## Groundwater & Wastewater Services
### Septic Project File & Data Review Worksheet

GWS File #: 8154 B  WASPS App #: 4559

3/09/79 LD 5/6/10 Pool 9/9/10

Primary ES assigned to project: OJ

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: 3 | | | |
| | Were sufficient auger borings made? | Yes ☑ | No ☐ | N/A ☐ |
| .1939(d), .1955, .1956, .1957 | LTAR .3 | Yes ☑ | No ☐ | N/A ☐ |
| | **Improvement Permit/Construction Authorization** | | | |
| .1937(g) 130A-336(a) | Proposed System Type stated-Initial | Yes ☑ | No ☐ | N/A ☐ |
| .1945(b) | Proposed System Type stated-Repair | Yes ☑ | No ☐ | N/A ☐ |
| 130A-336 (a)(3) | System location identifiable by setbacks - Initial | Yes ☑ | No ☐ | N/A ☐ |
| .1937(g) .1945(b) | System components shown – Initial | Yes ☑ | No ☐ | N/A ☐ |
| .1945(b) | Repair area shown | Yes ☑ | No ☐ | N/A ☐ |
| .1937 (f)(g) | Does System design match facility, flow & WWcharacteristics? | Yes ☑ | No ☐ | N/A ☐ |
| .1937 (f)(g) | Is System design consistent with soil/site conditions? | Yes ☑ | No ☐ | N/A ☐ |
| .1937 (f)(g) | Is the System located in the approved area? | Yes ☑ | No ☐ | N/A ☐ |
| 130A-336(a) | Is the Design flow (gpd) indicated? | Yes ☑ | No ☐ | N/A ☐ |

| | | | | |
|---|---|---|---|---|
| 130A-336(a) | Number of Bedrooms, employees, seats, etc. indicated? | Yes ☑ | No ☐ | N/A ☐ |
| .1937(g) | Trench depth indicated? | Yes ☑ | No ☐ | N/A ☐ |
| .1937(g) | Trench width indicated? | Yes ☑ | No ☐ | N/A ☐ |
| .1937(g) | Trench length indicated? | Yes ☑ | No ☐ | N/A ☐ |
| 130A-336(a)(1) | Proposed/existing well shown? | Yes ☐ | No ☐ | N/A ☑ |
| 130A-336(a)(1) | Property line lengths shown? | Yes ☑ | No ☐ | N/A ☐ |
| 130A-336(a) | Facility/appurtenance setbacks shown from fixed points? | Yes ☑ | No ☐ | N/A ☐ |
| | **Operation Permit** | | | |
| .1937(i) | System type as described in table V(a) of rule .1961 | Yes ☑ | No ☐ | N/A ☐ |
| .1937(i) | Conditions for system performance, operation, maintenance, monitoring and reporting. | Yes ☑ | No ☐ | N/A ☐ |

**II. WASPS Review:**

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

# Items requiring correction/modification: _____

Comments:

IA issued date: 9/20/10

OP issued date: 9/30

Review performed by: _____ Date performed: 9/4/10

Remove from pd 4/21/10 SMC

$1548

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

JJ 4559

**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: 00101308
STREET ADDRESS: 16301 Twin Cove Dr
CITY: Huntersville
STATE: NC ZIP: 28078
SUBDIVISION NAME: Twin Cove
LOT #: 30 LOT SIZE (acres): .60
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: 3035
NUMBER OF BEDROOMS: 4 of
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 _____

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 (minimal) | ☑ 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?** 3/17/2010 ☐ N/A

12. **PROPERTY OWNER:**

NAME: Andrew Falls
ADDRESS: 7615 Mariner Cove Drive
CITY: Cornelius
STATE: NC ZIP: 28031
HOME PHONE: 704 398 8184
WORK PHONE:
MOBILE PHONE: 704 651 0962
FAX:

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

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



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. AF (Initial here for septic system applications)

**16. 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.

Andrew Falls
Property Owner's or Owner's Legal Representative Signature

3/17/10
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 + unless North 400 $ ALE DATE FEE RECEIVED: 3/17/10 4/29/10 BB C

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

APPLICATION PROCESSED BY: _____

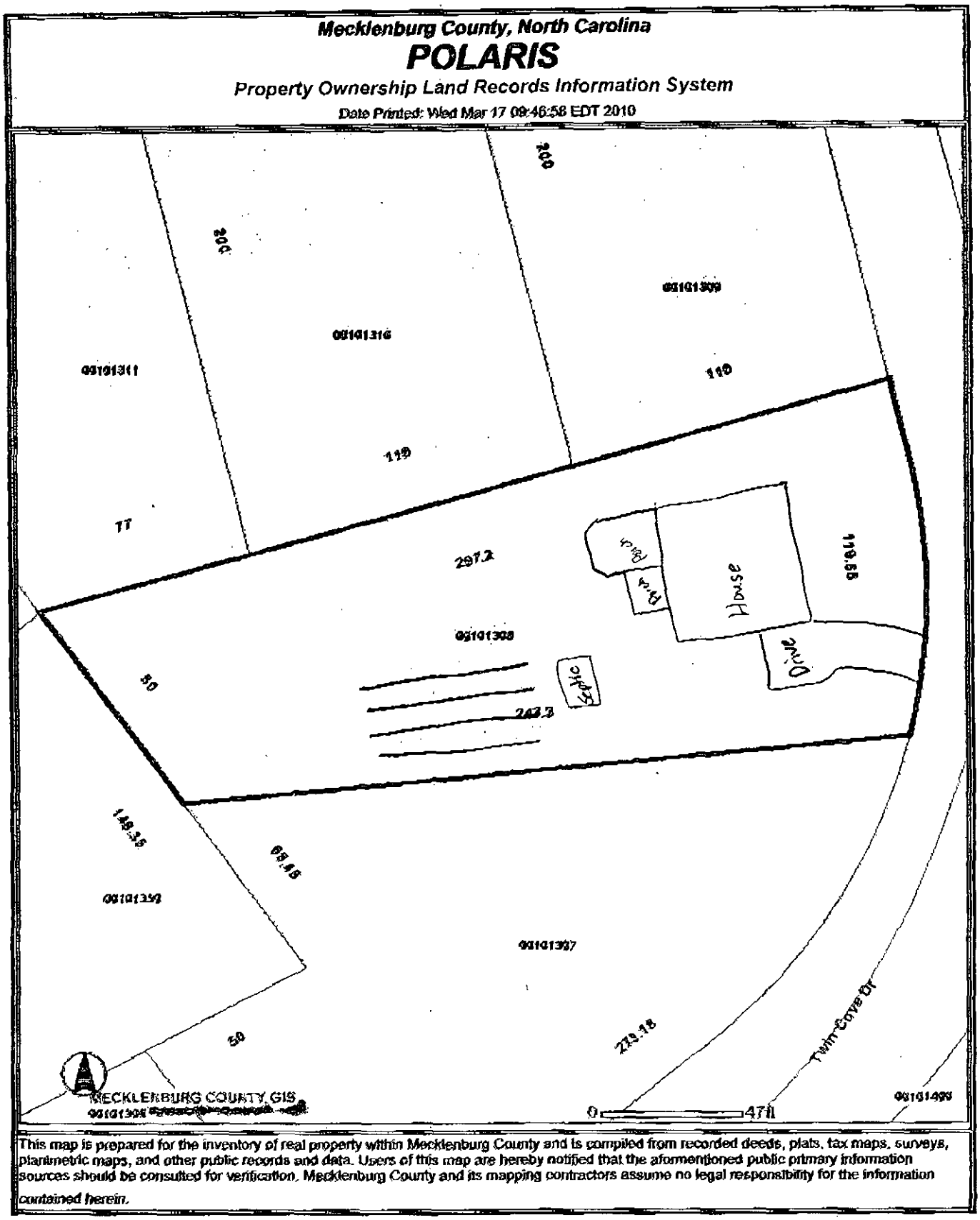
GWS FILE NUMBER ASSIGNED: 81548

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:



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




This map is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no legal responsibility for the information contained herein.

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

Sheet: 1 of 2
Property ID: 1011308
Lot #: 30
File #: 8154B
AppID: 4559

# SOIL/SITE EVALUATION
# for ON-SITE WASTEWATER SYSTEM

Owner: Andrew Falls
Applicant Andrew Falls
Address: 7615 Mariner Cove dr Huntersville nc 28031
Date Evaluated: 3/22/10
Proposed Facility: residence
Design Flow (.1949): 480
Property Size:
Location of Site: 16301 Twin Coave Dr Huntersville NC 28078
Property Recorded:
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 1941 Structure/ Texture | SOIL MORPHOLOGY .1941 1941 Consistence Mineralogy | b PROFILE FACTORS .1942 Soil Wetness/ Color | .1943 Soil Depth (IN.) | 1956 Sapro Class | 1944 Restr Horiz | Profile Class & LTAR |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 10% | 0-38 | SBK/C | FI,S,P,SXP, | >48" TO SOIL WETNESS | 48 | N/A | NONE | P.S IV |
| | L.S | 38-50 | SBK/CL | FI-FR,S,P,SXP, | | | | | .3GPD/FT |
| | | | | | | | | | |
| 2 | " | 0-40 | SBKC | FI,S,P,SXP | " | " | " | " | " |
| | | 40-48 | SBK/CL | FI-FR,S,P,SXP | | | | | |
| | | | | | | | | | |
| 3 | " | 0-5 | GR-SBK/SCL | FR,SS,SP,SXP | " | 41 | " | " | " |
| | | 5-36 | SBK/C | FI,S,P,SXP | | | | | |
| | | 36-41 | SBK/CL | FI-FR,S,P,SXP | | | | | |
| | | | | HIT A ROCK @41" | | | | | |
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| | | | | | SITE LTAR .3GPD/FT2 | | | | |
| | | | | | | | | | |

| Description | Initial System | Repair System |
|---|---|---|
| Available Space (.1945) | PS | PS |
| System Type(s) | III g | III g |
| Site LTAR | 0.3 | 0.3 |

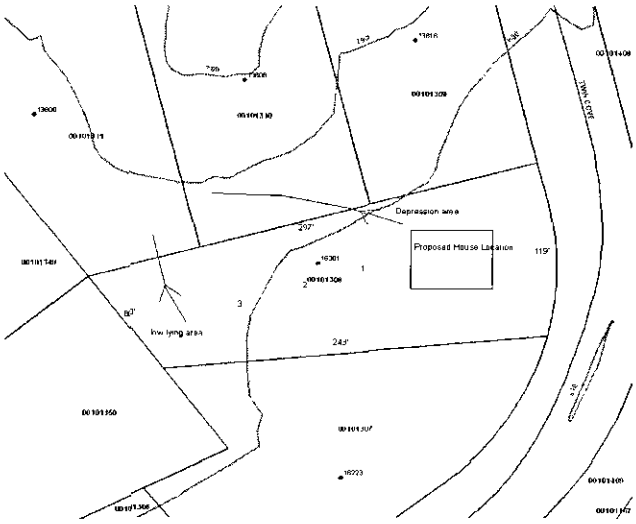
Other Factors (.1946):
Soil Evaluation By: Jason Jackson
Others Present:
Site Classification (.1948): PROVISIONALLY SUITABLE
Site Evaluation By: Jeremy Michelone, R.S.
Others Present:

**COMMENTS:**
100% repair area required

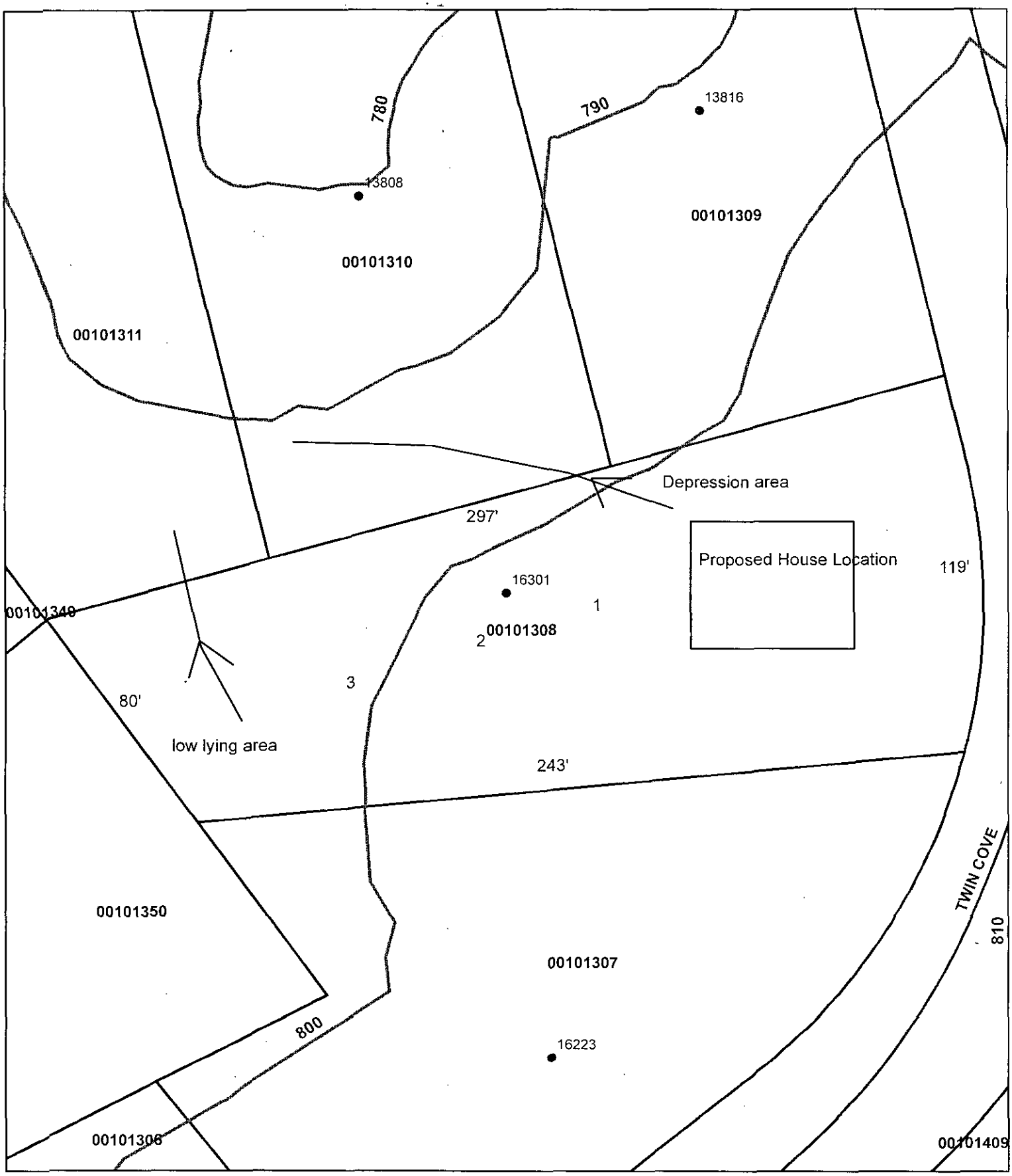
| Landscape Position | Group | Texture | .1955 LTAR | Structure |
|---|---|---|---|---|
| R-Ridge | I | S-Sand | 1.2 - 0.8 | SG-Single Grain |
| SS-Shoulder Slope | | LS-Loamy Sand | | M-Massive |
| LS-Linear Slope | | | | CR-Crumb |
| FS-Foot Slope | II | SL-Sandy Loam | 0.8 - 0.6 | GR-Granular |
|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

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

**Sketch of Soil Evaluation Locations**



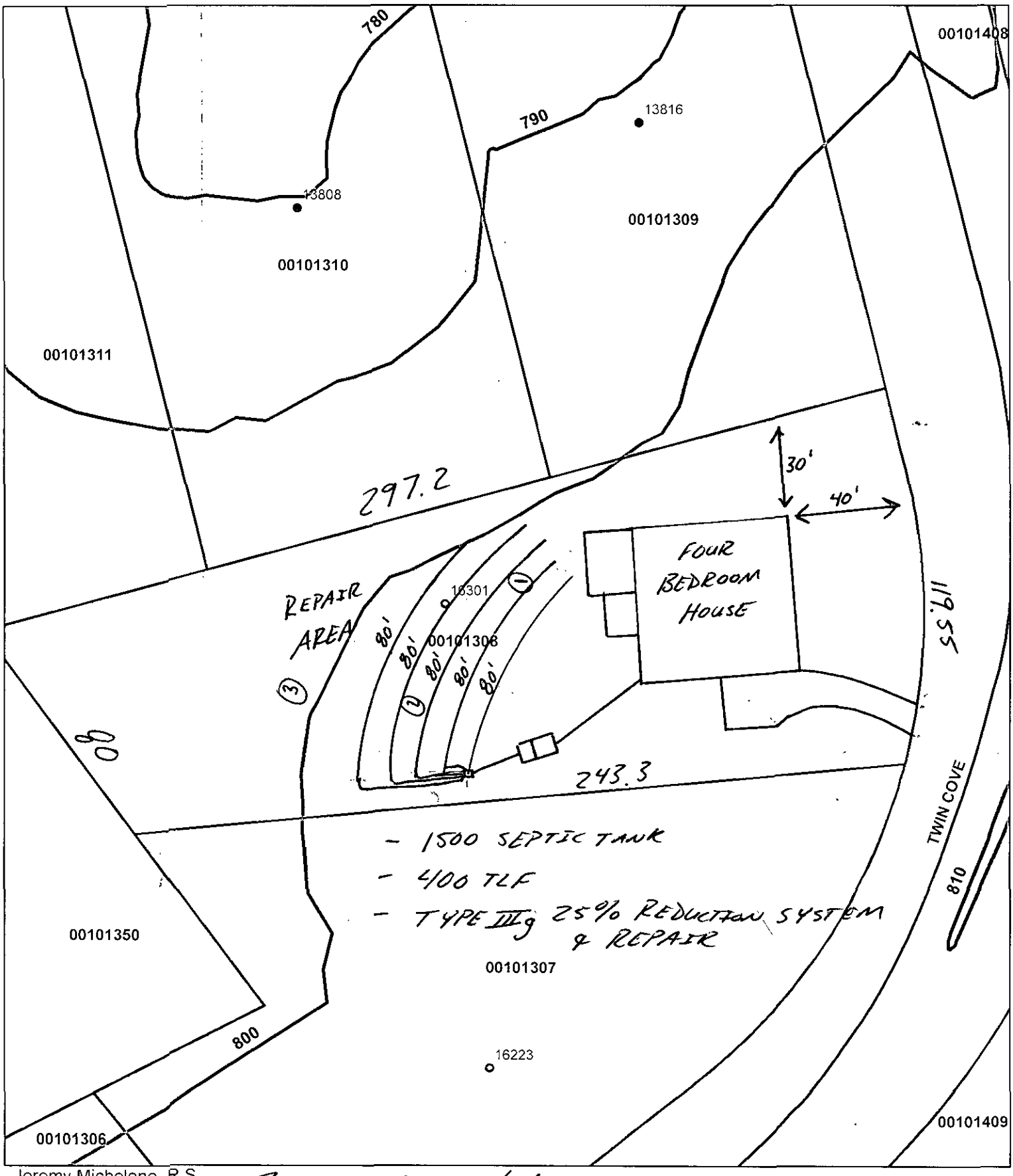
16301 Twin Cove Rd
FILE# 8154B




Map Created By: J. Jackson
Map Created On: 3/23/10

0 30 60

**IMPROVEMENT PERMIT FOR:**
**16301 TWIN COVE ROAD**
**FILE # 8154B**




Jeremy Michelone, R.S.
4/7/2010

Jeremy Michelone, R.S. 4/7/10

0 20 40 80 Feet

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 #: **30004559** GWS File #: **8154B** Tax Parcel #: **001-013-08**

- 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):** 4/7/2015

Type of Installation: Residential - New System Lot Number: 30

Structure Type: HOUSE Size ($ft^2$): 3035 # Bedrooms: ~~3~~ 4 # Occupants: 4

Building Foundation: Crawl Space 3BR Water Supply: Municipal

**II. Initial System Type:** Approved **System Classification:** IIIg

Initial System Specifications:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Design Flow (gpd): | 480 | LTAR ($gpd/ft^2$): | 0.3 | Septic Tank Size (gal): | 1500 | Pump Tank Size (gal): | N/A |
| Trench Width (ft): | 3 | Trench Spacing (ft): | 9 | Absorption Area ($ft^2$): | 1200 | Total Trench Length (ft): | 400 |
| Maximum Trench Depth (in): | 30 | Depth of Media (in): | 12 | Distribution Device: | Distribution Box | | |

**III. Repair System Type:** Approved **System Classification:** IIIg

Repair System Specifications:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Design Flow (gpd): | 480 | LTAR ($gpd/ft^2$): | 0.3 | Septic Tank Size (gal): | 1500 | Pump Tank Size (gal): | N/A |
| Trench Width (ft): | 3 | Trench Spacing (ft): | 9 | Absorption Area ($ft^2$): | 1200 | Total Trench Length (ft): | 400 |
| Maximum Trench Depth (in): | 30 | Depth of Media (in): | 12 | Distribution Device: | Distribution Box | | |

**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 Owner/Legal Agent: Andrew Falls

Signature: Jeremy Michelone, R.S. Print Name Signature: Andrew Falls

Date Issued: 4/7/2010

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 #: **30004559** GWS File #: **8154B**

**IV. Permit Conditions/Comments:**

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 R.S.

Date Issued: 4/7/2010

Owner/Legal Agent: Andrew Falls
Print Name

Signature: Andrew Falls

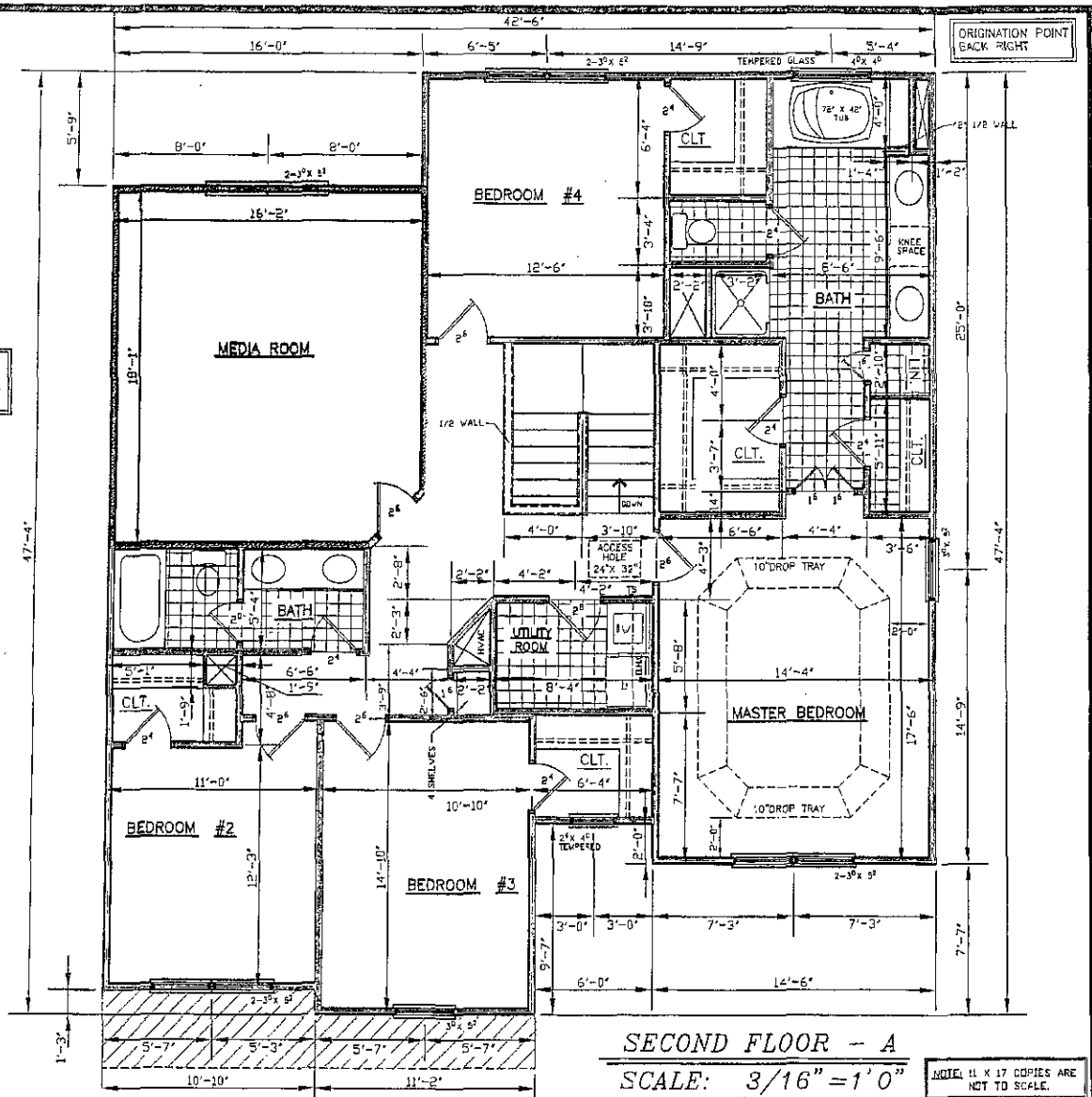
NOTE:
DIMENSIONS ARE TO OUTSIDE OF EXTERIOR WALLS AND TO CENTERLINE OF INTERIOR WALLS

NOTE:
ALL STAIRS, RAILING & HANDRAILS SHALL COMPLY R311 & R312 OF 2009 NCRC.

EL ESPAÑOL
LAS DIMENSIONES ESTÁN AL EXTERIOR DE PAREDES EXTERIORES HASTA LA LÍNEA

NOTE:
HAZARDOUS GLAZING LOCATION SHALL COMPLY W/NCRC, 2009

NOTE: ALL ANGLES ARE 45° UNLESS OTHERWISE NOTED.




SECOND FLOOR - A
SCALE: 3/16" = 1'0"

NOTE: 11 X 17 COPIES ARE NOT TO SCALE.

DAVID A. WOOD INC.
HOME DESIGNS
MONROE, NORTH CAROLINA
704-764-9366
WWW.DAVIDAWOOD.COM

EASTWOOD HOMES

LEXINGTON

EASTWOOD CONSTRUCTION COMPANY
2857 WESTPORT ROAD
CHARLOTTE, NORTH CAROLINA 28208
SCALE: AS NOTED | HEATED SQ.FT.:
DATE: 5-21-09 | PLAN #: 2857081
SIZE: 42'-6" X 50'-0" | SECOND FLOOR PLAN

SHEET # 8 OF 21

DAVID A. WOOD INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM, LOCATED IN MONROE, NORTH CAROLINA. THE CLIENT IS NEED TO BE ADVISED TO COMPLY WITH LOCAL AND STATE CODES. THE PURCHASER OF THESE SETS OF PLANS SHOULD CONSULT A LOCAL BUILDING PROFESSIONAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS, CONDITIONS AND CONSTRUCTION METHODS PRIOR TO CONSTRUCTION. DAVID A. WOOD INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM, LOCATED IN MONROE, NORTH CAROLINA. THE CLIENT IS NEED TO BE ADVISED TO COMPLY WITH LOCAL AND STATE CODES. THE PURCHASER OF THESE SETS OF PLANS SHOULD CONSULT A LOCAL BUILDING PROFESSIONAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS, CONDITIONS AND CONSTRUCTION METHODS PRIOR TO CONSTRUCTION.

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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 #: 8154B Permit #: 4559 Tax Parcel #: 001-013-08

Property Owner: ANDREW FALLS

Job Location Address: 16301 Twin Cove Drive

City: HUNTERSVILLE State: NC Zip Code: 28078

**Installation Approval Issuance Date:** 8/26/10

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: 0.5 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: — gallons

Drainfield Design ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 400 feet

# of Lines: 5 @ 80' feet

Depth of Media: 12 inches (Type) 25% RED.

Distribution Device: DROP BOXES

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 _____

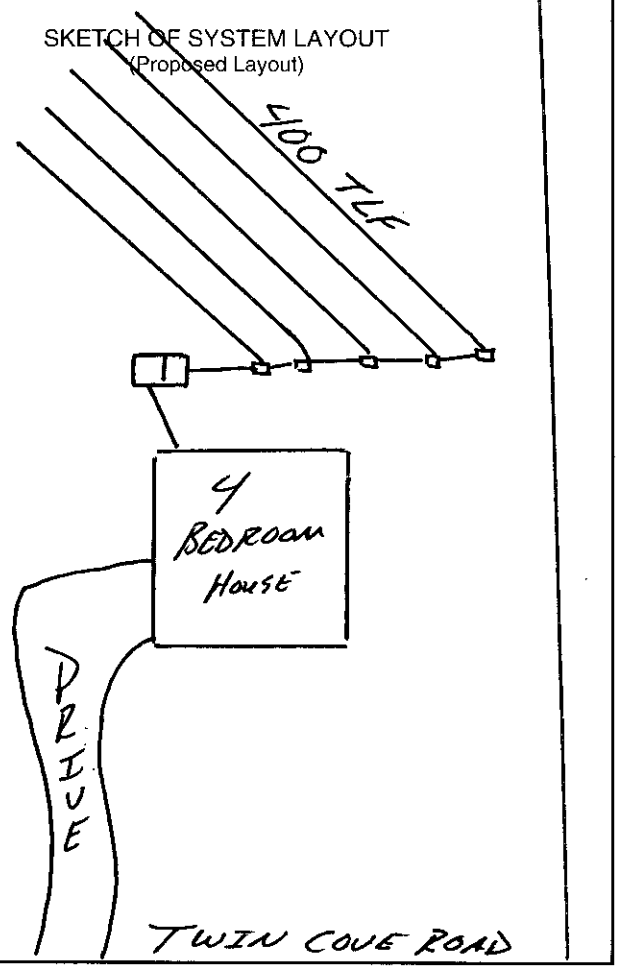
Minimum System Setbacks

Distance from Building Foundation: 75' feet

Distance from Property Line: 710' feet

Distance from Water Supply Source: 7100' feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)




Comments: System Classification & Type: IIIg 25% Reduction System

DENR Authorized Agent: Jeremy Michelone, R.S. Signature: Jeremy Michelone, R.S.

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 #: 8154B Permit #: 4559 Tax Parcel #: 001-013-08

Property Owner: ANDREW FALLS

Job Location Address: 16301 TWIN COVE DRIVE

City: HUNTERSVILLE State: NC Zip Code: 28078

**Operation Permit Issuance Date:** 8/30/10 Contractor Name: RHEA'S

*Permitted Design Flow:* 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

*Liquid Capacity of Dosing Tank:* — gallons

Effluent Pump Model: —

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 400 feet

# of Lines: 6 @ VARY feet

Depth of Media: 12 inches (Type) EZ1203H

Depth of Cover: 24 inches

Distribution Device: DROP BOXES

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: 710' feet

Distance from Water Supply Source: >100' feet

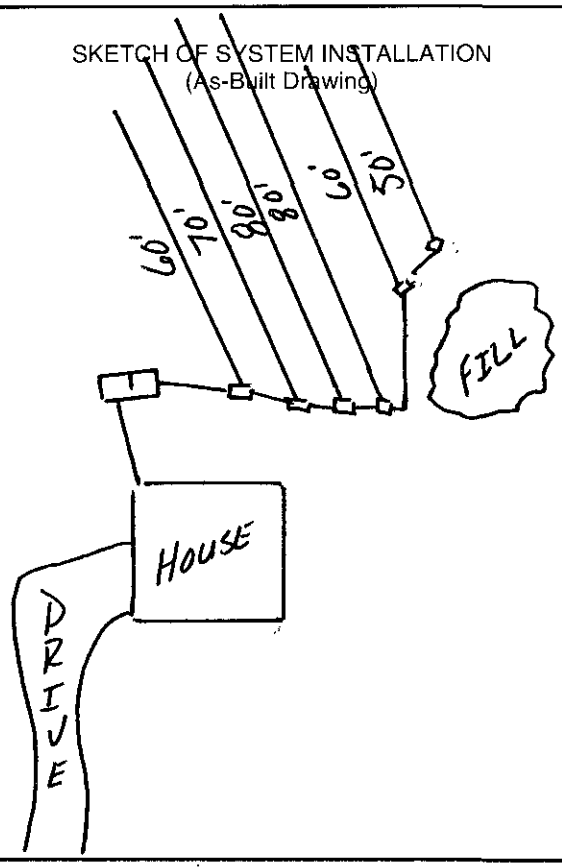
Inspection Dates

Tank(s) Inspected: 8/30/10

Excavation Inspected: 8/30/10

Pump & Controls Inspected: —

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: IIIg, 1203H(EZ), Gravity, NA, NA

DENR Authorized Agent: Jeremy Mickelson, R.S Signature: Jeremy Mickelson, R.S

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 #: 8154B Permit #: 4557 Tax Parcel #: 001-013-08

Property Owner: ANDREW FALLS

Job Location Address: 16301 TWIN COVE DRIVE

City: HUNTERSVILLE State: NC Zip Code: 28078

**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: IIIg

*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: Jeremy Micholas, R.S. Date: 8/30/10

Signature: Jeremy Micholas, R.S.

*MECKLENBURG COUNTY*
*LAND USE AND ENVIRONMENTAL SERVICES*
***Payment Receipt***

**Receipt Information**

**Date:** 04/29/10
**Receipt #:** 67588
**Check / Auth #:** AE 565363
**Received By:** CRAIGGY

**Amount:** 200.00
**Tendered:** 0.00
**Returned:** 0.00

**Account Information**

**Account #:** 200000
**Contractor:** FALLS ANDREW M
**Attn:**
**Address:** 7615 MARINER COVE DRIVE
**Address:**
**City/State/Zip:** CORNELIUS, NC 28031

| Item | Description | Permit# | Quantity | Unit Price | Total Price |
|---|---|---|---|---|---|
| 0734 | Auth for Waste Wtr Sys Constr<br>16301 TWIN COVE DR/FILE 8154B | | 1 | 200.00 | 200.00 |

**Outstanding Balances**

| Month-To-Date | Prior Month | 30 Days | 60 Days | 90 Days | Balance |
|---|---|---|---|---|---|
| 92.21 | | | | | |

*MECKLENBURG COUNTY*
*LAND USE AND ENVIRONMENTAL SERVICES*
***Payment Receipt***

**Receipt Information**

**Date:** 04/29/10
**Receipt #:** 67589
**Check / Auth #:** AE 565363
**Received By:** CRAIGGY

**Amount:** 200.00
**Tendered:** 0.00
**Returned:** 0.00

**Account Information**

**Account #:** 200000
**Contractor:** FALLS ANDREW M
**Attn:**
**Address:** 7615 MARINER COVE DR
**Address:**
**City/State/Zip:** CORNELIUS, NC 28031

| Item | Description | Permit# | Quantity | Unit Price | Total Price |
|---|---|---|---|---|---|
| 0703 | Installation/Final Approval<br>16301 TWIN COVE DR/FILE 8154B | | 1 | 200.00 | 200.00 |

**Outstanding Balances**

| Month-To-Date | Prior Month | 30 Days | 60 Days | 90 Days | Balance |
|---|---|---|---|---|---|
| 92.21 | | | | | |

# *MECKLENBURG COUNTY*
## *LAND USE AND ENVIRONMENTAL SERVICES*
### *Payment Receipt*

**Receipt Information**

**Date:** 03/17/10
**Receipt #:** 67001
**Check / Auth #:** AE 285877
**Received By:** MULLIVR

**Amount:** 250.00
**Tendered:** 250.00
**Returned:** 0.00

**Account Information**

**Account #:** 200000
**Contractor:** FALLS ANDREW
**Attn:**
**Address:** 16301 TWIN COVE DR
**Address:**
**City/State/Zip:** HUNTERSVILLE, NC 28078

| Item | Description | Permit# | Quantity | Unit Price | Total Price |
|---|---|---|---|---|---|
| 0701 | Improvment Permit App-Residen<br>PN 00101308 16301 TWIN COVE DR | | 1 | 250.00 | 250.00 |

Virtual Merchant

LUESA NORTH
18335 OLD STATESVILLE RD
UNIT 101
CORNELIUS, NC 28031
704-336-7783

LUESA NORTH
0031940000801346854400

Date: 03/17/2010 11:24:08 AM

CREDIT CARD SALE

CARD NUMBER: **********1005 K
TRAN AMOUNT: $250.00
APPROVAL CD: 285877
RECORD #: 002
CLERK ID: mullisvga
CUST CODE: 9330
SALES TAX: $0.00

X _____
(CARDHOLDER'S SIGNATURE)

I AGREE TO PAY THE ABOVE TOTAL AMOUNT
ACCORDING TO THE CARD ISSUER AGREEMENT
(MERCHANT AGREEMENT IF CREDIT VOUCHER)

Thank You

Merchant Copy

**Outstanding Balances**

| Month-To-Date | Prior Month | 30 Days | 60 Days | 90 Days | Balance |
|---|---|---|---|---|---|
| 92.21 | | | | | |

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

Sheet: 1 of 2
Property ID: 1011308
Lot #: 30
File #: 8154B
AppID: 4559

# SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Andrew Falls
Applicant Andrew Falls
Address: 7615 Mariner Cove dr Huntersville nc 28031
Date Evaluated: 03/22/2010
Proposed Facility: residence
Design Flow (.1949): 480
Property Size:
Location of Site: 16301 Twin Coave Dr Huntersville NC 28078
Property Recorded:
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 .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 | 10% | 0-38 | SBK/C | FI,S,P,SXP, | >48" TO SOIL WETNESS | 48 | N/A | NONE | P.S IV |
| | L.S | 38-50 | SBK/CL | FI-FR,S,P,SXP, | | | | | .3GPD/FT |
| | | | | | | | | | |
| 2 | " | 0-40 | SBKC | FI,S,P,SXP | " | " | " | " | " |
| | | 40-48 | SBK/CL | FI-FR,S,P,SXP | | | | | |
| | | | | | | | | | |
| 3 | " | 0-5 | GR-SBK/SCL | FR,SS,SP,SXP | " | 41 | " | " | " |
| | | 5-36 | SBK/C | FI,S,P,SXP | | | | | |
| | | 36-41 | SBK/CL | FI-FR,S,P,SXP | | | | | |
| | | | | HIT A ROCK @41" | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | SITE LTAR .3GPD/FT2 | | | | |
| | | | | | | | | | |

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

Other Factors (.1946):
Soil Evaluation By: Jason Jackson
Others Present:
Site Classification (.1948): PROVISIONALLY SUITABLE
Site Evaluation By:
Others Present:

**COMMENTS:**
100% repair area required

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

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

**Sketch of Soil Evaluation Locations**

