

18326 HIDEAWAY RD

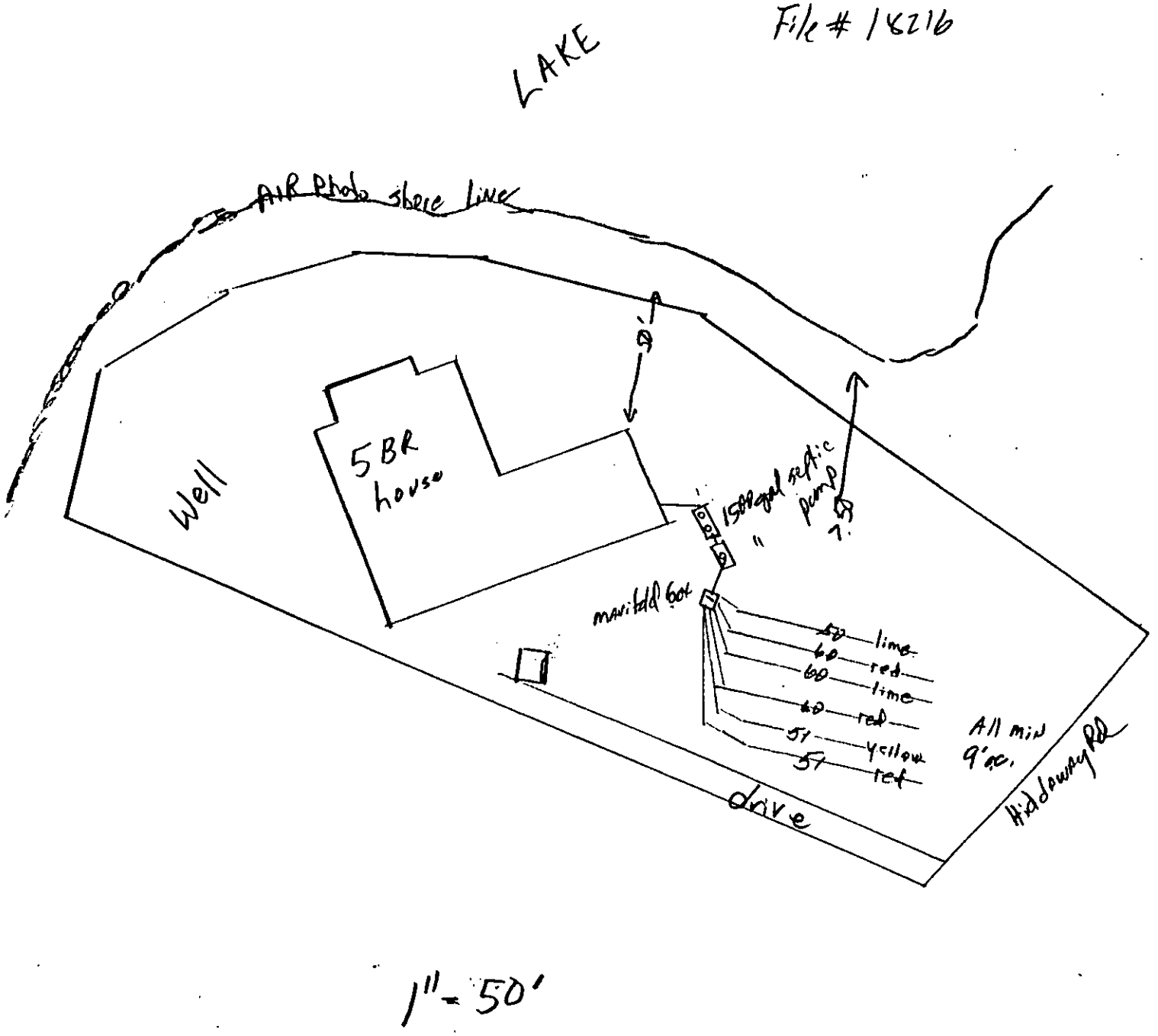
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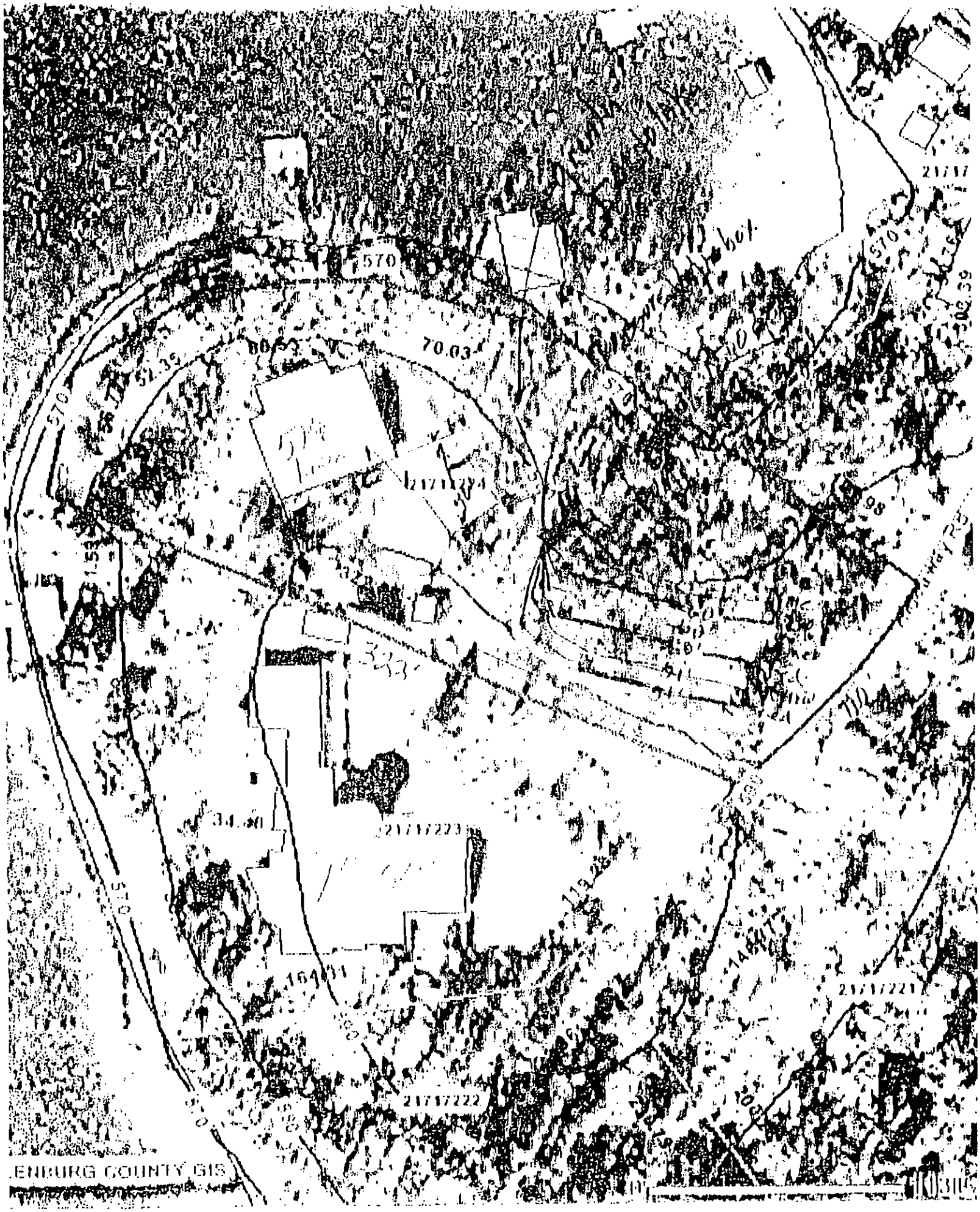
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Groundwater and Wastewater Services File Imaging Project
May 2007
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File # 16216



1" = 50'


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ENBURG COUNTY GIS

EHS CS

Reviewer

18216 County Permit Review Worksheet

Rule or Law	Permit Application	1	2	3	4	5	6	7	8	9	10
.1937(d)	Is the Application complete	✓									
.1937(d)	Is there a Site plan/Plat with application	✓									
.1937(d)	Is the Facilityshown?	✓									
.1937(d)	Are appurtenances shown	✓									
	Site Evaluation Information										
.1939 (a)(1)	Topography and Landscape Position Recorded?	✓									
.1940 (a-g)	Slope % Recorded?	✓									
.1939 (a)(2)	Texture Class Recorded?	✓									
.1939 (a)(2)	Structure type Recorded?	✓									
.1939 (a)(2)	Consistence Recorded?	✓									
.1939 (a)(2)	Mineralogy Recorded?	✓									
.1939 (a)(3)	Soil Wetness Condition Recorded?	✓									
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered?	✓									
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	✓									
.1939 (a)(6)	Sufficient Available Space Recorded?	✓									
.1937(m)	Are the Profile Locations Shown?	✓									
.1939(a) & .1945(b)	Are the S/PS Profiles in system & in repair area?	✓									
	Number of auger borings made:	✓									
	Were sufficient auger borings made?	✓									
.1939(d), .1955, .1956, .1957	LTAR										
	IP/CA										
G.S. 130A-336(a) & .1937(g)	Proposed System Type stated-Initial	✓									
.1945(b)	Proposed System Type stated-Repair	✓									
G.S. 130A-336(a)(3)	System location identifiable by setbacks - Initial	✓									
.1937(g) & .1945(b)	System components shown - Initial	✓									
.1945(b)	Repair area shown	✓									
.1937 (f)(g)	Does System design match facility, flow & WW characteristics?	✓									
.1937 (f)(g)	Is System design consistent with soil/site conditions?	✓									
.1937 (f)(g)	Is the System located in the approved area?	✓									
G.S. 130A-336(a)	Is the Design flow (gpd) indicated?	✓									
G.S. 130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	✓									
.1937(g)	Trench depth indicated?	✓									
.1937(g)	Trench width indicated?	✓									
.1937(g)	Trench length indicated?	✓									
G.S. 130A-336(a)(1)	Proposed/existing well shown?	✓									
G.S. 130A-336(a)(1)	Property line lengths shown?	✓									
G.S. 130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	✓									
	OP										
.1937(i)	System type as described in table V(a) of rule .1961										
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.										

If system design is incorrect or inconsistent with site conditions, indicate why for each below

MECKLENBURG COUNTY
Health Department

March 10, 2006

Mr. Robert J. Teller
3500 Providence Manor Road
Charlotte, NC 28270

Re: Application for improvement permit for
Property Site: 18326 Hideaway Road
Health Department file number: **18216**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on **Febuary 21, 2006** evaluated the above-referenced property at the site designated on the site plan that accompanied your improvement permit application. According to your application the site is to serve a 5-bedroom residence, with a design wastewater flow of 600 gallons per day. The evaluation was done in accordance with the laws and rules governing wastewater systems in North Carolina General Statute 130A-333 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .1900 and related rules.

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

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

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

The site evaluation included consideration of possible site modifications, and modified, innovative or alternative systems. However, the Health Department has determined that none of the above options will overcome the severe conditions on this site. A possible option might be a system designed to dispose of

sewage to another area of suitable soil or off-site to additional property.

For the reasons set out above, the property is currently classified **UNSUITABLE,** and an improvement permit shall not be issued for this site in accordance with Rule .1948 (c).

However, the site classified as **UNSUITABLE** may be classified as **PROVISIONALLY SUITABLE** if written documentation is provided that meets the requirements of Rule .1948(d). A copy of this rule is enclosed. You may hire a consultant to assist you if you wish to try to develop a plan under which your site could be reclassified as **PROVISIONALLY SUITABLE.**

You have a right to an informal review of this decision. You may request an informal review by the soil scientist or environmental health supervisor at the local health department. You may also request an informal review by the
N. C. Department of Environment and Natural Resources regional soil specialist. A request for informal review must be made in writing to the local health department.

You also have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Center, Raleigh, NC 27699-6714. To get a copy of a petition form, you may write the Office of Administrative Hearings or call the office at (919) 733-0926 or from the OAH web site at www.oah.state.nc.us/form.htm. The petition for a contested case hearing must be filed in accordance with the provision of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B. N. C. General Statue 130A-335(g) provides that your hearing would be held in the county where your property is located.

Please note: If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is **March 10, 2006**. Meeting the 30-day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you might request. Do not wait for the outcome of any informal review if you wish to file a formal appeal.

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

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

Sincerely,

Chris Sherrill, R.S, L.S.S.
Authorized Agent - DENR

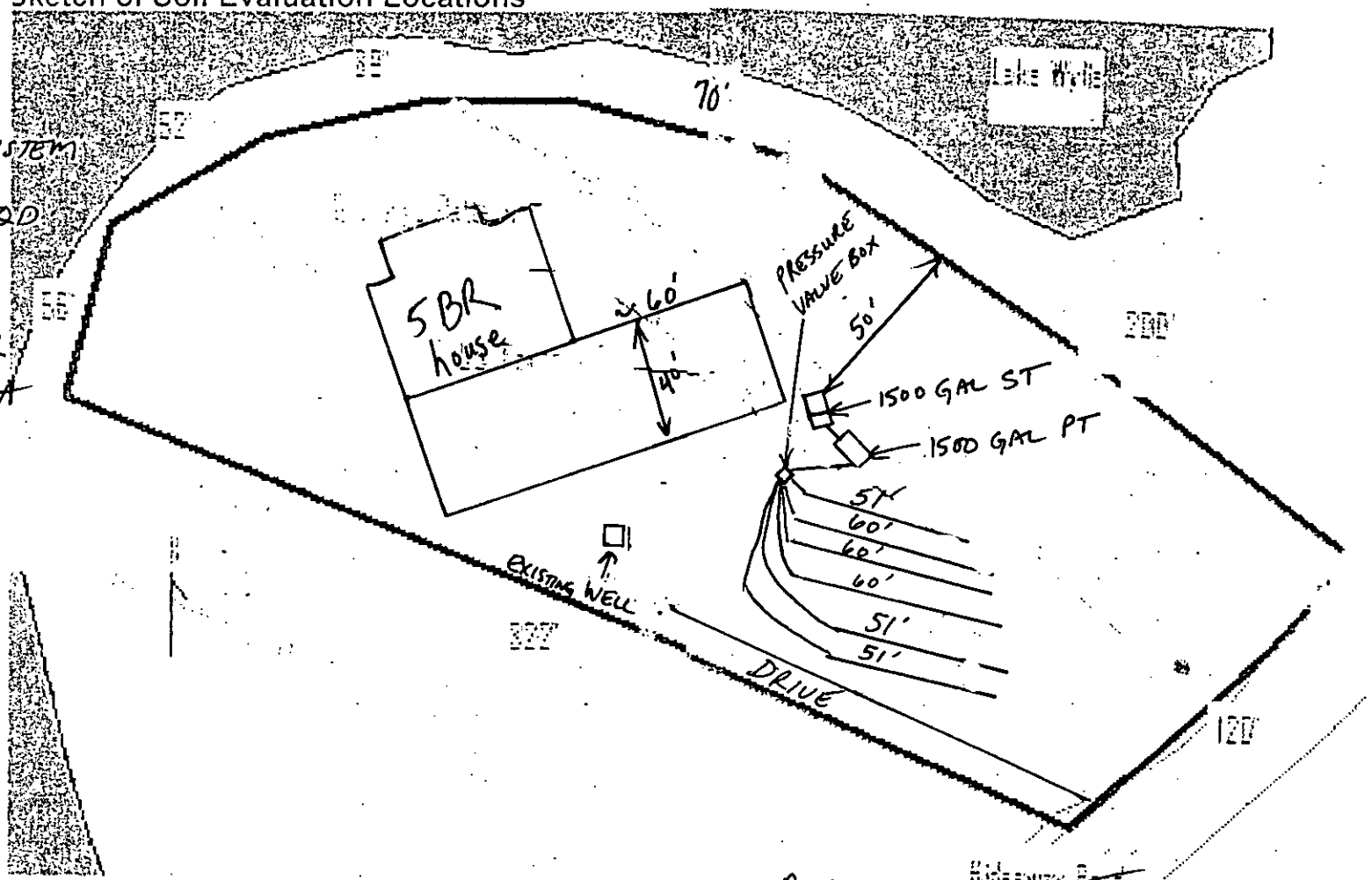
Encl: (2)

1 = 50'
FILE# 18216
TP# 217-172-24

- 5BR - 600 GPD
- 1500 GAL ST
- 1500 GAL PT
- TYPE IVa PPBPS
  50% REDUCTION SYSTEM
- 100% REPAIR NOT REQD
- TO BE INSTALLED IN ACCORD. W/ WASTEWATER CONSULTANT'S PROPOSAL & DESIGN

CMS
3-27-07

Sketch of Soil Evaluation Locations



Christopher M. Smith 3/27/07

Richard J. Gill 4/13/07

CONDITIONS OF IMPROVEMENT PERMIT for an ALTERATION TO AN EXISTING ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit Number: 18216 Tax Number: 217-172-24

- 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

Primary Wastewater System

Type: ☐ 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:

0.3 Long-term acceptance rate (GPD/ft^2)	600 Max gallons/day wastewater flow	2000 Absorption Area (ft^2)	9 Trench spacing (min. on centers) (ft)
Serviced by private well: ☒ Yes ☐ No	1500 Gallon septic tank	330 Total trench length (ft)	36 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
5 Bedrooms in residence	1500 Gallon pump tank	24 Depth of media (in)	

Any surface water present: **No** Type: Minimum separation distance (ft):

Additional conditions: **100% Repair Not Required**

Repair Area System

Type: ☐ 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:

____ Absorption Area (ft^2) ____ Total trench length (ft)	__ Depth of media (in)	__ Trench spacing (min. on centers) (ft)	__ Maximum trench depth (in)

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. The approval is granted in accordance with the provisions of Laws and Rules For Sewage Treatment, and Disposal Systems 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 Approval is granted by this Department.

*** This Improvement permit is transferable.

3-1-07
DENR Authorized Agent Date

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

3/2/07
Owner/Agent Signature Date

NC DENR
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

~~Phillo~~ Chris
#3417

GWS – RES. APP 07/05

SEPTIC FEE: 300.00
DATE: 2/14/06
CRT [ ] Check # 1004
JKA

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

FILE # 18216

WELL FEE:
DATE:
CRT [ ]

SEPTIC / TYPE APPLICATION: ☐ NONE ☐ NEW SYSTEM ☑ ALTERATION ☐ REPAIR ☐ MODIFY PLOT PLAN

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

JOB LOCATION INFORMATION:

TAX/PARCEL #: 217-172-24
STREET ADDRESS: 13326 Hideaway Rd.
CITY: Charlotte
STATE: NC ZIP: 28278
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #:
TOWNSHIP: Steele Creek

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

BUILDING INFORMATION:

TYPE OF BUILDING:
☐ SINGLE MOBILE HOME (S) ☐ MODULAR HOME (M)
☐ DOUBLE WIDE (D) ☐ MULTIPLE FAMILY (U)
☑ HOUSE (H) ☐ OTHER

HEATED SQUARE FOOTAGE: 2800
NUMBER OF BEDROOMS: ~~3 + 2~~ = 5
NUMBER OF OCCUPANTS: 1

FOUNDATION FOR RESIDENCE:
☑ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☐ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:

NUMBER OF BEDROOMS TO BE ADDED: 2 NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: 3
WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☑ NO TYPE:

WATER SUPPLY:

☐ MUNICIPAL (M) ☐ PUBLIC (C) ☑ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER 'SPRINGS' (O)

PROPOSED USE OF WELL: ☐ N/A ☐ IRRIGATION ☑ POTABLE ☐ GEOTHERMAL ☐ OTHER

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES	☑ NO	WELLS, SPRINGS, OR WATER LINES	☑ YES	☐ NO
EXISTING WASTEWATER SYSTEMS	☑ YES	☐ NO	DESIGNATED WETLANDS	☐ YES	☑ NO
EASEMENTS OR RIGHT-OF-WAYS	☐ YES	☑ NO	GRADING/SOIL REMOVAL PERFORMED	☐ YES	☑ NO

PROPERTY OWNER:

NAME: Robert J. Teller (provisional Owner) - under Contract -
ADDRESS: 3500 Providence Manor Rd.
CITY: Charlotte
STATE: NC ZIP: 28270
HOME PHONE: ——— WORK PHONE: ———
MOBILE PHONE: 704-622-7071 FAX: ———

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

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

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?

WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

*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.

Robert J. Teller 2/13/06
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

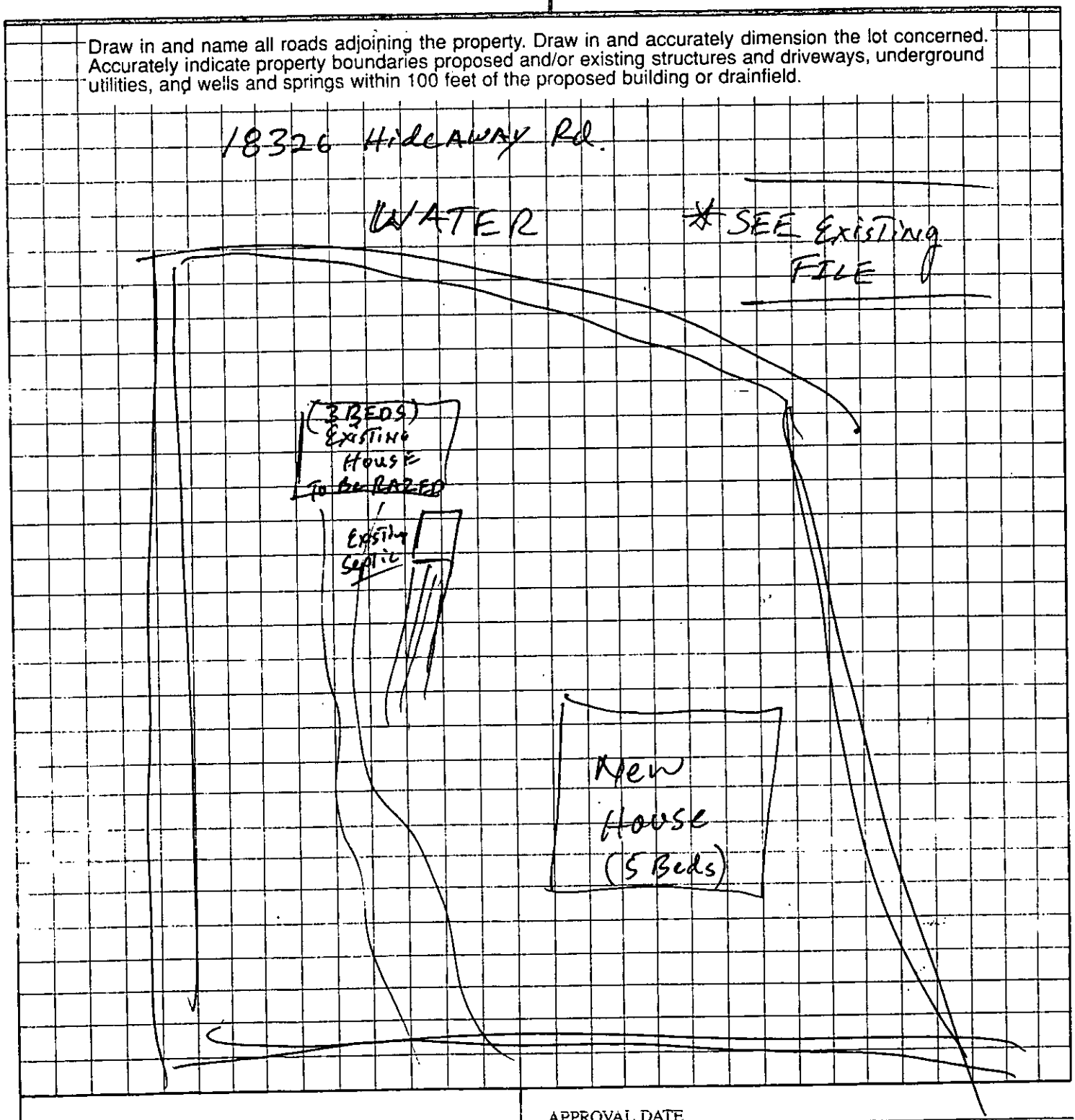
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5103

FILE: 18216

TC: 217-172-24

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.



APPROVAL DATE _____

OWNER/AGENT SIGNATURE

DATE 2/13/06

White - Health Department's Copy

Canary - E.H.S. Copy

Pink - Owner's Copy

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

Sheet: 1 of 2
Property ID: 217-172-24
Lot #:
File #: 18216
Code: 3

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Robert J. Teller
Applicant: Same
Address: 3500 Providence Road, Charlotte, NC 28270
Date Evaluated: 2/21/2006
Proposed Facility: Residence
Design Flow (.1949): 600 gpd
Property Size: .75a
Location of Site: 18326 Hideaway Rd
Property Recorded:
Water Supply: [ ] Public [ ] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 10	0-6	GR/CL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	>48"	NA	NA	PS, IV
		6-48	SBK/C	FI/S/P/SEXP					.3 GPD/FT^2
2	"	0-7	GR/CL	FR/SS/SP/SEXP	"	"	"	"	"
		7-48	SBK/C	FI/S/P/SEXP					
3	"	0-22	M/FILL		"	~~>48"~~	"	"	US
		22-48	SBK/C	FI/S/P/SEXP					
4	"	0-2	GR/CL	FR/SS/SP/SEXP	"	>48"	"	"	PS, IV
		2-48	SBK/C	FI/S/P/SEXP					.3 GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	~~PS~~	~~PS~~
System Type(s)	IV A	IV A
Site LTAR	.3 GPD/FT^2	.3 GPD/FT^2

Other Factors (.1946):
Site Classification (.1948): Unsuitable
Evaluated By: Chris Sherrill, RS, LSS
Others Present: Bob Teller

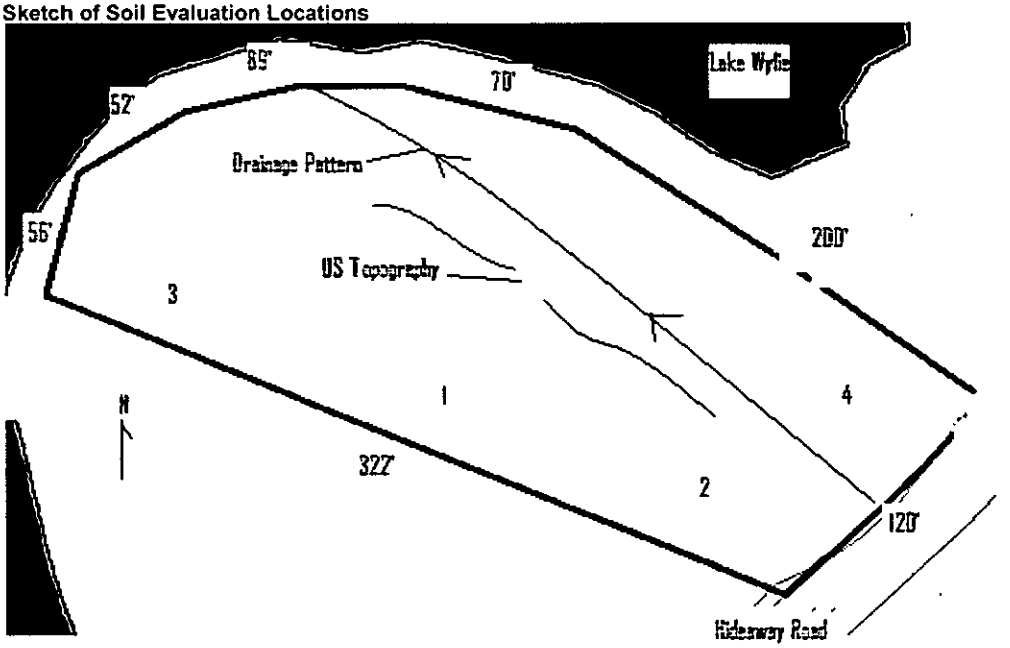
3-10-06

COMMENTS: 100% Repair Area

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

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

Sketch of Soil Evaluation Locations



DESIGN SPECIFICATIONS

(Lot 38A Hideaway Road)

Daily design flow:	600 gpd.
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1500 gal.
Effluent loading rate, Initial system	0.3 gpd/ft^2
Effluent loading rate, Repair system	not required
Total length and diameter of supply pipe:	approx. 20 ft. 2" SCH 40 PVC)
Number and length of laterals:	6 end-fed, 3@60', 3@51' (1¼ SCH 40 PVC total 330')
Hole size:	5/32"
Hole spacing:	1 per panel
Total number of holes:	77 (one in each T & J Panel near the center with the hole turned up) (approx. 1 panel per 54" of run)
Flow rate through the system:	38.5 gpm
Elevation head:	Approx. 18' (to be verified by installer)
Pressure head:	3.0'
Friction head:	2.0'
20% contingency	5.0'
Total head:	28'
Pump requirements:	38.5 gpm at 28.0' of head; use Goulds WEO 5HH pump or equivalent with compatible electrical
Dosing volume:	277 gal. – 2.17 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. 7.8 min
Check valve:	Yes
Siphon break hole:	No

* Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

PPBPS Design Worksheet							File #:	18216
							Tax #:	
System Requirements							Address:	18326 Hideaway Rd. Lot 38A
Design Flow	600	gpd						
LTAR	0.300	gpd/ft.^2					Consultant:	S&ME
Linear footage	667	ft. (conventional)					Phone:	704-662-8625
Linear footage	333	ft. (50% Reduction)						
							Reviewed By:	T. Thomason
Design Layout							Date:	2/14/07
Laterals	Length (ft)	# Panels	Calculated					
Line # 1	60	14	13.85		T & J Panels			
Line # 2	60	14	13.85		Linear Feet	# Panels		
Line # 3	60	14	13.85		20	5		
Line # 4	51	12	11.77		30	7		
Line # 5	51	12	11.77		40	9		
Line # 6	51	12	11.77		50	11		
Line # 7	0	0	0.00		60	14		
Line # 8	0	0	0.00		70	16		
Totals	**333**	**78**	76.85					
Absorption Area								
Length (ft)	Width (ft)	Area (ft^2)						
333	3	999						
System Pressure Head	3	ft.	Value selected by system designer (must be between 2-5 ft.)					
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)					
Flow Rate per Orifice	0.5	gpm	Determined from orifice flow design table (value dependent on pressure head & orifice diameter)					
Total System Flow Rate	39	gpm	Total number of panels required multiplied by the orifice flow rate					
System Dose Volume	280.80	gal.	Total number of panels required multipled by 3.6 gal./panel					
Pump Run Time	7.20	min.	System dose volume divided by the total system flow rate					
Pump Tank Drawdown	9.68	in.	1,000 gal. Pump tank, volume is approximately 21 gallons per inch					
			1,500 gal. Pump tank, volume is approximately 29 gallons per inch					
Comments:								
1. Install system using 2 ft. wide trenches.								
2. Install drainlines on 9 ft. centers, level, and on contour.								
3. System design requires effluent pump for distribution.								
4. 100% Repair area is not reguired.								

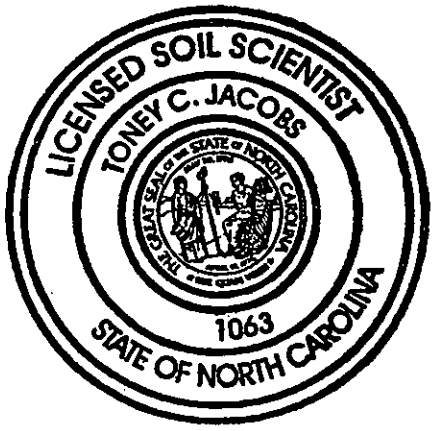
RESIDENTIAL LOW PRESSURE T & J PANEL SEPTIC SYSTEM FOR SUBSURFACE WASTEWATER DISPOSAL 18326 HIDEAWAY ROAD - LOT 38A MECKLENBURG COUNTY, NC

MCHD FILE # 18216

Prepared for:
Robert J. Teller
3500 Providence Road
Charlotte, North Carolina 28207

Prepared by:
S&ME, Inc.
385 Timber Road Suite 104
Mooresville, North Carolina 28115
office (704) 662-8625
fax (704) 662-8735

February 12, 2007
Revised February 26, 2007



Copy: √ Mr. Chris Sherrill, R.S.
Mecklenburg County Health Dept.-IWWS
700 N. Tryon Street
Charlotte, N.C. 28202

Toney C. Jacobs, LSS

BACKGROUND

This lot is a pre-1982 plat and does not require 100% repair (1975 enclosed). There is an existing house which will be expanded to 5 bedrooms with a new system.

S&ME designed and planned the proposed system. Due to the limited available space on the lot, a T & J panel block system with 333 feet of line for the primary system. Some repair remains and with pretreatment an additional 25 feet in the 50' buffer could also be used for repair. The proposed system will be a Type IV and require a maintenance contract with a certified operator.

APPLICATION INFORMATION

1. Prepared for:

Owner:	Robert J. Teller 3500 Providence Road Charlotte, North Carolina 28207
Soil Scientist and Designer:	Toney C. Jacobs, LSS S&ME, Inc 385 Timber Road Suite 104 Mooresville, NC 28115 (704) 662-8625 (Office) (704) 662-8735 (fax)

2. Water supply is provided by an on-site well (shown on site plan).
3. Facility to be served by the proposed system is a 5-bedroom single family residence.

LOCATION

The property is located off Youngblood-Snug Harbor-Hideaway, near the end of Hideaway.

REFERENCES

Design and Installation of Low Pressure Pipe Waste Treatment Systems by: Craig Cogger, Bobby L. Carlile, Dennis Osborne, Ed Holland; published by UNC Sea Grant College Pub. UNC-SC-82-03, May 1982.

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

T & J Design Manual

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 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 qüick 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.
6. Lateral lines are made of 1 1/4 inch SCH 40 PVC placed in T & J panels. Holes in laterals are drilled on-site.
7. The end of each lateral is equipped with a capped "turn-up" that provides above ground access for clean-out or back flushing of the laterals. Using (2) 45-degree elbows rather than a 90-degree elbow for the turn-ups will make clean-out easier.

CONSTRUCTION INSTALLATION

Site Preparation

1. One of the most important concerns for an on-site system is to protect the site from soil disturbance. This site will have supervised grading and leveling of the field area. No equipment should be back on drainfields until installation of septic system. Arrange site visit with MCHD and/or TCJ & Assoc. (704-663-6905) two days before grading for grading supervision.
2. The absorption field area has been designed. It should be roped off and protected from construction traffic.
3. The site is clear of brush and small trees. No additional site disturbance should be necessary.

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 manifold is shown on attached diagrams.
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.

T & J Lateral Lines

1. Install T & J Panels per cited reference material and this plan.
2. Trenches shall be 36" wide, and 9' minimum on center. Trenches shall be "level" from end to end.
3. There should be one 5/32 inch hole near the center of each panel, pointed up. (Note this system uses five valves; one on each lateral.)
4. A short turn-up with a capped end is at the end of each lateral. The capped end must be brought up above or flush with the final grade. Using two 45-degree elbows for constructing cleanouts is recommended. A larger diameter sleeve with cap or approved box with lid shall be placed over the turn-up.

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 turned-up elbow 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 onto the turn-ups at the end of each lateral.
   - Replace each turn-up cap with the pipe and adapter.
   - Turn the power on to allow liquid to rise in the pipe.
   - Adjust the gate valves until the effluent reaches the desired height in the pipe. Remember to include the distance below the ground surface to the lateral line when measuring the height.

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 and competent contractor. Critical stages of the installation, which should be checked, are:

1. System layout and careful cutting of the top to get a consistent slope on the landscape.
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 IV and DOES require a maintenance contract with a certified operator. The contract shall be executed between the system owner and a management entity prior to the issuance of an Operation Permit. The contract shall include the specific requirements for maintenance and operation, responsibilities of the owner and system operator, and provisions that the contract shall be in effect for as long as the system in use.

Operating, Maintenance and Inspection procedures shall include, but not be limited to the following:

- Minimum inspection/maintenance frequency shall be 2 times per year, with reporting frequency every 6 months to the local health department.
- 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.
- All laterals shall be checked and, if necessary, flushed annually with clean water.
- Pressure head for laterals should be checked and adjusted one month after installation and semi-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.

The system operator, in conjunction with the local Health Department shall establish an operation and maintenance program and procedure based on experience obtained from similar installations.

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

(Lot 38A Hideaway Road)

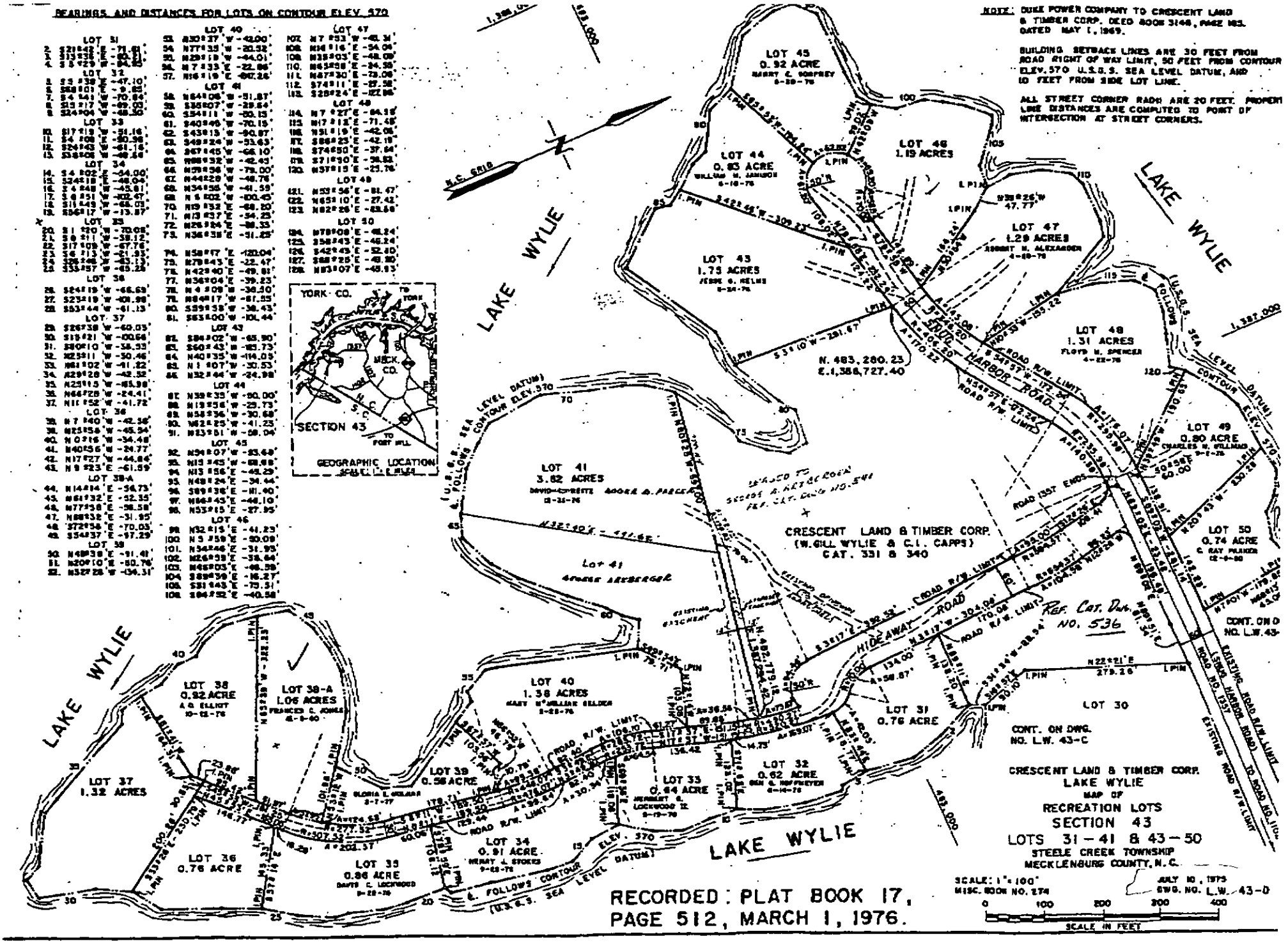
Daily design flow:	600 gpd.
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1500 gal.
Effluent loading rate, Initial system	0.3 gpd/ft^2
Effluent loading rate, Repair system	not required
Total length and diameter of supply pipe:	approx. 20 ft. 2" SCH 40 PVC)
Number and length of laterals:	6 end-fed, 3@60', 3@51' (1¼ SCH 40 PVC total 330')
Hole size:	5/32"
Hole spacing:	1 per panel
Total number of holes:	77 (one in each T & J Panel near the center with the hole turned up) (approx. 1 panel per 54" of run)
Flow rate through the system:	38.5 gpm
Elevation head:	Approx. 18' (to be verified by installer)
Pressure head:	3.0'
Friction head:	2.0'
20% contingency	5.0'
Total head:	28'
Pump requirements:	38.5 gpm at 28.0' of head; use Goulds WEO 5HH pump or equivalent with compatible electrical
Dosing volume:	277 gal. – 2.17 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. 7.8 min
Check valve:	Yes
Siphon break hole:	No

* Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

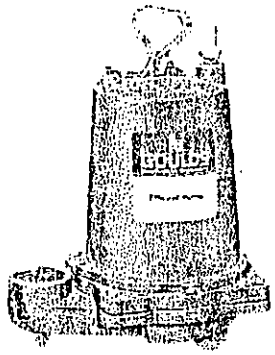
LIST OF ATTACHMENTS

1. Old CRI plat map
2. Site plan with topo and existing structure
3. Pump curve
4. Gate valve box detail
5. Pump tank detail
6. Trench detail
7. Mecklenburg County soil evaluation

Feb.13 '07 1:16 FAX P. 3



GOULDS PUMPS



Submersible Effluent Pump

MODEL

3885

PROSURANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.

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 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

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.

■ **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.

■ **Fasteners:** 300 series stainless steel.

■ Capable of running dry without damage to components.

■ Designed for continuous operation when fully submerged.

MOTORS

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

■ **Class B insulation.**

Single phase:

- Built-in overload with automatic reset.
- All single phase models feature capacitor start motors for maximum starting torque.
- ⅓ and ½ HP – 16/3 SJTOW with 115 V or 230 V three prong plug.
- ¾-2 HP – 14/3 STOW with bare leads.

Three phase:

- Overload protection must be provided in starter unit.
- ½-2 HP – 14/4 STOW with bare leads.

■ **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. 20 foot standard with optional lengths available.

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

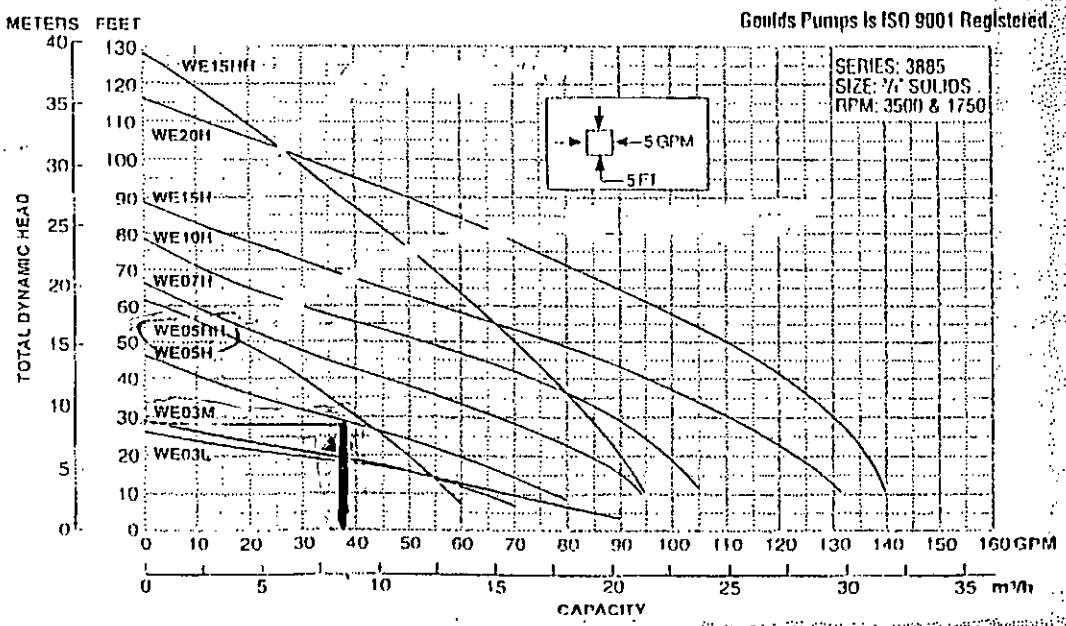
■ Consult factory for information on CSA listed models.

AGENCY LISTINGS

Canadian Standards Association File #LR38549

Underwriters Laboratories File #83318

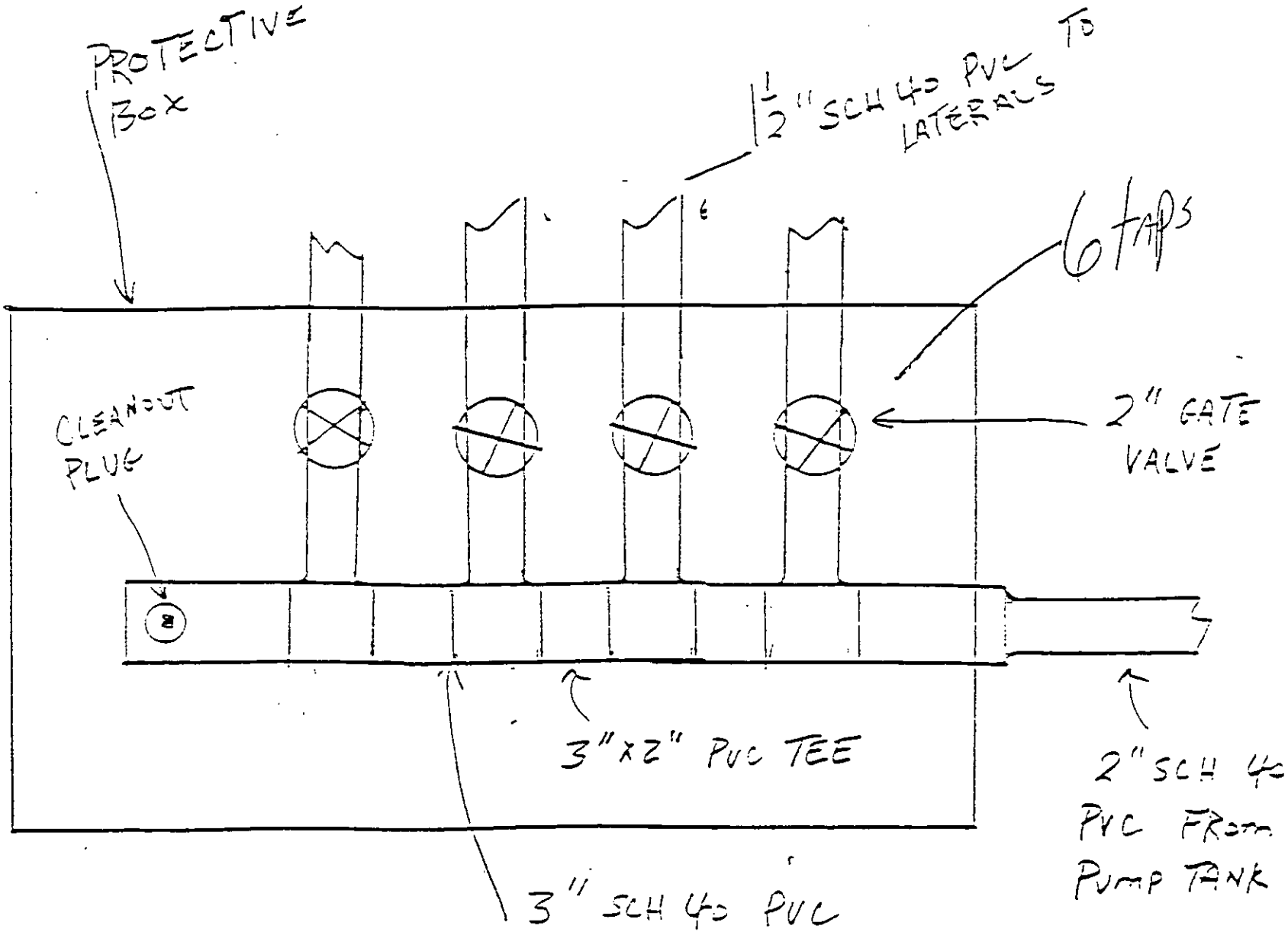
Goulds Pumps is ISO 9001 Registered.



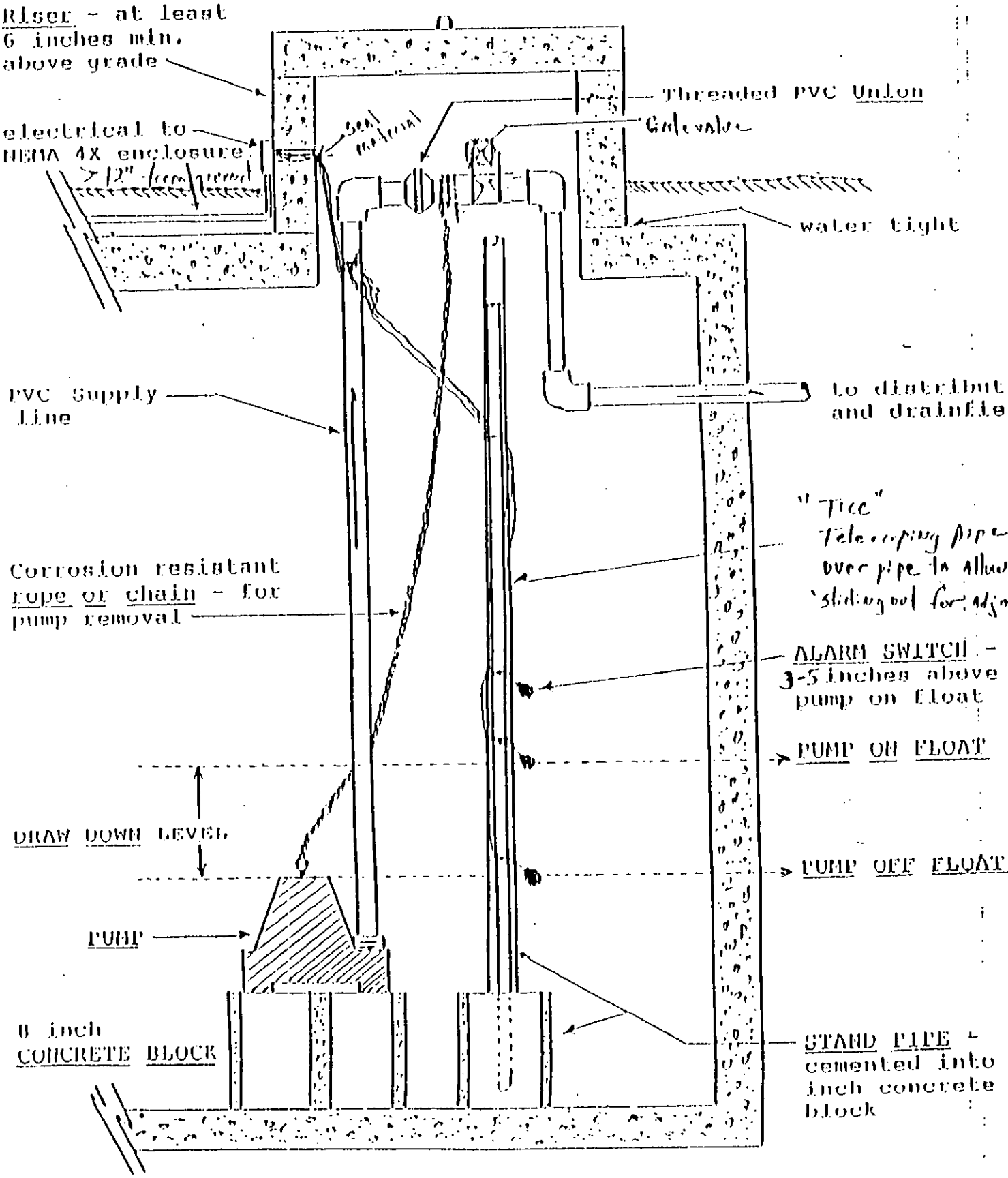
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Effective January 1999
B3885

Goulds Pumps
ITT Industries

CENTRAL VALVE BOX DETAIL



PUMP DIAGRAM



Design, Installation and Maintenance

of the

T & J Panel Wastewater Treatment System

For

Environmental Health Specialist

And

Septic Tank Installers

Although this manual is sectioned for specific user groups, we at T & J Panel suggest that you familiarize yourself with the complete manual. Fifth Edition.

ENVIRONMENTAL HEALTH SPECIALISTS

System Design

In the early days of the T & J Panel system when it was still Considered an experimental system the primary reason for permitting the Panel System was because of insufficient space for a conventional system. Now with inclusion in the Sewage Regulations [10NCAC 10A .1956 (3) (a) (ii)] , the Panel System should be considered when a quality effluent may be needed, space is limited, usable soil is limited, or there are indications that at some future time space may be needed for other development. When there is a trend for added development such as additions to homes, pools, or other special landscaping development the T & J Panel System may prevent insufficient space later. As the environmental health specialist who is designing a system, and you can foresee such a trend of continued development, the Panel System may be an option the home owner would like to utilize.

As noted in the regulations a PPBPS is only permitted where soils are suitable, provisionability suitable, or reclassified provisionability suitable, however only one half of the area needed for a conventional system is required. This is one reason that the Panel System can help you use the best soils available on the lot. The system can be gravity fed, pumped to pressure manifold and gravity fed into the lines, or pumped to Low Pressure Panel lines. Most of the concepts for a Panel System layout are the same as for a conventional system. The biggest difference being the areal area needed and the quality of effluent being introduced into the ground.

The T & J Panel system can be installed as either gravity, pump to gravity, pump to pressure manifold, or low pressure pipe distribution system. When designing a pressure system the principles of low pressure distribution are as described in the LPP manual. There is futher discussion on pressure systems in the installer section of this manual.

Conversion

A three bedroom house with a 0.4 gpd application rate. (The first three steps are the same as for the conventional system.)

1) 120 gallons per bedroom x 3 bedrooms = 360 gallons per day design flow rate.

2) 360 gallons flow rate / 0.4 application rate = 900 sq. ft. of conventional trench bottom.

3) 900 sq. ft. / 3 ft. wide trench = 300 lineal feet of conventional system.

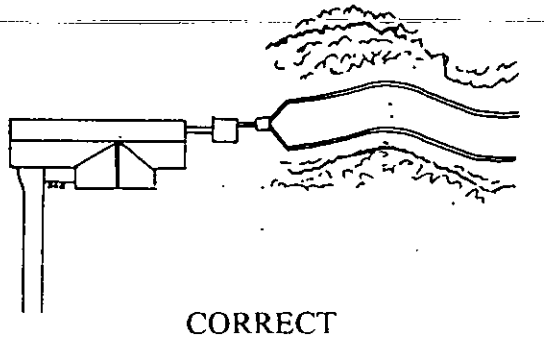
This conventional layout requires 2700 sq. ft. of area on the lot with another equal area of repair space for a total of 5400 sq. ft. of suitable usable area. To calculate the size of the T & J Panel system , the above calculations must be made with an additional fourth step as described in 10NCAC 10A .1956 (3) (a) (ii) (B) for a PPBPS, (the T & J panel system).

4) 300 lineal feet of conventional system x 0.5 for a 16 inch high Pane System = 150 lineal feet of T & J Panel System.

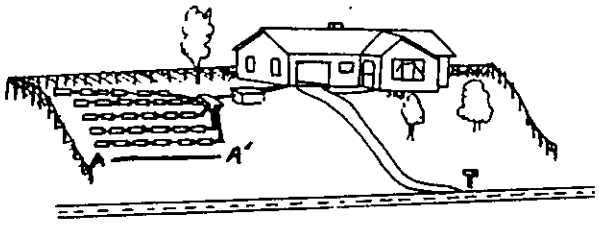
A Panel System requires only a 1200 sq. ft. area on the lot for the system with an equal area for repair, for a total of 2400 sq. ft. . With the panel system the installation and repair can go into the same area as the initial area required for a conventional gravel trench system.

Window Effect

To prevent hydraulic overload in the soil areal space should always be a consideration for any system, however, it is especially notable with the Panel System as with any system that reduces the size of the areal area drainfield. The following is a simplistic example of this concept.



CORRECT

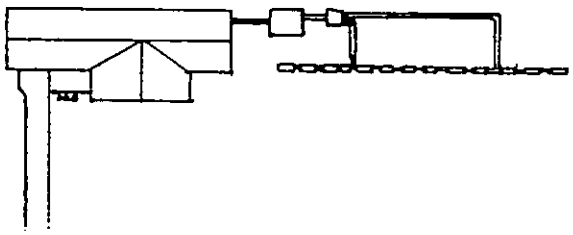


INCORRECT

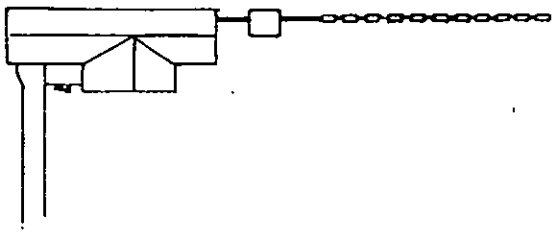
While both systems have the same lineal footage of trench the incorrect diagram is not a desirable design. The effluent must pass through the area A-A' which can cause a strain on that area and even a failure because of hydraulic overloading.

Distribution

Another extreme would be the use of a long single trench fed from only one end. In the first example, below the areal space is good and the chance of hydraulic over loading is greatly reduced. However, downline distribution in the panel line will not give optimum treatment.



CORRECT



INCORRECT

In the lower example we see that the trench has been fed from multiple points. Because the Panel lines are put in as level as possible, never exceeding 1/4 inch of rainfall in 10 feet of run, they feed both ways equally. T & J recommends that no gravity line exceed 50 feet, unless it is fed from multiple points. In both of these examples, we are specifying the Panel System, but the logic applies to the conventional system as well.

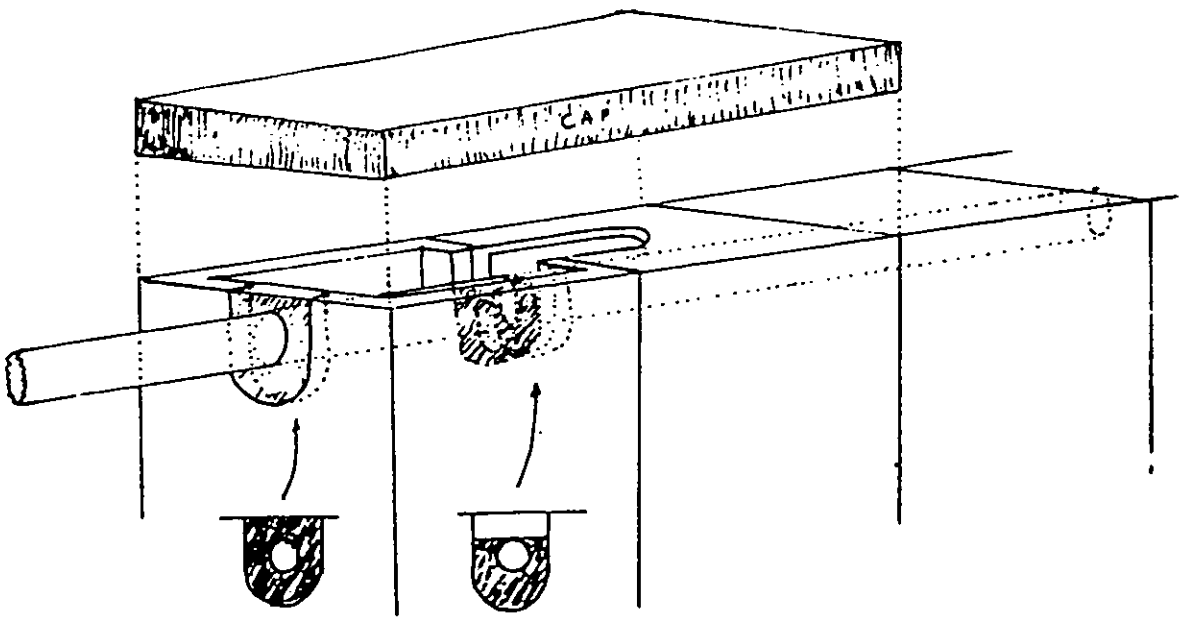
To calculate the number of 16 inch high panels needed for a 150 foot line, multiply 150' x 12" = 1800" then divide by 52" which is 46 inches for the panel and 6 inches for the space between the panels in the trench. 1800" /52" = 34.6 panels, so you would call for 34 panels. (A material order chart is included in the installer section of this manual.) If there is to be more than one trench, the sizing of the lines should be as equal as possible with as close to the same number of panels in each trench as is practical. Environmental Health Specialists should show the panel as small blocks on the line of the trench.

Backfill

Backfill sand shall be a clean, washed, medium sand that is naturally occurring and falls within the gradation of ASTM C-33 specification. This specification is one that is used in the ready mix industry and is readily available in all areas. The second type of sand that you will need is a clean particle sand to coat the bottom of each panel's top chamber with a bed of sand one inch thick. This sand is a medium grade of sand blasting sand. Each one hundred pound bag should cover eight panels. Backfill sand calculations should be taken from the material sheet.

Tar Seals

The two drawings below illustrate the inner and outer seal. Note that while the outer seal is a complete seal, the inner seal is only up to the top of the connecting pipe. This is to allow for over flow of the effluent at peak use periods into the lower air chambers. At this point the air chamber become additional storage chambers for the effluent. These seals can be inspected by lifting the caps at the ends of the panels while inspecting the system installation



INNER and OUTER SEALS

Trench Preparation

Trench grade should be established so that backfill cover will be four to six inches over the tops of the panels. (Note on several slopes system depth should be adjusted to protect against brakeout of effluent) In clay type soils the trench side walls should be raked to bring slicked over areas back as near to original structure as possible. A light dusting of lime on the side walls will help the system to continue the brake down of solids.

Final Inspection

The following list of points are things that an inspector should look for when issuing a completion permit.

1) Is depth of the panels within guidelines?

2) Are drain lines level or less than 1/4 inch fall in ten feet?

3) Have seals been properly constructed?

4) Was the proper sand used in the trench backfill?

5) If in clay type soils were the side walls raked and limed?

(For Pumped Systems)

6) Have pump size, head pressure, and dose cycle been properly sized and set?

7) Record field data on operations permit.

(Set dose cycle for 3.6 gallons per 16 inch high panel.)

Installer

The Panel Block System

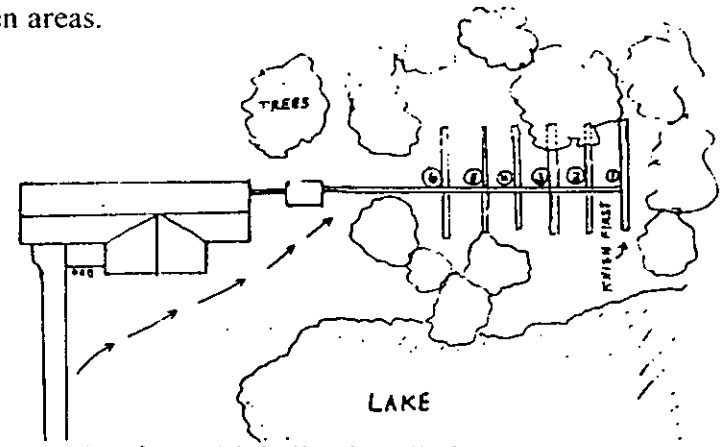
Generally, on level open land, a Panel System can be installed in about the same time as a conventional system; however traditionally, Panel Systems have been installed where space and topography have restricted use of a conventional system. For this reason Panel System installations have required more time. Many installers enjoy the change of working with panels, not handling gravel, and the satisfaction of knowing a system being installed where previously a conventional system was not possible.

Ordering Materials

Inclosed on following two pages you will find an order sheet for the T & J Panel System and a materials chart for 16 inch high Panel System. The distributor in your area will lead you through these sheets when ordering or pricing the system. For information on the distributor located closest to you call 1-800-222-2577 (inside N.C.) or 704-872-9566. After ordering, your panels will be shipped to the job site banded together on pallets.

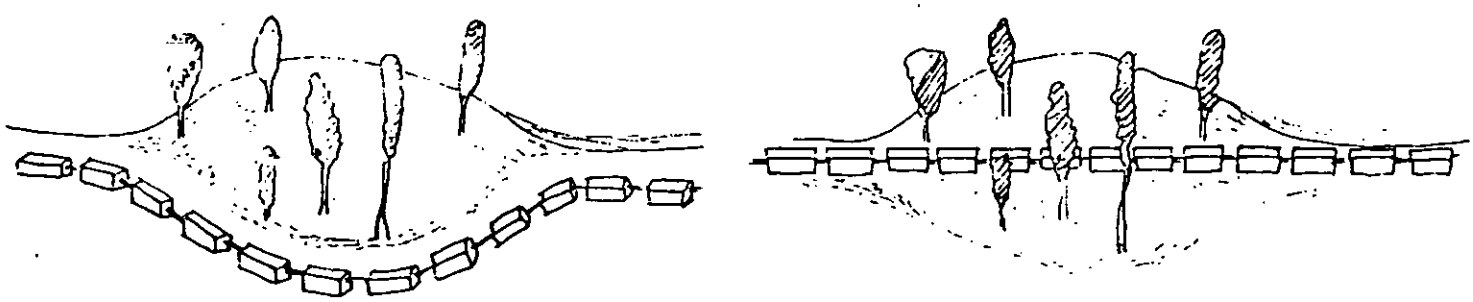
Installation Tips

Installation for multiple line systems should begin in the most confiding area and be worked to the more open areas.



Above is an example of a multiple line installation. As you can see the installation should begin with the line marked 1 and proceed to 2, 3, then 4. This procedure will greatly ease material handling and backfilling. (Note sections of the drainlines should be left uncovered to allow for inspection of lines when area is confined and return access to lines is limited.)

On the following page are two examples of drain lines on sloping lots. The first drawing shows the drainline going through a slope making the center of the line deeper in the ground. This is not a desirable situation. The second drawing shows the drainline going around the slope keeping around the slope keeping the trench depth and cover uniform for the entire length o the line. On slopes, care should be given to avoid cutting away valuable top soil in an effort to make straight lines. The Panel line should be installed on grade with the contour of the natural slope. Panel lines can be curved to almost any degree.



CORRECT INCORRECT

Digging The Trench

Start by shooting the grade and marking the contour. Then for a 16 inch panel add 28 inches to the shallowest or lowest grade that the trench must cross to obtain the trench bottom grade. Now dig the trench at the elevation derived, checking the grade frequently. The trench should be a minimum of two feet wide. With the trench open all side walls shall be raked to bring smeared areas back to their original structure before a light dusting of lime is applied. Now place a 6 inch layer of backfill sand in the trench and level to grade, then place a 1 x 4 or 6 inch board flat on its side on top of the 6 inch layer of sand. Once more check the grade of the trench by shooting the top of the board. Once the grade boards have been set, the panels may be set into the ditch by hand or using the backhoe. Each panel weighs about 155 pounds and placement by hand goes quickly. The panels should be place about 6 inches apart in the trench to obtain equal spacing. Now place 10 to 12 pounds of clean particle sand (medium sand blasting sand) in the top chamber of each panel to form a bed of sand about one inch thick. Tar seal rope should be placed in the U outs to form seals as shown in earlier drawings. Once the tar rope is in place, a 24 inch section of two inch PR160 pipe is cut to span from the upper middle top chamber of the first panel to the upper middle chamber of the next panel. The tar seal rope that is used should be of tar or butyl that is soft and pliable to obtain a water tight seal. Now that the connection and sealing is complete a block cap is placed on each end of the panel covering all openings. (These will be delivered with the panels.) The cap block may well serve as an inspection port at some future date. The trench is ready to be backfilled to the top so the panel with the same backfill sand used in the trench bottom. With the sand to the top of the panel, trenches should be left for the sanitarian to inspect. Soil cover should be added after the final inspection.

Most Panel Systems are currently used due to space considerations and caution should be taken to preserve suitable soil structure and site conditions.

Materials Chart For 16 Inch Panels

Materials needed per panel:

- Three feet of half inch tar seal rope per panel

- Two feet of two inch PR160 pipe per panel or same linear feet as line layout of pressure system of one and a quarter inch pipe. Add pipe for tie in of lines to tank and house.

- One hundred pounds of particle sand (sand blasting sand fine texture) per eight panels.

- Same linear feet of one by six boards as line length.

- Bag powder lime when in clay soils.

Panel and C-33 Sand fill

50 LF - 11 panels
8 1/4 tons sand

60 LF - 14 panels
10 tons sand

70 LF - 16 panels
11 1/2 tons sand

80 LF - 18 panels
13 1/4 tons sand

90 LF - 21 panels
15 tons sand

100 LF - 23 panels
16 1/2 tons sand

110 LF - 25 panels
18 1/4 tons sand

120 LF - 27 panels
20 tons sand

130 LF - 30 panels
21 1/2 tons sand

140 LF - 32 panels
23 tons sand

150 LF - 34 panels
25 tons sand

160 LF - 37 panels
26 1/2 tons sand

170 LF - 39 panels
28 tons sand

180 LF - 41 panels
30 tons sand

190 LF - 43 panels
31 1/2 tons sand

200 LF - 46 panels
33 tons sand

T & J Panel Material Worksheet

Homeowner _____ County _____

Address _____

_____

Description of System _____

_____

_____

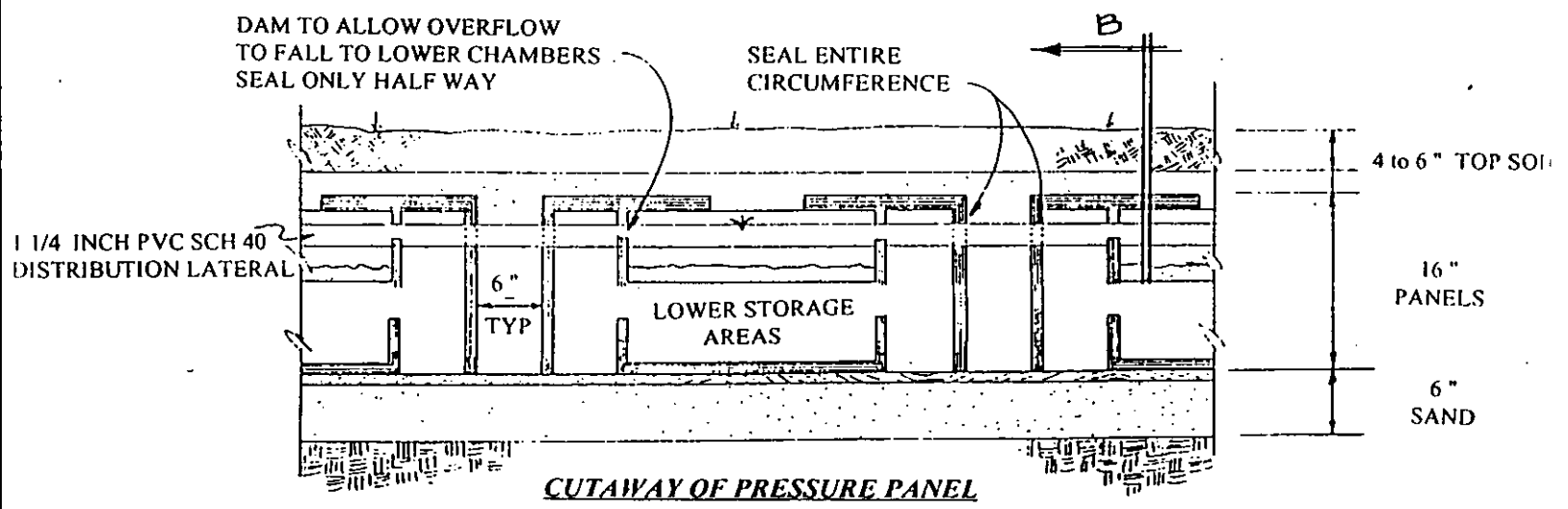
_____	T & J Panels _____ Inch (caps N/C)	_____
_____	2" Pipe	_____
_____	1 1/4" Pipe	_____
_____	Fittings for Pipe	_____
_____	Tar Seal Rope (3' per Panel)	_____
_____	Bag Partial Sand (100 lbs per 8 panels)	_____
_____	Pallets (Returnable)	_____
_____	Screened Creek Sand (FM 2.3 to 3.0)	_____
_____	1x4 or 1x6 Boards	_____
_____	Power Lime	_____
_____	Sep. Tank _____ Gallon	_____
_____	Tar Seal for Tank	_____
_____	4" PVC Pipe Schedule 40	_____
_____	Distribution Box	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
	Sub-total	_____
	Delivery Charge	_____
	tax	_____
	Total	_____

Panels With Pressure Distribution

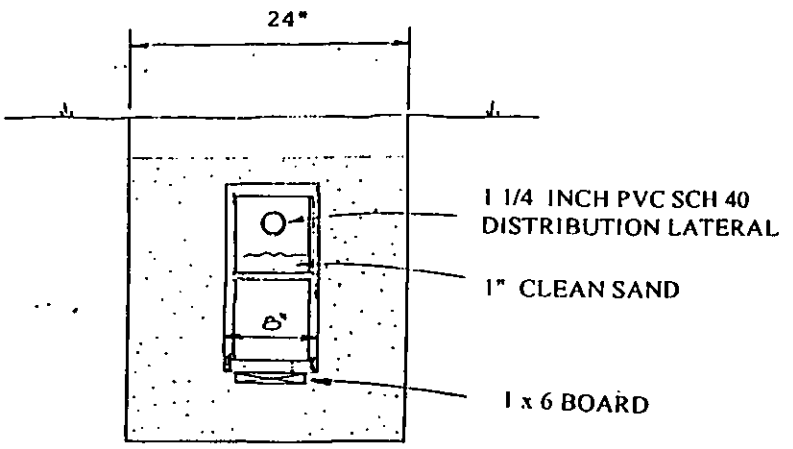
The LP Panel uses Technology similar to that of Low Pressure Pipe (LPP) System. The tables and distribution design described in the LPP manual is applicable to the pressure Panel System. The system should be used with two to four feet of head. In many respects a LP Panel is similar to a LPP with the holes discharging into the panels.

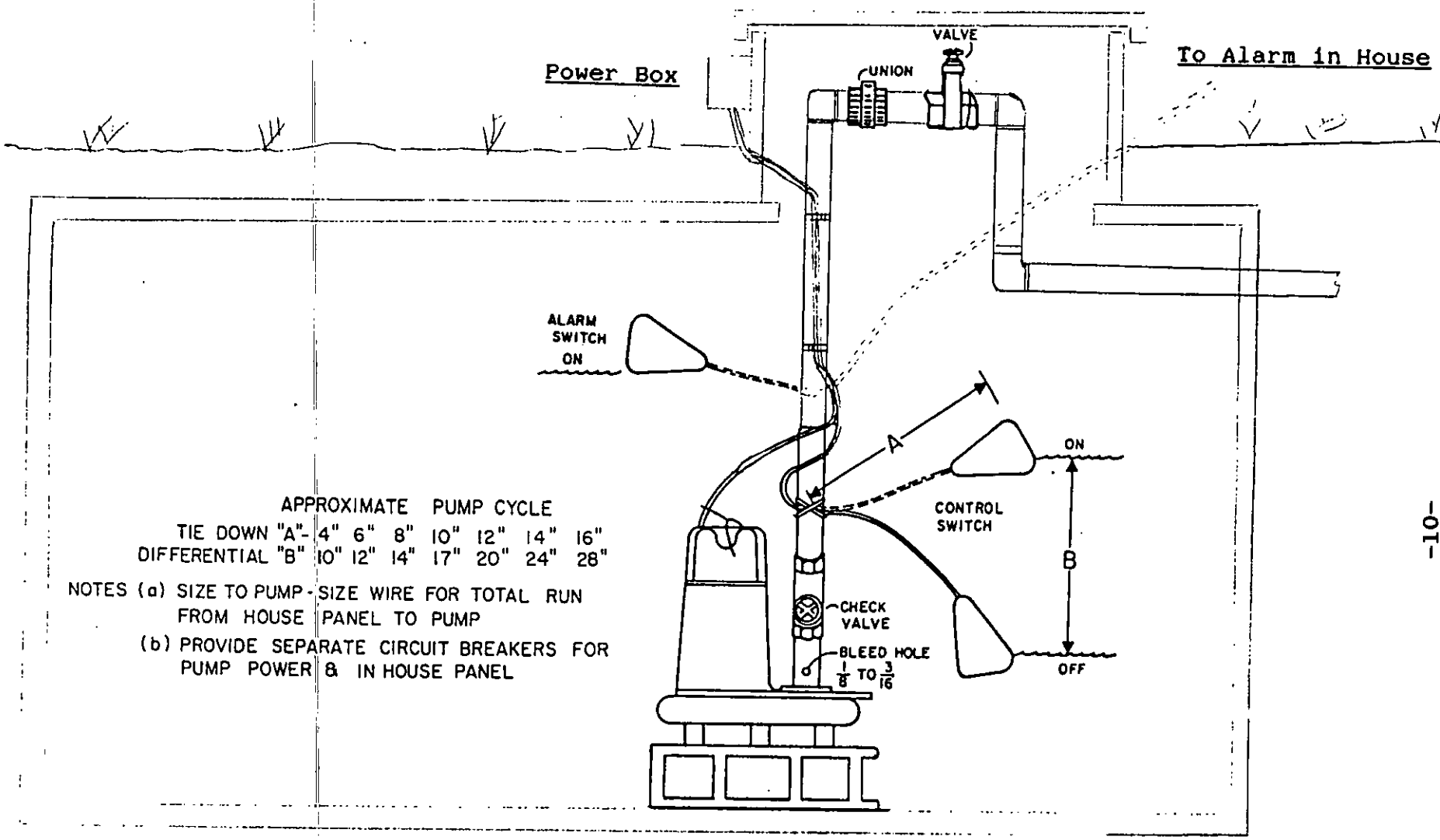
The dosing cycle for the Panel System is designed to pump enough effluent to fill the top chambers of all the panels in the system. The top chamber of a 16 inch panel hold 3.6 gallons. When the system has 34 panels and all holes are the same size, then you would multiply 34 x 3.6 to get 122 gallon per dose cycle. The holes are drilled in the distribution pipe at the 10 and the 2 o'clock position. These are then placed so that the effluent is pumped into the top chamber of the panel. If the hole sizing changes in the system the pump cycle is set by the hole that is discharging the fastest.

All valves and turnups should be neatly capped, covered and labeled for future service. Pump tanks should be constructed as shown in the drawing as to allow for service and repairs.



CUTAWAY OF PRESSURE PANEL





APPROXIMATE PUMP CYCLE

TIE DOWN "A"	4"	6"	8"	10"	12"	14"	16"
DIFFERENTIAL "B"	10"	12"	14"	17"	20"	24"	28"

NOTES (a) SIZE TO PUMP - SIZE WIRE FOR TOTAL RUN FROM HOUSE PANEL TO PUMP

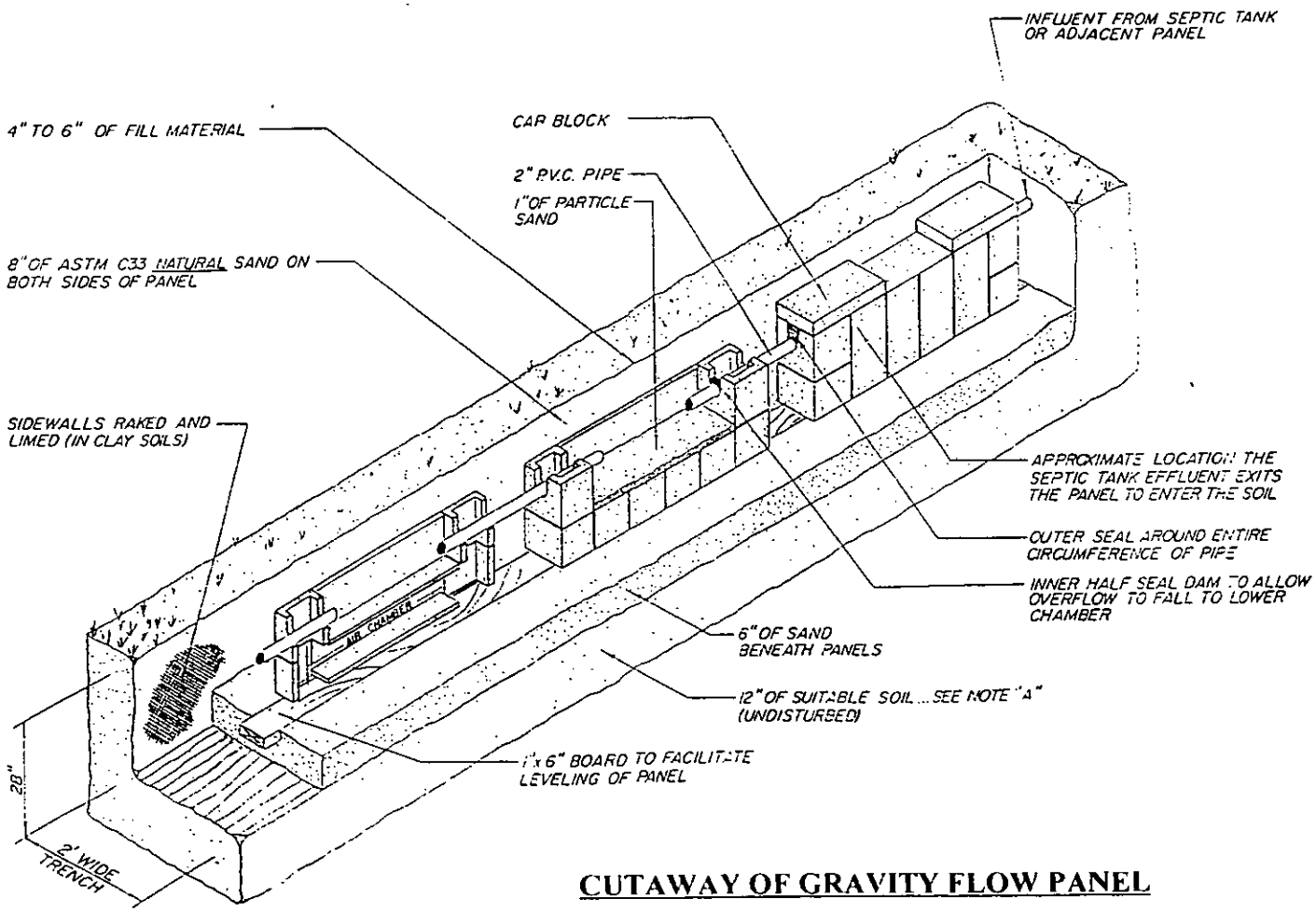
(b) PROVIDE SEPARATE CIRCUIT BREAKERS FOR PUMP POWER & IN HOUSE PANEL

THE T. & J. PANEL
WASTE WATER TREATMENT SYSTEM

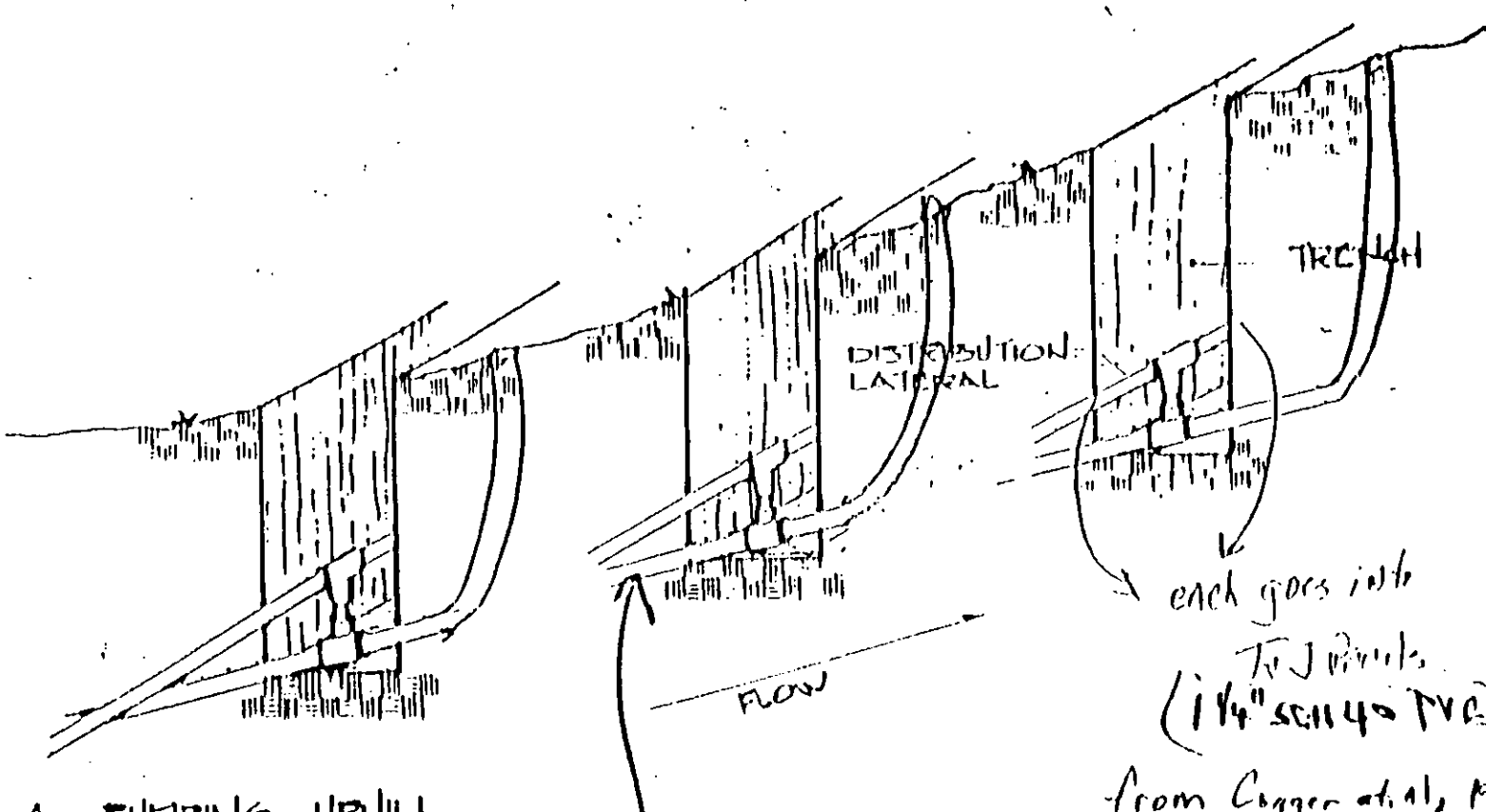
PATENT NUMBER 4013559

P.O. Box 288 • Statesville, North Carolina 28677
N.C. WATS 1-800-222-2577 • (704)872-9566

ISOMETRIC DRAWING OF A SEGMENT OF 16" T & J PANEL SYSTEM DRAINFIELD



CUTAWAY OF GRAVITY FLOW PANEL



A PUMPING UPHILL

2" sch 40 PVC

each goes into a T-J pipe (1¼" sch 40 PVC

from Connecticut, M

ivironment, Health, and Natural Resources
ironmental Health
water Section

Sheet: 1 of 2
Property ID: 217-172-24
Lot #:
File #: 18216
Code: 3

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Robert J. Teller — Applicant: Same

ss: 3500 Providence Road, Charlotte, NC 28270 — Date Evaluated: 2/21/2006

posed Facility: Residence — Design Flow (.1949): 600 gpd — Property Size: .75a

cation of Site: 18326 Hideaway Rd — Property Recorded:

Water Supply: [ ] Public [ ] Individual [x] Well [ ] Spring [ ] Other

Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut

Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 10	0-6	GR/CL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	>48"	NA	NA	PS, IV
		6-48	SBK/C	FI/S/P/SEXP					.3 GPD/FT²
2	"	0-7	GR/CL	FR/SS/SP/SEXP	"	"	"	"	"
		7-48	SBK/C	FI/S/P/SEXP					
3	"	0-22	M/FILL		"	26"	"	"	US
		22-48	SBK/C	FI/S/P/SEXP					
4	"	0-2	GR/CL	FR/SS/SP/SEXP	"	>48"	"	"	PS, IV
		2-48	SBK/C	FI/S/P/SEXP					.3 GPD/FT²

Description	Initial System	Repair System
Available Space (.1945)	US	US
System Type(s)		
Site LTAR	.3 GPD/FT²	.3 GPD/FT²

Other Factors (.1946):

Site Classification (.1948): Unsuitable

Evaluated By: Chris Sherrill, RS, LSS

Others Present: Bob Teller

3-10-06

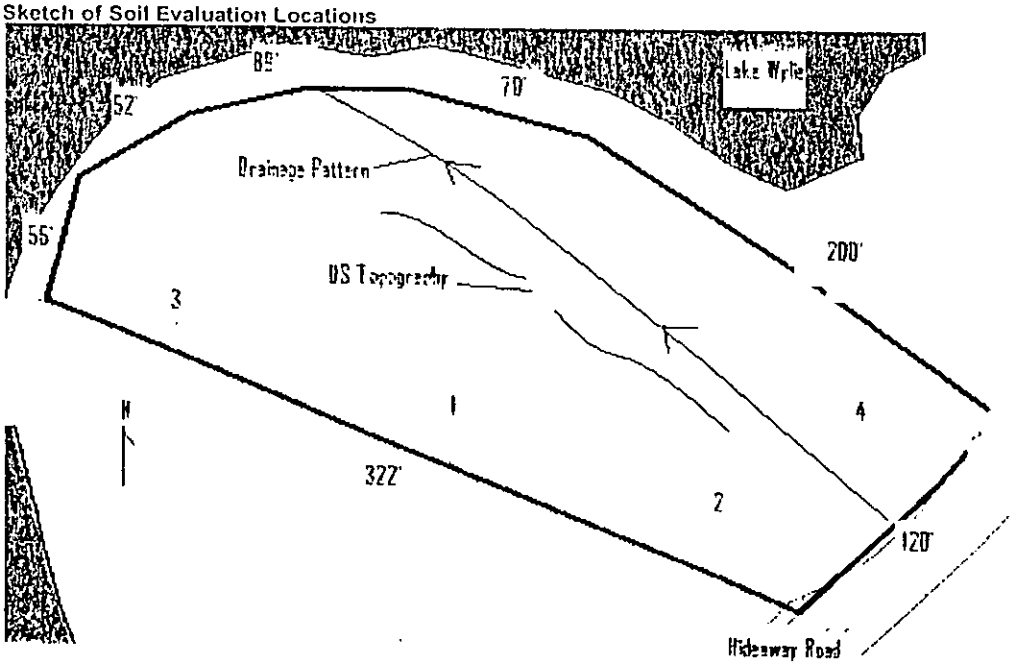
/TS: 100% Repair Area

Sheet: 2 of 2
FILE #: 18216

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

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

Sketch of Soil Evaluation Locations



Septic History

18326 Hideaway Rd

LOCATION Snug Harbor Rd. OWNER Edgar Jones WHITE _____ COLORED _____

ADDRESS Snug Harbor Rd. OCCUPANT Paradise Cottage WHITE _____ COLORED _____
& owner

PRIVY:
Type _____ (cost) _____ (salvage)
Number _____
New _____ _____ (date)
Repaired _____ _____ (date)

WATER SUPPLY:
Source Well
If well, type
_____ (Bored)
_____ (Drilled)
_____ (Dug)

Distance from nearest pollution 50 ft.

SEPTIC TANK:
Material precast concrete
Dimensions 1000 gal
Volume 1000 gal
Type secondary treatment 10'x62'x17" trench (distribution line) filter trench
No. of bedrooms 1
Permit Number 6702 Date 5/6/20
Approved [illegible] 5/6/20 Date 5/11/20
Approved by Thomas R. Ward
Contractor or Plumber Jones & Sons
Address Chincoteague
Remarks Perc 60

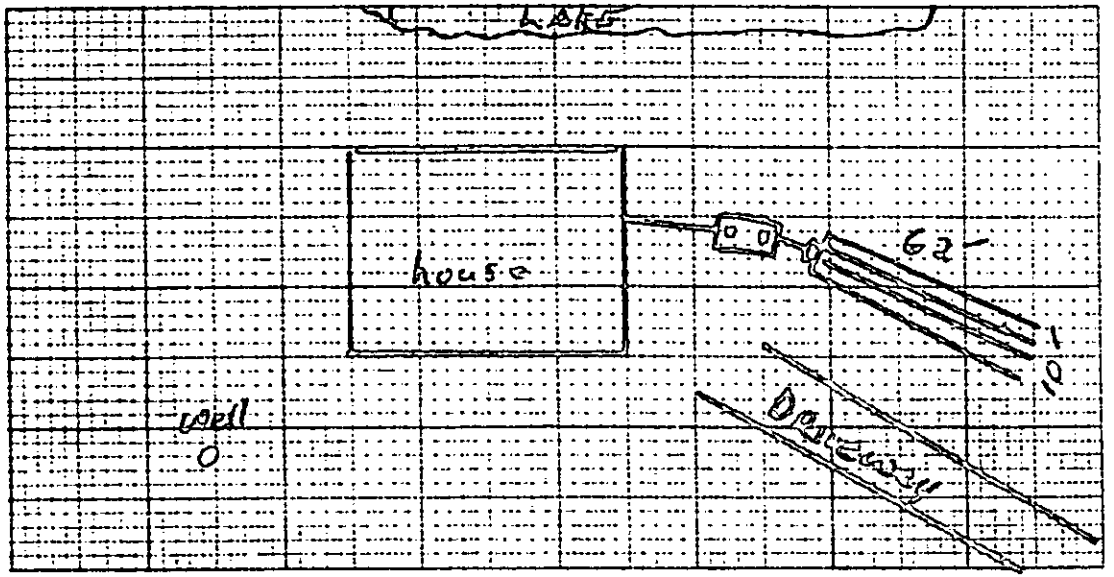
FHA CASE NUMBER _____

VA CASE NUMBER _____

SEWAGE DISPOSAL RECORD

Form No. 423 (Rev. 9'56)

NOTE: Make sketch of installation showing location of house, septic tanks, privies, water supplies on adjacent property, etc. Write in measurements in order that installations may be located at later date.



Date Received 25 Aug 1981

SIR No. 18216

T. C. No. 217-172-24

Map Date _____

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

APPLICATION FOR SOIL INVESTIGATION

1) NAME OF OWNER Jones (LAST) Frances (FIRST) C (MIDDLE)

2) ADDRESS OF OWNER 5114 Dunes Ct. Charlotte ZIP 28211

3) PHONE NO. Home 542-7391 Office _____

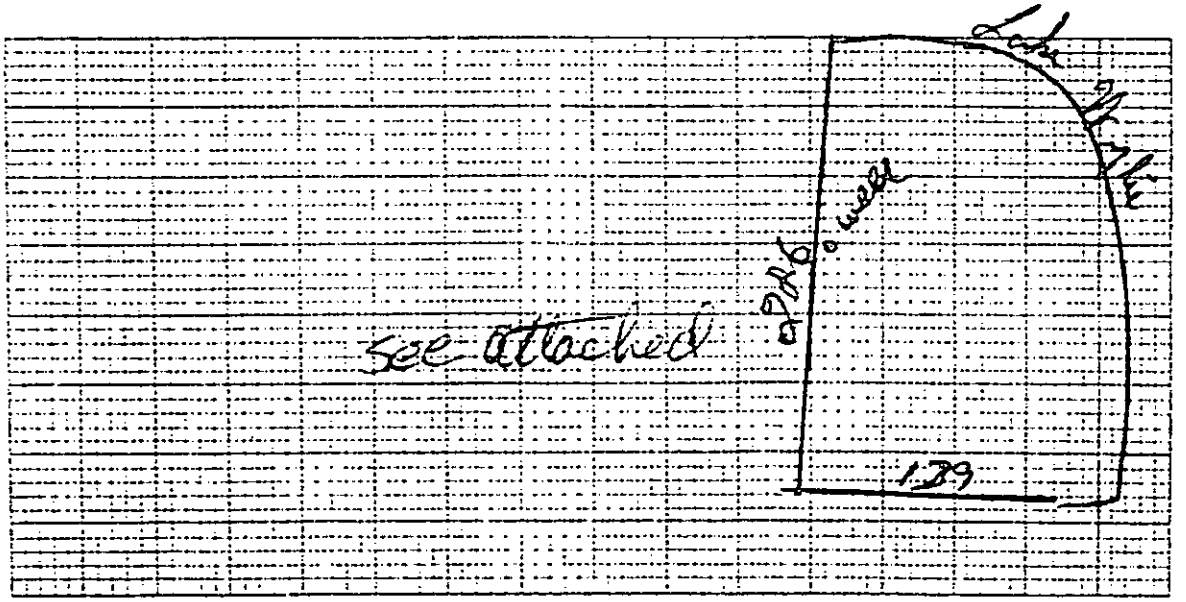
4) LOCATION OF PROPERTY Hide Away Rd. (STREET OR COUNTY ROAD)

5) SUBDIVISION _____ LOT NO. 38A BLOCK NO. 43

MAP BOOK NO. 17 PAGE NO. 512

6) DEED REFERENCE: DEED BOOK 3146 PAGE NO. 165

Application is hereby made to the Mecklenburg County Department of Environmental Health for the conduct of a soil investigation and an on site inspection of the lot hereinabove described for the purpose of determining if the lot is suitable for the installation of an individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge.



7) ACCURATELY DIAGRAM & DIMENSION LOT

Frances C Jones
OWNER
By E H Jr.

EHD-5-76

Environmental Health Department's Copy

SEE INSTRUCTIONS ON BACK

Date Received 25 Aug 1981

ICAR(S) Application No. 18216

T. C. No. 217-172-24

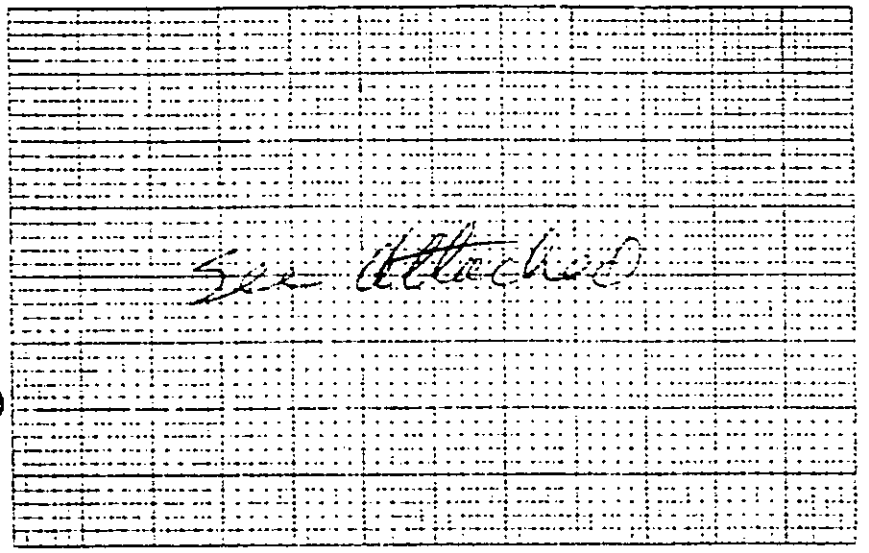
Map Date _____

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

Application for an
Installation, Construction, Alteration, and/or Repair Permit
(Individual Septic Tank System with Subsurface, Soil Absorption, Effluent Discharge)

The owner of that property described hereinafter hereby applies to the Mecklenburg County Department of Environmental Health for a permit to:

1) _____ Install or Construct 2) ✓ Alter or Repair an individual septic tank wastewater treatment system with a subsurface, soil absorption, effluent discharge.



3) PLOT PLAN (ACCURATELY DIMENSIONED)

Mobile Home ____ Yes ____ No
Residence X Yes ____ No

4) No. of Bedrooms 3
5) Business Use — Max No Employees _____
6) Washing Machine X Yes ____ No
7) Garbage Disposal ____ Yes X No
8) Dishwasher ____ Yes X No
9) Water Supply:
A) Individual Well X
B) Governmental System _____
C) Community System:
1. Well source _____
2. Governmental source _____
10) Sewage System:
House located within 200 feet of public sewer ____ Yes X No
House located within 300 feet of community sewer ____ Yes X No
11) FHA Case No. _____
12) VA Case No. _____

13) NAME OF OWNER Jones (LAST) Frances (FIRST) C. (MIDDLE)

14) ADDRESS OF OWNER 5114 Dunas Ct. Charlotte NC. 28211

15) PHONE NO. Home 542-2391 Office _____

16) LOCATION OF SYSTEM Hideaway Rd. (STREET OR COUNTY ROAD)

17) SUBDIVISION _____ Lot No. 38A Block No. 43

Map Book No. 17 Page No. 512

18) DEED REFERENCE — DEED BOOK 3146 AT PAGE 165

19) HAS A SOIL INVESTIGATION BEEN RUN? X YES ____ NO DATE RUN 1972 ??

20) PTR NUMBER (See Instructions) _____

The undersigned person hereby agrees that he has read the foregoing application and that the contents of same are true. It is understood that any permit applied for herein shall be void and of no effect if any of the above facts are not true.

25 August 1981
DATE OF APPLICATION

Frances C Jones
OWNER

By E.F.

EHD-5-76

ENVIRONMENTAL HEALTH DEPARTMENT'S COPY

NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
RALEIGH, NORTH CAROLINA

APPENDIX H
SITE EVALUATION

S.I.R. No. 18216
T.C. No. PO 217-172-24

(Ground Absorption Sewage Disposal)

OWNER: Francis C. Jones
ADDRESS: 5114 Dunwoody
COUNTY: Charlotte, NC. 28216
LOCATION OF SITE: Holloway Rd

DATE REQUESTED:
PLAT NO: Lot 39 A
LOT SIZE: Approx 20,000 sq. Ft Lav

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4
1. SLOPE (%)	(S) PS U 2-10%	S PS complex slopes (U)	S PS U	S PS U
2. SOIL TEXTURE (12-36 inches) Sandy, Loamy, Clayey (Note 2:1 Clay)	S (PS) clay U	S (PS) clay U	S PS U	S PS U
3. SOIL STRUCTURE (12-36 inches)	S (PS) Blocky U	S (PS) Blocky U	S PS U	S PS U
4. SOIL DEPTH (inches)	(S) PS 48" U	S PS Depth Variable (U)	S PS U	S PS U
5. RESTRICTIVE HORIZONS (inches) (Impervious strata, Rock)	(S) PS None U	(S) PS None U	S PS U	S PS U
6. SOIL DRAINAGE/GROUNDWATER (external and internal)	(S) PS To. To ground U water	S PS Drainage (U) Area	S PS U	S PS U
7. SOIL PERMEABILITY (percolation rate)	S (PS) Moderate U	S PS slow (U)	S PS U	S PS U
8. OTHER (specify)	S PS See Note U	S PS U	S PS U	S PS U
9. SITE CLASSIFICATION	✓ provisionally suitable	unsuitable		
10. SOIL SERIES	Cecil	Drainageway complex slopes		

S - Suitable PS - Provisionally Suitable U - Unsuitable

** See Diagram on Back (includes: soil areas, property lines, roads, streams, gullies, wet areas, fill areas, wells, water bodies, slope)

Recommendations/Comments: House addition is proposed - will apparently cover existing septic tank. additional line may be necessary Recommend on-site check be made before permit is issued

Described By: William A. Maslin
Title: Soil Scientist
Date: 8-2-81

DHS Form 2601
Sanitation
EHD 539 (2/80)

✓

Serial No. 4290

PTR No. 18216

Date Issued 9-2-81

T. C. No. 217-172-24

Map Date

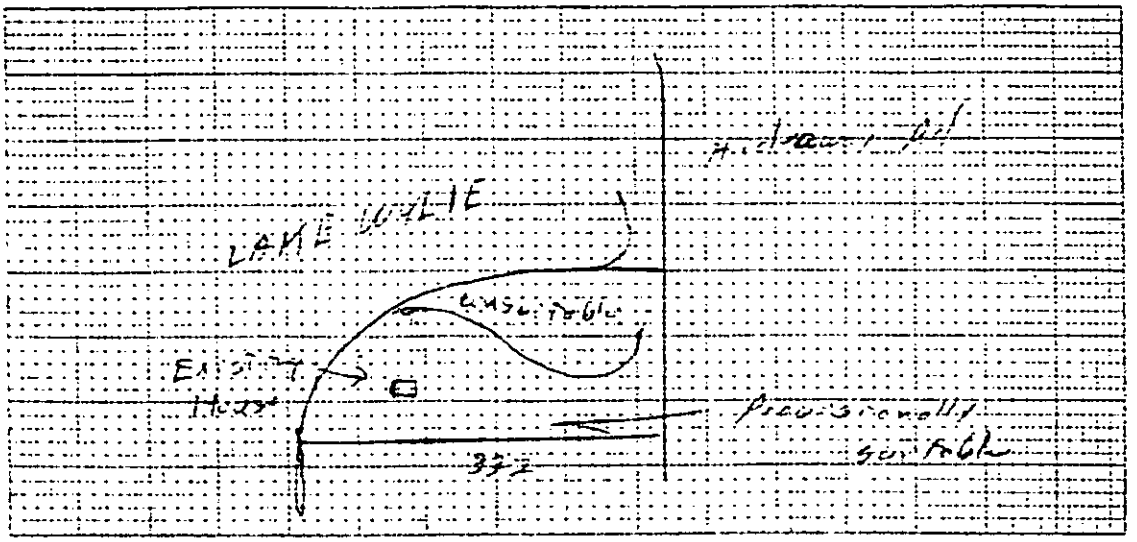
MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH
SOIL INVESTIGATION REPORT

NAME OF OWNER Jones, (LAST) Frances (FIRST) C. (MIDDLE)

ADDRESS OF OWNER 5114 Dunes Ct., Charlotte, NC ZIP 28211

LOCATION OF PROPERTY Hideaway Road (STREET OR COUNTY ROAD)

SUBDIVISION _____ LOT NO. 38-A BLOCK NO. 43



PLOT PLAN

This is to certify that a soil investigation and on-site investigation was made by the Mecklenburg County Department of Environmental Health on the lot described above. The said investigation was conducted on that portion of the lot as indicated on the above plot. Provisionally Suitable

The permeability rate determined by the investigation was _____. The said lot is approved for the installation of an individual septic tank wastewater treatment system with subsurface soil absorption effluent discharge subject to the following terms and conditions:

1. A permit must be obtained from the Mecklenburg County Department of Environmental Health prior to the construction of the installation of the wastewater treatment system on the said lot.
2. The size of the septic tank and/or treatment system which must be installed will be determined by the Mecklenburg County Department of Environmental Health prior to issuance of a permit based on the permeability rate obtained above, and on the size and type of building proposed thereon.
3. This approval is valid only if the system is installed in the area(s) and as indicated as acceptable for system installation on the above plot.
4. This approval is void if any grading, filling or construction, including the drilling of a well, is performed on the lot which, in the opinion of the Mecklenburg County Department of Environmental Health, renders the area indicated as acceptable for system installation unsuitable for installation, construction, alteration and or repair of such a system.

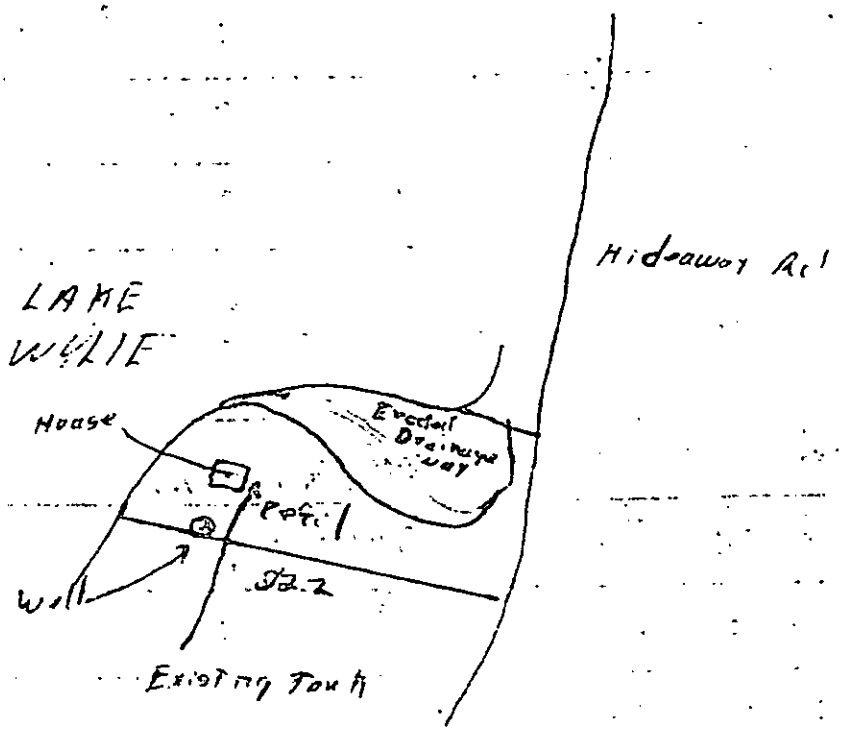
This approval is granted based on the laws of the State of North Carolina and the rules and regulations of the North Carolina Department of Human Resources, Division of Health Services and the Mecklenburg County Health Commission which were in effect on the date of issuance and is void if at any time in the future, prior to completion of the system, these laws, rules and regulations are changed such that this approval would not have been granted had the new or revised laws, rules, and regulations been in effect on the issue date.

William R. Martin
Soil Scientist

John R. Adkisson
Environmental Health Director or Authorized Section Head

EHD-5-76

Environmental Health Department's Copy


LAKE
WILLIE
Hideaway Rd
House
Existing Mound
Well
Profile
SD-2

Serial No. 4947

Date Issued 4 Sept 1981

ICAR(S) Permit No. 18216

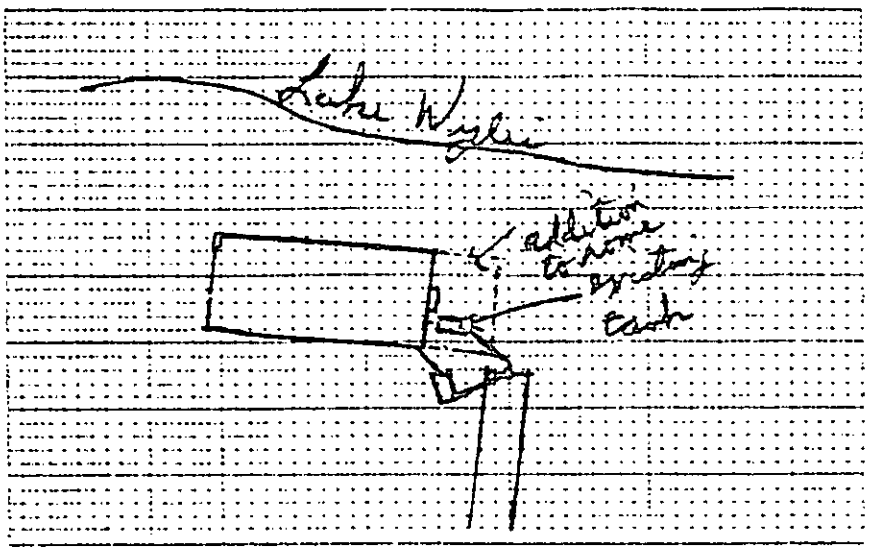
T C. No 217-172-24

Map Date

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH
INSTALLATION, CONSTUCTION, ALTERATION, AND/OR REPAIR PERMIT

(Individual Septic Tank System with Subsurface, Soil Absorption, Effluent Discharge)

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 application 18216, dated 25 August 81 and this permit shall be void and of no effect if the information provided in the application is not true or is erroneous. All work shall be completed on or before 15 Oct 1981, after which date this permit shall be null and void.



PLOT OF SYSTEM

Permeability Rate prov sint

Liquid Capacity of Tank 1500

Tank Construction precast

Absorption and or Nitrification Line

Total Line Length

Number of Lines

Distance from House

Distance from Property Line

Distance from Well

NAME OF OWNER Jones, Frances C.

LOCATION OF PROPERTY Hideaway Rd

The system shall meet all of the construction requirements as set forth in the Regulations of the Mecklenburg County Health Commission which are in effect on the date of the granting of this permit. A certificate of approval must be issued by the Environmental Health Director before any system can be covered up or otherwise rendered uninspectable or can be used. 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.

Comments: ~~system~~ relocate septic tank & connect to existing drainfield — pump & fill existing tank

John N Adkisson
Environmentalist

Division or Section Head

* If this permit is for the installation or construction of a new system, it must be signed by the division or c section head of the Department of Environmental Health in order to be valid. Only the signature of the Environmentalist is required where an existing system is being altered or repaired.

EHD-5-76

Environmental Health Department's Copy

C of A (s) No. 18216

Date Issued 5 Oct 1981 Serial 4740

T. C. No. 217-172-24

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL HEALTH DIVISION

CERTIFICATE OF APPROVAL
(Individual Septic Tank System with Subsurface, Soil Absorption, Effluent Discharge)

Name of Owner Jones (LAST) Frances (FIRST) C (MIDDLE)

Location of Property Hideaway Rd

Application Number _____ Permit Number 18216

Inspection Data: Repair Data

Liquid Capacity of Tank 1500 gal Tank Material precast concrete

Total Length of Drain Tile — Number of Lines —

Depth of Filter Material — Cover Depth —

Water Supply Source — Distance from Water Source —

Excavation Inspected — (DATE) Tank Inspected 5 Oct 1981 (DATE)

Nitrification Field Inspected — (DATE)

Washing Machine Line Inspected, If Applicable — (DATE)

The undersigned has inspected the Individual Septic Tank System with subsurface, soil absorption, effluent discharge as described above and it has been _____ installed or constructed, ~~or~~ altered or repaired in accordance with the permit issued and the regulations of the Mecklenburg County Health Commission in effect on the date of issuance of the permit. The issuance of this Certificate of Approval 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 Certificate of Approval is issued subject to these restrictions and conditions shown on the permit(s) in addition to those listed below under comments. This Certificate of Approval 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.

Comments tank relocated due to proposed construction - old tank pumped & destroyed

John R. Jackson
Environmentalist

EHD-5-76

Environmental Health Department's Copy

Serial No. 5312

LA No. 18216

Date Issued 10-5-81

T. C. No. 217-172-24

Map Date

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

TO THE BUILDING INSPECTION DEPARTMENT

APPROVAL OF LOT FOR INSTALLATION OF AN INDIVIDUAL SEPTIC TANK WITH SUBSURFACE, SOIL ABSORPTION, EFFLUENT DISCHARGE

NAME OF OWNER Jones, (LAST) Francis (FIRST) C. (MIDDLE)

ADDRESS OF OWNER 5114 Dunes Court, Charlotte, NC ZIP 28211

LOCATION OF LOT Hideaway Road (STREET OR COUNTY ROAD)

SUBDIVISION _____ LOT NO 38-A BLOCK NO. 43

MAP BOOK NO. _____ PAGE NO _____

The above specified lot is approved by the Mecklenburg County Department of Environmental Health for the installation of an individual septic tank system with subsurface, soil absorption, effluent discharge based on the soil investigation, on on-site inspection of the said lot and upon the information supplied in the "Application for an Installation, Construction, Alteration, and/or Repair Permit", number 18216. This approval is subject to the following terms and conditions:

1. That the nitrification field be installed, constructed, altered and/or repaired in the same area where the soil investigation was run.
2. That an "Installation, Construction, Alteration, and/or Repair Permit" be issued and in full force and effect when the system is installed, constructed, altred, and/or repaired and that the system be installed in accordance with same.

This approval may be revoked and the building inspection department requested to revoke any building permit(s) which have been issued to authorize construction on the said lot if at any time it is determined that any information contained in the "Application for an Installation, Construction, Alteration, and/or Repair Permit" is not correct or is untrue or that the septic-tank system is not being installed, constructed, altered and/or repaired in accordance with a valid Installation, Construction, Alteration, and/or Repair Permit.

use existing system

John A Adkisson

Environmentalist: _____

Environmental Health Director, or Authorized Section Head

EHD-5-76

Environmental Health Department's Copy

APPLICATION FOR AN IMPROVEMENT PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

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

(OFFICE USE ONLY)
FILE: 18216
TC: 217-172-24
SERIAL: № 21257
☐ L ☑ CRT

JOB LOCATION

① ADDRESS: 18326 (STREET NO.) Hideaway (STREET) Road ② FILE:
③ JURISDICTION: ④ TAX PARCEL NO.: 217-172-24
⑤ SUBDIVISION: ⑥ LOT: ⑦ BLOCK:

OWNER

⑧ NAME: Frances (FIRST) C. (MIDDLE) Jones (LAST)
⑨ MAILING ADDRESS: 18326 Hideaway Road
⑩ CITY: Charlotte ⑪ STATE: N.C. ⑫ ZIP: 28217
⑬ PHONE: (WORK) 375-9300 Hal Davis - Builder 356-2790 ⑭ (HOME) 588-1552

REQUEST

This request is for a(n):
⑮ ☐ New permit
⑯ ☐ Repair or alteration permit
⑰ ☐ Authorization for mobile home exchange
⑱ ☑ Other (specify) Addition (Expanding Existing Room)

DESIGN CRITERIA

System will serve:
⑲ ☑ Residence ⑳ ☐ Mobile home ㉑ ☐ Business or place of public assembly
㉒ Number of bedrooms? 3 ㉕ Type?
㉓ Maximum occupancy? 1 ㉖ Maximum number of employees?
㉔ Basement? ☐ yes ☑ no ㉗ Maximum number of seats?

WATER SUPPLY

㉘ Water supply from (present or proposed):
A ☑ Individual well
B ☐ Municipal system
C ☐ Community well
D ☐ Community system

㉙ The undersigned, 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: H. J. Davis for F. C. Jones
Date: Oct. 1, 1990

IMPROVEMENT PERMIT

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 permit is issued by this Department.

... This permit is not transferable, and shall become null and void ~~36~~ months from the date of issuance. Use existing system

B.R. Ferguson — Environmentalist — 10-2-90 Date

Director or Authorized Section Head* — 10-2-90 Date

*This permit must be signed by the Director of Mecklenburg County Health Department or an authorized section head in order to be valid.

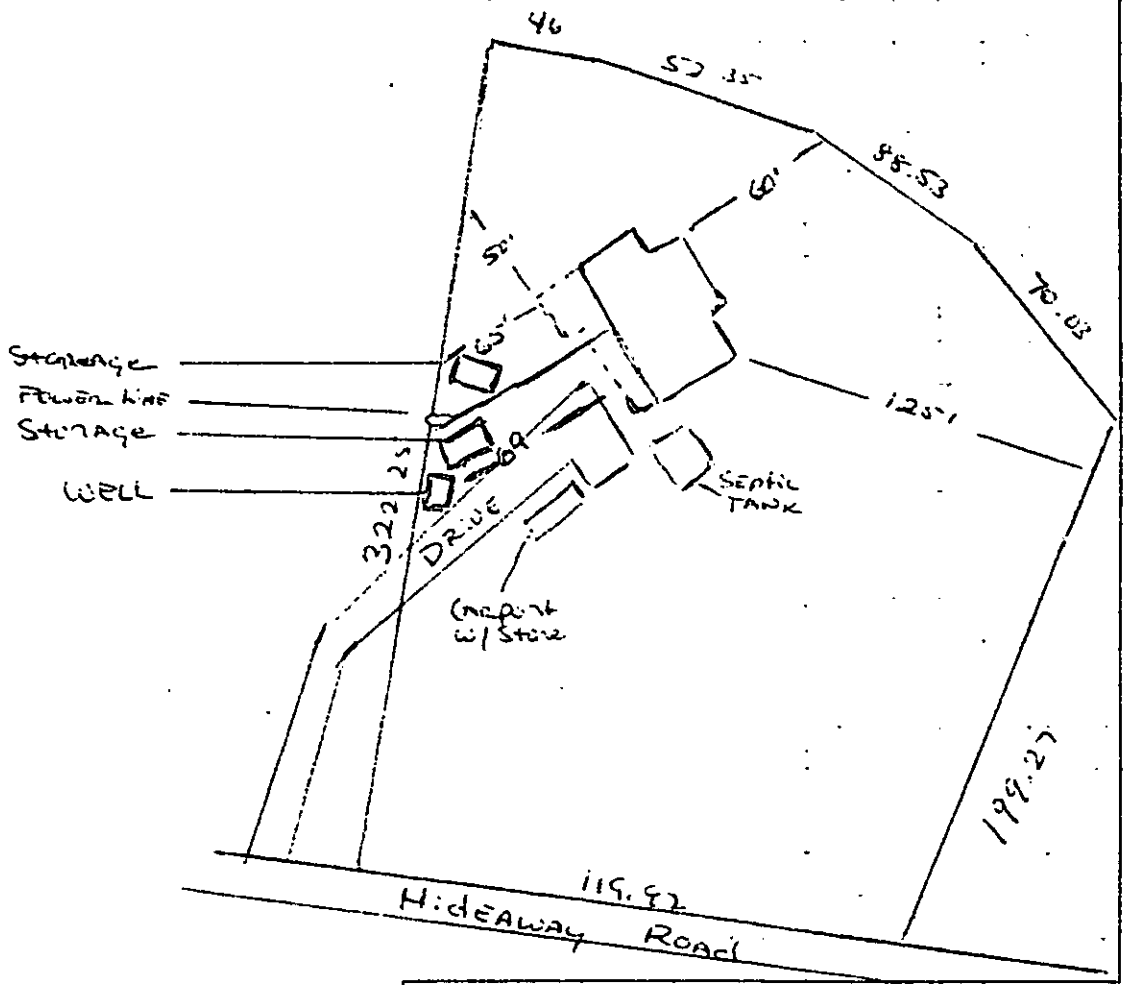
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 18216

TC: 217-172-24

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.



APPROVAL DATE _____

White - Health Department's Copy Canary - Environmentalist's Copy Pink - Owner's Copy