6133B

Supervisor/Administrative Professional Checklist

New Septic ☑ **New Well** ☐ **Use Existing** ☐ **Alteration** ☐ **Modified Plot Plan** ☐

New Septic Fees Paid:

IP ($250.00) gd _____ Initials/Date

CA ($200.00) Lwa 2/27/14 Initials/Date

OP ($200.00) Lwa 2/27/14 Initials/Date

(CA and OP fees need to be paid before a building permit can be issued)

New Well Fee Paid: $550.00 _____ Initials/Date

Use Existing Fee Paid: $100.00 _____ Initials/Date

Alteration Fee Paid: $300.00 (Total) $200 (If use existing was paid)_____ Initials/Date

Modified Plot Plan Fee Paid: $100.00 _____ Initials/Date

Floor plans need to be submitted and reviewed before CA can be issued. ☑ Reviewed ☑ SAM

This site is served by septic and well. Verify each is complete before final hold is released. ☑

Septic file completed. ☑ SAM Well file completed. ☑ SAM

Send permit for signature. ☐ Signature received. ☐ _____

This septic system requires a certified operator contract before final hold is released. ☑

Certified operator contract is on file. ☑ SAM

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

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

File #: 6133 B Permit #: 30005405 Tax Parcel #: 007-162-43

Property Owner: Alexander Biel

Job Location Address: 11518 Lauren Lane

City: Davidson State: NC Zip Code: 28036

Installation Approval Issuance Date: 9/29/14

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

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

Permitted Design Flow: 480 GPD
Site LTAR: .25 GPD/ft² (For new installations only.)
Liquid Capacity of Septic Tank: 1500 gallons
Liquid Capacity of Dosing Tank: 1500 gallons

Drainfield Design ☐ N/A
Trench Depth: 36 inches
Trench Width: 3 feet
Line Spacing: 9 feet (O.C.)
Total line length: 325 feet
# of Lines: 5 @ 65 feet
Depth of Media: 18 inches (Type) PPBPS
Distribution Device: pressure manifold

Bed Design *(For Repair Installations ONLY.)* ☒ N/A
Bed Depth: _____ inches
Bed Width: _____ feet
Total line length: _____ feet
# of Lines: _____ @ _____ feet
Depth of Media: _____ inches (Type) _____
Distribution Device: _____

Water Supply Source
☐ Municipal ☒ Private Well ☐ Community Well
☐ Other _____

Minimum System Setbacks
Distance from Building Foundation: >10 feet
Distance from Property Line: >10 feet
Distance from Water Supply Source: >100 feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)

Install as designed by Michael Athanas June 2006

(5) lines at 65'
1500 S.T.
1500 P.T.
325 T+J Panel
low Pressure

Comments: System Classification & Type: LPPPBPS, pressure, IVa
Keep all parts of system >100 from well, saprolite system

DENR Authorized Agent: Kim Garrett, REHS Signature: Kim Garrett, REHS

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 02/27/14
Receipt #: 88360
Check / Auth #: CHECK 1002
Received By: SADERLW

Amount: 200.00
Tendered: 200.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: BIEL ALEXANDER JR
Attn:
Address: 19930 WOODEN TEE DR
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval 11518 LAUREN LN		1	200.00	200.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
1,670.00	380.00	284.65			

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

File #: 30005405 Permit #: 61336 Tax Parcel #: 007-162-43

Property Owner: Alexander & Jule Biel

Job Location Address: 11518 Lauren Rd

City: Davidson State: NC Zip Code: 28036

Operation Permit Issuance Date: 10/8/2014 Contractor Name: Stanley Septic

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: Gould WE0B1HMJ

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 325 feet

# of Lines: 5 @ 65 feet

Depth of Media: ~18 inches (Type) Panels Chambers

Depth of Cover: 18 inches

Distribution Device: manifold - LPP distribution

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

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: >5 feet

Distance from Property Line: >10 feet

Distance from Water Supply Source: >100 feet

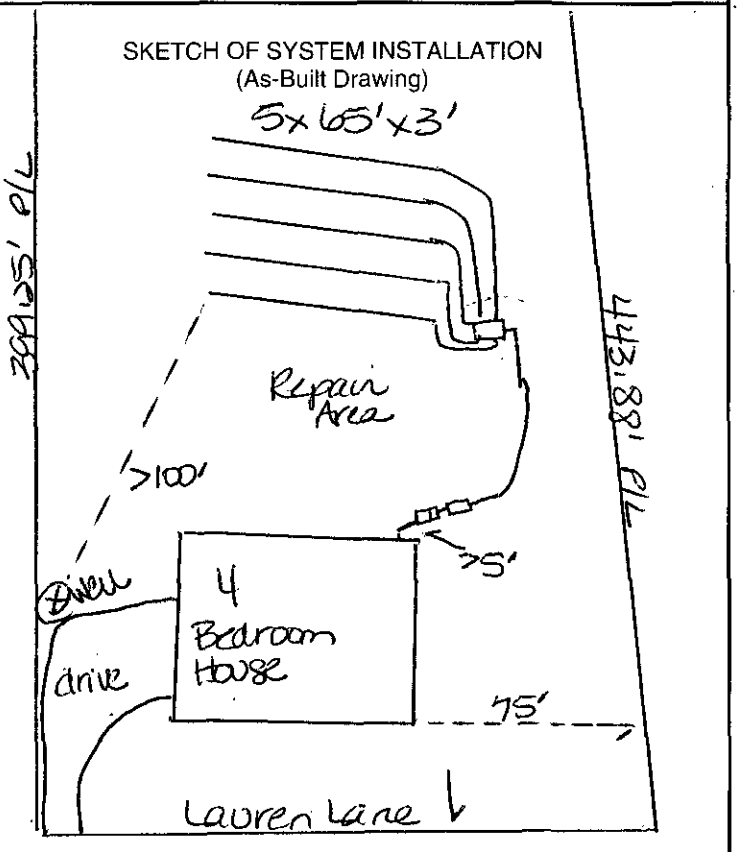
Inspection Dates

Tank(s) Inspected: 10/8/2014

Excavation Inspected: 10/8/2014

Pump & Controls Inspected: 10/8/2014

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



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

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

Comments: System Classification & Type: IIa PPBPS, pressure, na, n/a

DENR Authorized Agent: Kim Garrett Signature: Kim Garrett REHS

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

File #: 30005405 Permit #: 61336 Tax Parcel #: 007-162-43

Property Owner: Alexander & Jule Biel

Job Location Address: 11518 Lauren Ln

City: Davidson State: NC Zip Code: 28036

OPERATION PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with 15A NCAC 18A .1961.

II. Monitoring: System shall be monitored as required by 15A NCAC 18A .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

IV. Operation: System shall be operated in accordance with 15A NCAC 18A .1961.

System Classification: IVa

*Operation Permits for Type V and VI systems expire five (5) years from the date of issuance (in accordance with Table V(a)). The system owner must contact GWS six (6) months prior to expiration for permit renewal.

Subsurface system operator required: Yes ☑ No ☐

☐ This type of system requires the system owner to maintain a contract with a certified operator to perform system inspection, maintenance, and reporting as required in 15A NCAC 18A .1961. and Table V(a). The system owner is responsible for all fees associated with these services.

☐ System does not require inspection by GWS on a routine frequency.

☐ System requires inspection by GWS once every five (5) years. The system owner is responsible for all fees associated with the inspection.

☑ System requires inspection by GWS once every three (3) years. The system owner is responsible for all fees associated with the inspection.

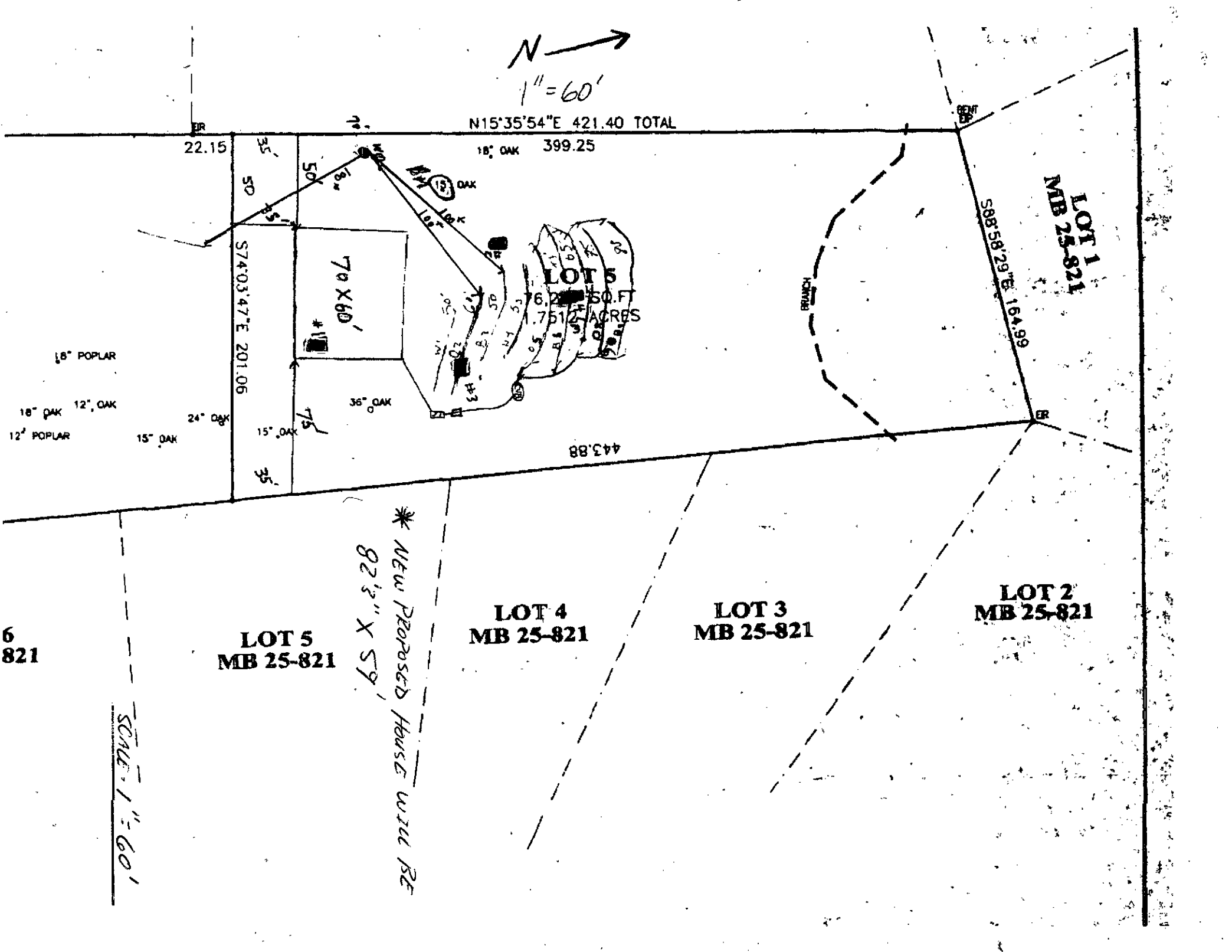
☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every six (6) months. The system owner is responsible for all fees associated with the inspection.

V. Other:

DENR Authorized Agent: Kim Garrett, REHS Date: 10/8/2014

Signature: Kim Garrett, REHS


N
1" = 60'
N15°35'54"E 421.40 TOTAL
399.25
22.15
35'
50'
S74°03'47"E 201.06
70 X 60'
LOT 5
1.7512 ACRES
S88°58'29"E 164.99
LOT 1
MB 25-821
443.88
18" OAK
12" OAK
24" OAK
15" OAK
36" OAK
18" POPLAR
12" POPLAR
15" OAK
LOT 5
MB 25-821
LOT 4
MB 25-821
LOT 3
MB 25-821
LOT 2
MB 25-821
NEW PROPOSED HOUSE WITH RE
82'3" X 57'
SCALE: 1" = 60'

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 02/27/14
Receipt #: 88361
Check / Auth #: CHECK 1002
Received By: SADERLW

Amount: 200.00
Tendered: 200.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: BIEL ALEXANDER JR
Attn:
Address: 19930 WOODEN TEE DR
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr 11518 LAUREN LN		1	200.00	200.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
1,670.00	380.00	284.65			

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 #: **30005405** GWS File #: **6133B** Tax Parcel #: **007-162-43**

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

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 3/17/2019

Type of Installation: Residential - Modified Plot Plan Lot Number: 5

Structure Type: HOUSE Size (ft^2): 4000 # Bedrooms: 4 # Occupants: 4

Building Foundation: Basement With Plumbing Water Supply: Private Well

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

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
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		

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

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	800	Total Trench Length (ft):	267
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 Michelone

Signature: Jeremy Michelone REHS

Date Issued: 3/17/2014

Owner/Legal Agent: Alexander Biel
Print Name

Signature: Alexander Biel

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 #: **30005405** GWS File #: **6133B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. from all private wells (saprolite system).
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- 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 10 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:

- 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.
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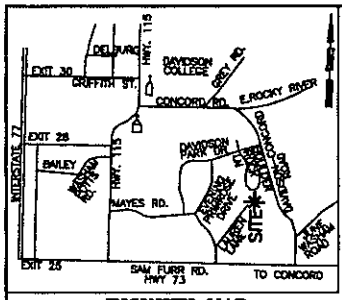
DENR Authorized Agent: Jeremy Michelone

Signature: Jeremy Michelone

Date Issued: 3/17/2014

Owner/Legal Agent: Alexander Biel
Print Name

Signature: Alexander Biel



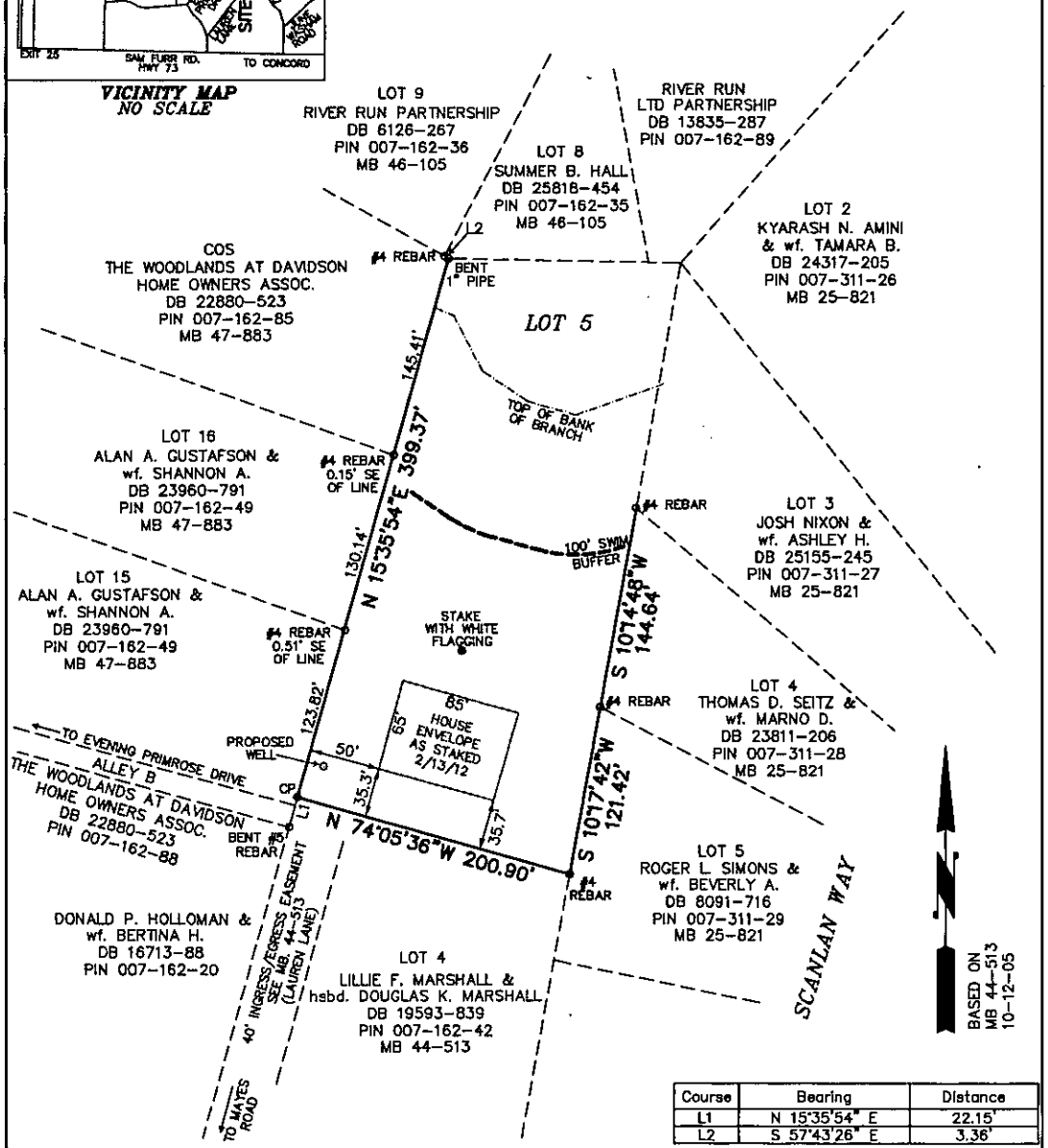
VICINITY MAP
NO SCALE

I, RUFUS JACKSON LOVE CERTIFY THAT THIS MAP WAS DRAWN FROM AN ACTUAL SURVEY UNDER MY DIRECT SUPERVISION, THAT THE RATIO OF PRECISION IS 1:10,000+ BEFORE ADJUSTMENTS; AND THAT THE ANGULAR ERROR WAS < 7.5 SECONDS PER TURN.

WITNESS MY HAND AND OFFICIAL SEAL THIS_____ DAY OF _____

N.C.P.L.S. L-2844
LICENSE NO.

PROFESSIONAL LAND SURVEYOR



Course	Bearing	Distance
L1	N 15°35'54" E	22.15'
L2	S 57°43'26" E	3.36'

BOUNDARY/PHYSICAL SURVEY
FOR ALEXANDER F. BIEL JR. & wf. JULE M. BIEL

11518 MAYES ROAD
LOT 5 OF ROYAL OAKS, MB. 44-513
DEED BOOK 26165-573, PIN 007-162-43
DEWEESE TOWNSHIP, MECKLENBURG COUNTY
DAVIDSON, NORTH CAROLINA
OCTOBER 24, 2011
REVISED: PLOTTED HSE. ENVELOPE & PROPOSED WELL 2/14/12

FILE NAME: BIEL-3-LOT5

100 0 100 200 300
GRAPHIC SCALE – FEET Scale 1" = 100'

NOTES:

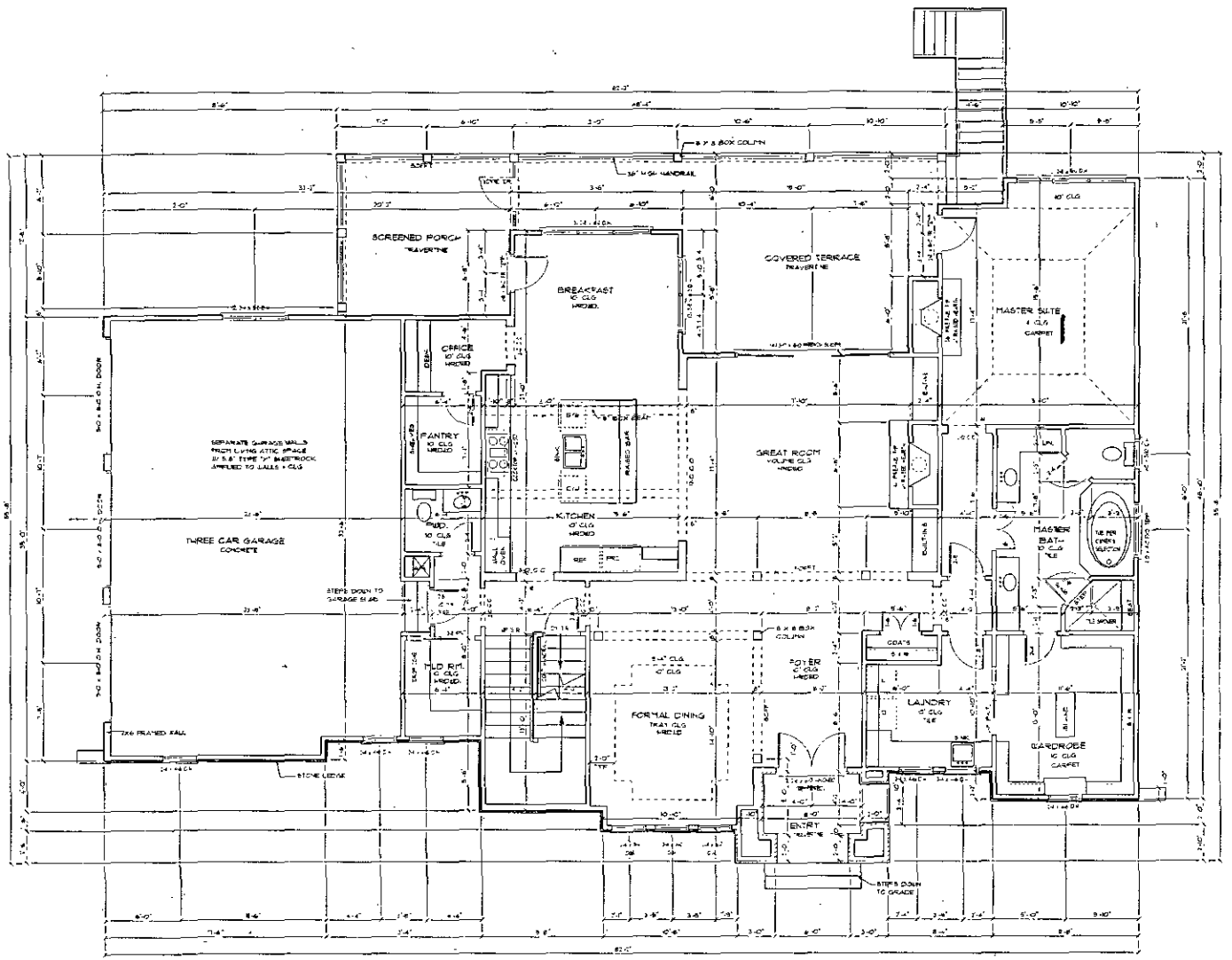
1. THIS PROPERTY IS NOT LOCATED IN A DESIGNATED FLOOD ZONE. PARCEL FALLS IN A WATER QUALITY BUFFER AS SHOWN. CONTACT MECK. COUNTY FOR ALLOWABLE USES IN BUFFER.
2. AREA DETERMINED BY COORDINATE COMPUTATION.
3. CP DENOTES COMPUTED POINT, NO MONUMENT FOUND OR SET.
4. UNDERGROUND UTILITIES NOT LOCATED AS OF THIS DATE.

LEGEND:

PROPERTY LINE
TIE LINE
UNSURVEYED LINE
BACK OF CURB
SETBACK LINE
CP COMPUTED POINT
PP POWER POLE

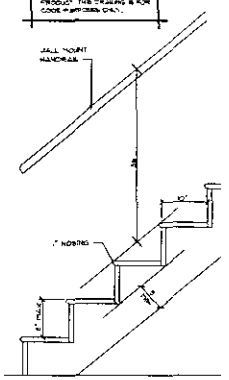
PYRAMID LAND SURVEYING PA
P.O. BOX 11 DAVIDSON, NORTH CAROLINA
(704)892-4249 RUFUS JACKSON LOVE L-2844

11518 Lauren Ln
File # 6133B



FIRST FLOOR PLAN

STAIR NOTES



STAIR SECTION

DOOR & WINDOW NOTE

ALL WINDOW & DOOR SIZES ARE NOMINAL. BUILDER TO VERIFY. ALL EGRESS & NON-EGRESS CONDITIONS, FALL PROTECTION CODE & SAFETY REQUIREMENTS PER CODE W/ WINDOW & DOOR MANUFACTURE SELECTED. ALL DOORS & WINDOWS TO COMPLY W/ ALL OF 2012 NORTH CAROLINA RESIDENTIAL CODES

SQUARE FOOTAGE

FIRST FLOOR HEATED	2372
SECOND FLOOR HEATED	1708
HEATED TOTAL	4080
FUTURE LOWER LEVEL	1893
THREE CAR GARAGE	936
COV. TERRACE/PORCH	576
COVERED ENTRY	78
MECHANICAL/STORAGE	303
TOTAL UNDER ROOF	7966

FIRST FLOOR NOTES

- 10' CEILING HEIGHT TYP. UNLESS NOTED OTHERWISE
- 8' DOOR AND WINDOW HEIGHT TYP. UNLESS NOTED OTHERWISE
- SEE SECOND FLOOR FRAMING PLAN FOR ALL SECOND FLOOR BEAM & FIRST FLOOR HEADER SIZES
- IN DWELLING UNITS WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24" ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT THE OPENINGS THAT ALLOW PASSAGE OF A 4" DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24" OF THE FINISHED FLOOR
- ALL FRAMING DIMENSIONS FOR FIREPLACES SHOULD BE CHECKED PER TMS

Custom Residential Designs by D Burgess
P.O. Box 691286
MINT HILL, NC 28227
tel: 704-545-2928
fax: 704-545-0600

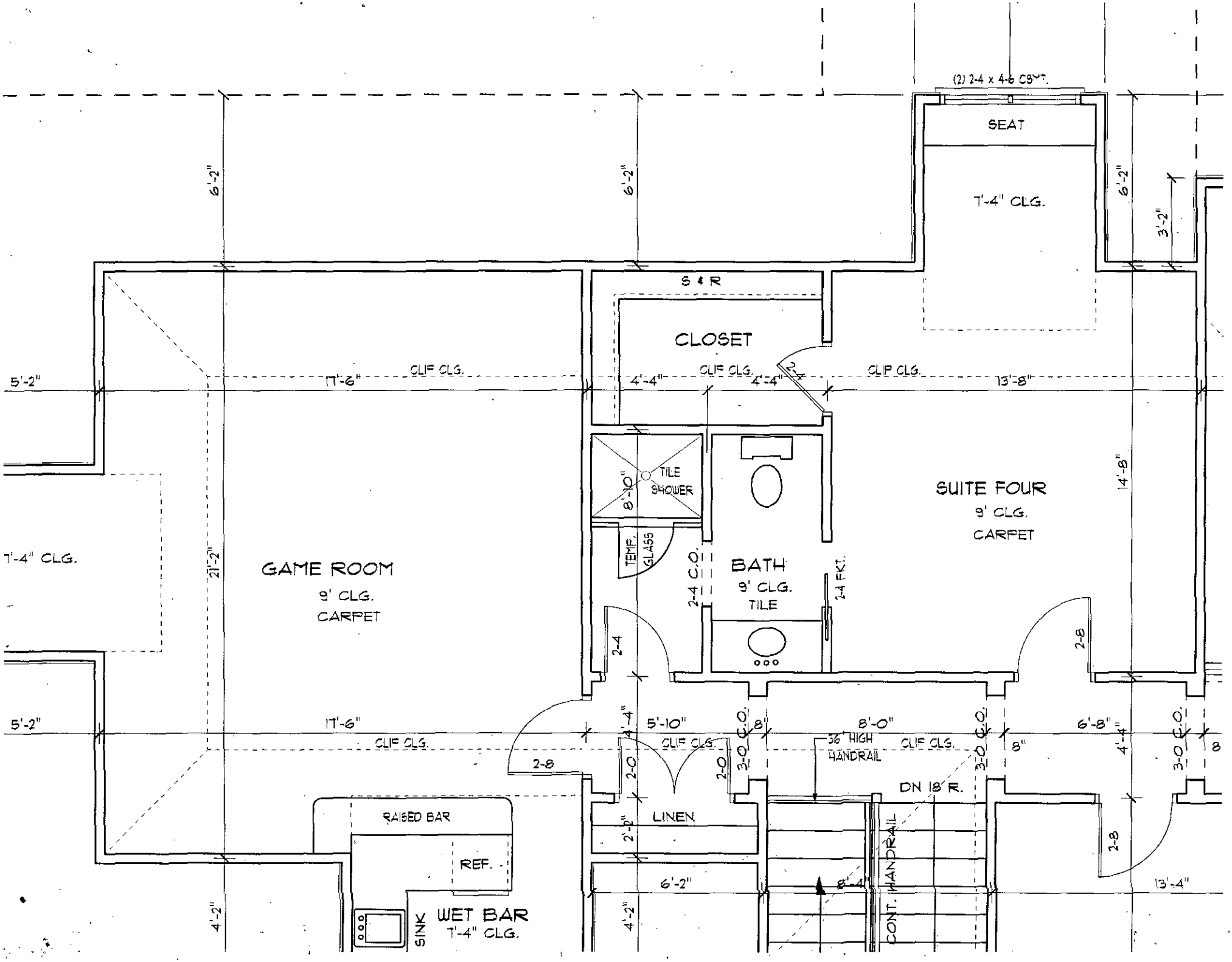
PROJECT: PLAN # 4258

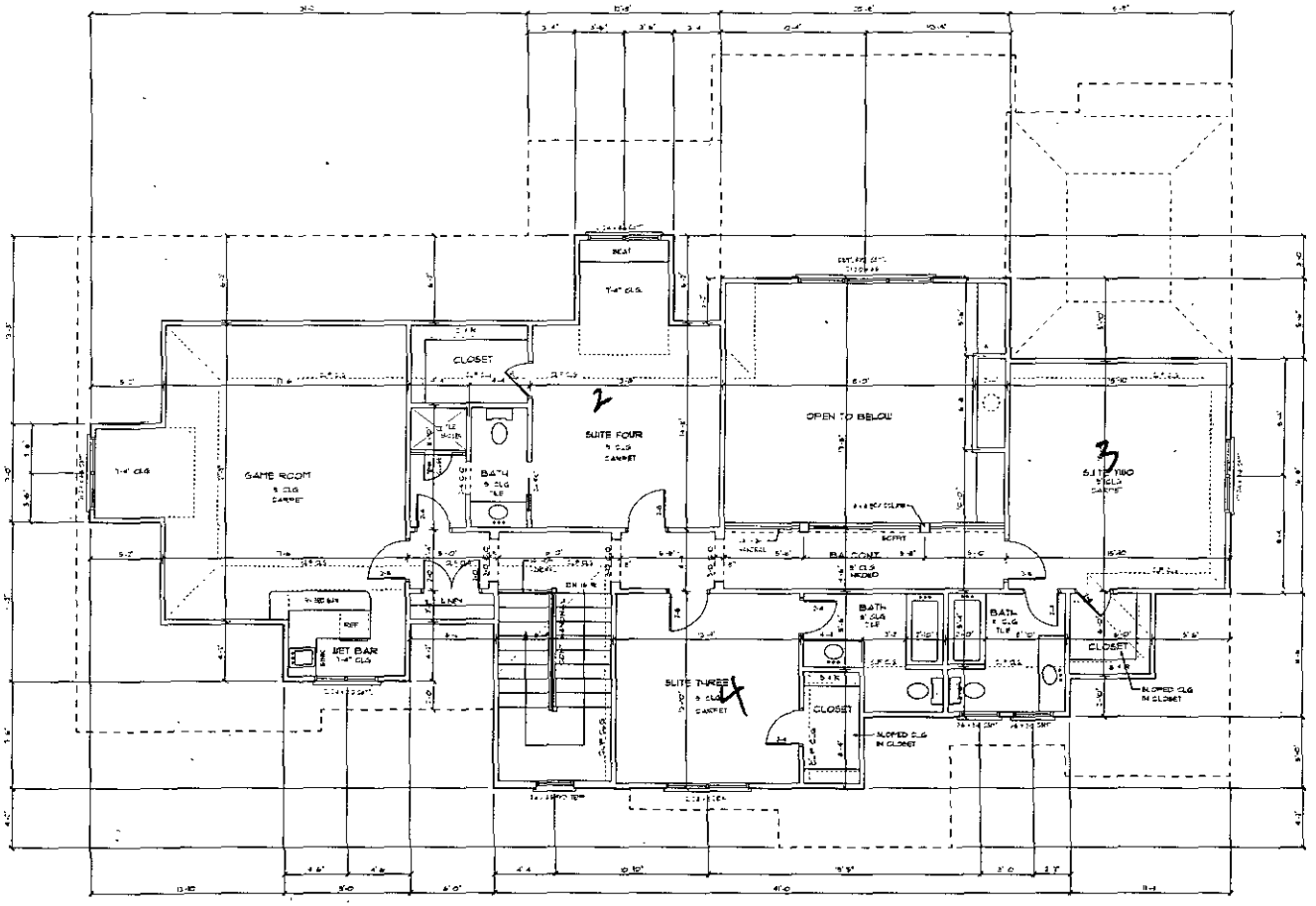
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© COPYRIGHT 2013

DATE: 11/27/2013

REVISIONS:
REV:
REV:

SHEET 5 OF 16


(2) 2-4 x 4-6 CSMT.
SEAT
7'-4" CLG.
6'-2"
6'-2"
6'-2"
3'-2"
S & R
CLOSET
5'-2"
11'-6"
CLIP CLG.
4'-4"
CLIP CLG.
4'-4"
CLIP CLG.
13'-8"
TILE SHOWER
8'-10"
TEMP. GLASS
2-4 C.O.
BATH
9' CLG.
TILE
2-4 FKT.
SUITE FOUR
9' CLG.
CARPET
14'-8"
7'-4" CLG.
21'-2"
GAME ROOM
9' CLG.
CARPET
2-4
2-8
5'-2"
11'-6"
CLIP CLG.
4'-4"
5'-10"
CLIP CLG.
3-0 C.O.
8"
8'-0"
36" HIGH HANDRAIL
CLIP CLG.
3-0 C.O.
8"
6'-8"
4'-4"
3-0 C.O.
8
2-8
DN 18 R.
RAISED BAR
REF.
LINEN
2-0
2-0
2'-2"
6'-2"
6'-4"
CONT. HANDRAIL
2-8
13'-4"
4'-2"
4'-2"
SINK
WET BAR
7'-4" CLG.



DOOR & WINDOW NOTE

ALL EGRESS DOOR & SASH ARE NOTED
EGRESS TO MEET U.S. EGRESS & NON-EGRESS
CONDITIONS. FALL PROTECTION CODE & GLAZING
REQUIREMENTS PER SECTION OF UNDER R CODE
MANUFACTURE SPECIFIC ALL EGRESS & WINDOWS TO
COMPLY WITH ALL CITY AND NORTH CAROLINA RESIDENTIAL
CODES

SECOND FLOOR NOTES

- 9' CEILING HEIGHT TYP. UNLESS NOTED OTHERWISE
- 6'-8" DOOR AND WINDOW HEIGHT TYP. UNLESS NOTED OTHERWISE SEE ELEVATION FOR WINDOW HEIGHTS
- PROVIDE ATTIC ACCESS TO ALL ATTIC SPACES ACCORDING TO CODE
- SEE SECOND FLOOR CEILING PLAN FOR ALL BEAMS, SLOPED CLG. BEAMS & SECOND FLOOR HEADER SIZES
- ALL DOORS & TUB GLASS SHOULD BE TEMPERED & WINDOWS SHOULD BE TEMPERED PER STATE CODE
- ALL FRAMING DIMENSIONS FOR FIREPLACES SHOULD BE CHECKED PER MFG

SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

Custom Residential Designs
by LJ Barger

P.O. Box 691286
MINT HILL, NC 28227

tel: 704-545-2928
fax: 704-545-0600

PROJECT:
PLAN # 4258

©COPYRIGHT 2014

DATE:
02/14/2014

REVISIONS:
REV:
REV:

SHEET
7
OF 21

S

FEE: 200.00
DATE:4/9/2015

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 6133B

PERMIT NUMBER: 30005405

PARCEL NUMBER: 00716243

JOB LOCATION INFORMATION

ADDRESS: 11518 LAUREN LN

CITY: DAVIDSON **STATE: NC** **ZIP:** 28036

ISSUED TO: Alexander F. Biel

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 3/17/2014

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30005405, 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. A PRE-CONSTRUCTION MEETING MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A LICENSED SEPTIC TANK CONTRACTOR WITH THE NORTH CAROLINA ONSITE WASTEWATER CONTRACTOR INSPECTOR CERTIFICATION BOARD.

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.



11518 LAUREN LN

00716243

1/9/2008

duponbj

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

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File#: 6133B WASPS App #: 5405

Primary ES assigned to project: Jeremy Mirlow

Secondary ES assigned to project: _____

Project Type: New System ☐ Alteration ☐ Repair ☐ Modified Plot Plan ☑

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☐	No ☐	N/A ☐
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☐
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☐	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☐	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: B 4			
	Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR 0.25 initial 0.3 repair	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b) 130A-336 (a)(3)	Proposed System Type stated-Repair System location identifiable by setbacks - Initial	Yes ☑ Yes ☑	No ☐ No ☐	N/A ☐ N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
~~.1937 (f)(g)~~	~~Is System design consistent with~~ soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Property line lengths shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐

Operation Permit

.1937(i)	System type as described in table V(a) of rule .1961	Yes ☑	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☑	No ☐	N/A ☐

II. WASPS Review:

Construction authorization issued	Yes ☐	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

_____

_____

_____

_____

_____

IA issued date: _____

OP issued date: _____

Review performed by: JAM Date performed: 4/9/15

Moving in ~ 3/25/15 — 1st year pd. for under installation by Scott

STANDARD SERVICE AGREEMENT FOR OPERATIONS, INC.

STATE OF North Carolina
COUNTY OF Bladen

(Name and Address of Owner)
(Herein called "Owner")

THIS AGREEMENT is made and entered into this ____ day of March, 15 by and between Carol Stanley Environmental Solutions, Inc. (Owner/Agent) (hereinafter the "Contractor")

WITNESSETH:

WHEREAS, the Owner owns and controls the property upon which a limited discharge sewage treatment system (hereinafter "System") is installed, and the System is a Type IV System under the Rules for Septage Sewage Collection, Treatment and Disposal found at 15A N.C. Admin. Code 15A 18A .1900 et seq., and

WHEREAS, 15A N.C. Admin. Code 15A .1961 requires a contract to be executed between the System owner and a management entity prior to the issuance of an Operation Permit for said system; and

WHEREAS, 15A N.C. Admin. Code 15A .1961 requires that a condition of the Operation Permit for said system be that a properly executed contract between the system owner and a management entity shall be in effect so long as the system is in use; and

WHEREAS, the Contractor is a management entity of a type authorized by the 15A N.C. Admin. Code 15A .1961 to manage a Type IV system.

NOW, THEREFORE, in consideration of the premises, covenants and conditions contained in this Agreement, it is hereby agreed by and between the Owner and the Contractor, as stipulated below:

The Contractor's Obligations. The Contractor shall perform the following services on the Owner's system located at: _____

a. The Contractor shall inspect the system at least at the frequency required in Table V(b) of 15A N.C. Admin. Code 15A .1961(b) for a Type IV System.

b. The Contractor perform the following routine maintenance procedures in accordance with the conditions of the Operation Permit:

(1) 2 inspections per year, one visual and one to set and pressure maintenance
(2) n/a
(3) n/a

c. The Contractor shall report the results of its inspections to the local health department at the frequency for a Type IV System.

5. Use of Subcontractors. The Contractor may subcontract with such manufacturers, suppliers and contractors, as it deems desirable to perform any of the Contractors duties under this Agreement. The Contractor shall at all times remain responsible for the performance of and payment for all work performed by all subcontractors.

6. Representations. The Parties represent to each other that each has the power, authority and legal right to enter into and perform its obligations as set forth in this Agreement.

7. Departmental Amendments. Reference in this Agreement to sections of the Administrative Code shall include such rules as they may be amended in the future.

8. No Implied Waiver. The waiver by either Party of a default or a breach by the other Party of any provision of this Agreement shall not operate or be construed to operate as a waiver of any subsequent default or breach. The failure at any time of either Party to enforce any provision of this Agreement (a) shall not be construed to be a waiver of such provisions, or of any other provision, and (b) shall not in any way affect the validity of this Agreement, or any part of this Agreement, or the right of either Party thereafter to enforce each and every provision of this Agreement.

9. Notice. Every notice required under this Agreement shall be in writing and shall be deemed sufficiently given if delivered in person or sent by certified or registered mail, return receipt requested, postage prepaid to the Party to be notified and addressed as follows:

To the Owner:

To the Contractor: Stanley Environmental Solutions
PO Box 184
Stanley, NC 28164

To the Local Health Department Mecklenburg County Environmental Health

The date of any Notice shall be the date of personal delivery or the date shown on the return receipt as the date of delivery or attempted delivery, as the case may be. Changes in the respective addresses to which notice may be directed may be made from time to time by either Party by notice to the other party.

10. Governing Law. This Agreement and any questions concerning its validity, construction or performance shall be governed by the laws of the State of North Carolina, notwithstanding the place of execution, or the order in which the signatures of the Parties are affixed.

11. **Entire Agreement and Amendment.** This Agreement represents all prior agreements and understandings between the Parties with respect to the subject matter hereof. It constitutes the entire Agreement between the Parties with respect to the subject matter hereof. To be effective, any amendment or modification to this Agreement must be in writing and must be signed by the Parties.

12. **Severability.** In the event that any provision of this Agreement shall, for any reason, be determined to be invalid, illegal or unenforceable in any respect, the Parties shall negotiate in good faith and agree to such amendments, modifications or supplements of or to this Agreement or such other appropriate actions as shall, to the maximum extent practicable in light of such determination, implement and give effect to the intentions of the Parties as reflected herein. This Agreement, and the other provisions of this Agreement shall, as so amended, modified, supplemented or otherwise affected by such action, remain in full force and effect.

IN TESTIMONY WHEREOF, The Parties hereto have executed this Agreement in duplicate originals, one of which is retained by each of the Parties, the day and year first above written.

(Owner)

Attest:

_____

Stanley Environmental Solutions, Inc.
(Contractor)
Emanuel W. Monsour

Attest:

_____

(hr:meccontract.gm)

Please provide the following information:

Current mailing address: Po Box 331 Huntersville, NC 28070

Email Address: buckaroo@hotmail.com

Current phone numbers: 704-987-9538 Home 732-741-2587 Cell

6133B

Residential

MECKLENBURG COUNTY
HEALTH DEPARTMENT 5405

APPLICATION FOR A ~~COMMERCIAL~~ 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: 00716243

STREET ADDRESS: ~~LAUREN LN.~~ 11518 Lauren Ln.

CITY: Davidson

STATE: NC ZIP: 28036

TOWNSHIP:

○ MECKLENBURG ○ CORNELIUS ○ HUNTERSVILLE
◉ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ○ MINT HILL

4. **BUILDING INFORMATION:**

DESCRIBE TYPE OF BUSINESS: New Construction

~~○ COMMERCIAL~~ ~~○ INDUSTRIAL~~ House

SQUARE FOOTAGE OF FACILITY: 4400

~~NUMBER OF EMPLOYEES PER SHIFT:~~ Bedrooms 4

~~NUMBER OF SHIFTS:~~ ~~NUMBER OF SEATS:~~ Occupants 4

TYPE OF WASTEWATER GENERATED:

○ DOMESTIC SEWAGE ○ INDUSTRIAL WASTEWATER
○ OTHER Basement w/ plumbing

5. ***IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM, INFORMATION DOCUMENTING THE INCREASED WASTEWATER FLOW AND/OR A JUSTIFICATION FOR SYSTEM ALTERATION IS REQUIRED.*** ☐ N/A

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 _____

8A. **RANK:** ____ ____ ____ ____ ____

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?** _____ ◉ UNKNOWN

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

12. **PROPERTY OWNER:**

NAME: Alexander F. Biel
ADDRESS: 12828 Westmoreland Farm Rd
CITY: Davidson
STATE: NC ZIP: 28036
WORK PHONE: _____
MOBILE PHONE: 732-407-2599
FAX: _____
E-MAIL: Duckayou@hotmail.com

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**

NAME: _____
ADDRESS: _____
CITY: _____
STATE: _____ ZIP: _____
WORK PHONE: _____
MOBILE PHONE: _____
FAX: _____
E-MAIL: _____

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

Revised on: 12/15/10

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.

AB (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.

AB (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. A PROPOSED PLOT PLAN is required to be submitted with each application.

Alexander F. Biel
Property Owner's or Owner's Legal Representative Signature

1/26/12
Date

OFFICE USE ONLY

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

SEPTIC APPLICATION FEE RECEIVED: $ 100 DATE FEE RECEIVED: 1/26/12

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

APPLICATION PROCESSED BY: lws

GWS FILE NUMBER ASSIGNED: 6133B

APPLICATION ID NUMBER ASSIGNED: 5405

COMMENTS:

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

Revised on: 12/15/10

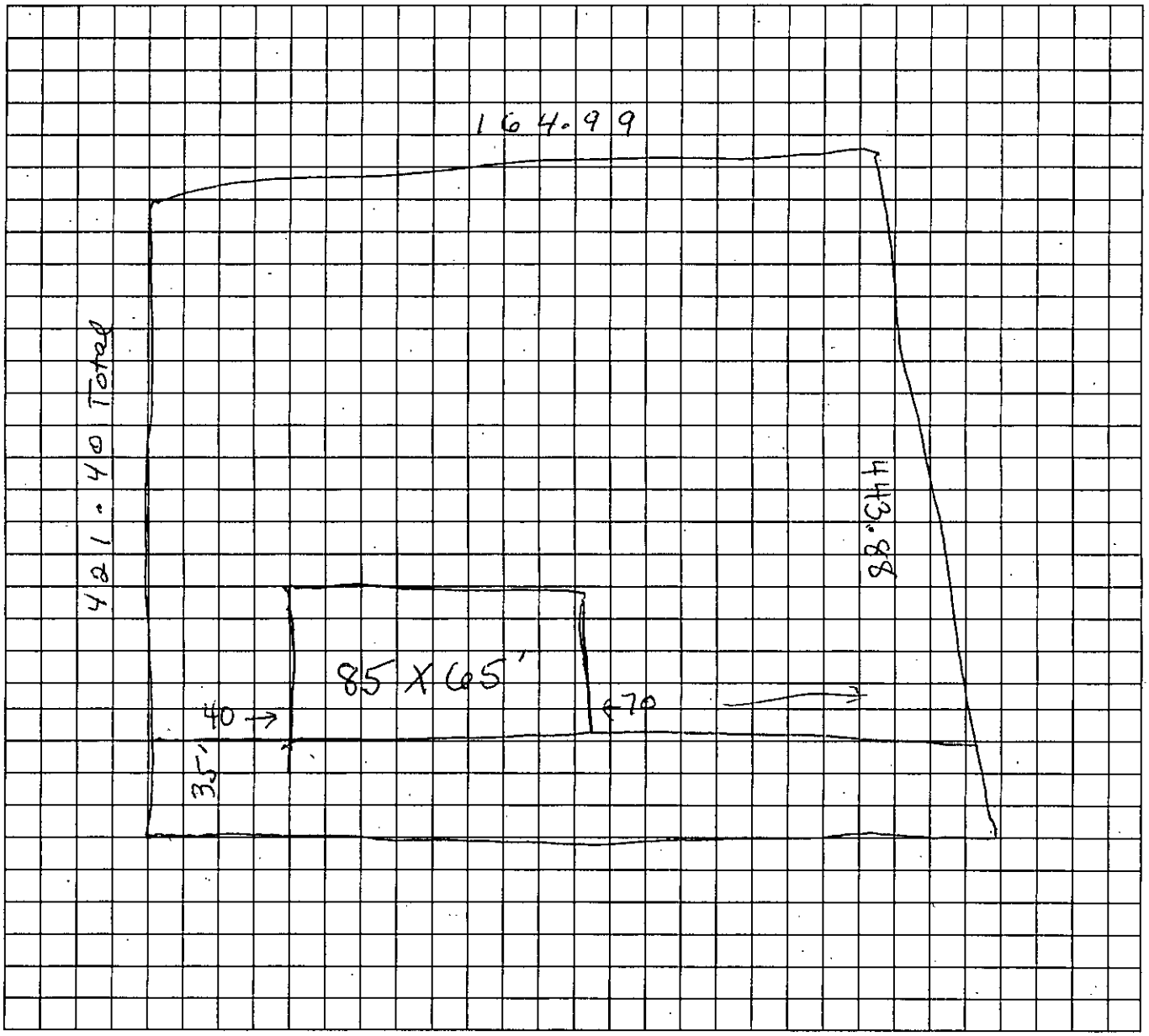
File #: 61338

PROPOSED PLOT PLAN

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: Lauren Lane Tax Parcel #: 00716243

Subdivision Name: Royal Oaks Lot #: 5



Alexander P. Bird
Property Owner's or Owner's Legal Representative Signature

1/26/12
Date

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

Revised on: 12/15/10

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

007-162-43

Permit #: 30000971 GWS File #: 6133B Tax Parcel #: ~~007-162-12~~

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

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 6/22/2011

Type of Installation: Residential - New System Lot Number: 5

Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 4 # Occupants: 8

Building Foundation: Basement With Plumbing Water Supply: Private Well

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

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
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):	16	Distribution Device:	Manifold (LPP Distri		

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

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	801	Total Trench Length (ft):	267
Maximum Trench Depth (in):	36	Depth of Media (in):	16	Distribution Device:	N/A		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

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

- No work shall be conducted on the septic 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: Cina Buchanan Owner/Legal Agent: MICHAEL ATHANAS

Signature: Cina Buchanan, RS Signature:

Print Name

Date Issued: 6/22/2006

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30000971** GWS File #: **6133B**

IV. Permit Conditions/Comments:

- Owner agreement forms for site reclassification shall be on file prior to issuance of Construction Authorization.
- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic systems requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- This type of repair system requires the property owner to obtain a contract with a Certified Operator to perform routine inspections and maintenance on the system.
- This type of repair system requires periodic inspections by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. from all private wells (saprolite system).
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.

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: Cina Buchanan Owner/Legal Agent: M. Altman

Print Name

Signature: Cina Buchanan, RS Signature:

Date Issued: 6/22/2006

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	01/26/12	**Amount:**	100.00
Receipt #:	75606	**Tendered:**	100.00
Check / Auth #:	CHECK 5405	**Returned:**	0.00
Received By:	SADERLW		

Account Information

Account #: 200000
Contractor: BIEL ALEXANDER
Attn:
Address: 12828 WESTMORELAND FARM RD
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0704	Change in Plot Plan 11518 LAUREN LN-FILE #6133B		1	100.00	100.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
10.00					

Report Number:
R06132-0041
Acount Number:
78275

A&L Eastern Labortories, Inc.

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

TO: MICHAEL ATHANAS & ASSOC INC
1999 CANDLEWICK DR
FORT MILL, SC 29715

RE: MICHAEL ATHANAS & ASSOCMIKE

Date Received: 5/11/06 Date Reported: 05/15/2006

REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
501	1	Sand	80	%	Bouyoucos 1962
	Corresponds with Pit# 4	Silt	12	%	Bouyoucos 1962
		Clay	8	%	Bouyoucos 1962
		Soil Textural Class	Loamy Sand		Bouyoucus 1962
502	2	Sand	72	%	Bouyoucos 1962
		Silt	16	%	Bouyoucos 1962
	Corresponds with Pit #-3	Clay	12	%	Bouyoucos 1962
		Soil Textural Class	Sandy Loam		Bouyoucus 1962
503	3	Sand	70	%	Bouyoucos 1962
	Corresponds with Pit# 2	Silt	18	%	Bouyoucos 1962
		Clay	12	%	Bouyoucos 1962
		Soil Textural Class	Sandy Loam		Bouyoucus 1962

SAMPLES TAKEN @ 30"

ALE-MISC

Our reports and letters are for the exclusive and confidential use of our clients, and may not be reproduced in whole or in part, nor may any reference be made to the work, the results, or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization.

Paul Chu, Ph.D.

DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

PROPERTY ID #:
COUNTY: MECK

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Ken Studdard / Royal Oaks S.D. APPLICANT: Same
ADDRESS: APPLICATION DATE: DATE EVALUATED: 12-15-05
PROPOSED FACILITY: 4BR PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE:
LOCATION OF SITE: LOT 5 PROPERTY RECORDED:
WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other
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 5% #1	0-5	Br SCL WSBlk	Fri SS/SP SEXP	—	5"	U / PS	—	.3
		5-20	Red/Yell SCL SAP Mas	Fri SS/SP SEXP					
		20-68	Ver. SL/LS SAP Mas	Fri NS/NP NEXP					
2	L 5→10% #2	0-12	YBr. SC WSBK	F→Fri. SP SEXP	—	12"	U / PS	—	.3
		12-28	Ver. SCL SAP Mas	Fri SS/SP SEXP					
		28-72	Ver. LS SAP Mas	Fri NS/NP NEXP					
		*	Although other side wall of Pit exhibited 2:1	Mineralogy.	(Will NOT USE Pit)				
3	L 10% #3	0-6	Br. LS Gr.	Fri NS/NP NEXP	2:1	30"	U / PS	—	.3
		6-30	Yell Red SC WSBK	Firm SP SEXP					
		30-36"	Ver. SL-SAP Mas	Fri SS/SP SEXP					
		36-78"	Ver. LS SAP Mas	Fri SP SEXP					
4	L 10% #4	0-14	Br. SCL WSBlk	Fri SS/SP SEXP	-	14"	U / PS.	—	.3
		14-30	Ver. SCL SAP Mas	Fri SS/SP SEXP					
		30-45	Ver. SL SAP Mas	Fri SS/SP SEXP					
		45-78	Ver. LS SAP Mas	Fri NS/NP NEXP					
		*	Portion of other side wall	exhibited some			2:1 mineralogy		

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	975 ft²	639 ft²
System Type(s)	PPBPS	PPBPS
Site LTAR	.25	.3

OTHER FACTORS (.1946): 36" T.B. or greater.
SITE CLASSIFICATION (.1948): PS.
EVALUATED BY: M. Alt + Meck Co.
OTHER(S) PRESENT: Meck. Co. / Bill Marlin

DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

PROPERTY ID #:
COUNTY: Macon

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Cont of Sheet 1 APPLICANT:
ADDRESS: APPLICATION DATE: DATE EVALUATED:
PROPOSED FACILITY: PROPOSED DESIGN FLOW (.1949): PROPERTY SIZE:
LOCATION OF SITE: PROPERTY RECORDED:
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other
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
AB	L	0-12	Bw SCL WISBK	Fri SS/SP SLEP	—	12"	U/PS	—	PS
H	11%	12-23	Ver SCL SAPMass	Fri SS/SP SLEP					.3
1		23-40	Ver SL SAP Mass	Fri NS/NP NOP					
S		40-50	Ver LS SAP Mass	VFri NS/NP NOP					
2									
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:

COMMENTS: _____

LEGEND

use the following standard abbreviations

LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL 1995 LTAR	LFF 1997 LTAR	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope) CV (Convex Slope) D (Drainage Way) DS (Debris Slump) FP (Flood Plain) FS (Foot Slope) H (Head Slope) L (Linear Slope) N (Nose Slope) R (Ridge) S (Shoulder Slope) T (Terrace)	I	S (Sand) LS (Loamy Sand)	1.2 - 0.8	0.6 - 0.4	NEXP (Non-expansive) SEXP (Slightly Expansive) EXP (Expansive)	G (Single Grain) M (Massive) CR (Crumb) GR (Granular) SBK (Subangular Blocky ABK (Angular Blocky) PL (Platy) PR (Prismatic)
	II	SL (Sandy Loam) L (Loam)	0.8 - 0.6	0.4 - 0.3		
	III	SI (Silt) SICL (Silty Clay Loam) CL (Clay Loam) SCL (Sandy Clay Loam) SLC (Silt Loam Clay)	0.6 - 0.3	0.3 - 0.15		
					MOIST	**WET**
	IV	SC (Sandy Clay) SIC (Silty Clay)	0.4 - 0.1	0.2 - 0.05	VFR (Very Friable) FR (Friable) FI (Firm) VFI (Very Firm v. Very Sticky) EFI (Extremely Firm)	NS (Non-sticky) SS (Slightly Sticky) S (Sticky) VS (Very Sticky) NP (Non-plastic) SP (Slightly Plastic) P (Plastic) VP (Very Plastic)
		O (Organic)	None			

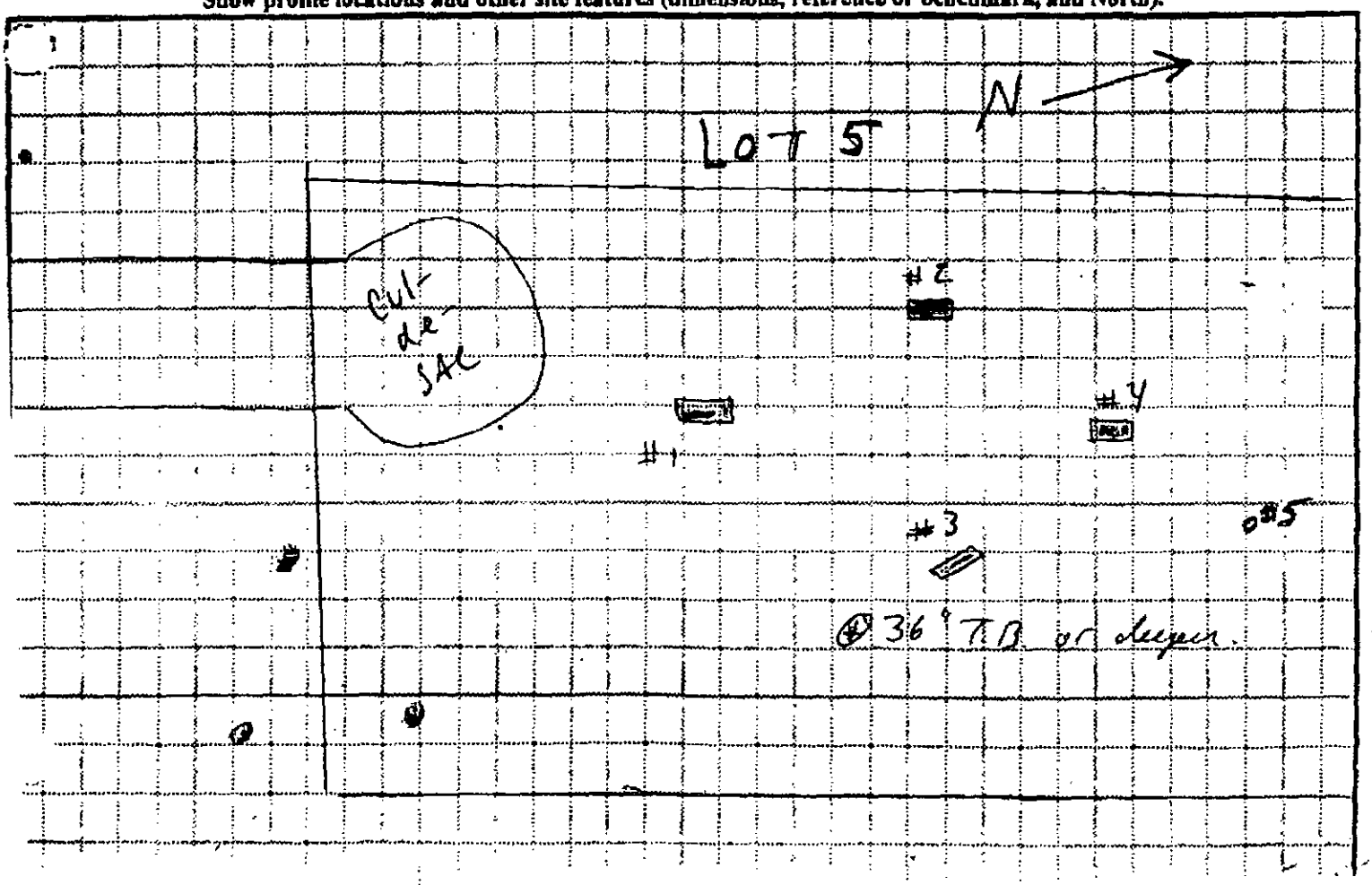
NOTES

HORIZON DEPTH	In inches below natural soil surface
DEPTH OF FILL	In inches from land surface
RESTRICTIVE HORIZON	Thickness and depth from land surface
SAPROLITE	S(suitable) or U(unsuitable)
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft²

Show profile locations and other site features (dimensions, reference or benchmark, and North).



PPBPS Design Worksheet								File #:	
			Initial System					Tax #:	
System Requirements								Address:	Royal Oaks Subdividion
Design Flow	480	gpd							Lot #5
LTAR	0.250	gpd/ft.^2						Consultant:	Michael Athanas
Linear footage	640	ft. (conventional)						Phone:	803-802-4403
Linear footage	320	ft. (50% Reduction)							
								Reviewed By:	T. Thomason
Design Layout								Date:	6/9/06
Laterals	Length (ft)	# Panels	Calculated						
Line # 1	65	15	15.00						
Line # 2	65	15	15.00						
Line # 3	65	15	15.00						
Line # 4	65	15	15.00						
Line # 5	65	15	15.00						
Totals	325	75	75.00						
Absorption Area									
Length (ft)	Width (ft)	Area (ft^2)							
75	39	2,925							
System Pressure Head	2	ft.	Value selected by system designer (must be between 2-5 ft.)						
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)						
Flow Rate per Orifice	0.41	gpm	Determined from orifice flow design table (value dependent on pressure head & orifice diameter)						
Total System Flow Rate	30.75	gpm	Total number of panels required multiplied by the orifice flow rate						
System Dose Volume	270.00	gal.	Total number of panels required multipled by 3.6 gal./panel						
Pump Run Time	8.78	min.	System dose volume divided by the total system flow rate						
Pump Tank Drawdown	9.31	in.	1,500 gal. Pump tank, volume is approximately 29 gallons per inch						
Comments:									
1. Install system using 3 ft. wide trenches.									
2. Install drainlines on 9 ft. centers, level, and on contour.									
3. System design requires effluent pump for distribution.									
4. 100% repair area (PPBPS) required for property.									

PPBPS Design Worksheet							File #:	
			Repair System				Tax #:	
System Requirements							Address:	Royal Oaks Subdividion
Design Flow	480	gpd						Lot #5
LTAR	0.300	gpd/ft.^2					Consultant:	Michael Athanas
Linear footage	533	ft. (conventional)					Phone:	803-802-4403
Linear footage	267	ft. (50% Reduction)						
							Reviewed By:	T. Thomason
Design Layout							Date:	6/9/06
Laterals	Length (ft)	# Panels	Calculated					
Line # 1	55	13	12.69					
Line # 2	60	14	13.85					
Line # 3	50	11	11.54					
Line # 4	55	13	12.69					
Line # 5	50	11	11.54					
Totals	270	62	62.31					
Absorption Area								
Length (ft)	Width (ft)	Area (ft^2)						
60	39	2,340						
System Pressure Head	2	ft.	Value selected by system designer (must be between 2-5 ft.)					
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)					
Flow Rate per Orifice	0.41	gpm	Determined from orifice flow design table (value dependent on pressure head & orifice diameter)					
Total System Flow Rate	25.42	gpm	Total number of panels required multiplied by the orifice flow rate					
System Dose Volume	223.20	gal.	Total number of panels required *multipled by 3.6 gal./panel*					
Pump Run Time	8.78	min.	System dose volume divided by the total system flow rate					
Pump Tank Drawdown	7.70	in.	1,500 gal. Pump tank, volume is approximately 29 gallons per inch					
Comments:								
1. Install system using 3 ft. wide trenches.								
2. Install drainlines on 9 ft. centers, level, and on contour.								
3. System design requires effluent pump for distribution.								
4. 100% repair area (PPBPS) required for property.								

MECKLENBURG COUNTY
Health Department

December 16, 2005

Royal Building Company
19325 Callaway Hills Ln.
Davidson, NC 28036

Re: Application for improvement permit for
Property Site: 13615 Mayes Road – Lot 5
Health Department file number: **6133B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on **September 15, 2005** 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 4 bedroom residence, with a design wastewater flow of 480 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 **December 16, 2005**. 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,

Cina Buchanan, RSI

Cina Buchanan, R.S.I.
Authorized Agent - DENR

Encl: (2)

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DEHNR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- Rake trench walls, lime side-walls, install trenches 36" wide and have no more than 1/4" fall in 10 feet

Report Number:
R06132-0041
Account Number:
78275

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

Send To: MICHAEL ATHANAS & ASSOC INC
1999 CANDLEWICK DR
FORT MILL, SC 29715

Grower: MICHAEL ATHANAS & ASSOC **Submitted By:** MIKE

Farm I D: **Field I D:**

SOIL ANALYSIS REPORT

Analytical Method(s):

Page: 1 **Date Received:** 5/11/2006 **Date of Analysis:** 5/12/2006 **Date of Report:** 5/15/2006

Sample Number	Lab Number	Organic Matter			Phosphorus			Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C.
		%	ENR lbs/A	Rate	Available ppm	Rate	Reserve ppm	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
1	501																			
2	502																			
3	503																			

Sample Number	Percent Base Saturation					Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum	
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	Rate	SO4-S ppm	Rate	ZN ppm	Rate	MN ppm	Rate	FE ppm	Rate	CU ppm	Rate	B ppm	Rate	ms/cm	Rate	CL ppm	Rate	AL ppm	Rate
1																									
2																									
3																									

AE-Soil

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: Paul Chu, Ph.D.

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

Sheet: 1OF2
Property ID: 716212
Lot #: 5
File #: 6133B
Code: 3

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: ROYAL BUILDING COMPANY
Applicant: SAME
Address: 19525 CALLOWAY HILLS LN DAVIDSON, NC 28036
Date Evaluated: 9/15/05
Proposed Facility: 4BR
Design Flow (.1949): 480GPD
Property Size: 2
Location of Site: MAYES ROAD
Property Recorded: YES
Water Supply: [ ] Public [ ] Individual [X] 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 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
	LS	0-9	GR SL	VFR SS SP SEXP	>17" TO SOIL WETNESS	17+	N/A	NONE	UN
	10%	9-17	ABK SC	VFI VS VP EXP					N/A
	LS	0-10	GR SL	VFR SS SP SEXP	>18" TO SOIL WETNESS	18+	N/A	NONE	UN
	10%	10-18	ABK C	VFI VS VP EXP					N/A
	LS	0-10	GR SL	VFR SS SP SEXP	>10" TO SOIL WETNESS	10+	N/A	NONE	UN
	10%	10+	SAP	MASSIVE					N/A
	LS	0-9	GR SL	FR SS SP SEXP	>15 " TO SOIL WETNESS	15+	"	"	UN
	10%	9-15	ABK C	VFI VS VP EXP					N/A

Description	Initial System	Repair System
Available Space (.1945)	UN	UN
System Type(s)		
Site LTAR	N/A	N/A

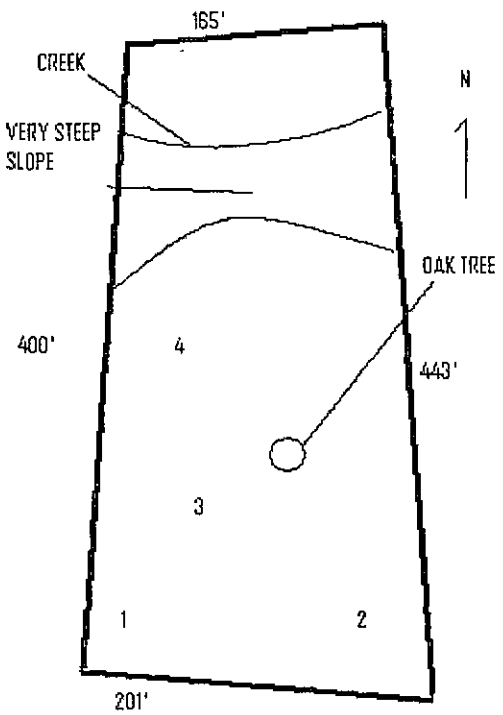
Other Factors (.1946):
Site Classification (.1948): UN
Evaluated By: CHRIS SHERRILL, RS,LSS
Others Present: WILLIAM MARLIN, LSS, KEN STODDARD

COMMENTS:

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

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

Sketch of Soil Evaluation Locations



Thomason, Trevor

6/20/06 OSV w/ Michael Athanas approved submittal represented layout Cina Buchanan

From: Thomason, Trevor
Sent: Friday, June 09, 2006 9:31 AM
To: Buchanan, Cina
Cc: Stutts, Jack; Thomason, Trevor
Subject: Design Review for Lot #5 Royal Oaks Subdivision
Attachments: Thomason, Trevor.vcf

Cina,

I have completed my review of the design. Following are my comments:

Four bedroom house w/ Basement
Initial LTAR = 0.25 GPD/ft^2
Repair LTAR = 0.3 GPD/ft^2

- **This is a saprolite system. All wells must be at least 100' from any part of the septic system. No variances allowed per rules.**
- I recommend that that the orifice size be reduced to 5/32". This will decrease the system flow rate (30.75 GPM) allowing a smaller pump to be used. This will also allow 2" Sch40 to be used for the supply line.
- Basement setbacks are required (25', 15', 10').
- Design calls for 1,500 gallon septic & pump tank.
- Recommend installing system in 3' wide trenches spaced 9' on center.
- Confirm system LTARs with Bill Marlin.

I am providing you with two spreadsheets I created showing the specification for the initial & repair systems. Please see me if you have any questions. All paperwork has been placed in your mailbox.

Thanks,
Trevor Thomason, R.S.
Sr. Environmental Specialist
Mecklenburg County - LUESA
Groundwater & Wastewater Services
700 N. Tryon St., Suite 211
Charlotte, NC 28202
Office: (704) 336-5568
Cell: (704) 363-5447
Fax: (704) 336-6894
E-mail: trevor.thomason@meckgov.org
Web: http://groundwater.charmeck.org

file # 6133B

REVIEWED BY:
T. THOMASON
6-9-06

MICHAEL ATHANAS & ASSOCIATES, INC.
LICENSED SOIL SCIENTIST
1999 CANDLEWICK DRIVE
FORT MILL, S.C. 29715
803-802-4403 (office)
803-802-4402 (fax)

Reference Data Sheet for Lot 5, Royal Oaks Subdivision

House Footprint: **70' x 60'**
Building Setback: **35', 15'**
Water Source: **Private Well**
Number of Bedrooms: **4**
Proposed LTAR: **Initial .25gpd/ft2,** Repair .3gpd/ft2 VERIFY LTAR'S W/ BILL.
Suggested System Type: **LP PPBPS**
Distribution: **Low Pressure to a CVB**
Pressure Head: **2'**
Flow per Orifice: **.59gpm** 0.41 GPM
Hole Size: **3/16** - 5/32"
Number of Panels: **75** ? OK
System Flow: **44.25gpm** ? 30.75 GPM
Dosing Volume: **270 gal/dose** ? OK
Pump Tank Drawdown: **8.71"**
Pump Run Time: **6.10 min**
Elevation Head: **10.5**
Friction Head: **3.27**
Total Dynamic Head: **18.92 with 20% for fittings**
~~Septic/Pump Tank: 1500gals~~
~~Total Linear Footage: 325' (5x65')~~
Proposed Trench Bottom: **36"**

INITIAL 320'
REPAIR 267'
587' TOTAL

* RECOMMEND USING 5/32" ORIFICE SIZE TO DECREASE FLOW RATE. WILLOW WILL ALLOW SMALLER PUMP + SUPPLY LINE TO BE USED.

Line	Length	Elevation
White1	50'	4.5
Orange2	60'	5.7
Blue3	50'	6.5
White4	53'	7.3
Orange5	**75'**	**8.0**
Blue6	~~83'~~ 70'	**9.2**
White7	**65'**	**10.4**
Orange8	**75'**	**11.4**
Blue9	~~83'~~ 70'	**12.9**

House Corner: 2.4 (House Corners are in red pin flags)
Septic Tank: 5.1
Benchmark: 3.8 (Oak Tree)
Initial System: Orange5 - Blue9, 325' (381') (5x65') Sorry
Repair System: White1 thru White4, totaling213'

* 100' SETBACK FOR ALL WELLS REQUIRED.

SAPROLITE SYSTEM.

#1000 ~ #3684 AOS

GWS – RES. APP 12/04

SEPTIC FEE: 200.00 MSD
DATE: 9-1-05
CRT [ ]

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

2nd 9/26/05

WELL FEE:
DATE:
CRT [ ]

FILE # 6135B

SEPTIC / TYPE APPLICATION: ☐ NONE ☒ NEW SYSTEM EXISTING SYSTEM: ☐ EXPANSION/ALTERATION ☐ REPAIR

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

JOB LOCATION INFORMATION:

TAX/PARCEL #: 00716212PO
STREET ADDRESS: ~~13615~~ Moyes Rd.
CITY: Huntersville
STATE: NC ZIP: 28078
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #: 5
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
NUMBER OF OCCUPANTS:

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: Royal Building Co
ADDRESS: 19525 Calloway Hills Ln
CITY: Davidson
STATE: NC ZIP: 28036
HOME PHONE: WORK PHONE: 704-201-5705
MOBILE PHONE: FAX: 704-895-1325

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? 9-1-05

*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.

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

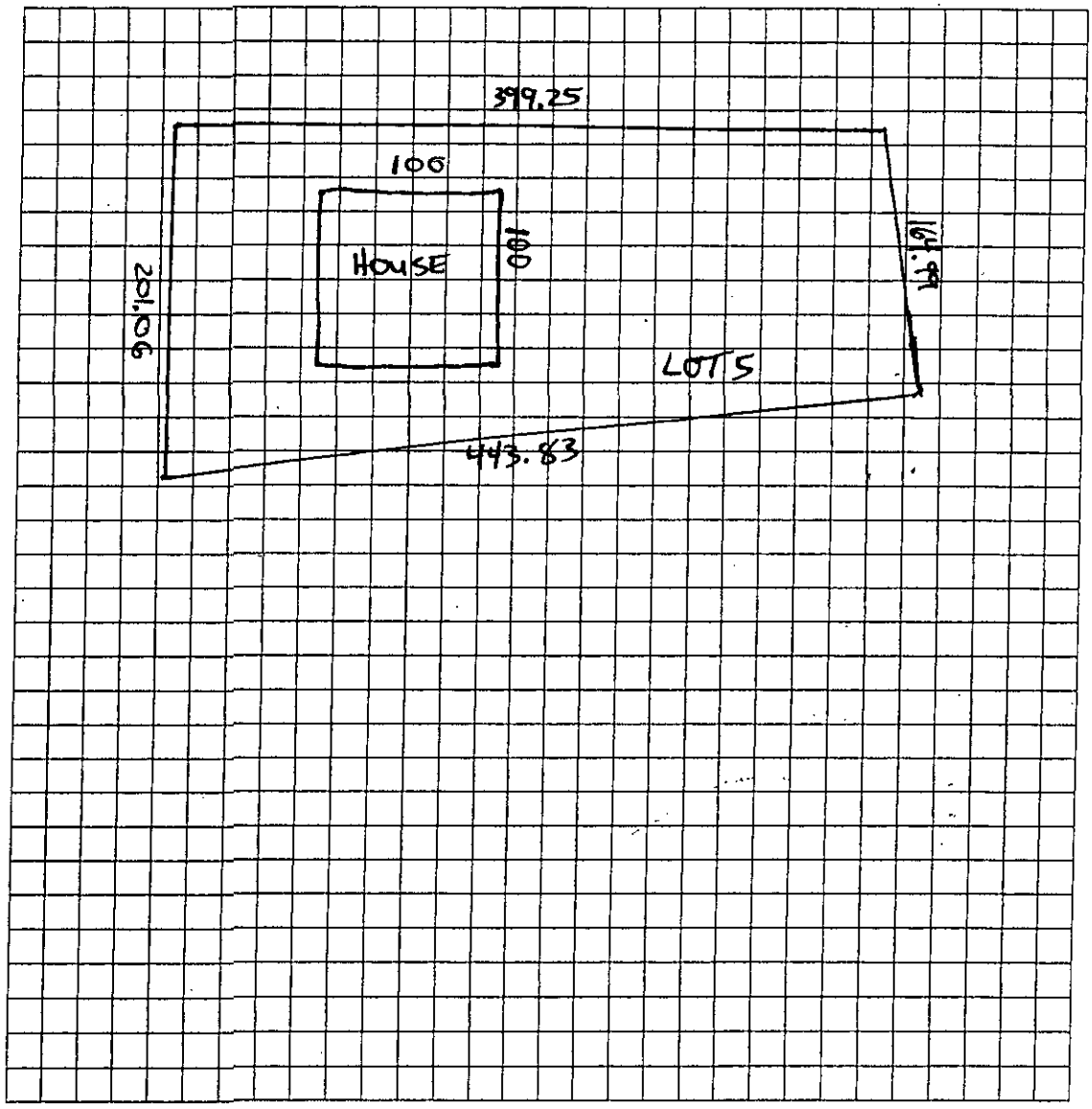
MECKLENBURG COUNTY HEALTH DEPARTMENT
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202
704-336-5103 / FAX: 704-336-6894

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

File #_____
Date_____

PROPOSED PLOT PLAN

A map showing existing and proposed property lines and easements with dimensions, the location of the single family residence, non-single family residence, or other facility, and appurtenances, the site for the proposed well, and the location of existing or proposed sewer lines and/or sewage disposal systems, surface water bodies, aboveground or underground storage tanks. Name all roads adjoining the property. If this a repair indicate the type of repair.



Owner/Agent Signature	
Date	

LBC 12/15/04

House

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	09/01/05	**Amount:**	200.00
Receipt #:	36736	**Tendered:**	200.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	DAUGHVB		

Account Information

Account #: X36841
Contractor: ROYAL BUILDING COMPANY LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen MAYES RD/LOT 5/00716212PO		1	200.00	200.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
1,000.00	400.00				

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	06/27/06	**Amount:**	150.00
Receipt #:	44792	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	AIDOOJK		

Account Information

Account #: X36841
Contractor: ROYAL BUILDING COMPANY LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr MAYES RD LOT 5		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
2,636.16					

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	06/27/06	**Amount:**	150.00
Receipt #:	44793	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	AIDOOJK		

Account Information

Account #: X36841
Contractor: ROYAL BUILDING COMPANY LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval MAYES LOT 5		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
2,786.16					