

LOT 118

1/11/2008

duponbj

Groundwater and Wastewater Services File Imaging Project

May 2007

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Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6933B WASPS App #: 1890

Primary ES assigned to project: CS

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: 5 Were sufficient auger borings made?	Yes ☐	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR .3	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 ☐

Comments: # Items requiring correction/modification: _____

IA issued date: _____

OP issued date: _____

Review performed by: KR Date performed: 6.26.07

FILE NUMBER: 6933B

Revised On: January 3, 2007

APPLICATION NUMBER: 1890

SEPTIC FEE: 200
DATE: 2/9/07
CHK 10179

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

WELL FEE: _____
DATE: _____

1. SEPTIC / TYPE APPLICATION: ☐ NONE ☒ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFIED PLOT PLAN

2. WELL / TYPE APPLICATION: ☒ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

3. JOB LOCATION INFORMATION:

TAX PARCEL NUMBER: 19935302-PO
STREET ADDRESS: Island Point Rd.
CITY: Charlotte
STATE: NC ZIP: 28278
SUBDIVISION NAME: The Sanctuary of Lake Wylie
LOT #: 118 LOT SIZE (acres): 6.59
TOWNSHIP:
☒ 0-MECKLENBURG ☐ 3-CORNELIUS ☐ 6-HUNTERSVILLE
☐ 1-CHARLOTTE ☐ 4-PINEVILLE ☐ 7-MINT HILL
☐ 2-DAVIDSON ☐ 5-MATTHEWS

4. BUILDING INFORMATION:

BUILDING TYPE:
☐ SINGLE MOBILE HOME ☐ MODULAR HOME
☐ DOUBLE WIDE ☐ MULTIPLE FAMILY
☒ HOUSE ☐ OTHER _____
HEATED SQUARE FOOTAGE: 4500
NUMBER OF BEDROOMS: 5
NUMBER OF OCCUPANTS: 10
FOUNDATION TYPE:
☐ CONCRETE SLAB ☒ BASEMENT WITH PLUMBING
☐ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

5. IF PLANNING TO EXPAND OR ALTER THE EXISTING 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 ☐ PUBLIC WELL ☐ PRIVATE WELL ☐ SHARED WELL ☐ SPRING

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

8. PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE *(1-MOST DESIRED 5-LEAST DESIRED):*

8A. RANK: ☒ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

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 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

10. PROPERTY OWNER:

NAME: The Sanctuary of Lake Wylie
ADDRESS: 11104 Limehurst PL.
CITY: Charlotte
STATE: NC ZIP: 28278
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-295-1638 FAX:

11. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Paul Penninger, S+ME
ADDRESS: 385 Timber Rd, St. 104
CITY: Mooresville
STATE: NC ZIP: 28115
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-996-6330 FAX: 704-662-8735

12. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? N/A
13 WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? May, 2007

14. SEPTIC SYSTEM PERMIT APPLICATION SIGNATURE SECTION:
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 60 months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

02/01/07
Property Owner's or Owner's Legal Representative Signature Date

15. WELL PERMIT APPLICATION SIGNATURE SECTION:
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 12 months from the date of issuance.

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

☐ SURVEY PLAT TO SCALE SUBMITTED ☒ SCALED SITE PLAN SUBMITTED ☐ UN-SCALED SITE PLAN SUBMITTED

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

Sheet: 1 of 2
Property ID: PO 199-353-02
Lot #: 118
File #: 6933B
AppID: 1890

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary of Lake Wylie
Applicant: S & ME- Paul Penninger
Address: 11104 Limehurst Place, Charlotte, N. C. 28278
Date Evaluated: 2/26/07
Proposed Facility: Residence
Design Flow (.1949): 600gpd
Property Size: Approx. .6a inv.
Location of Site: Island Point Road
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 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 18	0-6	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		6-48	SBK/ABK/C	FI/SEXP/S/P					.3GPD/FT
2	LS, 20	0-4	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		4-48	SBK/C	FI/SEXP/S/P					
3	LS, 15	0-6	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		6-48	SBK/C	FI/SEXP/S/P					
4	"	0-7	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		7-48	SBK/ABK/C	FI/SEXP/S/P					
5	LS, 10	0-2	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		2-48	SBK/ABK/C	FI/SEXP/S/P					
					SITE LTAR .3GPD/FT^2				

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)		
Site LTAR		

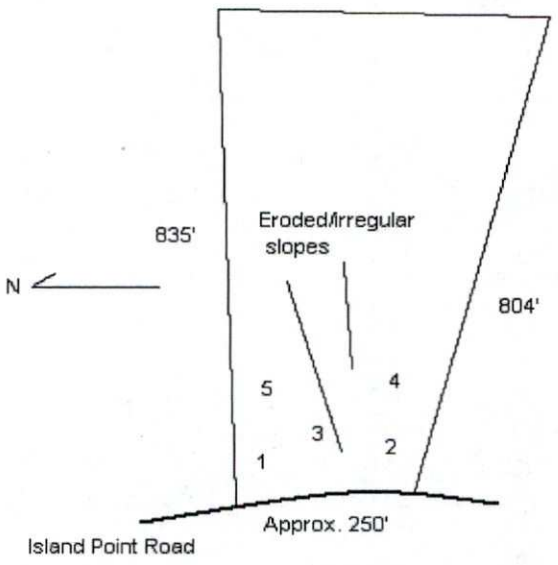
Other Factors (.1946):
Soil Evaluation By: W. R. Marlin, LSS, 2/27/2007,
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

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-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				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

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

Sketch of Soil Evaluation Locations



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

Sheet: 1 of 2
Property ID: PO 199-353-02
Lot #: 118
File #: 6933B
AppID: 1890

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary of Lake Wylie
Address: 11104 Limehurst Place, Charlotte, N. C. 28278
Proposed Facility: Residence Design Flow (.1949): 600gpd
Location of Site: Island Point Road
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

Applicant: S & ME- Paul Penninger
Date Evaluated: 2/26/2007
Property Size: Approx. .6a inv.
Property Recorded:

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 18	0-6	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		6-48	SBK/ABK/C	FI/SEXP/S/P					.3GPD/FT
2	LS, 20	0-4	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		4-48	SBK/C	FI/SEXP/S/P					
3	LS, 15	0-6	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		6-48	SBK/C	FI/SEXP/S/P					
4	"	0-7	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		7-48	SBK/ABK/C	FI/SEXP/S/P					
5	LS, 10	0-2	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		2-48	SBK/ABK/C	FI/SEXP/S/P					
					SITE LTAR .3GPD/FT^2				

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIb	IV a
Site LTAR	.3 gpd/ft2	.3 gpd/ft2

Other Factors (.1946):
Soil Evaluation By: W. R. Marlin, LSS, 2/27/2007,
Others Present:
Site Classification (.1948): PS
Site Evaluation By: C.Sherrill, RS,LSS
Others Present: P.Penninger

COMMENTS:
100% repair required

Landscape Position	Group	Texture	.1955 LTAR
R-Ridge	I	S-Sand	1.2 - 0.8
SS-Shoulder Slope		LS-Loamy Sand	
LS-Linear Slope			
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6
NS-Nose Slope		L-Loam	
HS-Head Slope			
CC-Concave Slope	III	SI-Silt	0.6 - 0.3
CV-Convex Slope		SICL-Silty Clay Loam	
T-Terrace			
FP-Flood Plain		CL-Clay Loam	
		SCL-Sandy Clay Loam	
	IV	SC-Sandy Clay	0.4 - 0.1
		SIC-Silty Clay	
		C-Clay	

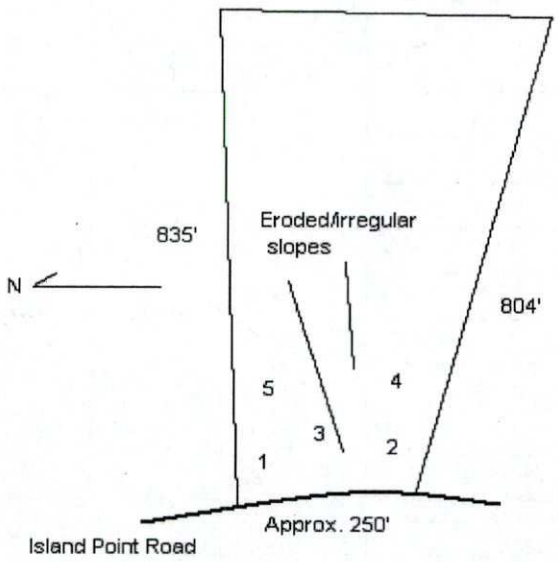
Structure
SG-Single Grain
M-Massive
CR-Crumb
GR-Granular
SBK-Subangular Blocky
ABK-Angular Blocky
PL-Platy
PR-Prismatic

Consistence
Moist
VFR-Very Friable
FR-Friable
FI-Firm
VFI-Very Firm
EFI-Extremely Firm

Consistence
Wet
NS-Non-Sticky
SS-Slightly Sticky
S-Sticky
VS-Very Sticky
NP-Non-Plastic
SP-Slightly Plastic
P-Plastic
VP-Very Plastic

Mineralogy
SEXP-Slightly Expansive
EXP-Expansive

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 #: **30001890** GWS File #: **6933B** Tax Parcel #: **199-353-02**

- 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):** 6/26/2012

Type of Installation: Residential - New System Lot Number: 118

Structure Type: HOUSE Size (ft^2): 4500 # Bedrooms: 5 # Occupants: 10

Building Foundation: Basement With Plumbing Water Supply: Municipal

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

Initial System Specifications:

Design Flow (gpd):	600	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1500	Total Trench Length (ft):	500
Maximum Trench Depth (in):	30	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

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):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1000	Total Trench Length (ft):	333
Maximum Trench Depth (in):	30	Depth of Media (in):	24	Distribution Device:	Manifold (LPP Distri		

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: Chris Sherrill Owner/Legal Agent: Patrick M Atchell

Print Name

Signature: Signature:

Date Issued: 6/26/2007

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 #: **30001890** GWS File #: **6933B**

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.

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: Chris Sherrill

Signature: Chris Sherrill

Date Issued: 6/26/2007

Owner/Legal Agent: Patrick Mitchell

Print Name

Signature: Patrick Mitchell

S&ME

June 11, 2007

Mr. James Martin
The Sanctuary at Lake Wylie
11104 Limehurst Place
Charlotte, North Carolina 28278

Reference: **Request for a Septic Improvement Permit for Lot 118 at The Sanctuary at Lake Wylie Phase 4b**
Mecklenburg County Health Department (MCHD) File # 69338

Dear Mr. Martin,

The Sanctuary at Lake Wylie is requesting an 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 system and repair on the lot. The septic lines have been located by your surveyor and are shown on the attached maps provided by YW&H, Inc. The attached sketch and specifications are not an Improvement Permit and are intended only to assist the MCHD in permitting the referenced lot at The Sanctuary.

We understand that a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The buyer 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 that the proposed system may have to be modified prior to your office issuing the ATC. **No grading shall take place on the 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 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.

Sincerely,

S&ME, Inc.

Paul G. Penninger, LSS
Licensed Soil Scientist

Rob Willcox, LSS
Natural Resources Department Manager

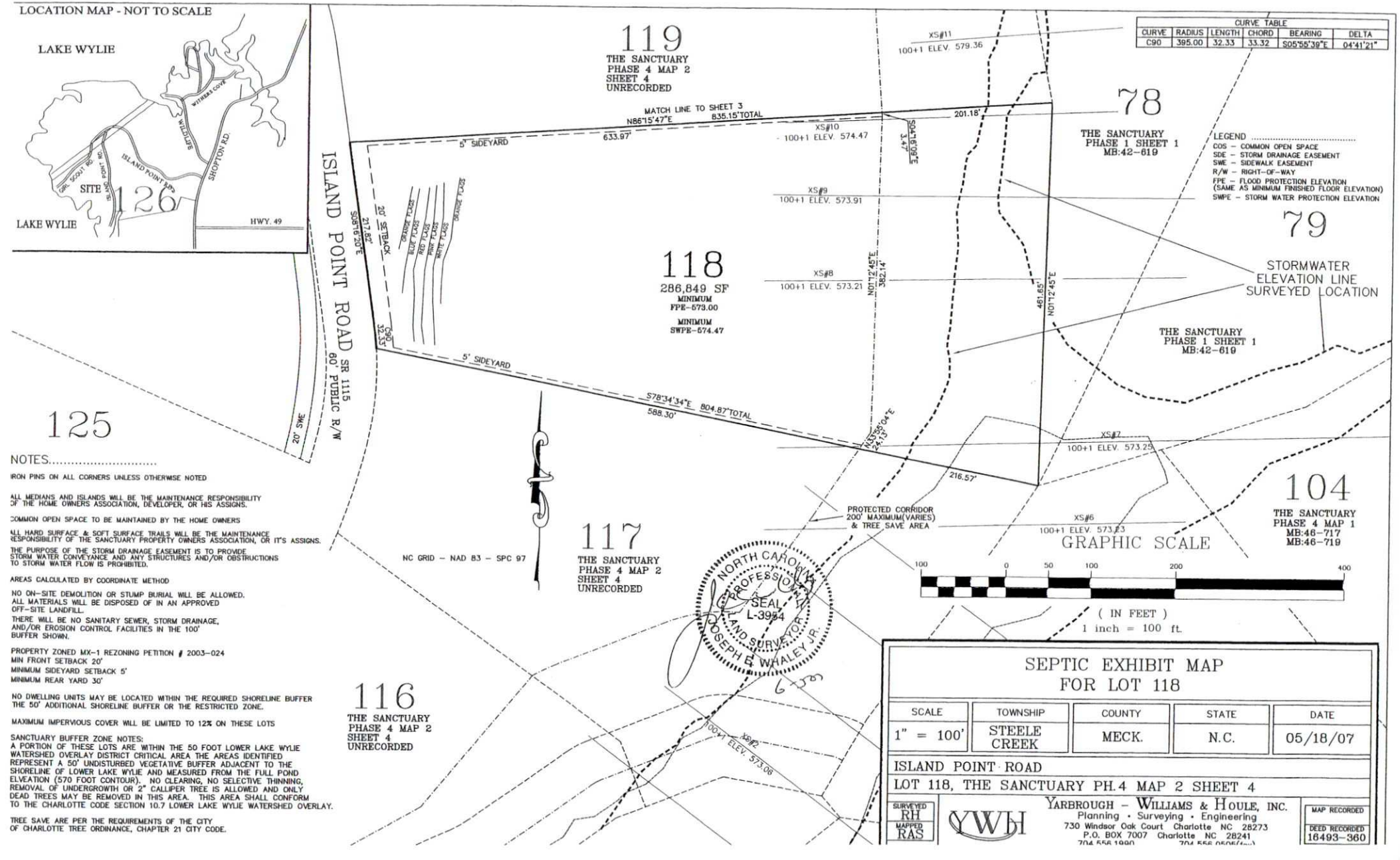
Attachments:
1. System Specifications
2. Site Plan
3. MCHD Soil Evaluation

Copy: Mr. Philo Walker, R.S.
MCHD

Design Specifications for Lot 118 at The Sanctuary
MCHD File # 6933

Daily Design Flow:	600 gpd
Number Bedrooms:	5 bedroom
Basement or Crawl Space:	Crawlspace
Septic Tank Size:	1500 gal
Pump Tank Size:	1500 gal
Primary System Loading Rate:	**0.30 gpd/ft^2**
Primary System:	**25% reduction**
Number and length of laterals:	3 @ 167 ft. endfed
Total ft. of primary system:	500 ft.
Flow Rate through system:	16.5 gpm – use ½ in. SCH 80 taps with 2 ft. head pressure on pressure manifold (5.5 gpm per tap)
Pump Requirements:	to be calculated by installer when specific house and pump tank locations are available
Dosing Volume:	approx. 243 gal. – 2.4 doses/day at design flow
Depth of effluent 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
Repair System Loading Rate:	**0.30 gpd/ft^2**
Repair System:	**LP PPBPS**
Total ft. of repair	356 ft. (334 ft. required)

Notes:



CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C90	395.00	32.33	33.32	S05°55'39"E	04°41'21"

NOTES.....

IRON PINS ON ALL CORNERS UNLESS OTHERWISE NOTED

ALL MEDIANS AND ISLANDS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION, DEVELOPER, OR HIS ASSIGNS.

COMMON OPEN SPACE TO BE MAINTAINED BY THE HOME OWNERS

ALL HARD SURFACE & SOFT SURFACE TRAILS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE SANCTUARY PROPERTY OWNERS ASSOCIATION, OR IT'S ASSIGNS.

THE PURPOSE OF THE STORM DRAINAGE EASEMENT IS TO PROVIDE STORM WATER CONVEYANCE AND ANY STRUCTURES AND/OR OBSTRUCTIONS TO STORM WATER FLOW IS PROHIBITED.

AREAS CALCULATED BY COORDINATE METHOD

NO ON-SITE DEMOLITION OR STUMP BURIAL WILL BE ALLOWED. ALL MATERIALS WILL BE DISPOSED OF IN AN APPROVED OFF-SITE LANDFILL.

THERE WILL BE NO SANITARY SEWER, STORM DRAINAGE, AND/OR EROSION CONTROL FACILITIES IN THE 100' BUFFER SHOWN.

PROPERTY ZONED MX-1 REZONING PETITION # 2003-024
MIN FRONT SETBACK 20'
MINIMUM SIDEYARD SETBACK 5'
MINIMUM REAR YARD 30'

NO DWELLING UNITS MAY BE LOCATED WITHIN THE REQUIRED SHORELINE BUFFER THE 50' ADDITIONAL SHORELINE BUFFER OR THE RESTRICTED ZONE.

MAXIMUM IMPERVIOUS COVER WILL BE LIMITED TO 12% ON THESE LOTS

SANCTUARY BUFFER ZONE NOTES:
A PORTION OF THESE LOTS ARE WITHIN THE 50 FOOT LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA THE AREAS IDENTIFIED REPRESENT A 50' UNDISTURBED VEGETATIVE BUFFER ADJACENT TO THE SHORELINE OF LOWER LAKE WYLIE AND MEASURED FROM THE FULL POND ELVEATION (570 FOOT CONTOUR). NO CLEARING, NO SELECTIVE THINNING, REMOVAL OF UNDERGROWTH OR 2" CALLIPER TREE IS ALLOWED AND ONLY DEAD TREES MAY BE REMOVED IN THIS AREA. THIS AREA SHALL CONFORM TO THE CHARLOTTE CODE SECTION 10.7 LOWER LAKE WYLIE WATERSHED OVERLAY.

TREE SAVE ARE PER THE REQUIREMENTS OF THE CITY OF CHARLOTTE TREE ORDINANCE, CHAPTER 21 CITY CODE.

SEPTIC EXHIBIT MAP FOR LOT 118

SCALE	TOWNSHIP	COUNTY	STATE	DATE
1" = 100'	STEELE CREEK	MECK.	N.C.	05/18/07

ISLAND POINT ROAD

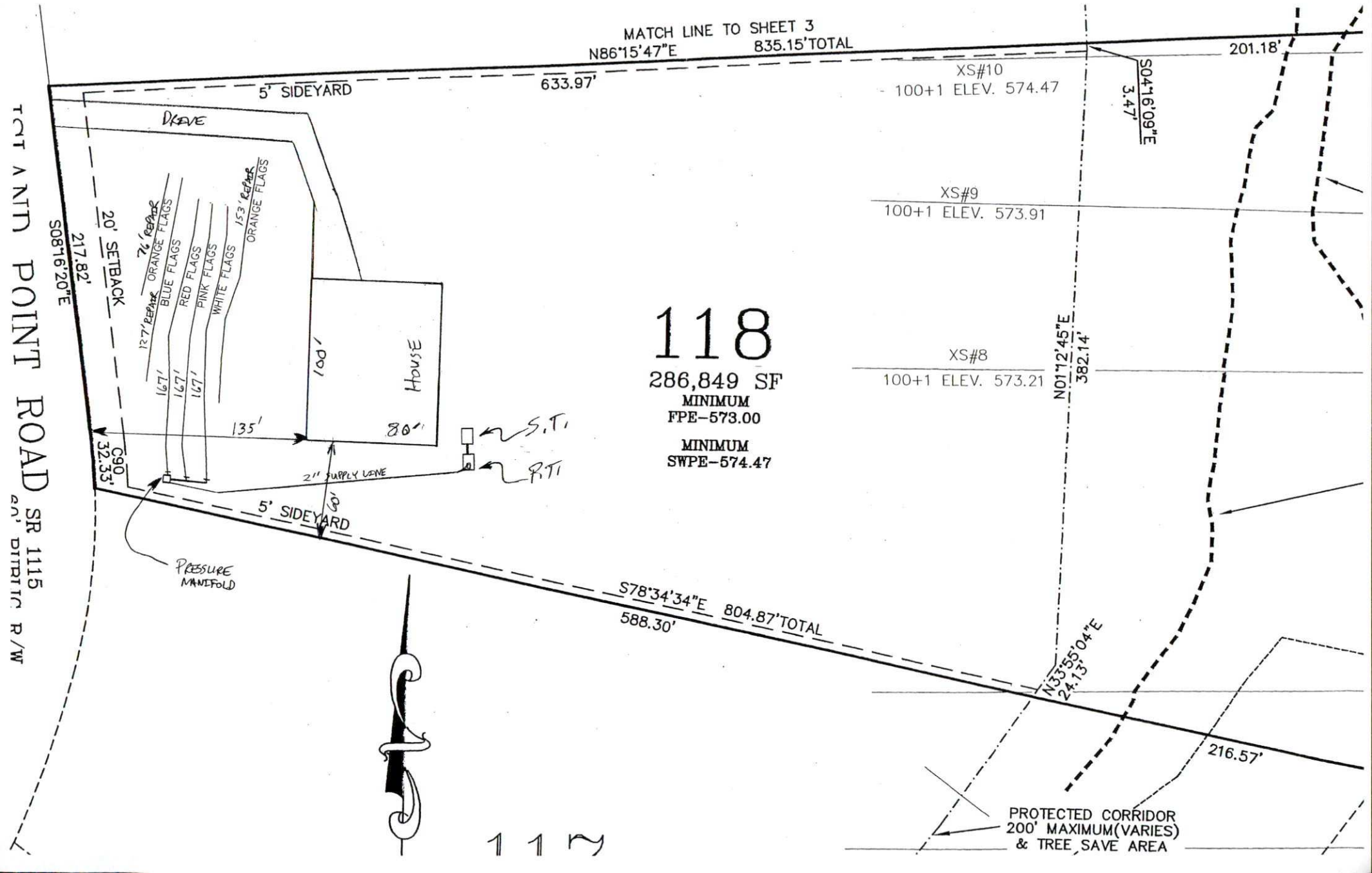
LOT 118, THE SANCTUARY PH.4 MAP 2 SHEET 4

SURVEYED RH
MAPPED RAS

YWH

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730 Windsor Oak Court Charlotte NC 28273
P.O. BOX 7007 Charlotte NC 28241
704.556.1990 704.556.0505(fax)

MAP RECORDED
DEED RECORDED
16493-360


MATCH LINE TO SHEET 3
N86°15'47"E 835.15'TOTAL
633.97'
5' SIDEYARD
DRIVE
20' SETBACK
S08°16'20"E
217.82'
76' REPAIR
127' REPAIR
153' REPAIR
ORANGE FLAGS
BLUE FLAGS
RED FLAGS
PINK FLAGS
WHITE FLAGS
ORANGE FLAGS
167'
167'
167'
100'
HOUSE
80'
135'
C90
32.33'
S.T.
P.T.
2" SUPPLY LINE
60'
5' SIDEYARD
PRESSURE MANIFOLD
118
286,849 SF
MINIMUM
FPE-573.00
MINIMUM
SWPE-574.47
XS#10
100+1 ELEV. 574.47
XS#9
100+1 ELEV. 573.91
XS#8
100+1 ELEV. 573.21
S04°16'09"E
3.47'
201.18'
N01°12'45"E
382.14'
S78°34'34"E 804.87'TOTAL
588.30'
N33°55'04"E
24.13'
216.57'
PROTECTED CORRIDOR
200' MAXIMUM(VARIES)
& TREE SAVE AREA
117
SR 1115
80' PUBLIC R/W