

10950 ARTHUR AUTEN RD

02301215

1/4/2008

duponbj

Groundwater and Wastewater Services File Imaging Project

May 2007

Barcode Font = IDAutomationHC39M

MECKLENBURG COUNTY

Land Use & Environmental Services Agency
Groundwater & Wastewater Services

October 17, 2006

Wheeler Residence
10950 Arthur Auten Road
Huntersville, NC 28078

Dear Mrs. Wheeler:

Re: Bacteriological Well Resample Results

Enclosed you should find a copy of the laboratory analysis of the well water sample that was collected at 10950 Arthur Auten Road on October 11, 2006. The laboratory analysis of the well water sample was reported to be **ABSENT** for Total Coliform and E. COLI-PA bacteria. It is recommended that you perform an annual bacteriological analysis for your private well.

I am also including a copy of the septic system inspection report for your review. Please review the report carefully and address any items that require attention.

Thanks again for your cooperation with the septic inspection and well sampling programs. If you have questions or need assistance with your septic system or private well please contact our office at (704) 336-5103.

Sincerely,

Trevor Thomason, R.S.
Sr. Environmental Specialist

Enclosures (2):

700 North Tryon Street • Suite 211• Charlotte, North Carolina 28202 • (704) 336-5103 • Fax (704) 336-6894
http://groundwater.charmeck.org

CHARLOTTE.
CHARLOTTE-MECKLENBURG UTILITIES

Laboratory Analysis Report
Report Date: 10/16/2006 02:00 PM

LABORATORY SERVICES DIVISION

LOCATION: GWO-4153B
LOC ID: G-PME
SAMPLE DATE-TIME: 10/11/2006 10:30 CHAIN OF CUSTODY #: 061011114712
SAMPLE DESCRIPTION: Grab

	Parameter	Result	Units	RL	Method	Start Date/ Time	Analyst
AB89331	**E. COLI-PA**	**Absent**	**P/A**		SM 9223B	10/12/2006 10:52	NVR
AB89331	**Total Coliform**	**Absent**	**P/A**		SM 9223B	10/12/2006 10:52	NVR

Comment:

Laboratory Supervisor: _____

Laboratory Certifications: McAlpine NC DENR No.148; Brookshire NC DENR No.162; Hal Marshall N.C. DENR No. 192, N.C. DHHS Laboratory No. 37527

CHARLOTTE-MECKLENBURG UTILITIES - LABORATORY SERVICES DIVISION

Hal Marshall Laboratory, 700 North Tryon St., Charlotte, NC 28202, 704/336-5460

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

CLIENT:	**Mecklenburg County, LUESA - Groundwater & Wastewater Services**
FACILITY:	Groundwater **(Potable Water) Wheeler Residence**
ADDRESS:	10950 Arthur Auten Rd. Huntersville NC 28078
LAB CODE:	REAL PRIV NEW TNC MPL PME AMB LM OTHER

Send Report To:
Trevor Thomason
700 N. Tryon St., Suite 211
Charlotte, NC 28202

COC#: 06101114712
Sampled By (Print Name)
Trevor Thomason

SAMPLE ID	Sample Collector's Initials	Sample Collection: Begin Date and Time	Sample Collection: End Date and Time	Chlorinated System: Y or N	Sample Temperature: Collection Temp °C	Sample Temperature: Receipt Temp °C	Sample Type: Depth Composite	Sample Type: Auto Composite	Sample Type: Hand Comp	Sample Type: Grab	Sample Containers: Plastic	Sample Containers: Glass	Sample Containers: # Containers	Chemical Preservative: None	HNO3	H2SO4	NaOH	HCl	Na2S2O3	pH Correct	Analyses Requested: Total Coliform
G-4153B AB89331		10-11-06 10:30	N/A N/A	N	N/A	20				X	100 ml		2						X	X	X

Instructions:
Complete all yellow shaded sections
For each parameter requested circle the X to verify your request.
Nutrients include: Ammonia, TKN, Total Phosphorus, Nitrate/Nitrite
Metals: Itemize the individual metals requested here -
For Composite samples record the autosampler Begin date/time and End date/time, for Grab samples record the collect time as the Begin date/time only.
Blue is for lab use only
Comments: **3-DAY TAT REQUESTED**

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
	MBerbench	10/11/06	1146.
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By (Signature)	Received By: (Signature)	Date	Time
Relinquished By (Signature)	Received By (Signature)	Date	Time
Relinquished By (Signature)	Received By (Signature)	Date	Time

Form Revision 07; effective 02/16/2006

Lab Codes: REAL=Real Estate, PRIV=Private Well, NEW=New Permitted Well, TNC=Transient Non-Community, AMB=Ambient, LM=Landfill

N.C. Department of Environment and Natural Resources
Division of Environmental Health

Inspection of Engineered Subsurface Wastewater System

Mecklenburg County	Wheeler Residence	4153B
Health Department	**Name of Establishment**	**Permit/Project No.**
10950 Arthur Auten Rd. Huntersville NC	4-Bedroom House	480 GPD
Location	**Type of Establishment**	**Design Flow**
Humpy & Pat Wheeler	Same as location address	(704) 948-9359
Owner/Agent	**Address**	**Phone**
N/A		
Operator	**Address**	**Phone**
IIIb	10/11/2006	October 2011
System Type	**Date of Inspection**	**Next Inspection Due**

	Yes	No	N/A	Comments:
1. ESTABLISHMENT:				
a. Type, size, and sewage flow in accordance with permit?	☒	☐	☐	
2. COLLECTION SYSTEM:				
a. No evidence of leaks into or out from sewer lines/manholes?	☒	☐	☐	
b. Free of blockages/solids buildup in lines or manholes?	☒	☐	☐	
3. TANKAGE: (Grease Traps/Lift Stations/Septic/Dosing Tanks)				
a. Tank risers accessible and surface water diverted?	☒	☐	☐	
b. Tanks and access manholes structurally sound, watertight?	☒	☐	☐	
c. Sanitary tee(s) in good working condition?.....	☐	☐	☒	3.c. Sanitary tee not inspected.
d. Tanks pumped, cleaned out as needed?.....	☐	☒	☐	
4. RAW SEWAGE LIFT STATION (if present):				
a. Required pumps present, operating, and cycling properly	☐	☐	☒	
b. High-water alarm present and operating properly?	☐	☐	☒	
c. Floats/pipe/valves/disconnects in good condition?	☐	☐	☒	
5. EFFLUENT DOSING SYSTEM:				
a. Effluent appears clear, free of excess solids?	☐	☒	☐	*5a. Measured >6" of solids in dosing tank.*
A. PUMP SYSTEMS:				
a. Required pumps present, operating, and cycling properly?	☐	☒	☐	5.A.a.b. Pump working sporadically.
b. High-water alarm present and operating properly?	☐	☒	☐	Alarm is not functional.
c. Floats/pipe/valves/disconnects in good working condition?	☒	☐	☐	
d. Control panel enclosure/components in good condition?	☒	☐	☐	
e. Elapsed time readings: _____ _____ _____ _____				
B. SIPHON SYSTEMS:				
a. No evidence of overflow or siphon leakage?	☐	☐	☒	
b. Siphon(s) appear to be working/alternating properly?	☐	☐	☒	
c. Bells and vents free of debris and in good condition?	☐	☐	☒	

6. GROUND ABSORPTION FIELDS:

a. No evidence of effluent surfacing/reaching surface waters?	☒	☐	☐	6. Drainfield is in good condition.
b. Minimal ponding in subsurface trenches?	☒	☐	☐	
c. Surface water being effectively diverted away?	☒	☐	☐	
d. Diversions/ditches/swales/tiles drains properly maintained?	☒	☐	☐	
e. Line cover/vegetation adequate/maintained as needed?	☒	☐	☐	
f. Protected from traffic, destructive uses?	☒	☐	☐	
g. Distribution devices in good condition, working properly?	☒	☐	☐	
h. Repair area properly reserved, maintained?	☒	☐	☐	

A. LOW PRESSURE PIPE DRAIN FIELDS:

a. Turnups/cleanouts/valves intact and accessible?	☐	☐	☒
b. No effluent standing in lower laterals?	☐	☐	☒
c. Laterals free of excess solids, cleaned out as needed?	☐	☐	☒
d. Pressure head is properly adjusted?	☐	☐	☒

OVERALL CONDITION AND OPERATION OF SYSTEM:

1. Appears to be an electrical problem (possible short) in the wiring between the control panel and the junction box beside the dosing tank. Pump is working sporadically and alarm will not function at all. Verified 120 Volts on both lines entering the control panel. No voltage detected at the junction box. Owner indicated that work has been performed in area around septic tank within the last 6 weeks. Suspect wire(s) may have been inadvertently damaged when new lids were installed on septic tank.

SUMMARY OF REPAIRS REQUIRED AT THIS TIME:

1. Have electrician troubleshoot wiring issues and correc ASAP.
2. Install caps on observation pipes (4) located beside the pressure mainfold in the drainfield.
3. Recommend pumping all tanks (1,500 gal. septic tank, & 1,500 gal. dosing tank) to remove excess solids.

**Pumping contrator should also clean effluent filter located on outlet of septic tank.

***REPAIR WITHIN 30 DAYS.**

SYSTEM MAINTENANCE/IMPROVEMENTS REQUIRED:

*Please visit http://groundwater.charmeck.org for additional information.

DATE: 10/11/2006

SIGNED: _____ R.S. AGENT
Division of Environmental Health

Trevor Thomason, (704) 336-5568

4153B

Mecklenburg County, NC
POLARIS
Parcel Ownership and GIS Summary
Date and Time: 7/24/2006 10:21:31 AM

***Parcel ID #:* 02301215 *GIS ID #:* 02301215**	
Owner Name:	CAMEL SIXTY FOUR LLC
Mailing Address:	10950 ARTHUR AUTEN RD HUNTERSVILLE, NC 28078
Property Characteristics	
Legal Desc.:	NA
Land Area:	30.469AC
Fire District:	23-GILEAD
Special District:	FIRE SERVICE D
Account Type:	NON-NC CORP
Municipality:	0-MECKLENBURG COUNTY- UNINCORPORATED
Property Use:	SINGLE-FAM
Deed Reference(s) and Sales Price	
10477-582 (5/17/1999) $777,000.00	
Situs Addresses Tied to This Parcel	

10950 ARTHUR AUTEN RD	
Site Location Information	
Zoning Boundaries:	Contact Appropriate Planning *Department*
ETJ Area: HUNTERSVILLE	
***Charlotte* Historic Districts:** NO	
Within Charlotte 6/30/2005 Annexation Area: NO	
Census Tract #: 62.07	
Parcel Falls Inside SWIM Buffer?: YES	
FEMA Flood Information	
FEMA Panel #:	370478084E
FEMA Flood Zone:	**IN**:VIEW FEMA FLOODPLAIN TO VERIFY
FEMA Panel Date:	02/04/2004
Community Flood Information	
Community Flood Zone:	OUT
Regulated Watershed Information	
Watershed Name:	Mtn. Island Lake
Watershed Class:	CA-2 AND CA-4

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 08/01/06
Receipt #: 45373
Check / Auth #: CHECK 6308
Received By: AIDOOJK

Amount: 85.00
Tendered: 85.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: WHEELER PATRICIA
Attn:
Address: 10950 ARTHUR AUTEN ROAD
Address:
City/State/Zip: HUNTERSVILLE, NC 28078

Item	Description	Permit#	Quantity	Unit Price	Total Price
0743	Hmeownr Maint Inspec-Type IIIB FILE 4153B/704-948-9359		1	85.00	85.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
	100.00				

- ALARM NOT FUNCTIONING
- POSSIBLE SHORT IN WIRE
- PUMP OPERATION INTERMITTENT
- CAPS ON OBS. PIPES ON MANIFOLD
- >6" SOLIDS IN PT.

CLEAN EFF FILTER

MAIL – WATER TESTING APP.

CERTIFICATE OF COMPLETION/OPERATION PERMIT

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

FILE: 4153B DATE: 8/30/01

TC: 023 141 05P0 ☒ L ☐ CRT

SERIAL Nº 18582

Name of Owner Howard A Wheeler Juris.:

Address of Property 10950 Arthur Acres Rd

Inspection Data:

Tank Material PCC

Total Length of Drainfield 400

Number of Lines 4 @ 100'

Cover Depth 12"

Water Supply Source well

Distance to Water Source

Excavation Inspected 8/17/01

Tank(s) Inspected 8/17/01

Wash Line Inspected plumb to tank

High Water Alarm Inspected 8/30/01

PLOT

Design 2001, 1500 ST, 1500 DT, PI, IND, 400 Chamber, Pressure manifold, Cecil CTR# Lake Norman sand & Gravel

Jeff Hyberger

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: Septic System designed for a 4 bedroom residence. Type IIIb chamber System

Phillip S. Walker R.S.

Environmental Health Specialist

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 09/11/01
Receipt #: 1318
Check / Auth #: CHARGE
Received By: CRAIGGY

Amount: 300.00
Tendered: 0.00
Returned: 0.00

Account Information

Account #: X32656
Contractor: POTTER BUILDERS INC
Attn:
Address: 10722 CARMEL COMMONS BLVD
Address: STE 420
City/State/Zip: CHARLOTTE, NC 28226

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr 10950 Arthur Auten Road		1	150.00	150.00
0703	Installation/Final Approval 10950 Arthur Auten Road		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
330.00	453.44				

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: 4153B DATE: 8/16/01

TC: 023 012 15 X L

SERIAL Nº 18757

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 3/22/01. All work shall be completed on or before 9/13/01, 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.

Septic system to be installed in accordance w/ approved plot plan.

PLOT OF SYSTEM

Liquid Capacity of Septic Tank 1500 gallons

Liquid Capacity of Dosing Tank 1500 gallons

Tank Construction PCC

Trench Depth _____

Absorption and/or Nitrification Lines:

Trench Width See approved plot plan feet

Trench Walls Scored and Porous _____

Total Line Length _____ feet

Number of Lines _____

Depth of Stone _____ inches

Distance from House 10 feet

Distance from Property Line 5 feet

Distance from Well > 100' feet

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

NAME OF OWNER Howard A. Wheeler

LOCATION OF PROPERTY 10950 Arthur Arten Rd

Comments: Keep the septic system > 100' from the lake buffer
Septic system to be installed in accordance w/ approved plot plan

Phillip S. Walker R.S.
Environmental Health Specialist

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

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

DATE: 3/22/01 PERMIT NO: 4153B

PARCEL NO: 023 012 15

JOB LOCATION ADDRESS: 10950 Arthur Autem Rd

PROPERTY OWNER: Howard A Wheeler

BUILDING CONTRACTOR: —

SUBDIVISION NAME: NA

AUTHORIZATION ISSUED BY: Phila A. Walker RS. DATE: _____

DEHNR AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NO. 4153B, 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: Agreement forms shall be recorded and on file prior to Cons. Autho. release. See conditions of IP

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.

X Tony Gourley CPS

SIGNATURE OF OWNER/OWNER'S REPRESENTATIVE DATE

FAX

Toney C. Jacobs & Associates, Inc
Consulting Soil Scientists
168 Broadbill Drive
Mooresville, N. C. 28117

Date _____

Number of pages including cover sheet ____

To: Bob Walker

Phone _____

Fax Phone 704 336 6894

CC: _____

From:

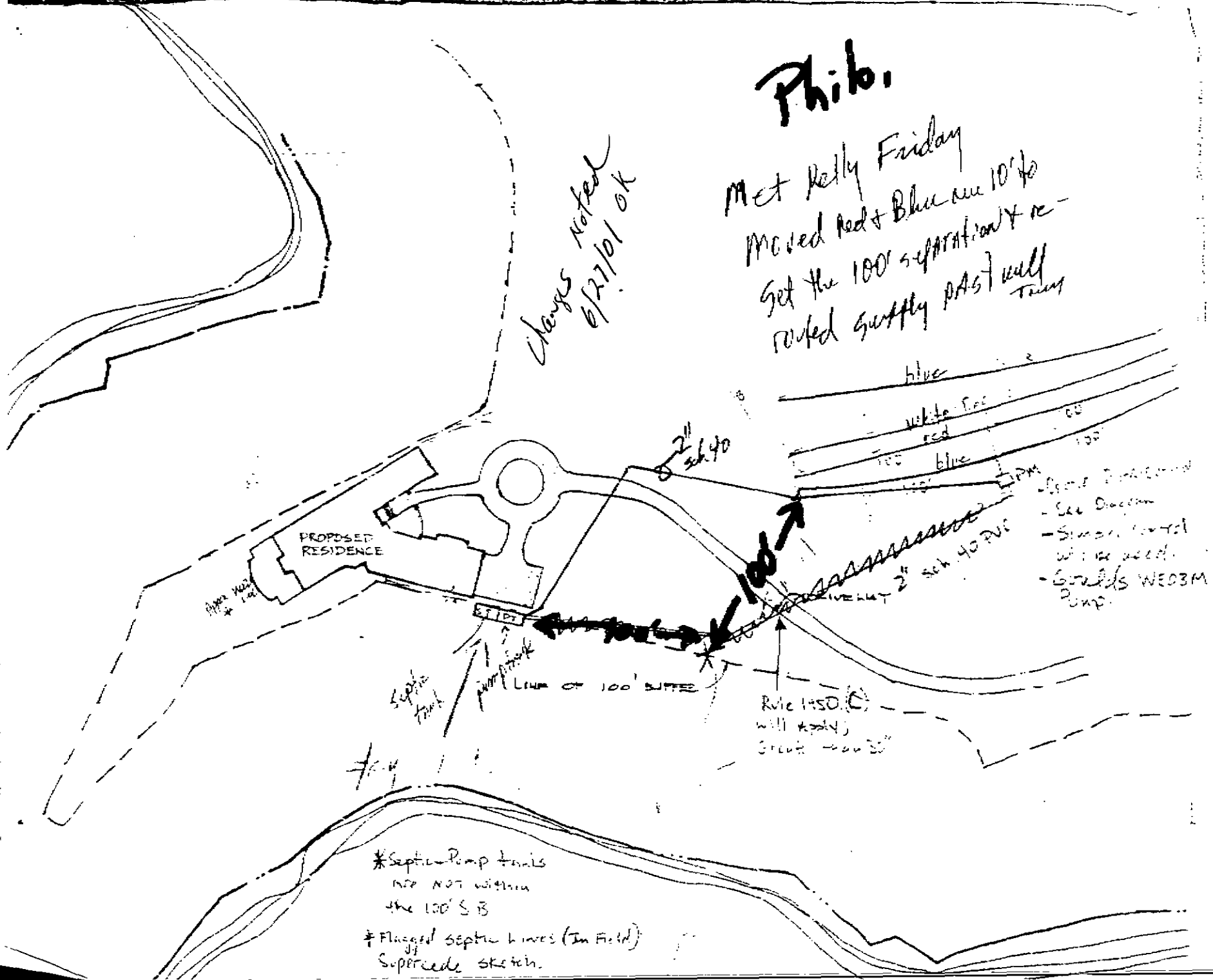
- ☑ Toney Jacobs
- ☐ Paul Penninger
- ☐ Michael Athanas
- ☐ Pat Jacobs

Phone 704-663-6905

Fax Phone 704-662-9845

REMARKS:

☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment



Jun. 5 '01 22:57 FAX P. 2

Permit Number: 4153.B

Tax Number: 023 012 15

- 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	X 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	
.3 Long-term acceptance rate	480 Max gallons/day wastewater flow	1200 Absorption Area (sq ft)	9' Trench spacing (min. on centers)	
YES Serviced by private well	1500 Gallon septic tank	400' Total trench length (ft)	24" Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)	
4 Bedrooms in residence	1500 Gallon pump tank	NA Depth of stone		
Any surface waters present:	Type:	Minimum separation distance:		
Site modifications required:				
Additional Conditions: Agreement forms shall be recored and on file prior to Cons. Autho. release. Innovative Septic System Approval. Keep the septic system > 100' from Mt Island Lake Watershed Boundaries				
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	
1200' Absorption Area (Sq ft) 400' Total Trench Length (Ft)	NA Depth of Stone Trench	9' Trench spacing (min. on centers)	24" 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.

Phillip J. Walker R.S. 3/22/01
DEHNR Authorized Agent Date

× Tracy C. Jordan 4/9/3
Owner/Agent Signature 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

IWWS-100195

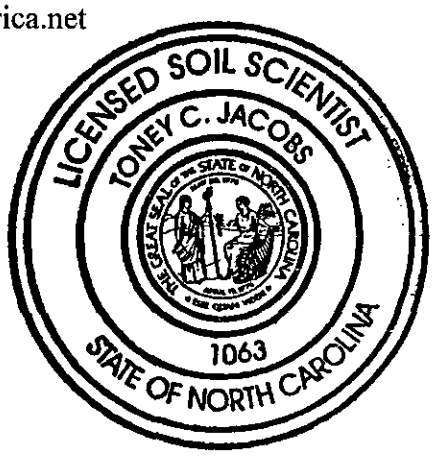
RESIDENTIAL INFILTRATOR CHAMBER SEPTIC SYSTEM WITH PRESSURE MANIFOLD DOSING FOR SUBSURFACE WASTEWATER DISPOSAL WHEELER RESIDENCE 10950 ARTHUR AUTEN ROAD HUNTERSTILLE, N. C. 28078

MCHD FILE # 4153B

Prepared for:
Mr. Howard A. Wheeler
Lowe's Motor Speedway
P.O. Box 600
Concord, North Carolina 28026



Prepared by:
Toney C. Jacobs & Associates, Inc.
168 Broadbill Drive
Mooresville, North Carolina 28117
office (704) 663-6905
fax (704) 662-9845
E-mail jacobs@i-america.net



March 14, 2001

Copy: Mr. Philo Walker
MCHD-IWWS
700 N. Tyron Street
Charlotte, NC 28202

Michael H. Athanas, SS-IT

Toney C. Jacobs, LSS

BACKGROUND

This 9 acre lot is the first of 5 lots on a 30 acre parcel developed by the owner. All 5 lots will be owned by the Wheeler family. A preliminary soil evaluation was made on December 6, 1999 which identified the soils on the tract as provisionally suitable for on-site subsurface wastewater disposal. At that time, no lot lines were surveyed; however, because of the large size of the proposed lots, it was determined that they were suitable for the proposed subdivision. This house was started prior to septic permitting because of a misunderstanding concerning the preliminary approval process.

A 25% reduction system is used to preserve the mature trees on the lot. The system uses a wide 200' aerial window and should offer an excellent potential for service. The required 100 foot boundaries for Mt. Island Lake are observed to all parts of the septic.

APPLICATION INFORMATION

1. Owner: Mr. Howard A. Wheeler
   Lowe's Motor Speedway
   P.O. Box 600
   Concord, NC 28026

   Soil Scientists
   and Designers: Michael H. Athanas, SS-IT
   Toney C. Jacobs, LSS
   Toney C. Jacobs & Associates, Inc.
   168 Broadbill Drive
   Mooresville, NC 28117
   (704) 663-6905 (Office)
   (704) 662-9845 (fax)
   E-mail jacobs@i-america.net

2. Water supply is provided by a private well.
3. Facility to be served by the proposed system is a 4-bedroom single family residence.

LOCATION

The property is located off Meck-Neck Road off Arthur Auten on Mountain Island Lake

REFERENCES

Law and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment Health and Natural Resources, August 1, 1998.

PLANS AND SPECIFICATIONS FOR SPECIFIC SYSTEM COMPONENTS

Septic Tank

1. The septic tank receives wastewater directly from the house.
2. A septic tank shall be watertight, structurally sound, and not subject to excessive corrosion or decay.
3. The septic tank must be of two-compartment design for maximum solids and retention. The inlet compartment of two-compartment tank shall hold between two-thirds and three-fourths of the total tank capacity.
4. Effluent from the two-compartment septic tank flows by gravity through a State approved effluent filter and a four-inch solid PVC pipe to the pumping tank.
5. Both the septic tank and pumping tank must be provided with above ground approved manhole risers to provide easy access for clean-out and pump service.
6. When prefabricated concrete tanks or tanks of other material are used, they shall be constructed in accordance with the plans which have been approved by the State and shall comply with all requirements of Section .1953 of 15A NCAC 18A.
7. On the outlet tee of the septic tank an effluent filter must be installed. This filter should be equivalent to a Zabel Model A1800 or other State approved unit supplied by the tank manufacturer.

Pumping Tank

1. The pumping tank shall have an access manhole extending at least 6 inches above finished grade.
2. A septic tank effluent pump that will not be corroded by sewage shall be used in the pumping tank.
3. The pump must be placed on two concrete blocks set next to each other on the bottom of the tank. This prevents the pumping of any solid particles that can clog the system.
4. A piece of nylon rope or other non-corrodible material should be attached to the pump and to the outlet pipe for lifting the pump in and out of the chamber.
5. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all time.
6. The pump outlet pipe should be connected to the supply manifold with a threaded PVC union to allow quick removal
7. Pump and Simplex control circuits shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, outside enclosure (NEMA 4X or equivalent) adjacent to the pump tank, securely mounted at least 12 inches above finished grade. Pump control (Simplex) may be mounted on side of house if long cord pump is used. The pump shall be manually operable without requiring the use of special tools or entrance into the tank for testing purposes. Conductors shall be conveyed to the disconnect enclosure through water proof, gas proof, and corrosion-resistant conduits, with no splices or junction boxes provided inside the tank. Wire grips, duct seal or other suitable material shall be used to seal around wire and wire conduit openings inside the pump tank and disconnect enclosure. There shall be two electric circuits for controls: one for pump power, one for the alarm. These will require 2 circuit breakers.

8. The pump tank shall have a properly functioning high-water alarm. The alarm circuit shall be supplied ahead of any pump overload and short circuit protective devices. It should be on a separate electrical circuit from the pump power line. The alarm shall be audible and visible by system users and included in the pump and control enclosure (Simplex Panel). The alarm is activated if the water level in the pump tank rises above the "pump-on" float control. The tank provides at least one day or more of excess storage capacity (depending on water use in the home) during which time the system must be repaired.
9. Float switch for the high water alarm shall be set no more than 3 inches above the high water level of pump cycle.
10. Float switch tie downs to be made of corrosion resistant material, no tape or metal hose clamps. For maintenance flexibility, tree must be used to set floats.
11. Watertight testing per .1900 rules shall be required on two piece pump tanks.
12. Wiring between the pumping tank and the house should meet State and local code requirements.

Pipe and Fittings

1. All pipes and fitting should be made of SCH 40 PVC.
2. All joints must be sealed with appropriate PVC-solvent cement.
3. There should be a threaded PVC union above the pump to allow easy removal or replacement.
4. A gate valve for final pressure adjustment is installed in the supply line inside the pumping tank.
5. Manifold and valve as shown in specifications.

CONSTRUCTION INSTALLATION

Site Preparation

1. One of the most important concerns for an on-site system is to protect the site from soil disturbance by heavy equipment.
2. Now that the absorption area has been designed and flagged, it should be roped off and protected from construction traffic. No site preparation or construction work should occur if the soil is wet.
3. After the soil is dry enough, the site should be cleared of brush and trees.
4. Provisions must be made for intercepting or diverting surface water from the drive away from the absorption area.
5. After the area has been cleared and shaped, the location of the lateral lines and supply manifold should be accurately re-flagged according to design specifications. Each lateral line must be laid out along a level contour using a transit. This step can be completely avoided if flags are protected during clearing.

Tank Installation

1. The two-compartment septic tank is installed.
2. The pumping tank is installed next to the septic tank.
3. The tanks are connected with an appropriate length of solid, four-inch PVC pipe.

Supply Manifold

1. The supply manifold conveys effluent from the pump to the distribution laterals.
2. Design of the pressure manifold is shown on attached diagram.
3. After the supply manifold has been placed in its trench and lateral lines connected, it should be backfilled with tightly tamped soil. The supply manifold trench must not be backfilled with gravel, or the trench may become a conduit for downslope flow effluent from the laterals.

Lateral Lines

1. Install trenches per cited reference material and this plan.
2. Trenches shall be 24-36" deep, 36" wide, and 9' minimum on center. Trenches shall be "level" from end to end.
3. Infiltrator chambers shall be used.
4. Sand backfill shall be placed over the vents on the side of the chambers.
5. A minimum of 12" of cover shall be placed over the chambers.

PROPER OPERATION CHECK AND PRESSURE HEAD ADJUSTMENT

1. After all connections have been installed and connected, the system should be checked for proper operation. With electrical power turned off, fill the pump tank with a garden hose until the liquid rises to the level of the high-water alarm float.
2. Turn on the electrical power. The alarm light should go off when the liquid level falls below the high-water float. The pump should turn off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.
3. The pressure head is measured as the height liquid will rise above the pressure manifold when the pump is running. To set or check the pressure head:

    - Glue a three-foot length of pipe (preferable clear) to a threaded adapter that will screw into the pressure manifold.
    - Turn the power on to allow liquid to rise in the pipe.
    - Adjust the gate valve until the effluent reaches the desired height in the pipe.

FINAL LANDSCAPING

1. After the system is installed, the following should be checked to ensure that the system will not be overloaded with excess rainwater and runoff:
   - The distribution field is shaped to shed rainwater and is free of low areas.
2. Finally, the entire area should be planted with grass in order to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized before planting. After applying an appropriate grass seed, the area should be heavily mulched with straw or other suitable material.

QUALITY ASSURANCE REQUIREMENTS

The system must be installed by a qualified, contractor that is on the Mecklenburg County list of competent contractors. Critical stages of the installation, which should be checked, are:

1. System layout
2. Septic and pump tank installation prior to backfilling.
3. Manifold and lateral installation prior to backfilling.
4. Final landscaping, operation and pressure head check.

The system design is based on a maximum waste flow of 480 gallons per day. Homeowners should pay particular attention to the section titled Homeowner Suggestions for ways to minimize the burden on the system.

OPERATION AND MAINTENANCE PROCEDURE

The system is classified as Type III and does not require a maintenance contract with a certified operator. The following are operating, maintenance and inspection procedures the homeowner should follow.

- Septic system shall be pumped every 4 years or when solids accumulate to 1/3 the volume of the tank.
- At 6 month intervals inspect the effluent filter. When washing the filter, debris must be sprayed directly back into the septic tank and not onto the lawn.
- Pressure head at manifold should be checked and adjusted one month after installation and annually thereafter.
- All piping and fittings shall be checked annually for damage and/or proper operation and corrections made immediately.
- The property should be inspected to insure all surface water is diverted away from the fields and tank. Any ponding of surface water should be corrected.
- Grasses shall be mowed and maintained and any erosion shall be corrected promptly.
- The nitrification field area shall be checked for leakages, blowouts or malfunction, indications of damp or mushy areas compared to surrounding area or evidence of noticeable odor of sewage. Repairs shall be made immediately.

- The pump electrical should be checked to insure tight, clean connections with no corrosion and proper operation.
- Pump switches shall be checked for free operation and proper level set.
- Pump draw down depth and delivery rate shall be checked each year.
- Check septic tank and pump tank for evidence of damage or leakage. Check the quality of effluent including grease and sludge accumulation.

HOMEOWNER SUGGESTION

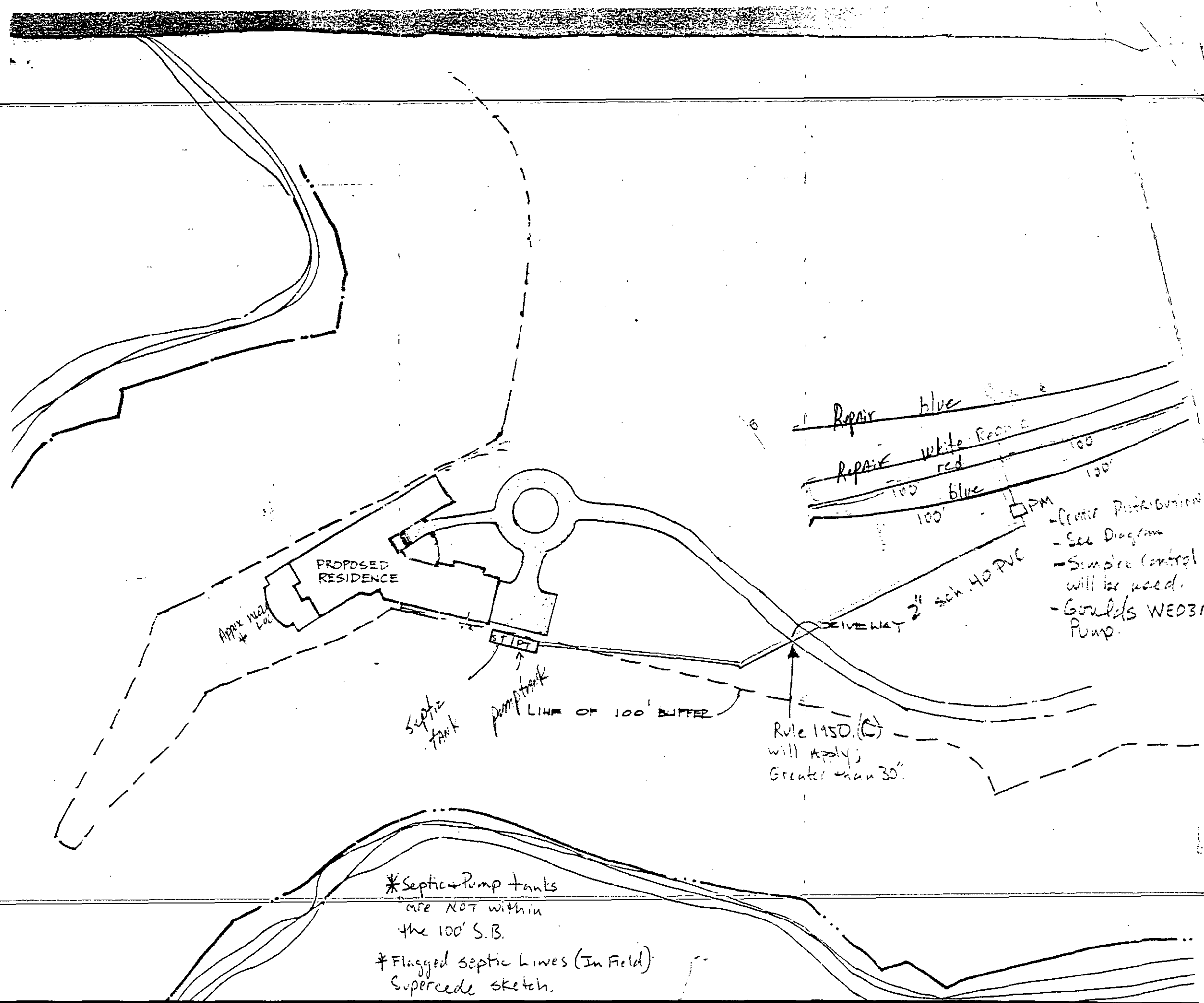
Most systems do not require much effort to operate and maintain. Even though the effort is small, the system must be maintained properly so that it operates reliably and at a minimum cost. Following are suggestions for the homeowner to minimize the burden on the septic system.

1. Garbage disposals should not be used in on-site systems. The ground garbage adds large amounts of solids to a septic tank, causing sludge to build up at a quicker rate than without. If disposal is installed, use should be limited.
2. Grease, cooking oils and coffee grounds should never be put into a septic tank.
3. Items such as disposable diapers, cigarettes, facial tissues and other solid or paper wastes should not be flushed into the on-site system.
4. Used motor oil and other such oily liquids should not be put into a septic tank.
5. Using less water can reduce the amount of water flowing to the treatment and disposal field.
6. Water-saving fixtures and devices can be installed on sinks, toilets and showers to reduce the rate at which the water flows from the fixture.
7. Dishwashers and washing machines should only be run with full loads.
8. Leaky faucets and toilets can add large volumes of water to the daily flow of water into the on-site system. Repair the leaks to save water and give the treatment and disposal field a rest.
9. Roof drains, basement sump pumps, foundation drains, and other such drains should not empty into or onto the surface above the on-site system. These drains should be directed to another part of the lot away from the treatment and disposal field.

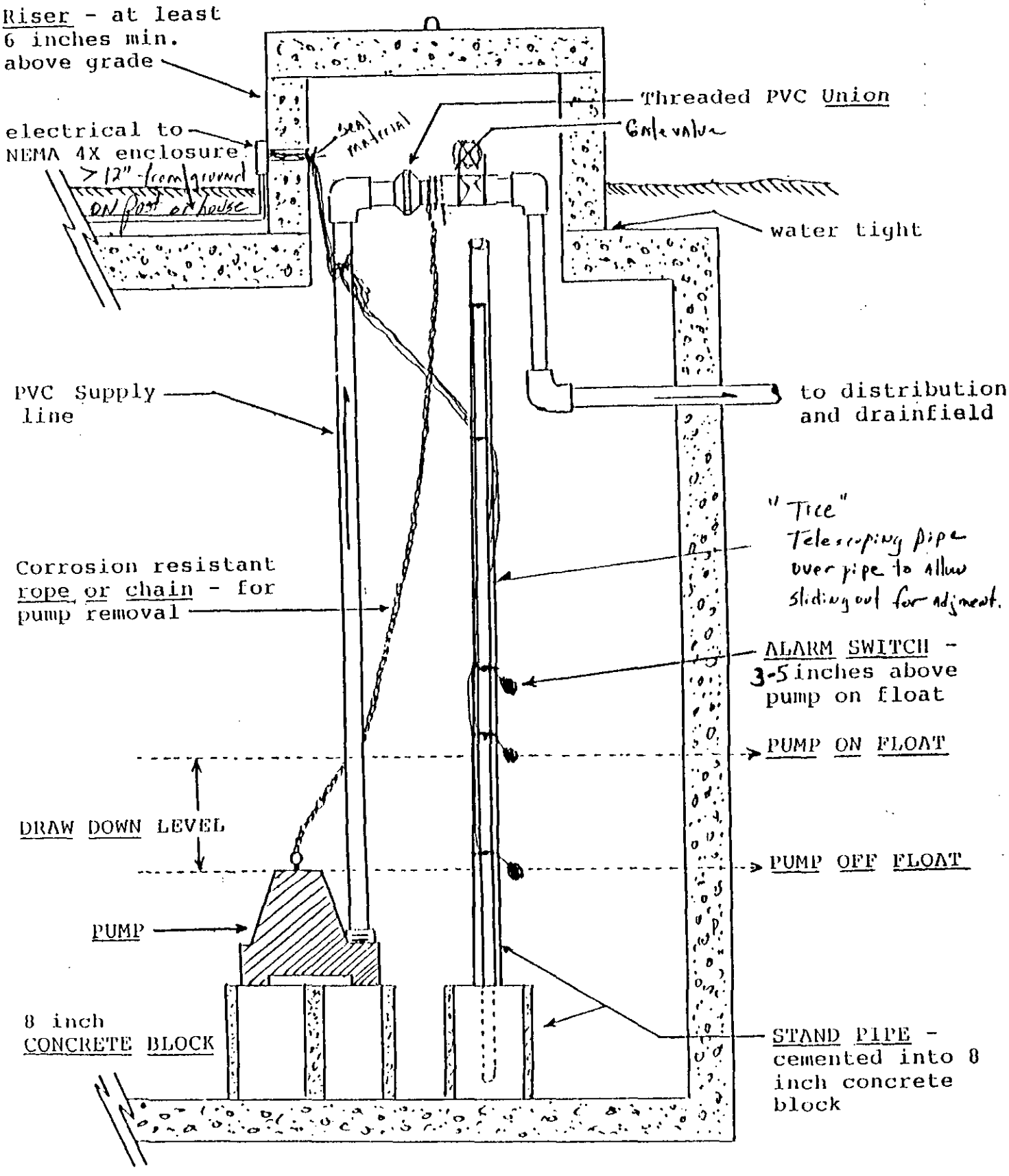
DESIGN SPECIFICATIONS

10950 Arthur Auten Road

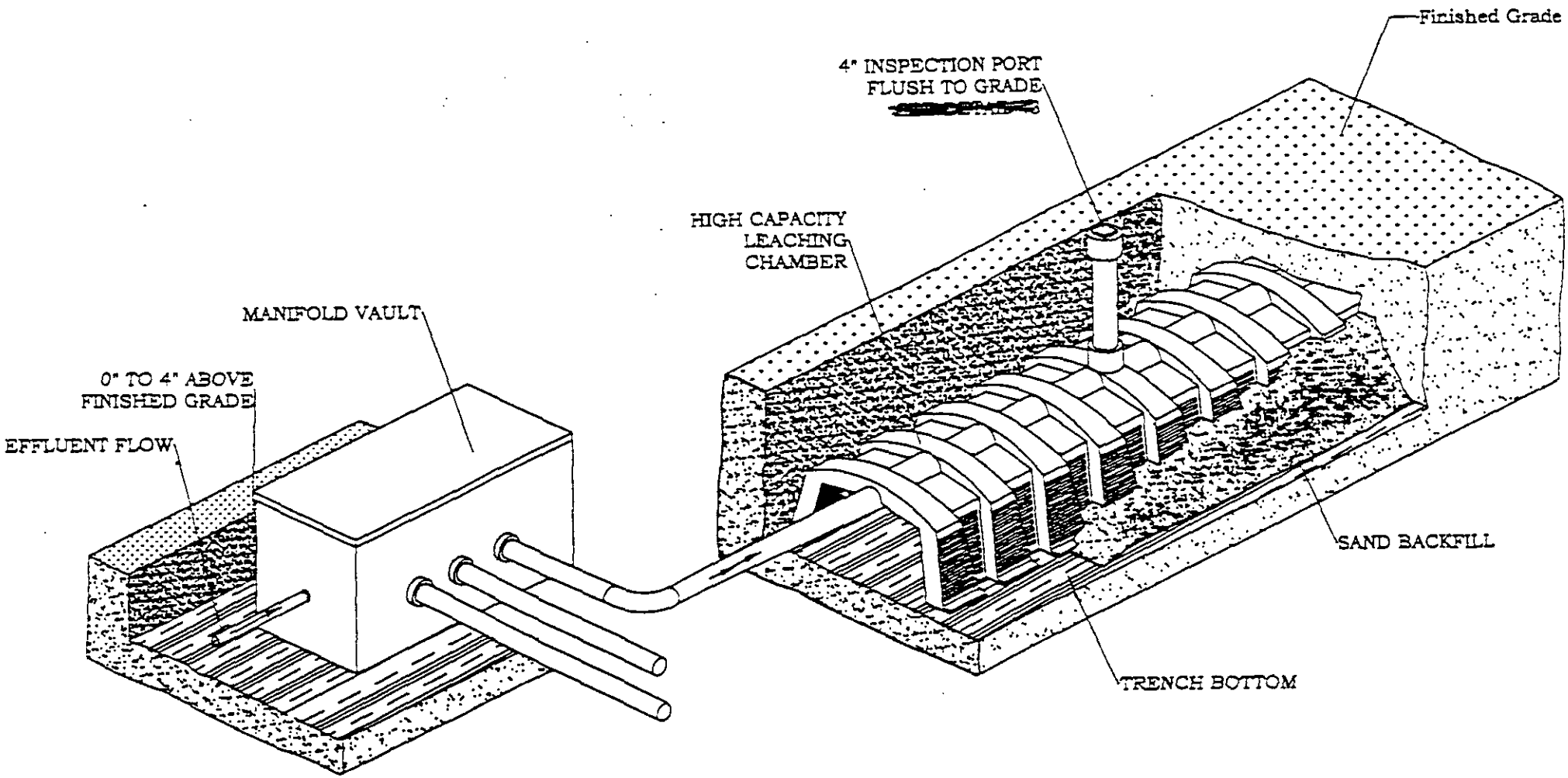
Daily design flow:	480 gpd.
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1500 gal.
Effluent loading rate:	0.3 gpd/ft^2
Total length and diameter of supply pipe:	app. 260' of 2" SCH 40 PVC
Number and length of laterals:	4 @100' long
Pressure Manifold:	4 taps at ½" (SCH 40 PVC)
Flow rate through the system:	28.4 gpm capability
Elevation head:	Approx. 13.6'
Pressure head:	2.0'
Friction head:	5.85'
20% contingency	4.30'
Total head:	25.8'
Pump requirements:	28.4 gpm at 25.8' of head; use Goulds WE03M 1/3 hp pump or equivalent with compatible electrical
Dosing volume:	340 gal. – 1.4 doses/day at design flow
Depth of water pumped per dose:	calculated to specific tank by measure or dealer engineering specifications(1 cubic ft. of water equals 7.48 gal.)
Pump run per dose:	approx. 12 min
Check valve:	No
Siphon break hole:	No


Repair blue
Repair white
red
100'
100'
100'
100'
blue
PM
-Centric Distribution
- See Diagram
-Simplex Control will be used.
-Goulds WE03M Pump.
PROPOSED RESIDENCE
Appx new * Loc
ST
PT
2" sch 40 PVC
DRIVEWAY
Septic Tank
pump tank
LINE OF 100' BUFFER
Rule 1950.(C) will Apply; Greater than 30".
*Septic + Pump tanks are NOT within the 100' S.B.
* Flagged septic lines (In Field) Supercede sketch.

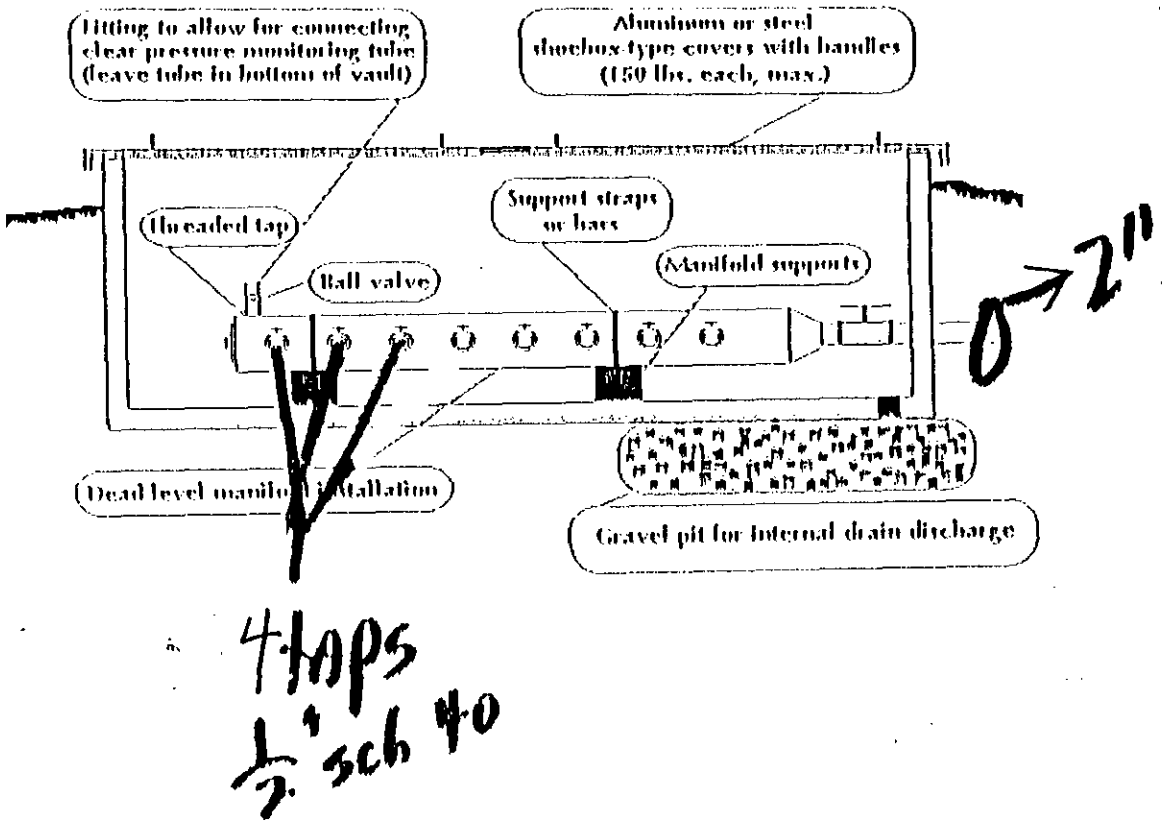
PUMP DIAGRAM



GRAVITY FED LEACHING CHAMBER
FED BY PRESSURE MANIFOLD
DETAIL 1.2A

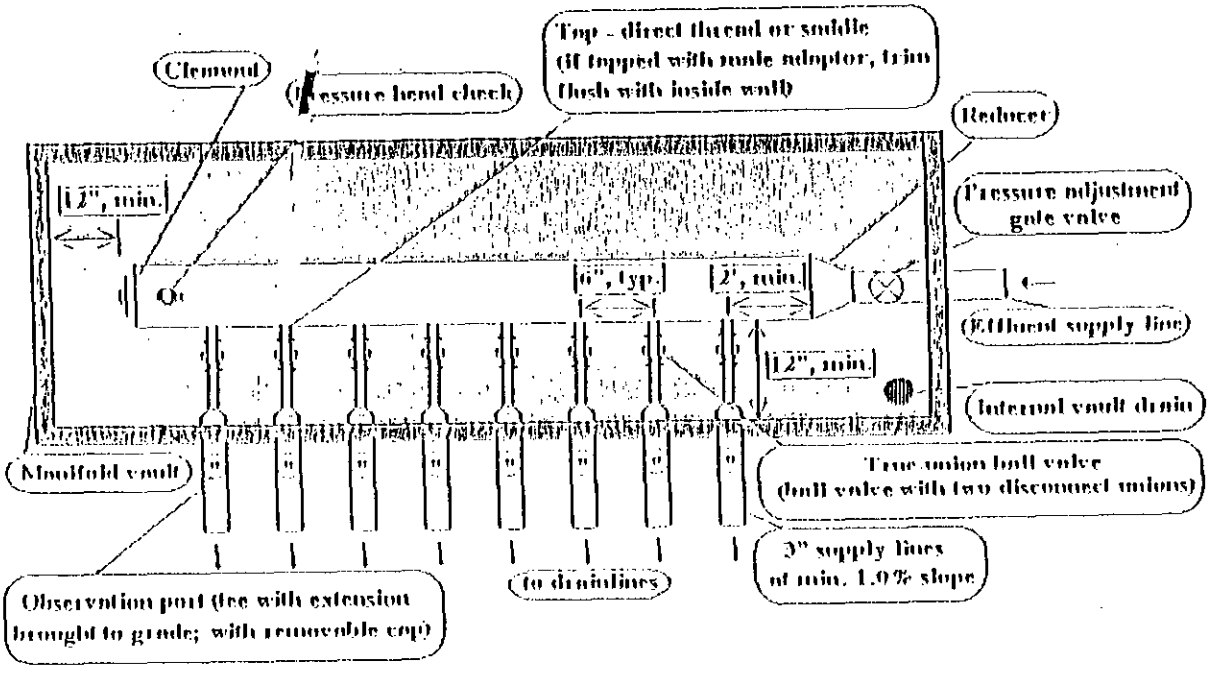


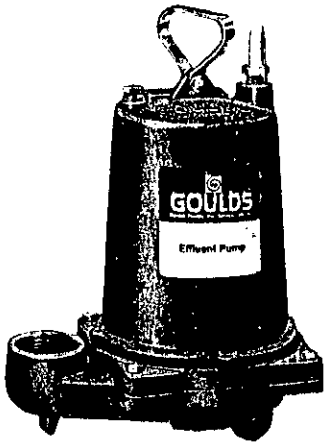
FROM THE POINT ON NORMAN
SEPTIC INFO
(TRI-COUNTY WASTEWATER mgt 1998



Profile View of Pressure Manifold for Sloping Site Installation

(not to scale)





Goulds

Submersible Effluent Pump

MODEL

3885

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 128 GPM.
- Total heads: up to 123 feet TDH.
- Mechanical seal: silicon carbide-rotary seat/silicon carbide-stationary seat, 300 series stainless steel metal parts, BUNA-N elastomers.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- Fasteners: 300 series stainless steel.
- Capable of running dry without damage to components.

Motor

Single phase:

- ⅓ HP, 115 V, 200 V, 230 V, 60 Hz, 1750 RPM; ½ HP, 115 V, 60 Hz, 3500 RPM; ½ HP – 1½ HP, 230 V, 60 Hz, 3500 RPM.
- Built-in overload with automatic reset.
- Class B insulation.

Three phase:

- ½ HP – 1½ HP 200/230/460 V, 60 Hz, 3500 RPM.
- Class B insulation.
- Overload protection must be provided in starter unit.
- Shaft: threaded, 400 series stainless steel.
- Bearings: ball bearings upper and lower.
- Power cord: 20 foot standard length (optional lengths available).

Single phase:

- ⅓ and ½ HP – 16/3 SJTO with 115 V or 230 V three prong plug.
- ¾-1½ HP – 14/3 STO with bare leads.

Three phase:

- ½-1½ HP – 14/4 STO with bare leads. On CSA listed models – 20 foot length SJTW and STW are standard.

FEATURES

■ **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

■ **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge adaptable for slide rail systems.

■ **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant stainless steel. Threaded design. Locknut on three phase models to guard against component damage on accidental reverse rotation.

■ **Motor:** Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

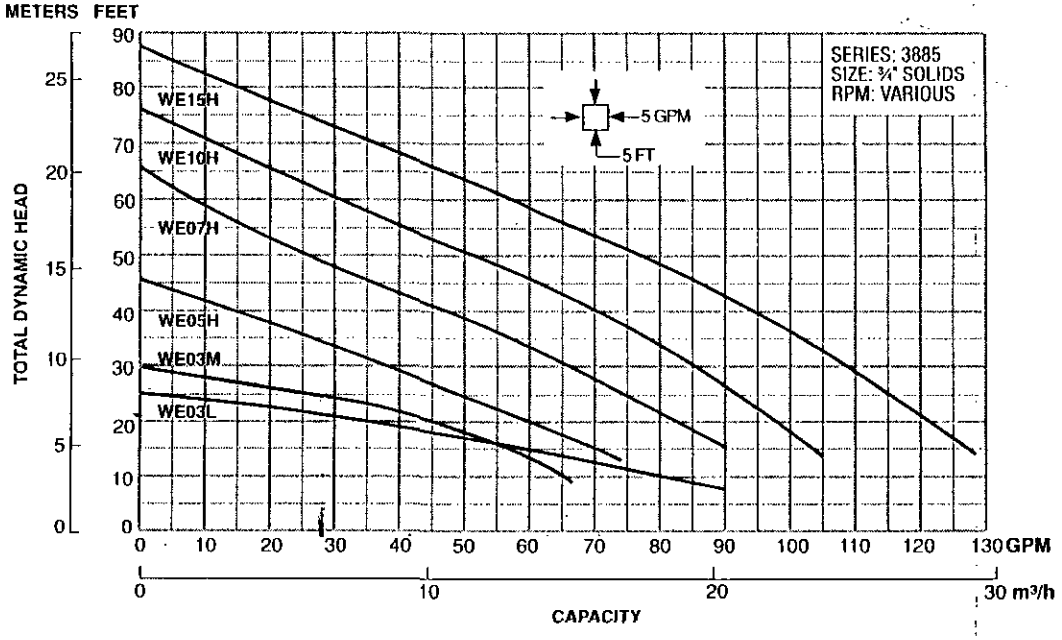
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking.

■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Canadian Standards Association

Underwriters Laboratories

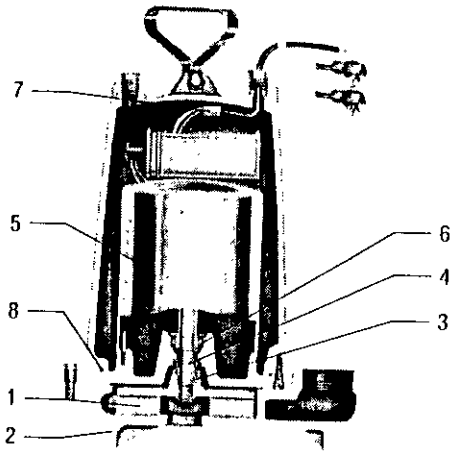


© 1995 Goulds Pumps

Effective May, 1995
B3885

PARTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical seal
4	Shaft
5	Motor
6	Bearings – upper and lower
7	Power cable
8	O-ring



Goulds

Submersible Effluent Pump

MODEL

3885

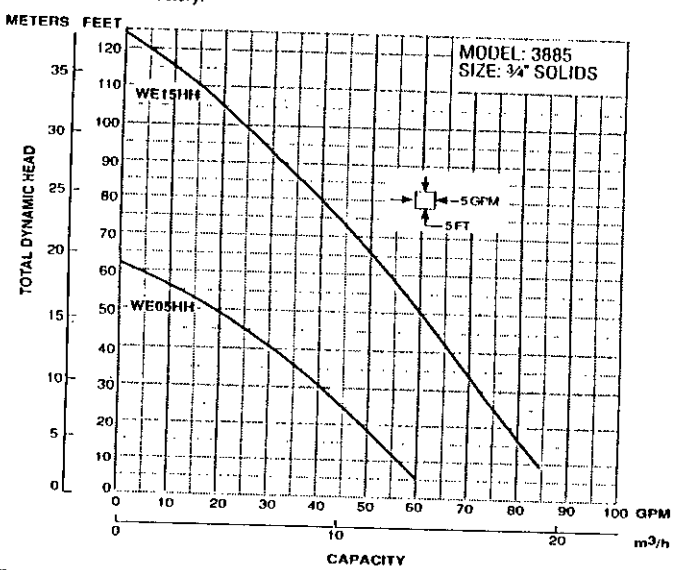
MODELS

Order No.	HP	Volts*	Phase	Max. Amp.	RPM	3ø Heater Size	Wt. (lbs.)
WE0311L	⅓	115	1	9.4	1750	N/A	56
WE0312L		230		4.7			
WE0318L		200		5.4			
WE0311M		115		9.4			
WE0312M		230		4.7			
WE0318M		200		5.4			
WE0511H	½	115	1	14.5	3500	N/A	60
WE0512H		230		7.3			
WE0518H		200		8.4			
WE0538H		200	3	3.9		K32	
WE0532H		230		3.4		K32	
WE0534H		460		1.7		K21	
WE0511HH		115	1	14.5		N/A	
WE0512HH		230		7.3			
WE0518HH		200		8.4			
WE0538HH		200	3	3.8		K32	
WE0532HH		230		3.3		K31	
WE0534HH		460		1.65		K21	
WE0712H	¾	230	1	10.0		N/A	70
WE0718H		200		11.5			
WE0738H		200	3	6.2		K49	
WE0732H		230		5.4		K39	
WE0734H		460		2.7		K28	
WE1012H	1	230	1	12.5		N/A	
WE1018H		200		14.4			
WE1038H		200	3	8.1		K43	
WE1032H		230		7.0		K43	
WE1034H		460		3.5		K32	
WE1512H	1½	230	1	15.7		N/A	80
WE1538H		200	3	10.6		K53	
WE1532H		230		9.2		K50	
WE1534H		460		4.6		K36	
WE1512HH		230	1	15.0		N/A	
WE1538HH		200	3	10.6		K53	
WE1532HH		230		9.2		K50	
WE1534HH		460		4.6		K36	

* For 575 V consult factory.

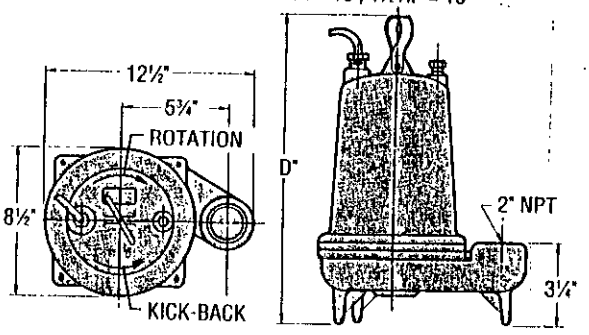
PERFORMANCE RATINGS (gallons per minute)

Order No.	WE0311L WE0312L WE0318L	WE0311M WE0312M WE0318M	WE0511H WE0512H WE0538H WE0532H WE0534H WE0518H	WE0712H WE0738H WE0732H WE0734H WE0718H	WE1012H WE1038H WE1032H WE1034H WE1018H	WE1512H WE1538H WE1532H WE1534H	WE0511HH WE0512HH WE0538HH WE0532HH WE0534HH WE0518HH	WE1512HH WE1538HH WE1532HH WE1534HH
HP	⅓	⅓	½	¾	1	1½	½	1½
RPM	1750	1750	3500	3500	3500	3500	3500	3500
Total Head Feet of Water 5	–	–	–	–	–	–	60	–
10	80	65	–	–	–	–	56	84
15	60	57	69	90	104	128	53	82
20	36	45	60	83	98	122	48	77
25		25	50	76	92	116	45	75
30			38	67	85	109	40	72
35			26	58	78	102	35	70
40			15	47	70	94	30	67
45				36	62	86	25	64
50				25	52	77	18	60
55				17	42	67	12	58
60				8	32	56	3	54
65					21	46		51
70					11	35		47
75						25		43
80						15		40
90								33
100								24
110								15
120								5



DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)
D* ⅓, ½, ¾ and 1 HP = 15"
except for model WE0712H and WE1012H = 18"; 1½ HP = 18"



EFFLUENT EJECTOR SYSTEM

Effluent ejector system offers ease of ordering and installation. A single ordering number specifies a complete system designed for most residential and commercial sump and effluent pump applications.



Package Includes:
Submersible Effluent Pump WE0311L, 12L or WE0311M, 12M, WE0511HH, 12HH
Mechanical Level Control Switch A2-5 (115V), A2-6 (230V)
Basin A7-1801S, Basin Cover A8-1822
Check Valve A9-2P
Order No.: SWE0311L, SWE0312L, SWE0311M, SWE0312M, SWE0511HH, SWE0512HH.

GOULDS PUMPS
WATER TECHNOLOGIES NORTH AMERICA
Seneca Falls, New York 13148

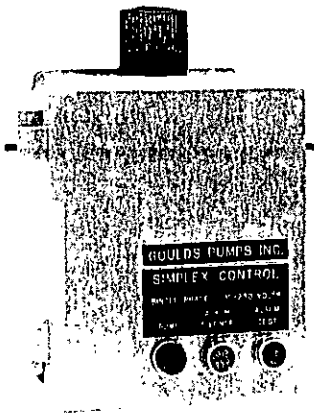
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PRINTED IN U.S.A.

Goulds

SES Series Customized Control Panels

Simplex/Weather Proof Controller with Alarm



APPLICATIONS

Superior quality simplex liquid level controller, automatically maintains pump operation, includes high level alarm warning for a variety of sump, effluent, sewage and water transfer applications.

SPECIFICATIONS

- Accepts single or dual power feed.
- Hand-off automatic pump selection switch.
- On-off control circuit switch.
- Oversized magnetic contactor.
- Numbered terminal strip-screw type.
- NEMA 4X, 30 watt, flashing red light.
- NEMA 4X, fiberglass enclosure with gasketed, hinged door and stainless steel hardware.
- NEMA 4X, alarm horn – 95db.
- 115 V, 3 amp, control circuit breaker.

Single Phase

- Field adjustable for 115 or 230 V, 60 Hz.

Maximum Pump Running Amps	Panel Order No.
20	S10020
27 (3 HP)	S10027*
36 (5 HP)	S10036*

*For 3 and 5 HP single phase, includes run capacitors and pilot duty overloads.

Three Phase

- Field adjustable for 208/230 /460/575 V, 60 Hz.
- 115V control circuit transformer.
- Adjustable motor overload protectors.
- **Heaters not required.**

Maximum Pump Running Amps	Panel Order No.
1.6 to 2.5	S31625
2.5 to 4.0	S32540
4.0 to 6.3	S34063
6.3 to 10	S36310
10 to 16	S31016
16 to 20	S31620
20 to 25	S32025

FEATURES

■ Rugged NEMA 4X construction withstands even the most severe weather conditions and prevents corrosion.

■ Hinged door with lockable stainless steel latch for safe operation indoors and out.

■ High level alarm circuit includes spring loaded through door mounted silence switch for manual silence of alarm horn.

■ Through door mounted alarm test switch insures proper operation of the alarm circuit without the need to open the panel.

■ Through door mounted pump run light.

■ Top mounted high intensity flashing red light provides 360° visibility.

■ Pulsating, corrosion proof alarm horn.

■ Color coded wiring, screw type terminals and plug in sockets, ensure ease of field servicing.

■ Field wiring diagram, panel schematic and installation instructions included.

■ Panel can be wired for a single power feed for pump and control circuit or the control circuit can be wired to a separate power supply to insure alarm integrity in case of a tripped pump breaker.

■ Entire unit is UL/CSA approved and listed.

© 1995 Goulds Pumps

Effective May, 1995
BSPANEL

TCJ CONSULTING

SITE / SOIL EVALUATION

JOB: Hemp Wheeler PHONE: _____ DATE: 12/6/90

LOCATION: _____ PIN: _____ COUNTY: _____ PROPERTY SIZE: _____

PROPOSED FACILITY: _____ WATER SUPPLY: On-Site Well__ Community__ Public__ EVALUATION: Auger Boring__ Pit ✓ Cut__

WEATHER: _____ ANTECEDENT MOISTURE: _____ SURFACE WATER: _____

150 ft. bank 20+

FACTORS	PROFILE 1	PROFILE 2	PROFILE 3	PROFILE
LANDSCAPE POSITION	L-S	L-S	L-S	L-S
HORIZON I DEPTH	0-7 A	0-9 A	0-7	0-14
Color - Munsell	10yr 4/2	10yr 4/2	10yr 4/2	10yr 4/2
Texture	LSP	sl	sl	sl
Structure	g	g	g	g
Consistence	fri NSNP	fri	fri	fri
			10yr 4/6 dry	
Boundary				
HORIZON II DEPTH	7-20 AB	9-22	7-20 AB	14-36
Color - Munsell	10yr 6/4	10yr 6/4	10yr 4/4 to 6/4, mot 10yr 6/8	
Texture	sl	scl	cl	c
Mottles	NA	NA	NA	NA
Structure	W SBK	W SBK with Cutans	MOD SBK	MOD SBK
Consistence	fri SSSP	fri SS SP	fri SS-S SP	fri SS-S SP
Boundary	g			
HORIZON III DEPTH	20-48	22-52	20-36	
Color - Munsell	10yr 6/6	10yr 6/6	10yr 6/6	
Texture	scl, cl, sicl	scl, cl, c	c	
Mottles	NA	few fat 10yr 6/8	few NA	
Structure	MOD SBK	MOD SBK	SBK	
Consistence	fri SS SP to P	fri SS-S SP	fri SS-S SP	
		sand coats peds	few NA	
Boundary				
HORIZON IV DEPTH			36-48	
Color - Munsell			10yr 6/6	
Texture			c	
Mottles			many 10yr 6/8	
Structure			SBK	
Consistence			fri SS-S SP to P	
			many peds	
Boundary				
SOIL WETNESS				
RESTRICTIVE HORIZON				
SAPROLITE				
LTAR	1.3-1.4	1.3-1.4	1.3	1.3-1.4
CLASSIFICATION	fS	fS	fSC	fS

LEGEND

LANDSCAPE POSITION
- R - Ridge
- S - Shoulder
- L - Linear slope
- S - Foot slope
- N - Nose slope
- H - Head slope
- Ce - Concave slope
- Cv - Convex slope
- T - Terrace
- P - Flood Plain

TEXTURE
- s - sand
- ls - loamy sand
- sl - sandy loam
- l - loam
- si - silt
- sil - silt loam
- sicl - silty clay loam
- cl - clay loam
- scl - sandy clay loam
- sc - sandy clay
- sic - silty clay
- c - clay

CONSISTENCE

MOIST / WET

WET
- Ns - non-sticky
- Ss - slightly sticky
- S - sticky
- Vs - very sticky

- Np - non-plastic
- Sp - slightly plastic
- P - plastic
- Vp - very plastic

MOIST
- vfr - very friable
- fr - friable
- fi - firm
- vfi - very firm
- efi - extremely firm

STRUCTURE
- sg - single grain
- m - massive
- cr - crumb
- gr - granular
- sab - subangular blocky
- ab - angular blocky
- pl - platy
- pr - prismatic

TCJ CONSULTING

SITE / SOIL EVALUATION

JOB:_____ PHONE:_____ DATE:_____

LOCATION:_____ PIN:_____ COUNTY:_____ PROPERTY SIZE:_____

PROPOSED FACILITY:_____ WATER SUPPLY: On-Site Well__ Community__ Public__ EVALUATION: Auger Boring__ Pit__ Cut_____

WEATHER: _____ ANTECEDENT MOISTURE:_____ SURFACE WATER: _____

FACTORS	PROFILE 5	PROFILE 6	PROFILE 7	PROFILE 8
LANDSCAPE POSITION-%				
HORIZON I DEPTH				
Color - Munsell				
Texture				
Structure				
Consistence				
Boundary				
HORIZON II DEPTH				
Color - Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
HORIZON III DEPTH				
Color - Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
HORIZON IV DEPTH				
Color - Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
SOIL WETNESS				
RESTRICTIVE HORIZON				
SAPROUTE				
LTAR				
CLASSIFICATION				

LEGEND

LANDSCAPE POSITI
R - Ridge
S - Shoulder
L - Linear slope
S - Foot slope
N - Nose slope
H - Head slope
Cc - Concave slope
Cv - Convex slope
T - Terrace
P - Flood Plain

TEXTURE
s - sand
ls - loamy sand
sl - sandy loam
l - loam
si - silt
sil - silt loam
sicl - silty clay loam
cl - clay loam
scl - sandy clay loam
sc - sandy clay
sic - silty clay
c - clay

CONSISTENCE
WET
Ns - non-sticky
Ss - slightly sticky
S - sticky
Vs - very sticky

Np - non-plastic
Sp - slightly plastic
P - plastic
Vp - very plastic

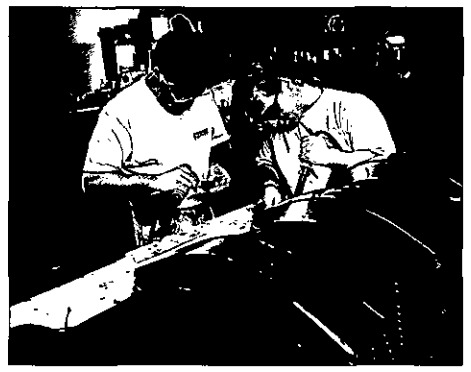
MOIST
vfr - very friable
fr - friable
fi - firm
vfi - very firm
efi - extremely firm

STRUCTURE
sg - single grain
m - massive
cr - crumb
gr - granular
sab - subangular block
ab - angular blocky
pl - platy
pr - prismatic

Infiltrator Systems Inc., the world leader in septic and stormwater chamber system technology.

Over 9 million chambers already in service.
In just ten years, the innovative leaching chambers of Infiltrator Systems have drastically changed the technology of on-site septic and stormwater disposal. Already, 9 million chambers have been installed in 49 states, Canada, and throughout the world, forming over 165 million square feet of chamber systems with a success rate of 99.5%. And, we're expanding at the rate of 10,000 new systems a month.





Environmentally concerned company.
Infiltrator Systems devotes over $500,000 a year to research and development, creating new products that operate more and more efficiently and conserve natural resources. Besides using recycled resins, Infiltrator Systems' products take better care of the environment by avoiding the mining, crushing, grading, washing, and hauling of stone, as well as the environmental impact and site disruption that stone causes. That's one of our "greener" ideas for septic and stormwater disposal that just makes sense.

Infiltrator stormwater management.
Besides our septic chambers, Infiltrator Systems' High Capacity H-20 unit is designed to effectively handle stormwater runoff from large paved or roofed areas. This subsurface chamber replaces retention ponds, large diameter pipe and stone, concrete vaults, and other conventional methods, so valuable above-ground land can be used for additional parking, further development, or green space. The High Capacity H-20 chamber stores up to 122 gallons of runoff, can withstand loads of 32,000 lb/axle, and is available in CT, DE, FL, ID, IL, MA, MD, ME, NH, NJ, NY, OR, PA, RI, VT, WA, and British Columbia.

Call 1-800-221-4436 for a free copy of the septic installation instructions and video.

INFILTRATOR® SYSTEMS INC

The world leader in chamber technology℠

4 Business Park Road, P.O. Box 768 Old Saybrook, CT 06475
800-221-4436 860-388-6639 FAX 860-388-6810
www.infiltratorsystems.com

800-221-4436

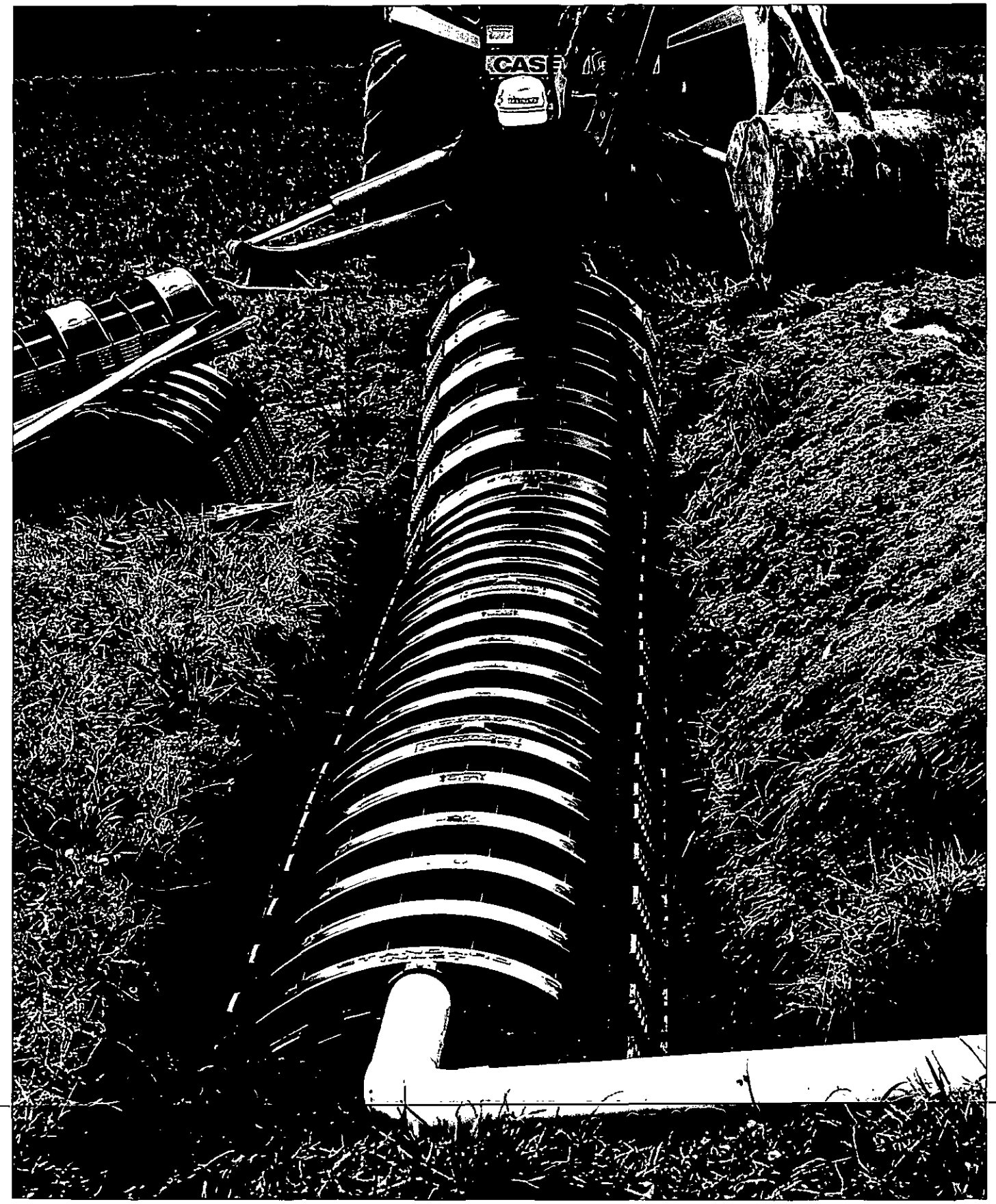
Distributed By:

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,588,778; 5,716,163; 1,815,925; 1,974,938; 1,729,383; 448,338
Canadian Patents: 1,329,959; 2,004,564 Other U.S., Canadian, and foreign patents pending.

Infiltrator, Equalizer, PowerArch, and SideWinder are registered trademarks and the following are trademarks of Infiltrator Systems Inc.:
BigFoot, Contour, Distributor, Maximizer, MaxWin, MicroLeaching, PolyTuff, SnapLock, and UniFlex. ©1998 Infiltrator Systems Inc. Printed in U.S.A. A010698HLN

The Infiltrator® Chamber System for Septic Leachfields.

INFILTRATOR® SYSTEMS INC

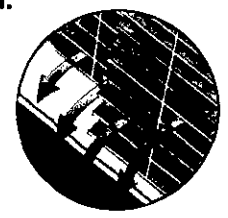


Original Standard and High Capacity Infiltrator chambers provide up to twice the infiltrative capacity of stone and pipe systems.

The Infiltrator Chamber System is a direct replacement for old-fashioned stone and pipe leachfields installed in 3-foot wide trenches. Infiltrator chambers sit directly on the trench bottom. The patented interlocks add strength and latch the chambers together quickly, end to end, so installation takes less than half the time of a labor-intensive stone and pipe job. It's that simple.

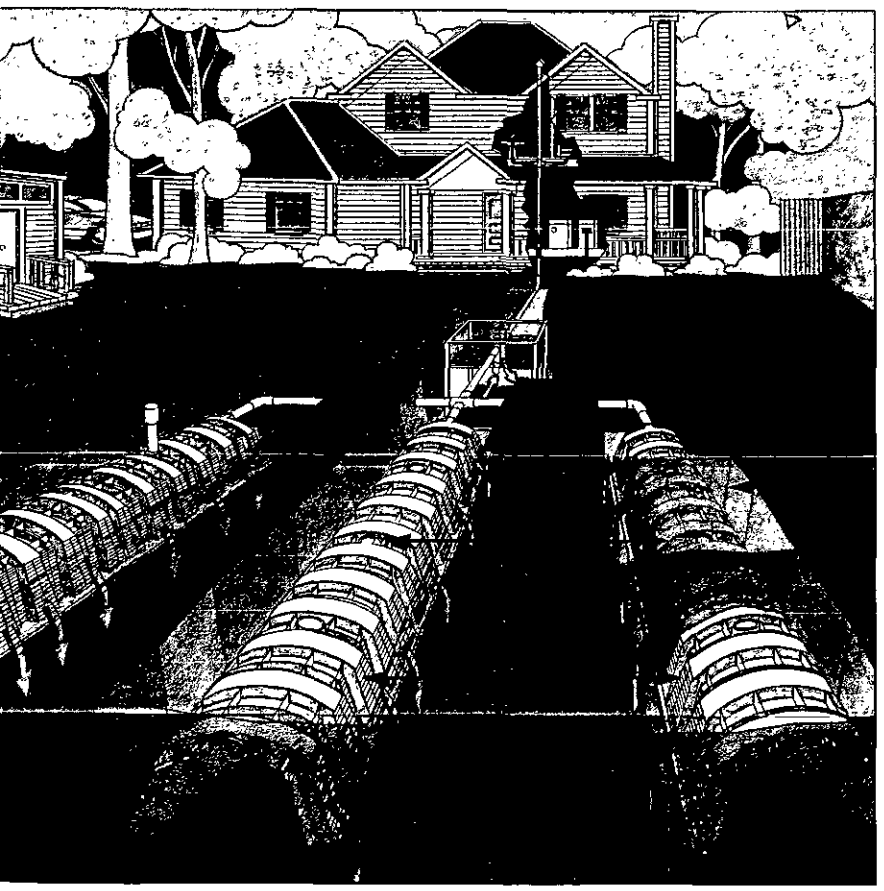
Infiltrator chambers may be used for any application that is suitable for stone and pipe. However, by offering greater infiltrative capacity per linear foot, chamber systems can require as little as half the space as conventional systems.*

Patented MicroLeaching™ sidewall.
The Infiltrator chamber has an engineered, louvered sidewall that allows effluent to pass laterally into the soil. The angled louvers prevent backfill intrusion into the chamber while 1/4" slots allow lateral leaching.



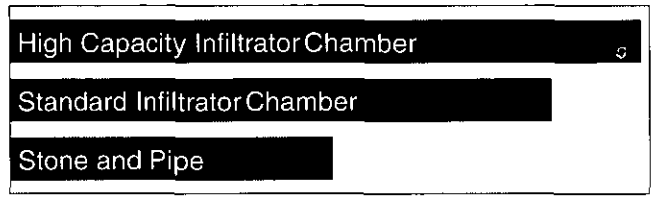
MicroLeaching sidewall

* Subject to state and local regulations.



Open chamber bottom boosts infiltration.
The chamber bottom is completely open, promoting effluent infiltration into the soil with 100% efficiency. The open-bottom area, in combination with the MicroLeaching sidewall, provides maximum infiltrative capacity for long-term, trouble-free service.

LTAR (Long-Term Acceptance Rate).



This graph demonstrates the dramatic efficiency improvement in LTAR of Infiltrator chambers over stone and pipe trenches. The LTAR is a measure of the long-term ability of the system to pass effluent into the soil. For example, the High Capacity Infiltrator chamber infiltrates up to twice the effluent of a same-size stone and pipe trench. This efficiency is recognized by many state and local jurisdictions, who in turn may allow up to 50% shorter trenches.

Polyolefin construction.
Infiltrator chambers are molded of PolyTuff™, a proprietary blend of polyolefin plastic that includes recycled resins and is formulated for optimum strength and chemical resistance. It's impervious to wastewater constituents and is stabilized to resist ultraviolet rays. Infiltrator chambers are manufactured using an exclusive patented process to assure consistent high quality. These combined factors make Infiltrator chambers the toughest, most reliable chambers in the industry.

AASHTO H-10 and H-20 load ratings.
Infiltrator chambers have been structurally tested by a registered professional engineer. Both Standard and High Capacity chambers are available with AASHTO ratings of H-10 (16,000 lb/axle with 12" of compacted cover) or H-20 (32,000 lb/axle with 18" of compacted cover).

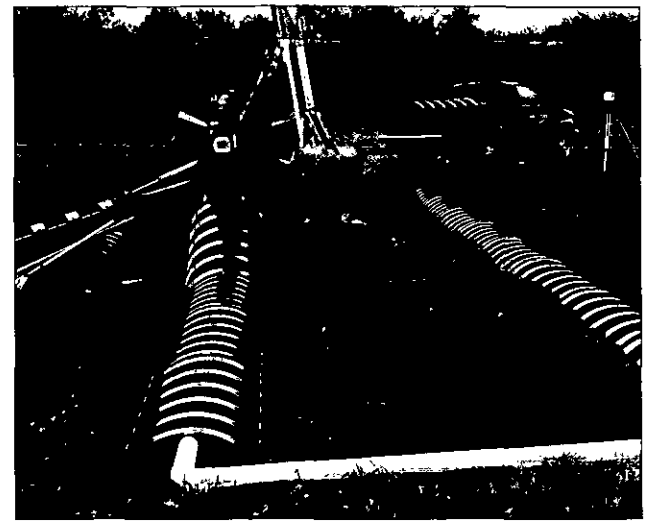
Nominal chamber specifications.

	Standard	High Capacity
Size (W x L x H)	34" x 75" x 12"	34" x 75" x 16"
Weight	25 lb	31 lb
Capacity	77 gal (10.3 ft³)	122 gal (16.3 ft³)

Compare the installation and operating advantages.

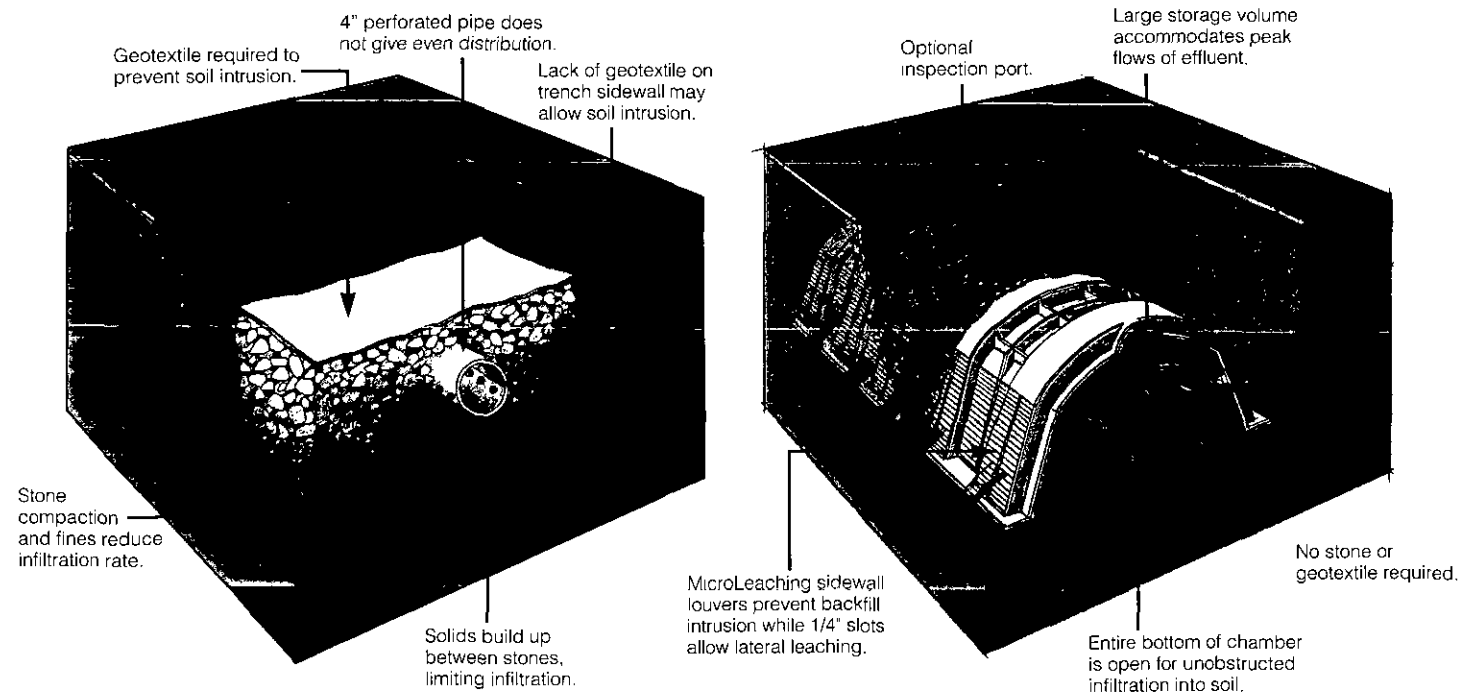


Conventional stone and pipe system.



Infiltrator Chamber System.

• Labor-intensive, lengthy installation.	• Easy assembly and installation by two people.
• Dump truck needed for stone delivery.	• Only a backhoe and pickup truck are required.
• Stone hauling adds expense and time, increases soil compaction.	• Lightweight chambers can be delivered in one pickup truck load and hand-carried into position.
• Stone in trench reduces Long-Term Acceptance Rate by more than 50%.	• Entire trench bottom is open for effluent infiltration with 100% efficiency.
• Heavy traffic across yard and spilled stone mean there is more site repair needed after installation.	• There is less regrading, tree damage, and landscape repair involved, and no stone cleanup.
• System lacks easy inspection and monitoring of *leachfield without digging up the yard.*	• Inspection port is available for easy access to *leachfield with no site disruption.*
• Geotextile required on top of stone.	• Solid-topped chambers need no geotextile.
• Overall increased cost.	• Overall lower cost.



FOR REGISTRATION JUDITH A. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2001 JUN 11 09:25 AM
BOOK 12323 PAGE 189-192 FEE $12.00
INSTRUMENT # 2001094427

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

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

FILE # 41538
PARCEL # 023-141-05PD

The undersigned, Howard A Wheeler, owner of property located at 10950 Arthur Bolen Rd - Huntersville, (the "site") and described in an instrument recorded in Book 29 at Page 534, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq., that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as "provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

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

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

- Any changes on the property may make the Improvement Permit Null and void and may make the Improvement Permit subject to revocation.

This instrument was prepared by: _____
Mail after recording to: _____ Howard Wheeler
Lewis Motor Speedway
PO Box 600
Concord NC. 28027-6

- Do not grade, cut, fill, pave, construct a building or deck, dig a well, install a swimming pool or otherwise cover or disturb the soil (except for planting and maintaining grass or other ground covers) in a manner which will adversely affect the repair area or area where the septic tank system is located.

- When a private certified operator is required, no improvement permit for the designated repair shall be issued unless there is a private certified operator to carry out this management program in the service area where the proposed system is to be located. (Refer to Rule .1961, "Maintenance of Sewage Systems," for further information.)

- Additional fees will be required according to the Mecklenburg County user fee schedule applicable at the time for the issuance of a repair permit for any subsequent repairs to the sewage treatment and disposal system or for installation of a replacement system.

- At the time repairs to the sewage treatment and disposal system are to be made or a replacement system installed, the regulations in effect at that time will govern the repairs or installation of a replacement system.

The undersigned further agrees for himself, his heirs and assigns that he shall indemnify and hold harmless the Department, its employees, and officials, as well as Mecklenburg County and its employees and officials, for any damages or other claims of any person or persons whatsoever arising out of the installation, operation, or failure of said septic tank system.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in the name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, this 5 day of June, ~~19~~ 2001

_____ (SEAL)
(Corporate Name)

By: _____

_____ President

ATTEST:

_____

_____ Secretary

(Corporate Seal)

Howard A. Wheeler (SEAL)

_____ (SEAL)

_____ (SEAL)

_____ (SEAL)

MARSHA S. PERRELL NOTARY PUBLIC MECKLENBURG COUNTY, N. C.

STATE OF NORTH CAROLINA
COUNTY OF Cabarrus

I, Marsha S. Perrell, a Notary Public for said County and State, do hereby certify that Howard A. Wheeler, personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal, this 5 day of June, 1992001

Marsha S. Perrell
Notary Public

My Commission Expires:
8/12/01

JUDITH A. GIBSON
REGISTER OF DEEDS , MECKLENBURG COUNTY
COUNTY & COURTS OFFICE BUILDING
720 EAST FOURTH STREET
CHARLOTTE NC 28202

Filed For Registration: 06/11/2001 09:25 AM

Book: RE 12323 Page: 189-192

Document No.: 2001094427

PRMIT 4 PGS $12.00

Recorder: REBECCA MCGOWAN

State of North Carolina, County of Mecklenburg

The foregoing certificate of MARSHA S. PERRELL Notary is certified to be correct. This 11TH of June 2001

JUDITH A. GIBSON, REGISTER OF DEEDS By: Rebecca B. McGowan
Deputy/Assistant Register of Deeds

2001094427

FOR REGISTRATION JUDITH A. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2001 JUN 11 09.25 AM
BOOK 12323 PAGE 189-192 FEE $12.00
INSTRUMENT # 2001094427

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

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

FILE # 41533
PARCEL # 023-141-05PD

The undersigned, Howard A Wheeler, owner of property located at 10950 Arthur Auten Rd - Huntersville, (the "site") and described in an instrument recorded in Book 29 at Page 534, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq., that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as "provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

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

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

- Any changes on the property may make the Improvement Permit Null and void and may make the Improvement Permit subject to revocation.

This instrument was prepared by: _____

Mail after recording to: _____ Howard Wheeler
Lowes Motor Speedway
PO Box 600
Concord, NC. 28027#6

- Do not grade, cut, fill, pave, construct a building or deck, dig a well, install a swimming pool or otherwise cover or disturb the soil (except for planting and maintaining grass or other ground covers) in a manner which will adversely affect the repair area or area where the septic tank system is located.

- When a private certified operator is required, no improvement permit for the designated repair shall be issued unless there is a private certified operator to carry out this management program in the service area where the proposed system is to be located. (Refer to Rule .1961, "Maintenance of Sewage Systems," for further information.)

- Additional fees will be required according to the Mecklenburg County user fee schedule applicable at the time for the issuance of a repair permit for any subsequent repairs to the sewage treatment and disposal system or for installation of a replacement system.

- At the time repairs to the sewage treatment and disposal system are to be made or a replacement system installed, the regulations in effect at that time will govern the repairs or installation of a replacement system.

The undersigned further agrees for himself, his heirs and assigns that he shall indemnify and hold harmless the Department, its employees, and officials, as well as Mecklenburg County and its employees and officials, for any damages or other claims of any person or persons whatsoever arising out of the installation, operation, or failure of said septic tank system.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in the name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, this 5 day of June, ~~199~~ 2001

_____ (Corporate Name)

By: _____

_____ President

ATTEST:

_____

_____ Secretary

(Corporate Seal)

Howard A. Wheeler (SEAL)

_____ (SEAL)

_____ (SEAL)

_____ (SEAL)

MARSHA S. PERRELL NOTARY PUBLIC MECKLENBURG COUNTY, N.C.

STATE OF NORTH CAROLINA
COUNTY OF Cabarrus

I, Marsha S. Perrell, a Notary Public for said County and State, do hereby certify that Howard A. Wheeler personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal, this 5 day of June, 1992001

Marsha S. Perrell
Notary Public

My Commission Expires:
8/12/01

JUDITH A. GIBSON
REGISTER OF DEEDS , MECKLENBURG COUNTY
COUNTY & COURTS OFFICE BUILDING
720 EAST FOURTH STREET
CHARLOTTE NC 28202

****

Filed For Registration: 06/11/2001 09:25 AM

Book: RE 12323 Page: 189-192

Document No.: 2001094427

PRMIT 4 PGS $12.00

Recorder: REBECCA MCGOWAN

****

State of North Carolina, County of Mecklenburg

The foregoing certificate of MARSHA S. PERRELL Notary is certified to be correct. This 11TH of June 2001

JUDITH A. GIBSON, REGISTER OF DEEDS By: Rebecca B McGowan
Deputy/Assistant Register of Deeds

****

2001094427

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

#1 AGS

Sheet: _____
Property ID: 023-012-15
Lot #: _____
File #: 4153 B

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Howard A. Wheeler APPLICANT: Donald C. Patte
ADDRESS: 19705 Stough Farm Road, Cornelius DATE EVALUATED: 2-13-01
PROPOSED FACILITY: residence PROPOSED DESIGN FLOW (.1949) 480gpd PROPERTY SIZE: Approx. 23ac
LOCATION OF SITE: 10950 Arthur Ausley Road PROPERTY RECORDED: _____
WATER SUPPLY: ☐Private ☐Public ☐Well ☐Spring ☐Other _____
EVALUATION METHOD: ☒Augur Boring ☐Pit ☐Cut
TYPE OF WASTEWATER: ☒Sewage ☐Industrial Process ☐Mixed

PROFILE #	.1940 Landscape Position/ Slope % (Slopes 6-15%)	Horizon Depth (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS &LTAR
1	LS	0-2"	gr/scl	Fr/SEXPl SS/SP	7.5YR 7/8 to soil wetness	49"+	N/A	None	PS .39/P2 IV
		2-48"	SBK/c	Fi/SEXPl SP					
2	LS	0-3"	gr/scl	Fr/SEXPl SS/SP	7.5YR 7/8 to soil wetness	48"+	N/A	None	PS .39/P2 IV
		3-26"	SBK/scl	Fr/SEXPl SS/SP					
		26-48"	SBK/c	Fi/SEXPl SP					
3	LS	0-3"	gr/scl	Fr/SEXPl SS/SP	7.5YR 7/8 to soil wetness	48"+	N/A	None	PS .39/P2 IV
		3-5"	SBK/scl	Fr/SEXPl SS/SP					
		5-48"	SBK/c	Fi/SEXPl SP					
4	LS	0-5"	gr/scl	Fr/SEXPl SS/SP	7.5YR 7/8 to soil wetness	48"+	N/A	None	PS .39/P2 IV
		5-48"	SBK/c	Fi/SEXPl SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)		
Site LTAR	.39/P2	.39/P2

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): Provisionally Suitable
EVALUATED BY: W. A. Mullis LSS 2-13-01
OTHER(S) PRESENT: _____

FILE # 41538

COMMENTS 1002 Repair area, Will need pump

LANDSCAPE POSITION	GROUP	TEXTURE	.1955 LTAR
R-RIDGE	I	S-SAND	1.2-0.8
S-SHOULDER SLOPE		LS-LOAMY SAND	
L-LINEAR SLOPE			
FS-FOOT SLOPE	II	SL-SANDY LOAM	0.8-0.6
N-NOSE SLOPE		L-LOAM	
H-HEAD SLOPE			
CC-CONCLAVE SLOPE	III	SI-SILT	0.6-0.3
CV-CONVEX SLOPE		SICL-SILTY CLAY LOAM	
T-TERRACE		CL-CLAY LOAM	
FP-FLOOD PLAIN		SCL-SANDY CLAY LOAM	
	IV	SC-SANDY CLAY	0.4-0.1
		SIC-SILTY CLAY	
		O-ORGANIC	

CONSISTENCE MOIST	CONSISTENCE WET
VFR-VERY FRIABLE	NS-NON-STICKY
FR-FRIABLE	SS-SLIGHTLYSTICKY
FI-FIRM	S-STICKY
VFI-VERY FIRM	VS-VERY STICKY
EFI-EXTREMELY FIRM	NP-NON-PLASTIC
	SP-SLIGHTLYSTICKY
	P-PLASTIC
	VP-VERY PLASTIC

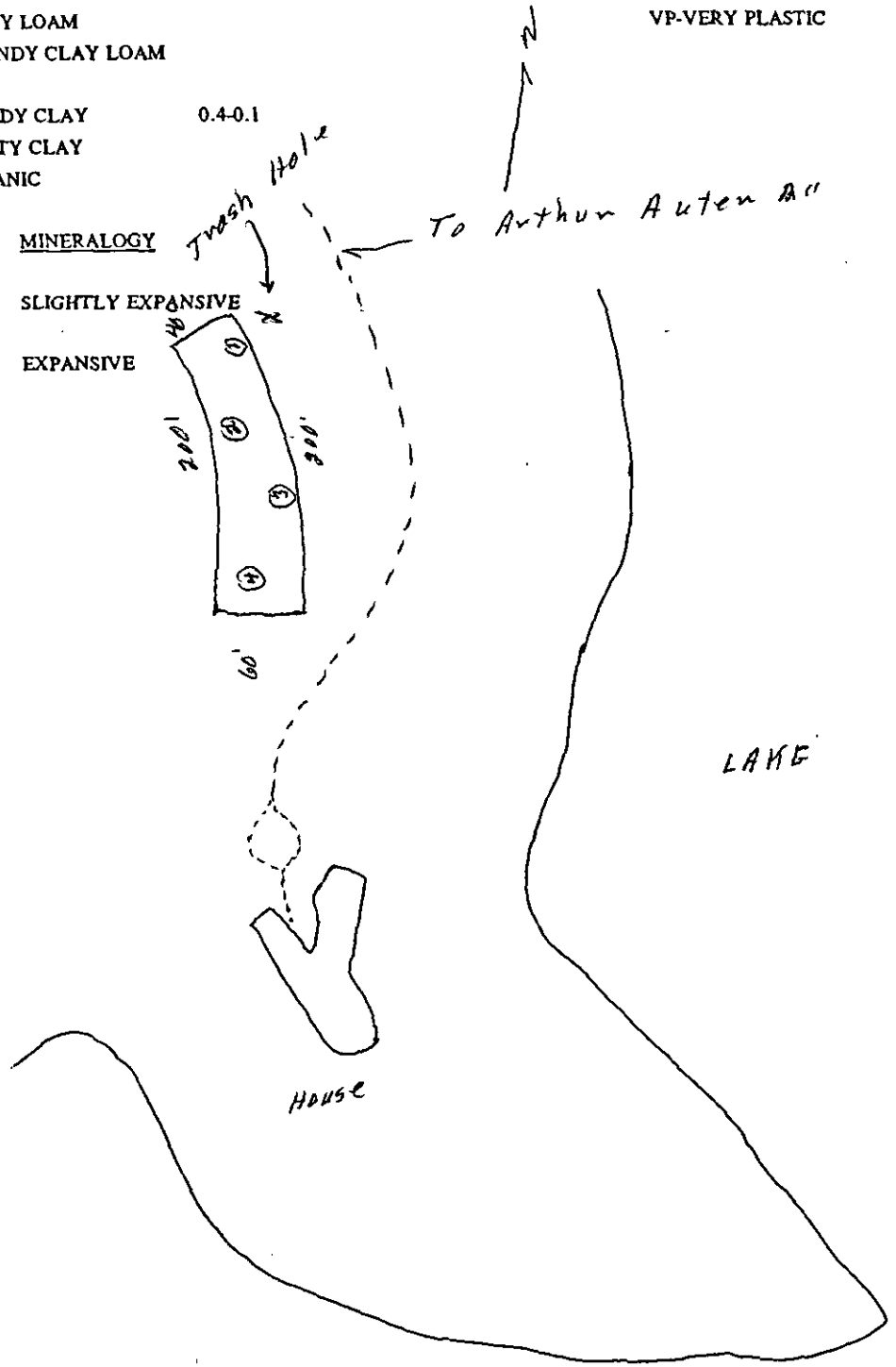
STRUCTURE

SG-SINGLE GRAIN
M-MASSIVE
CR-CRUMB
GR-GRANULAR
SBK-SUBANGULAR BLOCKY
ABK-ANGULAR BLOCKY
PL-PLATY
PR-PRISMATIC

MINERALOGY

SLIGHTLY EXPANSIVE

EXPANSIVE



FEE: $200.00 Low Cost
DATE: 12-6-00

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

[ ] CRT

TYPE APPLICATION: X NEW SYSTEM __ EXPANSION/ ALTERATION 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 #: 4153B

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION: 023-012-15

TAX/PARCEL NUMBER: [redacted] 023-141-05

STREET ADDRESS: 10950 Arthur Auten Rd

SUBDIVISION OR MOBILE HOME PARK NAME: Huntersville, NC 28078

LOT NUMBER:

TYPE OF BUILDING (CHECK ONE):

__ SINGLE MOBILE HOME(S)
__ DOUBLE WIDE (D)
X HOUSE (H)
__ MODULAR HOME (M)
__ MULTIPLE FAMILY (U)
__ OTHER (O)

TOWNSHIP (CHECK ONE):

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

HEATED SQUARE FOOTAGE: 4653

NUMBER OF BEDROOMS: 4

NUMBER OF OCCUPANTS:

CLOSING DATE April 30, 2001

FOUNDATION FOR RESIDENCE:

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

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

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)

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

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

PROPERTY OWNER: Howard O

NAME: Wheeler [redacted] A.
(LAST) (FIRST) (MI)

ADDRESS: 19705 Stough Farm Rd

CITY: Cornelius STATE: NC ZIP: 28031

DAYTIME PHONE: (704) 455 - 3899

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Potter Donald C
(LAST) (FIRST) (MI)

DAYTIME PHONE: (704) 540 - 9156

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: [signature]

DATE: 12-5-00

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

MECKLENBURG COUNTY HEALTH DEPARTMENT
Environmental Health Fees

Requestor (please print): DONALD C. POTTER III Phone #: 540-9156 Date Requested: 12/4/00 Date Filled:

Account Name: POTTER BUILDERS INC Cash (Charge) Account No.: B71930

I certify that I am authorized to charge this account for this service:

Signature: Donald C. Potter III Printed Name: DONALD C. POTTER III Date: 12/5/00

T.C.	Qty	Description	Unit Cost	Total Cost
0701	1	Improvement Permit Application - Residential	$ 200.00	200
0735		Improvement Permit Application - Commercial	$ 400.00	
0702		Optional Site Evaluations	$ 100.00	
0703		Installation and Final Approval	$ 150.00	
0704		Change in Plot Plan	$ 100.00	
0705		MH Exc/Add/Repl without System Modification	$ 100.00	
0706		MH Exc/Add/Repl with System Modification	$ 300.00	
0707		Site Consultation Visit	$ 100.00	
0734		Authorization for Wastewater System Construction	$ 150.00	
0708		Realty Closing - Conventional	$ 85.00	
0709		Realty Closing - FHA with water	$ 135.00	
0710		Additional Trips	$ 65.00	
0711		Well Water Analysis-Bacteriological with regular parameters	$ 50.00	
0712		Well Water Analysis -Nitrates and Nitrites	$ 15.00	
0714		Well Water Analysis - Organic Analysis	$ 200.00	
0715		Admin. Fee - Field Activity Letter	$ 25.00	
0718		Residential Pool Permit	$ 50.00	
0719		Public Pool Permit - operating	$ 240.00	
0720		Seasonal Pool Permit - operating	$ 120.00	
0736		Pool Late Fee	$ 120.00	
0733		Permit to Construct a Public Pool	$ 200.00	
0721		Home Day Care Evaluation and Permit	$ 70.00	
0722		Home Day Care Evaluation and Annual Fee	$ 40.00	
0723		Eval and Report Non-Permit Facility	$ 50.00	
0724		Private Pool Testing	$ 15.00	
0731		Garbage Hauler Permit - (1-9 vehicles)	$ 30.00	
0736		Garbage Hauler Permit - (each over 9)	$ 20.00	
0725		Document Copies	$ 0.05	

Payment received by: CM Date: 12-5-00 Total: 200

10750 Cathey's Pointe Rd

4/2000

White-AUDIT Canary-CUSTOMER Pink-DIVISION

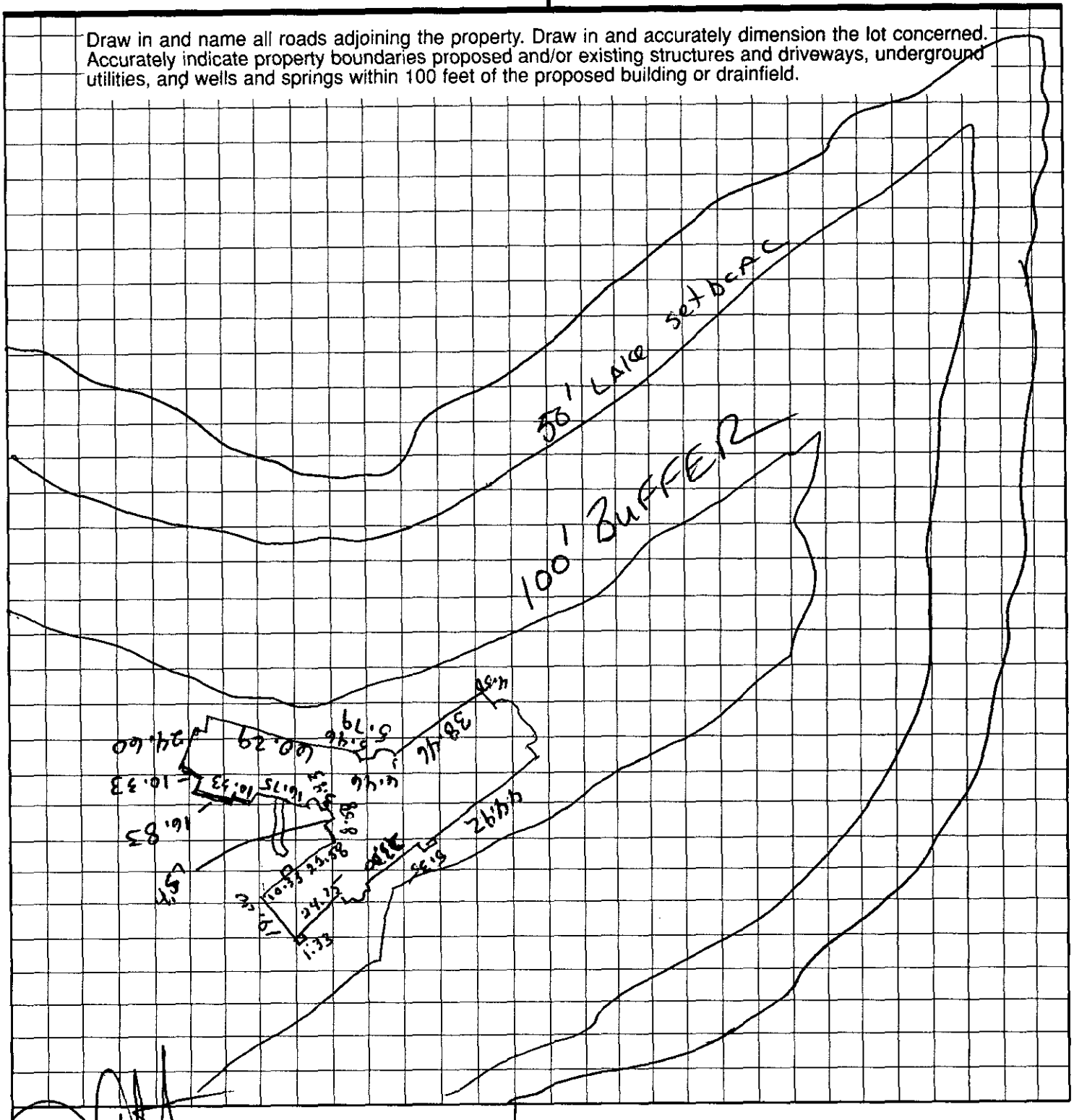
PROPOSED PLOT PLAN

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

FILE: 4153B

TC: 023-141-05BQ

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.



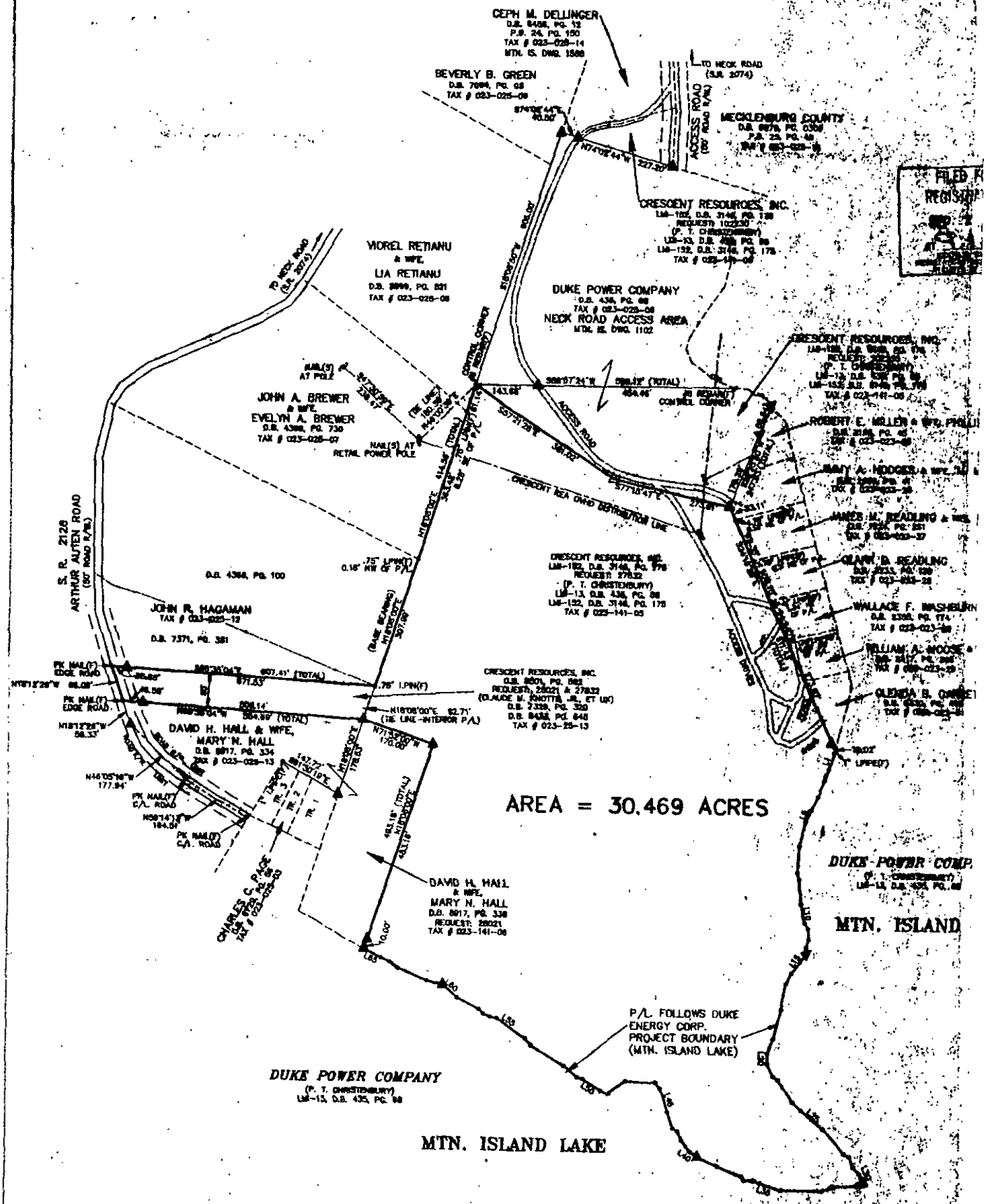
OWNER/AGENT SIGNATURE

DATE 12/5/00

APPROVAL DATE _____

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

MAP BOOK 29 PAGE 534

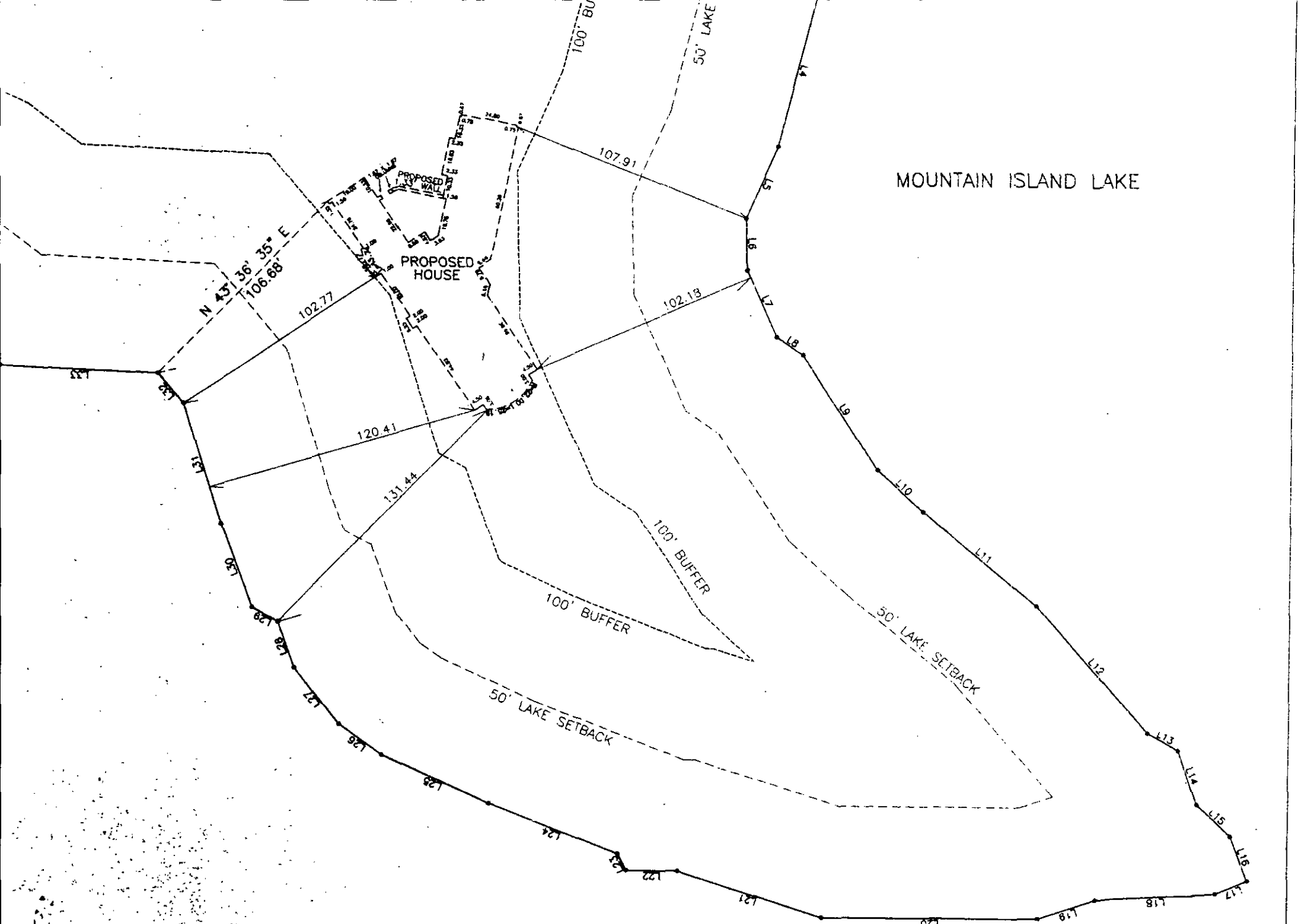


CRESCENT RESOURCES
INC.
P.O. BOX 1003
CHARLOTTE, N.C. 28201-1003

SURVEY & MAP PREPARED BY:
DUKE ENERGY CORPORATION
P.O. BOX 1244
CHARLOTTE N.C. 28201-1244

NOTE:
THIS PLAT REPRESENTS A DIVISION OF PROPERTY WITHIN THE JURISDICTION OF THE TOWN OF HUNTERSVILLE. IT IS NOT SUBJECT TO THE PROVISIONS OF THE HUNTERSVILLE SUBDIVISION ORDINANCE AND DOES NOT REQUIRE THE APPROVAL OF THE HUNTERSVILLE BOARD OF COMMISSIONERS. HOWEVER ANY FURTHER SUBDIVISION OF THIS PROPERTY MAY BE SUBJECT TO THESE PROVISIONS.

TOWN OF HUNTERSVILLE



ACAD: 52049

REVISIONS	PLOT PLAN OF:
	A PART OF 30.469 ACRES OFF ARTHUR AUTEN ROAD. MOUNTAIN ISLAND DEVELOPMENT

FEE: 100.00 Ck # 1320

DATE: 12/13/99 JC

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

1 1CRT

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

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

S-F-C
W/S-X
Bill
mail

FILE #: 4153B

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 02314105

STREET ADDRESS: end Arthur Auten Rd

SUBDIVISION OR MOBILE HOME PARK NAME: NA

LOT NUMBER: NA

TOWNSHIP (CHECK ONE):

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

CLOSING DATE NA

TYPE OF BUILDING (CHECK ONE):

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

HEATED SQUARE FOOTAGE:

NUMBER OF BEDROOMS: NUMBER OF OCCUPANTS:

FOUNDATION FOR RESIDENCE:

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

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

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

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
EXISTING WASTEWATER SYSTEMS __ YES __ NO
EASTMENTS OR RIGHT-OF-WAYS __ YES __ NO
WELL, SPRINGS OR WATERLINES __ YES __ NO
DESIGNATED WETLANDS __ YES __ NO

PROPERTY OWNER:

NAME: Wheeler (LAST) Humpy (FIRST) (MI)

ADDRESS: 555 Concord Parkway South

CITY: Harrisburg STATE: NC ZIP 28075

DAYTIME PHONE: ( ) 578-1200

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Jacobs (LAST) Tonya (FIRST) C (MI)

DAYTIME PHONE: (563-6905

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 1969

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: Tonya C Jacobs, CPSS DATE: 12/13/99

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