N.C. Department of Environment and Natural Resources
Division of Environmental Health

Inspection of Engineered Subsurface Wastewater System

Mecklenburg County	10230 WILDLIFE RD	5688B
Health Department	**Name of Establishment**	**Permit/Project No.**
10230 WILDLIFE RD	RESIDENCE	600
Location	**Type of Establishment**	**Design Flow**
MCNALLY HOMES	10230 WILDLIFE RD	NA
Owner/Agent	**Address**	**Phone**
NA	CHARLOTTE NC 28214	
Operator	**Address**	**Phone**
IIIb	3/31/10	3/31/15
System Type	**Date of Inspection**	**Next Inspection Due**

	Yes	No	N/A	Comments:
1. ESTABLISHMENT:				
a. Type, size, and sewage flow in accordance with permit?	☒	☐	☐	
2. COLLECTION SYSTEM:				
a. No evidence of leaks into or out from sewer lines/manholes?	☒	☐	☐	
b. Free of blockages/solids buildup in lines or manholes?	☒	☐	☐	
3. TANKAGE: (Grease Traps/Lift Stations/Septic/Dosing Tanks)				
a. Tank risers accessible and surface water diverted?	☒	☐	☐	
b. Tanks and access manholes structurally sound, watertight?	☒	☐	☐	
c. Sanitary tee(s) in good working condition?.....	☐	☐	☒	3.c. Sanitary tee not inspected.
d. Tanks pumped, cleaned out as needed?.....	☐	☐	☒	
4. RAW SEWAGE LIFT STATION (if present):				
a. Required pumps present, operating, and cycling properly	☐	☐	☒	
b. High-water alarm present and operating properly?	☐	☐	☒	
c. Floats/pipe/valves/disconnects in good condition?	☐	☐	☒	
5. EFFLUENT DOSING SYSTEM:				
a. Effluent appears clear, free of excess solids?	☐	☐	☒	
A. PUMP SYSTEMS:				
a. Required pumps present, operating, and cycling properly?	☒	☐	☐	
b. High-water alarm present and operating properly?	☒	☐	☐	
c. Floats/pipe/valves/disconnects in good working condition?	☒	☐	☐	
d. Control panel enclosure/components in good condition?	☒	☐	☐	
e. Elapsed time readings: _____ _____ _____ _____				
B. SIPHON SYSTEMS:				
a. No evidence of overflow or siphon leakage?	☐	☐	☒	
b. Siphon(s) appear to be working/alternating properly?	☐	☐	☒	
c. Bells and vents free of debris and in good condition?	☐	☐	☒	

	Yes	No	N/A	Comments:
6. GROUND ABSORPTION FIELDS:				
a. No evidence of effluent surfacing/reaching surface waters?	☒	☐	☐	
b. Minimal ponding in subsurface trenches?	☒	☐	☐	
c. Surface water being effectively diverted away?	☒	☐	☐	
d. Diversions/ditches/swales/tiles drains properly maintained?	☒	☐	☐	
e. Line cover/vegetation adequate/maintained as needed?	☒	☐	☐	
f. Protected from traffic, destructive uses?	☒	☐	☐	
g. Distribution devices in good condition, working properly?	☒	☐	☐	
h. Repair area properly reserved, maintained?	☒	☐	☐	
A. LOW PRESSURE PIPE DRAIN FIELDS:				
a. Turnups/cleanouts/valves intact and accessible?	☐	☐	☒	
b. No effluent standing in lower laterals?	☐	☐	☒	
c. Laterals free of excess solids, cleaned out as needed?	☐	☐	☒	
d. Pressure head is properly adjusted?	☐	☐	☒	

OVERALL CONDITION AND OPERATION OF SYSTEM:
GOOD

SUMMARY OF REPAIRS REQUIRED AT THIS TIME:

***REPAIR WITHIN DAYS.**

SYSTEM MAINTENANCE/IMPROVEMENTS REQUIRED:
*The MCHD recommends having the tanks (septic & dosing) pumped out every 3 to 5 years to remove excess solids.
*Please visit http://groundwater.charmeck.org for additional information.

DATE: 3/31/10

SIGNED: _____ AGENT
Division of Environmental Health

Printed Name: PHILO WALKER
Phone #: 704-336-5570

FEE: 200.00 CK # 1726

DATE: 8/13/04 GC

APPLICATION FOR IMPROVEMENT PERMIT FOR RESIDENTIAL SITE INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM

[ ] CRT

TYPE APPLICATION: X NEW SYSTEM __ EXPANSION/ ALTERATION OF EXISTING SYSTEM __ REPAIR OF EXISTING SYSTEM

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

FILE #: 56,886

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 199-371-03 PU

STREET ADDRESS:

SUBDIVISION OR MOBILE HOME PARK NAME: The Sanctuary At Lake Wylie, LLC

LOT NUMBER: 32

TYPE OF BUILDING (CHECK ONE):

__ SINGLE MOBILE HOME(S) __ MODULAR HOME (M)
__ DOUBLE WIDE (D) __ MULTIPLE FAMILY (U)
X HOUSE (H) __ OTHER (O)

TOWNSHIP (CHECK ONE):

✓ 0 MECKLENBURG __ 4 PINEVILLE
__ 1 CHARLOTTE __ 5 MATTHEWS
__ 2 DAVIDSON __ 6 HUNTERSVILLE
__ 3 CORNELIUS __ 7 MINT HILL

HEATED SQUARE FOOTAGE:

NUMBER OF BEDROOMS: 5 NUMBER OF OCCUPANTS:

CLOSING DATE_____

FOUNDATION FOR RESIDENCE:

__ WITHOUT BASEMENT
__ ON SLAB
__ CRAWL SPACE
X WITH BASEMENT /PLUMBING
__ WITH BASEMENT /NO PLUMBING

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: __ YES ✓ NO TYPE: _____

WATER SUPPLY (CHECK ONE):

__ COMMUNITY (C) ✓ MUNICIPAL (M) __ PRIVATE WELL (P)
__ SHARED WELL (S) __ OTHER 'SPRINGS' (O)

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES	__ YES ✓ NO	WELL, SPRINGS OR WATERLINES	__ YES ✓ NO
EXISTING WASTEWATER SYSTEMS	__ YES ✓ NO	DESIGNATED WETLANDS	__ YES ✓ NO
EASTMENTS OR RIGHT-OF-WAYS	✓ YES __ NO		

PROPERTY OWNER:

NAME: (LAST) The Sanctuary at Lake Wylie, LLC (FIRST) (MI)

ADDRESS: 10933 Ballantyne Crossing Ave

CITY: Charlotte STATE: NC ZIP: 28277

DAYTIME PHONE: (704) 544-0201 ext 226

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: (LAST) Jacobs (FIRST) Tonya (MI) C

DAYTIME PHONE: 704 663-6905

m 704 582 9219

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? _____

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 agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED: Tonya C Jacobs, CPSS (Agent) DATE: 8-13-04

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

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

Sheet: 1 of 2
Property ID: PO 199-371-03
Lot #: 32
File #: 5688B
Code: 1

ACS

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary at Lake Wylie
Applicant: Toney Jacobs
Address: 10933 Ballantyne Crossing Ave., Charlotte, N. C. 28277
Date Evaluated: 10/27/2004
Proposed Facility: Residence
Design Flow (.1949): 600gpd
Property Size: .75a. Inv.
Location of Site: Old Camp Trail
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] 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, 8	0-3	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		3-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
2	"	0-2	GR/CL	FR/SEXP/SS/SP	"	"	"	"	"
		2-48	SBK/C	FI/SEXP/S/P					
3	"	0-2	GR/CL	FR/SEXP/SS/SP	>49" TO SOIL WETNESS	49+	"	"	"
		2-48	SBK/C	FI/SEXP/S/P					
4	LS, 12	0-4	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	"	"	"
		4-48	SBK/C	FI/SEXP/S/P					

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

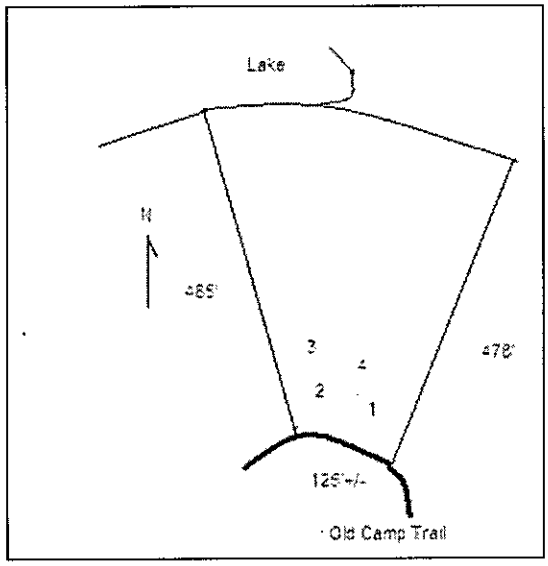
Other Factors (.1946):
Site Classification (.1948): PROVISIONALLY SUITABLE
Evaluated By: W. R. Marlin, LSS, 10/29/2004, W. R. Marlin
Others Present:

COMMENTS:
100% repair required

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



TONEY C. JACOBS & ASSOCIATES, INC.

Consulting Soil Scientists

Licensed by the North Carolina Board for Licensing of Soil Scientists

Certified by the American Registry of Certified Professionals in Agronomy, Crops and Soils

168 Broadbill Drive
Mooresville, NC 28117
Phone (704) 663-6905
Fax (704) 662-9848 E-mail jacobs@i-america.net

January 17, 2005

To: Mr. David Cornelius, R.S.
Mecklenburg County Env. Health Dept.

From : Toney C. Jacobs
Paul G. Penninger

RE: Request for an Improvement Permit for lot 32 at The Sanctuary:
MCHD file #5688B

Crescent Resources is requesting an Improvement Permit for lot 32 at The Sanctuary Subdivision for a 5 bedroom, basement home. Mr. Bill Marlin of the MCHD evaluated the soils on 10-29-04 and determined the septic area is PS at an 0.3 gpd/ft^2 LTAR. Toney C. Jacobs and Associates, Inc. has flagged a LP PPBPS system and repair on the lot, as shown on the attached sketch.

We understand a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The buyer of the lot will apply for the ATC. If the buyer's house pad does not fit in the "building envelope" shown on the Improvement Permit, we understand the proposed system may have to be modified prior to your office issuing the ATC. **No grading shall take place on lot prior to obtaining the ATC from the MCHD.**

Tri-County Wastewater (TCWW) is under contract to supply maintenance services for each septic system installed at The Sanctuary. TCWW will have a list of preferred septic contractors for the subdivision and will also have requirements for the installation of the septic systems that are greater that the state requirements. It will be the responsibility of TCWW to enforce any requirements above state requirements or the conditions on the Improvement Permit or ATC.

Please review the attached system sketch and design specifications for the Improvement Permit. Please call if you have and questions, comments, or corrections.

Design Specifications for Lot 32 at

The Sanctuary, MCHD File # 5688B

System Type:	primary:	LP PPBPS
	repair:	LP PPBPS
Daily design flow:		600 gpd
Septic tank size:		1500 gal. (2 compartments)
Pumping tank size:		1500 gal.
Effluent loading rate:		0.3 gpd/ft^2 for primary and repair
Number and length of laterals:		3@ 114 ft., centerfed
Number of panels required:		26 per 114 ft. line for a total of 78 panels
Flow rate through the system:		39 gpm (use 3/16 in. holes with 3 ft. head pressure)
Pump requirements:		to be calculated by installer or owners agent when specific house and pump tank location are available
Dosing volume:		*approx. 280 gal. (3.6 gal. per panel) – 2.2 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.)
Check valve:		YES
Siphon break hole:		No

*Note: Before placement of cap block, one panel on each line, near the center of the field should be observed filling to make certain that it does not overflow the top chamber into the air chambers. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

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

Sheet: 1 of 2
Property ID: PO 199-371-03
Lot #: 32
File #: 5688B
Code: 1

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary at Lake Wylie
Applicant: Toney Jacobs
Address: 10933 Ballantyne Crossing Ave., Charlotte, N. C. 28277
Date Evaluated: 10/27/2004
Proposed Facility: Residence
Design Flow (.1949): 600gpd
Property Size: .75a. Inv.
Location of Site: Old Camp Trail
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	SOIL MORPHOLOGY .1941		OTHER PROFILE FACTORS				
	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	.1941 Structure/ Texture	.1941 Consistence Mineralogy	.1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-3	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		3-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
2	"	0-2	GR/CL	FR/SEXP/SS/SP	"	"	"	"	"
		2-48	SBK/C	FI/SEXP/S/P					
3	"	0-2	GR/CL	FR/SEXP/SS/SP	>49" TO SOIL WETNESS	49+	"	"	"
		2-48	SBK/C	FI/SEXP/S/P					
4	LS, 12	0-4	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	"	"	"
		4-48	SBK/C	FI/SEXP/S/P					

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

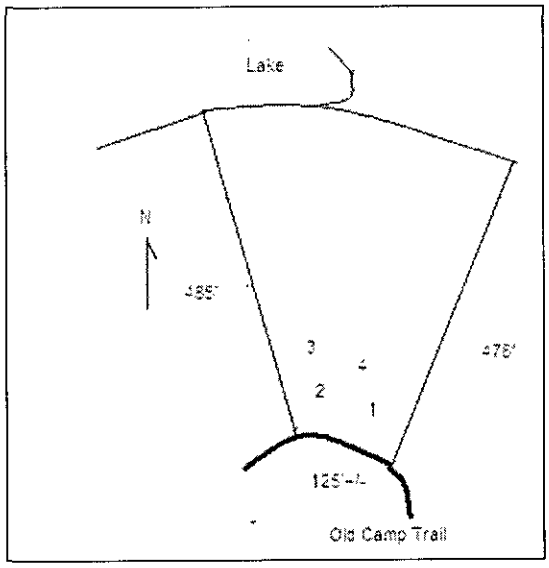
Other Factors (.1946):
Site Classification (.1948): PROVISIONALLY SUITABLE
Evaluated By: W. R. Marlin, LSS, 10/29/2004,
Others Present:

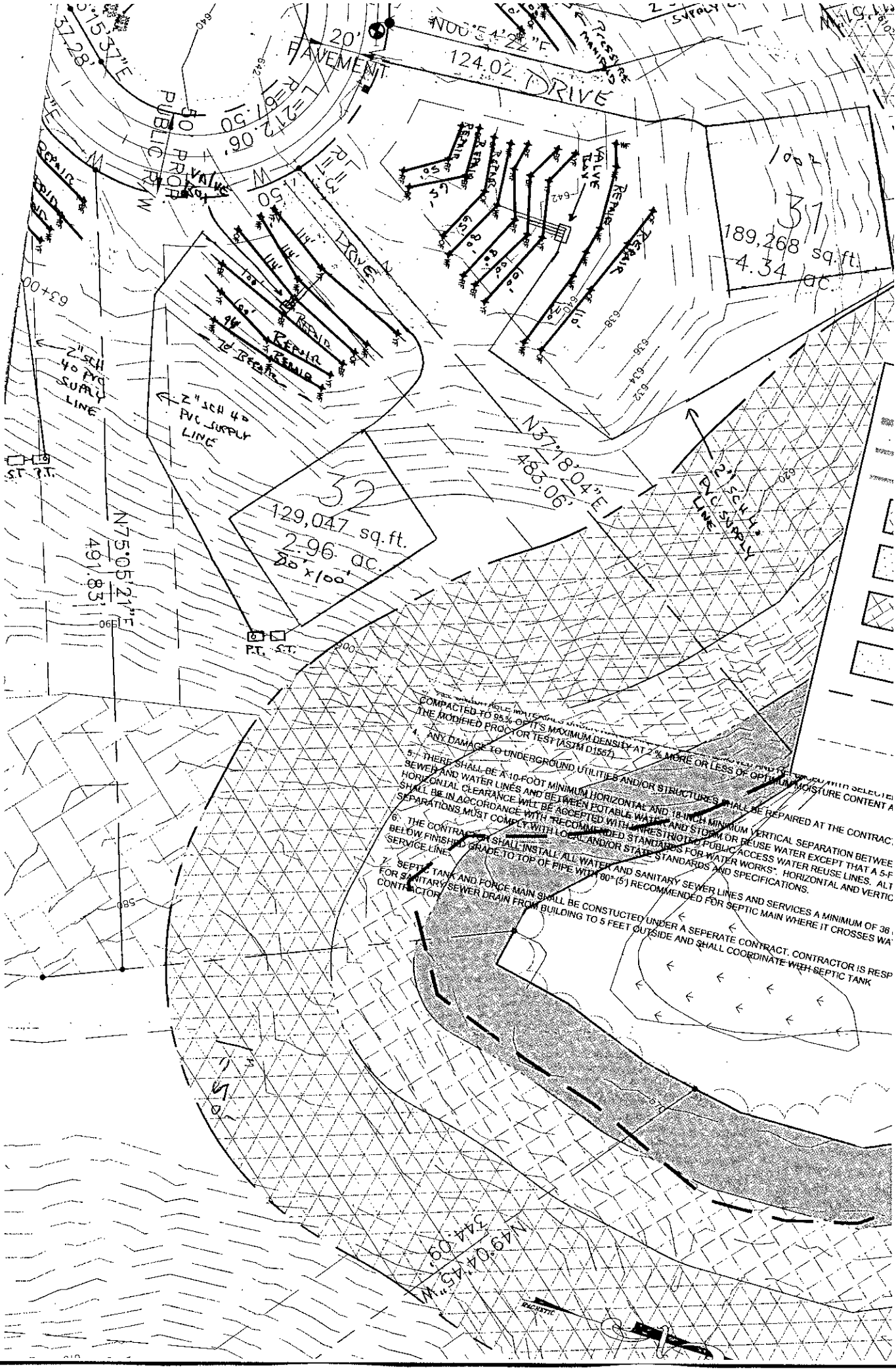
COMMENTS:
100% repair required

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





COMPACTED TO 95% OF IT'S MAXIMUM DENSITY AT 2% MORE OR LESS OF OPTIMUM MOISTURE CONTENT A
THE MODIFIED PROCTOR TEST (ASTM D1557)

4. ANY DAMAGE TO UNDERGROUND UTILITIES AND/OR STRUCTURES SHALL BE REPAIRED AT THE CONTRAC

5. THERE SHALL BE A 10-FOOT MINIMUM HORIZONTAL AND 18-INCH MINIMUM VERTICAL SEPARATION BETWEE
SEWER AND WATER LINES AND BETWEEN POTABLE WATER AND STORM OR REUSE WATER EXCEPT THAT A 5-F
HORIZONTAL CLEARANCE WILL BE ACCEPTED WITH UNRESTRICTED PUBLIC ACCESS WATER REUSE LINES. ALT
SHALL BE IN ACCORDANCE WITH "RECOMMENDED STANDARDS FOR WATER WORKS". HORIZONTAL AND VERTIC
SEPARATIONS MUST COMPLY WITH LOCAL AND/OR STATE STANDARDS AND SPECIFICATIONS.

6. THE CONTRACTOR SHALL INSTALL ALL WATER AND SANITARY SEWER LINES AND SERVICES A MINIMUM OF 36
BELOW FINISHED GRADE TO TOP OF PIPE WITH 80" (5') RECOMMENDED FOR SEPTIC MAIN WHERE IT CROSSES WA
SERVICE LINE.

7. SEPTIC TANK AND FORCE MAIN SHALL BE CONSTUCTED UNDER A SEPERATE CONTRACT. CONTRACTOR IS RESP
FOR SANITARY SEWER DRAIN FROM BUILDING TO 5 FEET OUTSIDE AND SHALL COORDINATE WITH SEPTIC TANK
CONTRACTOR.

CONDITIONS OF IMPROVEMENT PERMIT

Permit Number: **5688B** Tax Number: **199-371-03**

- The IMPROVEMNET 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.

Basement: ☒ Yes ☐ No ☐ Partial Basement

Primary Wastewater System

Type: ☐ I ☐ II ☒ III ☐ IV ☐ V ☐ VI

☐ Conventional
☒ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional

☒ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other

☐ Innovative or Experimental:

0.3 Long-term acceptance rate (GPD/ft^2)	600 Max gallons/day wastewater flow	1000 Absorption Area (ft^2)	8 Trench spacing (min. on centers) (ft)
Serviced by private well: ☐ Yes ☒ No	1500 Gallon septic tank	360 Total trench length (ft)	24 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
5 Bedrooms in residence	*1500 Gallon pump tank*	*na Depth of stone (in)*	

Any surface water present: **No** Type: Minimum separation distance (ft):

Additional conditions: **Install according to plans on file submitted by Toney Jacobs and Associates. Lot #32**

Repair Area System

Type: ☐ I ☐ II ☒ III ☐ IV ☐ V ☐ VI

☐ Conventional
☒ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional

☒ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other

☐ Innovative or Experimental:

1000 Absorption Area (ft^2) 360 Total trench length (ft)	na Depth of stone (in)	8 Trench spacing (min. on centers) (ft)	24 Maximum trench depth (in)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HELTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. The approval is granted in accordance with the provisions of Laws and Rules For Sewage, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

*** No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair Approval is granted by this Department.

*** This Improvement permit is transferable.

DENR Authorized Agent — Date 3/15/05

Owner/Agent Signature — Date 3/15/05

MECKLENBURG COUNTY
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR.
SUITE 211
700 N. TRYON ST.
CHARLOTTE, NC 28202
(704) 336-5103

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL, HEALTH, AND
NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

FEE: $300.00 V.W.
DATE: 9/12/05 AP 245857

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

PERMIT NUMBER: 5688B
PARCEL NUMBER: 199-371-03

#437 pd $100 chg in plot plan chk 2/2nd/06 gc

LD Project # 145620

JOB LOCATION ADDRESS: 10230 Wildlife Road
PROPERTY OWNER: McNally Homes
BUILDING CONTRACTOR: McNally Homes
SUBDIVISION NAME: The Sanctuary @ Lake Wylie
AUTHORIZATION ISSUED BY: David Cornelius, RS DATE: 09/12/05

DENR/DEH AUTHORIZED AGENT 9/12/05

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 5688B, 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, CONSTRUCTION, ALTERATION AND/OR REPAIR 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.

5. OTHER CONDITIONS:
   Install according to plans on file submitted by Toney Jacobs and Associates, 1/17/05.

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 #: **30000437** GWS File #: **5688B** Tax Parcel #: **199-601-15**

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

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 3/2/2011

Type of Installation: Residential - Modified Plot Plan Lot Number: 32
Structure Type: HOUSE Size (ft^2): 15000 # Bedrooms: 5 # Occupants: 2
Building Foundation: Basement With Plumbing Water Supply: Municipal

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

Initial System Specifications:

Design Flow (gpd):	600	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):	999	Total Trench Length (ft):	333
Maximum Trench Depth (in):	42	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

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

Repair System Specifications:

Design Flow (gpd):	600	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):	999	Total Trench Length (ft):	333
Maximum Trench Depth (in):	0	Depth of Media (in):	N/A	Distribution Device:	N/A		

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 tank system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic tank 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: Zach Petersen Owner/Legal Agent: Steven McNally
Print Name
Signature: Signature:
Date Issued: 3/2/2006

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 #: **30000437** GWS File #: **5688B**

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 systems 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.
- 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.
- Any further damage to septic area may make the lot unsuitable.

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 tank system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic tank 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: Zach Petersen

Signature: Zach Petersen EHS/RS

Date Issued: 3/2/2006

Owner/Legal Agent: Steven McNally
Print Name

Signature: Steven McNally

S&ME

Date: February 20, 2006

To: Mr. Zack Petersen, R.S.
Mecklenburg County Env. Health Dept.

From: Paul G. Penninger, LSS
Toney C. Jacobs, LSS

RE: **Request for revisions to the Improvement Permit for Lot 32** at The Sanctuary:
MCHD File #5688B

The Sanctuary at Lake Wylie is requesting a revision to the Improvement Permit for the above referenced lot. Mr. Bill Marlin has evaluated the soils (see attached MCHD soil sheets) and S&ME, Inc. has flagged the revised system and repair on the lot. The septic lines have been located by the surveyor and are shown on the attached maps provided by McNally Homes, Inc. The builder has graded the septic area originally approved by the MCHD so the original Improvement Permit citing a January 17, 2005 plan should no longer be valid.

Now that the proposed system has been revised we strongly recommend fencing the entire primary and repair areas from any grading or other potential damage. This includes any area within 15 feet of the proposed system and repair. Any further grading by the builder should be approved by the MCHD with strict supervision of the grading contractor. Any further damage to the septic area may make the lot unsuitable.

Tri-County Wastewater (TCWW) is under contract to supply maintenance services for each septic system installed at The Sanctuary. TCWW will have a list of preferred septic contractors for the subdivision and will also have requirements for septic system installation that are greater than the MCHD and State requirements. It will be the responsibility of TCWW to enforce any requirements above State requirements or the MCHD conditions on the Improvement Permit.

Please review the attached system sketch and design specifications for the Improvement Permit. Any additions or revisions you feel are necessary can be made on the Improvement Permit. Please call in you have and questions or comments.

S&ME, Inc.
385 Timber Road, Suite 104
Mooresville, North Carolina 28115-7899

(704) 662-8625
(704) 662-8735 fax
www.smeinc.com

Lot 32 The Sanctuary Septic System Revision

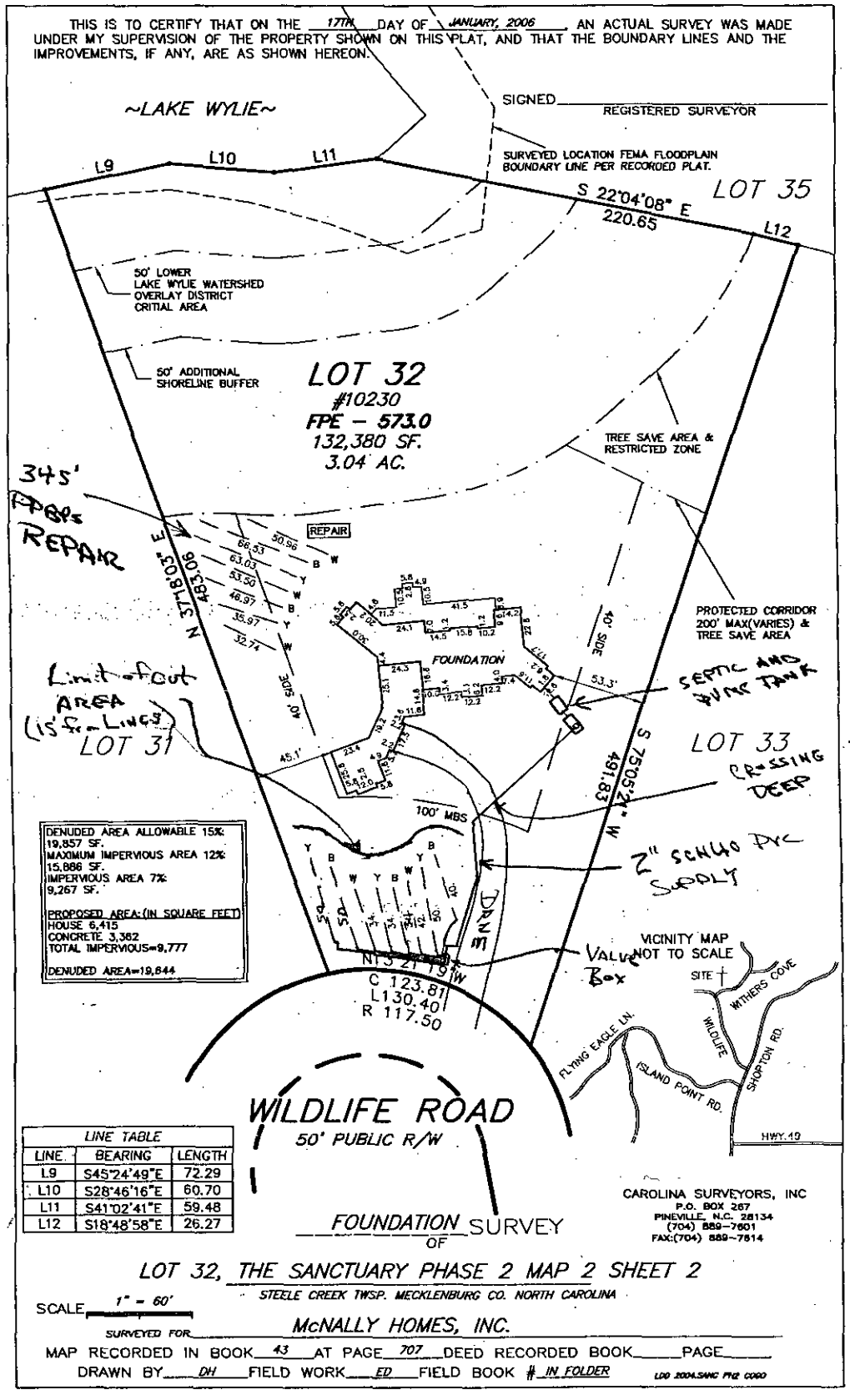
Number of Bedrooms	5
Basement or Crawl	Basement
Design Flow (gpd)	600
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	8 (See Table)
Total Linear Feet	334
Trench Width	3' min.
Trench Spacing	9' min.
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	160' of 2" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	36 gpm
Elevation head	to be determined by installer
Pressure head	3.0'
Friction head	approx. 6'
20% Contingency	by installer
Total Head	by installer
Pump Requirements	by installer
Dosing Volume	259 gal -2.3 doses/day @ design flow*
Volume 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. 7.2 min.
Check Valve	Yes
Siphon Break hole	No
Repair System	**LP PPBPS**
Total Linear Feet	345

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Table 1: Summary of Primary Field Line Specifications (lot 32 revision)

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	yellow	LPPPBPS	50' endfed	11	11	1 per panel	5/32"
2	System	blue	LPPPBPS	50' endfed	11	11	1 per panel	5/32"
3	System	white	LPPPBPS	34' endfed	7	7	1 per panel	5/32"
4	System	yellow	LPPPBPS	34' endfed	7	7	1 per panel	5/32"
5	System	bllue	LPPPBPS	34' endfed	7	7	1 per panel	5/32"
6	System	white	LPPPBPS	42' endfed	9	9	1 per panel	5/32"
7	System	yellow	LPPPBPS	50' endfed	11	11	1 per panel	5/32"
8	System	blue	LPPPBPS	40' endfed	9	9	1 per panel	5/32"
					Total: 72	Total: 72 (1 in each panel turned up)		
				Total System: 334'				
				Total Repair: 345'				

Tank		1500 gal (2 compartment)	
Pump Tank		1500 gal.	



CAROLINA SURVEYORS, INC
P.O. BOX 267
PINEVILLE, N.C. 28134
(704) 889-7601
FAX:(704) 889-7614

SME 2-20-06

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

LOT #~~46~~ 32 SANCTUARY

NC DENR
Division of Environmental Health
On-Site Wastewater Section

INSTALLATION APPROVAL for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 56888 Permit #: _____ Tax Parcel #: 199-601-15

Property Owner: MCNALLY HOMES

Job Location Address: 10230 WILDLIFE RD. LOT #32

City: CHARLOTTE State: NC Zip Code: _____

Installation Approval Issuance Date: 10/30/06

Permission is hereby given to ☑ install ☐ alter ☐ repair an on-site wastewater treatment & and disposal system, with subsurface soil absorption and effluent discharge, as specified herein at the described location. This approval is granted based upon the application information submitted to our office. All work shall be completed on or before 11/20/06, after which date this approval shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 1900 which are in effect on the date of granting this approval. An **Operation Permit** must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now of hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

***NOTICE: This system shall not be installed while soils are in a wet condition.**

Permitted Design Flow: 600 GPD

Site LTAR: 6.3 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Drainfield Design ☐ N/A

Trench Depth: 42 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 334 feet

# of Lines: 8 @ VAR feet

Depth of Media: _____ inches (Type) ITA, 50% RED

Distribution Device: VALVE BOX PANEL BLOCK

LINES: 40
50
(3) 42
34
(2) 50

Bed Design *(For Repair Installations ONLY.)* ☑ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Distribution Device: _____

Water Supply Source

☐ Municipal ☐ Private Well ☑ Community Well

☐ Other _____

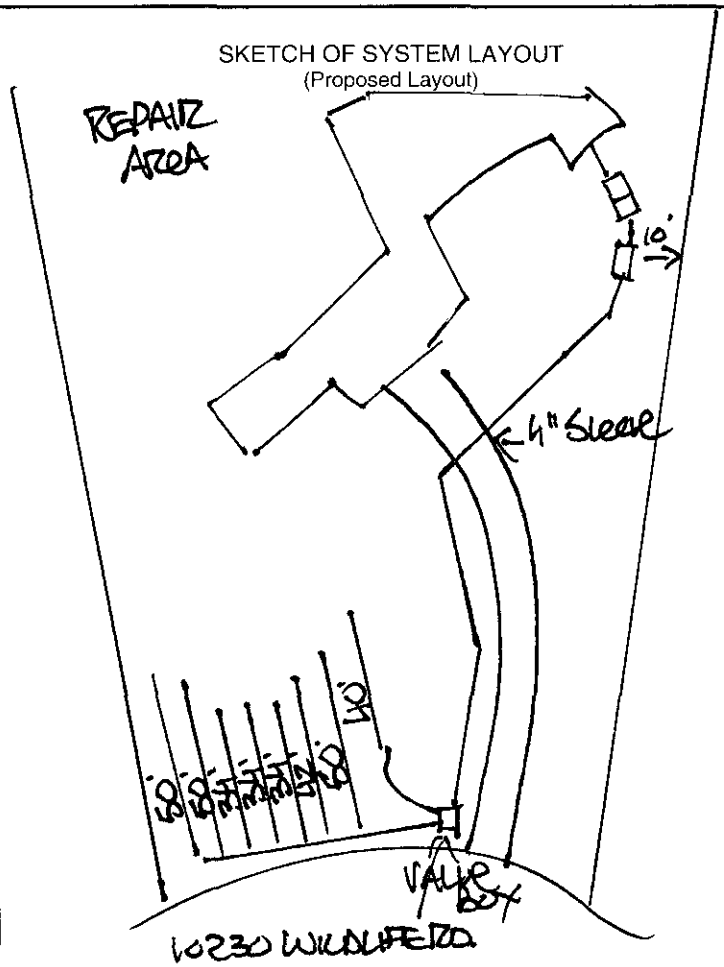
Minimum System Setbacks BASEMENT = >15'

Distance from Building Foundation: 75 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 7100 feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)



Comments: System Classification & Type: ITA, 50% REDUCTION, PANEL BLOCK. INSTALL SYSTEM ACCORDING TO PLANS ON FILE SUBMITTED BY STME 2/20/06.
*MAINTENANCE AGREEMENT W/ CERTIFIED OPERATOR REQ. B/F TO RELEASE.

DENR Authorized Agent: DAVID CORNELIUS Signature: _____ IRS

5688B
50th Hand

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

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

File #: 5688B Permit #: _____ Tax Parcel #: 199-601-15

Property Owner: McNALLY HOMES

Job Location Address: 10230 WILDLIFE RD. (LOT #32)

City: CHARLOTTE State: NC Zip Code: 28214

Operation Permit Issuance Date: 3-23-07 Contractor Name: STANLEY

Permitted Design Flow: 600 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: MYERS (~~3hp~~) 1hp ME100

Drainfield Installation ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 351 feet

# of Lines: 8 @ VAR feet

Depth of Media: 24 inches (Type) SAND

Depth of Cover: 12 inches

Distribution Device: GATE VALVE

Inspection Dates

Tank(s) Inspected: 10/31/06

Excavation Inspected: 10/31/06

Pump & Controls Inspected: 3/23/07 3 Head Pressure Set.

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

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☑ Municipal ☐ Private Well ☐ Community Well

☐ Other _____

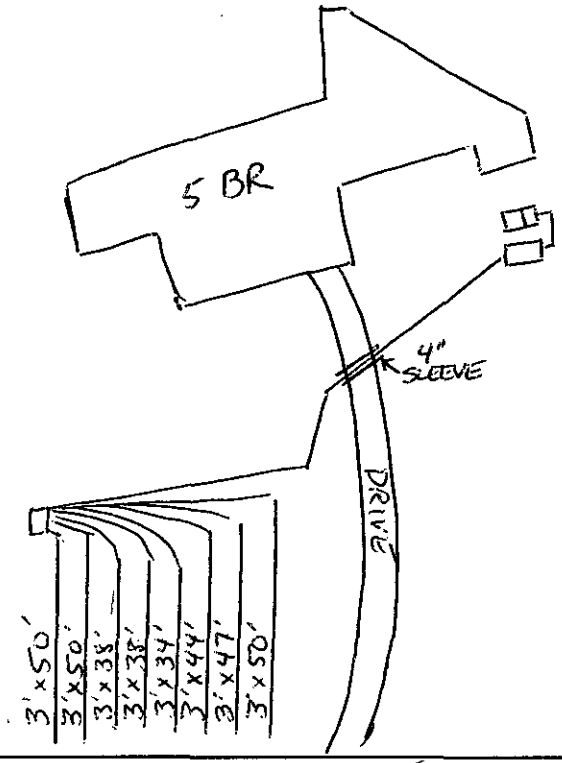
System Installation Setbacks

Distance from Building Foundation: 25 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 10 feet

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



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

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

Comments: System Classification & Type: TYPE IIa PBBS 50% REDUCTION

DENR Authorized Agent: Jeremy Michael Signature: Jeremy Michael

ON SITE SEWAGE TREATMENT CONTRACT AND AGREEMENT

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

CONTRACT FOR INSPECTION AND MAINTENANCE GROUND ABSORPTION SEWAGE TREATMENT AND DISPOSAL SYSTEM LOT NUMBER 32, PARCEL A ('THE LOT') THE SANCTUARY

(I), (WE), as the owners of Lot(s) Number 32, Parcel A of the subdivision known as The Sanctuary, have certain duties and responsibilities for the maintenance of any ground absorption sewage treatment and disposal system as regulated and set out in N.C.G.S. Article II, Chapter 130A; T15A-C18-S18A.1961 "Maintenance of Sewage Systems"; and under the "Declaration of Covenants, Conditions and Restrictions-The Sanctuary", (the "Declaration") as recorded in the Register of Deeds of Mecklenburg County, North Carolina, in Book 17763, Page 774, and under the Bylaws of The Sanctuary Owners Association, Inc.

The Sanctuary Owners Association, Inc. ("The Association") in order to provide for uniform inspection, maintenance, and repair and operation of sewage treatment and disposal systems within The Sanctuary, has entered into a Master Agreement dated the 8th day of November, 2004, which Master Contract with Tri-County Wastewater Management, Inc., a memorandum of which is recorded in Deed Book 18067, Page 130-138 in the office of the Register of Deeds for Mecklenburg County, North Carolina and is incorporated fully by this reference thereto.

The undersigned lot(s) owner(s) hereby agrees and contracts with Tri-County Wastewater Management, Inc. and with The Sanctuary Owners Association, Inc. as follows:

1. The Master Contract referred to above is hereby accepted, agreed, and is binding upon the undersigned with Tri-County Wastewater Management, Inc. and its successors and assigns. The undersigned lot owner(s), their successors, and assigned agree to be bound by this Master Contract and any further or future contracts in substitution thereof.

2. The undersigned lot owner(s) further acknowledge and agree that The Sanctuary Owners Association, Inc. ecting by and under it's Declaration of Covenants, Conditions, and Restrictions-The Sanctuary, has recorded in Book 17763 at Page 774 in the office of the Register of Deeds for Mecklenburg County, North Carolina has and is hereby granted the full power and authority to assess the undersigned for fees, expenses, and costs associated with the inspection, maintenance, and or repair of septic disposal systems on the lot.

This agreement is binding upon the undersigned, their heirs, administrators, personal representatives, successors, and assigns, and the transfer and assignment of the duty and responsibility to contract with a qualified maintenance contractor (operator) is a covenant running with the land ("The Lot"). This agreement will terminate: (1) when The Association is dissolved or liquidated; or (2) when the undersigned has no legal duty to maintain a sewage disposal system on "The Lot".

Witness our hands and legal seals, this 22 day of March, 2007.

Steven McNally (SEAL)
Signature

Steven McNally
Owners Printed Name

Melissa Ingram
Notary Public

My Commission Expires 9.20.2010

(SEAL)
Signature

Owners Printed Name