EXISTING IMPROVEMENTS/EXISTING IMPERVIOUS TAKEN FROM SURVEY PERFORMED BY SOUTHERN COMPASS LAND SURVEYING, PC DATED 5/5/22.

3. TOPO INFORMATION TAKEN FROM WAKE COUNTY GIS.

4. ALL STORMWATER PIPES TO BE SLEEVED BENEATH TRAFFIC AREAS.

5. ALL DOWNSPOUTS SHALL DISCHARGE INTO DOWNSPOUT ADAPTER WITH GRATE AND BE CONNECTED TO STORMWATER MITIGATION SYSTEM.

6. DRIVEWAY CHANNEL DRAIN SHALL BE CONNECTED TO STORMWATER MITIGATION SYSTEM. ALL OTHER SURFACE DRAINAGE COMPONENTS SHALL NOT DISCHARGE INTO STORMWATER MITIGATION SYSTEM.



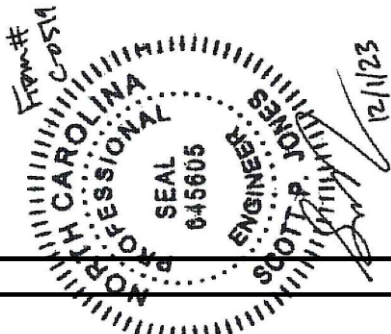
BRASS LANTERN CT.
60' PUBLIC R/W

Ackerman Residence
Site Plan

Owner Information:
Christopher Ackerman
6016 Brass Lantern Court
Raleigh, NC 27606
919-656-7604
christopherackerman@gmail.com

Property Information:
6016 Brass Lantern Court
Raleigh, NC 27606
Wake County
PIN: 0781644265

PROFESSIONAL ENGINEER SEAL



REV.	ISSUED DATE	DESCRIPTION
FINAL DESIGN NOT RELEASED FOR CONSTRUCTION		

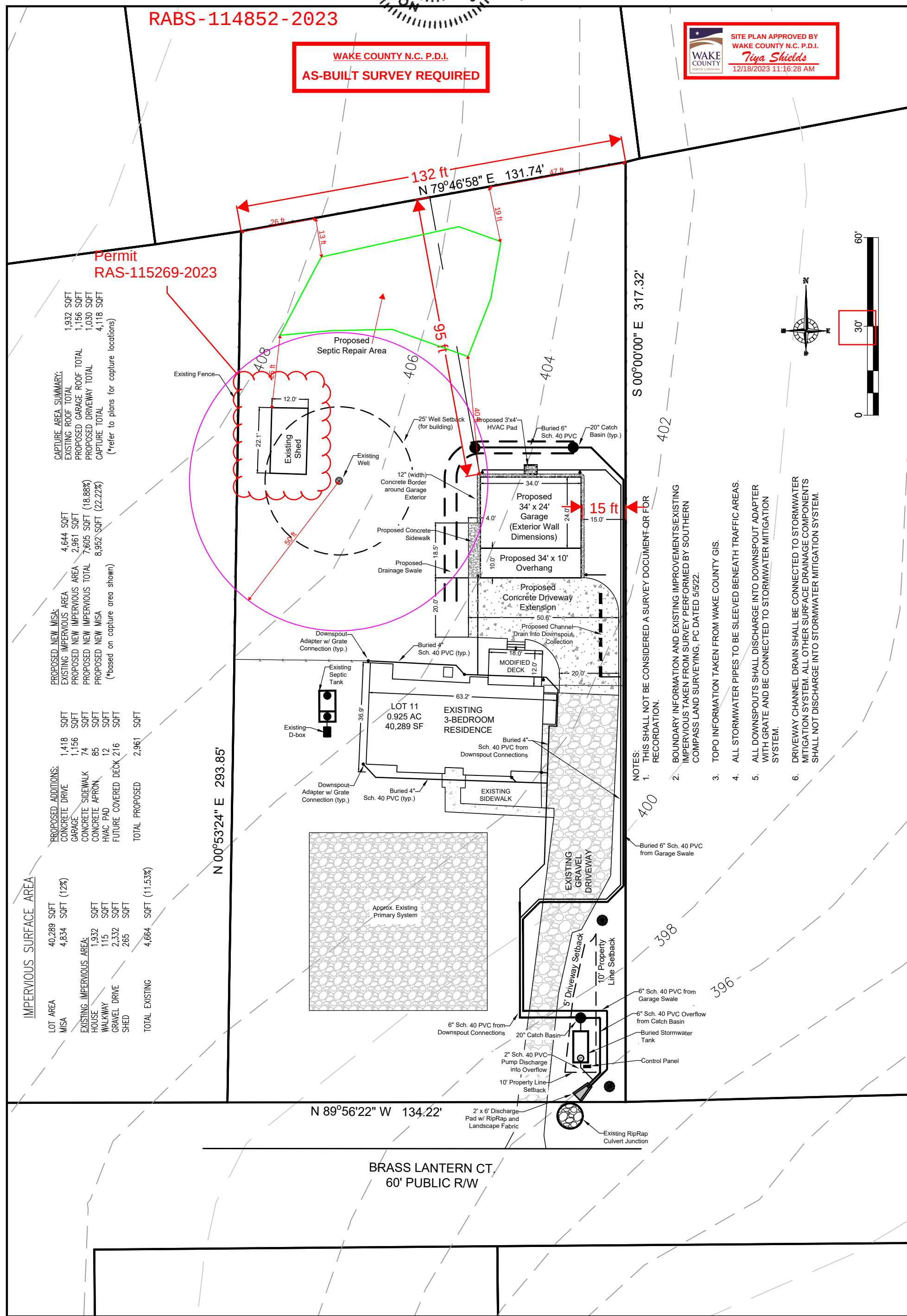
SHEET TITLE

Site Plan

DRAWN BY: S. Jones	CREATED ON: 11/28/2023
REVISED BY:	REVISED ON:
RELEASED BY:	RELEASED ON:

DRAWING NUMBER

SP-1



SCALED FOR 11"X17" SHEET



Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0669

Feasibility Study Report
6016 Brass Lantern Court, Raleigh, NC 27606
Wake County (PIN: 0781-64-4265)

PREPARED FOR: Christopher Ackerman, Client

PREPARED BY: Christopher McGee, Licensed Soil Scientist

Bailey Stiles, Environmental Scientist

REPORT DATE: December 1, 2023

Agri-Waste Technology, Inc. (AWT) was contracted to perform a Feasibility Study for the property located at 6016 Brass Lantern Court in Raleigh, NC. The existing septic permit number for the property is B030074. The permit details can be seen below in Attachment 1. The purpose of this Feasibility Study is to determine if there is enough space for a detached garage and the associated driveway extension in addition to a primary septic system and an equivalent backup repair system per the requirements set forth by Wake County Environmental Services. AWT conducted a field flagging and delineation of the existing septic system and the future primary and repair septic system at the subject property. The findings are as follows:

Garage Space:

The “Proposed Garage” is shown on the drawing below in Attachment 2. The footprint of the improvements should be kept within those shown on the site plan to ensure the garage and driveway extension do not encroach into the septic system setbacks. The garage foundation (including overhangs) must be located 5 feet from any primary or future repair septic components. The proposed concrete driveway extension must be 5 feet from any primary or repair septic components. The swale should be installed to meet the required 15 feet setback from the designated repair area.

Primary System:

The existing septic system will not require any modifications to accommodate the garage improvements shown in the drawing below. The primary system will remain a conventional gravity distribution system.

Repair System:

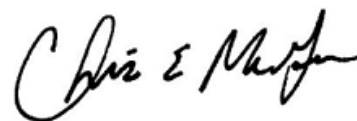
The future repair system will be located in the Northwest portion of the back yard, up slope of the existing home and proposed garage. The repair system is specified as a pressure distribution system using an approved 50% reduction drainfield product (Horizontal PPBPS). Lines 1 and 2 (60 linear feet total), Lines 3 and 4 (60 linear feet total), and Lines 5 and 6 (80 linear feet total) should be installed as drawn. These future repair lines will be located in an undisturbed, slightly wooded area of the back yard. The septic contractor should be notified of the desire to keep as many trees as possible. In the event the repair system is ever needed, the proposed repair septic system may use the same 1,000 – gallon septic tank. However, a new 1,250 – gallon pump tank and new pressure manifold will be required to meet the site and system requirements.

Additional Notes:

If this project is going to proceed, the flags marking the existing septic system and the future repair septic system must remain in place until Wake County Environmental Services has inspected the site for permitting purposes. The locations of these flags are critical, and it is essential that they are not moved prior to the site inspection to avoid charges for recreating this work. If the flags must be moved for lawn maintenance, please mark the locations of the flags with spray paint on the ground or painted stakes and replace the flags in their original positions after mowing.

The designated “Proposed Garage” location shall adhere to the final approved site plan and all septic permitting requirements. Please reference final site plan for the garage location.

We appreciate the opportunity to assist you. Please contact us with any questions, concerns, or comments upon review of this document.

A handwritten signature in black ink that reads "Chris E McGee".

Christopher McGee, LSS

A handwritten signature in blue ink that reads "Bailey Stiles".

Bailey Stiles

**ATTACHMENT 1: Wake County Department of
Environmental Services Permit Documentation**

Environmental Services - Water Quality
Onsite Wastewater Scan Data Entry Form

PERMIT #: 0030074

PIN #: 0781644265

OP DATE: 1110811984

SYSTEM USE:

- ☒ House
☐ Mobile Home
☐ Business
☐ Other

SEWAGE TYPE:

- ☒ Domestic
☐ Industrial

PUMP/SIPHON?:

- ☐ Yes
☒ No

PRESSURE MANIFOLD:

- ☐ Yes
☒ No

SYSTEM TYPE:

- ☐ I
☒ II
☐ III
☐ IV
☐ V
☐ VI
☐ Other

SUB TYPE:

- ☒ A
☐ B
☐ C
☐ D
☐ E
☐ F
☐ G

NBR BEDROOMS:

- ☐ 1
☐ 2
☒ 3
☐ 4
☐ 5
☐ 6
☐ Other

MAINT. SCHEDULE:

- ☐ Yes
☒ No

CERT. OPERATOR

- ☐ Yes
☒ No

GT ST PT SIZE

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|------------------|
| ☐ | ☐ | ☐ | 750 |
| ☐ | ☐ | ☐ | 900 |
| ☐ | ☒ | ☐ | 1,000 |
| ☐ | ☐ | ☐ | 1,200 |
| ☐ | ☐ | ☐ | 1,500 |
| ☐ | ☐ | ☐ | 1,800 |
| ☐ | ☐ | ☐ | 2,100 |
| ☐ | ☐ | ☐ | 2,500 |
| ☐ | ☐ | ☐ | 3,000 |
| ☐ | ☐ | ☐ | 4,000 |
| ☐ | ☐ | ☐ | 5,000 |
| ☐ | ☐ | ☐ | 8,000 |
| ☐ | ☐ | ☐ | 10,000 |
| ☐ | ☐ | ☐ | Other |
| ☒ | | ☒ | None/NA GT or PT |

DRAINFIELD SIZE(SQ. FT.)

01100

DRAIN TYPE:

- ☒ Stone
☐ EZ Flow
☐ Infiltrator
☐ Biodiffuser
☐ Cultec
☐ Drip
☐ Hancor
☐ Large Dia. Pipe
☐ Multi-Pipe
☐ Other

MAX DEPTH (IN.):

- ☐ 12 in. or less
☐ 18 in. or less
☐ 24 in. or less
☐ 26 in. or less
☐ 28 in. or less
☐ 30 in. or less
☐ 32 in. or less
☐ 36 in. or less
☒ Other

STONE DEPTH (IN.):

- ☐ 8 in. or less
☒ 12 in. or less
☐ 18 in. or less
☐ 24 in. or less
☐ Other

TRENCHES:

- ☒ Individual
☐ Bed

TRENCH WIDTH (IN.):

- ☐ 12 in. or less
☐ 18 in.
☐ 24 in.
☒ 36 in.
☐ 6 ft. or less
☐ 9 ft. or less
☐ Other

B.W. 6/19/2014

WAKE COUNTY HEALTH DEPARTMENT SEPTIC TANK LAYOUT AND PERMIT

TAX MAP NO. 678 PARCEL NO. 151 PERMIT NO. B 30074 Swift Etk.

CONTRACTOR Ruger Mc Swain / 859 0353

OWNER _____ DATE 9-12-84

LOCATION 6016 Brass Lantern Ct

S. R. NO. 1382

SUBDIVISION NAME Brass Lantern LOT NO. 11 SECTION OR BLOCK NO. _____

REPAIR ☐ ORIGINAL PERMIT NO. _____

GARBAGE DISPOSAL UNIT YES ☐ NO ☒

HOUSE ☒ MOBILE HOME ☐ BUSINESS ☐

NO. BEDROOMS 3 LOT AREA 40,000 sq. ft.

SIZE OF TANK 1000 gal.

NITRIFICATION LINE 1100 2 (183 x 3) sq. ft.

DEPTH OF STONE IN LINES: 12" ☒

RISER AND BAFFLE REQUIRED ☒ PUMP REQUIRED ☐

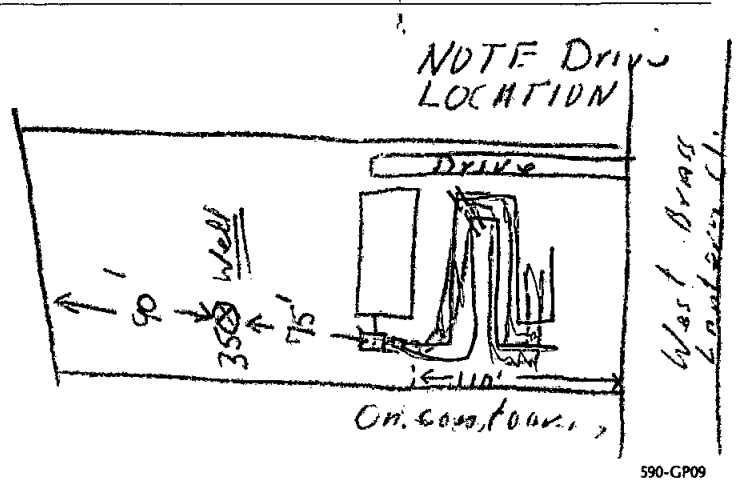
WATER SUPPLY: INDIVIDUAL ☒ PUBLIC ☐ OTHER ☐

* PERMIT VOID 36 MONTHS FROM DATE OF ISSUANCE.

* PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS

* PERMIT MAY BE VOIDED IF SITE ALTERATIONS MADE

LAYOUT BY W. A. W. R. S.



DATE 11-8-84

INSTALLED BY Billy Elledge

APPROVED BY Al Wain

ATTACHMENT 2: AWT Septic System Drawing



DRAWING NUMBER
WW-1