

8424 CARLY LN

13903335

1/9/2008

duponbj

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

FEE: 300.00

DATE: 5/15/2006

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

LD 180685

MECKLENBURG COUNTY

GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 6170B

PERMIT NUMBER: 30000778

PARCEL NUMBER: 13903335

JOB LOCATION INFORMATION

ADDRESS: 8424 CARLY ln w

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

ISSUED TO: RYAN HOMES

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 5/12/2006

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30000778, 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: 5/12/2011

X33575

FEE: 300.00
DATE: 5/12/06 JKA

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

PERMIT NUMBER: 6170B 335
PARCEL NUMBER: 139-03-225

JOB LOCATION ADDRESS: 8424 Carly Lane Lot #42
PROPERTY OWNER: Ryan Homes
BUILDING CONTRACTOR: Ryan Homes
SUBDIVISION NAME: Stonebridge at Mint Hill
AUTHORIZATION ISSUED BY: David Cornelius, RS DATE: 05/12/06

DENR/DEH AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 6170B, 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 Larry Thompson and The Catena Group
   Agreement forms required before CO release.

Project No.

FILE COPY	
FILED FOR REGISTRATION	DOC. # 935876
DATE 2/21/06	TIME 9:53am
BOOK 20037	PAGE 24
STAMPS	REC FEE 20.00
JUDITH A. GIBSON REGISTER OF DEEDS MECKLENBURG COUNTY, NC	

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

WASTEWATER TREATMENT AND DISPOSAL SYSTEM DESIGN AGREEMENT: 15A NCAC 18A .1948 AND ANY OF THE FOLLOWING RULES: .1956; .1957(a); .1957(b); or .1957(c); OR .1969
BR1042

FILE # 61708
PARCEL # 139-033-35

The undersigned, NUR, INC DBA Ryan Homes, owner of property located at 8424 Carly Lane, (the "site") and described in an instrument recorded in Book 44 at Page 521, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the 'Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq.; that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as "provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

The undersigned further acknowledges that the proper design, construction, operation and maintenance of such septic tank system is the responsibility of the designer, owner, developer, installer, or user of the system, as applicable, and that neither the Department nor its officials, employees, or agents warrant or guarantee that the said system installed pursuant to the permit issued by the Department will function in a satisfactory manner for any given period of time or that the Department, its officials, employees or agents assume any liability for any damages of any kind which are caused, or which may be caused, by a malfunction of such system.

The undersigned further acknowledges that the following conditions will apply to the site:

This instrument was prepared by: NUR, INC DBA Ryan Homes
Mail after recording to: 10815 David Taylor Dr
Charlotte NC 28262

CONDITIONS OF IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATON

335

Permit Number: **6170B**

Tax Number: 139-03-~~225~~

- The 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.

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:

0.275 Long-term acceptance rate (GPD/ft^2)	480 Max gallons/day wastewater flow	872 Absorption Area (ft^2)	8 Trench spacing (min. on centers) (ft)
Serviced by private well: ☐ Yes ☒ No	1500 Gallon septic tank	291 Total trench length (ft)	28 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
4 Bedrooms in residence	na Gallon pump tank	na Depth of stone (in)	

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

Additional conditions: **Lot # 42. Install according to plans on file submitted by Larry Thompson and the Catena Group, Inc. Agreement forms required before CO release.**

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:

0.275 Absorption Area (ft^2) 291 Total trench length (ft)	na Depth of stone (in)	8 Trench spacing (min. on centers) (ft)	28 Maximum trench depth (in)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH 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 Systems 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.*

5/12/06
DENR Authorized Agent Date

Patricia Garner 5/12/06
Owner/Agent Signature Date

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
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

Residential Subsurface Wastewater Treatment and Disposal System Design

for

Lot 42 – Stonebridge at Mint Hill
8424 Carly Lane
Mint Hill, North Carolina

Tax Parcel # 139-03-225
Mecklenburg County File # 6170B
April 27, 2006

Prepared for:

NVR, Inc.
10815 David Taylor Drive, Ste. 100
Charlotte, NC 28262



Prepared by:

Larry Thompson, RS, PWS
Alex Adams, LSS
The Catena Group, Inc.
410-B Millstone Drive
Hillsborough, NC 27278
Phone: 704-301-4881
Fax: 704-888-1496



CC: Mr. David Cornelius, RS
Mecklenburg County Environmental Health

Details

In an application for an Improvement Permit filed with the Mecklenburg County Health Department (MCHD) by NVR, Inc., the subject property was proposed to be developed with a single family 5-bedroom residence served by a municipal water supply. Based upon this information, a soil and site evaluation was conducted by the MCHD where the subject lot was determined to be "Unsuitable" for the installation of a conventional subsurface wastewater treatment and disposal system in accordance with the *Laws and Rules for Sewage Treatment, and Disposal Systems* 15A NCAC 18A .1900 (North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section).

After revising the original site plan, performing additional soil investigations, and removing the unsuitable fill material on the lot, The Catena Group, Inc. (TCG), has determined that a sufficient amount of "Suitable" Group IV soils are located on the property which would allow for the installation of a Type III(e) pre-fabricated porous block panel system (PPBPS) to serve as the wastewater treatment and disposal system for a 4-bedroom residence (initial and repair). It is the desire of the owner that the MCHD consider reclassifying this lot as "Suitable", allowing for the issuance of a Construction Authorization, based upon the following proposal.

Location

The subject property is located in Stonebridge Subdivision (Lot 18 – 9316 Holding Street) in the town of Mint Hill, North Carolina. From NC 51, travel south on NC 218 approximately 0.9 mile, turn left onto SR 3109 (Bartlett Road). Stonebridge is the first subdivision on the right after crossing the I-485 overpass. Turn right onto Stonebridge Way and right onto Carley Lane. 8424 Carly Lane will be located on your left in the roundabout.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, February 1, 2005.

Onsite Wastewater Treatment and Disposal Systems; EPA 625/R-00/008 Design Manual, February 2002.

Design, Installation and Maintenance of the T & J Panel Wastewater Treatment System; Sixth Edition, published by T & J Panel.

Plans and Specifications

Septic Tank

- The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1500 gallons in capacity.
- The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
- It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

Distribution Method

- Wastewater from the septic tank will be directed to a distribution box for equal distribution to the (6) six drain lines.
- The distribution box shall be level, watertight, and the flow adjusted (equalized) at the time of the final inspection.

Pipe and Fittings

- All discharge piping and supply lines should be made of Schedule 40 PVC.
- All joints must be properly "welded" utilizing the appropriate PVC cement for each application.

Drain Field Installation

- The drain fields have been previously laid out on-site utilizing metal stemmed flags. Once these areas have been approved by the MCHD, the property owner/builder should mark these areas and isolate them much as possible from construction traffic. Prior to the installation of these systems, the septic contractor shall contact the MCHD for a preconstruction conference at which time the drainfield area will be re-verified.
- Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition. If the installer has doubts as to whether or not the drainfield area is dry enough to begin construction, the Mecklenburg County Health Department should be contacted for permission to proceed with the installation.
- The specified septic system drain field is a Type III(e) pre-fabricated porous block panel system (PPBPS).
- The septic system drain field will consist of (6) lateral trenches to be constructed 3 feet wide by 50 feet in length at a maximum trench depth of 28 inches.
- All laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
- The trenches should be left open for the final inspection by the MCHD.

PPBS Details

- The septic system drain field shall consist of a pre-fabricated permeable block panel system – specifically the 16 inch high panel system manufactured by T&J Panel Wastewater Treatment System, Patent No. 4013559; telephone: 1-800-222-2577. The installer must follow the manufacturer's guidelines for installing the T&J Panel System and should request an installation manual from the manufacturer prior to beginning construction.
- The drain field consists of four (6) lateral trenches to be constructed 3-feet wide by 52-feet in length. It is essential that the lateral trenches be constructed on contour with the land, with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.
- The maximum trench depth for this system shall be 28 inches and each trench shall be placed on 9 foot centers.
- Once trenches are dug, the side walls shall be raked and a light dusting of lime applied.
- Backfill the trench with 6-inches of sand and level to grade. Once leveled, place 1 x 4 or 6-inch boards on top of the sand the entire length of each trench. Once the grade boards have been set, the panels may be set into the trench. The panels should be placed 6-inches apart.
- Once the panels have been set, line the top chamber of each panel with 10 – 12 pounds of clean particle sand (medium sand blasting sand). Coverage depth should be approximately 1 inch thick. *Please note that this sand is not the same material specified for backfill.*
- Tar seal rope should be placed in the "U" outs of each end of the panel to form seals. Once the tar rope is in place, the PVC connections can be added and the seal completed by the addition of more tar rope on the top and sides of the pipe. Now that the connection and seals are complete, a block cap is placed on each end of the panel so that all openings are covered.

Final Landscaping

- The drain fields shall be shaped to shed rainwater and be free from low spots.
- The entire area of the drain fields should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

Utility Conflicts

- The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable

damage. If there are any questions regarding preferred routes, contact the MCHD as soon as possible.

Maintenance

In General

- The septic tank shall be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 1/3 of the volume of the tank. In some situations, the tank may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner have the septic tank cleaned out annually.
- When it becomes necessary to clean the effluent filters, the filters should be removed and the accumulated debris washed back into the septic tank/washer box – not onto the lawn.
- The drain field areas should be maintained to prevent over growth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
- Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

Suggestions to the Homeowner

- As previously mentioned, if you plan to use a garbage disposal in your home you should plan to have your septic and pump tanks cleaned out annually. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
- Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
- Used motor oil or any oily liquids should not be disposed of in a septic tank.
- Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
- Run dishwashers and washing machines only when you have a full load.
- Use liquid detergents. Powdered detergents have binding agents in them that may precipitate in the drain field and lead to a premature failure.
- Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
- Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and, in some cases, certain additives have been found to be detrimental to the life of a system.
- Finally, taking good care of your septic system will help to assure that you experience years of trouble free service at a relatively low cost. On-site wastewater treatment and disposal is still the most environmentally friendly method of treating residential/commercial waste and you should keep your system in use for as long as it is properly functioning! If you have additional questions, please feel free to contact your system designer or the MCHD.

Design Specifics

Daily Design Flow:	480 GPD – 4 bedroom house
Septic Tank Size:	1500 gallons (2 compartments)
Pump Tank Size:	N/A
Effluent Loading Rate:	Design = 0.275 GPD per sq. ft.
Drainline Required:	582 linear feet – use 300 (50 % reduction for the PPBPS)
Supply Length and Diameter:	Approx. 25 feet of 4 inch Sch. 40 PVC
Number of Drainlines:	(6) 3 feet wide x 50 feet long
Distribution Method:	Distribution Box
Number of Panels:	11 per line = 66 total

Division of Environmental Health
On-site Wastewater Section

4th pipe

Property ID: 139-03-225
Lot #: 42
File #: 6170B
Code: 3

ACS

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: RYAN HOMES
Applicant: KENNY OWENS
Address: 10815 DAVID TAYLOR DRIVE, SUITE 100, CHARLOTTE, NC 28262
Date Evaluated: 1/6/06
Proposed Facility: 5 BR *Design Flow (.1949):* 600 GPD *Property Size:* 1
Location of Site: CARLY LANE WEST, MINT HILL, NC 28227
Property Recorded: NO
Water Supply: [X] Public [ ] 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		OTHER PROFILE FACTORS				Profile Class & LTAR
			1941 Structure/ Texture	1941 Consistence Mineralogy	1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr Horiz	
1	LS, 7	0-43	FILL	MASSIVE	>48"	5"	NA	NA	U
		43-48	SBK/SCL	FR/SS/SP/SEXP					NA
2	"	0-38	FILL	MASSIVE	>48"	10"	"	"	"
		38-48	SBK/SCL	FR/SS/SP/SEXP					
3	"	0-48	FILL	MASSIVE	>48"	0"	"	"	"
4	"	0-12	FILL	MASSIVE	>48"	36"	"	"	PS, IV
		12-48	ABK/SBK/C	FI/S/P/SEXP					.3 GPD/FT^2
5	"	0-7	FILL	MASSIVE	>48"	41"	"	"	PS, IV
		7-13	SBK/SCL	FR/SS/SP/SEXP					.25 GPD/FT^2
		13-48	ABK/SBK/C	FI/S/P/SEXP					

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

Other Factors (.1946): FILL A PROBLEM OVER MAJORITY OF SITE
Site Classification (.1948): UNSUITABLE
Evaluated By: CHRIS SHERRILL, RS, LSS 1-9-06
Others Present: KIM STANLEY, RYAN HOMES

Sheet: 2 OF 2
FILE #: 6170B

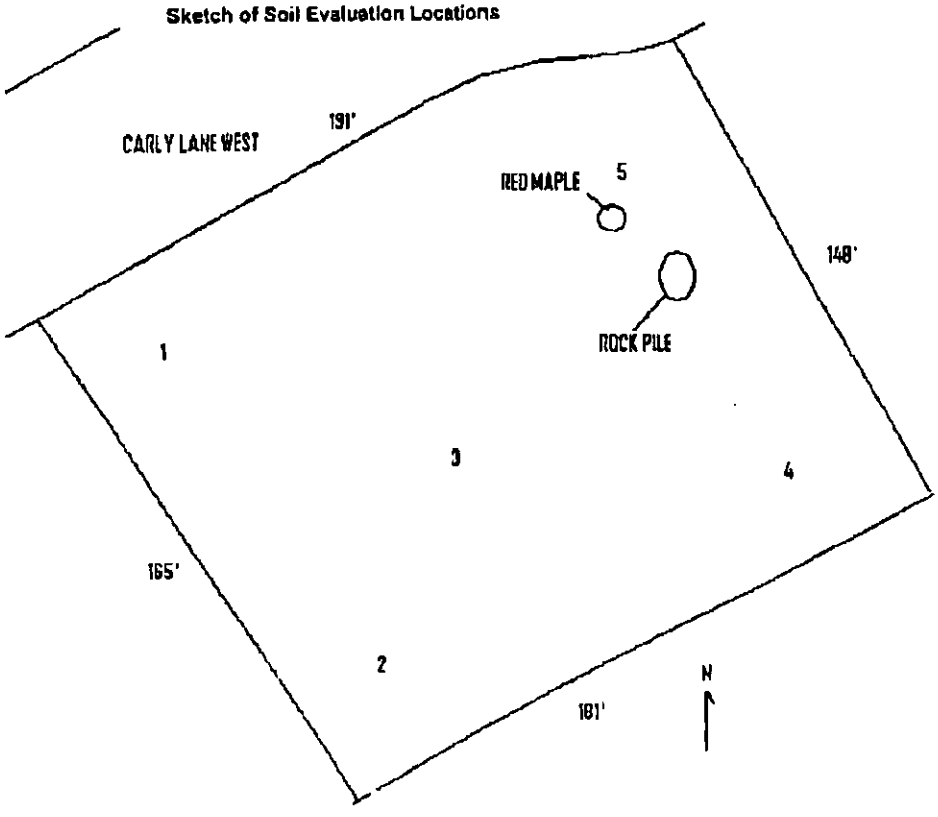
COMMENTS: 100% REPAIR AREA

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-Food 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		CL-Clay Loam	
FP-Flood Plain		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	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

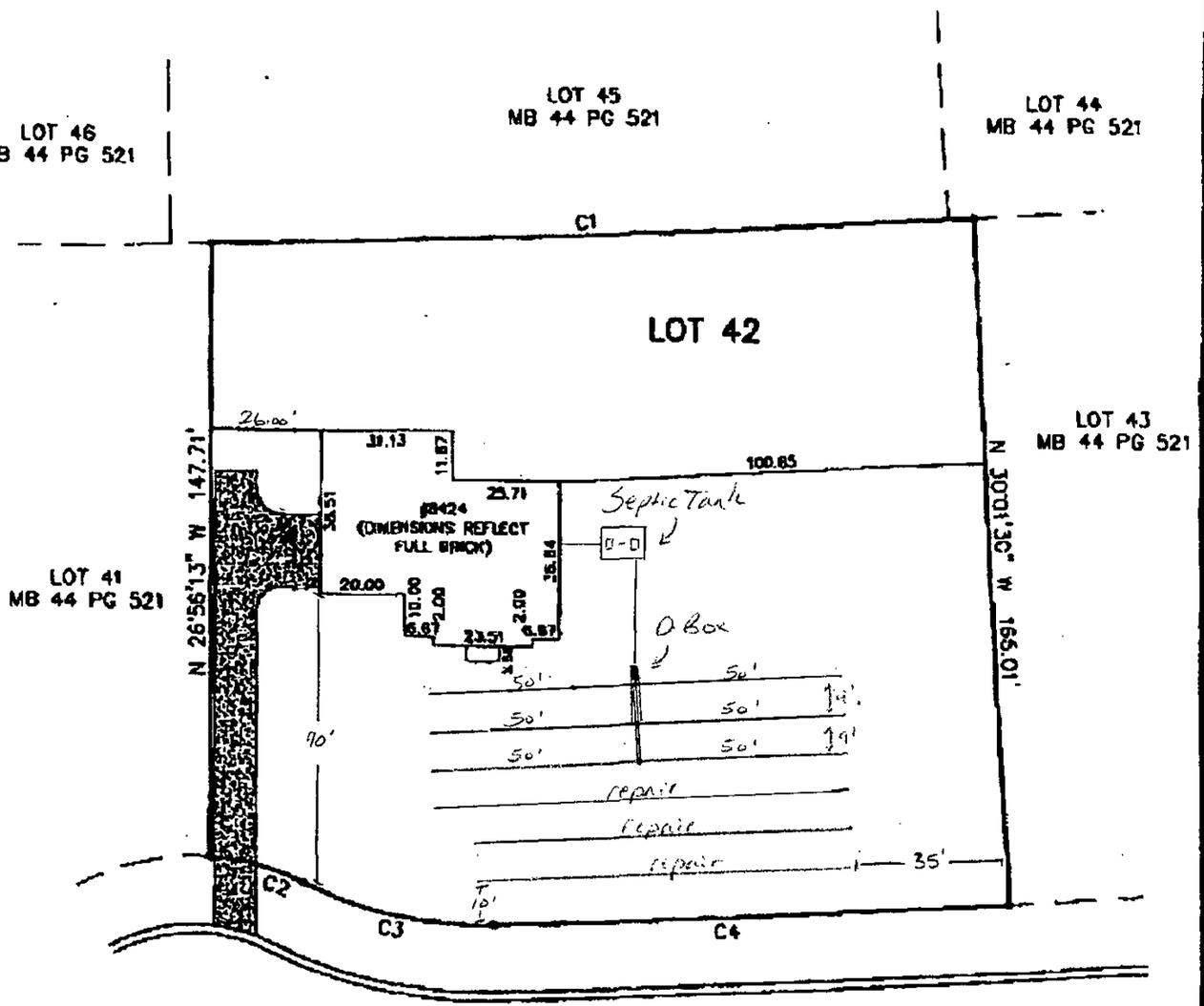


PROPOSED MODEL FIT

PREPARED BY:

DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190

SCALE: 1" = 40'



CARLY LANE
60' PUBLIC R/W

CURVE TABLE					
CURVE	LENGTH	RADIUS	BEARING	CHORD	DELTA
C1	160.55	4063.60	S86°38'49"W	160.53	2°31'39"
C2	23.04	58.00	N77°56'17"E	22.86	22°45'47"
C3	45.36	94.00	S75°10'24"W	45.89	28°15'33"
C4	122.45	4248.79	S60°13'41"W	122.45	1°39'05"

ESTIMATED DRIVEWAY
AREA = 1370.9 SQ.FT.±

STAKEOUT ☐

NOT FOR RECORDATION, CONVEYANCES OR SALES

Subdivision STONEBRIDGE SUBDIVISION, PHASE 1, MAP 1 (REVISED) County MECKLENBURG
Address 8424 CARLY LANE Owner RYAN HOMES
Lot 42 Block ___ Plan WENTWORTH Elevation A Drive (Left) SIDE (Right) ___ (Courtyard) ___ Deck ___
Patio ___ Fireplace ___ Garage (1 Car) ___ (2 Car) X (3 Car) ___ Brick FULL Basement ___ Curtain Wall X
Crawl ___ Slab ___ Other ___

REVISED: CHANGED TO SITE PLAN, FLIPPED HOUSE, 2 CAR GARAGE DWN: CHL CKD: MB DATE: 04 / 13 / 06

STONEBRIDGE\SB-0842.DWG - EHD

DEPARTMENT OF ENVIRONMENT,
HEALTH & NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

SHEET 1 OF 1

COUNTY: MECKLENBURG
PROPERTY I.D. # _____
TAX #: _____

SUBDIVISION: STONEBRIDGE
SECTION/PHASE: LOT 42

3/27/05

FACTORS		PROFILES 1	2	3	4	5	6	7	8	9	10
LANDSCAPE POSITION	.1940										
SLOPE (%)	.1940										
HORIZON 1 DEPTH	.1943	0-3	0-2	0-3							
TEXTURE	.1941 (a)(1)	sl	sl	sl							
CONSISTENCE	.1941	FILL	FILL	FILL							
STRUCTURE	.1941 (a)(2)	M	M	M							
CLAY MINERALOGY	.1941 (a)(3)	—	—	—							
HORIZON 2 DEPTH	.1943	3-10	2-8	3-12							
TEXTURE	.1941 (a)(1)	scl	scl	scl							
CONSISTENCE	.1941	FR	FR	FR							
STRUCTURE	.1941 (a)(2)	SBK	SBK	SBK							
CLAY MINERALOGY	.1941 (a)(3)	S	S	S							
HORIZON 3 DEPTH	.1943	10-48+	8-48+	12-48+							
TEXTURE	.1941 (a)(1)	C	C	C							
CONSISTENCE	.1941	FI	FI	FI							
STRUCTURE	.1941 (a)(2)	ABK	ABK	ABK							
CLAY MINERALOGY	.1941 (a)(3)	S	S	S							
HORIZON 4 DEPTH	.1943										
TEXTURE	.1941 (a)(1)										
CONSISTENCE	.1941										
STRUCTURE	.1941 (a)(2)										
CLAY MINERALOGY	.1941 (a)(3)										
SOIL WETNESS	.1942										
RESTRICTIVE HORIZON	.1944										
SAPROLITE	.1943/.1956										
CLASSIFICATION	.1948	PS	PS	PS							
L. T. A. R. (gpd/ft2)	.1955	0.3	0.3	0.3							

OTHER FACTORS (.1946):

SITE LTAR (gpd/ft2):

AVAILABLE SPACE (.1945):

SITE CLASSIFICATION (.1948):

SYSTEM TYPE:

EVALUATED BY: M. WOOD, A. ADAMS

OTHERS PRESENT:

COMMENTS:

LOT # 42

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

2nd pits

Sheet: 1 OF 2
Property ID: 139-03-225
Lot #: 42
File #: 6170B
Code: 3

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: RYAN HOMES
Applicant: KENNY OWENS
Address: 10815 DAVID TAYLOR DRIVE, SUITE 100, CHARLOTTE, NC 28262
Date Evaluated: 1/6/06
Proposed Facility: 5 BR
Design Flow (.1949): 600 GPD
Property Size: 1
Location of Site: CARLY LANE WEST, MINT HILL, NC 28227
Property Recorded: NO
Water Supply: [X] Public [ ] 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	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 7	0-43	FILL	MASSIVE	>48"	5"	NA	NA	U
		43-48	SBK/SCL	FR/SS/SP/SEXP					NA
2	"	0-38	FILL	MASSIVE	>48"	10"	"	"	"
		38-48	SBK/SCL	FR/SS/SP/SEXP					
3	"	0-48	FILL	MASSIVE	>48"	0"	"	"	"
4	"	0-12	FILL	MASSIVE	>48"	36"	"	"	PS, IV
		12-48	ABK/SBK/C	FI/S/P/SEXP					.3 GPD/FT^2
5	"	0-7	FILL	MASSIVE	>48"	41"	"	"	PS, IV
		7-13	SBK/SCL	FR/SS/SP/SEXP					.25 GPD/FT^2
		13-48	ABK/SBK/C	FI/S/P/SEXP					

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

Other Factors (.1946): FILL A PROBLEM OVER MAJORITY OF SITE
Site Classification (.1948): UNSUITABLE
Evaluated By: CHRIS SHERRILL, RS, LSS
Others Present: KIM STANLEY, RYAN HOMES

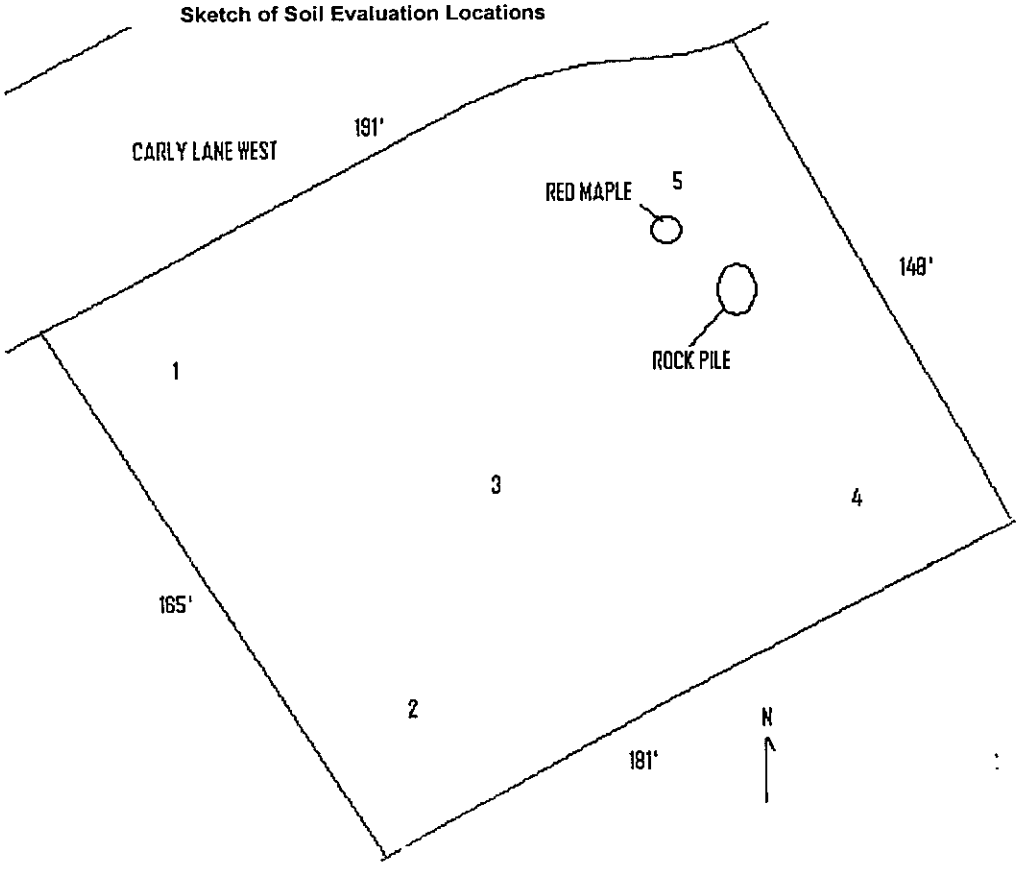
1-9-06

COMMENTS: 100% REPAIR AREA

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Food Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

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

Sketch of Soil Evaluation Locations



MECKLENBURG COUNTY
Health Department

January 9, 2006

Ryan Homes, Inc.
10815 David Taylor Drive, Suite 100
Charlotte, NC 28262

Re: Application for improvement permit for
Property Site: Lot 42, Stonebridge
Health Department file number: **6170B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on **January 6, 2006** evaluated the above-referenced property at the site designated on the site plan that accompanied your improvement permit application. According to your application the site is to serve a 5-bedroom residence, with a design wastewater flow of 600 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) FILL

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 off-site 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 copy 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 **January 9, 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,

Chris Sherrill, R.S, L.S.S.
Authorized Agent - DENR

Encl: (2)

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

Sheet: 1 OF 2
Property ID: PO139-032-25
Lot #: 42
File #: 6170B
Code: 2

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: RYAN HOMES
Applicant: KENNY OWENS
Address: 10815 DAVID TAYLOR DRIVE SUITE 100 CHARLOTTE NC 28227
Date Evaluated: 11/23/05
Proposed Facility: 5 BR
Design Flow (.1949): 600 GPD
Property Size: 1
Location of Site: CARLY LANE WEST MINT HILL NC 28227
Property Recorded: NO
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	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
	LS, 7	0-7	SBK SCL	FR SS SP SEXP	>40"	40"	NA	NA	PS, IV
		7-40	SBK SC	FI S P SEXP					.25
	LS, 7	0-36	FILL	MASSIVE	NA	NA	"	"	U, NA
	LS, 7	0-43	FILL	MASSIVE	"	"	"	"	U, NA
	LS, 7	0-12	FILL	MASSIVE	"	"	"	"	U, NA
		12+	AUGER	REFUSAL					
	LS, 7	0-12	GR SL	VFR SS SP SEXP	>48"	>48"	"	"	PS, IV
		12-44	SBK/ ABK C	FI S P SEXP					.25
		44-48	SBK CL	FR S P SEXP					

Description	Initial System	Repair System
Available Space (.1945)	U	U
System Type(s)		
Site LTAR	.25	.25

Other Factors (.1946): BACKHOE PITS REQD FOR FURTHER EVALUATION
Site Classification (.1948): UNSUITABLE
Evaluated By: CHRIS SHERRILL, RS, LSS
Others Present: NONE

COMMENTS: 100% REPAIR

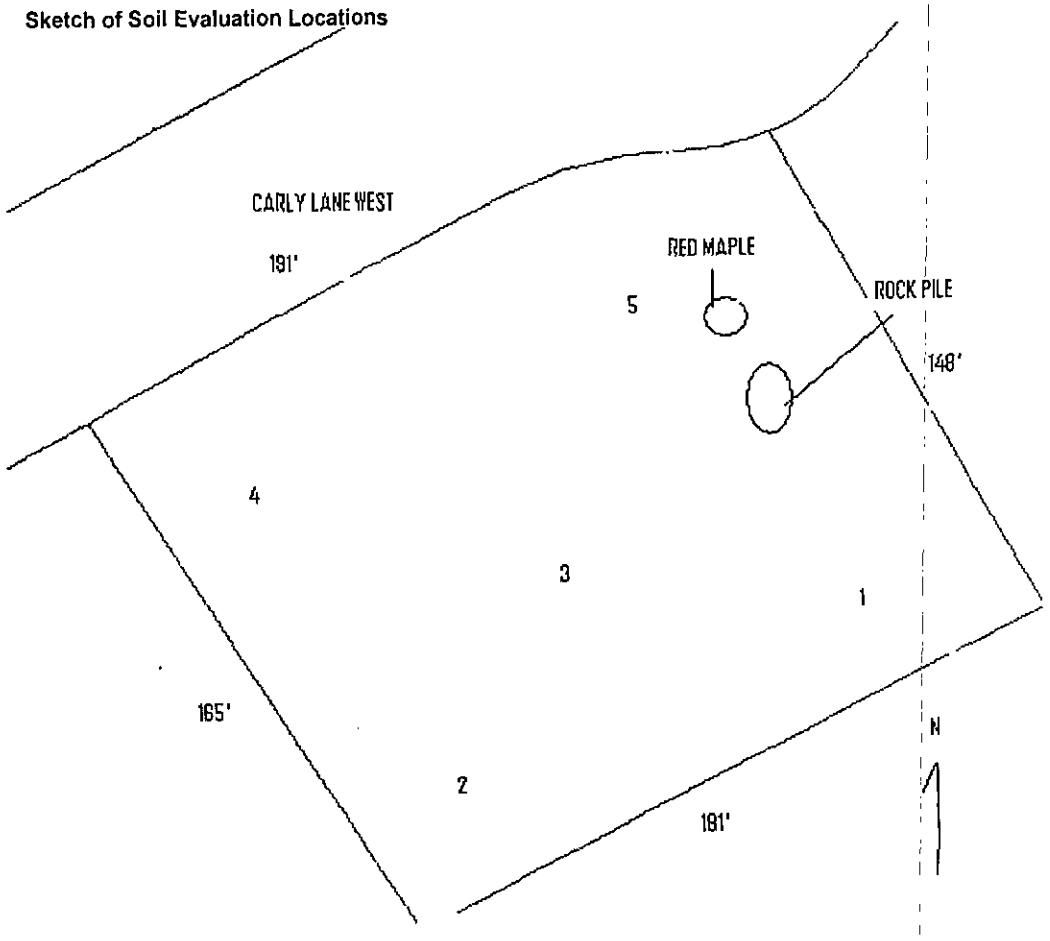
Landscape Position	Group	Texture	.1955 LTAR
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LS-Linear Slope			
FS-Food Slope	II	SL-Sandy Loam	0.8 - 0.6
NS-Nose Slope		L-Loam	
HS-Head Slope			
CC-Concave Slope	III	SI-Silt	0.6 - 0.3
CV-Convex Slope		SICL-Silty Clay Loam	
T-Terrace			
FP-Flood Plain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

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

Consistence Moist	Consistence Wet
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FR-Friable	SS-Slightly Sticky
FI-Firm	S-Sticky
VFI-Very Firm	VS-Very Sticky
EFI-Extremely Firm	NP-Non-Plastic
	SP-Slightly Plastic
	P-Plastic
	VP-Very Plastic

Mineralogy
SEXP-Slightly Expansive
EXP-Expansive

Sketch of Soil Evaluation Locations



JLA 100.00 X 33575 2nd site Evaluation 11/6/05 #778 8 3a.m.

GWS – RES. APP 07/05

SEPTIC FEE: $200.00
DATE: 9/29/05
CR1: CK#25044

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

V.W.

WELL FEE: _____
DATE: _____
CR1: _____

FILE # 6170B

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 #: 139-03-225 PO
STREET ADDRESS: CARLY LAKE WEST
CITY:
STATE: NC ZIP:
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #: 42 STONEBRIDGE
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:
NUMBER OF BEDROOMS: 4-5
NUMBER OF OCCUPANTS: 6

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: RYAN HOMES
ADDRESS: 10815 David Taylor DR, SUITE 100
CITY: Charlotte
STATE: NC ZIP: 28227
HOME PHONE: — WORK PHONE: 704-548-3534
MOBILE PHONE: — FAX: 704-503-4576

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: KENNY OWENS
ADDRESS: 6206 BIRKDALE VALLEY DR APT 515
CITY: CHARLOTTE
STATE: NC ZIP: 28277
HOME PHONE: — WORK PHONE: 704-540-0991
MOBILE PHONE: 704-502-5582 FAX: 704-541-8094

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

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

Kenneth L. — 9-21-05
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

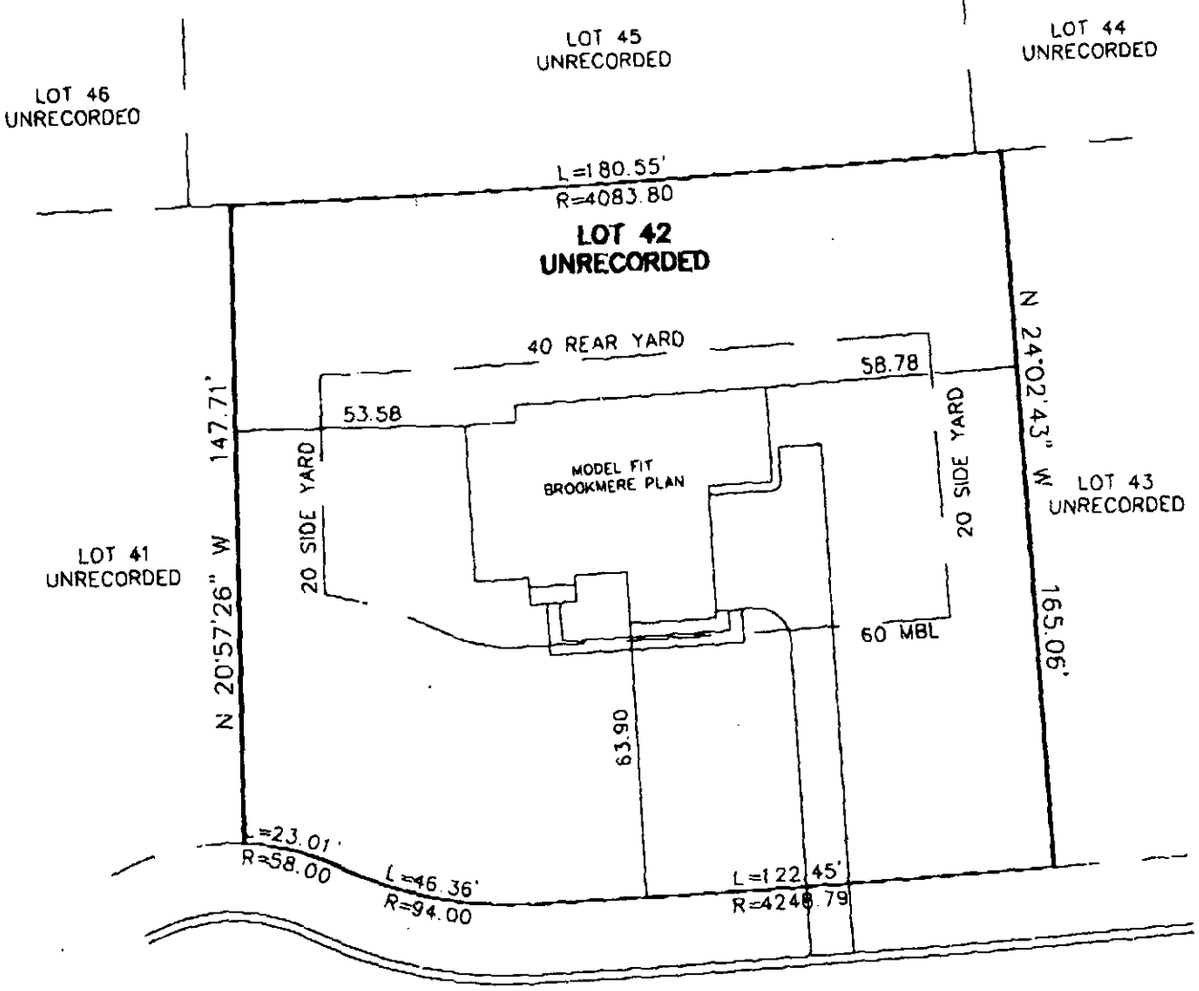
PROPOSED MODEL FIT

PREPARED BY:

DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190

**MODEL FIT ONLY
NOT TO BE USED
FOR CONSTRUCTION
OR STAKING**

SCALE: 1" = 40'



CARLY LANE WEST
UNRECORDED R/W

NOTE: ALL LOT INFORMATION TAKEN FROM UNAPPROVED SITE PLAN, DELTA LAND SERVICES IS NOT RESPONSIBLE FOR ANY CHANGES DUE TO RECORDED PLAT AND RECORDED COVENANTS AND RESTRICTIONS

ESTIMATED DRIVEWAY AREA ≈ 1640.2 SQ.FT.±

STAKEOUT ☐

NOT FOR RECORDATION, CONVEYANCES OR SALES

Subdivision STONEBRIDGE (UNRECORDED) County MECKLENBURG
Address HOLDING STREET Owner RYAN HOMES
Lot 42 Block ___ Plan BROOKMERE Elevation A Drive (Left) ___ (Right) SIDE (Courtyard) ___ Deck ___
Patio ___ Fireplace ___ Garage (1 Car) ___ (2 Car) ___ (3 Car) X Brick ___ Basement ___ Curtain Wall ___
Crawl ___ Slab X Other IN-LAW SUITE

REVISED: DWN: EHD CKD: EHD DATE: 07/13/05

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 09/28/05
Receipt #: 37205
Check / Auth #: CHECK 2569
Received By: WALKEVA

Amount: 3,000.00
Tendered: 0.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: RYAN HOMES
Attn:
Address: 10815 DAVID TAYLOR DR., SU 100
Address:
City/State/Zip: CHARLOTTE, NC 28227

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen STONEBRIGE LOT 25-47		1	3,000.00	3,000.00

----------Outstanding Balances----------

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