Lot 46 Phase 6 The Harbour Fast Track Septic System Information

Number of Bedrooms	**4**
Basement or Crawl	**Basement w/ Plumbing**
Design Flow (gpd)	**480**
Primary System LTAR (gpd/ft2)	**0.3**
Primary System Type	**25% Reduction**
No. Lines	See Table and Site Plan
Total Linear Feet	400
Trench Width	3' min.
Trench Spacing	9' min.
Pump Required	Yes
Distribution Device	Pressure Manifold
Maintenance Agreement Required	No
Length and Diameter of Supply Pipe	~605' of 3" SCH 40 PVC
Flow Rate through the system	22 gpm
Elevation head	Approx. 46'
Pressure head	2.0'
Friction head	Approx. 5'
20% Contingency	10.6'
Total Head	63.6
Pump Requirements	22 gpm @ approx. 64' of head

***The Elevation and Friction Heads should be calculated by the installer after the final tank elevation is set. The Installer should specify the pump.**

Maximum Dosing Volume	240 gal - 2.0 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. 10.9 min.
Check Valve	Yes
Siphon Break hole	No
Repair System	**LP PPBPS**
Total Linear Feet	274 (267 ft. required)
Repair Loading Rate	0.3

Pressure Manifold Design for Lot 46 Phase 6, The Harbour

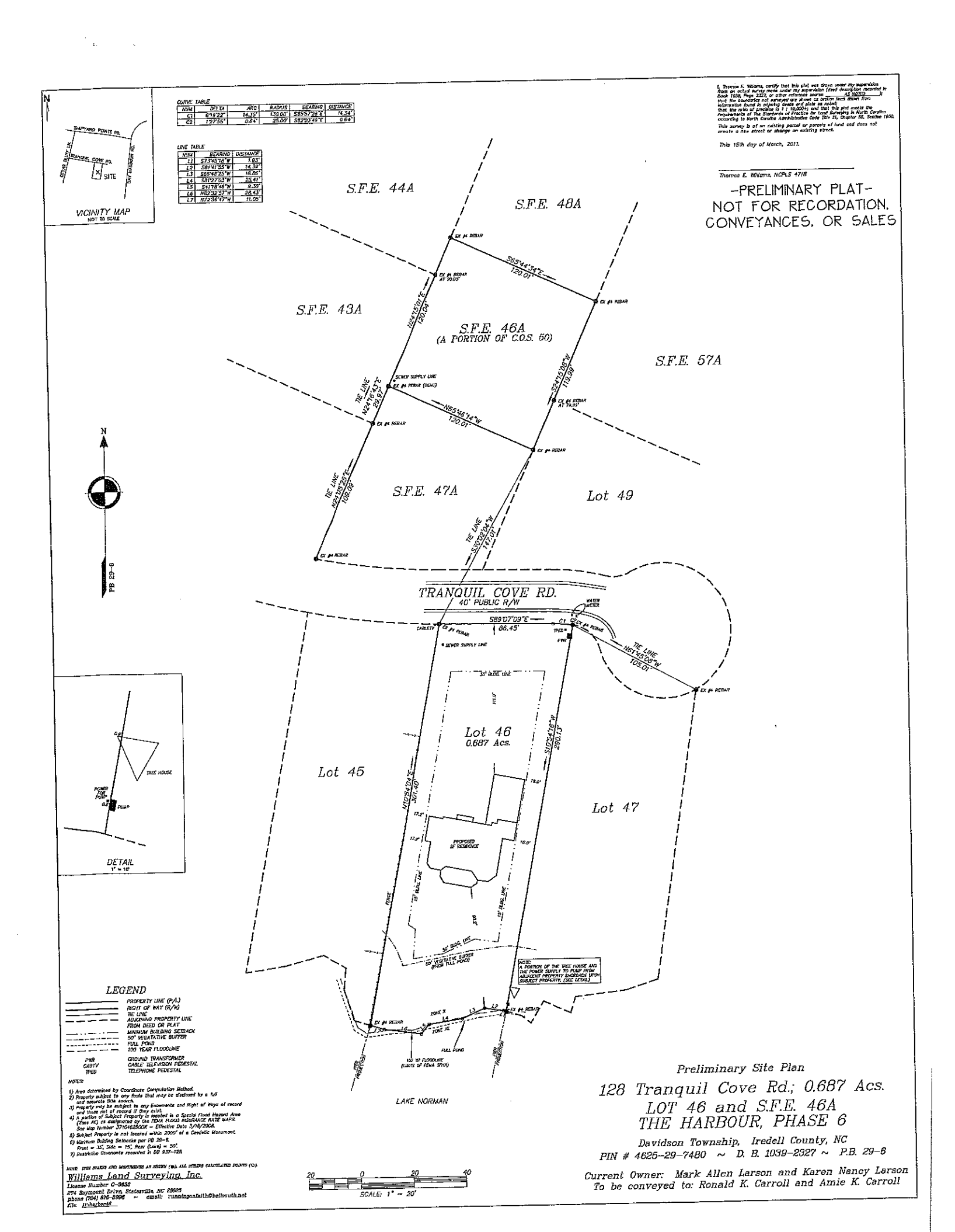
Line (s)	Line Color	Total Length (ft)	Pressure Head (ft)	Tap Size and schedule (in)	Flow through tap (gpm)	flow/ft. of line ratio (gpm/ft line)	Approx. Elevation** (ft)
1	white	100	2	1/2 in SCH 80	5.48	0.055	879.100
2	red	100	2	1/2 in SCH 80	5.48	0.055	
3	blue	100	2	1/2 in SCH 80	5.48	0.055	
4	white	100	2	1/2 in SCH 80	5.48	0.055	878.400
		Total = 400 ft.			Total Flow = 22 gpm		

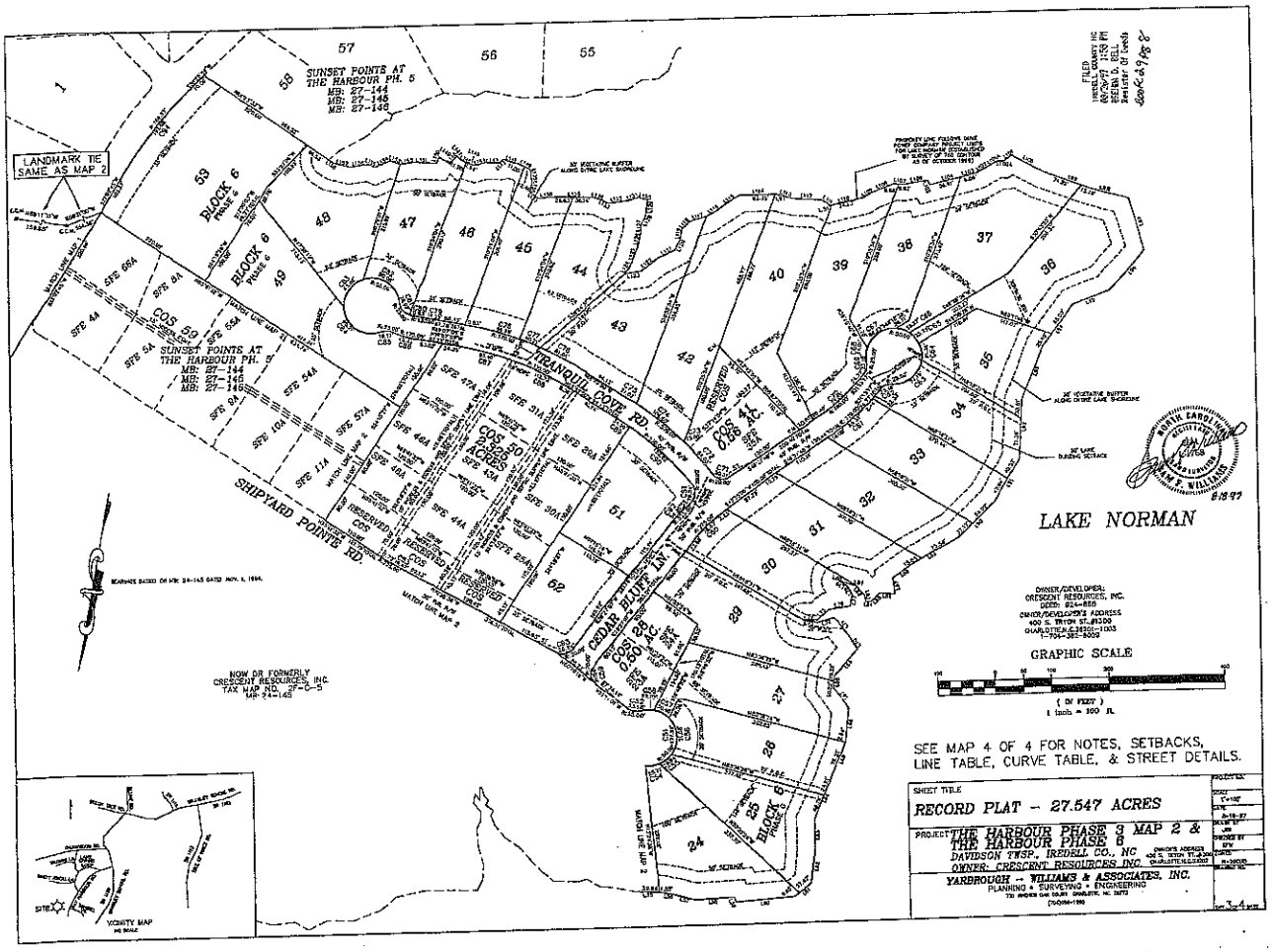
Tank	1500 gal (2 compartment)	approx. 770
Pump Tank	1000 gal.	approx . 772
House	Left Rear Corner	

Manifold Information	
Tap Size (In.)	see table above
Tap Material	see table above
No. Taps	4
Barrel Size (In.)	4
Barrel Material	SCH 80 PVC
Flow (gpm)/Tap	see table above

NOTES:
****Elevations from lot to septic area estimated from topo map and must be verified by installer or surveyor after lot grading and prior to installation.**

3. Survey Map, Record Plat with Supply Line Easements, and GIS Topographic Map


VICINITY MAP
NOT TO SCALE
SHIPYARD POINTE RD.
TRANQUIL COVE RD.
SITE
CURVE TABLE
NUM | DELTA | ARC | RADIUS | BEARING | DISTANCE
C1 | 6°19'22" | 14.35' | 130.00' | S85°57'28"E | 14.34'
C2 | 1°27'55" | 0.64' | 25.00' | S82°03'49"E | 0.64'
LINE TABLE
NUM | BEARING | DISTANCE
L1 | S73°45'18"W | 1.93'
L2 | S81°41'55"W | 14.39'
L3 | S66°48'35"W | 16.86'
L4 | S81°27'03"W | 25.41'
L5 | S41°18'46"W | 9.38'
L6 | N82°32'57"W | 28.43'
L7 | N72°36'47"W | 11.05'
I, Thomas E. Williams, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book 1039, Page 2327, or other reference source AS NOTED); that the boundaries not surveyed are shown as broken lines drawn from information found in existing deeds and plats as noted; that the ratio of precision is 1 : 10,000+; and that this plat meets the requirements of the Standards of Practice for Land Surveying in North Carolina according to North Carolina Administrative Code Title 21, Chapter 56, Section 1600.
This survey is of an existing parcel or parcels of land and does not create a new street or change an existing street.
This 15th day of March, 2011.
Thomas E. Williams, NCPLS 4718
-PRELIMINARY PLAT-
NOT FOR RECORDATION.
CONVEYANCES, OR SALES
S.F.E. 44A
S.F.E. 48A
S.F.E. 43A
S.F.E. 46A
(A PORTION OF C.O.S. 50)
S.F.E. 57A
S.F.E. 47A
Lot 49
Lot 46
0.687 Acs.
Lot 45
Lot 47
EX #4 REBAR
EX #4 REBAR AT 90.05'
S65°44'34"E
120.01'
N24°15'01"E
120.04'
SEWER SUPPLY LINE
EX #4 REBAR (BENT)
TIE LINE
N24°16'14"E
29.97'
N65°46'14"W
120.01'
S24°13'46"W
119.99'
EX #4 REBAR AT 74.89'
TIE LINE
N24°08'23"E
109.09'
TIE LINE
S10°02'04"W
161.01'
TRANQUIL COVE RD.
40' PUBLIC R/W
WATER METER
S89°07'09"E
86.45'
CABLE TV
TPED
PWR
6" SEWER SUPPLY LINE
TIE LINE
N61°45'06"W
105.01'
35' BLDG. LINE
115.0'
S10°54'16"W
290.13'
N10°54'04"E
301.40'
76.0'
17.2'
17.2'
16.0'
PROPOSED SF RESIDENCE
FENCE
25' BLDG. LINE
25' RMK. LINE
POND
50' BLDG. LINE
50' VEGETATIVE BUFFER (FROM FULL POND)
NOTE: A PORTION OF THE TREE HOUSE AND THE POWER SUPPLY TO PUMP FROM ADJACENT PROPERTY ENCROACH UPON SUBJECT PROPERTY. (SEE DETAIL)
ZONE X
ZONE AE
FULL POND
102' 19' FLOODLINE (LIMITS OF FEMA 'STUDY)
SEE PROJECTION
SEE PROJECTION
LAKE NORMAN
DETAIL
1" = 10'
TREE HOUSE
POWER FOR PUMP
PUMP
LEGEND
PROPERTY LINE (P/L)
RIGHT OF WAY (R/W)
TIE LINE
ADJOINING PROPERTY LINE FROM DEED OR PLAT
MINIMUM BUILDING SETBACK
50' VEGETATIVE BUFFER
FULL POND
100 YEAR FLOODLINE
PWR GROUND TRANSFORMER
CABTV CABLE TELEVISION PEDESTAL
TPED TELEPHONE PEDESTAL
NOTES:
1) Area determined by Coordinate Computation Method.
2) Property subject to any facts that may be disclosed by a full and accurate title search.
3) Property may be subject to any Easements and Right of Ways of record and those not of record if they exist.
4) A portion of Subject Property is located in a Special Flood Hazard Area (Zone AE) as designated by the FEMA FLOOD INSURANCE RATE MAPS. See Map Number 3710452500K - Effective Date 3/18/2008.
5) Subject Property is not located within 2000' of a Geodetic Monument.
6) Minimum Building Setbacks per PB 29-6.
Front = 35', Side = 15', Rear (Lake) = 50'.
7) Restrictive Covenants recorded in DB 937-128.
NOTE: IRON STAKES AND MONUMENTS AS SHOWN (●). ALL OTHERS CALCULATED POINTS (○).
Williams Land Surveying, Inc.
License Number C-3638
274 Baymount Drive, Statesville, NC 28625
phone (704) 876-3996 ~ email: runningonfaith@bellsouth.net
file: jlwherbert
20 0 20 40
SCALE: 1" = 20'
Preliminary Site Plan
128 Tranquil Cove Rd.; 0.687 Acs.
LOT 46 and S.F.E. 46A
THE HARBOUR, PHASE 6
Davidson Township, Iredell County, NC
PIN # 4625-29-7480 ~ D. B. 1039-2327 ~ P.B. 29-6
Current Owner: Mark Allen Larson and Karen Nancy Larson
To be conveyed to: Ronald K. Carroll and Amie K. Carroll



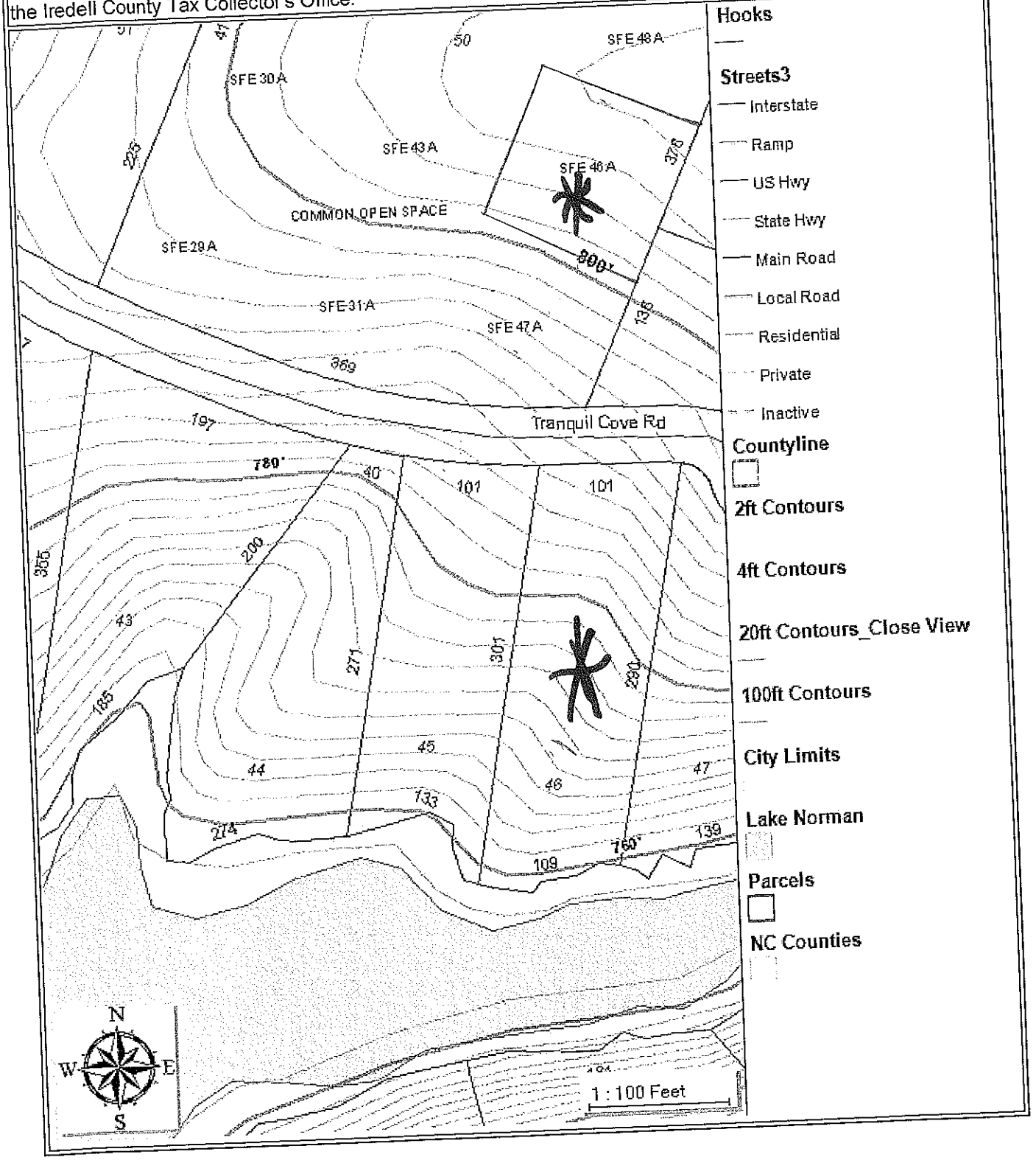
Book 29, Page 6, File Numbe

ConnectGIS Feature Report

CONNECTGIS WEB HOSTING

IREDELL COUNTY NORTH CAROLINA

The maps prepared for this website are generated from recorded deeds, plats, and other public records. Users of these maps are hereby notified that the information provided herein should be verified. Iredell County assumes no legal responsibilities for any of the information contained on this site. Users are advised that the use of any of this information is at their own risk. All maps on this site were prepared using a 1000â€™ Grid based upon the North Carolina State Plane Coordinate System from the 1983 North American Datum. The delinquent real property tax overlay is updated monthly. The information presented is not intended to be used or relied upon as official notice of tax liens. For additional information regarding delinquent taxes, contact the Iredell County Tax Collector's Office.



Hooks

Streets3
- Interstate
- Ramp
- US Hwy
- State Hwy
- Main Road
- Local Road
- Residential
- Private
- Inactive

Countyline

2ft Contours

4ft Contours

20ft Contours_Close View

100ft Contours

City Limits

Lake Norman

Parcels

NC Counties

DENR/DEH

ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: ___
COUNTY: ___

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Stonebridge Lux Homes
ADDRESS: ___ APPLICATION DATE ___
PROPOSED FACILITY: 4 BR PROPOSED DESIGN FLOW (.1949): 480 DATE EVALUATED: 3-15-11
LOCATION OF SITE: Lot 46 Hamburg Rd PROPERTY SIZE: ___
WATER SUPPLY: • Private • Public • Well • Spring • Other Comm. WS(1) PROPERTY RECORDED: 1997
EVALUATION METHOD: • Auger Boring • Pit • Cut TYPE OF WASTEWATER: • Sewage • Industrial Process • Mixed

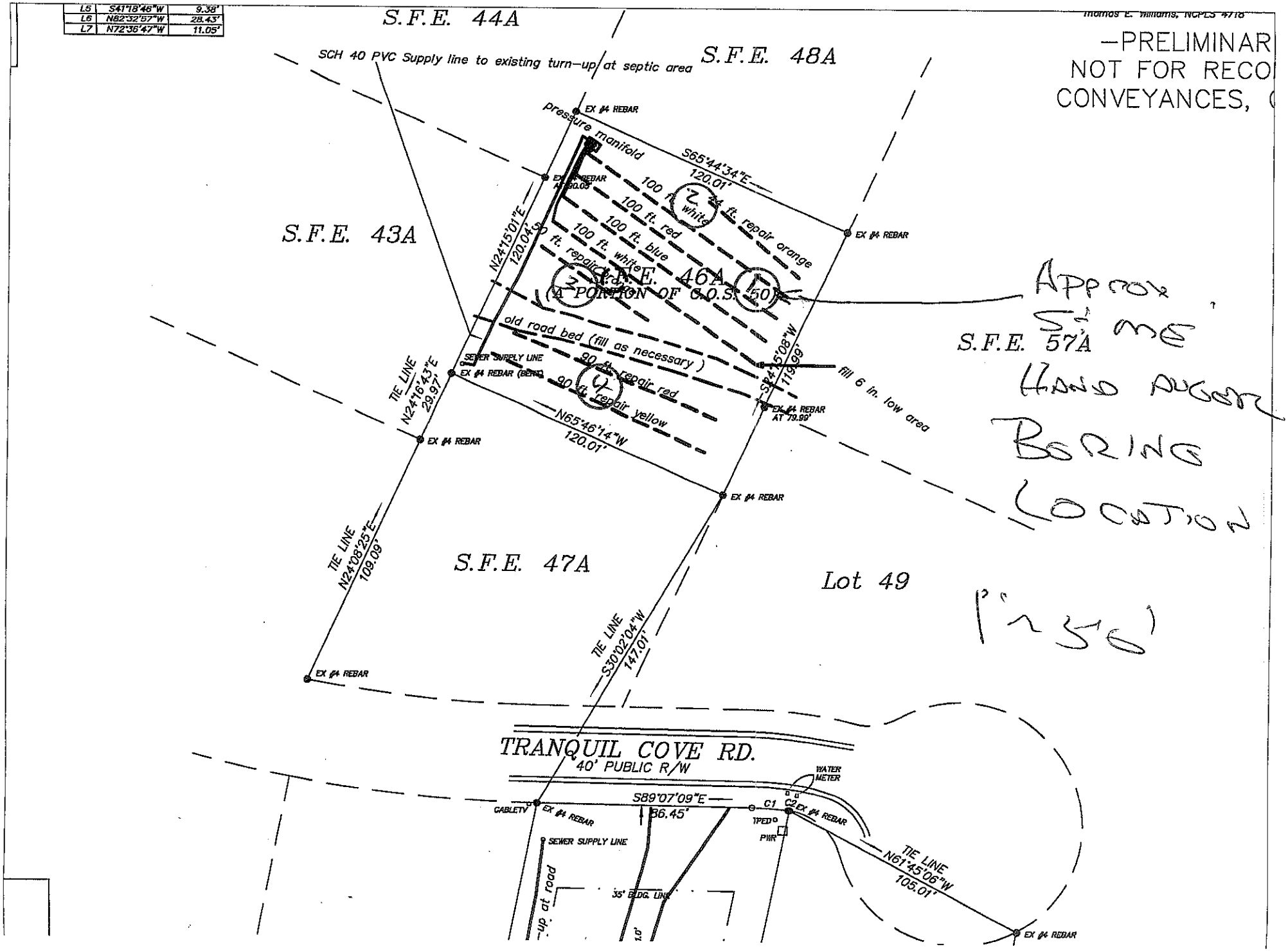
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L ~3-4%	0-2	gr/sl	fr ss/sp	br	PS	f-c ind	—	PS .3+
		2-17	sBk-c	fr ss/sp	red				
		17-47	sBk-cl	fr ss/sp	yel/red				
					—				
2	L ~3-4%	0-2	gr-sl	fr ss/sp	br	PS	f:vf	—	PS .3
		2-24	sBk-c	fr s/p - fr ss/sp	yel red		—		
		24-48	sBk-c/cl	fr ss/sp	red				
					—				
3	L ~3-4%	0-1	gr-sd	fr ss/sp	br	PS	f-c ind	—	PS .3
		1-16	sBk-c	fr ss/p - fr s/p	yel red				
		16-42	cBk cl	fr ss/sp	red				
4	L ~4-6%	0-3	gr-sd	fr ss/sp	br	PS	f:d c:nd	—	PS .3
		3-12	sBk-c	fr ss/p - fr s/p	yel red				
		12-31	sBk-cl	fr ss/sp	red				
		31-47	sBk-cl	fr ss/sp	yel/red				
					—				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	2500	PPBP1
Site LTAR	0.3	0.3

OTHER FACTORS (.1946): ___
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: PGP
OTHER(S) PRESENT: Required By Study Includes LCHD

COMMENTS: ___

Approved 3-29-11 gm


L5 S41°18'46"W 9.38'
L6 N82°32'57"W 28.43'
L7 N72°36'47"W 11.05'
S.F.E. 44A
S.F.E. 48A
SCH 40 PVC Supply line to existing turn-up at septic area
Thomas E. Williams, NCPLS 4718
—PRELIMINAR
NOT FOR RECO
CONVEYANCES,
EX #4 REBAR
Pressure manifold
S65°44'34"E
120.01'
EX #4 REBAR AT 30.09'
100 ft. white
100 ft. red
100 ft. blue
100 ft. white
90 ft. repair orange
S.F.E. 43A
N24°15'01"E
120.04'
S.F.E. 46A
(A PORTION OF C.O.S. 50)
Approx
Site
S.F.E. 57A
Hand Auger
Boring
Location
old road bed (fill as necessary)
SEWER SUPPLY LINE
EX #4 REBAR (BENT)
90 ft. repair red
90 ft. repair yellow
TIE LINE
N24°16'43"E
29.97'
N65°46'14"W
120.01'
S24°15'08"W
119.99'
EX #4 REBAR AT 79.99'
fill 6 in. low area
EX #4 REBAR
EX #4 REBAR
TIE LINE
N24°08'25"E
109.09'
S.F.E. 47A
Lot 49
TIE LINE
S30°02'04"W
147.01'
EX #4 REBAR
TRANQUIL COVE RD.
40' PUBLIC R/W
WATER METER
S89°07'09"E
86.45'
GABLETV
EX #4 REBAR
C1
C2
EX #4 REBAR
TPED
PWR
SEWER SUPPLY LINE
TIE LINE
N61°45'06"W
105.01'
-up at road
35' BLDG. LINE
10'
EX #4 REBAR

S&ME

Call Paul P.

704-996-6330

March 21, 2011

Stonebridge Luxury Homes
PO Box 4297
Mooresville, North Carolina 28117

Attention: Mr. Ron Carroll

Reference: **Technical Assistance with Fast Track Septic Permitting**
Lot 46, Phase 6 The Harbour Subdivision
Iredell County, North Carolina
S&ME, Inc. Project No. 1588-07-068 Phase 4

Dear Mr. Carroll:

S&ME, Inc (S&ME) has provided technical assistance to obtain a four bedroom septic Improvement Permit from the Iredell County Health Department (ICHD). The technical assistance was performed in general accordance with S&ME Proposal No. 1588-07-P096 dated August 31, 2007 and Letter of Authorization 01-11 dated March 11, 2011. All ratings were determined in accordance with the "Laws and Rules for Sewage Treatment and Disposal Systems (15A NCAC 18A .1900)".

Attached is the Application for the Septic Improvement Permit, the Zoning Permit, the Environmental Health Requirements form, and the ICHD Fast Track requirements presented to the ICHD on your behalf. Also attached is a copy of the expired 1997 Septic Improvement Permit issued to Crescent Resources, Inc. The septic system was permitted on an off-site septic area identified as Lot 46A, located across Tranquil Court Cove from the waterfront building lot.

The lot property corners and off-site septic area were flagged by your surveyor. S&ME flagged the proposed septic drainfield and placed four hand auger borings in the proposed septic drainfield. You provided the proposed house location. The attached site plans show the proposed 25 Percent Reduction primary system area and the Low Pressure PPBPS (T&J Panel) repair area to accommodate the 4 bedroom home. The proposed system is in the same general location as the 1997 permitted system and the proposed system will utilize the same 0.3 gallons per day per square foot Long Term Acceptance Rate and the 36 inch maximum trench bottom specified in the 1997 permit.

There shall be no cuts of 2 feet within 15 feet of any part of the permitted septic system. Part of the old road bed shown on the site plan at the off-site septic area will have to be filled to eliminate any 2 foot cut within 15 feet of any part of the drainfield. Also, the last

approximate 3 feet of the white, primary line adjacent to the road bed is in a 6 inch low area created by a 4-wheeler path. This low area should be filled with clean, loamy soil material prior to system installation. The system should be installed 36 inches below ground surface, or the depth permitted by the ICHD.

The supply line pipe connecting the building lot to the septic area was installed by the developer during construction of the subdivision. The supply line turn-up on the lot and off-site septic area were located by the surveyor and are shown on the attached site plan.

S&ME appreciates the opportunity to provide these services to you. The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist you and the ICHD with the Fast Track site evaluation. The attached plan is not intended to be an engineered plan. The ICHD must approve each lot and only the ICHD can issue these permits. The ICHD should verify all soils and system specifications, required setbacks, and whether a professional engineer plan is required before permitting and/or septic system installation. Soil evaluations and system layouts are done based on interpretations of the rules governing wastewater treatment and disposal systems and are not guarantees for site approval or future septic system performance.

If you have any questions or require additional information please contact us at your convenience.

Sincerely,

S&ME, Inc.

Paul G. Penninger, L.S.S.
Senior Soil Scientist

Rob Willcox, L.S.S.
Natural Resources Department Manager

Copy: ICHD

Attachments:

1. ICHD Application, Zoning Permit, and Health Department Requirements Form
2. Site Plan and System Specifications
3. Survey Map, Record Plat Showing Supply Line Easements, and GIS Topographic Map
4. Soil Profile Descriptions
5. 1997 Expired Permit

K:\1588\1588 REPORTS\Reports.07\1588-07-068 Stonebridge Luxury Homes\Lot 46 the Harbour\1588-07-068 Stonebridge Luxury Homes Lot 46 TheHarbour Summary Letter.doc

IREDELL COUNTY HEALTH DEPARTMENT

Application For Improvement Permit and/or Authorization To Construct, Existing System Inspection

(THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED - APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS)

1. APPLICATION FOR: X Improvement Permit ___Authorization To Construct ___BOTH ___Existing System Inspection

2. Page 2: *Site Plan Worksheet* Form MUST Accompany This Application
   The following optional attachments may also be submitted: ___ Survey Plat, Scaled no more than 1 Inch = 60 Feet
   X Custom Site Plan, Scaled no more than 1 Inch = 60 Feet
   Place check ( ) beside whichever is submitted if applicable

3. **Applicant Information:**

Stone Bridge Lux. Homes (Applicant Name)	P.O. Box 4297 Mooresville NC 28117 (Mailing Address)	same (Home Phone)	704-996-6330 (Work Phone)
Mark Larson (Owner Name)	8025 Derby Run Chagrin Falls, OH 44023 (Mailing Address)	— (Home Phone)	— (Work Phone)

4. **Property Information:**

128 Tranquil Cove (Street Address)	The Harbour (Subdivision Name)	Ph. 6 (2) 46 (Section/Phase and Lot Number)

Driving Directions: Brawley School Rd, TR Bay Harbour Rd TR SHIPYARD DR TL CEDAR RIDGE Ln TL TRANQUIL Cove Lot on RT Before end of St.

5. **RESIDENTIAL Site Development Information:** *(Check or Complete ALL that apply)*

X ( ) New, Single Family Residence
( ) New, Multi-Family Residence
( ) Expansion of Existing Septic System
( ) Repair To Failing Septic System

Maximum Number of Bedrooms 4
Maximum Number of Occupants 8
If Expansion, Current Number of Bedrooms ___

( ) Crawl Space Foundation?
( ) Concrete Slab Foundation?
X Basement w/Plumbing?
( ) Basement w/out Plumbing?

IF Non- Residential Site Development:
Type of Business ___
Square Footage of Building ___
Maximum Number of Employees ___
Maximum Number of Seats ___

6. **Proposed Water Supply:**

( ) New Well ( ) Existing Well X Community Well ( ) City Water ( ) Other Public Water

7. **Desired Septic System Type:** *(You may rank in order of preference, if any)*

( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional X Other 2S 1 ( ) No Preference

8. **Please Answer The Following To The Best of Your Ability:**

( ) Yes X No Does the site contain any jurisdictional wetlands?
( ) Yes X No Is any non-domestic sewage (i.e. industry) to be generated?
( ) Yes X No Is the site subject to approval by any other public agency?

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.

9. Signature: _____ DATE 3-12-11
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

IREDELL COUNTY HEATLH DEPARTMENT

PAGE 2: *SITE PLAN WORKSHEET*

SEE THE SAMPLE SITE PLAN BELOW. INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!

Place an (X) beside each item as you complete the site plan:

- \ Property Line measurements are clearly identified...
- \ All proposed structures are indicated...
  SHOW: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site
- \ Front and side setbacks from property line...
- \ Preferred driveway location and configuration, preferred well location...
- \ Area you prefer your septic system to be placed...
- \ North arrow, or other sufficient indicator of direction...

Circle N/A on the following if appropriate:

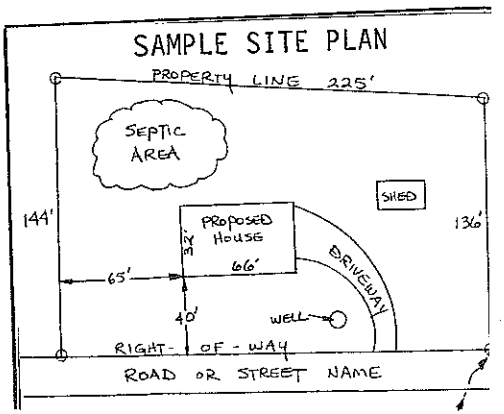
- Location of septic systems and wells within 100' of your property... N/A
- Location of easements and rights of ways on your property... N/A
- Location of any designated wetlands on the property... N/A

Signature: _____
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

3-(6-)11
DATE

USE THIS SPACE TO DRAW YOUR SITE PLAN

SEE Attached
site plan & survey
map.



Iredell County
Planning & Enforcement
349 N. Center St. PO Box 788
Statesville, NC 28687
704-878-3113

Zoning Permit

Permit Number: 165823ZO

Printed: 3/22/2011

Master #: 165823

Associated Permits:

165823ZO Zoning

Applicant

Name: Stonebridge Luxury Homes, Inc.

Address: PO Box 4297
Mooresville, NC 28117-7540

Phone: 704-658-1404

Ron Carroll

Parcel

Parcel Number: 4625297480.000

Address: 128 Tranquil Cove Ln
Mooresville, NC 28117

Subdivision: The Harbour

Zoning: R20CUD

Township: 1700

Area: .69

Lot(s): 46

Directions to Parcel: Bay Harbour, Left Shipyard Point, left Cedar Bluff, left Tranquil Cove

Owners

Name: Mark & Karen Larson

Address: 8025 Darby's Run
Chagrin Falls, OH 44023

Contractors

Contractor Type: Building

Name: Stonebridge Luxury Homes, Inc.

Address: PO Box 4297
Mooresville, NC 28117-7540

Phone: 704-658-1404

Fees and Receipts:

Number	Description	Amount
FEE-227029-07	Zoning - Permit / Inspection	$75.00
FEE-227030-07	Technology and Administrative Fee	$2.25
FEE-227031-07	Environmental Health - Type I or II Fast Track	$135.00