

R-5705A 074

The North Carolina Administrative Code requires applications for septic permits to be signed by the owner of the property to be evaluated or by the owner's legal representative. Applications submitted by an owner's legal representative must include this completed and signed document. Please note that the person named the legal representative on this document must make the application. The signature of the person named the legal representative on this document must also appear at the bottom of this document.

I, Belinda And Douglas Williams, hereby authorize
(property owner's full name)

John Roberts or Brad Marsh to serve as my legal
(legal representative's full name)

representative for submitting an application for an evaluation by the HARNETT County Health Department of property owned by me for the purpose of obtaining a permit to install, repair or expand an on-site wastewater system. I understand that submittal of the application for evaluation also authorizes the HARNETT County Health Department to perform said evaluation on my property.

Property Owner's Address: 650 Gardner Road Angier, NC

Property Owner's Phone: 919-398-4692

04-0673-60-0899.000

Parcel Identification Number (PIN): _____

Parcel Size: 2.025 AC Parcel Location: Gardner Road

x Signature: Belinda Williams
(property owner's full name)

Date: March 23, 2007

Signature: _____
(legal representative's full name)

Date: _____

Residential Subsurface Wastewater Treatment and Disposal System Proposal

Property:
650 Gardner Rd
Angier, NC
PIN: 0673-60-0899.000
Harnett County, NC
Ground Truth Job # 21-147

Prepared For:


Belinda Williams
650 Gardner Rd
Angier, NC

Prepared By:



Ground Truth Soil Consulting, PLLC
1302 Roberts Road
Newport, NC 28570
(252) 725-1320

June 11, 2021


John C. Roberts



INTRODUCTION & SITE DESCRIPTION

A Soil & Site Evaluation was performed for the tract located at 650 Gardner Rd, Angier, NC (PIN: 0673-60-0899.000). Ground Truth Soil Consulting, PLLC (Ground Truth) was retained to prepare a proposal for an on-site wastewater treatment and disposal system that would allow for the construction of a 3-bedroom home (360 GPD). The lot was evaluated in accordance with North Carolina statutes for waste disposal ("Laws and Rules for Sewage Treatment and Disposal Systems", amended December 6, 2018").

The NCDOT project R5705A is proposed to impact the existing septic tank and drainfield. A relocation permit is requested to relocate the septic tank and septic drainfield.

The field survey was conducted in May and June 2021 by John C. Roberts, LSS. Soil borings were advanced via a hand auger and evaluated under moist conditions using procedures listed in the *Field book for Describing and Sampling Soils, Version 3.0*. Soil color was determined using a Munsell Soil Color Chart. Observations of the landscape as well as soil properties (depth, texture, structure, soil wetness, restrictive horizons, etc.) were recorded. It was determined sufficient amount of Provisionally Suitable Group III soils are available within the project area for installation of a Gravity-Flow Conventional System initial system for a 3-bedroom system. Sufficient area of Provisionally Suitable soils also exists to support a Gravity-Flow repair system.

LOCATION

The lot is located at 650 Gardner Road in Angier, NC.

PLANS AND SPECIFICATIONS

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1,000 gallons in capacity (at minimum).
2. The septic tank shall be fitted with an approved effluent filter.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tanks have had time to properly cure and are free of cracks or other structural deficiencies.

B. Pipes and Fittings

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. The supply line will be approximately 90 feet long from the septic tank to the upper septic drainline.
4. Plumbing will need to be rerouted underneath the house from the exiting the front of the house to the rear of the house.

C. Distribution Method

1. Drainlines will be fed via serial distribution.

D. Drainfield Installation-Initial

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. The property owner/builder should mark this area and isolate it as much as possible from construction traffic.
2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition.
2. The specified system is a gravity-flow system. Accepted Systems, Infiltrator Quick4 chambers or equivalent will be utilized. Drainlines shall be installed no deeper than 20 inches.
3. The drainfield consists of two (2) lateral trenches to be constructed 3-foot wide by 129 feet in length. Total drainline length is 258 feet.
5. The maximum trench depth for this system shall be 20 inches.
6. The laterals are to be installed keeping the individual trench bottoms level from beginning to end.
7. The trenches should be left open for the final inspection by the HCEH.

E. Final Landscaping

1. Final cover over the drainfield shall be at least 6 inches deep. If additional cover is needed, Group II (sandy loam) or Group III (sandy clay loam) soil shall be utilized.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

F. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the HCEH as soon as possible.
2. Lawn irrigation should not be placed over the drainfield area.

MAINTENANCE

G. In General

1. The owner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 25 percent of the volume of the tank. In some situations, the tanks may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner has the septic and pump tanks cleaned out annually.
3. When it becomes necessary to clean the effluent filter, the filter should be removed and the accumulated debris washed back into the septic tank – not onto the lawn.
4. Any damp areas, leakages or malfunctions in the drainfield area should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic tanks and septic drainfield.

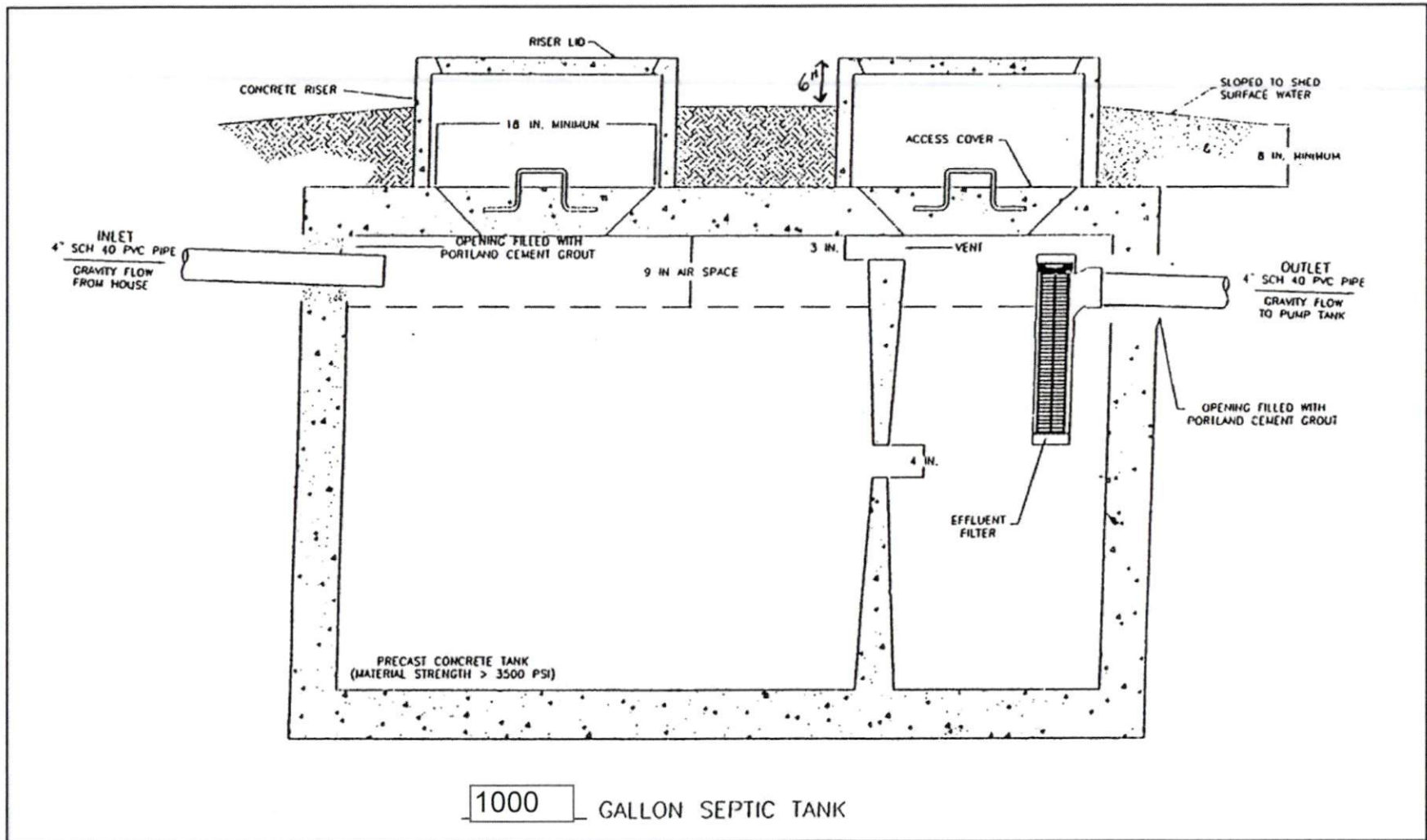
DESIGN SPECIFICS

Initial System

Daily Design Flow:	360 GPD – 3-bedroom house
Septic Tank Size:	1,000 Gallons (minimum)
Effluent Loading Rate:	0.35 GPD per sq. ft.
Drainfield Type:	Accepted Systems Quick 4 Chambers or Equivalent
Distribution Method:	Distribution Box
Number of Drainlines:	(2) 3' Wide x 129' Long
Total Trench Length:	258 Linear Feet
Maximum Trench Depth:	20 inches
Final Cover Requirement:	6 Inches

Repair Specifics

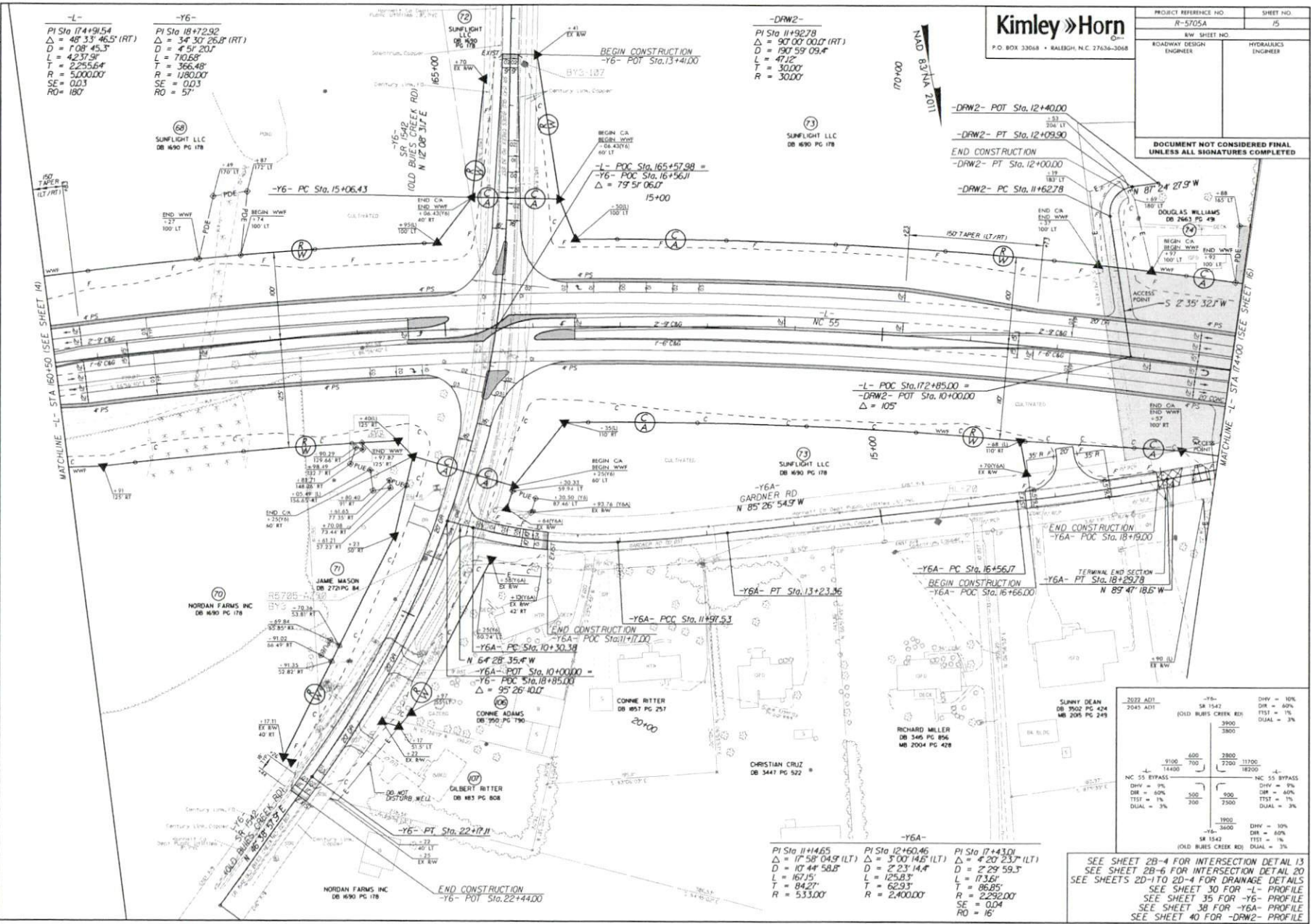
Effluent Loading Rate:	0.35 GPD per sq. ft.
Drainfield Type:	Accepted Systems Quick 4 Chambers or Equivalent
Distribution Method:	Gravity
Total Trench Length:	(2) 3' Wide x 129' Long
Maximum Trench Depth:	20 Inches
Final Cover Requirement:	6 Inches



5/14/19

5/16/2021

REVISIONS
ROW REV. - 5/14/21 - REVISED EASEMENTS ON PARCEL 73 SHIFTED DRWG AND ACCESS POINT ON PARCEL 74 CHANGED ROW AREA TO TCE AND MOVED MONUMENTS ON PARCEL 107 - 109



-L-
 PI Sta 174+91.54
 $\Delta = 48^\circ 33' 46.5''$ (RT)
 $D = 108' 45.3''$
 $L = 42.3729'$
 $T = 229.564'$
 $R = 5,000.00'$
 $SE = 0.03$
 $RO = 180'$

-Y6-
 PI Sta 18+72.92
 $\Delta = 34^\circ 30' 26.8''$ (RT)
 $D = 45' 20.1''$
 $L = 170.65'$
 $T = 366.48'$
 $R = 1,180.00'$
 $SE = 0.03$
 $RO = 57'$

-DRW2-
 PI Sta 11+92.78
 $\Delta = 90^\circ 00' 00.0''$ (RT)
 $D = 190' 59' 09.4''$
 $L = 47.12'$
 $T = 30.00'$
 $R = 30.00'$

Kimley»Horn
 P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO	R-5705A	SHEET NO	75
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

-DRW2- POT Sta. 12+00.00
-DRW2- PT Sta. 12+09.90
 END CONSTRUCTION
-DRW2- PT Sta. 12+00.00
-DRW2- PC Sta. 11+62.78

-L- POC Sta. 172+85.00 =
-DRW2- POT Sta. 10+00.00
 $\Delta = 105^\circ$

-Y6A- POC Sta. 18+19.00
 END CONSTRUCTION
-Y6A- PT Sta. 18+29.78
 TERMINAL END SECTION
 N 85° 47' 18.6" W

-Y6A-
 PI Sta 11+4.65
 $\Delta = 17^\circ 58' 04.9''$ (LT)
 $D = 10' 44' 58.8''$
 $L = 167.15'$
 $T = 84.27'$
 $R = 533.00'$

-Y6A-
 PI Sta 12+60.46
 $\Delta = 3^\circ 00' 14.6''$ (LT)
 $D = 2' 23' 14.4''$
 $L = 125.83'$
 $T = 62.93'$
 $R = 2,400.00'$

-Y6A-
 PI Sta 17+43.01
 $\Delta = 4^\circ 20' 23.7''$ (LT)
 $D = 2' 29' 59.3''$
 $L = 173.61'$
 $T = 86.85'$
 $R = 2,292.00'$
 $SE = 0.04$
 $RO = 16'$

2023 ADT	3900	3800
2045 ADT	3900	3800
SR 1542	DIV = 10%	DIV = 10%
(OLD BURNS CREEK RD)	DIR = 60%	DIR = 60%
	TS1 = 1%	TS1 = 1%
	DUAL = 3%	DUAL = 3%
SR 1542	DIV = 10%	DIV = 10%
(OLD BURNS CREEK RD)	DIR = 60%	DIR = 60%
	TS1 = 1%	TS1 = 1%
	DUAL = 3%	DUAL = 3%

SEE SHEET 28-4 FOR INTERSECTION DETAIL 13
 SEE SHEET 28-6 FOR INTERSECTION DETAIL 20
 SEE SHEETS 20-1 TO 20-4 FOR DRAINAGE DETAILS
 SEE SHEET 30 FOR -L- PROFILE
 SEE SHEET 35 FOR -Y6- PROFILE
 SEE SHEET 35 FOR -Y6A- PROFILE
 SEE SHEET 40 FOR -DRW2- PROFILE