6486B

Supervisor/Administrative Professional Checklist

New Septic ☐ **New Well** ☐ **Use Existing** ☐ **Alteration** ☐ **Modified Plot Plan** ☑

New Septic Fees Paid:

IP ($250.00) _____ Initials/Date

CA ($200.00) X43281 mab 3/5/15 Initials/Date

OP ($200.00) mab 3/5/15 Initials/Date

(CA and OP fees need to be paid before a building permit can be issued)

New Well Fee Paid: $550.00 _____ Initials/Date

Use Existing Fee Paid: $100.00 _____ Initials/Date

Alteration Fee Paid: $300.00 (Total) $200 (If use existing was paid)_____ Initials/Date

Modified Plot Plan Fee Paid: $100.00 lm 1/13/15 Initials/Date

Floor plans need to be submitted and reviewed before CA can be issued. ☐ Reviewed ☑ JAM 3/3/15

This site is served by septic and well. Verify each is complete before final hold is released. ☐

Septic file completed. ☐ _____ Well file completed. ☐ _____

Send permit for signature. ☑ Signature received. ☐ _____

This septic system requires a certified operator contract before final hold is released. ☐

Certified operator contract is on file. ☐ _____

Low Pressure Manifold 25% Reduction Design Specifications
9917 Veramonte Court - Lot 33

House	4 bedroom with a basement
Daily design flow	480 gpd.
Septic tank size	1000 gal. (2 compartments)
Pumping tank size	1000 gal.
Initial system	required 480' of 25% reduction
Effluent loading rate, initial system	0.25 gpd/ft^2
Trench depth	36" on high side
Total length and diameter of supply pipe	approx. 135 ft. 2" SCH 40 PVC
Manifold	4 tap ½" SCH 80 PVC, taps with 2' of head
Number and length of laterals	3 @120' & 3 @40' fed from D-box getting one of the 4 taps
Flow rate through the system	22 gpm
Elevation head	approx. 13.0' (to be verified by installer)
Pressure head	2.0'
Friction head	3.5'
20% contingency	3.7'
Total head	22.2'
Pump requirements	22.0 gpm at 22.2' of head; use Goulds WE03M pump, pump and compatible panel or equivalent
Dosing volume	240 gal. - 2 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 7.48 gal.)
Pump run per dose	approx. 10.9 min.
Check valve	yes
Siphon break hole	no
Effluent loading rate, repair system	0.125 gpd/ft^2 aerial requiring 3840 sq. ft.
Repair system	pretreatment drip with ~~4075~~ 5,113 sq. ft. plus designated on site plan. Buffer of 5' shown as part of repair. To be designed when needed.

Final Inspection

As of January 2013 the Mecklenburg County Health Department has instituted a new policy which requires the following: *Upon completion of the project the system designer shall provide Groundwater and Wastewater Services with a letter certifying that the system was installed in accordance with the approved design. If these designs were required to be stamped by a Registered Professional Engineer then the completion letter also needs to be stamped by the Registered Profession Engineer. The Hold will not be released for the project until this letter is received.*

The inspection should be scheduled **3 days before the planned installation completion**. Time incurred on this onsite inspection and the preconstruction meeting inspection will be billed to the owner or builder at prevailing rate.

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 #: **30007249** GWS File #: **6486B** Tax Parcel #: **197-131-24**

- 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):** 2/27/2020

Type of Installation: Residential - Modified Plot Plan Lot Number: 33

Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 4 # Occupants: 4

Building Foundation: Crawl Space Water Supply: Community

II. Initial System Type: Pump to Accepted **System Classification:** IIIb

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1440	Total Trench Length (ft):	480
Maximum Trench Depth (in):	36	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

III. Repair System Type: Drip Irrigation **System Classification:** Vd

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.125	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	1	Trench Spacing (ft):	2	Absorption Area (ft^2):	3840	Total Trench Length (ft):	3840
Maximum Trench Depth (in):	12	Depth of Media (in):	N/A	Distribution Device:	Headworks (Drip Irr.		

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: Brad Hallman

Signature: _____

Date Issued: 2/27/2015

Owner/Legal Agent: _____
Print Name

Signature: _____

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 #: **30007249** GWS File #: **6486B**

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 the installation of a pump tank and all associated components. This type of system will require routine inspections by our office. The system owner is responsible for all fees associated with these inspections.
- This type of repair system requires the property owner to obtain a contract with a Certified Operator to perform routine inspections and maintenance on the system.
- 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.
- The 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 waterlines must be located a minimum of 10 ft. from any part of the septic system.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 10 feet from any foundation drain.
- NOTE: Drains for foundation must be hard piped across system if unable to maintain proper setback. Foundation drain shall not pass through system, but hard piped and daylight away from system.

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: Brad Hallman

Signature: _____

Date Issued: 2/27/2015

Owner/Legal Agent: _____
Print Name

Signature: _____

FEE: 200.00
DATE:3/5/2015

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 6486B

PERMIT NUMBER: 30007249

PARCEL NUMBER: 19713124

JOB LOCATION INFORMATION

ADDRESS: 9917 VERAMONTE CT

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28227

ISSUED TO: Knotts Development Resources Inc

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 3/5/2015

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30007249, 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: 2/27/2020

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 #: **30007249** GWS File #: **6486B** Tax Parcel #: **197-131-24**

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- 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):** 2/27/2020

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Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 4 # Occupants: 4

Building Foundation: Crawl Space Water Supply: Community

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Initial System Specifications:

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Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1440	Total Trench Length (ft):	480
Maximum Trench Depth (in):	36	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

III. Repair System Type: Drip Irrigation **System Classification:** Vd

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.125	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	1	Trench Spacing (ft):	2	Absorption Area (ft^2):	3840	Total Trench Length (ft):	3840
Maximum Trench Depth (in):	12	Depth of Media (in):	N/A	Distribution Device:	Headworks (Drip Irr.		

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.

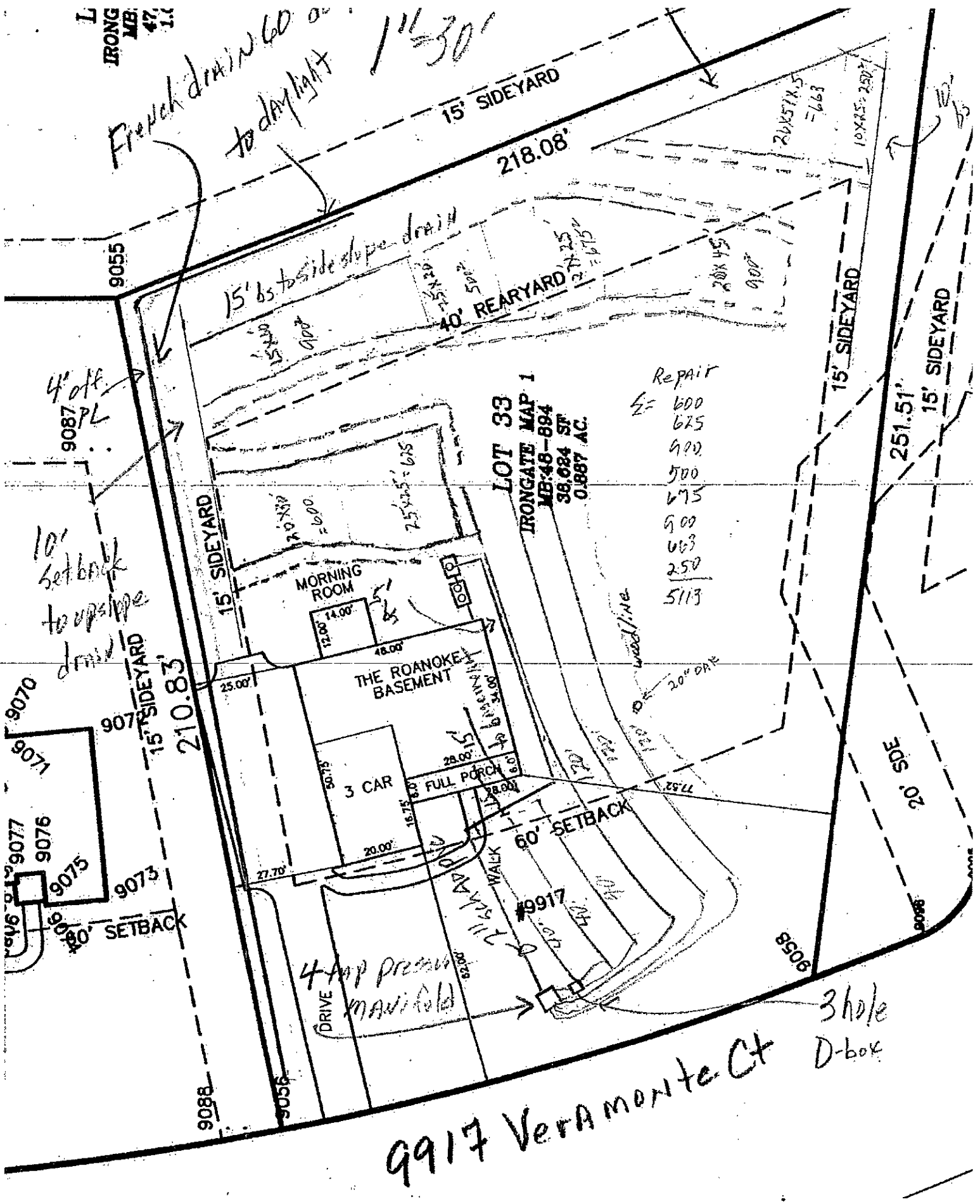
DENR Authorized Agent: Brad Hallman

Signature:

Date Issued: 2/27/2015

Owner/Legal Agent: Terry Knotts
Print Name

Signature:


French drain 60' to daylight
15' SIDEYARD
218.08'
15' to side slope drain
40' REARYARD
4' off PL
9087
9055
LOT 33
IRONGATE MAP 1
MB 48-884
36,684 SF
0.887 AC.
Repair
600
625
900
700
675
900
663
250
5113
15' SIDEYARD
251.51'
15' SIDEYARD
10' Setback to upslope drain
MORNING ROOM
14.00'
12.00'
48.00'
THE ROANOKE BASEMENT
25.00'
3 CAR
50.75'
28.00'
FULL PORCH
6.0'
15.75'
20.00'
27.70'
60' SETBACK
WALK
#9917
DRIVE
82.00'
4 Asp Presm manifold
3 hole D-box
20' SDE
9070
9071
9077
9076
9075
9073
9088
9056
9058
9917 Veramonte Ct

6486B

MECKLENBURG COUNTY HEALTH DEPARTMENT App# 7249

APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. **SEPTIC / TYPE APPLICATION:** ○ N/A ○ NEW SYSTEM ○ ALTERATION ○ REPAIR ⊘ MODIFIED PLOT PLAN

2. **WELL / TYPE APPLICATION:** ○ N/A ○ NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. **JOB LOCATION INFORMATION:**
TAX PARCEL NUMBER: 197 131 24 05 197-131-24
STREET ADDRESS: 9917 Veramonte Ct.
CITY: Mint Hill
STATE: NC ZIP: _____
SUBDIVISION NAME: Irongate
LOT #: 33 LOT SIZE (acres): 1.6
TOWNSHIP:
○ MECKLENBURG ○ CORNELIUS ○ HUNTERSVILLE
○ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ⊘ MINT HILL

4. **BUILDING INFORMATION:**
BUILDING TYPE:
○ SINGLE MOBILE HOME ○ MODULAR HOME
○ DOUBLE WIDE ○ MULTIPLE FAMILY
○ HOUSE ○ OTHER _____
HEATED SQUARE FOOTAGE: _____
NUMBER OF BEDROOMS: _____
NUMBER OF OCCUPANTS: _____
FOUNDATION TYPE:
○ CONCRETE SLAB ○ BASEMENT WITH PLUMBING
○ CRAWL SPACE ○ BASEMENT WITH NO PLUMBING

5. **IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION:** ☐ N/A

NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. **WATER SUPPLY:** ○ MUNICIPAL ○ PRIVATE WELL ⊘ PUBLIC WELL ○ SHARED WELL ○ OTHER _____

7. **PROPOSED USE OF WELL:** ○ N/A ○ IRRIGATION ○ POTABLE (DRINKING WATER) ○ OTHER _____

8. **PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE** *(1-MOST DESIRED 5-LEAST DESIRED):*
☐ N/A ☑ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

8A. **RANK:** ____ ____ ____ ____ ____

9. **DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.**

BURIED CABLES, LANDFILLS, STUMPHOLES	○ YES ⊘ NO	GRADING/SOIL REMOVAL PERFORMED	○ YES ⊘ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	○ YES ⊘ NO	JURISDICTIONAL WETLANDS	○ YES ⊘ NO
WELLS, SPRINGS, OR WATER LINES	○ YES ⊘ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	○ YES ⊘ NO
EASEMENTS OR RIGHT-OF-WAYS	○ YES ⊘ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ⊘ NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ⊘ NO	KNOWN UNDERGROUND CONTAMINATION	○ YES ⊘ NO
WASTE STORAGE	○ YES ⊘ NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ⊘ NO

10. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** 1997 ☑ UNKNOWN

11. **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** _____ ☐ N/A

12. **PROPERTY OWNER:**
NAME: K Noll Development Reserves JMS
ADDRESS: 1151 N. Community House Rd #150
CITY: Charlotte
STATE: NC ZIP: 28277
WORK PHONE: _____
MOBILE PHONE: 704 575-9211
FAX: _____
E-MAIL: JerryK@Knolldevgroup.Net

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**
NAME: Jerry Jacobs
ADDRESS: 168 Brandbill Dr
CITY: Mooresville
STATE: NC ZIP: 28117
WORK PHONE: _____
MOBILE PHONE: 704 552-9219
FAX: _____
E-MAIL: JerryC.Jacobs@gmail.com

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

Revised on: 12/15/10

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

_____ (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of twelve (12) months from the date of issuance.

_____ (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

_____ 10/13/15

Property Owner's or Owner's Legal Representative Signature — Date

OFFICE USE ONLY

O SURVEY PLAT TO SCALE SUBMITTED O SCALED SITE PLAN SUBMITTED O UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

WELL APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: 6486B

APPLICATION ID NUMBER ASSIGNED: 7249

COMMENTS:

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

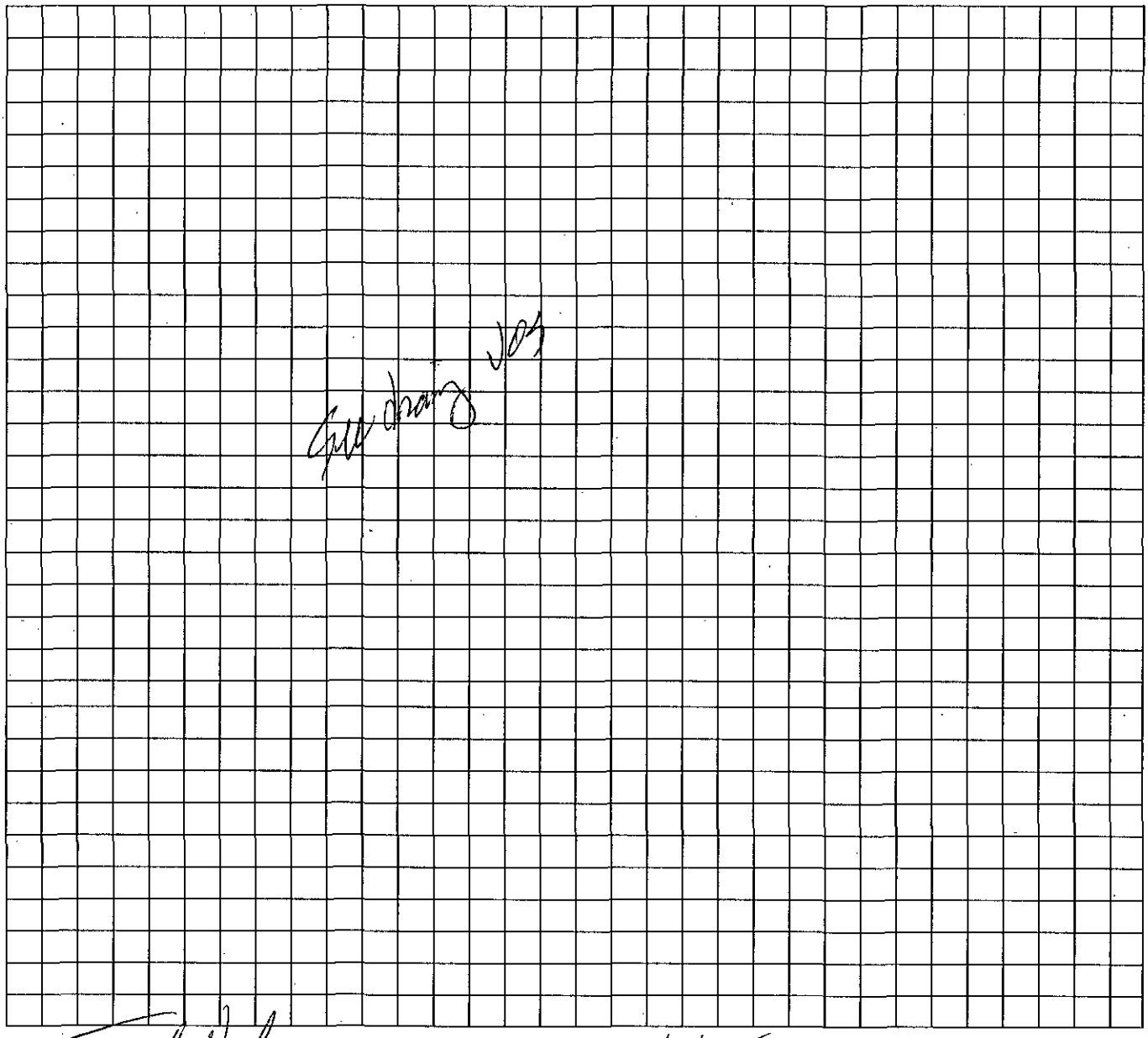
File #: _____

PROPOSED PLOT PLAN

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 9917 Vega Monte Dr Tax Parcel #: 19713105

Subdivision Name: Irongate Lot #: 33



Property Owner's or Owner's Legal Representative Signature Date 1/13/15

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

Revised on: 12/15/10

Mecklenburg County Groundwater & Wastewater Services
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IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30007249** GWS File #: **6486B**

IV. Permit Conditions/Comments:

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- The 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 waterlines must be located a minimum of 10 ft. from any part of the septic system.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
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- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Brad Hallman

Signature:

Date Issued: 2/27/2015

Owner/Legal Agent: Terry Knotts
Print Name

Signature:

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

Sheet: 1 of 2
Property ID: 197-131-24
Lot #: 33
File #: 6486B
AppID: 7249

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Property Owner: Knotts Development
Applicant: Toney Jacobs, LSS
Address: 1151 N. Community House Rd. #150, Charlotte, NC 28277
Date Evaluated: 2/16/2015
Proposed Facility: 4 Bedroom House
Design Flow (.1949): 480 GPD
Property Size: 0.887 ac
Location: 9917 Veramonte Ct, Charlotte, NC 28227
Property Recorded: 09/2005
Water Supply: [X] Public [X] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [ ] Auger Boring [X] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN)	SOIL MORPHOLOGY 1941 Structure/ Texture	SOIL MORPHOLOGY 1941 Consistence Mineralogy	b PROFILE FACTORS 1942 Soil Wetness/ Color	1943 Soil Depth (IN)	1956 Sapro Class	1944 Restr Horiz	General Comments	Profile Class & LTAR	Maximum Trench Bottom Depth for 3' Wide Conventional Trench
Pit #1	LS 8%	0 - 12	Fill	SS SP FR SEXP	>60"	60	NA	NA		PS IV 0.3	24 - 36"
		12 - 22	gr L	SS SP FR SEXP							
		22 - 44	mmsbk CL	S SP FR SEXP							
		44 - 60	mfsbk C	S P FR SEXP							
Pit #2	LS 8%	0 - 5	gr L	SS SP FR SEXP	>56"	56	NA	NA		PS IV 0.3	36"
		5 - 13	wfsbk CL	S SP FR SEXP							
		13 - 56	mfsbk C	S P FR SEXP							
Pit #3	LS 9%	0 - 51	mfsbk C	S P FR SEXP	>51"	51	NA	NA		PS IV 0.3	36"
Pit #4	LS 12%	0 - 8	wfsbk CL	S SP FR SEXP	>52"	52	NA	NA	saprolite inclusions 40 - 50"	PS IV 0.3	36"
		8 - 52	mfabk C	S P FI SEXP							
		40 - 50	wfsbk CL	SS SP FR SEXP							
Pit #5	LS 10%	0 - 5	wfsbk CL	S SP FR SEXP	>55"	55	NA	NA		PS IV 0.3	36"
		5 - 55	mfsbk C	S P FI SEXP							
Pit #6	LS 11%	0 - 9	gr L	SS SP FR SEXP	>64"	64	NA	NA		PS IV 0.3	36"
		9 - 28	wfsbk CL	S SP FR SEXP							
		28 - 64	mfsbk C	S P FR SEXP							

Description	Initial System	Repair System
Available Space (.1945)	P.S.	P.S.
System Type(s)	IIIb	Vd
Site LTAR (gpd/sq ft)	~~.25~~ ~~0.3~~	0.125 0.3 ~~(0.15 if drip)~~*

*See comments

Other Factors (.1946):
Soil Evaluation By: Jacob Presley, REHS, LSS
Others Present: Toney Jacobs, LSS
Site Classification (.1948):
Site Evaluation By:
Others Present:

Note: LTAR Based off consultant design being most conservative rate.

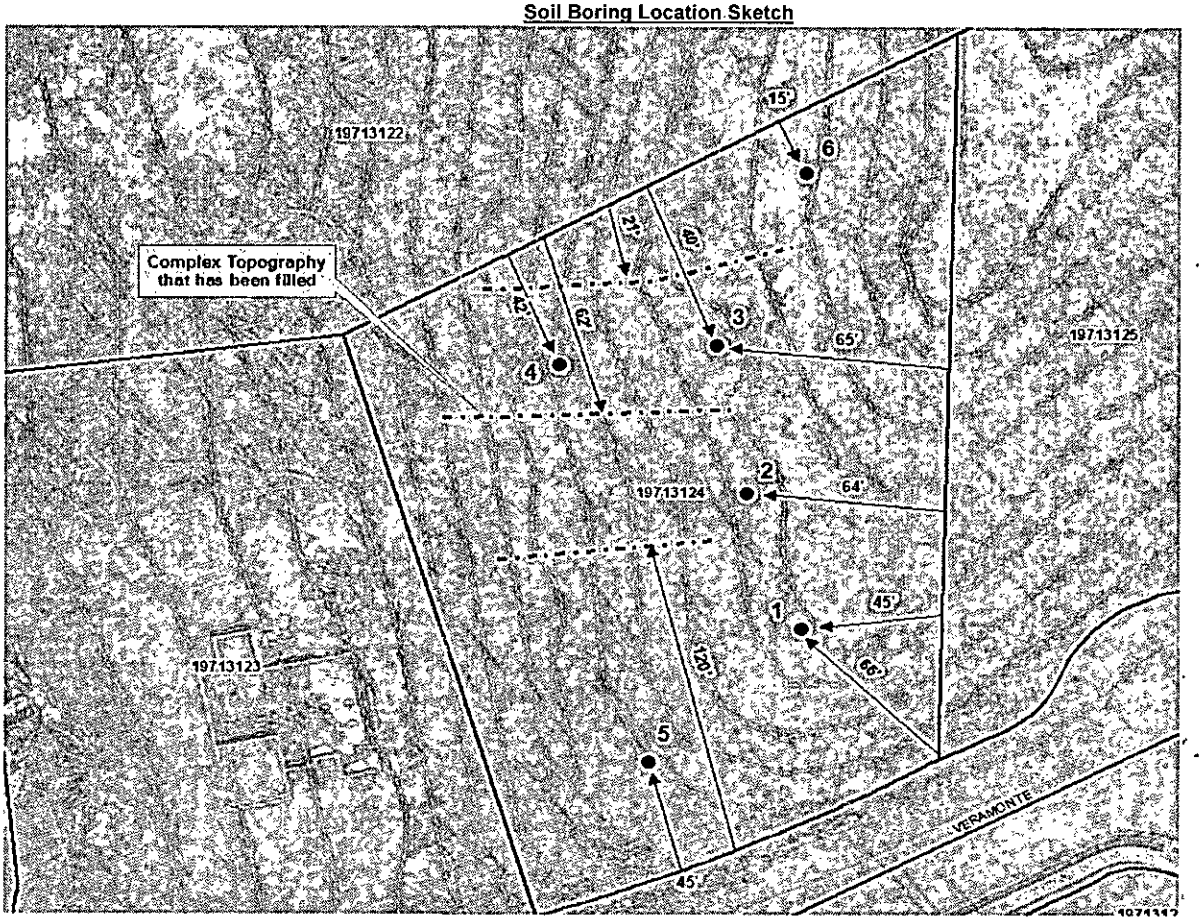
Sheet: 2 of 2
File #: 6486B
AppID: 7249

COMMENTS: Consultant to design. Proposed system lines need to be probed in field to make sure that trench media will not be in fill.

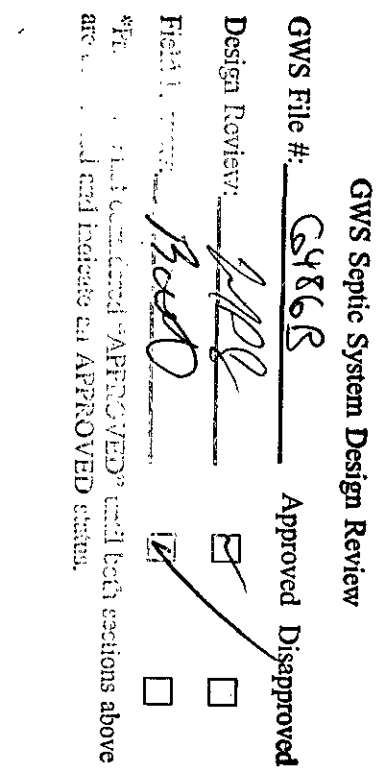
Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	sg-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		mass-Massive
LS-Linear Slope				cr-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	gr-Granular
NS-Nose Slope		L-Loam		sbk-Subangular Blocky
HS-Head Slope				abk-Angular Blocky
CC-Concave Slope	III	Si-Silt	0.6 - 0.3	pl-Platy
CV-Convex Slope		SiCL-Silty Clay Loam		pr-Prismatic
T-Terrace				Sap-Saprolite
FP-Flood Plain		CL-Clay Loam		**Structure Prefixes**
D-Drainage Way		SCL-Sandy Clay Loam		w-weak
		SiL-Silt Loam		m-moderate
				s-strong
				f-fine
	IV	SC-Sandy Clay	0.4 - 0.1	m-medium
		SiC-Silty Clay		c-coarse
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	SS-Slightly Sticky	SEXP-Slightly Expansive
FR-Friable	S-Sticky	EXP-Expansive
FI-Firm	VS-Very Sticky	
VFI-Very Firm	NP-Non-Plastic	**Classification**
EFI-Extremely Firm	SP-Slightly Plastic	US-Unsuitable
	P-Plastic	PS-Provisionally Suitable
	VP-Very Plastic	S-Suitable
		NA-Not Applicable

Soil Boring Location Sketch



LOW PRESSURE MANIFOLD WITH 25% REDUCTION
FOR
SUBSURFACE WASTEWATER DISPOSAL
9917 Veramonte Court - Lot 33
Mint Hill, NC
MCHD File #6486B



Prepared for
Terry Knotts
Knotts Development Resources, Inc.
1151 N. Community House Road #150
Charlotte, North Carolina 28277
704 575-9211
terryk@knottsdevelopment.net

Prepared by:
Toney C. Jacobs, LSS
Jacobs On-Site Development, Inc.
Mooresville, North Carolina 28117
704 662-9845
toneycjacobs@gmail.com

February 22, 2015

Copy: Jacob Presley, REHS, LSS (980 721-2060)
Bradley Hallman, REHS (704-201-7983)
Mecklenburg County Health Dept.-IWWS
700 N. Tryon Street
Charlotte, N.C. 28202

Toney C. Jacobs, LSS

WARNING

The drainfield should be fenced to stop ALL entry, storage, parking, etc. Failure to protect could cause the permit to be revoked if the area is damaged. Driveway and area in front of the garage should be the only entry point for house construction. Protection of the drainfield is important. Should this system fail, the repair option will be costly.

The system is classified as Type III(b) and does not require a maintenance contract with a certified operator.

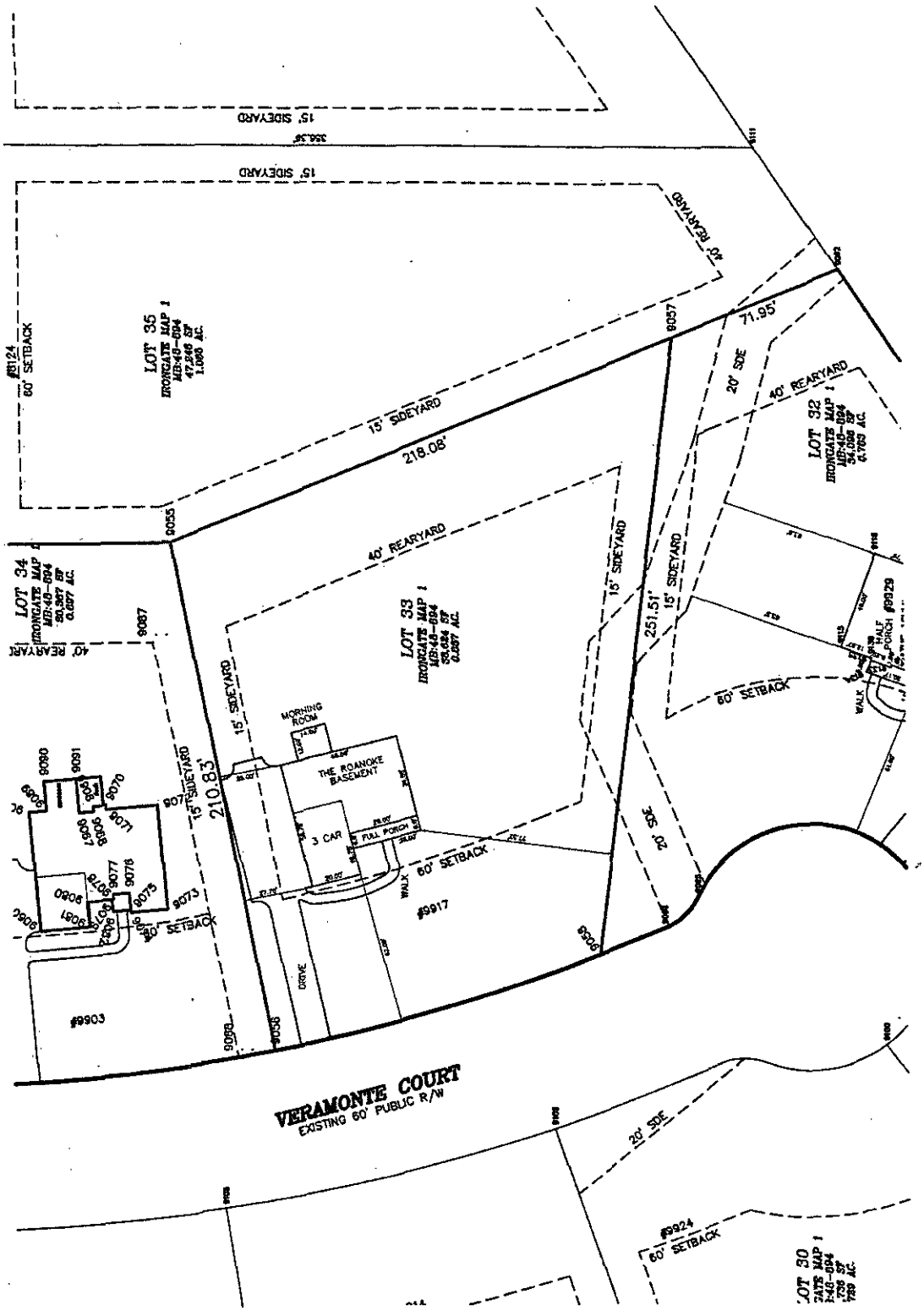
OWNER SUGGESTIONS

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 owner to minimize the burden on the septic system.

1. Roof drains, 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. This is especially important on this lot because of the landscape position. The French drain along the upper property line should be maintained for maximum efficiency.
2. Garbage disposals should not be used in on-site systems. The ground garbage adds large amounts of solids and a high BOD to a septic tank, causing sludge to build up at a quicker rate than without. If disposal is installed, use should be limited.
3. Grease, cooking oils and coffee grounds should never be put into a septic tank.
4. Items such as disposable diapers, cigarettes, facial tissues and other solid or paper wastes should not be flushed into the on-site system.
5. Used motor oil and other such oily liquids should not be put into a septic tank.
6. Using less water can reduce the amount of water flowing to the treatment and disposal field.
7. Water-saving fixtures and devices can be installed on sinks and toilets to reduce the rate at which the water flows from the fixture.
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. Dishwashers and washing machines should only be run with full loads.

Repair Area

This area has been delineated in naturally occurring soil adjacent to the gullies. Lines will only be located in high areas and not in the gullies or shaped landscape. A 5' buffer is delineated as repair area, but will not have dripper lines.


LOT 35
IRONGATE MAP 1
MB:48-094
47,246 SF
1.085 AC.
LOT 34
IRONGATE MAP 1
MB:48-094
50,307 SF
0.697 AC.
LOT 33
IRONGATE MAP 1
MB:48-094
55,634 SF
0.0977 AC.
LOT 32
IRONGATE MAP 1
MB:48-094
34,056 SF
0.7782 AC.
LOT 30
IRONGATE MAP 1
MB:48-094
1,736 SF
1.739 AC.
#9124
60' SETBACK
15' SIDEYARD
336.58'
15' SIDEYARD
40' REARYARD
9055
218.08'
15' SIDEYARD
9057
71.95'
20' SIDE
40' REARYARD
15' SIDEYARD
251.51'
15' SIDEYARD
40' REARYARD
9067
MORNING ROOM
THE ROANOKE BASEMENT
3 CAR
FULL PORCH
WALK
60' SETBACK
#9917
9056
9058
9060
9070
9071
9073
9075
9076
9077
9078
9080
9081
9082
9083
9085
9086
9087
9088
9090
9091
907
15' SIDEYARD
210.83'
60' SETBACK
#9903
9066
DRIVE
9068
HALF PORCH
#9929
60' SETBACK
WALK
20' SIDE
VERAMONTE COURT
EXISTING 60' PUBLIC R/W
9068
20' SIDE
#9924
60' SETBACK

MECKLENBURG COUNTY
Health Department

Marcus Plescia, MD, MPH
Health Director

(704) 336-4700

Voluntary Relinquishment of Administrative Appeal Rights
(Completion of Form by Property Owner)

February 26, 2015

Owner: Knotts Development Res. Inc.
Address: 1151 N. Community House Rd. #150
Charlotte, NC 28277

Subject: Voluntary Relinquishment of Administrative Appeal Rights

Permit # 30000799, 9917 Veramonte Ct., Mint Hill, NC 28227; LOT 33; Tax ID 197-131-28

I, Michael Knotts, voluntarily relinquish my rights to pursue a formal appeal through the Office of
(print full name)

Administrative Hearings pursuant to NC General Statute 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B for the above referenced permit in order for the authorized agent/local health department to issue the applicable permit (new IP and/or CA) for the site. I understand by completing this form the previous permit issued on June 20, 2011 for the site will be "revoked" immediately by the authorized agent/local health department.

Michael Knotts - Vice Pres.

Signature of Property Owner

MECKLENBURG COUNTY
Health Department

Marcus Plescia, MD, MPH
Health Director

(704) 336-4700

February 26, 2015

Knotts Development Res. Inc.
1151 N. Community House Rd. #150
Charlotte, NC 28277

RE: **Notice of Intent to Revoke Improvement Permit**

Dear Mr. Knotts:

The Mecklenburg County Health Department inspected the site for the on-site wastewater system located at **9917 Veramonte Ct., Mint Hill, NC;** File # 6486B, for compliance with the Laws (Article 11 of Chapter 130A of the North Carolina General Statutes), Rules (15A NCAC 18A .1900 et seq.), and Improvement Permit # **30000799** conditions. As a result of this inspection, the Department has determined the following:

*Rule .1940(d); Complex patterns and slopes dissected by **gullies and ravines** shall be considered UNSUITABLE with respect to topography.*

If the health department determines that all of the violations have been corrected before thirty (30) days expire, the revocation will not go into effect. If the permit is revoked, you must apply for a new Improvement Permit and meet the current laws and rules necessary to obtain a new permit.

You have a right to an informal review of this decision. You may request an informal review by the environmental health supervisor at the local health department. You may also request an informal review by the N. C. Department of Health and Human Services Regional Soil Scientist. A request for informal review must be made in writing to the local health department.

You have the right to a formal appeal of this decision by filing a petition for a contested case hearing with the Office of Administration Hearings, 6714 Mail Service Center, Raleigh, NC, 27699-6714. To obtain a petition form (H-06), you may write the Office of Administrative Hearings, call that office at (919) 431-3000 or get a copy of the petition form from their web site at www.ncoah.com/forms.html. The petition for a contested case hearing must be filed in accordance with the provisions of North Carolina General Statutes 130A-24, 150B-23, and all other applicable provisions of Chapter 150B. N.C. General Statute 130A-335(g) provides that your hearing would be held in the county where your property is located.

If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is February 26, 2015. Meeting the 30 day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you may request.

MECKLENBURG COUNTY

Marcus Plescia, MD, MPH
Health Director

Health Department

(704) 336-4700

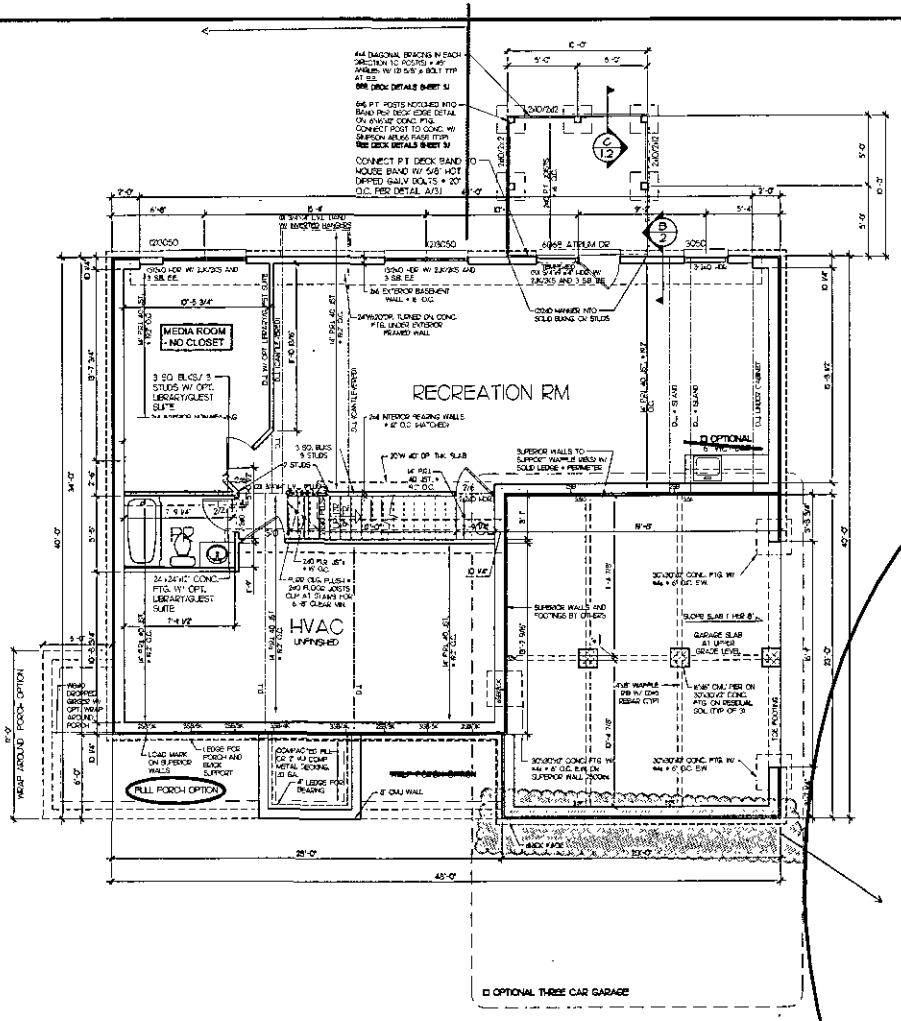
If you file a petition for a contested case with the Office of Administrative Hearings, you are required by law (NCGS 150B-23) to serve a copy of your petition on the Office of General Counsel, NC Department of Health and Human Services, 2001 Mail Service Center, Raleigh, NC 27699-2001.

Do not serve the petition on your local health department. Sending a copy of your petition to the local health department will not satisfy the legal requirement in NC General Statute 150B-23 that you send a copy to the Office of General Counsel, 2001 Mail Service Center, NC Department of Health and Human Services.

You may call or write the local health department if you need additional information or assistance.

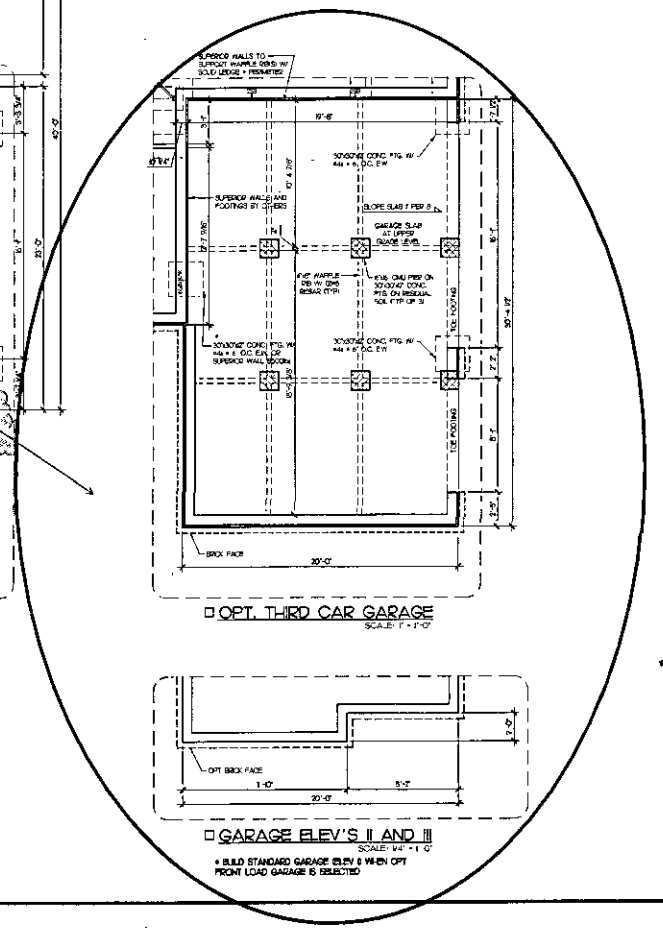
Sincerely,

Bradley W. Hallman, R.E.H.S.
Environmental Health Specialist
704-336-5575



BASEMENT FOUNDATION PLAN — 8'-9" CEILINGS

ELEVATIONS I THRU IV — SCALE: 1/4"=1'-0"



Southern Dynamic Engineering and Design, PLLC
P.O. Box 87
Waxhaw, NC 28173
Seal for Structural Only
NC Certificate of Licensure P-0713

Knotts Builders

Carolina Sustainable Residential Design, LLC

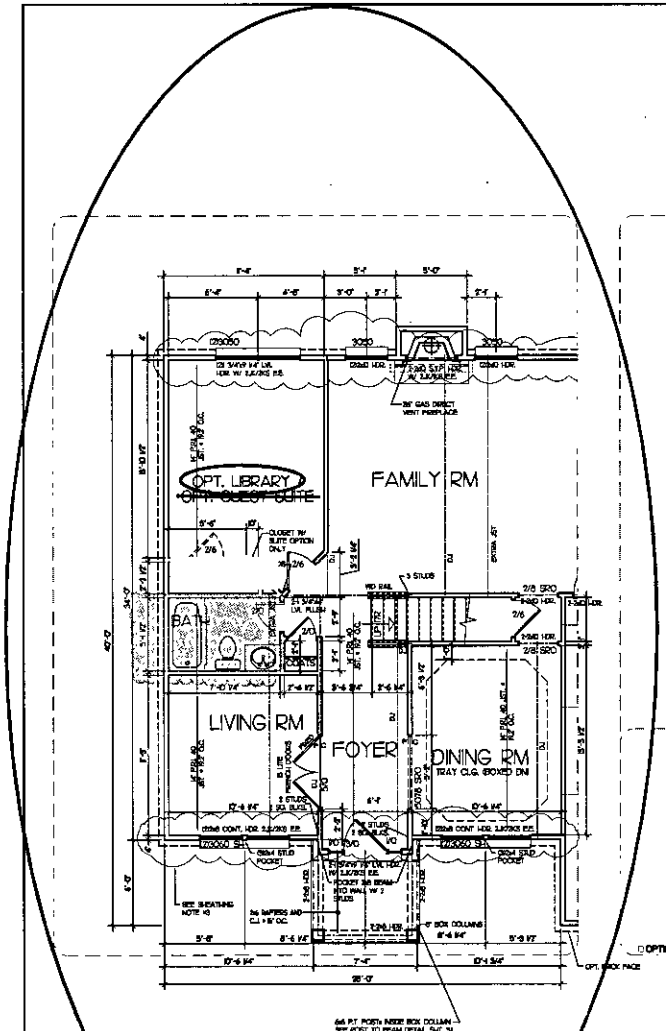
THE ROANOKE

BASEMENT FOUNDATION PLAN

DRAWN BY: S. DELLINGER
DATE: 9/12/13
LASTEST REVISION: 05/23/12

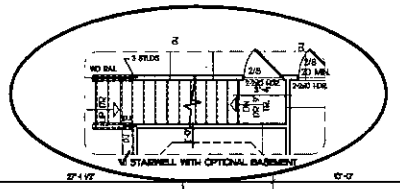
1.2
SHEET NO.

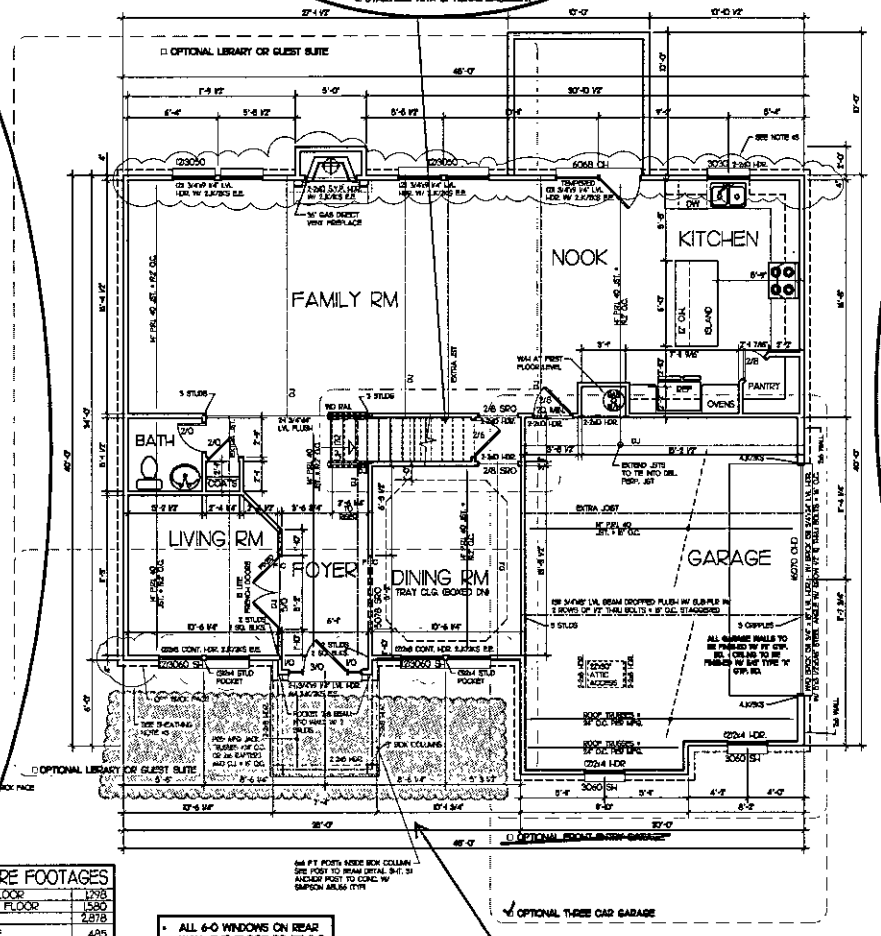
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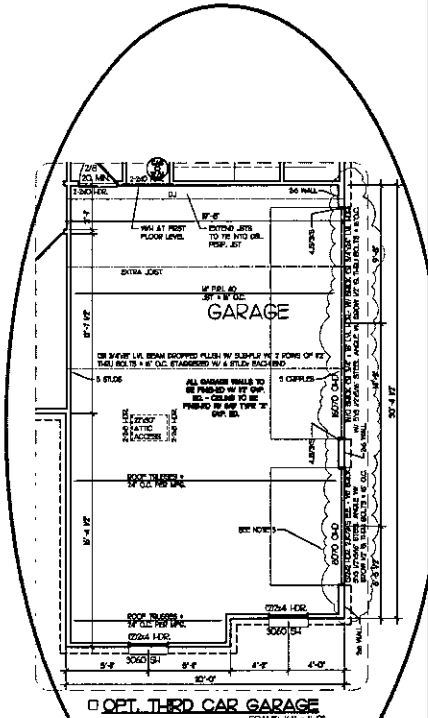


□ OPT. LIBRARY / OPT. GUEST SUITE

SCALE: 1/4"=1'-0"







□ OPT. THIRD CAR GARAGE

SCALE: 1/4" = 1'-0"

NOTES:

1 - THE LATERAL BRACING REQUIREMENTS OF THIS PLAN HAVE BEEN ACCOUNTED FOR UTILIZING AN ENGINEERED DESIGN AS PERMITTED IN PACKAGE OF THE 2012 NCRC WITH SECT. 1 2012 AMENDMENTS.

2 - ALL PERIMETER WALLS ARE TO BE FULLY SHEATHED WITH A MINIMUM 7/16" OSB, AND ATTACHED TO THE WALL FRAMING STUDS WITH 8d (2.5"x.0131" NAILS @ 6" O.C. SPACING AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

3 - INSTALL BLOCKING ALONG O.S.B. PANEL EDGES. FASTEN PANEL EDGES AT BLOCKING @ 3" O.C. AND AT PANEL AT INTERMEDIATE FRAMING WHEN LESS THAN 30# BUT GREATER THAN 25# OF WALL IS SHEATHED.

4 - SHEATH ALL GABLE END WALLS W/ 7/16" O.S.B.

SQUARE FOOTAGES	
FIRST FLOOR	1,798
SECOND FLOOR	1,580
TOTAL	2,878
GARAGE	485
THREE CAR GARAGE	633
BASEMENT	930
LIVE-IN BASEMENT	968
HVAC STOR.	374
LIVE-IN HVAC STOR.	330
FRONT PORCH	44
HALF PORCH	106
FULL PORCH	67
WRAPPED PORCH	228
MORNING/SUMMER RM	168
SCREENED PORCH	109

- ALL 6-0 WINDOWS ON REAR WALL THIS FLOOR TO BE 5-0 WINDOWS WHEN BASEMENT OPTION FLOOR IS USED

FIRST FLOOR PLAN

9' CEILINGS

SCALE: 1/4"=1'-0"

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Knotts Builders

Carolina Sustainable Residential Design, LLC

THE ROANOKE

FIRST FLOOR PLAN

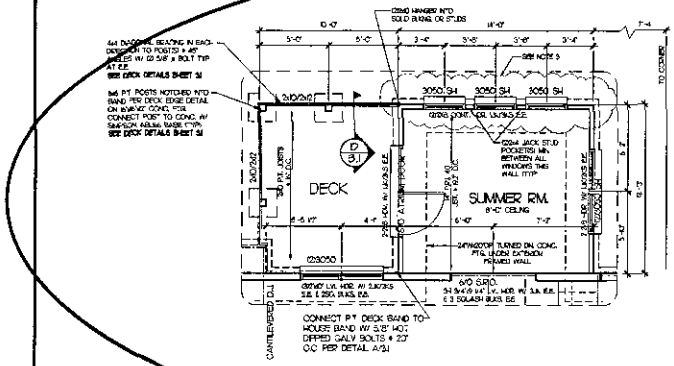
DRAWN BY: S. DELLINGER

DATE: 8/1/14

LATEST REVISION: 12/5/14

3

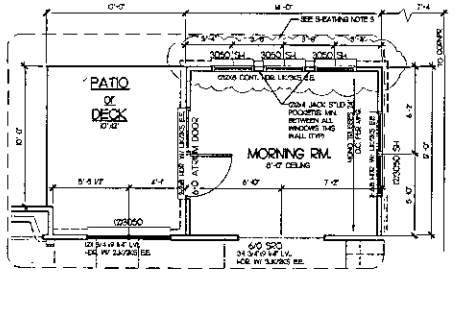
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□ SUMMER ROOM OPTION

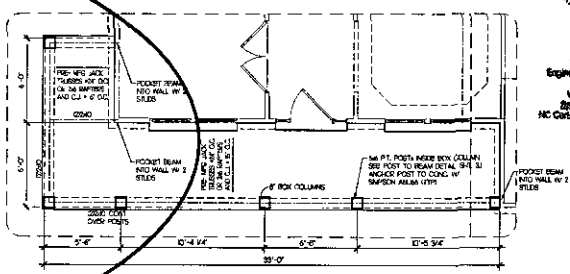
INCLUDED WITH BASEMENT WHEN SUNROOM OPTION IS PICKED

SCALE: 1/4"=1'-0"



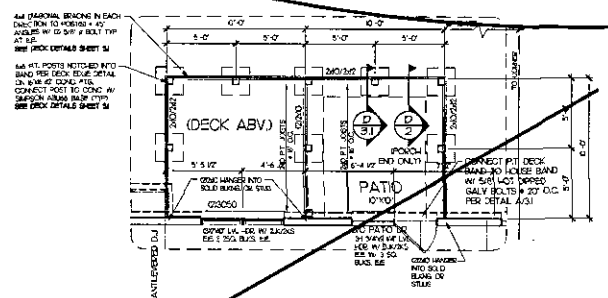
□ MORNING ROOM OPTION

SCALE: 1/4"=1'-0"



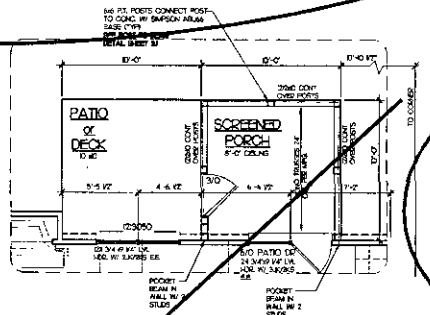
□ OPT. WRAP AROUND PORCH FLOOR PLAN

SCALE: 1/4"=1'-0"



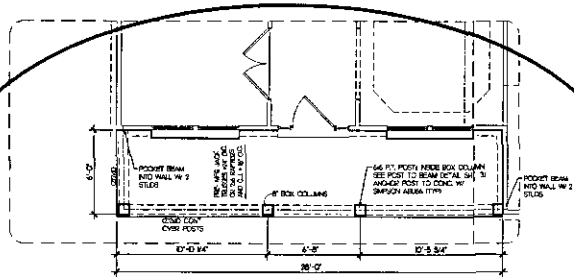
□ SCREENED PORCH WITH BASEMENT OPT.

SCALE: 1/4"=1'-0"



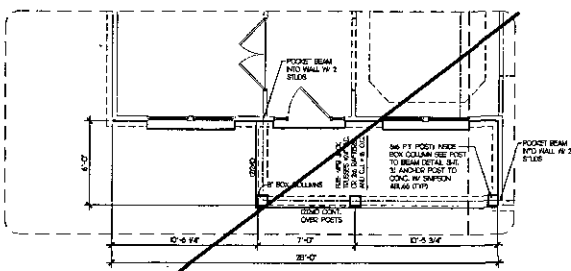
□ SCREENED PORCH OPTION

SCALE: 1/4"=1'-0"



□ OPT. FULL PORCH FLOOR PLAN

SCALE: 1/4"=1'-0"



□ OPT. HALF PORCH FLOOR PLAN

SCALE: 1/4"=1'-0"

NOTES:

1 - THE LATERAL BRACING REQUIREMENTS OF THIS PLAN HAVE BEEN ACCOUNTED FOR UTILIZING AN ENGINEERED DESIGN AS PERMITTED IN R602.10.4 OF THE 2012 NCRC WITH SEPT 1 2013 AMENDMENTS.

2 - ALL PERIMETER WALLS ARE TO BE FULLY SHEATHED WITH A MINIMUM 7/16" O.S.B. AND ATTACHED TO THE WALL FRAMING STUDS WITH 8d (2.5"X0.03") NAILS @ 6" O.C. SPACING AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

3 - INSTALL BLOCKING ALONG O.S.B. PANEL EDGES. FASTEN PANEL EDGES AT BLOCKING @ 3" O.C. AND AT 12" O.C. AT INTERMEDIATE FRAMING WHEN LESS THAN 50% BUT GREATER THAN 25% OF WALL IS SHEATHED.

4 - SHEATH ALL GABLE END WALLS W/ 7/16" O.S.B.

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Carolina Sustainable Residential Design, LLC

THE ROANOKE

MORNING RM. / SCREENED PORCH OPTIONS

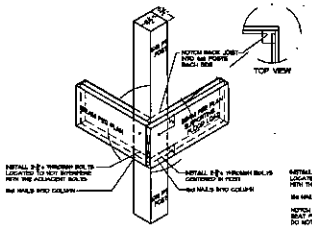
S. DELLINGER

DATE: 9/12/13

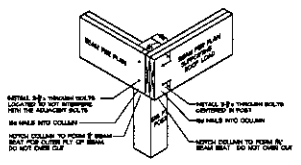
LATEST REVISION: 05/23/12

3.2

SHEET NO.



F 9/1 POST / BEAM CONNECTION DETAIL



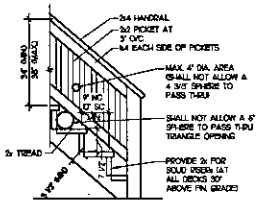
E 9/1 POST TOP / BEAM CONNECTION DETAIL

CONSTRUCTION NOTES

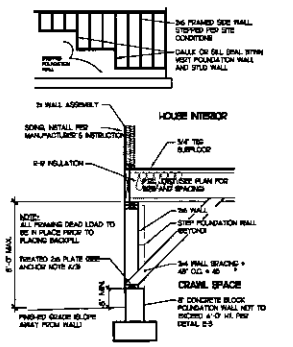
1. ALL DECK MATERIALS TO BE TREATED TO RESIST ROT AND DECAY PER CODE.
2. ALL FLOORING MATERIAL FOR DECK TO BE #2 GRADE OR BETTER SOUTHERN PINE MIN. DECKING THICKNESS IS 5/4 TEG NOMINAL.
3. ALL FASTENERS TO BE HOT DIPPED GALVANIZED TO RESIST RUSTING.
4. ANCHOR ALL 6x6 TREATED POST TO POURED CONCRETE FOOTINGS PER CODE.
5. CONNECT POST TO DROPPED GIRDER WITH AN APPROVED CONNECTOR

HANDRAIL NOTES

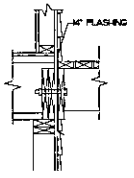
Porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height. Open sides of stairs with a total rise of more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (762 mm) in height measured vertically from the nosing of the treads.



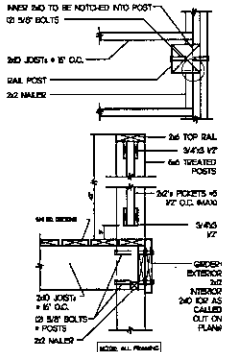
G 9/1 TYPICAL STAIR DETAIL
NO SCALE



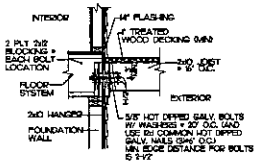
C 9/1 STEPPED DOWN CRAWL FOUNDATION WALL (SIDING)



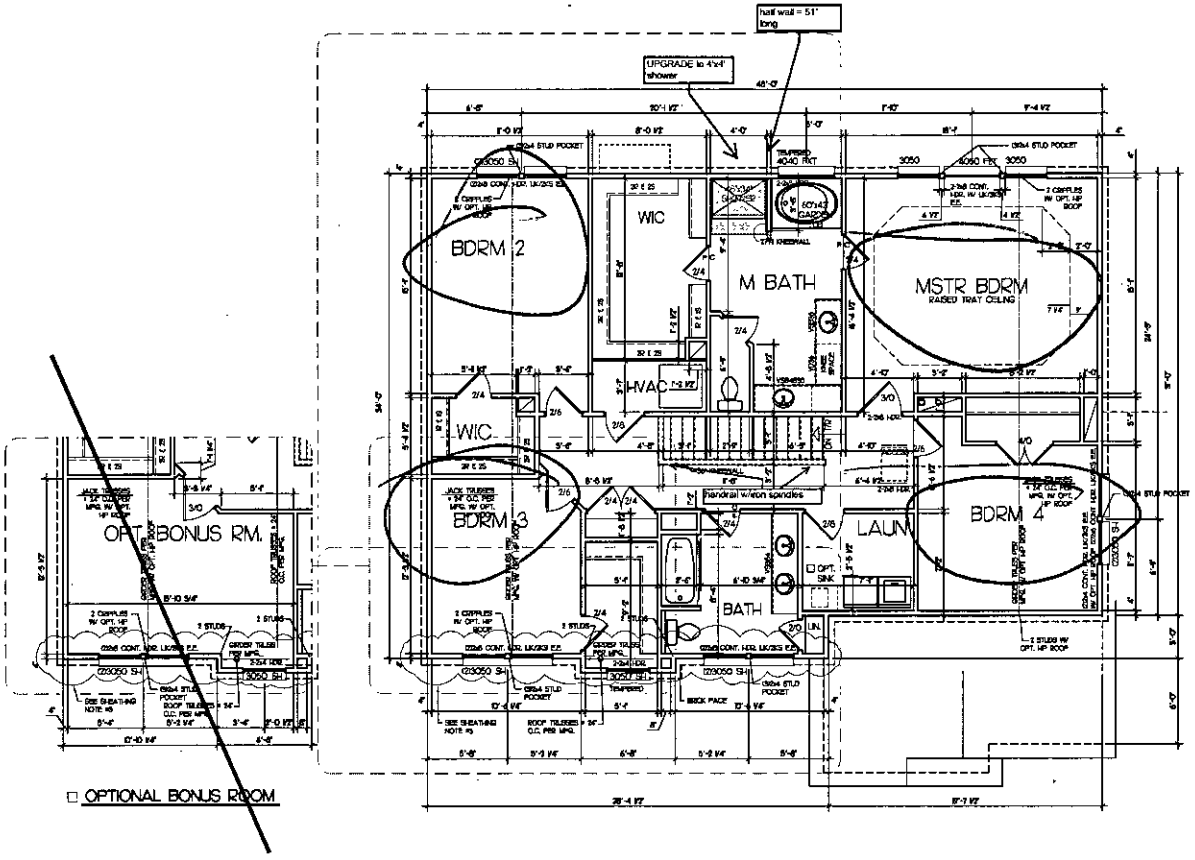
D 9/1 FLASHING DETAIL
NO SCALE



P 9/1 DECK EDGE DETAIL
SCALE: 1" = 1'-0"



A 9/1 TYPICAL DECK BOLT DETAIL
NO SCALE



□ OPTIONAL BONUS ROOM

SECOND FLOOR PLAN

SCALE: 1/4"=1'-0"

NOTES:

1 - THE LATERAL BRACING REQUIREMENTS OF THIS PLAN HAVE BEEN ACCOUNTED FOR UTILIZING AN ENGINEERED DESIGN AS PERMITTED IN R602.10.4 OF THE 2012 NCRC WITH SEPT. 1 2013 AMENDMENTS.

2 - ALL PERIMETER WALLS ARE TO BE FULLY SHEATHED WITH A MINIMUM 7/16" O.S.B. AND ATTACHED TO THE WALL FRAMING STUDS WITH 8d (2.5"X0.131) NAILS @ 6" O.C. SPACING AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

3 - INSTALL BLOCKING ALONG O.S.B. PANEL EDGES. FASTEN PANEL EDGES AT BLOCKING @ 3" O.C. AND AT 6" O.C. AT INTERMEDIATE FRAMING WHEN LESS THAN 50% BUT GREATER THAN 25% OF WALL IS SHEATHED.

4 - SHEATH ALL GABLE END WALLS W/ 7/16" O.S.B.

-DO NOT REPRODUCE WITHOUT PERMISSION-
© CAROLINA SUSTAINABLE RESIDENTIAL DESIGN, LLC 2014 - ALL RIGHTS RESERVED

Knotts Builders

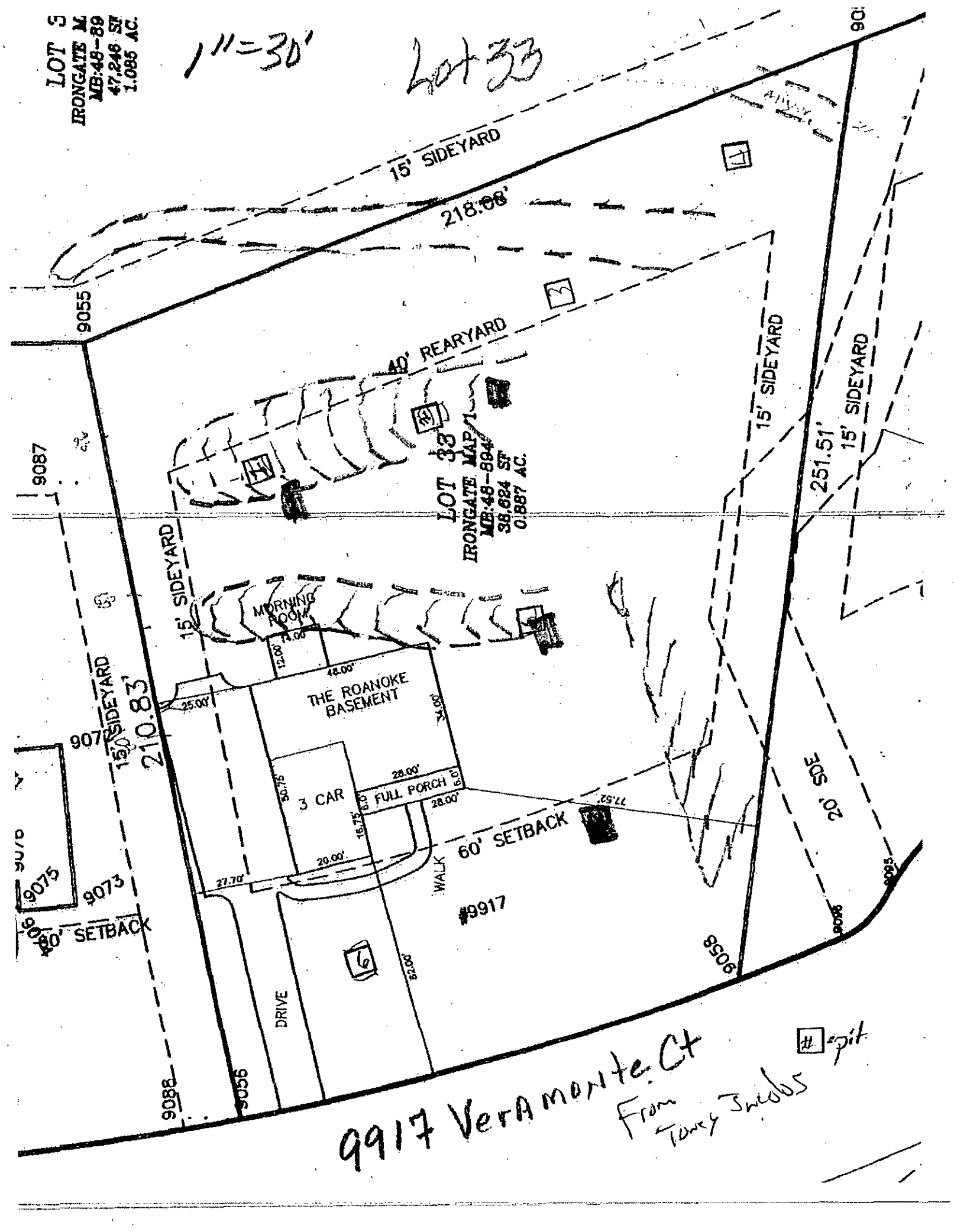
Carolina Sustainable Residential Design, LLC

THE ROANOKE

SECOND FLOOR PLAN

DRAWN BY: B. DELLINGER
DATE: 8/5/14
LASTEST REVISION: 12/5/14

3.1
SHEET NO.


LOT 3
IRONGATE M.
MB:48-89
47,246 SF
1.085 AC.
1"=30'
Lot 33
15' SIDEYARD
218.08'
9055
40' REARYARD
9087
LOT 33
IRONGATE MAP
MB:48-89
38,624 SF
0.887 AC.
15' SIDEYARD
251.51'
15' SIDEYARD
15' SIDEYARD
MORNING ROOM
12.00'
48.00'
THE ROANOKE
BASEMENT
25.00'
34.00'
907
15' SIDEYARD
210.83'
3 CAR
50.75'
28.00'
6.0'
FULL PORCH
6.0'
28.00'
16.75'
20.00'
27.70'
WALK
60' SETBACK
#9917
20' SDE
9075
9073
80' SETBACK
9056
DRIVE
82.00'
9088
9056
9095
9088
9917 Veramonte Ct
From Tony Jacobs
Split



9820 BRIEF RD

19713105

1/10/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

DAN SPANGLER
LICENSED SOIL SCIENTIST
802 BRADFORD PLACE
MONROE NC 28110-9355

TO: Reserve Properties Inc.
1101Lester Mullis Road
Indian Trail, NC 28079

FROM: Dan Spangler

SUBJECT: Revised septic system design on Lot 33 in Irongate Subdivision, Brief Road, Mecklenburg Co., NC.

DATE: October 12, 2007

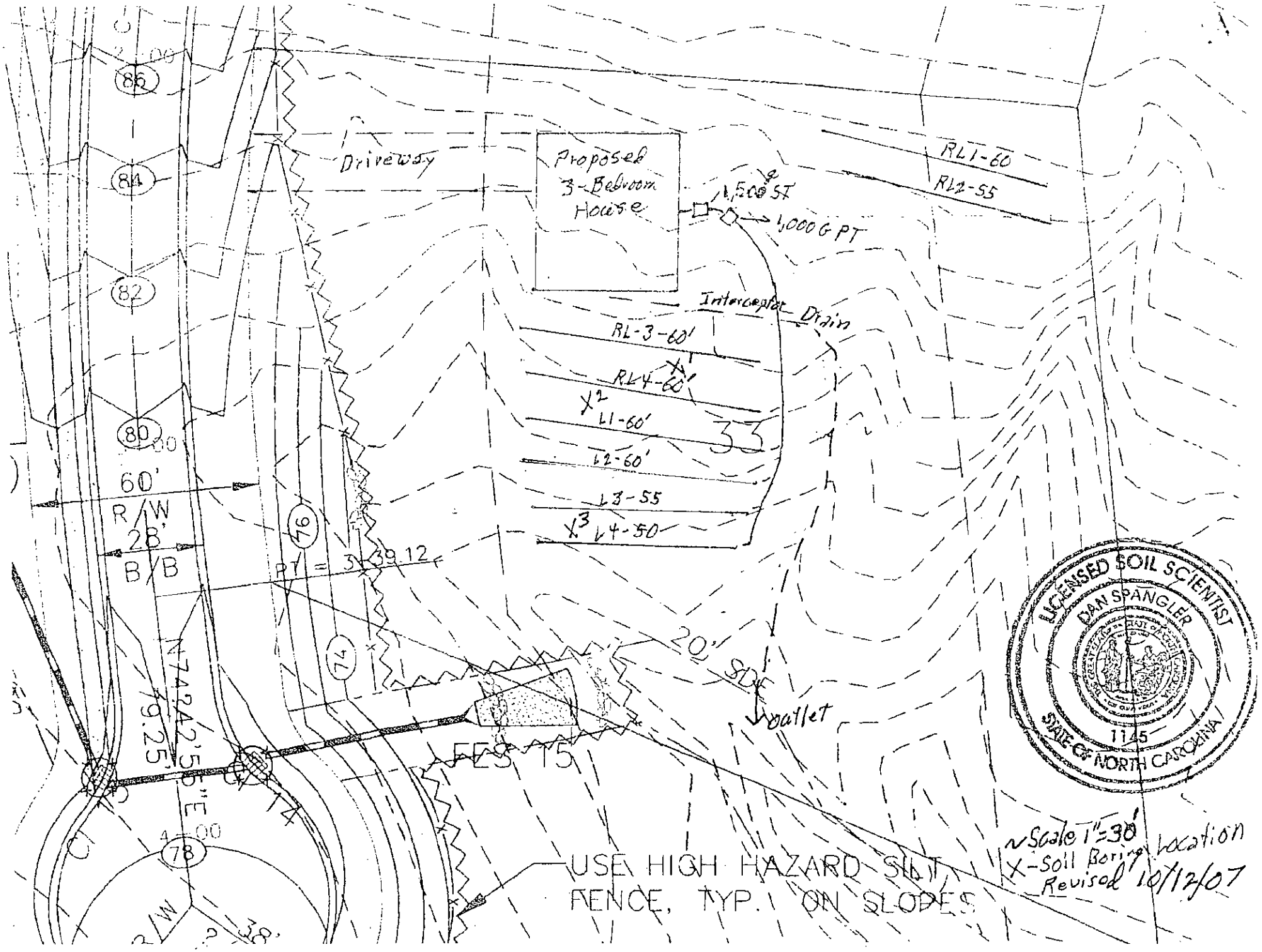
This lot has an area that is **SUITABLE** for conventional or Innovative (EZflow) septic system, however because of uneven topography (old eroded gullies) the T and J Panel Block System (PPBS) would work best. The soils are group 4 with mean depth to saprolite more than 48 inches and more than 48 inches to a seasonal water table. The septic system for a three bedroom house requires 200 linear feet of lines for the Panel Block System. With an LTAR of 0.3 gpd/ft square, design flow of 360 GPD or 200 feet of lateral length of lines for Panel Block System required. Laid out are 4 lines at 60, 60, 55 and 50 feet for a total 225 linear feet or 51 panels. The gullies at the end of the lines should be filled with soil during or before installation. The trenches shall be 36 inches wide and not less than nine feet on center. The trench depths may vary between 28 and 36 inches. The repair system has the same panel block system with varying length lines between the gullies. The repair area is divided into two areas with half up slope of the system area (2 lines @ 60 feet) and half in the upper back corner of the lot (2 lines @ 55 and 60 feet). (See attached lot map, design specifics, general design information, and soil/site evaluation.)

Diversion and Interceptor Drain The System would benefit from an interceptor drain four to five feet deep and outlet in the open drainage ditch in the lower part of the lot. This Interceptor drain shall be one foot wide with agricultural drainage pipe placed in the bottom and crushed stone around the pipe and up to one foot below ground. Fabric material should be placed on top of the stone. Also gutters should be installed on the house and outlet in the interceptor drain. (See attached lot map.)

CC: Trevor Thomason and David Cornelius, Mecklenburg County Env. Health

REVISED

10/12/2007 10:10 7042822319 DAN SPANGLER PAGE 03



09/04/2007 15:54 7042822319 DAN SPANGLER PAGE 15

PPBPS Design Worksheet	(Primary System)			File #:	6503B
				Tax #:	139-302-15
System Requirements				Address:	Lot 33 - Irongate
Design Flow	360	gpd			
LTAR	0.300	gpd/ft.^2		Consultant:	Dan Spangler
Linear footage	400	ft. (conventional)		Phone:	704-291-1909
Linear footage	200	ft. (50% Reduction)		Fax	704-721-7319
				Reviewed By:	Trevor Thomason
Design Layout				Date:	8/10/2007

√ TCT 9-12-07

Laterals	Length (ft)	# Panels	Calculated
Line # 1	60	14	13.85
Line # 2	60	14	13.85
Line # 3	55	13	12.69
Line # 4	50	12	11.54
Line # 5	0	0	0.00
Line # 6	0	0	0.00
Line # 7	0	0	0.00
Line # 8	0	0	0.00
Line # 9	0	0	0.00
Line # 10	0	0	0.00
Totals	**225**	**53**	51.92

T & J Panels	
Linear Feet	# Panels
20	5
30	7
40	9
50	11
60	14
70	16

*Lines longer than 70 ft. must be center-fed to comply with sewage rules.

Absorption Area			
Length (ft)	Width (ft)	Area (ft^2)	
225	3	675	
System Pressure Head	2	ft.	*Value selected by system designer (must be between 2-5 ft.)*
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)
Flow Rate per Orifice	0.41	gpm	Determined from crifice flow design table (use table from Flow Rate tab)
Total System Flow Rate	21.57	gpm	Total number of panels required *multiplied by the orifice flow rate*
System Dose Volume	190.80	gal.	Total number of panels *required* multiplied by 3.6 gal./panel
Doses Per Day	1.89	cycles	Number of dose cycles per day based on daily design flow
Pump Run Time	8.84	min.	System dose volume divided by the total system flow rate
Pump Tank Volume / Inch	21	gal./in.	1,000 gal. Pump tank, volume is approximately 21 gallons per inch. 1,500 gal. pump tank, volume is approximately 29 gallons per inch
Pump Tank Drawdown	9.09	in.	Depth of effluent pumped per dose cycle.

Cells with blue shading require user input.
Cells with yellow shading are automatically calculated.

Comments:

1. Install system using 3 ft. wide trenches.
2. Install drainlines on 9 ft. centers, level, and on contour.
3. System design requires effluent pump for distribution.
4. 100% Repair area is required.

DAN SPANGLER
802 BRADFORD PLACE, MONROE, NC 28110
MOBILE: (704) 291-1909 OFFICE/ FAX: (704) 282-2319

PROPERTY ID #: 19713103
PROPERTY RECORDED:
COUNTY: Mecklenburg

SOIL/SITE EVALUATION
FOR
ON-SITE WASTEWATER SYSTEM

APPLICANT: Reserve Properties Inc. OWNER: ☐ AGENT: ☐ PHONE: 704-641-5898
ADDRESS: 1101 Lester Mullis Rd. DATE EVALUATED: 5/10/07
Indian Trail, NC 28079 PROPOSED FACILITY: 3-Bedroom House
PROPERTY SIZE: ~1 Acre
LOCATION OF SITE: Lot 33, Irongate Subdivision, Brief Road
WATER SUPPLY: On-Site Well ☐ Comm. Well ☐ Public ☑ Other _____ EVALUATION METHOD: Auger Boring ☑ Pit ☐

PROFILE #	.1940 LANDSCP POS/ SLOPE %	HORIZON DEPTH (IN.)	.1941 (a)(1) TEXTURE	(a)(2) STRUCTURE	(a)(3) MINEROLOGY		
1	SS	Bt. 0-40"	2.5YR 4/8 C	fr. 3fsbk	ms/sp	.1942 WETNESS CONDITION	- 740"
Upper	12%					.1943/.1956 SAPROLITE	- 740"
Portion						.1944 RESTRICTIVE HORIZON	- 740"
Gullie						.1948 PROFILE CLASSIFICATION	- Suitable
						PROFILE LTAR	- 0.3
						SYSTEM TYPE	- Conv. / PPBS
		COMMENTS: Eroded Cecil					
2	SS	A-0-5"	10YR 5/4 SL	fr. 2sgr	so/po	.1942 WETNESS CONDITION	- 748"
middle	12%	Bt. 5-48"	2.5YR 4/8 C	fr. 3fsbk	ms/sp	.1943/.1956 SAPROLITE	- 748"
Port of						.1944 RESTRICTIVE HORIZON	- 748"
SA						.1948 PROFILE CLASSIFICATION	- Suitable
						PROFILE LTAR	- 0.3
						SYSTEM TYPE	- Conv. / PPBS
		COMMENTS: Cecil					
3	SS/Toe	A-0-6"	10YR 5/4 SL	fr. 2mgr	so/po	.1942 WETNESS CONDITION	- 748"
Lower	10%	Bt. 6-48"	2.5YR 4/8 C	fr. 3fsbk	ms/sp	.1943/.1956 SAPROLITE	- 748"
Port of						.1944 RESTRICTIVE HORIZON	- 748"
SA						.1948 PROFILE CLASSIFICATION	- Suitable
						PROFILE LTAR	- 0.3
						SYSTEM TYPE	- Conv. / PPBS
		COMMENTS:					
4						.1942 WETNESS CONDITION	-
						.1943/.1956 SAPROLITE	-
						.1944 RESTRICTIVE HORIZON	-
						.1948 PROFILE CLASSIFICATION	-
						PROFILE LTAR	-
						SYSTEM TYPE	-
		COMMENTS:					

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

Sheet: 1 of 2
Property ID: PO 197-131-05
Lot #: 4
File #: 6486B
Code: 2

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Angela B. Page
Applicant: J. Scot Collins
Address: 9900 Brief Road, Charlotte, N. C. 28227
Date Evaluated: 6/5/065
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: 1.0a
Location of Site: 9820 Brief Road
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941		OTHER PROFILE FACTORS				
			.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, 10	0-18	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		18-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	Iva	Iva
Site LTAR	.3GPD/FT^2	.3GPD/FT^2

Other Factors (.1946):
Site Classification (.1948): Provisionally Suitable
Evaluated By: W. R. Martin, LSS, 6/6/2006,
Others Present:
Site Evaluation By: David Cornelius & Kelly Randall

#799

GWS – RES. APP 07/05

SEPTIC FEE: 200 cc
DATE: 5/15/06
CRT [ ] SC

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

WELL FEE: _____
DATE: _____
CRT [ ]

FILE # 6486B

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 #: Portion of 19713105
STREET ADDRESS: 9820 Brief Road
CITY: Charlotte
STATE: NC **ZIP:** 28227
SUBDIVISION OR MOBILE HOME PARK NAME: Undecided
LOT #: 4
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: n/a
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: n/a

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: Angela B. Page
ADDRESS: 9900 Brief Road
CITY: Charlotte
STATE: NC ZIP: 28227
HOME PHONE: 704.545.6375 WORK PHONE:
MOBILE PHONE: FAX:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: J. Scot Collins
ADDRESS: 1101 Lester Mullis Road
CITY: Indian Trail
STATE: NC ZIP: 28079
HOME PHONE: 704.248.8493 WORK PHONE: 704.641.4470
MOBILE PHONE: FAX: 704.753.5898

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? n/a
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? within 30 days

*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.

J. Scot Collins 5/15/06
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

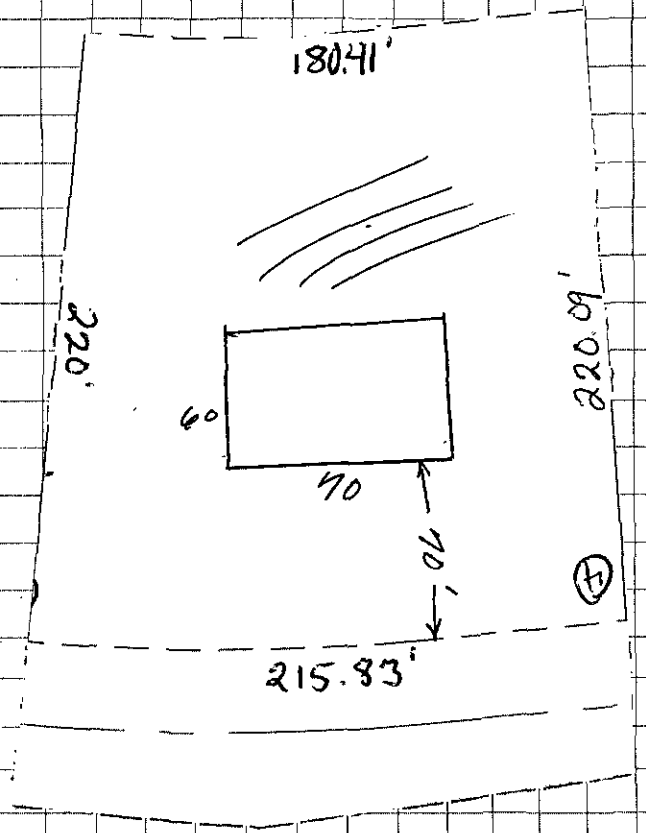
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5103

FILE: 64860

TC: _____

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



OWNER/AGENT SIGNATURE

DATE

APPROVAL DATE _____

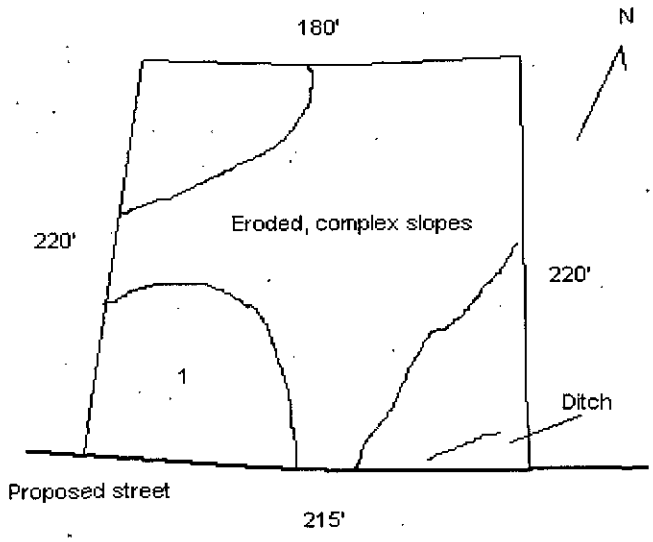
White - Health Department's Copy Canary - E.H.S. Copy Pink - Owner's Copy

COMMENTS:
100% repair

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		CL-Clay Loam		
FP-Flood Plain		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



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 #: **30000799** GWS File #: **6486B** Tax Parcel #: **197-131-05**

- 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):** 10/16/2012

Type of Installation: Residential - New System Lot Number: 33

Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 4 # Occupants: 4

Building Foundation: Crawl Space Water Supply: Municipal

II. Initial System Type: PPBPS (pressurized) **System Classification:** IVa

Initial System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	600	Total Trench Length (ft):	200
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Pressure Manifold		

Revised

III. Repair System Type: PPBPS (pressurized) **System Classification:** IVa

Repair System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	600	Total Trench Length (ft):	200
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	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: David Cornelius Owner/Legal Agent: _____
Print Name

Signature: _____ Signature: _____

Date Issued: 10/16/2007

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 #: **30000799** GWS File #: **6486B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 3 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 septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- This Improvement Permit is being issued based on a supplemental soil investigation performed by staff from our office.
- The 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.
- Soil and topography issues in proposed drainfield area confirmed in field by Kelly Randall. Maintenance agreement *with certified operator required* before CO release

Revoked

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:

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- 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: David Cornelius

Signature: _____

Date Issued: 10/16/2007

Owner/Legal Agent: _____
Print Name

Signature: _____

MECKLENBURG COUNTY
Health Department

December 18, 2006

J. Scott Collins
1101 Lester Mullis Road
Indian Trail, NC 28079

Re: Application for improvement permit for
Property Site: 9820 Brief Rd. Lot #4
Health Department file number: **6486B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on June 6, 2006 evaluated the above-referenced property at the site designated on the plat that accompanied your improvement permit application. According to your application the site is to serve a 4 bedroom home, with a daily design flow of 480 gallons per day. The evaluation was done in accordance with the laws and rules governing wastewater systems in North Carolina General Statute 130A-333 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .1900 and related rules.

Based on the criteria set out in Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rules .1940 through .1948, the evaluation indicated that the site is **UNSUITABLE** for a ground absorption sewage system. Therefore, your request for an improvement permit is **DENIED.** A copy of the site evaluation is enclosed. The site is unsuitable based on the following:

- ☐ Unsuitable soil topography and/or landscape position (Rule .1940)
- ☐ Unsuitable soil characteristics (structure or clay mineralogy) (Rule .1941)
- ☐ Unsuitable soil wetness condition (Rule .1942)
- ☐ Unsuitable soil depth (Rule .1943)
- ☐ Presence of restrictive horizon (Rule .1944)
- ☒ Insufficient space for septic system and repair area (Rule .1945)
- ☒ Unsuitable for meeting required setbacks (Rule .1950)
- ☐ Other (Rule .1946)

These severe soil or site limitations could cause premature system failure, leading to the discharge of untreated sewage on the ground surface, into surface waters, directly to ground water or inside your structure.

The site evaluation included consideration of possible site modifications, and modified, innovative or alternative systems. However, the Health Department has determined that none of the above options will overcome the severe conditions on this site. A possible option might be a system designed to dispose of sewage to another area of suitable soil or offsite to additional property.

For the reasons set out above, the property is currently classified **UNSUITABLE,** and an improvement permit shall not be issued for this site in accordance with Rule .1948 (c).

However, the site classified as **UNSUITABLE** may be classified as **PROVISIONALLY SUITABLE** if written documentation is provided that meets the requirements of Rule .1948(d). A cpy of this rule is enclosed. You may hire a consultant to assist you if you wish to try to develop a plan under which your site could be reclassified as **PROVISIONALLY SUITABLE.**

You have a right to an informal review of this decision. You may request an informal review by the soil scientist or environmental health supervisor at the local health department. You may also request an informal review by the N. C. Department of Environment and Natural Resources regional soil specialist. A request for informal review must be made in writing to the local health department.

You also have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Center, Raleigh, NC 27699-6714. To get a copy of a petition form, you may write the Office of Administrative Hearings or call the office at (919) 733-0926 or from the OAH web site at www.oah.state.nc.us/form.htm. The petition for a contested case hearing must be filed in accordance with the provision of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B. N. C. General Statue 130A-335(g) provides that your hearing would be held in the county where your property is located.

Please note: If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is December 18, 2006. Meeting the 30-day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you might request. Do not wait for the outcome of any informal review if you wish to file a formal appeal.

If you file a petition for a contested case hearing with the Office of Administrative Hearings, you are required by law (N.C. General Statute 150B-23) to send a copy of your petition to the North Carolina Department of Environment and Natural Resources. Send the copy to: Office of General Counsel, N. C. Department of Environment and Natural Resources, 1601 Mail Service Center, Raleigh, NC. 27699-1601. Do **NOT** send the copy of the petition to your local health department. Sending a copy of your petition to the local health department will **NOT** satisfy the legal requirement in N.C. General Statute 150B-23 that you send a copy to the Office of General Counsel, NCDENR.

You may call or write the local health department if you need any additional information or assistance.

Sincerely,

David Cornelius, R.S.
Authorized Agent - DENR

Encl: (2)

DAN SPANGLER
LICENSED SOIL SCIENTIST
802 BRADFORD PLACE
MONROE NC 28110-9355

GWS Septic System Design Review

GWS File #: 6486B **Approved** **Disapproved**

Design Review: TCT 9-12-07 ☒ ☐

Field Review: _____ ☐ ☐

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

TO: Reserve Properties Inc.
1101Lester Mullis Road
Indian Trail, NC 28079

FROM: Dan Spangler

SUBJECT: Revised septic system design on Lot 33 in Irongate Subdivision, Brief Road, Mecklenburg Co., NC.

DATE: *July 30, 2007*

Revised

This lot has an area that is **SUITABLE** for conventional or Innovative (EZflow) septic system, however because of uneven topography (old eroded gullies) the T and J Panel Block System (PPBS) would work best. The soils are group 4 with mean depth to saprolite more than 48 inches and more than 48 inches to a seasonal water table. The septic system for a three bedroom house requires 200 linear feet of lines for the Panel Block System. With an LTAR of 0.3 gpd/ft square, design flow of 360 GPD or 200 feet of lateral length of lines for Panel Block System required. Laid out are 4 lines at 60, 60, 55 and 50 feet for a total 225 linear feet or 51 panels. The gullies at the end of the lines should be filled with soil during or before installation. The trenches shall be 36 inches wide and not less than nine feet on center. The trench depths may vary between 28 and 36 inches. The repair system has the same panel block system with varying length lines between the gullies. The repair area is divided into two areas with half up slope of the system area (2 lines @ 60 feet) and half in the upper back corner of the lot (2 lines @ 55 and 60 feet). (See attached lot map, design specifics, general design information, and soil/site evaluation.)

The above soils report is my opinion as a licensed soil scientist; however, wastewater treatment systems must be approved by the local health department.

CC: Trevor Thomason
Mecklenburg County Environmental Health

+ NEED SOIL BORINGS IN PROPOSED DRAINFIELD AREAS. MAP INDICATES COMPLEX SLOPES. TCT 9-12-07

OWS Septic System Design Review

OWS Title #: _____ Approved Disapproved

Design Review: _____ ☐ ☐

Field Review: _____ ☐ ☐

"Policies are not considered "APPROVED" until box's sections above
[illegible] and indicate an APPROVED status.

Combined Slopes: TCT 9-12-17

Dampened Areas: Map Indicates

+ Need Soil Borings in Proposed

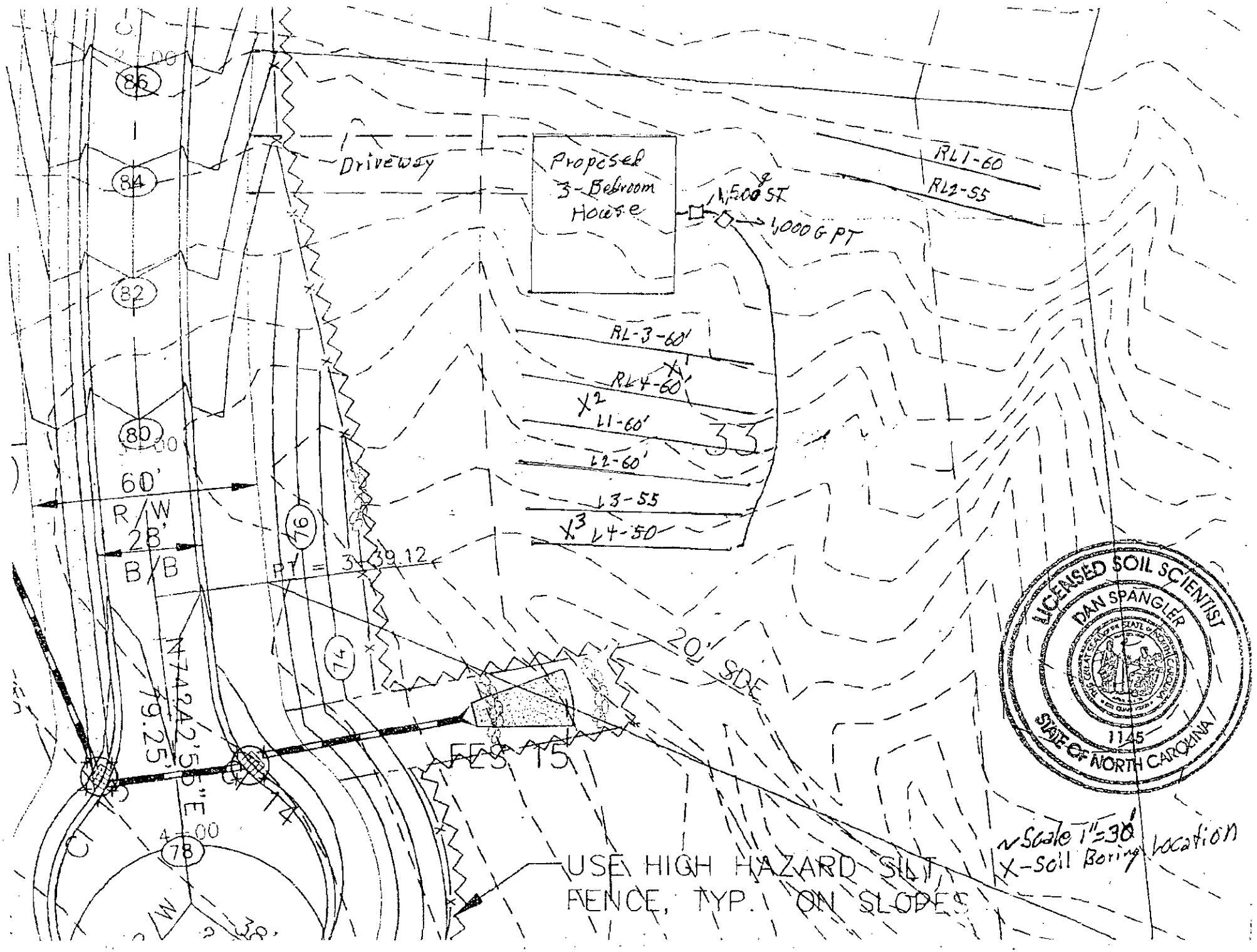
√ TCT

DESIGN SPECIFICS

Spangler Soil Investigation **Revised 9/4/07**
Lot 33 Irongate Subdivision

Daily Design Flow:	360 GPD – 3 bedroom house
Septic Tank Size:	1500 gallons (2 compartments)
Pump Tank Size:	1000 gallons (one piece)
Effluent Loading Rate:	Design = 0.3 GPD per ft/sq
	T & J Panel Block (PPBS)
Supply Length and Diameter:	Approx. 100ft of 2" Sch. 40
	PVC (please see note)
Number and Size of Laterals:	4 lines @ 50, 55, 60 & 60 ft
Hole Size:	5/32 inch
Hole Spacing:	1 per panel = 53 total
Number of Panels:	53
Dosing Volume:	190.8 gallons per dose
Flow Rate through system:	21.57 gallons per minute
Elevation Head:	0 feet (may vary, see note)
Pressure Head:	2 feet
Pump Requirements:	23.6 GPM at 3.8 TDH
	(2 GPM added for vapor lock)
Depth of Water Pumped:	9.1" check with tank manufacturer
Pump Run:	8.84 minutes
Check Valve:	Yes
Vapor Lock Hole:	Yes

*** Please note that supply line and elevation head measurements are approximate. It is the contractor's responsibility to confirm these values based upon the actual house and plumbing location. If there is a discrepancy, contact the system designer prior to beginning construction.**


Driveway
Proposed 3-Bedroom House
1,500 ST
1,000 GPT
RL1-60
RL2-55
RL3-60'
RL4-60'
X2 L1-60'
L2-60'
L3-55
X3 L4-50
33
86
84
82
80
60' R/W
28' B/B
76
74
78
PT = 3+39.12
N74°42'55"E
79.25'
20' SDE
FES 15
4+00
USE HIGH HAZARD SILT FENCE, TYP. ON SLOPES
Scale 1"=30'
X-Soil Boring Location
LICENSED SOIL SCIENTIST
DAN SPANGLER
1145
STATE OF NORTH CAROLINA

Irongate Subdivision Design Review

Lot # 33
File # 6486B
App # 799

Date: 8/9/07
Reviewed By: TCT TCT

Comments:

1. Please provide a map showing your soil boring locations for the profiles included in the proposal. Proposed system is in area with complex & eroded slopes. Bill did not perform soil borings in this area.
2. Provide correct calculations for PPBPS system type. Recalculate system dose volume and system flow rate (see worksheet provided).
3. Discard manifold design sheet. This manifold type may not be used with a PPBPS system.

GWS Septic System Design Review

	Approved	Disapproved
GWS File #: 6486B		
Design Review: TCT 8-10-07	☐	☒
Field Review: _____	☐	☐

***Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.**

OWS Septic System Design Review

OWS File #_____ Approved Disapproved

Design Review_____ ☐ ☐

Field Review_____ ☐ ☐

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

PPBPS Design Worksheet	(Primary System)						File #:	6503B
							Tax #:	139-302-15
System Requirements							Address:	Lot 33 - Irongate
Design Flow	360	gpd						
LTAR	0.300	gpd/ft.^2					Consultant:	Dan Spangler
Linear footage	400	ft. (conventional)					Phone:	
Linear footage	200	ft. (50% Reduction)						
							Reviewed By:	Trevor Thomason
Design Layout							Date:	8/10/07
Laterals	Length (ft)	# Panels	Calculated					
Line # 1	60	14	13.85		T & J Panels			
Line # 2	60	14	13.85		Linear Feet	# Panels		
Line # 3	55	13	12.69		20	5		
Line # 4	50	12	11.54		30	7		
Line # 5	0	0	0.00		40	9		
Line # 6	0	0	0.00		50	11		
Line # 7	0	0	0.00		60	14		
Line # 8	0	0	0.00		70	16		
Line # 9	0	0	0.00					
Line # 10	0	0	0.00					
Totals	**225**	**53**	51.92					
	*Lines longer than 70 ft. must be center-fed to comply with sewage rules.							
Absorption Area								
Length (ft)	Width (ft)	Area (ft^2)						
225	3	675						
System Pressure Head	2	ft.	*Value selected* by system designer (must be between 2-5 ft.)					
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)					
Flow Rate per Orifice	0.41	gpm	Determined from orifice flow design table (use table from Flow Rate tab)					
Total System Flow Rate	21.57	gpm	Total number of panels required multiplied by the orifice flow rate					
System Dose Volume	190.80	gal.	Total number of panels required multipled by 3.6 gal./panel					
Doses Per Day	1.89	cycles	Number of dose cycles per day based on daily design flow					
Pump Run Time	8.84	min.	System dose volume divided by the total system flow rate					
Pump Tank Volume / Inch	21	gal./in.	1,000 gal. Pump tank, volume is approximately 21 gallons per inch. 1,500 gal. pump tank, volume is approximately 29 gallons per inch					
Pump Tank Drawdown	9.09	in.	Depth of effluent pumped per dose cycle.					
Cells with blue shading require user input.								
Cells with yellow shading are automatically calculated.								
Comments:								
1. Install system using 3 ft. wide trenches.								
2. Install drainlines on 9 ft. centers, level, and on contour.								
3. System design requires effluent pump for distribution.								
4. 100% Repair area is reguired.								

DAN SPANGLER
LICENSED SOIL SCIENTIST
802 BRADFORD PLACE
MONROE NC 28110-9355

GWS Septic System Design Review

GWS File #: 6486

	Approved	Disapproved
Design Review: TCT 8-10-07	☐	☒
Field Review: _____	☐	☐

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

TO: Reserve Properties Inc.
1101Lester Mullis Road
Indian Trail, NC 28079

FROM: Dan Spangler

SUBJECT: Revised septic system design on Lot 33 in Irongate Subdivision, Brief Road, Mecklenburg Co., NC.

DATE: July 30, 2007

This lot has an area that is **SUITABLE** for conventional or Innovative (EZflow) septic system, however because of uneven topography (old eroded gullies) the T and J Panel Block System (PPBS) would work best. The soils are group 4 with mean depth to saprolite more than 48 inches and more than 48 inches to a seasonal water table. The septic system for a three bedroom house requires 200 linear feet of lines for the Panel Block System. With an LTAR of 0.3 gpd/ft square, design flow of 360 GPD or 200 feet of lateral length of lines for Panel Block System required. Laid out are 4 lines at 60, 60, 55 and 50 feet for a total 225 linear feet or 51 panels. The gullies at the end of the lines should be filled with soil during or before installation. The trenches shall be 36 inches wide and not less than nine feet on center. The trench depths may vary between 28 and 36 inches. The repair system has the same panel block system with varying length lines between the gullies. The repair area is divided into two areas with half up slope of the system area (2 lines @ 60 feet) and half in the upper back corner of the lot (2 lines @ 55 and 60 feet). (*See attached lot map, design* specifics, general design information, and soil/site evaluation.)

The above soils report is my opinion as a licensed soil scientist; however, wastewater treatment systems must be approved by the local health department.

CC: Trevor Thomason
Mecklenburg County Environmental Health

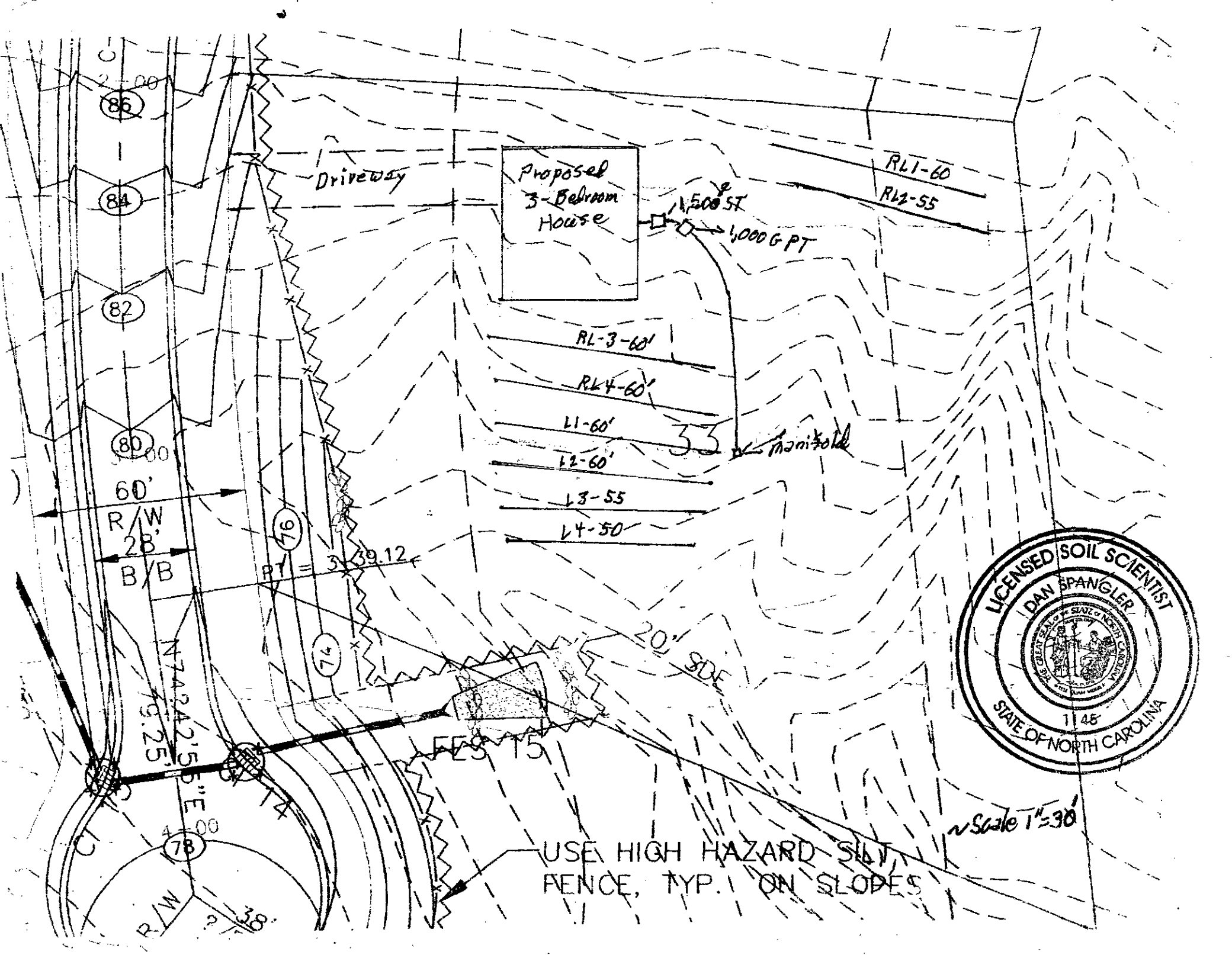
GWS Septic System Design Review

GWS File #: _____ Approved Disapproved

Design Review: _____ ☐ ☒

Field Review: _____ ☐ ☐

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.


Proposed
3-Bedroom
House
Driveway
1,500 GAL ST
1,000 GPT
RL1-60
RL2-55
RL-3-60'
RL4-60'
L1-60'
L2-60'
L3-55
L4-50
33
manifold
60'
R/W
28'
B/B
RT = 3 39.12
N 74-42'-55" E
79.25'
20' SDE
FES 15
USE HIGH HAZARD SILT
FENCE, TYP. ON SLOPES
Scale 1"=30'
LICENSED SOIL SCIENTIST
DAN SPANGLER
1145
STATE OF NORTH CAROLINA

DESIGN SPECIFICS

Lot 33 Irongate Subdivision

Daily Design Flow:	**360 GPD – 3 bedroom house**
Septic Tank Size:	**1500 gallons (2 compartments)**
Pump Tank Size:	**1000 gallons (one piece)**
Effluent Loading Rate:	**Design = 0.3 GPD per ft/sq**
	T & J Panel Block (PPBS)
Supply Length and Diameter:	**Approx. 100ft of 2" Sch. 40**
	PVC (please see note)
Number and Size of Laterals:	**4 lines @ 50, 55, 60 & 60 ft**
Hole Size:	**5/32 inch**
Hole Spacing:	**1 per panel = 51 total**
Number of Panels:	**51**
Dosing Volume:	**~~138~~ gallons per dose** 191 GAL.
Flow Rate through system:	**~~26.8~~ gallons per minute** 21.57 GPM
Elevation Head:	**0 feet (may vary, see note)**
Pressure Head:	**2 feet**
Pump Requirements:	**28.8 GPM at 3.8 TDH** RECALCULATE
	(2 GPM added for vapor lock)
Depth of Water Pumped:	**6.6" check with tank manufacturer**
Pump Run:	**5.2 minutes**
Check Valve:	**Yes**
Vapor Lock Hole:	**Yes**

*** Please note that supply line and elevation head measurements are approximate. It is the contractor's responsibility to confirm these values based upon the actual house and plumbing location. If there is a discrepancy, contact the system designer prior to beginning construction.**

Note: Follow T+J Manual for Installation Instructions

51 panels x 3.6 g/panel = 184 x 75% = 138 gallons/Dose

Irongate Subdivision

Owner: Reserve Properties Inc.

Tax Map: Lot 33 Parcel #: 19713103 Date: 5/31/07

Line #	Tap Diameter(in)	Tap (Sch)	Tap Flow (gpm)	Line Length (ft)	Flow / foot	Panels
1	1/2	40	7.1	60	0.12	14
2	1/2	40	7.1	60	0.12	14
3	1/2	40	7.1	55	0.13	12
4	1/2	80	5.5	50	0.11	11
5			26.8 gpm			51
6						
7						
8						
9						
10						

USE LPP DISTRIBUTOR!

_____ ft of line x 65 gal. per 100 ft = _____ _____ ÷ 100 = _____ gal

75% x _____ gal = 138 **gal per dose** 26.8 gal per minute (gpm) = **Flow Rate**

Friction Head

Loss: 1.54 ft per 100 ft of supply line x 100 ft of supply line ÷ 100 = 1.54 ft

1.54 ft x 1.2 = 1.8 ft of friction head

Manifold Size: 3 " **Force Main Size:** 2 " PVC

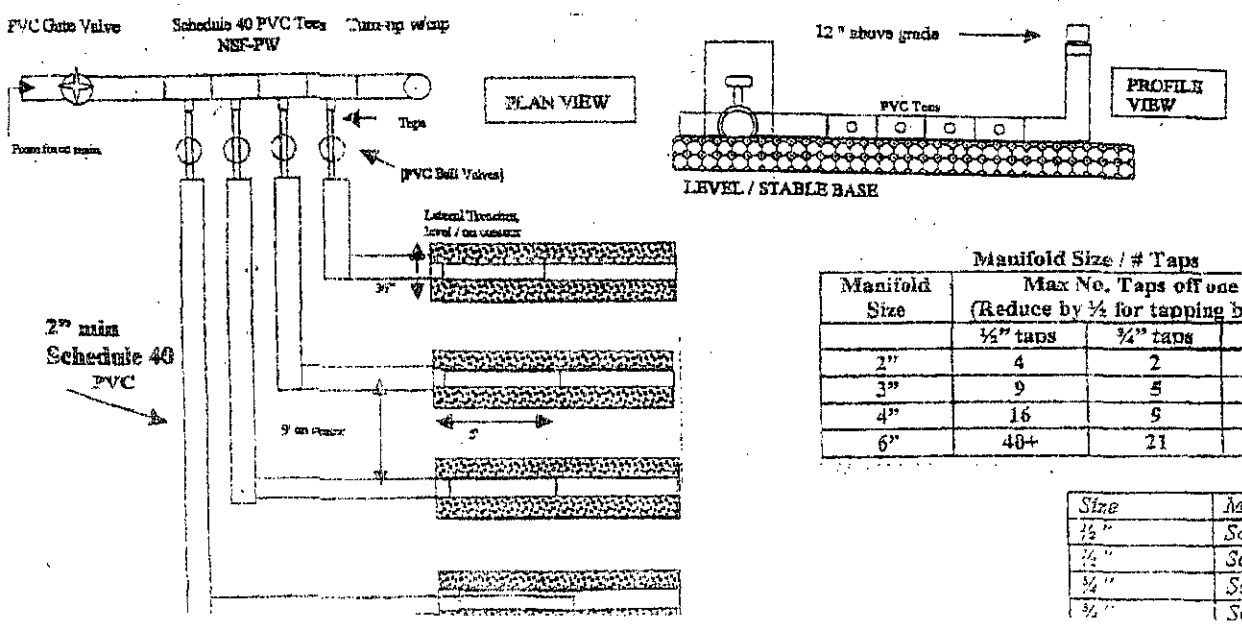
Total Dynamic Head = 0 ft of Elevation head + 2 ft of Pressure head + 1.8 ft of Friction Head = 3.8 TDH

Pump Requirement: 26.8 GPM @ 3.8 ft of Head

Drawdown: 138 gal per dose ÷ 21 gal per inch = 6.6 inch drawdown per dose

5.2 minute Pump Run Time

General Design Information



Manifold Size / # Taps

Manifold Size	Max No. Taps off one side (Reduce by ½ for tapping both sides)		
	½" taps	¾" taps	1" taps
2"	4	2	
3"	9	5	3
4"	16	9	5
6"	48+	21	12

Flow per Tap

Size	Material	Flow GPM
½"	Sched 80	5.5
½"	Sched 40	7.1
¾"	Sched 80	10.1
¾"	Sched 40	12.5

DAN SPANGLER
802 BRADFORD PLACE, MONROE, NC 28110
MOBILE: (704) 291-1909 OFFICE/ FAX: (704) 282-2319

PROPERTY ID #: 19723103
PROPERTY RECORDED:
COUNTY: Mecklenburg

SOIL/SITE EVALUATION
FOR
ON-SITE WASTEWATER SYSTEM

APPLICANT: Reserve Properties Inc. OWNER: ☐ AGENT: ☐ PHONE: 704-641-5898
ADDRESS: 1101 Lester Mullis Rd. DATE EVALUATED: 5/10/07
Indian Trail, NC 28079 PROPOSED FACILITY: 3-Bedroom House
PROPERTY SIZE: ~1 Acre
LOCATION OF SITE: Lot 33, Irongate Subdivision, Briar Road
WATER SUPPLY: On-Site Well ☐ Comm. Well ☐ Public ☑ Other _____ EVALUATION METHOD: Auger Boring ☑ Pit

PROFILE #	.1940 LANDSCP POS./ SLOPE %	HORIZON DEPTH (IN.)	.1941 (a)(1) TEXTURE	.1941 (a)(2) STRUCTURE	.1941 (a)(3) MINEROLOGY		
1	55	Bt. 0-40"	2.5YR 4/6 C	fr. 3fsbk	ms/sp	.1942 WETNESS CONDITION	- 740"
	12%					.1943/.1956 SAPROLITE	- 740"
						.1944 RESTRICTIVE HORIZON	- 740"
						.1948 PROFILE CLASSIFICATION	- Suitable
						PROFILE LTAR	- 0.3
						SYSTEM TYPE	- Conv. / PPBS
		COMMENTS: Eroded Cecil					
2	55	A-0-5"	10YR 5/4 fSL	fr. 2fgr	so/po	.1942 WETNESS CONDITION	- 748"
	12%	Bt-5-48"	2.5YR 4/6 C	fr. 3fsbk	ms/sp	.1943/.1956 SAPROLITE	- 748"
						.1944 RESTRICTIVE HORIZON	- 748"
						.1948 PROFILE CLASSIFICATION	- Suitable
						PROFILE LTAR	- 0.3
						SYSTEM TYPE	- Conv. / PPBS
		COMMENTS: Cecil					
3	55/toe	A-0-6"	10YR 5/4 fSL	fr. 2mgr	so/po	.1942 WETNESS CONDITION	- 748"
	10%	Bt. 6-48"	2.5YR 4/6 C	fr. 3fsbk	ms/sp	.1943/.1956 SAPROLITE	- 748"
						.1944 RESTRICTIVE HORIZON	- 748"
						.1948 PROFILE CLASSIFICATION	- Suitable
						PROFILE LTAR	- 0.3
						SYSTEM TYPE	- Conv. / PPBS
		COMMENTS:					
4						.1942 WETNESS CONDITION	-
						.1943/.1956 SAPROLITE	-
						.1944 RESTRICTIVE HORIZON	-
						.1948 PROFILE CLASSIFICATION	-
						PROFILE LTAR	-
						SYSTEM TYPE	-
		COMMENTS:					

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	03/05/15	**Amount:**	200.00
Receipt #:	93844	**Tendered:**	200.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	BEACHMS		

Account Information

Account #: X43281
Contractor: KNOTTS BUILDERS
Attn:
Address: P O BOX 687
Address:
City/State/Zip: PINEVILLE, NC 28134

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Septic Operational Permit 9917 VERAMONT		1	200.00	200.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
713.09					

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	03/05/15	**Amount:**	200.00
Receipt #:	93842	**Tendered:**	200.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	BEACHMS		

Account Information

Account #: X43281
Contractor: KNOTTS BUILDERS
Attn:
Address: P O BOX 687
Address:
City/State/Zip: PINEVILLE, NC 28134

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Septic Construction Authorizat 9917 VERAMONT		1	200.00	200.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
513.09					

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	01/13/15	**Amount:**	100.00
Receipt #:	92198	**Tendered:**	100.00
Check / Auth #:	CHECK 266	**Returned:**	0.00
Received By:	SADERLW		

Account Information

Account #: 200000
Contractor: JACOBS ON-SITE DEVELOPMENT IN
Attn:
Address: 168 BROADBILL DR
Address:
City/State/Zip: MOORESVILLE, NC 28117

Item	Description	Permit#	Quantity	Unit Price	Total Price
0704	Change in Plot Plan 9917 VERAMONTE CT		1	100.00	100.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
	10.00				

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6486 WASPS App #: 7249

Primary ES assigned to project: Brad Hellman

Secondary ES assigned to project: _____

Project Type: New System ☐ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law	*Permit Application*			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☑	No ☐	N/A ☐
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☑	No ☐	N/A ☐
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 6 pits			
	Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR 0.3 0.15 drip Repair	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☑	No ☐	N/A ☐
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☐	No ☐	N/A ☑
130A-336(a)(1)	Property line lengths shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐
	Operation Permit			
.1937(i)	System type as described in table V(a) of rule .1961	Yes ☐	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☐	No ☐	N/A ☐

II. WASPS Review:

Construction authorization issued	Yes ☐	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

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IA issued date: _____

OP issued date: _____

Review performed by: JAM Date performed: _____

Presley, Jacob

From: Toney Jacobs <toneycjacobs@gmail.com>
Sent: Friday, February 27, 2015 7:45 AM
To: Presley, Jacob
Subject: Fwd:

I called Trish after we talked, this is reply.

Toney C. Jacobs, LSS
Jacobs On-Site Development, Inc.
168 Broadbill Drive
Mooresville NC 28117
704 662 9845
704 582 9219

---------- Forwarded message ----------
From: **Angoli, Trish** <trish.angoli@dhhs.nc.gov>
Date: Thu, Feb 26, 2015 at 2:21 PM
Subject: RE:
To: Toney Jacobs <toneycjacobs@gmail.com>

Toney,

The answer I got from Alan is that he has always treated the daylight side of the basement as a five foot setback.

Let me know if you need anything else from me.

Hope you are dry and warm!!

Trish

Patricia M. Angoli, PE

NC Department of Health and Human Services

Environmental Engineer, On-Site Water Protection Branch, Division of Public Health

5605 Six Forks Rd

1642 Mail Service Center

Raleigh, NC 27699-1642

919-707-5878 (Office)

919-854-3973 (Fax)

trish.angoli@dhhs.nc.gov

http://publichealth.nc.gov

E-mail correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized State official. Unauthorized disclosure of juvenile, legally privileged, or otherwise confidential information, including confidential information relating to an ongoing State procurement effort, is prohibited by law. If you have received this e-mail in error, please notify the sender immediately and delete all records of this e-mail.

From: Toney Jacobs [mailto:toneycjacobs@gmail.com]
Sent: Wednesday, February 25, 2015 1:42 PM
To: Angoli, Trish
Subject:

I will call you back.

Toney C. Jacobs, LSS

Jacobs On-Site Development, Inc.

168 Broadbill Drive

Mooresville NC 28117

704 662 9845

704 582 9219

E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

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Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6486B WASPS App #: 799

Primary ES assigned to project: David Cornelius

Secondary ES assigned to project: ——

Project Type: New System ☑ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☑	No ☐	N/A ☐
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☑	No ☐	N/A ☐
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 1			
	Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☑	No ☐	N/A ☐
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
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130A-336(a)(1)	Proposed/existing well shown?	Yes ☑	No ☐	N/A ☐
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	Operation Permit			
.1937(i)	System type as described in table V(a) of rule .1961	Yes ☐	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☐	No ☐	N/A ☐

II. WASPS Review:

Construction authorization issued	Yes ☑	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

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IA issued date: _____

OP issued date: _____

Review performed by: Philo Walker Date performed: 10/17/07