

5225 SAMPLE RD

02314103

5/28/08

marliwr

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

2007 UTS OK
LD 7/9/09

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6126 WASPS App #: 4263

Primary ES assigned to project: YJ

Secondary ES assigned to project: _____

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

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: _____ Were sufficient auger borings made?	Yes ☐	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR	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: _____

OP issued date: _____

Review performed by: KR Date performed: 7-209

FEE: 100 rec't #29820
DATE: 6/23/09
CRT [ ]

APPLICATION FOR APPROVAL TO USE AN EXISTING ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM
MECKLENBURG COUNTY - GROUNDWATER & WASTEWATER SERVICES
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

GWS – UES.APP 06/07

FILE #: 61126

TYPE APPLCATION: JPM 4263

- ☐ ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A / M)
- ☐ ADDITION - RENOVATION OR GARAGE WITH NO MAJOR CHANGES (X)
- ☐ EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
- ☒ COMMERCIAL OR INDUSTRIAL (N)

PERSON FILING APPLICATION:
NAME: David Suddreth
ADDRESS: 5841 Brookshire Blvd
CITY: Charlotte
STATE: NC ZIP: 28216
PHONE: 704-336-8467
ALTERNATE PHONE: 704-777-1919

PROPERTY OWNER:
NAME: Mecklenburg County
ADDRESS: 5841 Brookshire Blvd
CITY: Charlotte
STATE: NC ZIP: 28216
PHONE: 704-336-3854
ALTERNATE PHONE:

JOB LOCATION INFORMATION
TAX/PARCEL #: 02314101
STREET ADDRESS: 5898 Sample Rd
CITY: Charlotte
STATE: NC ZIP:
SUBDIVISION OR MOBILE HOME PARK NAME: Reedy Creek Park
LOT #:

TOWNSHIP:
- ☒ 0-MECKLENBURG
- ☐ 1-CHARLOTTE
- ☐ 2-DAVIDSON
- ☐ 3-CORNELIUS
- ☐ 4-PINEVILLE
- ☐ 5-MATTHEWS
- ☐ 6-HUNTERSVILLE
- ☐ 7-MINT HILL

WATER SUPPLY:
☐ MUNICIPAL (M) ☐ COMMUNITY (C) ☒ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER 'SPRINGS' (O)

RESIDENTIAL PROPERTY TYPE:
☐ HOUSE (H) ☐ MODULAR HOME (M) ☐ MULTIPLE FAMILY (U)
☐ SINGLE MOBILE HOME (S) ☐ DOUBLE WIDE (D)
☐ OTHER (O)

OCCUPANCY (both fields are required):
NUMBER OF BEDROOMS:
NUMBER OF OCCUPANTS:

COMMERCIAL / INDUSTRIAL PROPERTY TYPE:
TYPE OF BUSINESS: Park Office - No Public Access
EMPLOYEES PER SHIFT: 2
OF SHIFTS: 1 Have truck/staff that leave from parking area
INDUSTRIAL WASTES? ☐ YES ☒ NO
UNDERGROUND STORAGE TANKS? ☐ YES ☒ NO

ADDITION TYPE ATTACHED TO EXISTING STRUCTURE:
☐ BEDROOM ☐ BATHROOM ☐ KITCHEN ☐ DINING ROOM ☐ LIVING ROOM ☐ DEN
☐ GARAGE ☐ SUNROOM ☐ PORCH ☐ DECK ☐ OTHER

ADDITION TYPE DETACHED FROM EXISTING STRUCTURE:
☐ DETACHED GARAGE ☐ DETACHED GARAGE WITH PLUMBING ☐ POOL HOUSE ☐ SHOP ☐ BARN
☐ STORAGE SHED ☐ DETACHED PORCH / DECK ☒ OTHER exchange of office space

*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: 6/23/09

*The undersigned, an authorized agent of the Mecklenburg County Health Department, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules for Sanitary Sewage Collection, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an installation, construction, alteration and/or repair approval is granted y this Department.
- This permit is not transferable.

☐ ADDITION / RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE
☐ MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE

O.K. to use existing system for a new office building.

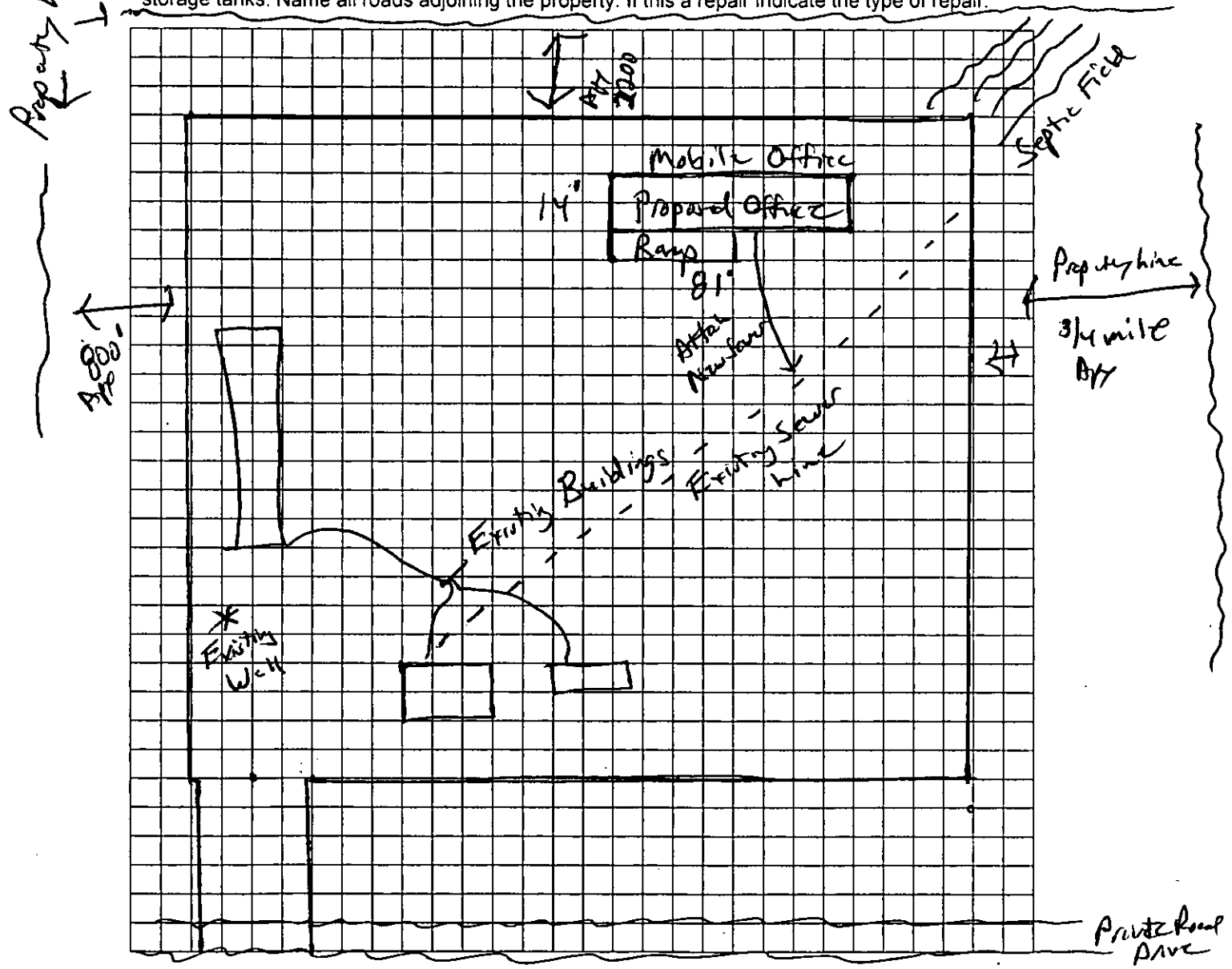
EHS Signature — Date: Jerry Medlock, P.S. 7/8/09

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 # 6126
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	6/23/09

LBC 12/15/04

1144

GWS- COM. APP 12/04

PERMIT APPLICATION FOR A COMMERCIAL / INDUSTRIAL SITE
IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATION
FOR ON-SITE WASTEWATER SYSTEM
NEW WELL INSTALLATION OR REPAIR OF EXISTING WELL
MECKLENBURG COUNTY GROUNDWATER & WASTEWATER SERVICES

SEPTIC FEE: [illegible]
DATE: _____
CRT [ ]

FILE # 6126

WELL FEE: _____
DATE: _____
CRT [ ]

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

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

JOB LOCATION INFORMATION

PROJECT TRACKING #:
TAX/PARCEL #: 02314101
STREET ADDRESS: 6000 Sample Rd
CITY: Huntersville
STATE: NC ZIP: 28078
LOT #:
TOWNSHIP:

☐ 0-MECKLENBURG ☐ 4-PINEVILLE
☐ 1-CHARLOTTE ☐ 5-MATTHEWS
☐ 2-DAVIDSON ☒ 6-HUNTERSVILLE
☐ 3-CORNELIUS ☐ 7-MINT HILL

BUILDING INFORMATION:

DESCRIBE TYPE OF BUSINESS:

☒ COMMERCIAL ☐ INDUSTRIAL
SQUARE FOOTAGE OF FACILITY: ~2000
NUMBER OF EMPLOYEES PER SHIFT: 13
NUMBER OF SHIFTS: 1
TYPE OF WASTEWATER:
☒ SEWAGE ☐ INDUSTRIAL PROCESS WASTEWATER
HOW WILL WATER BE USED IN THE FACILITY?:
☒ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☐ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM, INFORMATION DOCUMENTING THE INCREASED WASTEWATER FLOW AND/OR A JUSTIFICATION FOR SYSTEM ALTERATION WILL BE REQUIRED.

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: Mack Co
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX :

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Garry Rice
ADDRESS: 6000 Sample Rd
CITY: Huntersville
STATE: NC ZIP: 28078
HOME PHONE: WORK PHONE: 704 875 6524
MOBILE PHONE: 704 807 5518 FAX :

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 1992
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? Never

*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.

Garry Rice 7-7-06
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 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 #: 6126 Permit #: 6126 Tax Parcel #: 023-141-01

Property Owner: MECK COUNTY PARKS & REC.

Job Location Address: 6000 SAMPLE ROAD (RAPTOR CENTER)

City: HUNTERSVILLE State: NC Zip Code: 28078

Installation Approval Issuance Date: 7/7/06

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 8/7/06, 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: _____ GPD

Site LTAR: 0.3 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: EXT. gallons

Liquid Capacity of Dosing Tank: — gallons

Drainfield Design ☒ N/A

Trench Depth: _____ inches

Trench Width: _____ feet

Line Spacing: _____ feet (O.C.)

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Distribution Device: _____

Bed Design *(For Repair Installations ONLY.)* ☐ N/A

Bed Depth: 30" inches

Bed Width: 9' feet

Total line length: 90' feet

# of Lines: 3 @ 90' feet

Depth of Media: 18" inches (Type) STONE

Distribution Device: D-BOX

Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

Minimum System Setbacks

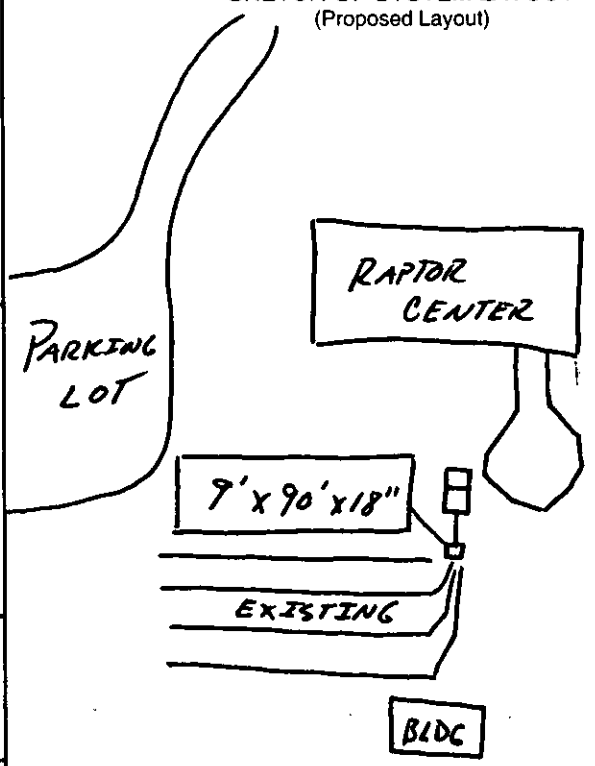
Distance from Building Foundation: 5' feet

Distance from Property Line: >10' feet

Distance from Water Supply Source: >100' feet

SAMPLE ROAD

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)



Comments: System Classification & Type: TYPE II CONVENTIONAL SYSTEM

DENR Authorized Agent: Jeremy Mitchell, R.S. Signature: Jeremy Mitchell, 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 #: 6126 Permit #: _____ Tax Parcel #: 023-141-01

Property Owner: MECK COUNTY PARKS & REC.

Job Location Address: 6000 SAMPLE ROAD (RAPTOR CENTER)

City: HUNTERSVILLE State: NC Zip Code: 28078

Operation Permit Issuance Date: 7/20/06 Contractor Name: STANLEY

Permitted Design Flow: _____ GPD

Liquid Capacity of Septic Tank: EXT. gallons

Liquid Capacity of Dosing Tank: — gallons

Effluent Pump Model: —

Drainfield Installation ☒ N/A

Trench Depth: _____ inches

Trench Width: _____ feet

Line Spacing: _____ feet (O.C.)

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Inspection Dates

Tank(s) Inspected: —

Excavation Inspected: 7/20/06

Pump & Controls Inspected: —

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

Bed Depth: 30 inches

Bed Width: 9 feet

Total line length: 90 feet

# of Lines: 3 @ 90 feet

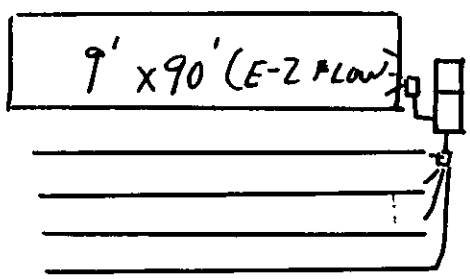
Depth of Media: 12 inches (Type) E-2 FLOW

Depth of Cover: 16 inches

Distribution Device: D-BOX

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

RAPTOR CENTER



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

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 INNOVATIVE SYSTEM

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

FEE: _____

DATE: _____

APPLICATION FOR IMPROVEMENT PERMIT FOR RESIDENTIAL SITE INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM

[ ] CRT

TYPE APPLICATION: __ NEW SYSTEM __ EXPANSION/ ALTERATION OF EXISTING SYSTEM X REPAIR OF EXISTING SYSTEM

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

FILE #: 6126

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 023.141.01

STREET ADDRESS: 6000 Sample Rd

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT NUMBER:

TOWNSHIP (CHECK ONE):

X 0 MECKLENBURG
__ 1 CHARLOTTE
__ 2 DAVIDSON
__ 3 CORNELIUS
__ 4 PINEVILLE
__ 5 MATTHEWS
__ 6 HUNTERSVILLE
__ 7 MINT HILL

CLOSING DATE _____

TYPE OF BUILDING (CHECK ONE):

__ SINGLE MOBILE HOME(S)
__ DOUBLE WIDE (D)
__ HOUSE (H)
__ MODULAR HOME (M)
__ MULTIPLE FAMILY (U)
✓ OTHER (O) PICNIC AREA RESTROOMS

HEATED SQUARE FOOTAGE: X

NUMBER OF BEDROOMS: X NUMBER OF OCCUPANTS:

FOUNDATION FOR RESIDENCE:

__ WITHOUT BASEMENT
__ ON SLAB
__ CRAWL SPACE X
__ WITH BASEMENT /PLUMBING
__ WITH BASEMENT /NO PLUMBING

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:
No Building changes - Repair Existing System

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: __ YES X NO TYPE: _____

WATER SUPPLY (CHECK ONE):
__ COMMUNITY (C)
__ MUNICIPAL (M)
__ PRIVATE WELL (P)
__ SHARED WELL (S)
__ OTHER 'SPRINGS' (O) NONE TRANSIENT

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES	__ YES __ NO	WELL, SPRINGS OR WATERLINES	✓ YES __ NO
EXISTING WASTEWATER SYSTEMS	✓ YES __ NO	DESIGNATED WETLANDS	__ YES ✓ NO
EASTMENTS OR RIGHT-OF-WAYS	__ YES __ NO		

PROPERTY OWNER:

NAME: Mecklenburg County PARK + Rec
(LAST) (FIRST) (MI)

ADDRESS: Latta Plantation - Sample Rd.

CITY: Charlotte STATE: N.C. ZIP:

DAYTIME PHONE: (704) 336-7760

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
(LAST) (FIRST) (MI)

DAYTIME PHONE: ( ) —

600 E. 4th ST 11FL

28202

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? —

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 agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED: Donnie R. Marsh DATE: 8/7/02

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR APPROVAL

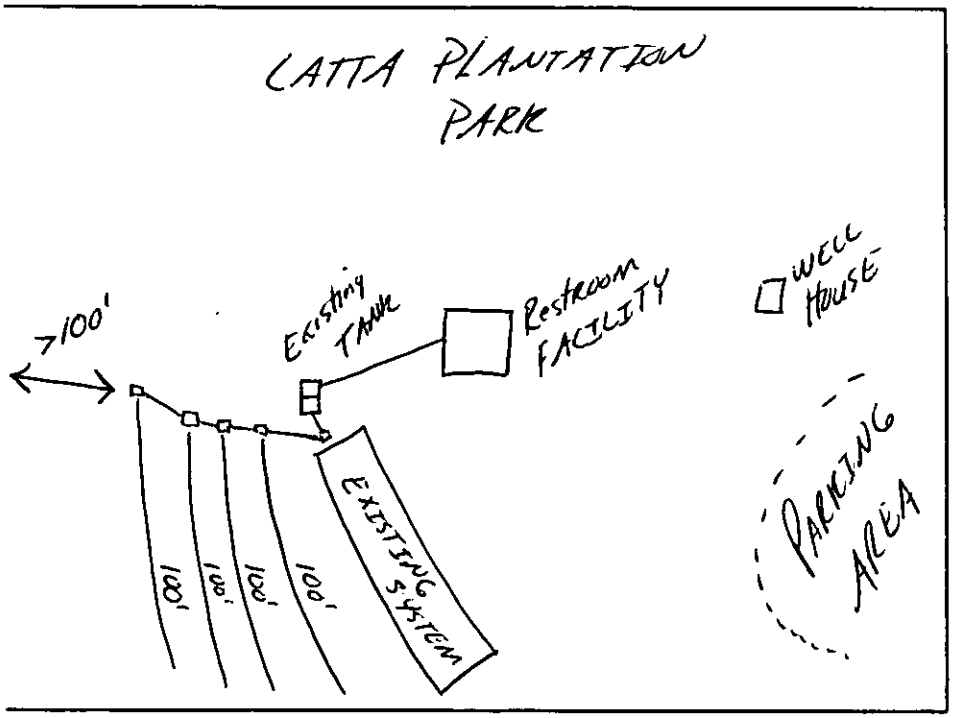
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 6126 DATE: 8/7/02

TC: 023-141-01 ☐ L

SERIAL 19017

Permission is hereby given to _____ Install or Construct, _____ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 8/7/02. All work shall be completed on or before 9/7/02, after which date this permit 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 the granting of this permit. A Certificate of Completion or 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 or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.



PLOT OF SYSTEM

Liquid Capacity of Septic Tank existing gallons

Liquid Capacity of Dosing Tank N/A gallons

Tank Construction PCC

Trench Depth 30"

Absorption and/or Nitrification Lines:

Trench Width 3' feet

Trench Walls Scored and Porous yes

Total Line Length 400' feet

Number of Lines 4 x 100'

Depth of Stone 12" inches

Distance from House >5' feet

Distance from Property Line >10' feet

Distance from Well >100' feet

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

NAME OF OWNER CATTA PLANTATION

LOCATION OF PROPERTY Picnic Area - Sample Road

Comments: Repair to System
Install 4 lines x100' x3' x12" Stone
Type II Conventional System

Jimmy Mullis R.S.
Environmental Health Specialist

WHITE - HEALTH DEPARTMENT's COPY • CANARY - E.H.S. COPY • PINK - OWNER OR AGENT's COPY

CERTIFICATE OF COMPLETION/OPERATION PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 6126 DATE: 8/22/02

TC: 023-141-01 ☒ L ☐ CRT

SERIAL 19053

Name of Owner Mecklenburg County (Latta Plantation) Juris.: _____

Address of Property Sample Road - Picnic Area

Inspection Data:

Tank Material Existing

Total Length of Drainfield 400'

Number of Lines 4 @ 100'

Cover Depth 12"

Water Supply Source well

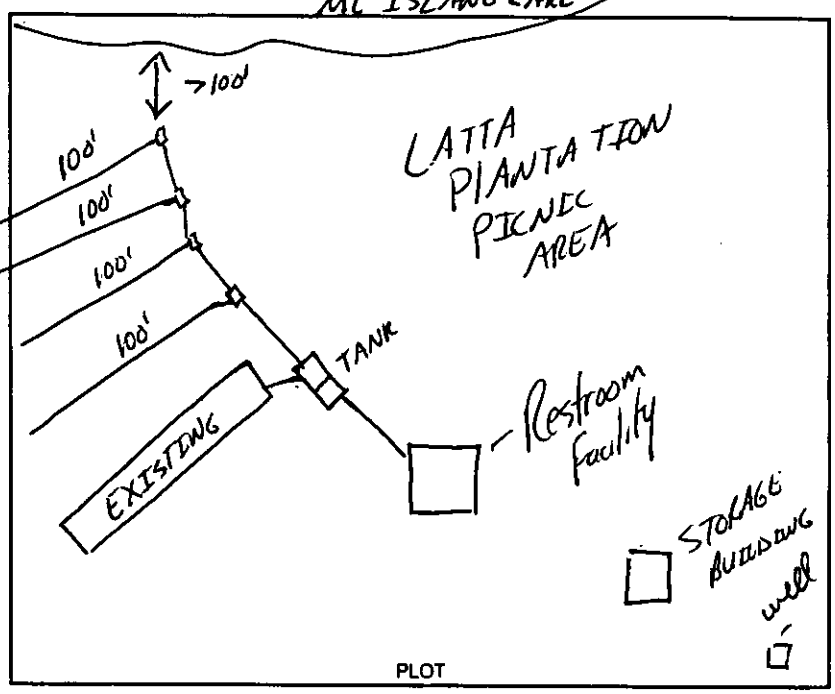
Distance to Water Source 7/00'

Excavation Inspected 8/22/02

Tank(s) Inspected ———

Wash Line Inspected N/A

High Water Alarm Inspected N/A



Design 2002 Repair, 1200 SF, Can, 12" Stone CTR# STANLEY

The undersigned has inspected the Septic Tank System described above, ~~and certifies~~ it has been

☐ installed or constructed ☒ altered or repaired

☐ in accordance with the permit issued ☒ as detailed ~~in the plot~~ above

and meets the provisions of I5A NCAC 18A. 1900, "Laws And Rules For Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. This issuance of this

☐ Certificate of Completion ☒ 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 I5A NCAC 18A. 1990 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/revocation of this permit.

COMMENTS: Repair to System
4 Lines x 100' x 3' x 12" Stone (400 TCF)
Type II Conventional System

Tony Mecklin R.S.
Environmental Health Specialist

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR APPROVAL

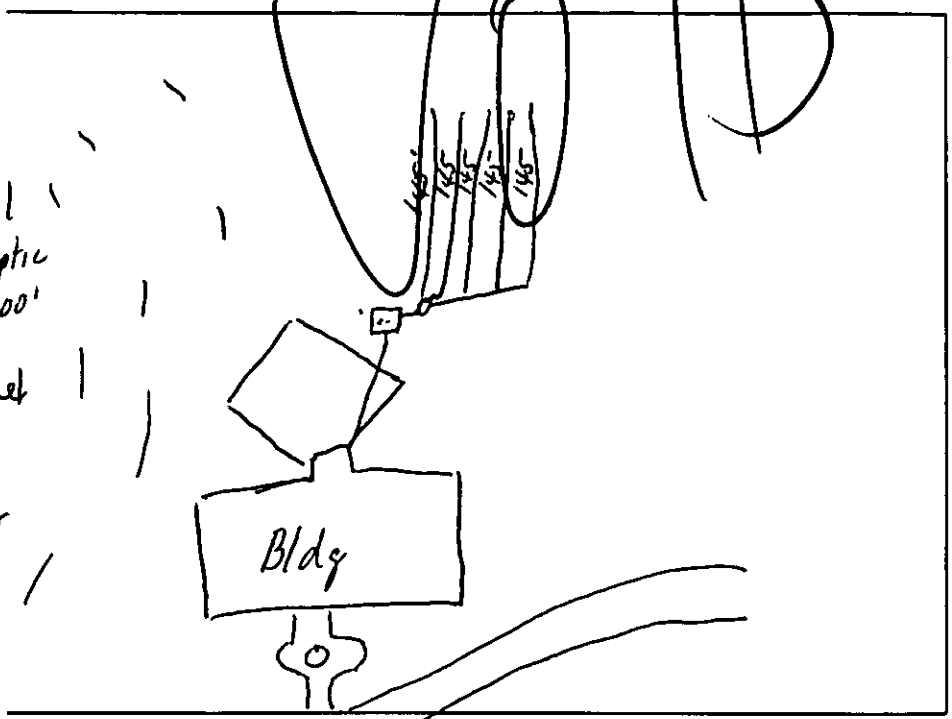
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 6126 DATE: 7/27/00

TC: 023 14101 CL

SERIAL No 18475

Permission is hereby given to ✓ Install or Construct, _____ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 3/11/98. All work shall be completed on or before 8/27/00, after which date this permit 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 the granting of this permit. A Certificate of Completion or 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 or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.



Keep the septic system > 100' from the new well

PLOT OF SYSTEM

Liquid Capacity of Septic Tank 1500 gallons

Liquid Capacity of Dosing Tank NA gallons

Tank Construction PCC

Trench Depth 24-30"

Absorption and/or Nitrification Lines:

Trench Width 36" feet

Trench Walls Scored and Porous Yes

Total Line Length ~~2175~~ 725' RSW feet

Number of Lines 5 (145')

Depth of Stone 12" inches

Distance from House 5' feet

Distance from Property Line > 10' feet

Distance from Well > 100' feet

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

NAME OF OWNER Mecklenburg County Parks & Rec

LOCATION OF PROPERTY 6000 Sample Rd

Comments: 1500ST, 5 lines x 145' long x 3' wd x 12" stone
Keep the septic system > 100' from any wells

Phil S. Walker RS.
Environmental Health Specialist

WHITE - HEALTH DEPARTMENT's COPY • CANARY - E.H.S. COPY • PINK - OWNER OR AGENT's COPY

CERTIFICATE OF COMPLETION/OPERATION PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 6126 DATE: 8/3/00

TC: 023 14101 ☒ L ☐ CRT

SERIAL Nº 18265

Name of Owner Mecklenburg County Parks & Rec Juris.: _____

Address of Property 6000 Sample Rd

Inspection Data:

Tank Material PCC

Total Length of Drainfield 725'

Number of Lines 5 @ 145'

Cover Depth 12"

Water Supply Source well

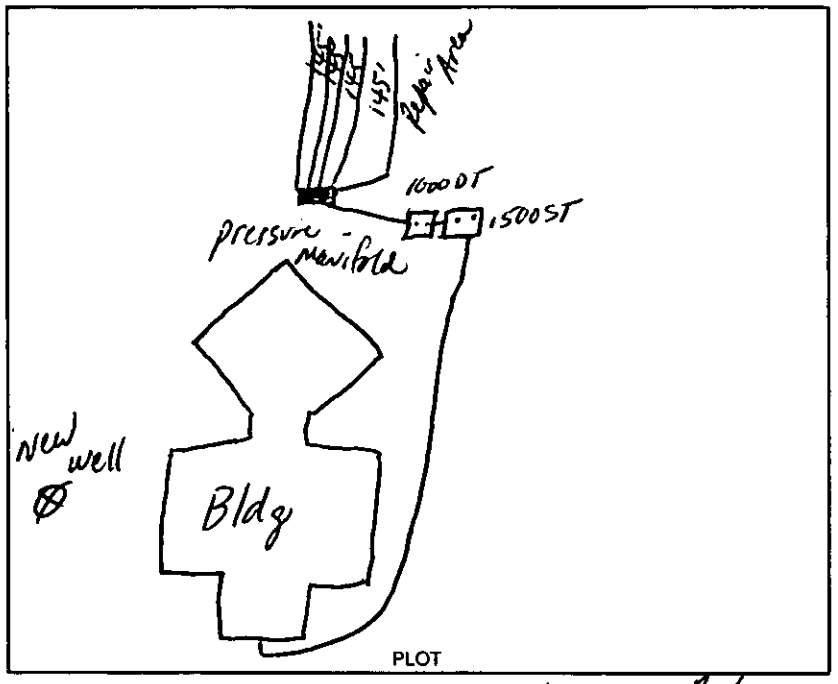
Distance to Water Source > 100'

Excavation Inspected 8/3/00

Tank(s) Inspected 8/3/00

Wash Line Inspected NA

High Water Alarm Inspected 8/3/00



Design 2000, 1500ST, 1000DT, PI, 2175SFT, 12" stone ceil CTR# Autry Concrete

The undersigned has inspected the Septic Tank System described above, and certifies it has been

☒ installed or constructed ☐ altered or repaired

☐ in accordance with the permit issued ☒ as detailed in the plot above

and meets the provisions of I5A NCAC 18A. 1900, "Laws And Rules For Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. This issuance of this

☐ Certificate of Completion ☒ 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 I5A NCAC 18A. 1990 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/revocation of this permit.

COMMENTS: Pump tank added to design due to plumbing setup. Type III b

Philo A. Walker R.S.
Environmental Health Specialist

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

6/26

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR SERVICES

[] CRT

Mecklenburg County Health Dept.
Environmental Health Division
c/o Hal Marshall Ctr., Suite 211
700 N. Tryon St.
Charlotte, NC 28202

(704)336-5102

Date:

PERSON FILING APPLICATION:
NAME: First (last) VALUE (first) HOMES Inc (mi)
ADDRESS: 3711 E. FRANKLIN BLVD PHONE: Day 824-1206
CITY: GASTONIA STATE: NC ZIPCODE: 28056

PROPERTY INFORMATION (FROM ENGINEERING FORM):
TAX/PARCEL NUMBER: 023/4101
STREET ADDRESS: 6000 SAMPLE RD.
ZONING:

PROPERTY OWNER:
NAME: MECKLENBURG (last) County (first) (mi)
ADDRESS: 600 E. Fourth ST 19th Flr PHONE: (704)
CITY: CHARLOTTE STATE: NC ZIPCODE: 28202

SUBDIVISION OR MOBILE HOME PARK NAME:

Township (check one):
[] 0 Mecklenburg County [] 2 Davidson [] 4 Pineville [] 6 Huntersville
[] 1 Charlotte [] 3 Cornelius [] 5 Matthews [] 7 Mint Hill

TYPE APPLICATION (check one):

LOT NUMBER: LOT SIZE (in acres):

[redacted] WTS

[] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
[] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A or M)
[] COMMERCIAL OR INDUSTRIAL (N)

[X] ADDITION - GARAGE OR RENOVATION/NO MAJOR CHANGES (X) office Bldg
[redacted]

RESIDENTIAL PROPERTY (Type Building, check one):
[] SINGLE MOBILE HOME (S) [] HOUSE (H) [] MULTIPLE FAMILY (U)
[] DOUBLE WIDE (D) [] MODULAR HOME (M) [] OTHER _____ (O)

NUMBER BEDROOMS: NUMBER OCCUPANTS:

SYSTEM CLASSIFICATION:

COMMERCIAL/INDUSTRIAL PROPERTY: Park + Rec
Type Business Tractor Center # Employees 4 Per Shift _ _ _
Industrial Wastes (Y/N) __
Underground Storage Tanks On Property (Y/N) __ Type _____

WATER SUPPLY (check one):
[] Community (C) [] Shared Well (S)
[] Municipal (M) [] Other 'spring' (O)
[X] Private Well (P)

FUTURE ADDITIONS - ALL PLANNED ADDITIONS MUST BE ENTERED (check all that apply):
[] Swimming Pool [] Jacuzzi [] Stable/Barn [] Workshop [] None
[] Garage [] Storage Building [] Deck/Patio [] Bedrooms [] Other

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 agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request.

Signed: Harold Guthrie Date: 3-9-98

NOTICE:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws And Rules For Sanitary Sewage Collection, Treatment And Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

...No work shall be conducted on the septic tank system until an installation, Construction, Alteration and/or Repair approval is granted by this Department.

...This permit is not transferable.

...

[] IMPROVEMENT PERMIT - VALID 60 MONTHS FROM ISSUANCE
[] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE
[] ADDITION/RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE

Environmentalist Date

Director or Authorized Section Head Date

WWATER : 122791

FEE: 100.00
DATE: 7-16-97
Rec't 1675 ck

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR IMPROVEMENT PERMIT FOR COMMERCIAL/INDUSTRIAL SITE

[redacted] | CRT

TYPE APPLICATION: ___ NEW SYSTEM ___ EXPANSION OF EXISTING SYSTEM ___ REPAIR OF EXISTING SYSTEM

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT,
HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

FILE #: 6126

PROJECT TRACKING #:

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 023-141-03

✓ COMMERICAL ___ INDUSTRIAL

STREET ADDRESS: 5225 Sample Road

DESCRIBE TYPE OF BUSINESS: Latta Historic Farm - Visitors' Ctr.
Specific Nature of Facility:

LOT NUMBER:

NUMBER OF EMPLOYEES: 3
PER SHIFT: ___ ___ ___

TOWNSHIP (CHECK ONE):

___ 0 MECKLENBURG
___ 1 CHARLOTTE
___ 2 DAVIDSON
___ 3 CORNELIUS
___ 4 PINEVILLE
___ 5 MATTHEWS
✓ 6 HUNTERSVILLE
___ 7 MINT HILL

HOW WILL WATER BE USED IN THE FACILITY:

✓ TOILETS/URINALS
✓ HANDSINK
___ SHOWERS
✓ FLOOR DRAINS

OTHER, PLEASE DESCRIBE: D.F.

An IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change.

TYPE OF WASTEWATER:
✓ SEWAGE
___ INDUSTRIAL PROCESS WASTE WATER

IF EXPANSION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED ADDITION:

WATER SUPPLY (CHECK ONE):
___ COMMUNITY (C) ___ MUNICIPAL (M) ✓ PRIVATE WELL (P)
___ SHARED WELL (S) ___ OTHER 'SPRINGS' (O)

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES	___ YES ___ NO	WELL SPRINGS OR WATERLINES	___ YES ___ NO
EXISTING WASTE WATER SYSTEMS	✓ YES ___ NO	DESIGNATED WETLANDS	___ YES ___ NO
EASEMENTS OR RIGHT-OF-WAYS	✓ YES ___ NO		

BUILDING PLANS TO INCLUDE ALL PLUMBING, FLOOR DRAINS AND ALL SOURCES OF WASTEWATER DISCHARGE AND GRADING PLANS MAY BE REQUIRED DURING THE EVALUATION STAGE.

PROPERTY OWNER: Mack. Cty & Latta Place

NAME: (LAST) Boyte, (FIRST) Jack (MI) C

ADDRESS: POB 6093 - 2222 Selwyn A. #503

CITY Charlotte STATE: NC ZIP 28207

DAYTIME PHONE: (704 -375-4243

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: (LAST) Sabre (FIRST) (architect) (MI)

DAYTIME PHONE: ( ) —

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? - ? (1960's)

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 AGENTS OF THE MECKLENBURG COUNTY HEALTH DEPARTMENT TO ENTER ONTO THE PROPERTY FOR THE PURPOSE OF PROCESSING THIS REQUEST.

SIGNED: [signature]

DATE: 7-16-97

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON STREET
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 6126

TC: 023-141-03

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.

SEE Attached
Plans to
Pool Installer
7-16-97

OWNER/AGENT SIGNATURE

DATE 7-16-97

APPROVAL DATE _____

White - Health Department's Copy Canary - E.H.S. Copy Pink - Owner's Copy

DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

COUNTY: _____

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

400 #1 6126

PO 023-141-03

OWNER: Mecklenburg Park & Rec. APPLICANT: _____
ADDRESS: 5225 Sample Rd. APPLICATION DATE: _____ DATE EVALUATED: _____
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: 3
LOCATION OF SITE: 5225 Sample Road PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	5-1Ac SLOPE	SOIL MORPHOLOGY (.1941)			OTHER PROFILE FACTORS				
	1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	1941 STRUCTURE/ TEXTURE	1941 CONSISTENCE/ MINERALOGY	1942 SOIL WETNESS/ COLOR	1943 SOIL DEPTH	1956 SAPRO CLASS	1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS	0-6"	gr/scl	Fr/SEXP/SS/SP	7-43" to soil wetness	43"	N/A	None	PS .275 gal/ft² IV
		6-43"	SBK/c	F:/SEXP/SS/P					
2	LS	0-5"	gr/scl	Fr/SEXP/SS/SP	7-46" to soil wetness	48"	N/A	None	PS .275 gal/ft² IV
		5-48"	SBK/c	F:/SEXP/SS/P					
3	LS	0-6"	gr/scl	Fr/SEXP/SS/SP	7-46" to soil wetness	48"	N/A	None	PS .275 gal/ft² IV
		6-48"	SBK/c	F:/SEXP/SS/P					
4	LS	0-5"	gr/scl	Fr/SEXP/SS/SP	7-46" to soil wetness	48"	N/A	None	PS .275 IV
		5-48"	SBK/c	F:/SEXP/SS/P					

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

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): Provisionally Suitable
EVALUATED BY: W. A. Merlin 1-27-98
OTHER(S) PRESENT: LSS

DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

6126

OWNER: _____ 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) STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
5	LS	0-10"	gr/sl	Fr/SE x P/SS/SP	736" TO soil wetness	36"	N/A	None	PS .275 gal/ft² IV
		10-36"	SBK/c	F:/SE x P/S/P					
6	LS	0-8"	gr/l	F-/SE x P/SS/SP	748" TO soil wetness	348"	N/A	None	PS .275 gal/ft² IV
		8-48"	SBK/c	F:/SE x P/S/P					
7	LS	0-6"	gr/SC	Fr/SE x P/SS/SP	738" TO soil wetness	38"	N/A	None	PS .275 gal/ft² IV
		6-38"	SBK/c	F:/SE x P/S/P					
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 1955 LTAR	LPP 1957 LTAR	MINERALOGY/ CONSISTENCE	STRUCTURE
C (Concave Slope)	I	S (Sand)	1.2 - 0.8	0.6 - 0.4	NEXP (Non-expansive)	G (Single Grain)
V (Convex Slope)		LS (Loamy Sand)			SEXP (Slightly Expansive)	M (Massive)
(Drainage Way)					EXP (Expansive)	CR (Crumb)
S (Debris Slump)	II	SL (Sandy Loam)	0.8 - 0.6	0.4 - 0.3		GR (Granular)
P (Flood Plain)		L (Loam)				SBK (Subangular Blocky)
S (Foot Slope)						ABK (Angular Blocky)
(Head Slope)	III	SI (Silt)	0.6 - 0.3	0.3 - 0.15		PL (Platy)
(Linear Slope)		SICL (Silty Clay Loam)				PR (Prismatic)
(Nose Slope)		CL (Clay Loam)				
(Ridge)		SCL (Sandy Clay Loam)			MOIST	WET
(Shoulder Slope)		SLC (Silt Loam Clay)				
(Terrace)					VFR (Very Friable)	NS (Non-sticky)
	IV	SC (Sandy Clay)	0.4 - 0.1	0.2 - 0.05	FR (Friable)	SS (Slightly Sticky)
		SIC (Silty Clay)			FI (Firm)	S (Sticky)
					VFI (Very Firm v. Very Sticky)	VS (Very Sticky)
		O (Organic)	None		EFI (Extremely Firm)	NP (Non-plastic)
						SP (Slightly Plastic)
						P (Plastic)
						VP (Very Plastic)

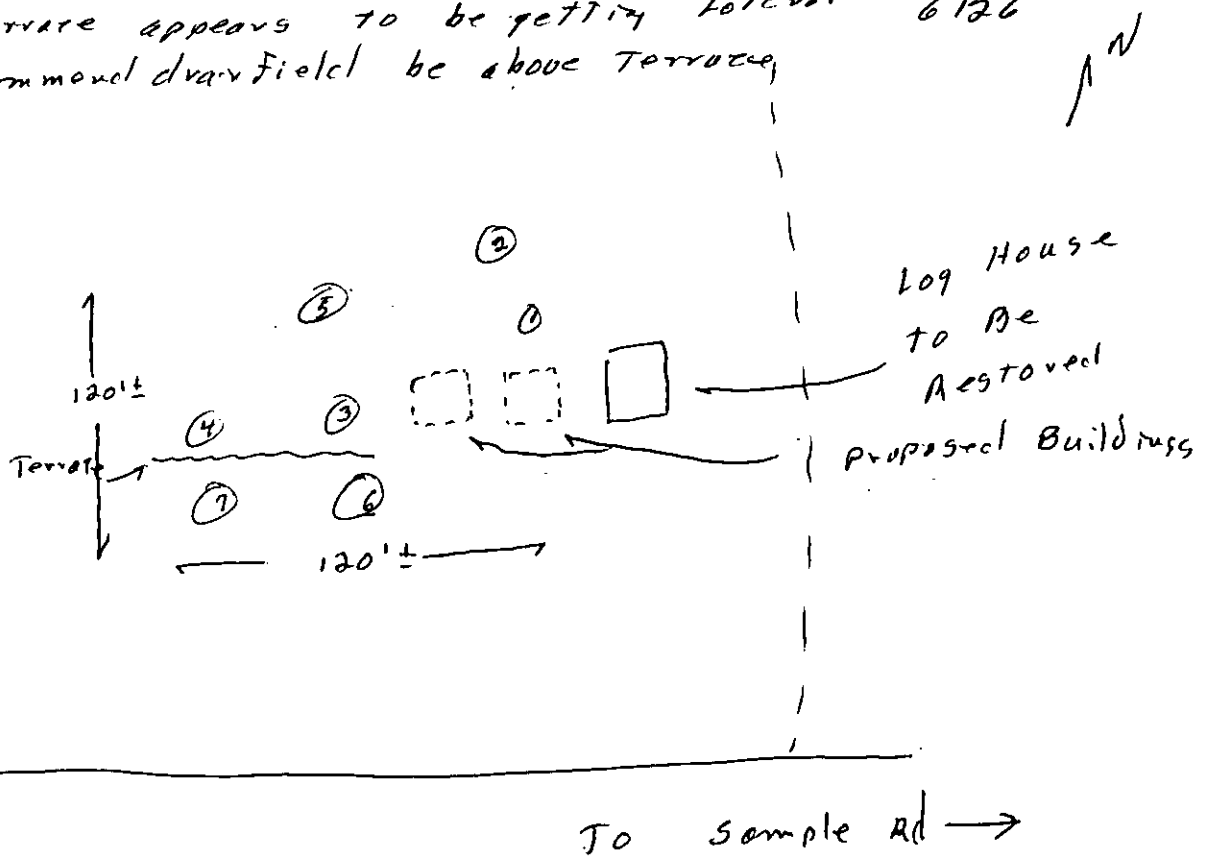
OTES

ORIZON DEPTH	In inches below natural soil surface
EPTH OF FILL	In inches from land surface
ESTRICTIVE HORIZON	Thickness and depth from land surface
APROLITE	S(suitable) or U(unsuitable)
OIL 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 designatic
LASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

valuation of saprolite shall be by pits.
ong-term Acceptance Rate (LTAR): gal/day/ft²

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

Area below terrace appears to be getting Lateral 6126
Water - recommend drainfield be above Terrace



FEE: _____ **AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION**
DATE: _____ **VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE**

DATE: 9-15-99 PERMIT NO: 6126

PARCEL NO: 023-141-03

JOB LOCATION ADDRESS: 5225 Sample Road
PROPERTY OWNER: Mecklenburg County
BUILDING CONTRACTOR: _____
SUBDIVISION NAME: Latta Historic Farm
AUTHORIZATION ISSUED BY: L.B. Thompson, Jr. DATE: 9-15-99
DEHNR AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NO. 6126, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION, CONSTRUCTION, ALTERATION AND/OR REPAIR APPROVAL MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. OTHER CONDITIONS: See Conditions of Improvement Permit

OWNER CERTIFICATION

I CERTIFY THAT THERE HAVE BEEN NO ALTERATIONS IN SITE OR SOIL CONDITIONS OR MODIFICATIONS TO FACILITY, WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS FROM THOSE SPECIFIED IN THE ORIGINAL APPLICATION OR ASSOCIATED IMPROVEMENT PERMIT UNLESS AUTHORIZED IN WRITING BY THE MECKLENBURG COUNTY HEALTH DEPARTMENT. I ALSO UNDERSTAND THAT ANY SUCH ALTERATIONS, MODIFICATIONS, OR FALSE INFORMATION ARE GROUNDS FOR REVOCATION OF PERMITS AND AUTHORIZATION TO CONSTRUCT.

SIGNATURE OF OWNER/OWNER'S REPRESENTATIVE DATE

CONDITIONS OF IMPROVEMENT PERMIT

Permit Number: 6126 Tax Number: 023-141-03

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

Basement	___ Yes	✓ No	___ Partial Basement
Type Primary Wastewater System Type (circle one): I (II) III IV V VI	✓ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1

275 Long-term acceptance rate	600 Max gallons/day wastewater flow	2175 Absorption Area (sq ft)	9' Trench spacing (min. on centers)
Yes Serviced by private well	1500 Gallon septic tank	725 Total trench length (ft)	30" Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)
N/A Bedrooms in residence	___ Gallon pump tank	12" Depth of stone	

Any surface waters present: Type: Minimum separation distance:

Site modifications required:

Additional Conditions:

Repair Area System Type Type (circle one): I II (III) IV V VI	✓ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1

2175 Absorption Area (Sq ft) 725 Total Trench Length (Ft)	12" Depth of Stone Trench	9' Trench spacing (min. on centers)	30" Maximum Trench Depth

For existing system, enter the year originally installed:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules For Sewage, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair Approval is granted by this Department.
- This Improvement permit is transferable.

L.B. Thompson, Jr. R.S. 9-15-99
DEHNR Authorized Agent Date

Owner/Agent Signature 9-15-99
Date

MECKLENBURG COUNTY
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR.
SUITE 211
700 N. TRYON ST.
CHARLOTTE, N.C. 28202.
(704) 336-5102

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL, HEALTH,
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Mecklenburg County
Health Department

Conditions of Improvement Permit

File Number: 6126
Site Address: 5225 Sample Road (Latta House)

1. The wastewater treatment and disposal system permitted is a gravity flow conventional system.
2. The repair area is designated as Type IIIb. A Type IIIb system would require that a single effleunt pump be installed.
3. Nitrification trenches shall be constructed as level as possible but in no case shall the fall in a single trench bottom exceed one-fourth inch in 10 feet as determined by an engineer's level or equivalent.
4. Any changes in the site must be pre-approved by the Mecklenburg County Environmental Health Department.
5. The wastewater treatment and disposal drain field area, including the designated repair areas, shall not be used for any of the following:

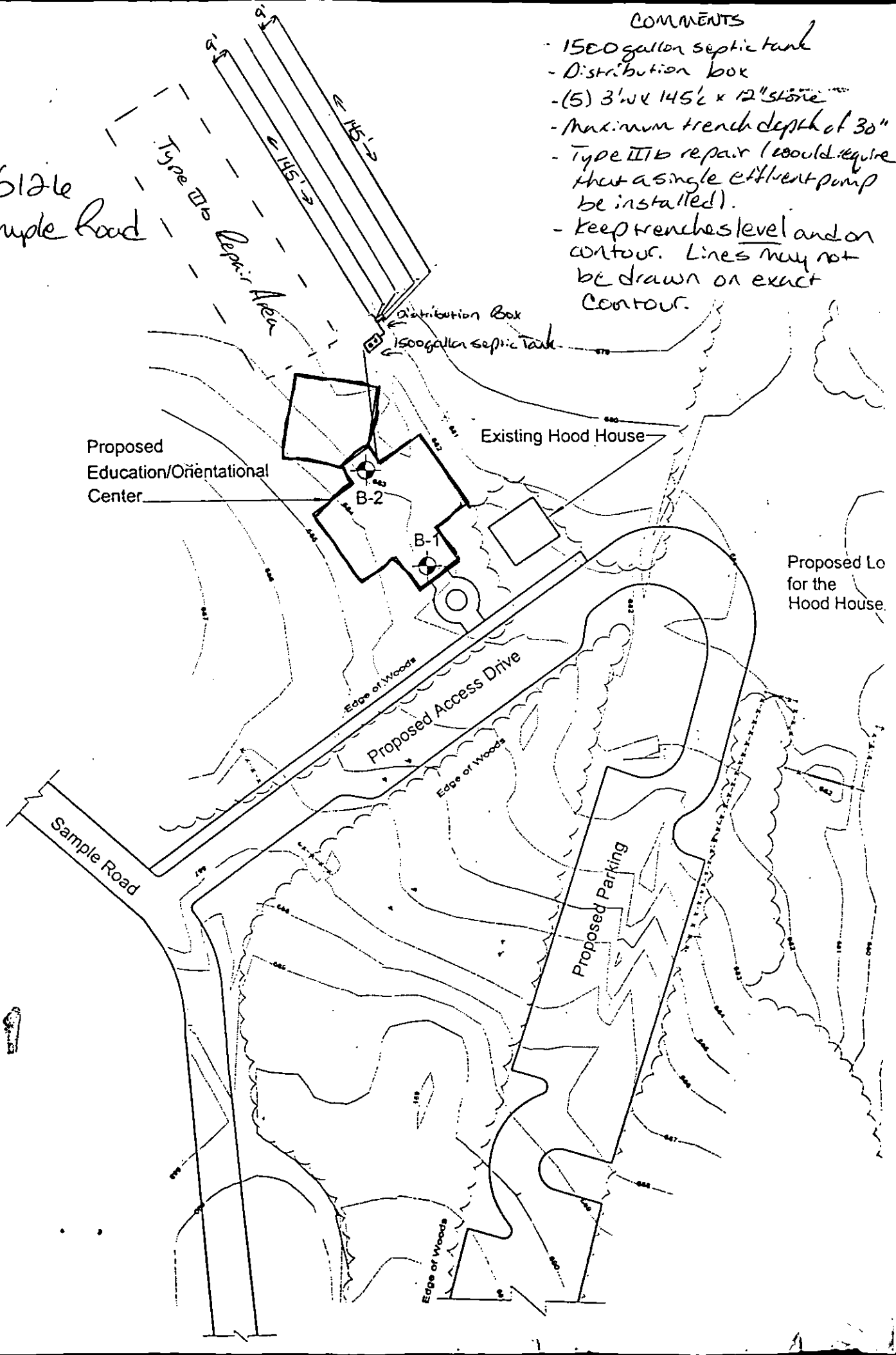
   - Grading or filling
   - Parking or driving heavy equipment in the area or subjecting the site to possible soil compaction
   - Construction staging area
   - Installation of lawn irrigation components
   - Installation of underground utilities or cables of any type
   - Burial of any debris or material
   - Utilizing the area for gravesites
   - Diversion of storm water runoff into this area

6. Septic system installer must be registered with Mecklenburg County prior to meeting for the required pre-construction conference.
7. System installer will be required to water level the distribution device prior to final system approval.
8. The system owner shall have the contents of the septic tank checked, and the contents of the tank removed, periodically from all compartments, to ensure proper operation of the system. The contents of the septic tank shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.
9. All septic tank riser and effluent filter rules will apply to this system. It is strongly recommended that access risers be added to both ends of the septic tank, extending to at least finish grade. This will allow periodic inspection of the solids level in the tank as well as help facilitate the periodic cleaning of the effluent bio-filter.
10. It is the responsibility of the property owner and/or general contractor to assure that the outlet for the plumbing for the proposed facility is kept at a height which will allow the drain lines to be installed at a depth equal to or less than 30 inches. If septic tank cannot be installed shallow enough to allow for a 30-inch deep drain field installation, a pump and pressure manifold setup will be required. The approximate septic tank location as well as the perimeter of the septic tank drain field has been flagged on the site.

Signature Owner/Agent: _____ Date: 9-15-99

FILE # 6126
5225 Sample Road

COMMENTS
- 1500 gallon septic tank
- Distribution box
- (5) 3' W x 145' L x 12" stone
- Maximum trench depth of 30"
- Type III b repair (would require that a single effluent pump be installed).
- Keep trenches level and on contour. Lines may not be drawn on exact contour.



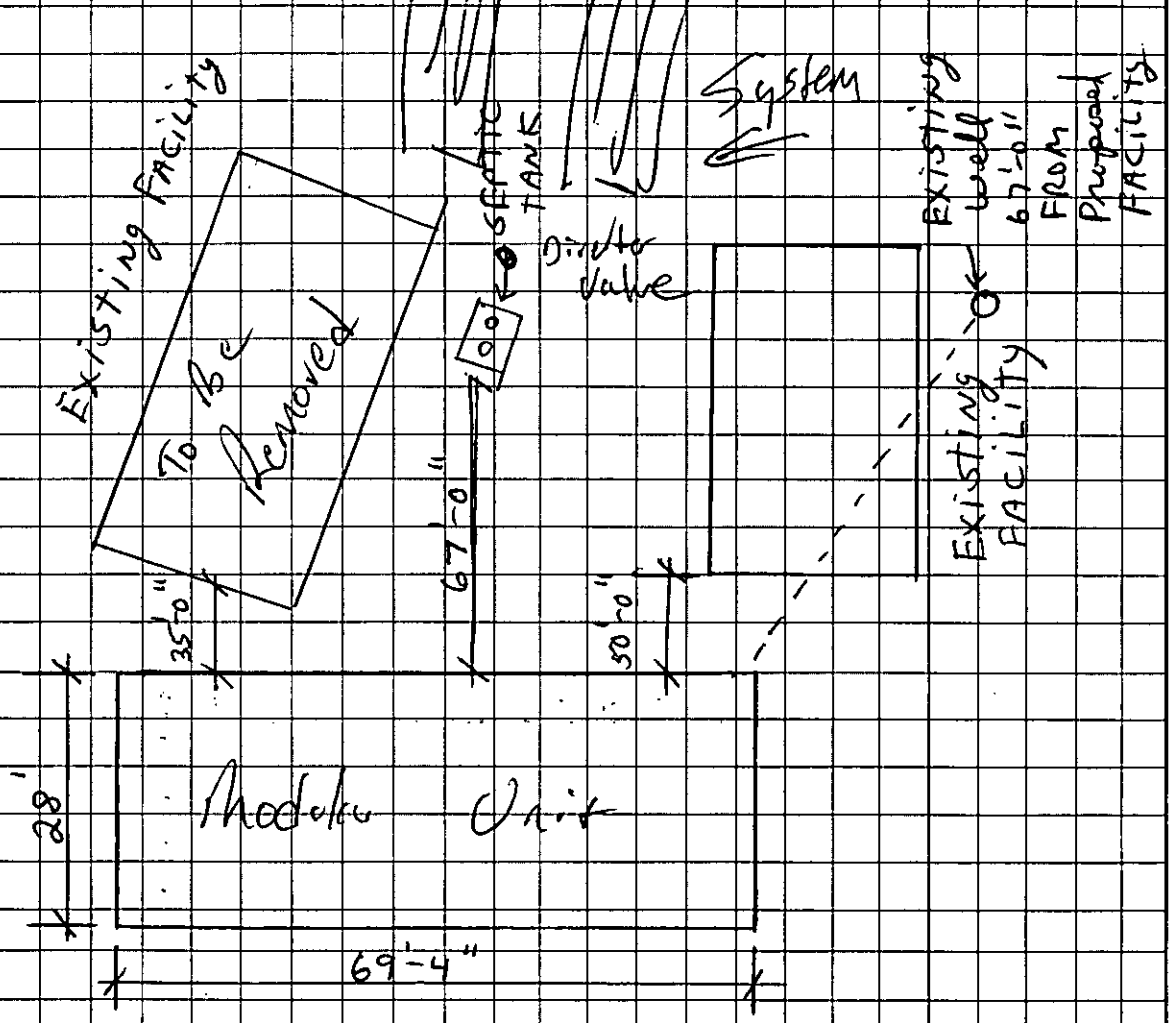
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON STREET
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 6126

TC: 023-141-01

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



Harold Crabtree
OWNER/AGENT SIGNATURE

DATE 3-9-98

APPROVAL DATE 3-11-98

White - Health Department's Copy Canary - E.H.S. Copy Pink - Owner's Copy

Haden•Stanziale

FAX MEMO

Date: 10.6.98 Project No.: _____

Time: _____ Project Name: LATTA PLACE

Please deliver the following pages to:

Name: LARRY THOMPSON Firm: MECK. CO. ENV. PROTECTION

Fax No: 336.6894

From: JGN WOOD

- [x] As Requested
- [ ] For Distribution
- [ ] With Attached Drawings
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Transmitting 1 Pages, including this cover page.

Remarks:

LARRY: THANKS FOR YOUR INPUT THIS MORNING.
I HAVE FOUND OUT THE FOLLOWING:
YEARLY ATTENDANCE – 18,000
THERE IS NO MONITOR ON THE WELL, BUT THE HIGH USAGE OCCURS TWICE A DAY DURING THE SCHOOL YEAR W/ 100 KIDS IN A TWO HOUR PERIOD, ONE IN MORNING, ONE IN AFTERNOON. THEIR CURRENT RESTROOM FACILITY CONSISTS OF 4 TOILETS.
LET ME KNOW IF YOU NEED ADDITIONAL INFO.

cc: _____

Haden-Stanziale, P.A. **Planners and Landscape Architects**
1919 South Boulevard, Suite 102, Charlotte, North Carolina 28203
Phone 704.373.0534 Fax 704.342.0251 E-mail HSIChar@aol.com

Haden·Stanziale

FAX MEMORANDUM

TO: Henry Lafferty — Fax No. 372.4579
Allen Brooks — Fax No. 333.3040
Jai Jordan

FROM: Jon Wood JDW

RE: *Latta Place*
Well and Septic Information

DATE: October 6, 1998

I contacted Larry Thompson with Mecklenburg County Department of Environmental Protection to research our septic and well systems. The County has some information on the septic system, but no information on the well. Larry said that he had been contacted a few years ago on the welcome center. The County had gotten as far as completing some soil tests and profiles in the area of the proposed facility. The tests and profiles showed good suitability for septic systems. Since the present system is over ten years old, a new system will be required for the welcome center. At the time he was contacted, he requested water usage and attendance figures for Latta Place, both present and projected to determine drain field capacity needs. Those numbers were never provided and there was never any follow up. As soon as we can provide usage and attendance information, Larry and his designer, Kelly Randall can begin to design the septic system. Design and permitting through the County can be done in a short amount of time unless the system needs to be 3,000 gallons or greater. Systems 3,000 gallons and greater need to go to the State for design, review and permitting. Turnaround time fluctuates. In addition, The State figures drain field capacity and flowrates based on gallons per parking space (The State uses rest stop numbers) which may result in a larger drain field. For the well system, we will need to contact a well contractor to gather information

END OF MEMORANDUM

Haden·Stanziale, Inc. Planners and Landscape Architects
1919 South Boulevard, Suite 102, Charlotte, NC 28203 Phone 704.373.0534 Fax 704.342.0251

Haden•Stanziale

TRANSMITTAL

To: KELLY RANDALL
MECK. CO. DEPT ENVIRONMENTAL HEALTH
700 NORTH TRYON STREET SUITE 211
CHARLOTTE NC 28202

Project: LATTA PLACE (5225 SAMPLE RD.) **Project No.:**

☒ Enclosed Herewith ☒ As Requested ☒ Via: U.S. MAIL

☐ Under Separate Cover ☒ For Review and Comment

☐ For Your File ☐ For Approval

Items Sent:	No. of Copies:	Dated:
SITE PLAN	1	11/4/98
SCHEMATIC FLOOR PLAN	1	
CORRESPONDENCE		

Comments:

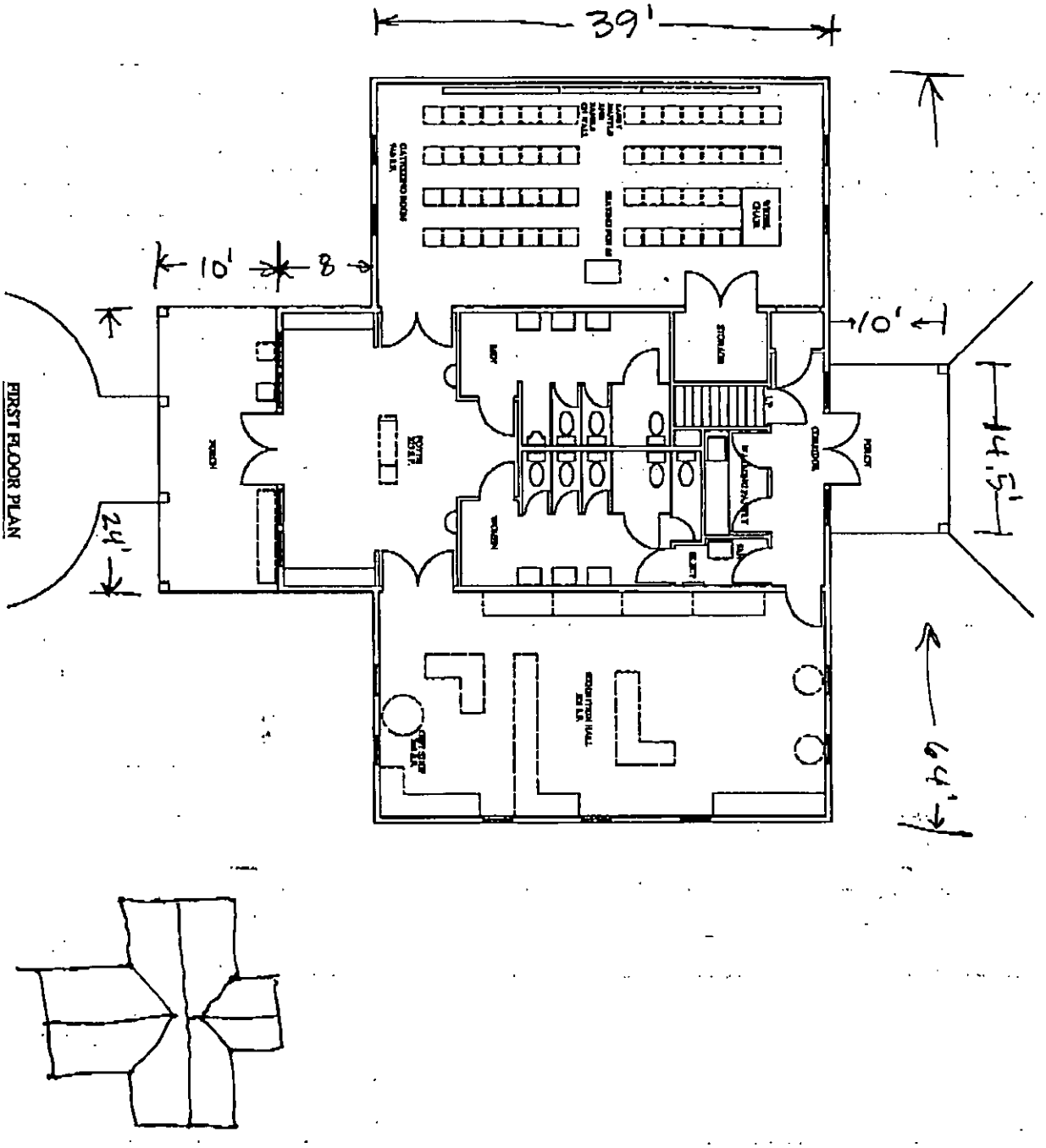
KELLY: THE CURRENT FLOOR PLAN HAS NOT BEEN REFLECTED ON THE SITE PLAN, BUT THE AREA REMAINS AROUND 2,500 SF. WE ARE ASSUMING THAT THE NEW DRAIN FIELD WILL BE LOCATED IN THE DUKE POWER R.O.W.

By: John Ward Date: 11/24/98

cc:

Haden-Stanziale, P.A. **Planners and Landscape Architects**
1919 South Boulevard, Suite 102, Charlotte, North Carolina 28203
Phone 704.373.0534 Fax 704.342.0251 E-mail HSIChar@aol.com

Post-it® Fax Note 7671	Date 11/9	# of pages ▶ 1
To John Wood	From ALLEN B.	
Co./Dept. ARBOR-STAHLY	Co. AB Arch.	
Phone # 373-0534	Phone # 333-7004	
Fax # 342-0251	Fax # 333-3040	



ADDITION to the HISTORIC LATTA PLANTATION

LATTA PLACE EDUCATION/ORIENTATION FACILITY

525 SAMPLE ROAD, HUNTERSVILLE, NC vicinity 1998

A-1

ARCHITECTURAL FIRST FLOOR PLAN

Mecklenburg County

This page is left in the original file as a placeholder. The following item(s) were removed from the original file prior to scanning and returned post scanning:

- **Large-format Drawings**

Original File Number: 6126/5225

Box Number: 7

Number of pages associated with file: 1

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Imaging Solutions and Services, Inc.

Report of Subsurface Exploration
Latta Place Education/Orientation Center
Huntersville, North Carolina
Trigon Project No. 021-99-034
March 29, 1999

SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION

FOR

LATTA PLACE EDUCATION/ORIENTATION CENTER HUNTERSVILLE, NORTH CAROLINA

Prepared For:

Allen L. Brooks, AIA
AB Architecture
428 East Kingston Avenue
Charlotte, North Carolina 28203

Performed By:

Trigon Engineering Consultants, Inc.
6200 Harris Technology Blvd.
Charlotte, North Carolina 28269
704/598-1049

Trigon Project No. 021-99-034
March 29, 1999

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Appendix

1.0 INTRODUCTION

This report presents the results of a subsurface exploration and geotechnical engineering evaluation completed by Trigon Engineering Consultants, Inc. for the Latta Place Education/Orientation Center located within the Latta Plantation Nature Preserve in Huntersville, North Carolina. This work was authorized by Mr. Allen Brooks via signed acceptance of our Proposal No. 021-98-013A-P. The purpose of our subsurface exploration and geotechnical engineering evaluation was to provide recommendations for the design and construction of foundations and a slab-on-grade for the proposed Education/Orientation Center including general earthwork and site preparation recommendations. Recommendations for design and construction of the foundations for a small structure, which will be relocated to accommodate the new construction, have also been provided.

2.0 PROJECT DESCRIPTION

It is understood that a single story building is planned for construction at Latta Plantation Nature Preserve. The building will encompass a plan area of approximately 2,750 square feet and will include a slab-on-grade and perimeter foundation walls. Although the structural loading conditions were not available, we expect the continuous wall loads to be relatively light (less than 3 kips per linear foot). Based on the relatively level ground surface, floor elevation of the Education/Orientation Center will approximate the existing site grades.

A small building, referred to as the Hood House, will be moved to accommodate the new construction. Construction of perimeter foundations walls, which will support the relocated structure, will also be required. Cut and fill operations at either location will be minimal (less than 2 feet).

3.0 SCOPE OF INVESTIGATION

3.1 Field Exploration: The subsurface exploration included the completion of three soil test borings (B-1 through B-3) at the approximate locations shown on the Boring Location Diagram, Drawing No. 021-99-034-1, included in the Appendix. Borings B-1 and B-2 were performed within the perimeter of the proposed Education/Orientation Center, whereas, boring B-3 was performed within the perimeter of proposed Hood House location. The boring locations were established in the field by personnel from Trigon using the existing site features as reference.

The borings were advanced to a depth of 15 feet below the ground surface using continuous-flight, hollow-stem augers. Standard Penetration Tests were performed at 2.5 foot intervals to a depth of 10 feet and at the termination depth in general accordance with ASTM D 1586-84. Standard Penetration Test data were used to estimate the in situ soil strength and density. Soil samples were obtained at each test interval.

All recovered soil samples were transported to our laboratory where they were visually classified by a geotechnical engineer. A Test Boring Record was prepared for each test boring and is included in the Appendix together with brief descriptions of the field testing procedures. The Test Boring Records were prepared using the observations made in the field by the driller, as well as the classification in the laboratory. The lines designating the interfaces between various strata are approximate. The transition between strata may be gradual in both the vertical and horizontal directions.

3.2 Laboratory Testing: Two soil samples were subjected to routine index testing to establish their engineering characteristics. The index testing consisted of natural water content determinations and Atterberg Limits tests. The laboratory tests were performed in general conformance with ASTM D 2216 and D 4318, respectively. Brief descriptions of the laboratory tests and the results obtained are included in the Appendix.

4.0 SITE AND SUBSURFACE FINDINGS

4.1 Site: The Latta Place Education/Orientation Center will be located within the Latta Plantation Nature Preserve in Huntersville, North Carolina. The building will be constructed adjacent to the south side of the area currently occupied by the existing Hood House. The general area is heavily wooded and relatively level. The Hood House will be moved approximately 230 feet north to an area which is presently a gravel parking lot and is also generally level. White plastic PVC end caps, indicating possible underground piping, were observed within the gravel parking lot. No rock outcrops or drainage features were observed within either area scheduled for construction.

4.2 Subsurface Conditions: The subsurface conditions at the site, as indicated by the borings, generally consist of residual soils. The generalized subsurface conditions are described below. For soil descriptions and general stratification at a particular boring location, the respective Test Boring Record should be reviewed.

Surficial materials were present at each of the boring locations. A one inch layer of topsoil was present at borings B-1 and B-2. The topsoil consisted of organic laden silts and sands. It should be noted that the area within the outline of the proposed Education/Orientation Center is heavily wooded and that localized areas of deeper topsoil may exist. At boring B-3, a one inch layer of crushed stone was present.

Below the surficial materials, residual soils were encountered at each of the borings performed for this project and extended to the depths explored. The residual soils were formed by the in-place chemical and mechanical weathering of parent bedrock materials. The residual soils consisted of sandy/clayey silt. Standard Penetration Resistances (SPT N-values) recorded in the residuum ranged from 6 to 49 blows per foot (bpf).

4.3 **Groundwater:** Groundwater measurements were attempted at the termination of drilling. No groundwater was observed in any of the borings performed for this project. We note that the elevation of the groundwater may vary depending upon seasonal factors such as precipitation. Therefore, subsurface water conditions at other times may be different from those described in this report.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 **General:** Our conclusions and recommendations are based on the project description outlined above and on the data obtained from our field and laboratory testing programs. We believe the site is suitable for the proposed development provided the recommendations presented in this report are implemented during both the design and construction phases of the project. If the estimated structural loading, proposed building location and geometry, or anticipated finished floor elevation are changed or significantly different from those outlined above, or if subsurface conditions are encountered during construction which differ from those indicated by our borings, we will require the opportunity to review our recommendations in light of the new information and make any necessary changes.

The borings made at this site represent the subsurface conditions at the location of the borings only. Due to the prevailing geology, there can be changes in the subsurface conditions over relatively short distances that have not been disclosed by the borings performed. Consequently, there may be undisclosed subsurface conditions that may require special treatment or preparation once these conditions are revealed during construction.

Clayey silt was encountered to depths ranging from 3.5 to 11.0 feet at the test boring locations. The laboratory results indicate that the materials are moderately plastic. These materials are moisture sensitive and will become unstable in the presence of excess moisture. Recommendations for mitigation of these potential problems are presented below.

5.2 **Foundation Support:** The proposed Education/Orientation Center and the Hood House can be adequately supported on a shallow foundation system consisting of spread footings bearing on undisturbed residual soils or on newly-placed controlled structural fill. We recommend that a net allowable bearing pressure of up to 3,000 pounds per square foot (psf) be used for design of the foundations provided the recommendations presented in this report are implemented. The net allowable bearing pressure is that pressure which may be transmitted to the soil in excess of the minimum surrounding overburden pressure. Minimum wall footing dimensions of 16 inches should be maintained to reduce the possibility of a localized, "punching" type, shear failure. The exterior foundations should be designed to bear at least 18 inches below finished grades for frost protection.

Based on the structural loading conditions outlined in this report and the subsurface conditions encountered at the boring locations, analyses indicate that the total settlement potential of foundations should not exceed approximately ½ inch. The differential settlement potential of the structures foundations should not exceed ¼ inch. Foundation geometry and loading conditions different than those described in this report will result in magnitudes of settlement inconsistent with the previous estimates.

5.3 **Floor Slab Support for the Education/Orientation Center:** The proposed slab-on-grade floor system can be adequately supported on undisturbed residual soils or on controlled structural fill provided the site preparation and fill recommendations outlined below are implemented. Design of the floor slab may be based on a maximum Modulus of Subgrade Reaction (k_s) of 100 pounds per cubic inch as related to a standard 30 inch diameter plate load test. The floor slab should be structurally isolated from the building foundations to allow independent movement. We recommend that a granular material be placed immediately beneath the floor slab to provide a capillary barrier and to increase the load distributing capabilities of the floor slab system.

5.4 **Temporary Cut Slopes:** Generally, the on-site soils can be excavated with conventional construction equipment. Temporary slopes in confined or open excavations should perform satisfactorily at inclinations of 1(H):1(V). All confined excavations, such as trenches and footing excavations, should conform to applicable OSHA regulations.

5.5 **Site Preparation:** Initial site preparation should include the removal of topsoil, organic material and other soft or unsuitable material from within the outline of the proposed Education/Orientation Center. The topsoil may be stockpiled separately for use in future landscape activities. Site preparation should include the removal of the existing piping (if present) and any unsuitable materials from within the proposed area where the Hood House will be relocated. Any resulting isolated excavations should be backfilled with suitable fill material.

Upon completion of the stripping operations at the Education/Orientation Center, the exposed subgrade in areas to receive fill should be proofrolled with a loaded dump truck or similar pneumatic-tired vehicle with a minimum loaded weight of 25 tons. After excavation, the exposed subgrades in cut areas should be similarly proofrolled. Proofrolling operations should be performed under the observation of a geotechnical engineer or his authorized representative. The proofrolling should consist of two (2) complete passes of the exposed areas, with each pass being in a direction perpendicular to the preceding one. Any areas which deflect, rut, or pump during the proofrolling, and fail to be remedied with successive passes, should be undercut to suitable soils and backfilled with compacted fill.

We recommend the construction contract include unit prices for scarifying and drying wet subgrade soils. In addition, the contract should provide an allowance for undercutting of soft or loose subgrade soils and for replacement with controlled structural fill. Undercut volumes should be determined by field measurement. Methods such as counting trucks should not be used for determination of undercut volume as they are less accurate and often result in additional expense to the Owner.

Loose saturated subgrade soils disturbed as a result of construction equipment used in the stripping operation will require removal. We caution that the subgrade soils exposed after topsoil stripping contain sufficient silt and clay to render them both moisture sensitive and frost susceptible. Due to their moisture sensitivity, water from storm runoff must be controlled during earthwork and construction activities by intercepting and draining the runoff away from the site to prevent water from ponding on or saturating the soils within the excavations or on final grades. These soils may become unstable due to the presence of excess moisture and normal construction equipment traffic over them. Accordingly, construction traffic should be kept to a minimum on the exposed soils to minimize the potential for creating an unstable subgrade. We recommend that site development be performed during seasonally dry weather and excavation/site preparation operations not be performed during or immediately following periods of high precipitation.

5.6 Fill Material and Placement: All fill used for the project should be a clean soil free of organic matter and debris with a Plasticity Index of less than 20. The fill should exhibit a maximum dry density of at least 90 pounds per cubic foot as determined by a Standard Proctor compaction test (ASTM D 698). All fill in building areas should be placed during the initial stages of site development and prior to any foundation construction. This will assist in the consolidation of natural soils below the additional load imposed by the fill. The majority of consolidation of the soils under the new fill will likely occur within one month following fill placement.

All fill should be placed in lifts not exceeding 8 inches loose thickness and should be compacted to at least 95 percent of its Standard Proctor maximum dry density. We recommend that moisture control limits of $\pm$ 3 percent of the optimum moisture content be used for optimum placement of project fill with the added requirement that fill soils placed wet of optimum remain stable under heavy pneumatic-tired construction traffic. We recommend that field density tests be performed on the fill as it is being placed, at a frequency determined by an experienced geotechnical engineer, to confirm that proper compaction is achieved.

5.7 Foundation Construction: Bearing surfaces for foundations should not be disturbed or left exposed during inclement weather. Saturation of the on-site soils can cause a loss of strength and increased compressibility. Excavations for footings should be completed with a smooth bucket backhoe or be trimmed by hand following excavation to minimize disturbance of the subgrade soils. Upon their exposure, all bearing grades should have excess and loosened material removed. The final grades should be firm and stable, and free of any loose soil, rock, mud, water or frost. Foundation bearing surfaces should be observed by a geotechnical engineer prior to concrete placement to confirm that suitable soils are present at the bearing elevation. Soft or unsuitable areas observed at the bearing elevation should be undercut to firm material at the direction of a geotechnical engineer. If construction occurs during inclement weather and concreting of the foundation is not possible at the time it is excavated, a layer of lean concrete should be placed on the bearing surface for protection. Also, concrete should not be placed on frozen subgrades.

5.8 Construction Monitoring: Quality assurance observations and testing related to earthwork should be performed by competent personnel under the general administrative supervision of a geotechnical engineer familiar with the design requirements and considerations of this project. As a minimum, we recommend that qualified geotechnical personnel observe proofrolling and associated undercutting, as required, foundation excavations and subgrades, evaluate the materials to be used as fill and test the compaction of all fill and backfill.

6.0 CLOSURE

Trigon Engineering Consultants, Inc. appreciates having had the opportunity to assist you during this phase of the project. The recommendations are presented on the basis of our understanding of the project as described herein and through the application of generally accepted soil and foundation engineering practices. No other warranties, expressed or implied, are made. Should there be any changes in the scope of the project, as stated herein, we should be notified so that we may review these changes and modify our recommendations, if required.

It is recommended that the Project Geotechnical Engineer be provided the opportunity to review the final design and specifications to ascertain that the recommendations presented herein have been properly interpreted and applied. Important information concerning the use and interpretation of this report is contained in the Appendix.

Environmental concerns at the site were beyond the scope of services provided by Trigon for this phase of work. If you have any questions concerning this report, please contact us.

Respectfully submitted,
TRIGON ENGINEERING CONSULTANTS, INC.

Timothy M. Russell

Timothy M. Russell, E.I.
Geotechnical Staff

NORTH CAROLINA PROFESSIONAL SEAL 20429 ENGINEER GILBERT N. CAMP JR.

Gilbert N. Camp, Jr., P.E.
Engineering Manager
Registered North Carolina No. 20429

3/29/99

TMR/GNC:plb
Enclosures
File: R219034

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Mecklenburg County

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