362

GWS – RES. APP 07/05

SEPTIC FEE: 200.00
DATE: 2/14/06
CRT [Check #1087 JRA]

PERMIT APPLICATION FOR A RESIDENTIAL SITE
IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATION
FOR ON-SITE WASTEWATER SYSTEM
NEW WELL INSTALLATION OR REPAIR OF EXISTING WELL
MECKLENBURG COUNTY GROUNDWATER & WASTEWATER SERVICES

FILE # 6354B

WELL FEE: _____
DATE: _____
CRT [ ]

SEPTIC / TYPE APPLICATION: ☐ NONE ☑ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFY PLOT PLAN

WELL / TYPE APPLICATION: ☐ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

JOB LOCATION INFORMATION:

TAX/PARCEL #: 011-261-19 & 23
STREET ADDRESS: Rama Church Rd
CITY: Huntersville
STATE: NC ZIP:
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #:
TOWNSHIP:

☐ 0-MECKLENBURG ☐ 4-PINEVILLE
☐ 1-CHARLOTTE ☐ 5-MATTHEWS
☐ 2-DAVIDSON ☑ 6-HUNTERSVILLE
☐ 3-CORNELIUS ☐ 7-MINT HILL

BUILDING INFORMATION:

TYPE OF BUILDING:

☐ SINGLE MOBILE HOME (S) ☐ MODULAR HOME (M)
☐ DOUBLE WIDE (D) ☐ MULTIPLE FAMILY (U)
☑ HOUSE (H) ☐ OTHER

HEATED SQUARE FOOTAGE: ~10000²
NUMBER OF BEDROOMS: 5
NUMBER OF OCCUPANTS: 10

FOUNDATION FOR RESIDENCE:

☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:

NUMBER OF BEDROOMS TO BE ADDED: NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE:
WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☐ NO TYPE:

WATER SUPPLY:

☐ MUNICIPAL (M) ☑ PUBLIC (C) ☐ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER 'SPRINGS' (O)

PROPOSED USE OF WELL: ☐ N/A ☐ IRRIGATION ☐ POTABLE ☐ GEOTHERMAL ☐ OTHER

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES	☑ NO	WELLS, SPRINGS, OR WATER LINES	☐ YES	☑ NO
EXISTING WASTEWATER SYSTEMS	☐ YES	☑ NO	DESIGNATED WETLANDS	☐ YES	☑ NO
EASEMENTS OR RIGHT-OF-WAYS	☐ YES	☑ NO	GRADING/SOIL REMOVAL PERFORMED	☐ YES	☑ NO

PROPERTY OWNER:

NAME: Augusta Homes
ADDRESS: 10602 Bailey Rd Suite B
CITY: Cornelius
STATE: NC ZIP: 28031
HOME PHONE: WORK PHONE: (704) 892-7795
MOBILE PHONE: FAX:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Tracy Jacobs, CPSS
ADDRESS: 385 Timber Rd.
CITY: Mooresville
STATE: NC ZIP: 28115
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-582-9219 FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

*An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Tracy C. Jacobs CPSS

Owner's/Agent's Signature Date

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT & NATURAL RESOURCES DIVISION
OF ENVIRONMENTAL HEALTH ON-SITE
WASTEWATER SECTION

*A Well Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Owner's/Agent's Signature Date

MECKLENBURG COUNTY HEALTH DEPARTMENT
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202 704-336-5103 / FAX: 704-336-6894

presents a division of property within the jurisdiction of the ntersville that may or may not result in the creation of tracts are compliant with the standards of the Zoning and Subdivision t is not subject to the provisions of the Huntersville Ordinance and does not require the approval of the Huntersville ommissioners. However any futher subdivision of this property ject to these provisions.

Planner

2.24.06
Date

nty

S COY MAYES
R. MAYES, JR.
2047-401.
M1-073-11

BASED ON MB 28-437 1997

N 03°36'40"E 1235.67'

250.00'

250.00'

250.00'

Course	Bearing	Distance
L1	N 72°07'02" W	8.17'
L2	S 72°07'02" E	8.17'

CURVE TABLE

Curve	Radius	Length	Chord	Chord Bear.
C1	20.01'	17.39'	16.84'	S 43°08'58"
C2	20.00'	16.82'	16.33'	S 05°48'10"
C3	40.00'	42.59'	40.61'	S 00°36'18"
C4	40.00'	125.66'	80.00'	N 58°53'32"
C5	40.00'	25.07'	24.66'	N 49°03'54"
C6	20.01'	16.45'	15.99'	N 41°49'45"
C7	20.00'	16.82'	16.33'	N 05°48'10"
C8	40.00'	38.29'	36.85'	N 02°28'21"
C9	40.00'	28.85'	28.23'	N 45°36'50"
C10	20.00'	16.82'	16.33'	N 42°10'48"
C11	20.00'	16.82'	16.33'	N 06°00'35"
C12	40.00'	37.42'	36.07'	N 03°18'06"
C13	40.00'	136.76'	79.23'	S 58°33'01"
C14	40.00'	18.76'	18.59'	S 52°50'12"
C15	20.00'	16.82'	16.33'	S 42°10'48"
C16	20.00'	16.82'	16.33'	S 06°00'35"
C17	40.00'	24.98'	24.58'	S 12°12'39"
C18	210.00'	65.24'	64.98'	S 63°13'03"
C19	250.00'	77.67'	77.35'	N 63°13'03"

OLD LINE

904.75'

S 57°28'21"E 1100.22'

OLD LINE

944.40'

S 58°33'01"E 1158.43'

1083.17'

S 59°31'28"E 1217.01' TOTAL

6354B

LOT 6
5.63 AC.

LOT 7
5.98 AC.

LOT 7B
6.33 AC.

LOT 8
CYNTHIA C. GIDUS
10224-614
011-261-24

CO., LLC.
924
437
-21

CAMDEN LAND CO., LLC.
19811-924
MB 28-437
011-261-22

CAMDEN LAND CO., LLC.
19811-924
MB 28-437
011-261-23

I, RUFUS JACKSON LOVE , certify that this map was drawn from an actual survey made under my supervision: that the ratio of precision as calculated by latitudes and departures is 1:10,000+ before adjustments: that the boundaries not surveyed are shown as broken lines plotted from information found in DB. 45 PG. 5400 that this map was prepared in accordance with GS 47-30 as amended; and that the angular error was ≤ 7.5 seconds per turn.

Witness my original signature and seal this 21st day of FEB. 2006

N.C.R.L.S. L-2844
LICENSE NO.

Rufus Jackson Love
PROFESSIONAL LAND SURVEYOR

E 198.75'

N 18°05'07"E 200.92'

40' RIGHT OF WAY

SHARED DRIVEWAY

S 18°05'07"W 211.22'

VE

W 188.45'

41.31'

C12

C11

C13

79.23'

R=35'

C15

C14

MENT
OT 3

154.16'

SEPTIC EASEMENT
TO SERVE LOT 4

SEPTIC EASEMENT
TO SERVE LOT 5

134.80'

123.18'

PROPOSED 5' R/W PER MB 28-437

248.70'

248.70'

CENTERLINE

30.66'

#4 REBAR
CONTROL CORNER

ROAD

This survey creates a subdivision of land within the area of the county or municipality that has an ordinance that regulates parcels of land.

Rufus Jackson Love
RUFUS JACKSON LOVE

THE PURPOSE OF THIS MAP IS TO CHANGE LOTS 3 THROUGH 7 AND SHOW LOT 7B.

ERTY IS NOT LOCATED IN A DESIGNATED FLOOD ZONE.
ERMINED BY COORDINATE COMPUTATION.
ES COMPUTED POINT, NO MONUMENT FOUND OR SET.
UND UTILITIES NOT LOCATED AS OF THIS DATE.
BOOK 28-437 FOR TIE TO GRID MONUMENT "RAMAH".
ERTY IS ZONED R (RURAL DISTRICT)
PERY IS NOT LOCATED IN A FLOOD HAZARD ZONE.
N ON COMMUNITY PANEL #3704780 48E. EFFECTIVE
/04/04.
ERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR
OF WAY OF RECORD.

PIN. NUMBERS
011-261-19
011-261-20
011-261-21
011-261-22
011-261-23

RECORD PLAT
PROPERTY OF
CAMDEN LAND CO., LLC.
LOTS 3 THROUGH 7, MEADOWBROOK FARMS, MB 28-437
DEED 19811-924, PIN # (SEE LIST)
HUNTERSVILLE TOWNSHIP, MECKLENBURG COUNTY
NORTH CAROLINA
NOVEMBER 11, 2005
REVISED: 02/21/06 TOWN OF HUNTERSVILLE COMMENTS
REVISED: 01/17/06
REVISED: CHANGED LOT LINES ON D-F, 12/29/05
FILE NAME: AUGUSTA-97

100 0 100 200 300
GRAPHIC SCALE - FEET 1"=100'

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 2
Property ID: 011-261-23
Lot #: F
File #: 6354B
Code: 1

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Argrsta Homes
Applicant: Toney Jacobs
Address: 10602 Bailey road, Cornelius, N. C. 28031
Date Evaluated: 2/22/06
Proposed Facility: Residence
Design Flow (.1949): 600gpd
Property Size: Approx. 1.4a inv.
Location of Site: Ramah Church Road
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [x] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	SOIL MORPHOLOGY 1941				OTHER PROFILE FACTORS				
	1940 Landscape Position/ Slope%	Horizon Depth (IN)	1941 Structure/ Texture	1941 Consistence Mineralogy	1942 Soil Wetness/ Color	1943 Soil Depth (IN)	1956 Sapro Class	1944 Restr. Horiz	Profile Class & LTAR
1	LS, 8	0-5	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		5-48	SBK/ABK/C	FI/SEX/S/P					.275GPD/FT^2
2	"	0-7	GR/CL	FR/SEXP/SS/SP	"	"	"	"	"
		7-48	SBK/ABK/C	FI/SEX/S/P					
3	"	0-5	GR/CL	FR/SEXP/SS/SP	"	"	"	"	"
		5-48	SBK/ABK/C	FI/SEX/S/P					
4	"	0-13	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		13-32	SBK/ABK/SC	FI/SEX/S/P					
		32-48	SBK/ABK/C	"					
5	LS, 10	0-6	GR/CL	FR/SEXP/SS/SP	"	"	"	"	"
		6-48	SBK/ABK/C	FI/SEX/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	111b	111b
Site LTAR	.275GPD/FT^2	.275GPD/FT^2

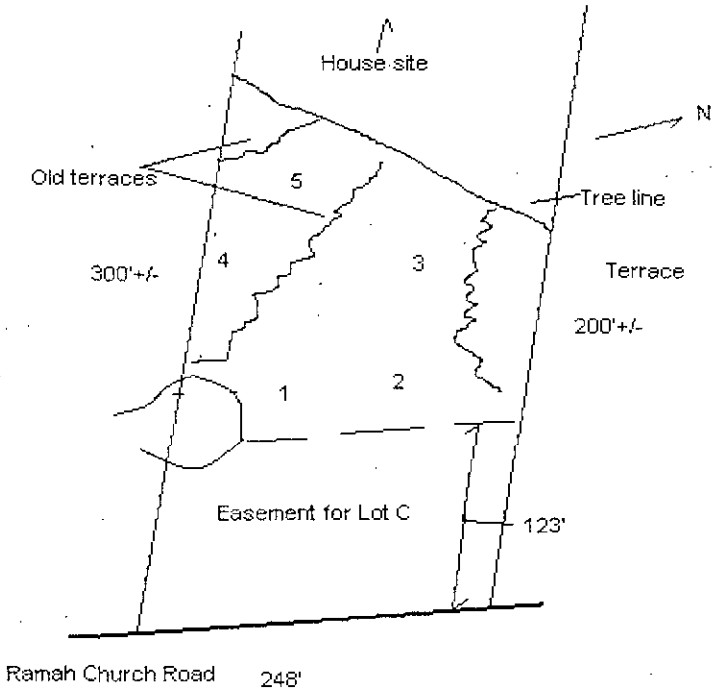
Other Factors (.1946):
Site Classification (.1948): PROVISIONALLY SUITABLE
Evaluated By: W. R. Marlin, LSS, 2/23/2006
Others Present:

COMMENTS:
100% repair, do not install system when soils are wet

Landscape Position	Group	Texture	.1955 LTAR	Structure
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-Food 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 Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations

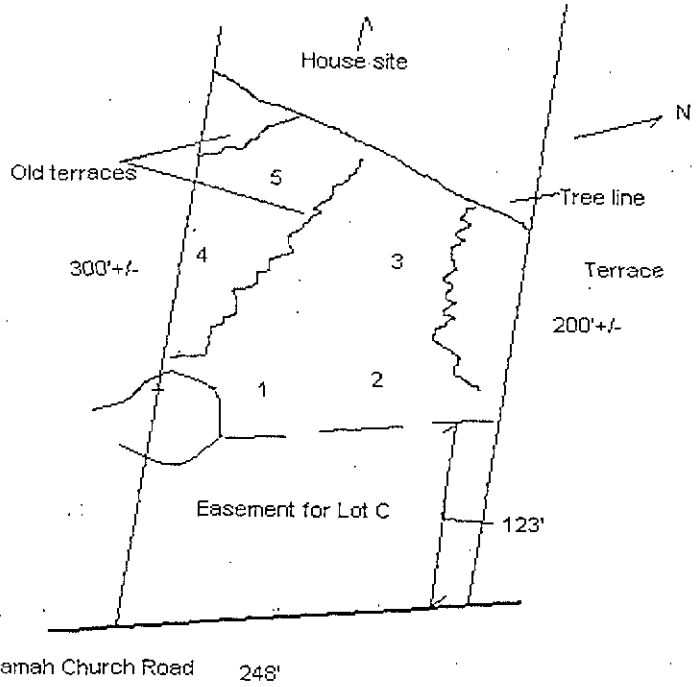


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VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



RESIDENTIAL LOW PRESSURE DOSING

25% REDUCTION SEPTIC SYSTEM

FOR

SUBSURFACE WASTEWATER DISPOSAL

MEADOWBROOK FARMS – LOT 7B

MECKLENBURG COUNTY, NC

MCHD FILE #6354B

Prepared for:
Augusta Homes
10602 B Bailey Road
Cornelius, North Carolina 28031
(704) 892-7795

Prepared by:
S&ME, Inc.
385 Timber Road, Suite 104
Mooresville, North Carolina 28115
(704) 662-8625

March 12, 2006

APPROVED
3/23/06

Copy: Ms. Cina Cannon, R.S.
Mecklenburg County Health Dept. – IWWS
700 North Tryon Street
Charlotte, North Carolina 28202
(704) 336-8993

Toney C. Jacobs, LSS

BACKGROUND

A 25% reduction system is used for conserving space. Soil profiles by Mr. Bill Marlin (MCHD) were ps soils to approximately 48" and 0.275 LTAR. This lot does require 100% repair. All lines have been laid out in the field.

APPLICATION INFORMATION

1. Owner: Augusta Homes
10602 B Bailey Road
Cornelius, North Carolina 28031

Soil Scientist
And Designer: Toney C. Jacobs, LSS
S&ME, Inc.
385 Timber Road, Suite 104
Mooresville, North Carolina 28115

2. Water supply is provided by ~~CMVD.~~ CMUD
3. Facility to be served by the proposed system is a 5 – bedroom single family residence.

LOCATION

The property is located off Rama Church Road near Highway 73.

REFERENCES

Law and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environmental Health and Natural Resources.

PLANS AND SPECIFICATIONS FOR SPECIFIC SYSTEM COMPONENTS

Septic Tank

1. The septic tank receives wastewater directly from the house.
2. A septic tank shall be watertight, structurally sound, and not subject to excessive corrosion or decay.
3. The septic tank must be of two-compartment design for maximum solids and retention. The inlet compartment of two-compartment tank shall hold between two-thirds and three-fourths of the total tank capacity.
4. Effluent from the two-compartment septic tank flows by gravity through a State approved effluent filter and a four-inch solid PVC pipe to the pumping tank.
5. Both the septic tank and pumping tank must be provided with above ground approved manhole risers to provide easy access for clean-out and pump service.

6. When prefabricated concrete thanks or tanks of other mater are used, they shall be constructed in accordance with the plans which have been approved by the State and shall comply with all requirements of Section .1953 of 15A NCAC 18A.
7. On the outlet tee of the septic tank an effluent filter must be installed. This filter should be equivalent to a Zabel Model A1800 or other State approved unit supplied by the tank Manufacturer.

Pumping Tank

1. The pumping tank shall have an access manhole extending at least 6 inches above finished grade.
2. A septic tank effluent pump that will not be corroded by sewage shall be used in the pumping tank.
3. The pump must be placed on two concrete blocks set next to each other on the bottom of the tank. This prevents the pumping of any solid particles that can clog the system.
4. A piece of nylon rope or other non-corrodible material should be attached to the pump and to the outlet pipe for lifting the pump in and out of the chamber.
5. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all times.
6. The pump outlet pipe should be connected to the supply manifold with a threaded PVC union to allow quick removal.
7. Pump and Simplex control circuits shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, outside enclosure (NEMA 4X or equivalent) adjacent to the pump tank, securely mounted at least 12 inches above finished grade. Pump control (Simplex) may be mounted on side of house if long cord pump is used. The pump shall be manually operable without requiring the use of special tools or entrance into the tank for testing purposes. Conductors shall able conveyed to the disconnect enclosure through water proof, gas proof, and corrosion-resistant conduits, with no splices or junction boxes provided inside the tank. Wire grips, duct seal or other suitable material shall be used to seal around wire and wire conduit openings inside the pump tank and disconnect enclosure. There shall be two electric circuits for controls: one for pump power, one for the alarm. These will require 2 circuit breakers.
8. The pump tank shall have a properly functioning high-water alarm. The alarm circuit shall be supplied ahead of any pump overload and short circuit protective devices. It should be on a separate electrical circuit from the pump power line. The alarm shall be audible and visible by system users and included in the pump and control enclosure (Simplex Panel). The alarm is activated if the water level in the pump tank rises above the "pump-on" float control. The tank provides at least one day or more of excess storage capacity (depending on water use in the home) during which time the system must be repaired.
9. Float switch for the high water alarm shall be set no more than 3 inches above the high water level of pump cycle.
10. Float switch tie downs to be made of corrosion resistant material, no tape or metal hose clamps. For maintenance flexibility, tree must be used to set floats.
11. Watertight testing per .1900 rules shall be required on two piece pump tanks.

12. Wiring between the pumping tank and the house should meet State and local code requirements.

Pipe and Fittings

1. All pipes and fittings should be made of SCH 40 PVC.
2. All joints must be sealed with appropriate PVC-solvent cement.
3. There should be a threaded PVC union above the pump to allow easy removal or replacement.
4. A gate valve for final pressure adjustment is installed in the supply line inside the pumping tank.
5. Manifold and valve as shown in specifications.

CONSTRUCTION INSTALLATION

Site Preparation

1. One of the most important concerns for an on-site system is to protect the site from soil disturbance by heavy equipment.
2. Now that the absorption area has been designed and flagged, it should be roped off and protected from construction traffic. No site preparation or construction work should occur if the soil is wet.
3. No cleaning will be required.
4. After the old terrace has been shaped, the location of the lateral lines and supply manifold should be accurately re-flagged according to design specifications. Each lateral line must be laid out along a level contour using a transit. This step can be completely avoided if flags are protected during clearing.

Tank Installation

1. The two-compartment septic tank is installed.
2. The pumping tank is installed next to the septic tank.
3. The tanks are connected with an appropriate length of solid, four-inch PVC pipe.

Supply Manifold

1. The supply manifold conveys effluent from the pump to the distribution laterals.
2. Design of the pressure manifold is shown on attached diagram.
3. After the supply manifold has been placed in its trench and lateral lines connected, it should be backfilled with tightly tamped soil. The supply manifold trench must not be backfilled with gravel, or the trench may become a conduit for down slope flow effluent from the laterals.

Lateral Lines

1. Approved 25% reduction shall be used.
2. Regulation backfill shall be placed over the vents on the side of the chambers.
3. A minimum of 12" of cover shall be placed over the chambers.
4. Follow manufacturer's guides.

PROPER OPERATION CHECK AND PRESSURE HEAD ADJUSTMENT

1. After all connections have been installed and connected, the system should be checked for proper operation. With electrical power turned off, fill the pump tank with a garden hose until the liquid rises to the level of the high-water alarm float.
2. Turn on the electrical power. The alarm light should go off when the liquid level falls below the high-water float. The pump should turn off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.
3. The pressure head is measured as the height liquid will rise above the pressure manifold when the pump is running. To set or check the pressure head:

    - Glue a three-foot length of pipe (preferable clear) to a threaded adapter that will screw into the pressure manifold.
    - Turn the power on to allow liquid to rise in the pip.
    - Adjust the gate valve until the effluent reaches the desired height in the pipe.

FINAL LANDSCAPING

1. After the system is installed, the following should be checked to ensure that the system will not be overloaded with excess rainwater and runoff:
    - The distribution field is shaped to shed rainwater and is free of low areas.
2. Finally, the entire area should be planted with grass in order to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized before planting. After applying an appropriate grass seed, the area should be heavily mulched with straw or other suitable material.

QUALITY ASSURANCE REQUIREMENTS

The system must be installed by a qualified contractor that is on the Mecklenburg County list of competent contractors. Critical stages of the installation which should be checked are:

1. System layout.
2. Septic and pump tank installation prior to backfilling.
3. Manifold and lateral installation prior to backfilling.
4. Final landscaping, operation and pressure head check.

The system design is based on a maximum waste flow of 600 gallons per day. Homeowners should pay particular attention to the section titled Homeowner Suggestions for ways to minimize the burden on the system.

OPERATION AND MAINTENANCE PROCEDURE

The system is classified as Type III and does not require a maintenance contract with a certified operator. The following are operating, maintenance and inspection procedures the homeowner should follow.

- Septic system shall be pumped every 4 years or when solids accumulate to 1/3 the volume of the tank.
- At 6 month intervals, inspect the effluent filter. When washing the filter, debris must be sprayed directly back into the septic tank and not onto the lawn.
- Pressure head at manifold should be checked and adjusted one month after installation and annually thereafter.
- All piping and fittings shall be checked annually for damage and/or proper operation and corrections made immediately.
- The property should be inspected to insure all surface water is diverted away from the fields and tank. Any ponding of surface water should be corrected.
- Grasses shall be mowed and maintained and any erosion shall be corrected promptly.
- The nitrification field area shall be checked for leakages, blowouts or malfunction, indications of damp or mushy areas compared to surrounding area or evidence of noticeable odor of sewage. Repairs shall be made immediately.
- The pump electrical should be checked to insure tight, clean connections with no corrosion and proper operation.
- Pump switches shall be checked for free operation and proper level set.
- Pump draw down depth and delivery rate shall be checked each year.
- Check septic tank and pump tank for evidence of damage or leakage. Check the quality of effluent including grease and sludge accumulation.

HOMEOWNER SUGGESTION

Most systems do not require much effort to operate and maintain. Even though the effort is small, the system must be maintained properly so that it operates reliably and at a minimum cost. Following are suggestions for the homeowner to minimize the burden on the septic system.

1. Garbage disposals should not be used in on-site systems. The ground garbage adds large amounts of solids to a septic tank, causing sludge to build up at a quicker rate than without. If disposal is installed, use should be limited.
2. Grease, cooking oils and coffee grounds should never be put into a septic tank.
3. Items such as disposable diapers, cigarettes, facial tissues and other solid or paper wastes should not be flushed into the on-site system.
4. Used motor oil and other such oily liquids should not be put into a septic tank.
5. Using less water can reduce the amount of water flowing to the treatment and disposal field.

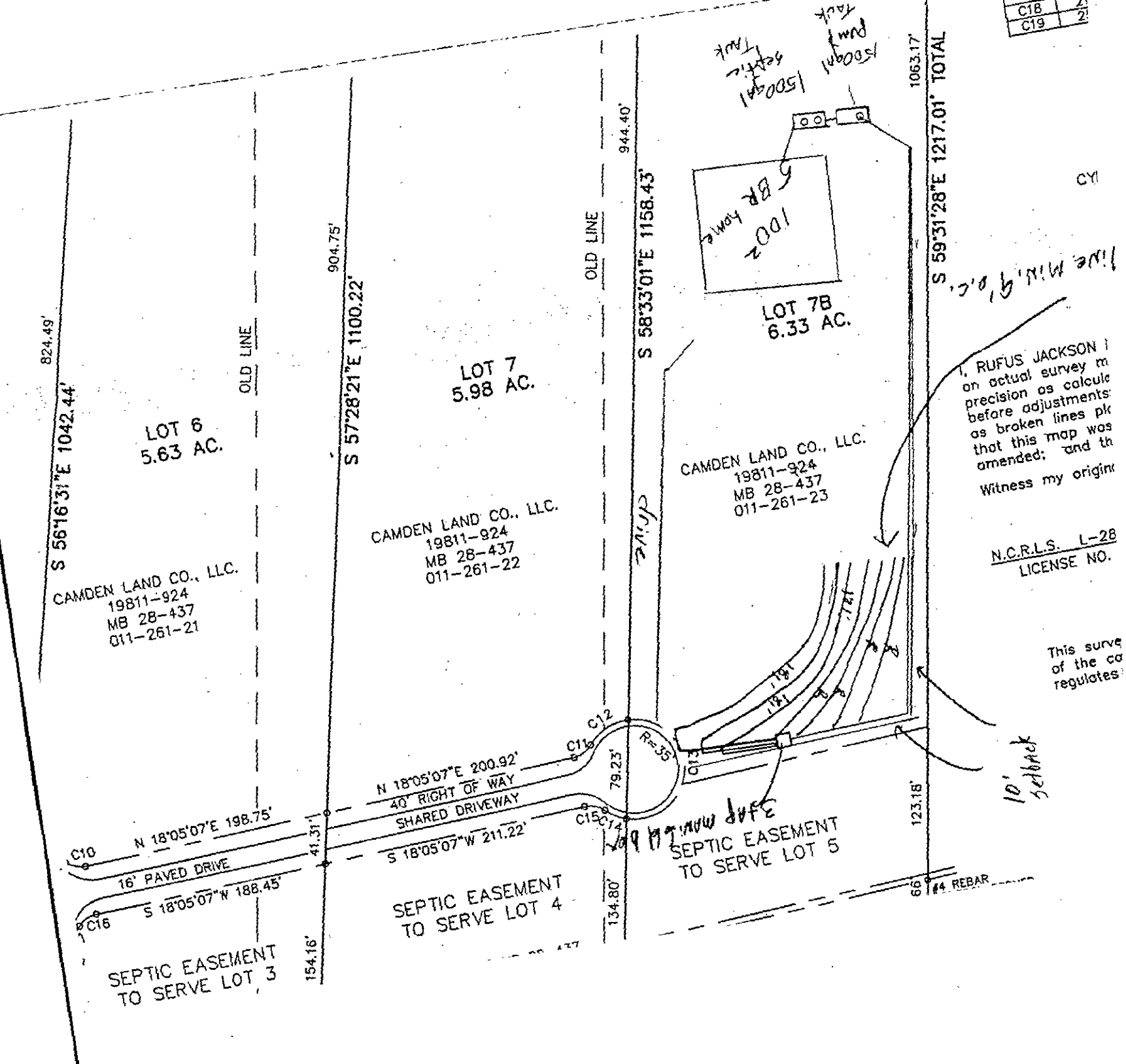
6. Water-saving fixtures and devices can be installed on sinks, toilets and showers to reduce the rate at which the water flows from the fixture.
7. Dishwashers and washing machines should only be run with full loads.
8. Leaky faucets and toilets can add large volumes of water to the daily flow of water into the on-site system. Repair the leaks to save water and give the treatment and disposal field a rest.
9. Roof drains, basement sump pumps, foundation drains, and other such drains should not empty into or onto the surface above the on-site system. These drains should be directed to another part of the lot away from the treatment and disposal field.

DESIGN SPECIFICATIONS

Lot 7B – Meadowbrook Farms

Daily design flow:	600 gpd.
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1500 gal.
Effluent loading rate:	0.275 gpd/ft²
Total length and diameter of supply pipe:	app. 700 of 2" SCH 40 PVC
Number and length of laterals:	3 @ 181' long, end fed
Number and length of repair laterals:	4 @ 137' end fed
Pressure Manifold:	3 taps @ ½" (SCH 80 PVC)
Flow rate through the system:	16.4 gpm capability
Elevation head:	Approx. 35.0'
Pressure head:	2.0'
Friction head:	7.0'
20% contingency	9.0'
Total head:	53' (to be verified by installer at installation after tanks are set)
Pump requirements:	16.4 gpm a@ 53 of head; use Goulds WE07H ¾ hp pump or equivalent with compatible electrical
Dosing volume:	300 gal. – 2.0 doses/day at design flow
Depth of water pumped per dose:	Calculated to specific tank by Measure or dealer engineering specifications (1 cubic ft. of water equals 7.48gal.)
Pump run per dose:	Approx. 18.3 min
Check valve:	Yes
Siphon break hole:	No

OK


S 56°16'31"E 1042.44'
824.49'
OLD LINE
LOT 6
5.63 AC.
CAMDEN LAND CO., LLC.
19811-924
MB 28-437
011-261-21
904.75'
S 57°28'21"E 1100.22'
LOT 7
5.98 AC.
CAMDEN LAND CO., LLC.
19811-924
MB 28-437
011-261-22
OLD LINE
944.40'
S 58°33'01"E 1158.43'
LOT 7B
6.33 AC.
CAMDEN LAND CO., LLC.
19811-924
MB 28-437
011-261-23
1063.17'
S 59°31'28"E 1217.01' TOTAL
6 BR home
100'
RUFUS JACKSON
on actual survey
precision as calcul
before adjustments
as broken lines pl
that this map was
amended; and th
Witness my origin
N.C.R.L.S. L-28
LICENSE NO.
This surve
of the ca
regulates
All lines M.M.S.L.C.
C10
N 18°05'07"E 198.75'
16' PAVED DRIVE
41.31'
C11
C12
N 18°05'07"E 200.92'
40' RIGHT OF WAY
SHARED DRIVEWAY
S 18°05'07"W 211.22'
C15
C14
79.23'
R=35'
013
C16
S 18°05'07"W 188.45'
154.16'
SEPTIC EASEMENT
TO SERVE LOT 3
SEPTIC EASEMENT
TO SERVE LOT 4
134.80'
SEPTIC EASEMENT
TO SERVE LOT 5
123.18'
66'
#4 REBAR
10' setback
C18
C19

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30000362** GWS File #: **6354B** Tax Parcel #: **011-261-23** 36

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 3/23/2011

Type of Installation: Residential - New System Lot Number: 7

Structure Type: HOUSE Size (ft^2): 20000 # Bedrooms: 5 # Occupants: 10

Building Foundation: Crawl Space Water Supply: Community

II. Initial System Type: Pump to Innovative or Experimental **System Classification:** IIIb

Initial System Specifications:

Design Flow (gpd): 600 LTAR (gpd/ft^2): 0.275 Septic Tank Size (gal): 1500 Pump Tank Size (gal): 1500

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 1636 Total Trench Length (ft): 545

Maximum Trench Depth (in): 36 Depth of Media (in): 12 Distribution Device: Pressure Manifold

III. Repair System Type: Pump to Innovative or Experimental **System Classification:** IIIb

Repair System Specifications:

Design Flow (gpd): 600 LTAR (gpd/ft^2): 0.275 Septic Tank Size (gal): 1500 Pump Tank Size (gal): 1500

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 1636 Total Trench Length (ft): 545

Maximum Trench Depth (in): 0 Depth of Media (in): 12 Distribution Device: Pressure Manifold

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Trevor Thomason Owner/Legal Agent: Tony C Jacobs
Print Name

Signature: Trevor Thomason, R.S. Signature: Tony C Jacobs

Date Issued: 3/23/2006

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NC DENR
Division of Environmental Health
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IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: 30000362 GWS File #: 6354B

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 5 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of repair system requires periodic inspections by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- Septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Trevor Thomason

Signature: R.S.

Date Issued: 3/23/2006

Owner/Legal Agent: Tracey C. Jacobs
Print Name

Signature:

FEE: 300.00

DATE: 5/19/2006

JKA

X30400

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY

GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 6354B

PERMIT NUMBER: 30000362

PARCEL NUMBER: 01126136

JOB LOCATION INFORMATION

ADDRESS: 15135 RAMAH CHURCH

CITY: HUNTERSVILLE **STATE: NC** **ZIP:** 28078

ISSUED TO: AUGUSTA HOMES

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 5/19/2006

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30000362, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION APPROVAL MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.
   *CONSTRUCTION AUTHORIZATION EXPIRATION DATE: 3/23/2011

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
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NC DENR
Division of Environmental Health
On-Site Wastewater Section

36

OPERATION PERMIT for an ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 63548 Permit #: 362 Tax Parcel #: 011-261-23

Property Owner: Augusta Homes

Job Location Address: 15135 Ramah Church Road

City: Huntersville State: NC Zip Code: 28078

Operation Permit Issuance Date: 3/26/08 Contractor Name: R+H

Permitted Design Flow: 600 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: Goulds 1/2 Horse

Drainfield Installation ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 543 feet

# of Lines: 3 @ 181 feet

Depth of Media: 12 inches (Type) E-2 Flow

Depth of Cover: 18 inches

Distribution Device: Pressure Manifold

Inspection Dates

Tank(s) Inspected: 6/14/07

Excavation Inspected: 6/14/07

Pump & Controls Inspected: X 3/26/08 PSW

Bed Installation *(For Repair Installations ONLY.)* ☒ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☒ Municipal ☐ Private Well ☐ Community Well

☐ Other _____

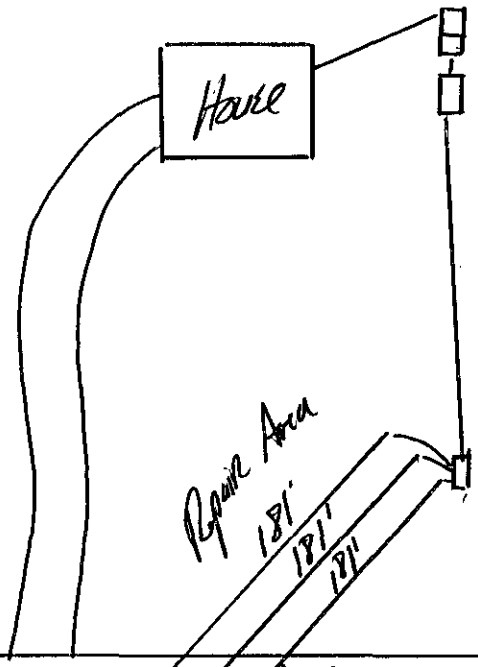
System Installation Setbacks

Distance from Building Foundation: >5' feet

Distance from Property Line: >10' feet

Distance from Water Supply Source: >100' feet

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



The undersigned has inspected the Septic Tank System described above, and certifies it has been ☐ installed ☐ altered ☐ repaired ☒ as detailed in the plot above ☐ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: #46 Pump to 25% Red.

EZ1203H, 8, NA, NA

DENR Authorized Agent: Jeremy Mecklenburg R.S. Signature: Jeremy Mecklenburg R.S.

Mecklenburg County Groundwater & Wastewater Services
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Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 6354B Permit #: 362 Tax Parcel #: 011 261 36

Property Owner: Augusta Homes

Job Location Address: 15135 Ramah Church Rd

City: Huntersville State: NC Zip Code: 28078

OPERATION PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with 15A NCAC 18A .1961.

II. Monitoring: System shall be monitored as required by 15A NCAC 18A .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

IV. Operation: System shall be operated in accordance with 15A NCAC 18A .1961.

System Classification: Type IIIb

*Operation Permits for Type V and VI systems expire five (5) years from the date of issuance (in accordance with Table V(a)). The system owner must contact GWS six (6) months prior to expiration for permit renewal.

Subsurface system operator required: Yes ☐ No ☐

☐ This type of system requires the system owner to maintain a contract with a certified operator to perform system inspection, maintenance, and reporting as required in 15A NCAC 18A .1961. and Table V(a). The system owner is responsible for all fees associated with these services.

☐ System does not require inspection by GWS on a routine frequency.

☒ System requires inspection by GWS once every five (5) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every three (3) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every six (6) months. The system owner is responsible for all fees associated with the inspection.

V. Other: Pump to E Z Flow

DENR Authorized Agent: Philo Walker RS Date: 3/27/08

Signature: Philo S. Walker RS