8069B

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

4321

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

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

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

3. **JOB LOCATION INFORMATION:**
TAX PARCEL NUMBER: 137 12304
STREET ADDRESS: Corner of Surface Hill Road and Wood Hollow Road
CITY: Mint Hill
STATE: NC ZIP:
SUBDIVISION NAME:
LOT #: 8 LOT SIZE (acres): 1.96
TOWNSHIP: Clear Creek 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: 1,800
NUMBER OF BEDROOMS: ~~3~~ 4 - JR 11/9/09
NUMBER OF OCCUPANTS: 4
FOUNDATION TYPE:
☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

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

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

6. **WATER SUPPLY:** ☑ MUNICIPAL ☐ PRIVATE WELL ☐ PUBLIC WELL ☐ SHARED WELL ☐ OTHER _____

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

8. **PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE** *(1-MOST DESIRED 5-LEAST DESIRED)*:
☐ N/A ☑ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER Saprolite
8A. **RANK:** 1 2 3 4 5

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

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

10. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** 1/16/2009 ☐ UNKNOWN

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

12. **PROPERTY OWNER:**
NAME: Jason R Bartell
ADDRESS: 1706 Walkup Avenue
CITY: Monroe
STATE: NC ZIP: 28110
HOME PHONE: 704-361-1932
WORK PHONE: 704-226-0894
MOBILE PHONE: 704-361-2153
FAX: 704-226-1775

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**
NAME: Larry Thompson
ADDRESS: 114 Orchard Ridge Road
CITY: Locust
STATE: NC ZIP: 28097-8748
HOME PHONE: 704-888-1796
WORK PHONE: 704-301-4881
MOBILE PHONE:
FAX: 704-888-1496
Thompson Environmental Consulting Inc

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

Revised on: 7/1/08

14. SEPTIC SYSTEM PERMIT APPLICATION:

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

_____ (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

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

_____ (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below.

_____ 7/22/09

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

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OFFICE USE ONLY

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

SEPTIC APPLICATION FEES RECEIVED: $ 250.00 DATE FEE RECEIVED: 7/27/09

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

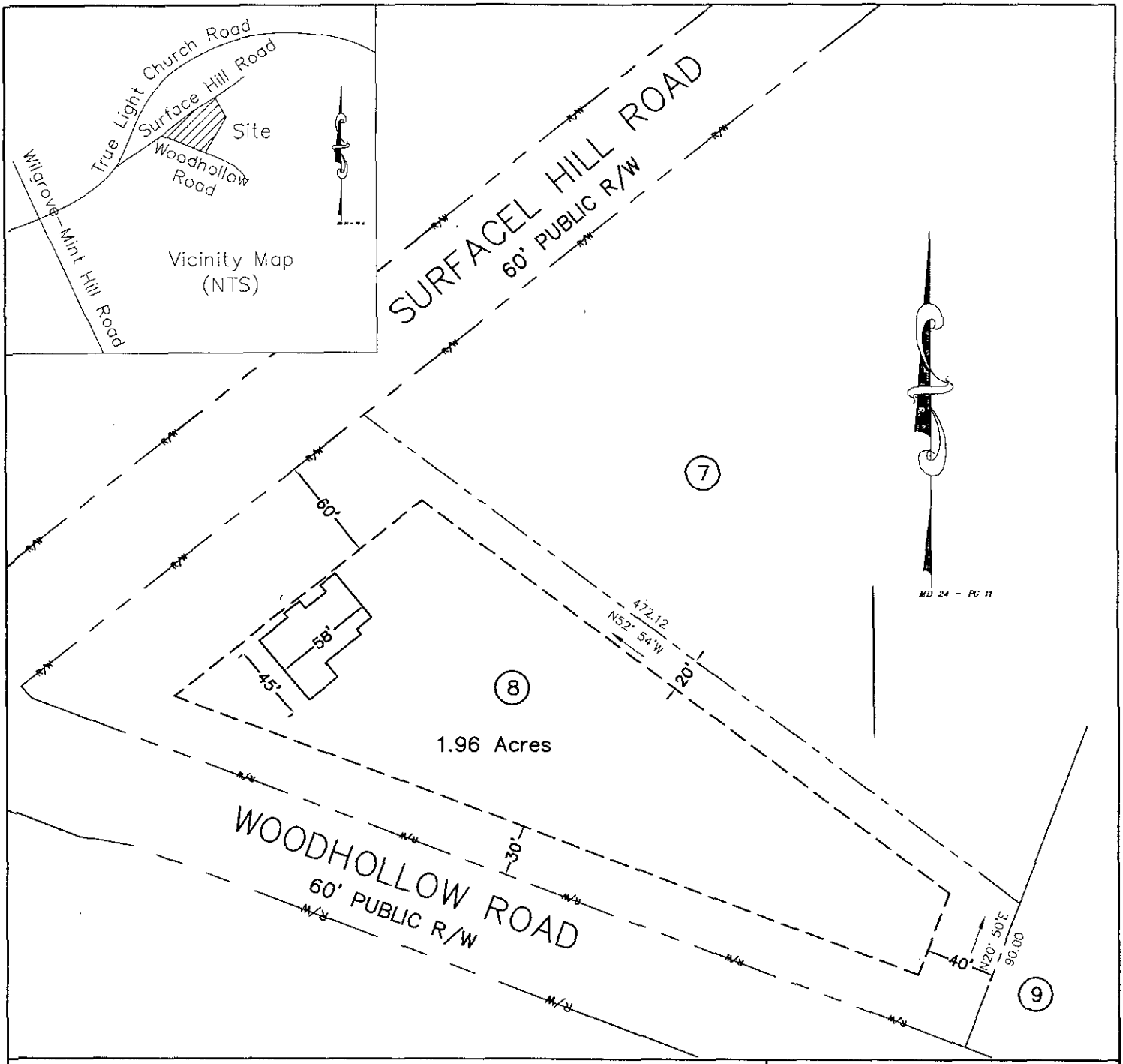
APPLICATION PROCESSED BY: JC

GWS FILE NUMBER ASSIGNED: 8069B

APPLICATION ID NUMBER ASSIGNED: 4021

COMMENTS:

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



FLOOD CERTIFICATION

THIS PROPERTY DOES NOT LIE WITHIN A F.E.M.A. SPECIAL FLOOD HAZARD AREA.

GENERAL NOTES

1. MEASUREMENTS ON THE MAP ARE IN FEET AND DECIMALS THEREOF.
2. ALL SET CORNERS ARE 1/2" IRON REBAR UNLESS OTHERWISE NOTED.
3. THIS PROPERTY MAY BE SUBJECT TO ADDITIONAL EASEMENTS, RIGHT-OF-WAYS AND RESTRICTIONS NOT DISCERNIBLE BY OBSERVATION AT THE TIME OF SURVEY OR THAT MAY BE OF RECORD. NO TITLE SEARCH HAD BEEN DONE.
4. THIS DOCUMENT IS ONLY FOR THE PURPOSE OF SHOWING PROPOSED HOUSE LOCATION. THE FINAL LOCATION OF THE HOUSE MAY VARY. THIS DOCUMENT IS NOT TO BE USED FOR REAL ESTATE CONVEYANCE.

GRAPHIC SCALE (IN FEET)

80 0 40 80 160 320

1 INCH = 80 FEET

PROPOSED HOUSE LOCATION

FOR: Mr. Jason Bartell

LOT 8
Surface Hill Rd
Town of Mint Hill
Mecklenburg Co., NC

DS Engineering
1223 Fox Run Dr.,
Charlotte, NC 28212
E-mail: davshkl@gmail.com
ph. 704/497-0081
fax 1-206/888-4992

S&EC

Soil & Environmental Consultants, PA

236 LePhillip Court, Suite C • Concord, North Carolina 28025 • Phone: (704) 720-9405 • Fax: (704) 720-9406
www.SandEC.com

January, 22 2007
Job #5-1908s1

Kevin Rushing
505 Cedarwood Dr.
Monroe, NC 28112

Re: Soil suitability for ±13-acre tract on Surface Hill Rd.- Mecklenburg County, NC

Soil and Environmental Consultants, PA (S&EC) has performed a detailed soil/site evaluation on a property totaling approximately 13-acres in Mecklenburg County. The property is located on Surface Hill Rd. northwest of Mint Hill, NC. At your request the evaluation was performed to evaluate soil areas for subsurface wastewater disposal.

S&EC walked over the property, taking note of the land (slope, drainage patterns, past use, etc.) as well as soil conditions (depth, texture, structure, seasonal wetness, restrictive horizons, etc.) through hand auger borings. From these observations an evaluation of the site relative to subsurface wastewater disposal was developed. The soil/site evaluation criteria used was that contained in 15 A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems".

FINDINGS

The subject property is located in south eastern Mecklenburg County northwest of Mint Hill. The upland soils identified were most similar to the Helena and Cecil soil series. Helena soils have a loam surface over a clay subsoil. The clay textures in the Helena series are considered expansive. During wetting and drying cycles the clay exhibits shrinking and swelling behavior which limits the hydraulic performance of the soil. Expansive clay mineralogy is considered unsuitable for subsurface waste disposal systems. Areas of soil similar to the Cecil soil series were also identified on the property (see attached map for size and location). Cecil soils have a sandy loam surface over a clay subsoil. The average usable depth encountered in the Cecil soil series was 24 inches or more which has potential for supporting conventional (at-grade and shallow) and LPP (low pressure pipe) septic systems. Also identified on the property were areas that contained soil depths of 18 inches that have potential of supporting drip irrigation, and pretreated septic systems (see attached soils map). Depth to restrictive horizons (i.e. soil wetness and rock) determines what kind if any septic system can be supported on the property. The attached map is not a survey. Borings were located via GPS technology to create the soil polygons. Usable soil areas were not flagged in the field.

Once potentially usable areas are identified, the next consideration is the horizontal extent (size) of those areas. The size and configuration of the usable soil area dictate how many systems an area can support. The size of a subsurface septic field is determined by; 1) the design flow (120 gallons/bedroom/day in residences), and 2) long term acceptance rate (LTAR) of the soil (based

on the hydraulic conductivity of the soil, a function of the soil's texture, mineralogy, structure, porosity, etc.). The configuration of the soil area must be such that an efficient layout of drain lines (on contour) is possible and not contain unsuitable topography. An additional consideration is the required setbacks for the system from various elements such as wells (100'), streams and ponds (50') or more depending on watershed regulations, property lines (10'), top of embankment (15'), watershed buffers, etc. (see Attachment 1).

GENERAL WASTEWATER CONSIDERATIONS

The utility of a potential useable soil area for a subsurface system is most accurately determined by an on-ground layout of the proposed system. The total area needed for system and repair areas will depend upon the system type, the layout of that system and the total design flow (factors mentioned above). A typical area needed for a four-bedroom residence is approximately 14,000 to 16,000ft^2 (could be more depending on site features). These estimates reference Laws and Rules for Sewage Treatment and Disposal Systems for North Carolina and use a LTAR of 0.3gpd/ft^2 for conventional septic systems. The required soil area estimates do not include area for a well setback, drive or house envelope. The health department will determine the design LTAR after their evaluation. S&EC will be glad to assist in any system layout or sizing calculations if requested.

A site plan for any lot must ensure that adequate soil area for system and repair is unaffected by site elements (house placement, driveway, wells, patios, decks, etc.). The area ultimately designated by the health department for the septic system and repair must remain undisturbed (no mechanical clearing, excavation, heavy traffic or other significant site disturbing activities) until authorized by the health department. A lot with adequate usable soil area may be rendered unusable as a result of improper site planning and/or disturbance.

This report discusses the general location of potentially usable soils for on-site subsurface wastewater disposal and does not constitute or imply any approval or permit needed by the client from the local heath department. S&EC, PA is a professional consulting firm that specializes in the delineation of soil areas for wastewater disposal and the layout and design of wastewater treatment systems. As a professional consulting firm, S&EC is hired for its professional opinion in these matters. The rules governing wastewater treatment (interpreted and governed by local and state agencies) are ever evolving, and in many cases, affected by the opinions of individuals employed by these governing agencies. Because of this, S&EC, PA cannot guarantee that areas delineated and/or systems designed will be permitted by the governing agencies. As always, we recommend that anyone making financial commitments on a tract be fully aware of individual permit requirements on that tract prior to final action.

An individual septic system permit will be required for each lot prior to obtaining a building permit. This will involve a detailed evaluation by the local health department to determine system size and layout, well, drive and house location, etc. Only after developing this information can a final determination be made concerning the specifics of system design and site utilization.

RECOMMENDATIONS

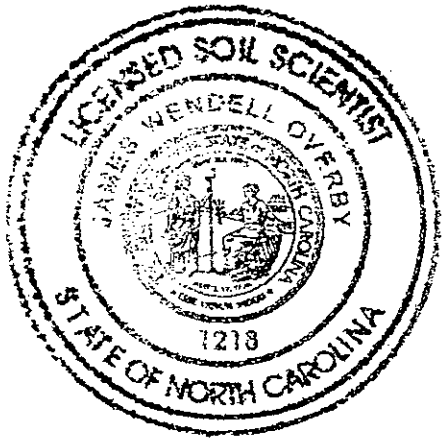
If further pursuit of improvement permits is sought we recommend creating a lot configuration based on our soil findings. Each lot should have enough usable soil allotted for an initial septic system and a repair system. The use of offsite systems (septic easements) and pretreatment may increase lot yield. S&EC will be glad to review a final lot configuration and give suggestions. Once a final lot configuration is developed applications to the county can be made for each proposed lot. We recommend meeting the county onsite during there evaluation to review our soil findings. Other work that may be required to obtain improvement permits, but not limited to, include septic system layouts and designs, meeting the county/state onsite, and hydraulic conductivity tests if pretreatment is proposed. Identified on the property were stream and potential wetland features which may require a permit from the US Army Corps of Engineers if impacted (i.e. stream crossings). S&EC will be glad to assist in the delineation and permitting process for such features. Please visit our website at www.sandec.com.

Sincerely,

Wendell Overby
NC Licensed Soil Scientist

Eric Bailey
Soil Scientist in Training

Encl: Soil/Site Map
Attachment 1



Attachment 1

.1950 Location of Sanitary Sewage Systems

(c) Every sanitary sewage treatment and disposal system shall be located at least the minimum horizontal distance from the following:

(1)	any private water supply source including a well or spring	100 feet
(2)	any public water supply source	100 feet
(3)	streams classified as WS-I	100 feet
(4)	water classified as S.A.	100 feet from mean high water mark
(5)	Other coastal waters	50 feet from mean high water mark
(6)	any other stream, canal, marsh, or other surface waters	50 feet
(7)	any Class I or Class II reservoir	100 feet from normal pool elevation
(8)	any permanent storm water retention pond	50 feet from flood pool elevation
(9)	any other lake or pond	50 feet from normal pool elevation
(10)	any building foundation	5 feet
(11)	any basement	15 feet
(12)	any property line	10 feet
(13)	top of slope of embankments or cuts of 2 feet or more vertical height	15 feet
(14)	any water line	10 feet
(15)	drainage systems:	
	(A) Interceptor drains, foundation drains and storm water diversions	
	(i) upslope	10 feet
	(ii) sideslope	15 feet
	(iii) downslope	25 feet
	(B) Groundwater lowering ditched and devices	25 feet
(16)	any swimming pool	15 feet
(17)	any other nitrification field (except repair area)	20 feet

(b) Ground absorption, sewage treatment and disposal systems may be located closer than 100 feet from a private well supply, except springs and uncased wells located downslope and used as a source of drinking water, repairs, space limitations and other site-planning considerations but shall be located the maximum feasible distance and, in no case, less than 50 feet.

(c) Nitrification fields and repair areas shall not be located under paved areas or areas subject to vehicular traffic. If effluent is to be conveyed under areas subject to vehicular traffic, ductile iron or its equivalent pipe shall be used. However, pipe specified in Rule .1955 (e) may be used if a minimum of 30 inches of compacted cover is provided over the pipe.

Note: Systems over 3000 GPD or an individual nitrification fields with a capacity of 1500 GPD or more have more restrictive setback requirements, see .1950 (a) (17) (d) for specifics.

Report Number:
R09196-0047
Acount Number:
46925

A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com

TO: THOMPSON ENV CONSULTING INC
114 ORCHARD RIDGE RD
LOCUST, NC 28097

Grower: JAY BARTELL

Submitted By: LARRY THOMPSON

ATTN: LARRY THOMPSON LSS

Date Received: 7/15/09 **Date Reported:** 07/17/2009

REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
14871	PIT1	Sand	34	%	Bouyoucos 1962
		Silt	43	%	Bouyoucos 1962
		Clay	23	%	Bouyoucos 1962
		Soil Textural Class	Loam		Bouyoucus 1962
14872	PIT2	Sand	70	%	Bouyoucos 1962
		Silt	19	%	Bouyoucos 1962
		Clay	11	%	Bouyoucos 1962
		Soil Textural Class	Sandy Loam		Bouyoucus 1962
14873	PIT5	Sand	58	%	Bouyoucos 1962
		Silt	25	%	Bouyoucos 1962
		Clay	17	%	Bouyoucos 1962
		Soil Textural Class	Sandy Loam		Bouyoucus 1962
14874	PIT8	Sand	68	%	Bouyoucos 1962
		Silt	21	%	Bouyoucos 1962
		Clay	11	%	Bouyoucos 1962

ALS-MISC

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Paul Chu, Ph.D.

Report Number:
R09196-0047
Acount Number:
46925

A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com

TO: THOMPSON ENV CONSULTING INC
114 ORCHARD RIDGE RD
LOCUST, NC 28097

Grower: JAY BARTELL

Submitted By: LARRY THOMPSON

ATTN: LARRY THOMPSON LSS

Date Received: 7/15/09 **Date Reported:** 07/17/2009

REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
14874		Soil Textural Class	Sandy Loam		Bouyoucus 1962

ALE-MISC

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Paul Chu, Ph.D.

Subject: Re: Surface Hill Road Feedback
From: Larry Thompson <larry@thompsonenv.com>
Date: Fri, 17 Jul 2009 11:41:51 -0400
To: larry@thompsonenv.com
CC: Jay Bartell <jay-Bartellplumbing@carolina.rr.com>, Dmitry <davshkl@gmail.com>

Hi Jay,

Good news - the soil particle analysis on the samples that I submitted are all "suitable" textures for the saprolite. Again, I strongly recommend that we go ahead and submit applications for the four lots that I reference below and let me work with the county to get your permits. If you can make these four lots work, it looks like you will be good to go.

Again, I am out of the country from July 20 until July 28. If you have any questions before then, please let me know.

Thanks!

Larry

Larry Thompson wrote:

> Jay, Dmitry:
>
> We were able to visit the Surface Hill Road tract yesterday and we put down a series of eight pits on Lots 5, 6, 7, 8 and 9. Pit numbers 1, 2, 5 and 8 (on Lots 7, 8 and 9) appear to have suitable texture for saprolite. I am going to send off four samples for soil particle analysis to confirm. Pits 3, 4, 6 and 7 (on Lots 5, 6 and 7) were unsuitable.
>
> Based upon your concept plan and the proposed site plan that S&EC sent to you, it appears as if S&EC wanted you to enlarge Lots 5 and 6 to work with the suitable soil areas they found. I also see that they wanted you to go "offsite" for systems on what would be (your concept plan) Lots 8 and 9. I see where they shifted one lot over to Woodhollow Road to maximize the good soil area on Surface Hill Road.
>
> It appears to me that your current concept plan, when overlain by S&EC soil layer, would support systems on Lots 1, 2, 3, 4 (this one appears tight but S&EC did not propose to change the lot lines), 6 and 10.
>
> There are four lots in the current concept plan that I am concerned with:
>
> Lot 5 - appears to have a very small amount of suitable soil mapped in the front and along the right sideline (my pits were no good on this lot)
> Lot 7 - appears to have a small amount of good soil mapped along the left sideline (appears to have suitable saprolite from my pits)
> Lot 8 - has a decent sized area of shallow soils mapped along the right sideline and also appears to have suitable saprolite - would like to work with HD to reach an agreement
> Lot 9 - limited area of soils mapped on the back of the lot across the drainage easement but we did have a good pit on this lot.
>
> Jay - in our phone conversation this AM I stated that I would like for you to submit applications for septic system to Mecklenburg County Environmental Health on just three lots and let us work with

David Cornelius or whomever currently works that area to see if we can get these lots to work for septic. I think it would be a safe bet to expand that to four lots which are Lots 5, 7, 8 and 9. At first glance it looks like Lot 8 has plenty of soil but the soils are mapped as being very shallow. I would like to work with the county to see if we could get a saprolite system on this lot which is a lot cheaper to install and there is no maintenance contract required for this system.

Please understand that my recommendations are assuming that S&EC's soil work is accurate. I have no reason to believe that they are not but I just need to throw that out there. If we can get systems approved on Lots 5, 7, 8 and 9 you should be good to go on the remaining lots. I would feel comfortable recording the plat once I know something can be done on these lots. The proposed lot lines are clearly marked with the exception of the lines between Lots 6, 7 and 8. The county will need these sidelines marked before they will evaluate. They also ask to see proposed house sites (tentative footprints) on the lots you are evaluating as well.

One other tidbit that I think you need to know up front is that the hatched areas of mapped soils (18 - 24 inches in depth) can yield very expensive systems. Typically these soil depths will support drip irrigation systems that have a install price tag anywhere from $21 - 25k with $23k being average at the present. Depending upon the price point on these lots and the building restrictions, this could be a turn off for perspective buyers. Having stated that, there may be suitable saprolite in these areas which would be a blessing. We did not look in these areas - we only wanted to see what, if anything, you had in areas that had been marked totally unsuitable by S&EC.

I am attaching your current concept plan with my markups on it. The pit locations are approximate since I could not get any GPS points yesterday. The satellites were not cooperating at all.

Just so that you will know, I will be out of the country from July 20 - 28 and I am not sure how my Internet access is going to be. It can take up to two weeks to get the soil particle analysis tests back from the lab and it can take a couple of weeks for the county to get you in the system and finally get out to the property for their review. Again, I would recommend that you get applications into the county now and, if you like, make a note on them to coordinate with me anytime after July 29th. We should have the lab results by that date and I will be back in the country.

Please let me know if you have any questions about what I am telling you.

Larry

PS: Here are some useful links for you:

Mecklenburg Groundwater and Wastewater Section:
http://www.charmeck.org/Departments/GWS/home.htm

Application for Septic System Permit:
http://www.charmeck.org/NR/rdonlyres/ew3t74wknu4u37jetxbac6pwtdhjl34cpw7ecofgbd5l2grtkloiuchaivx5

Larry Thompson, RS, PWS, LSS <larry@thompsonenv.com>
Thompson Environmental Consulting, Inc.

Soil-JAY_BARTELL-R09196-0047-1.pdf **Content-Type:** application/pdf
Content-Encoding: base64

MECKLENBURG COUNTY
Health Department

August 2, 2009

Jason Bartell
1706 Walkup Drive
Monroe NC 28110

Re: Application for improvement permit for:
Property Site: Surface Hill Road Lot 8
Health Department file number: **8069B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on August 11, 2009 evaluated the above-referenced property at the site designated on the plat that accompanied your improvement permit application. According to your application the site is to serve a 3 bedroom residence, with a daily design flow of 360 gallons per day. The evaluation was done in accordance with the laws and rules governing wastewater systems in North Carolina General Statute 130A-333 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .1900 and related rules.

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

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

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

The site evaluation included consideration of possible site modifications, and modified, innovative or alternative systems. However, the Health Department has determined that none of the above options will overcome the severe conditions on this site. A possible option might be a system designed to dispose of sewage to another area of suitable soil or 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 August 2, 2009. Meeting the 30-day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you might request. Do not wait for the outcome of any informal review if you wish to file a formal appeal.

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

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

Sincerely,

David Cornelius, RS
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: 13712304 PO
Lot #: 8
File #: 8069B
AppID: 4321

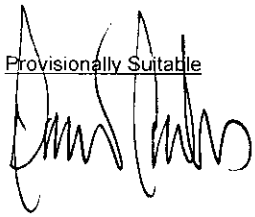
SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Jason Bartell
Applicant: Larry Thompson
Address: 1706 Walkup Avenue
Date Evaluated: 8/11/2009
Proposed Facility: Residence
Design Flow (.1949): 480 ~~360~~ GPD
Property Size:
Location of Site: Surface Hill Road
Property Recorded:
Water Supply: [X] Municipal [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [ ] Auger Boring [X] 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	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 5%	0-6	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	25	PS	NONE	PS, SAP II .3GPD/FT^2
		6-25	SBK/CL	FI/SEXP/SS/SP					
		25-48	M/L	FR/SEXP/SS/SP					
2	"	0-6	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	21	PS	NONE	PS, SAP II .3 GPD/FT^2
		6-21	WKSBK/CL	FI/SEXP/SS/SP					
		21-48	M/L	FR/SEXP/SS/SP					
3	"	0-4	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48	PS	NONE	US, IV
		4-31	SBK/CL	FI/SEXP/SS/SP					
		31-44	M/CL	FI/EXP/S/P					
		44-48	M/L	FR/SEXP/SS/SP					
4	"	0-3	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48	US	NONE	PS, IV .25 GPD/FT^2
		3-17	WKSBK/CL	FI/SEXP/SS/SP					
		17-30	M/SCL	FI/SEXP/SS/SP					
		30-48	SBK/C	FI/SEXP/SS/SP					
5	"	0-3	GR/SCL	FR/SEXP/SS/SP	CHROMA 2@ 33" 7.5 YR	33	N/A	NONE	US, IV
		3-33	WKSBK/CL	FI/SEXP/SS/SP					
		33-48	M/SCL	FI/SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIbg	IVa
Site LTAR	0.25 GPD/FT^2	0.25 GPD/FT^2

Other Factors (.1946):
Soil Evaluation By: David Cornelius,RS
Others Present:
Site Classification (.1948): Provisionally Suitable
Site Evaluation By:
Others Present:



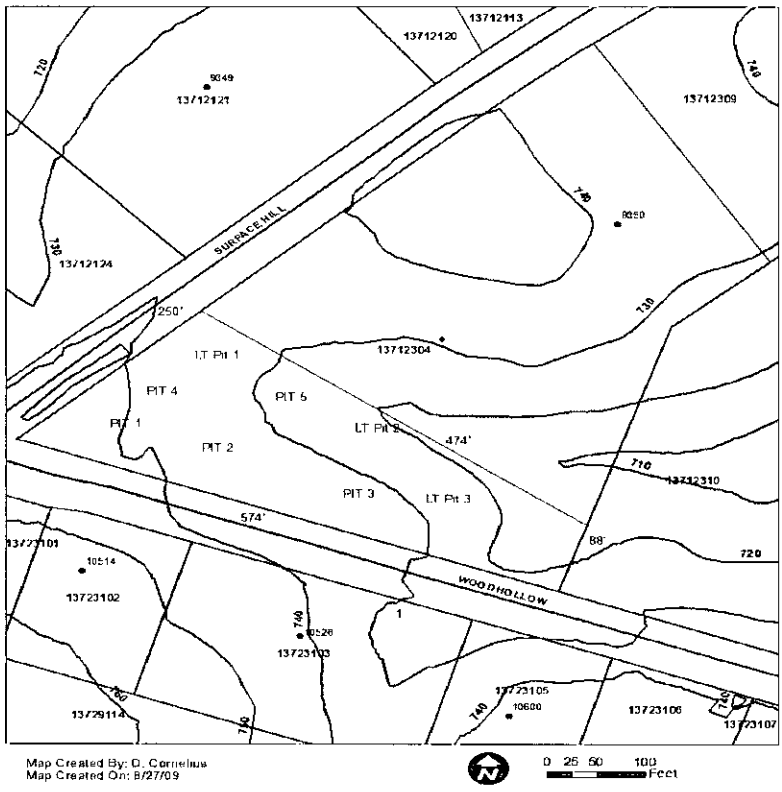
COMMENTS: 100% repair

FILE #: 8069B

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	

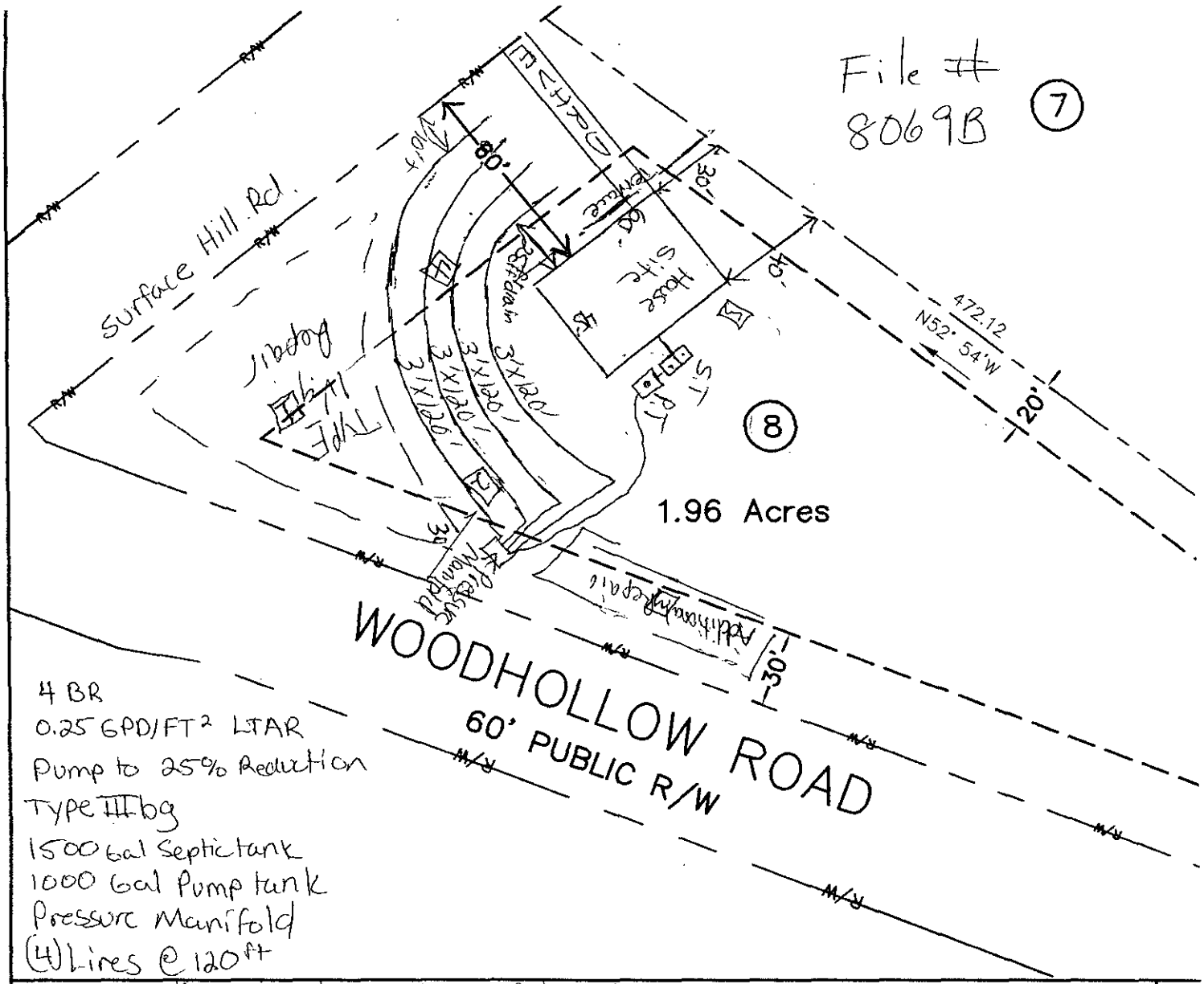
Soil Evaluation For Surface Hill Rd.
Lot #8



Map Created By: D. Cornelius
Map Created On: 8/27/09

0 25 50 100 Feet

File # 8069B



4 BR
0.25 GPD/FT² LTAR
Pump to 25% Reduction
Type III bg
1500 Gal Septic tank
1000 Gal Pump tank
Pressure Manifold
(4) Lines @ 120 ft
Install lines level w contour of land.

FLOOD CERTIFICATION

THIS PROPERTY DOES NOT LIE WITHIN A F.E.M.A. SPECIAL FLOOD HAZARD AREA.

GENERAL NOTES

1. MEASUREMENTS ON THE MAP ARE IN FEET AND DECIMALS THEREOF.
2. ALL SET CORNERS ARE 1/2" IRON REBAR UNLESS OTHERWISE NOTED.
3. THIS PROPERTY MAY BE SUBJECT TO ADDITIONAL EASEMENTS, RIGHT-OF-WAYS AND RESTRICTIONS NOT DISCERNIBLE BY OBSERVATION AT THE TIME OF SURVEY OR THAT MAY BE OF RECORD. NO TITLE SEARCH HAD BEEN DONE.
4. THIS DOCUMENT IS ONLY FOR THE PURPOSE OF SHOWING PROPOSED HOUSE LOCATION. THE FINAL LOCATION OF THE HOUSE MAY VARY. THIS DOCUMENT IS NOT TO BE USED FOR REAL ESTATE CONVEYANCE.

GRAPHIC SCALE (IN FEET)

80 0 40 80 160 320

1 INCH = 80 FEET

Scale 1" = 60'

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 #: **30004321** GWS File #: **8069B** Tax Parcel #: **137-123-04**

- 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):** 11/19/2014

Type of Installation: Residential - New System Lot Number: 8

Structure Type: HOUSE Size (ft^2): 1800 # Bedrooms: 4 # Occupants: 4

Building Foundation: Crawl Space Water Supply: Municipal

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

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1440	Total Trench Length (ft):	480
Maximum Trench Depth (in):	36	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

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

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal).	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	960	Total Trench Length (ft):	320
Maximum Trench Depth (in):	36	Depth of Media (in):	N/A	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: Jeremy Michael Owner/Legal Agent:_____
Print Name

Signature: Jeremy Michael Signature:_____

Date Issued: 11/19/2009

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 #: **30004321** GWS File #: **8069B**

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 property owner to obtain a contract with a Certified Operator to perform routine inspections and maintenance on the system.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All waterlines must be located a minimum of 10 ft. from any part of the septic system.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 25 feet from any foundation drain.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

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- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Jeremy Michael

Signature: Jeremy Michael

Date Issued: 11/19/2009

Owner/Legal Agent: _____
Print Name

Signature: _____