

13811 ISLAND DR

1/8/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
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DATE: 7/2/04

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

PAGE 1 OF 2

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

FILE #: 56455

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 001-013-13

STREET ADDRESS: Island Drive

SUBDIVISION OR MOBILE HOME PARK NAME: Twin Cove

LOT NUMBER: 25

TYPE OF BUILDING (CHECK ONE):

___ SINGLE MOBILE HOME(S)
___ DOUBLE WIDE (D)
✓ 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
✓ 6 HUNTERSVILLE
___ 7 MINT HILL

HEATED SQUARE FOOTAGE: 2000

NUMBER OF BEDROOMS: 3 NUMBER OF OCCUPANTS: 3

CLOSING DATE: _____

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)
___ SHARED WELL (S)
✓ MUNICIPAL (M)
___ OTHER 'SPRINGS' (O)
___ PRIVATE WELL (P)

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

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

PROPERTY OWNER:

NAME: Winston, Ryland A (LAST) (FIRST) (MI)

ADDRESS: 829 Ardsley Rd

CITY: Charlotte STATE: NC ZIP: 28207

DAYTIME PHONE: ( ) 704 - 348-3512

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Rollans, Ashley (LAST) (FIRST) (MI)

DAYTIME PHONE: (c) 704-746-5046

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? Map Bk 12 at Pg 5 8/27/64

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: 7/8/04

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

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

Sheet: 1 of 2
Property ID: 001-013-13
Lot #: 25
File #: 5645B
Code: 2

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Ryland A. Winston
Applicant: Ashley Rollans
Address: 828 Ardsley Road, Charlotte, N. C. 28207
Date Evaluated: 8/2/2004
Proposed Facility: Residence
Design Flow (.1949): 360gpd
Property Size: .40a
Location of Site: Island Drive
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [ ] Auger Boring [x] 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	0-2	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48	N/A	NONE	PS, IV
		2-25	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
		25-48	SBK/SCL	FR/SEXP/SS/SP					
2	"	0-3	GR/SCL	"	>60" TO SOIL WETNESS	60	"	"	"
		3-60	SBK/C	FI/SEXP/S/P					

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

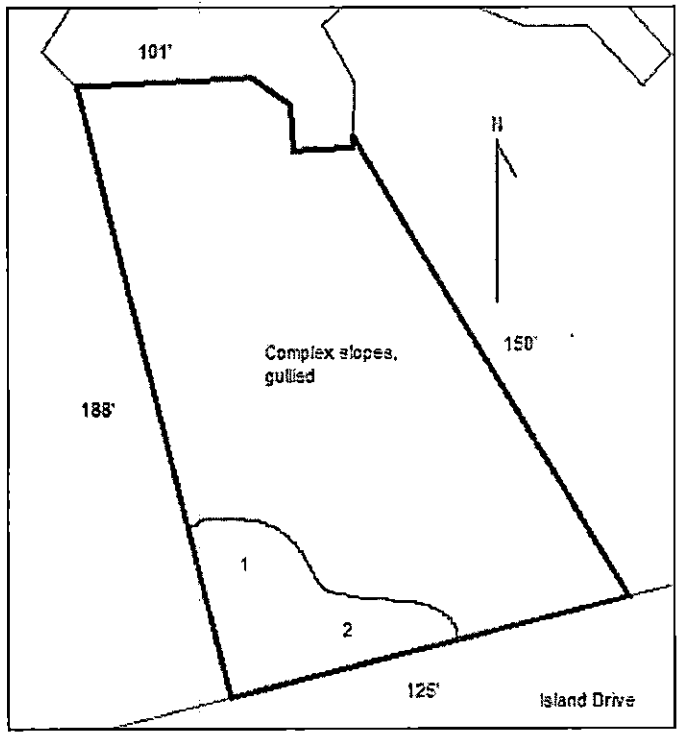
Other Factors (.1946):
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 8/2/2004. W. R. Marlin
Others Present: J. Michelone, A. Rollans, R. Winston, T. Thomason

COMMENTS:
Not 100% repair

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



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

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

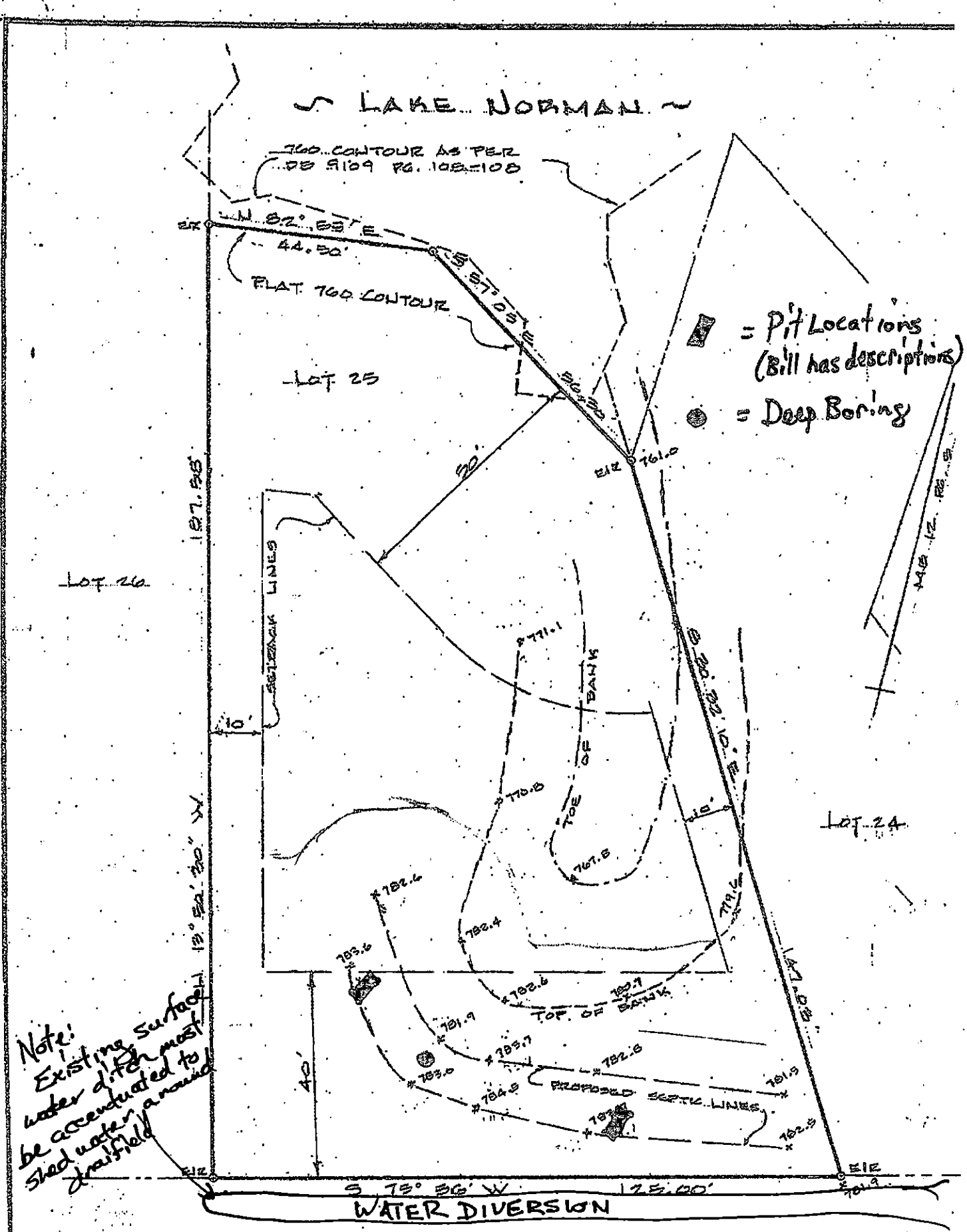
OWNER: Ry Winston — APPLICATION DATE 7/8/04
ADDRESS: 1226 E Morehead St. Suite 200 Charlotte — DATE EVALUATED: 6/05
PROPOSED FACILITY: 3BR — PROPOSED DESIGN FLOW (.1949): 360 gpd — PROPERTY SIZE: ~1.5 acres SF
LOCATION OF SITE: Tuttle Cove Rd. — PROPERTY RECORDED: 64
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut — TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1936 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	Deep Boring L 8%	0-54"	R HASBK/C	Fr SS SP SEAP	COMM. SAP INCL.	112"	NA	NA	PS-112" 0.3 gpd/ft²
		54-112"	R fw HSBK/CL	Fr SS SP SEAP					
2									
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	400 SF	N/A
System Type(s)	PPBDS	Not Needed
Site LTAR	0.3 gpd/ft²	N/A

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): B
EVALUATED BY: Samuel A. Rollans, LSS
OTHER(S) PRESENT: Bill Mankin, LSS, RS

COMMENTS: Drainfield area will need to be graded to the lowest elevation in each drainline. Gully must be filled & leveled w/ Group IV soil. House proposed w/ Half basement. Foundation drains against basement wall only. The roadside ditch must be [illegible] to divert surface water off the drainfield.


LAKE NORMAN
760 CONTOUR AS PER DB 9109 PG. 105-108
N 82° 53' E
44.50'
S 67° 05' E
FLAT 760 CONTOUR
LOT 25
LOT 26
LOT 24
187.58'
N 13° 52' 20" W
20'
10'
SETBACK LINES
EIR
761.0
771.1
770.0
767.8
782.6
782.4
783.6
781.9
783.7
783.0
784.9
787.1
782.5
TOP OF BANK
TOE OF BANK
PROPOSED SEPTIC LINES
40'
S 20° 22' 10" E
147.09'
S 75° 56' W
125.00'
WATER DIVERSION
= Pit Locations (Bill has descriptions)
= Deep Boring
Note: Existing surface water ditch must be accentuated to shed water around drainfield

SPECIFICATIONS & SCOPE OF WORK

For an 3 Bedroom Residence

Pressure Dosed Prefab Porous Block Panel Systems (T & J Panel)

Ground Absorption, Wastewater Disposal System

For

Lot 25 Island Drive
Charlotte, Mecklenburg County, NC

September 10, 2005

OWNER:

Collett & Associates
1228 E. Morehead Street, Suite 200
Charlotte, NC 28204
Phone: 704-348-3512
Fax: 704-335-8654

PREPARED BY:

Rollans Soil and Environmental Services
2120 Graham Road
Mount Ulla, N. C. 28125
Phone: 704-278-0989
Fax: 704-278-0989

Jimmy Mickle, R.S. 9/23/05

Ground Absorption Wastewater Disposal System
Lot 25 Island Drive
Mecklenburg County, NC

T & J Panel System

I. NARRATIVE:

The Owner is proposing to construct a three-bedroom residence on Lot 25 Island Drive in Mecklenburg County, NC.

A pressurized Pre-fabricated Permeable Block Panel (PPBP) System is proposed for this residence due to limited available space and soil data. The panel system will function as additional pre-treatment of effluent before entering the soil. Nitrification lines (panels) are to be placed on 9' centers. The field will be dosed by a properly sized pump with float control. These specifications address the Owner's responsibilities as well as installation instructions, components of the proposed system, and testing and operating procedures.

The septic system plan has been prepared using field located survey data to locate the proposed panels, tanks, house and driveway envelopes.

The area of the nitrification field shall be barricaded to prevent the access of any vehicle or anyone not knowledgeable of septic system installation. Any disturbance within the area shall be performed by the system installer. ONLY!

The Soil Scientist has set an LTAR of 0.3 G/SF/D.

II. REFERENCE MATERIAL:

(1) DESIGN AND INSTALLATION (Manual)
OF LOW PRESSURE PIPE WASTE WATER TREATMENT SYSTEMS
By: Craig Cogger; Bobby L. Carlisle; Dennis Osborne; Ed Holland
Published by: UNC Sea Grant College Pub. UNC-SC-82-03
May, 1982.

(2) LAWS AND RULES FOR GROUND ABSORPTION SEWAGE DISPOSAL SYSTEMS.
SECTION .1956 OF THE N.C. Administrative Code: Title 10 Health
Services; Environmental Health; Subchapter 10a; Sanitation.
Published by: N.C. Dept. of Human Resources; July 1, 1982.
Paragraph .1956 (a)(ii)(B).

(3) EPA 625/1-80-012 Design Manual
Onsite Wastewater Treatment and Disposal System Oct.,1980;
Chapter 7.

III. OWNERSHIP RESPONSIBILITY FOR A PANEL SYSTEM:

It must be kept in mind that this system is designed to accept a moderate amount of waste water (which is called the EFFLUENT), in a minimal water absorbing soil.

Conservation measures must be undertaken by all members of the household to minimize the volume of waste water entering the disposal system, including, but not limited to, the following precautions:

(a) Provide water conserving plumbing fixtures within the facility. Water closets shall not use more than 1.6 gallons/flush. Showerhead shall have a maximum allowable flow of 3.0 gallons/minute. All fixtures shall conform to Table 901.2.2 of the NCBC Volume II, Plumbing;
(b) Develop conservative water use habits;
(c) Monitor and maintain the system as necessary for proper operation;
(d) Check and pump the septic tank sludge on a regular basis of approximately every year if garbage disposal is included in the residence, or approximately every three years otherwise.
(e) Make rapid repairs to leaking plumbing fixtures and faucets.
(f) Avoid excessive watering of the lawn in the vicinity of the disposal field.

IV. COMPONENTS OF THE SYSTEM AND CONSTRUCTION SEQUENCE:

Refer to T & J Panel System's manufacturing and installment manual. Furnish and install all items required for a complete system in accordance with plans and specifications; for requirements of the County Dept. of Environmental Health (CDEH); the N. C. Dept. of Environmental Health (NCDEH); the N. C. Building Code, Plumbing Code and Electrical Code; and the National Electric Code. System must be properly installed by a qualified, competent contractor.

COMPONENTS OF SYSTEM:

1. ~~1,000~~ 1500 gallon two compartment septic tank with effluent filter
2. 1,000 gallon pumping tank with access
3. Submersible effluent pump, filter and float controls
4. Pump Control and high water alarm signals (audible and visible)
5. Supply pipe
6. Ball valves
7. T & J 16" high panels & distribution laterals

CONSTRUCTION SEQUENCE:

(1) Lay out T & J, 16" high, panel system network area with stakes and flagging to ten feet (minimum) beyond the limits of the network. As soon as the absorption area is designated, it shall be flagged, roped off and isolated from construction traffic. This barrier should be maintained until the system is accepted by the Owner. Refer to site plan for the size of absorption area. See site plan for flag locations.

(2) Prior to actually beginning construction of the system, carefully locate, lay out and identify disposal site, manifolds and the lateral panel piping networks, using a tripod mounted engineer's leveling instrument to accurately establish each lateral along a level contour. Note: Lateral panel runs which conflict with cut-off-in-place stumps or trees shall "snake" by with a 12" minimum trench clearance and then continue along its projection run. (The 8' minimum trench separation must be maintained.)

(3) Excavate for and construct curtain drain (if shown on the plan.)

(4) Excavate lateral network trenches 24" wide by 28" deep (see detail). Remove loose soil from bottom of trench.

(5) Install sand in bottom of the lateral trench to the proper depth of approximately 22" below finish ground level.

(6) Follow the manufacturer's guidelines for installing the T & J Panel System.

(7) All joints in lateral and the manifold piping shall be watertight connections to insure that the only source of the water seepage from the system is through the orifices as designed. See layout and details. Carefully install manifold and lateral network according to the attached designed layout. A larger diameter protective sleeve with cap or approved box with lid shall be placed over the turned up lateral and positioned level with the ground surface (so as not to be damaged by mowing machine.)

(8) Carefully backfill manifold trenches to finish grade with clean (debris free earth (no stone).

(9) Leave absorption area with a raked surface, ready for grassing.

(10) The installation contractor shall stabilize the area of construction by planting and seeding with Kentucky 31 tall fescue and shall keep the planted area watered and mulched until such time that a hardy stand of grass is established. (See Seeding Specification.)

(11) SEPTIC TANK The septic tank shall consist of a ~~1,000~~ 1500 gallon capacity, reinforced, precast concrete tank with full baffle and shall have easy access to each chamber from ground level for checking and pumping. The first chamber of the septic tank shall consist 2/3 to 3/4 of the volume of the total tank and the baffle shall contain a horizontal opening across the tank at about midway its height. The outlet of the tank shall have an effluent filter as specified herein. Locate the septic tank at such height as to provide approximately 8" of cover soil over top of the tank. The tank shall have a DHS approved access with lid over the filter.

(12) SLOTTED-FILTER A Zabel A1800 micro-filter, with 1/16" infiltration shall be installed in the outlet tee in the septic tank. The filter shall be manufactured by ZABEL or approved equal, Zabel Environmental Technology, 10409 Watterson Trail, Louisville, KY, 40299, 1-800-221-5742, Fax 502-267-8801 Fax.

(13) PUMP TANK shall consist of a 1,000-gallon capacity, reinforced, precast concrete tank without baffle and shall have a concrete mounting pad (concrete blocks) for accommodating the pump. Access shall be provided for entry into the tank directly over the pump location, and extending 6" above final grade or as called for on the plan. Use a DHS approved tank riser with approved lid. The tank shall be supplied by a manufacturer approved by DHS and bear the manufacturer's serial number. The tank shall be positioned to allow gravity flow of the effluent from the septic tank. Immediately down stream from the pump shall be an approved effluent filter system.

All tanks shall be tested for water tightness by an approved method such as 24-hour water tightness test with maximum allowable leakage not to exceed ½ inch per 24 hours. Testing shall begin after the water level in the tank has stabilized. Any leaking shall be corrected and the tanks retested.

Once testing of the tank has been completed, the tank shall be backfilled in lifts with well compacted, debris free earth to a level, which directs surface water away from the tanks. Tank access holes shall be installed and grouted watertight and the earth raked smooth for grassing. Grade over the tank shall be sloped to prevent surface water from entering the tank through the access.

(14) PIPING All piping and fittings shall be Schedule 40 PVC except LPP piping in the panels shall be PR160 PVC. Glue for all PVC pipe joints shall be as recommended by the pipe manufacturer.

(15) PUMP The submerged pump shall be Zoeller Model 140 manufactured by Zoeller Pump Co., or equal, 1.0 hp, 115v/1ph; capable of pumping 26.5 gallons per minute at a 29.44' head.

(16) PUMP CONTROL PANEL: The pump shall be powered by a simplex control panel with standard features including: a corrosion resistant enclosure, an aluminum back panel, silver cadmium contacts (IEC Contactor), an IEC motor starter, a 100VA control circuit transformer, a main circuit breaker, a 1 amp control circuit fuse, a 1 amp alarm circuit fuse, a Hand-Off-Auto switch, an alarm test switch, a pump run light, a seal leak light, terminal blocks for pump and float connections, a ground lug, an alarm light and an alarm buzzer. Panel shall be equal to Zoeller Model 10-0125 NEMA 4X.

(17) EFFLUENT FILTER The effluent filter shall be connected directly to the pump outlet. The filter shall be equal to the GAG Sim Tech Filter, Boyne City, Michigan, 49712, telephone 1-888-999-3290. The contractor shall furnish the following with the filter: STF 100 Filter, an STF 102 Filter Screen, an STF 103 Wrench, an STF 104 Sock, an STF 101 Pressure Alarm Switch and an STF 107 Tank Alert. Filter can be obtained through Confederate Sales Associates, 8205 Brooknell Terrace, Charlotte, NC 28270, telephone 704/ 364-1372.

(18) PUMP ON-OFF water level control switch shall be Zoeller mercury switch, connected to the simplex pump control.

(19) HIGH WATER ALARM SWITCH shall be mounted to a float tree and shall be equal to Myers mercury switch, red colored ball with support bracket.

(20) FLOAT TREE The "float tree" can be constructed of a 1-1/2" diameter PVC pipe anchored in a gallon bucket filled with concrete and a 2" diameter PVC sleeve over the 1-1/2" pipe to which the floats are attached. The PVC pipe shall be long enough to reach from about the tank extending into the access riser. The "tree" allows easy and quick access to the float switches for adjustment. Float switches shall be mounted to the tree with non-corrosive clamps furnished by the float manufacturer. Float shall be positioned to not tangle.

(21) PUMP INSTALLATION: Details of pump installation are shown on the plan. The pump must be placed on two concrete blocks next to each other on the bottom of the tank. This prevents the pumping of any solid particles, which can clog the system. 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. (The PVC outlet pipe is too fragile to support the pump.)

The pump outlet pipe should be connected to the supply manifold with a threaded PVC union (or dresser coupling) to allow quick removal. A check valve shall also be installed in the supply line (within the pump chamber). If effluent will be pumped down hill, a 3/16" siphon-breaker hole must be drilled in the bottom of the supply line before it leaves the pump tank. This breaks any vacuum in the system and prevents the inadvertent siphoning of effluent out of the tank. This hole is very important.

(22) ELECTRICAL CONNECTIONS: The pump and high water alarm must be placed on separate electrical circuit breakers. (If the pump circuit fails, the alarm must still be able to operate.) Follow the manufacturers' recommendations for the proper fuses or circuit-breakers. All electrical connections must be made outside the pumping chamber. Power cords from the pumps and controls shall extend to a NEMA approved outdoor control panel mounted outside of the pumping chamber. There are to be no junction boxes inside the tank. Power and control conductors shall be conveyed through 2" conduit with Seal-off.

- The PPBPS system should be observed by the regulatory agency one, three, six and nine months after initial installation, and every 3 years. An inspection report should be completed and filed each time the system is checked.

- All laterals shall be pressure back-washed annually with clean water.

- Pressure head for upper and lower laterals should be checked and adjusted one month after installation and annually thereafter.

- All piping, fittings turn-ups and valve boxes 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 deflected 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.

- Check septic tank and pump tank for evidence of damage or leakage. Check the quality of effluent including grease and sludge accumulation.

- On a scheduled basis, clean and inspect effluent filter in the septic tank and the sock filter in the pump tank. When washing the filter, debris must be sprayed directly back into the septic tank and not onto the lawn.

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

DESIGN SPECIFICATIONS - T & J PANEL SYSTEM
Lot 25 Island Drive
Mecklenburg County, NC

September 10, 2005

Daily design waste flow:	360 gpd
Septic tank size:	~~1,000~~ 1500 gal. (2 compartment)
Septic tank filter:	Zabel A1800 filter
Pumping tank size:	1,000 gal.
Effluent loading rate:	0.3 G/D/SF (50% decrease with PPBPS)
Total linear feet and diameter:	200 ft. of 1-1/4" dia. PVC of laterals and T & J 16" high panels (allow 4.5 ft per panel)
Total length and diameter of supply manifold:	65 LF – 2" diameter Schedule 40 PVC
Number and length of laterals:	2 – 100,100
Number of panels:	53
Hole size:	5/32"
Hole spacing:	1 hole per panel
Total number of holes:	53
Flow per hole at 3' head	0.50 GPM
Flow rate through the system:	26.5 GPM
Elevation head:	25.0'
Pressure head:	3.0'
Friction head:	1.44'
Total head:	29.44'
Pump requirements:	26.5 GPM at 29.44' use Zoeller 140 1 HP pump 115 V, 1ph or Approved Equal
Force main filter:	GAG Sim/Tech Filter w/Sock and Pressure Alarm
Dosing volume:	190.80 gal.
Depth of water pumped per dose:	5.56"
Pump run per dose:	7.2 min.
Check valve:	yes
Siphon break hole:	yes

LOT 25 ISLAND DRIVE 9/10/05

DESIGN FLOW 3 BR @ 120 = 360 G/D
LTAR =

$360/0.3\ G/D/SF = 1200\ SF \times 0.5 = 600\ SF/3 = 200\ LF$

$200/3.83\ FT/PNL = 53\ PNLS\ REQ'D$

USE: 1000 GAL SEPTIC TANK
USE: 1000 GAL PUMP TANK W/ SIM TECH FILTER

USE T&J 16" PANEL: 46"/PNL + 6" SPACE = 52"/PNL

5/32" Ø ORIFICE (1/PNL) FLOW @ 3' HD = 0.5 GAL/MIN

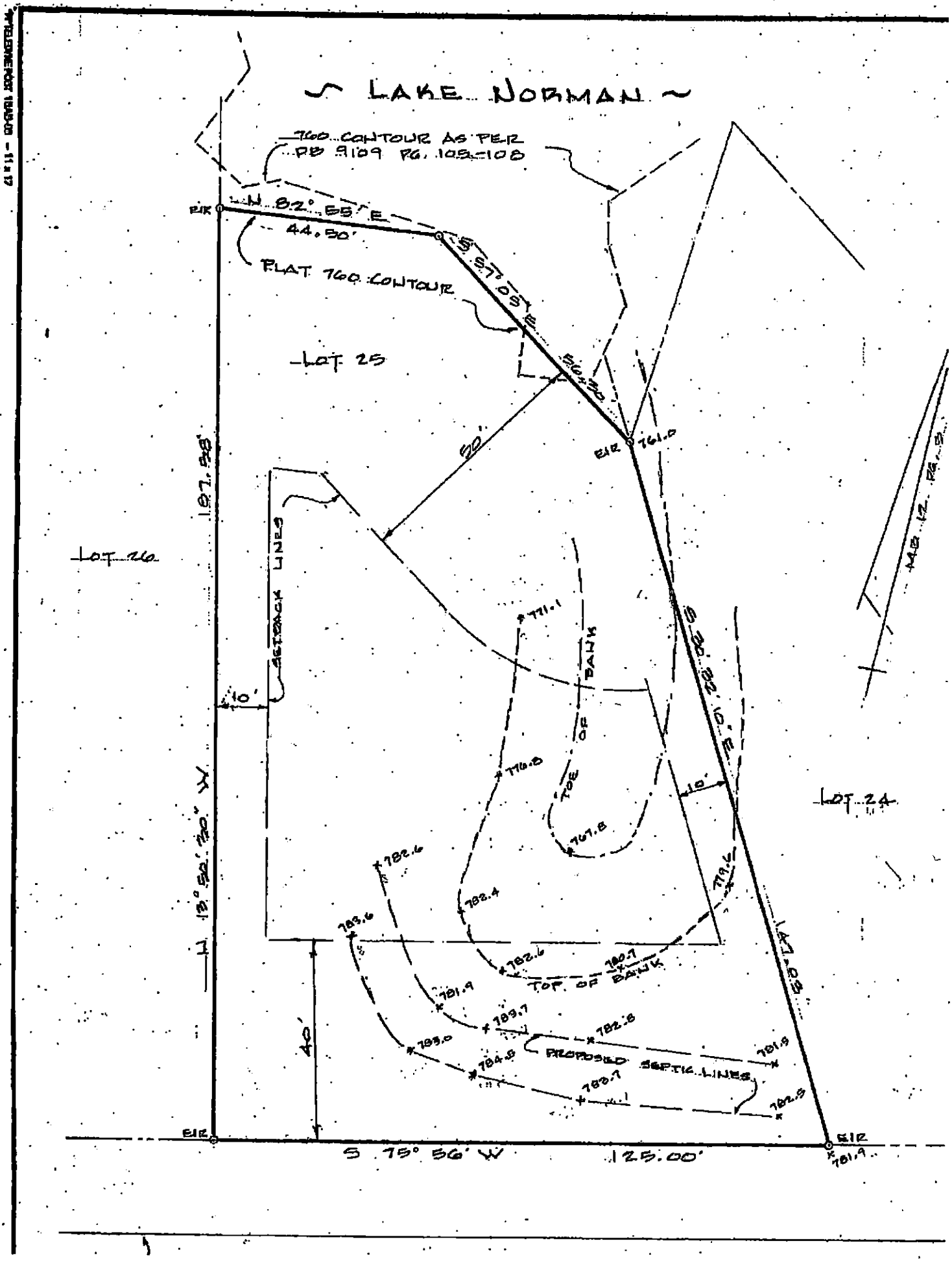
FLOW THRU SYSTEM: 53 PNLS @ 0.5 GPM = 26.5 GPM

OPER HD = 3.0'
FRICTION HD = (2" Ø SCH 40) $65'(0.8/100)(1.2) = 0.624(2.308) = 1.44$
ELEV HD = 25 FT

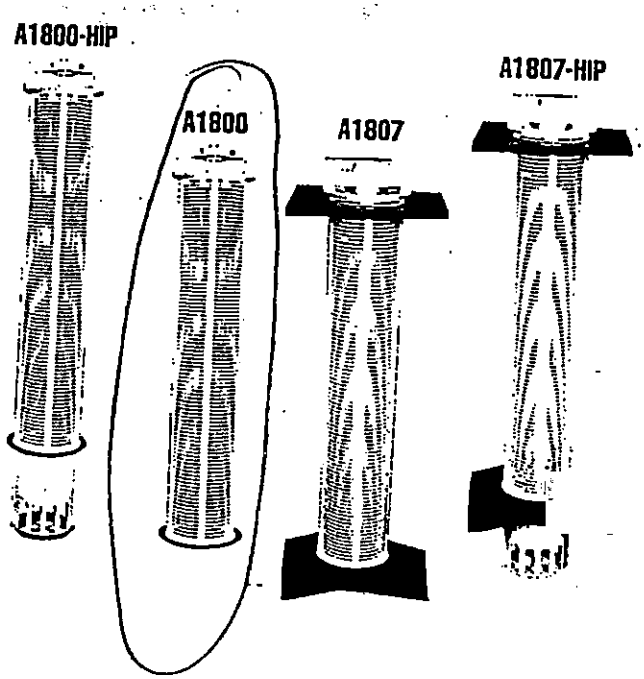
PUMP REQ'D: 26.5 GPM @ 29.44' TDH

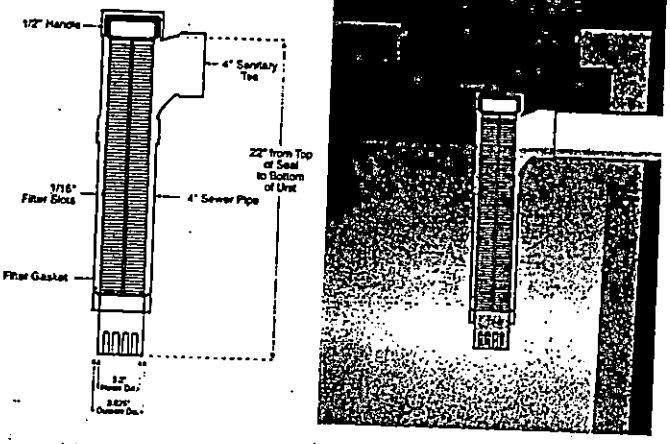
USE ZOELLER MODEL 140 115V/1 HP/1 PH

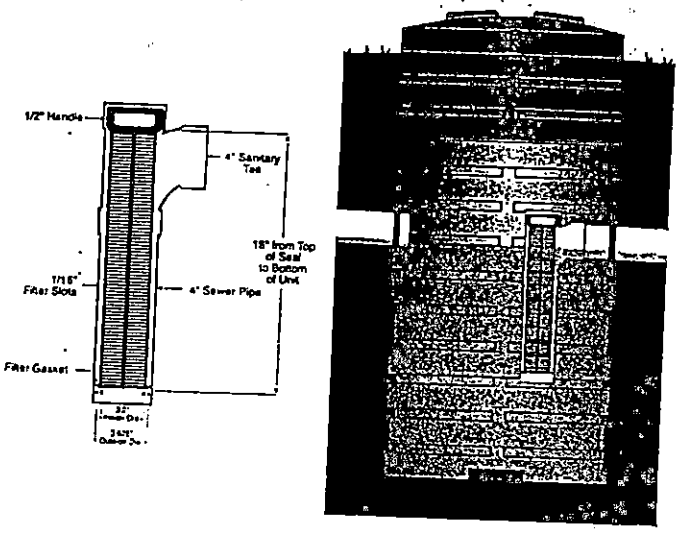
DOSE VOLUME: 190.80 GAL.
DRAWDOWN: 5.56"
PUMP RUN TIME: 2.2 MIN/DOSE

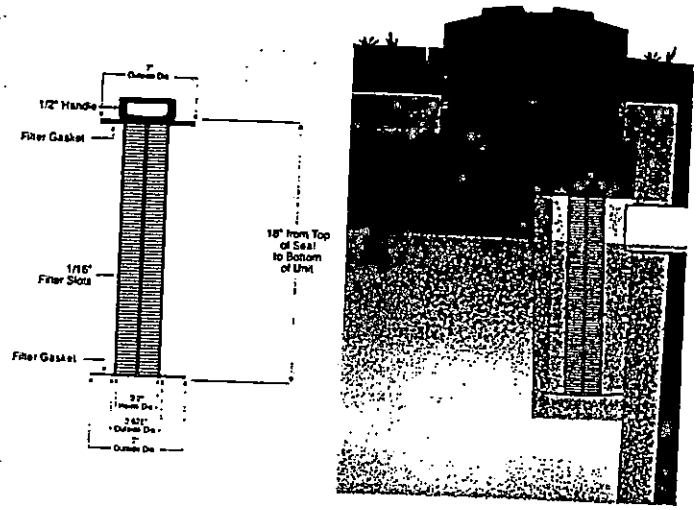

~ LAKE NORMAN ~
760 CONTOUR AS PER PB 9109 PG. 105-108
EIR
N 82° 55' E
44.50'
S 57° 05' E
PLAT 760 CONTOUR
LOT 25
LOT 26
LOT 24
50'
761.0
187.98'
N 13° 50' 20" W
SETBACK LINES
10'
TOP OF BANK
TOE OF BANK
771.1
776.0
767.8
782.6
782.4
783.6
779.4
782.6
781.9
789.7
782.8
783.0
784.9
787.7
782.9
701.9
PROPOSED SEPTIC LINES
40'
S 32° 32' 10" E
141.09'
S 75° 56' W
125.00'
EIR
701.9

A1800.5









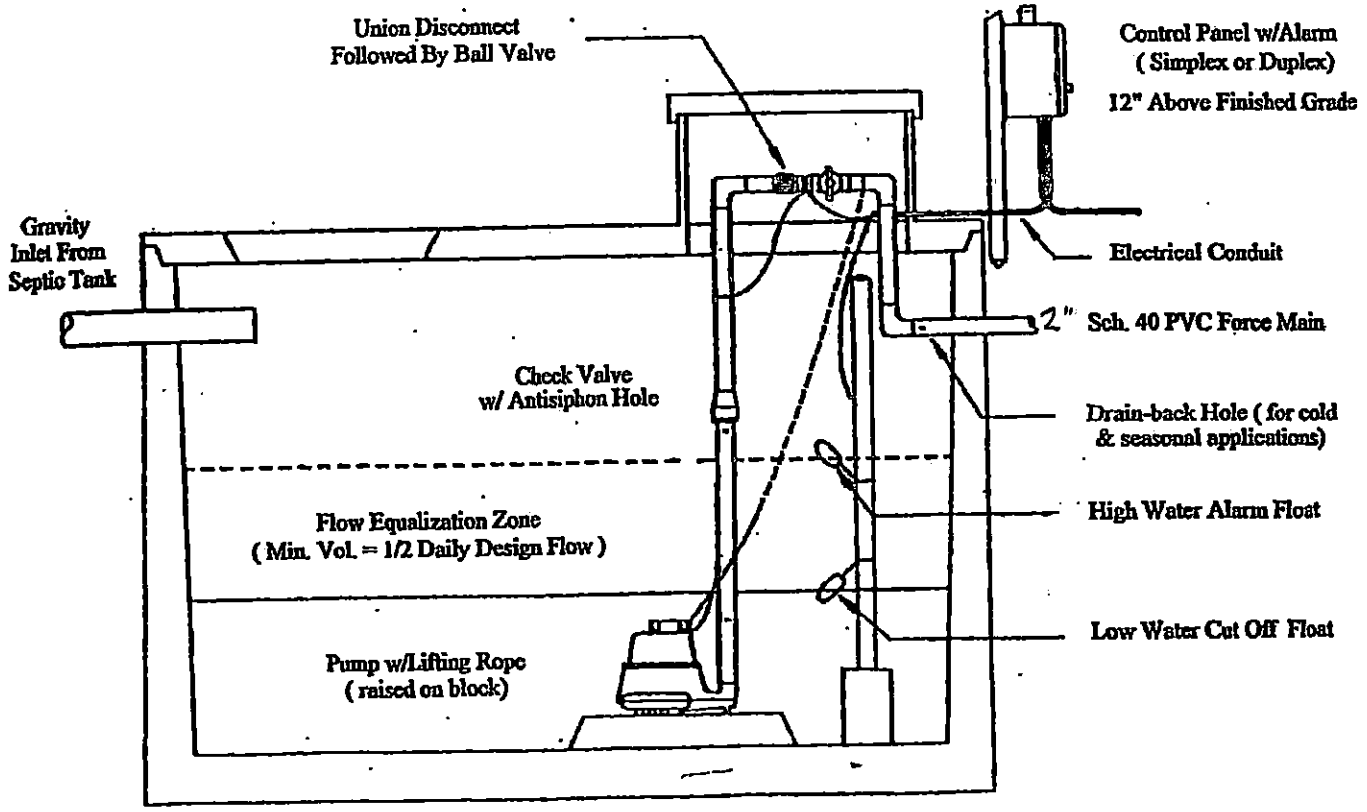
Zabel™ Recommendation: Any configuration of Risers used should not exceed 48" in height.

The product(s) shown are covered by one or more of the following patents:
U.S. 5,382,357, 5,482,621, 5,683,577, 5,580,453, 5,582,716, 5,591,331, 4,710,295, 5,593,584, U.S. Des. 386,241,349067, 4605501,5098568, Des. 309007, Canadian: 2,135,937 New Zealand: 264824, Other Patents Pending

Call for a free ZABEL ZONE™ *An Onsite Wastewater Magazine* **1-800-221-5742** • Website http://www.*zabel*.com

TYPICAL PUMP TANK DETAIL

1. Pump tank shall have an access manhole extending at least 6 inches above finished grade.
2. Pump and 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. The pump(s) 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 waterproof, gasproof, 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.
3. 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. The alarm shall be audible and visible by system users and included in the pump and control enclosure (Simplex or Duplex Control Panel).
4. Float switch for the high water alarm shall be set no more than 3 inches above the high water level of pump cycle.
5. Pump floats should be set so that level of water at end of pump cycle is above the top of the pump.
6. Float switch tie downs to be made of corrosion resistant material, no tape or metal hose clamps.
7. Pump discharge shall have a check valve.
8. Anti-siphon hole (three-sixteenth inch) is required between the pump and the check valve.
9. Watertight testing will be required on two piece pump tanks.



"Quality Pumps Since 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

ZOELLER® PUMP CO.

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

SECTION: 2.20.045
FM1502
0104
Supersedes
0403

visit our web site:
http://www.zoeller.com

COMPARE THESE FEATURES

- Durable Cast Iron construction.
- Non-Clogging engineered thermoplastic vortex impeller design, passes ½" spherical solids.
- Motor - 60 Hz, 3450 RPM, oil-filled, hermetically sealed, automatic reset, thermal overload protected.
- Available in both single or double shaft seal designs.
- Carbon/Ceramic seals.
- Assembled with Stainless Steel bolts.
- Upper sleeve and lower ball bearing running in bath of oil.

15 ft. UL Listed Neoprene cord with molded plug cap and ground wire.

1½" NPT vertical discharge.

Stainless steel lifting handle.

BN and BE models include a variable level float switch and 1½" X 2" PVC adapter fitting.

Operates at temperatures to 130°F (54°C) in effluent or dewatering applications.

Corrosion resistant powder coated epoxy finish.

Note: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

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Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP
FAX (502) 774-3624

Manufacturers of . . .

"Quality Pumps Since 1939"

140 / 4140 Cast Iron Series

(For Pump Prefix Identification see News & Views 0052)

"FLOW-MATE"

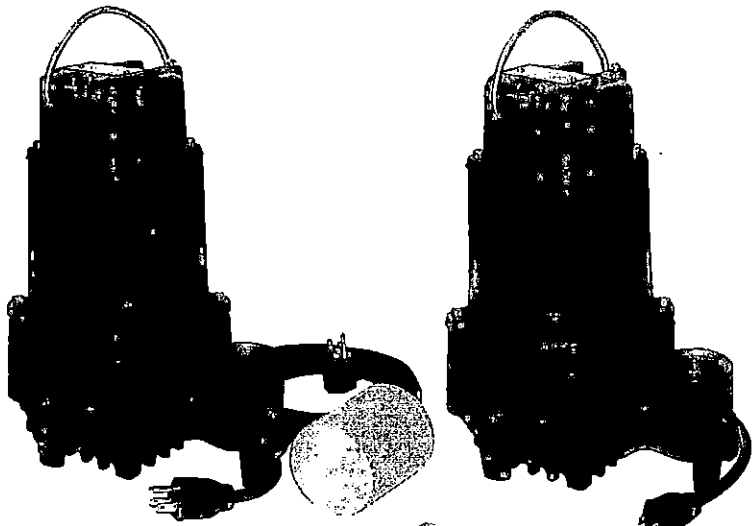
FOR SEPTIC TANK - LOW PRESSURE PIPE (LPP)
AND ENHANCED FLOW STEP SYSTEMS

EFFLUENT

OR DEWATERING PUMPS
SUBMERSIBLE
1½" NPT DISCHARGE

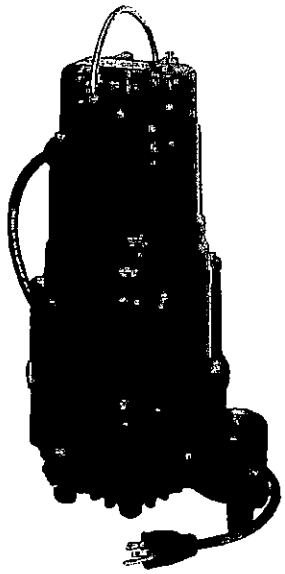
SSPMA MEMBER SUMP AND SEWAGE PUMP MFRS. ASSN.

QUALITY MADE SERVICE PARTS ZOELLER PUMP CO. BY U.S. CRAFTSMEN



C SP US
Tested to UL Standard UL778 and Certified to CSA Standard C22.2 No. 108

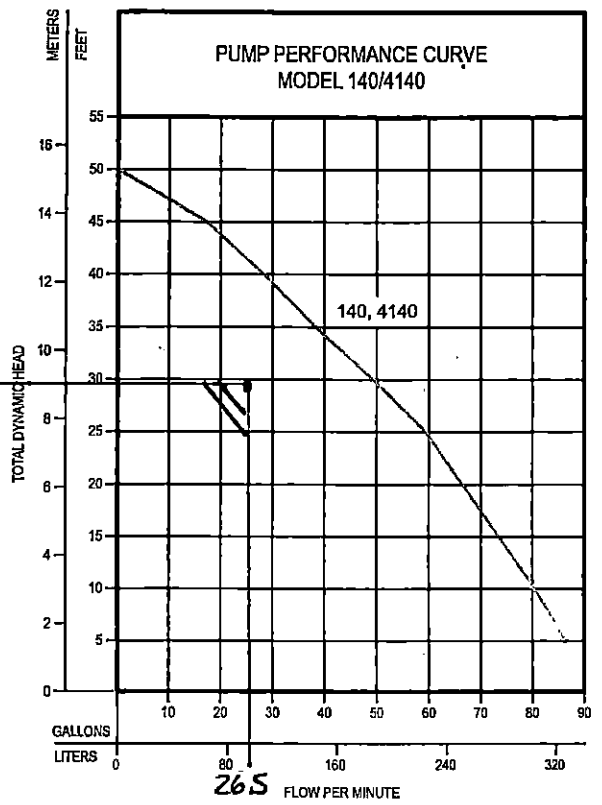
POWDER COATED **TOUGH™**



Model 4140 Double Seal Pump

MODELS AVAILABLE
- Nonautomatic
- 1 HP, 1Ph 115V or 230V

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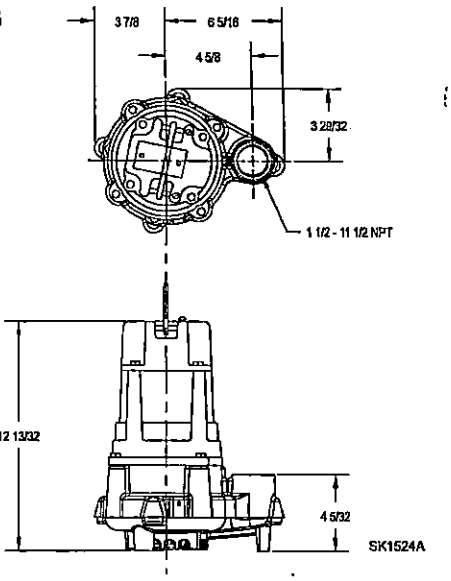


010940

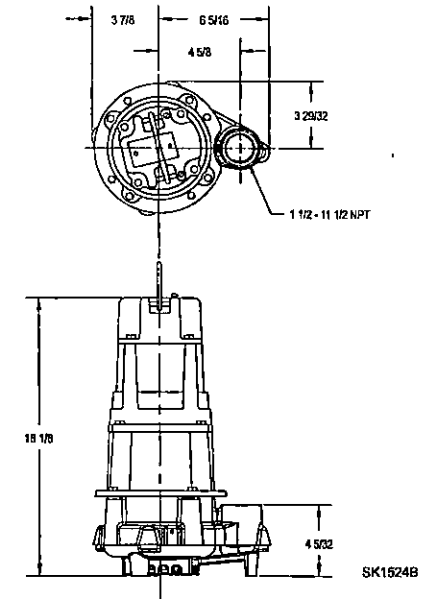
TOTAL DYNAMIC HEAD/FLOW PER MINUTE EFFLUENT AND DEWATERING

MODEL		140/4140	
Feet	Meters	Gal.	Liters
5	1.5	86	326
10	3.0	80	303
15	4.6	73	276
20	6.1	66	250
25	7.6	59	223
30	9.1	49	185
35	10.7	38	144
40	12.2	28	106
45	13.7	17	64
Shut-off Head:		50 ft.(15.2m)	

Single Seal Design
Weight 43 lbs.



Double Seal Design
Weight 43 lbs.



- Electrical alternators, for duplex systems, are available and supplied with an alarm.
- Mechanical alternators, for duplex systems, are available with or without alarms.
- Control alarm systems are available for 1 phase pumps used in simplex system. See FM0732.
- Variable level control switches are available for controlling single phase systems.
- Double piggyback variable level float switches are available for variable level long cycle controls.
- Sealed Qwik-Box available for outdoor installations. See FM1420.
- Refer to FM0806 for applications above 130°F (54°C).

140/4140 MODELS						Control Selection	
Model	Model	Volts-Ph		Mode	Amps	Simplex	Duplex
N140	N4140	115	1	Non	12.0	1 or 2	3
E140	E4140	230	1	Non	6.0	1 or 2	3
BN140	BN4140	115	1	Non	12.0	*	---
BE140	BE4140	230	1	Non	6.0	*	---

*Single piggyback switch included.

SELECTION GUIDE

1. For automatic use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
2. See FM1228 for correct model of simplex control panel.
3. See FM0712 for correct model of duplex control panel.

⚠ CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

http://www.zoeller.com

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Manufacturers of..
"Quality Pumps Since 1939"

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visit our web site:
www.zoeller.com

SECTION: 4.10.005
FM1598
0704
Supersedes
0803

ELECTRICAL CONTROL PANELS - FOR SIMPLEX INSTALLATIONS

An Electrical Control Panel is used on a Simplex pump application where automatic electrical cycling of the pump is desired for added protection in residential or commercial applications. A Control Panel is required for all systems using a nonautomatic pump. The built-in alarm system, a standard feature, will activate when the water level becomes unusually high. All electrical systems must be installed by a qualified electrician and according to the National Electrical Code. (See Section 430-71 though 430-113, plus any others that apply.)

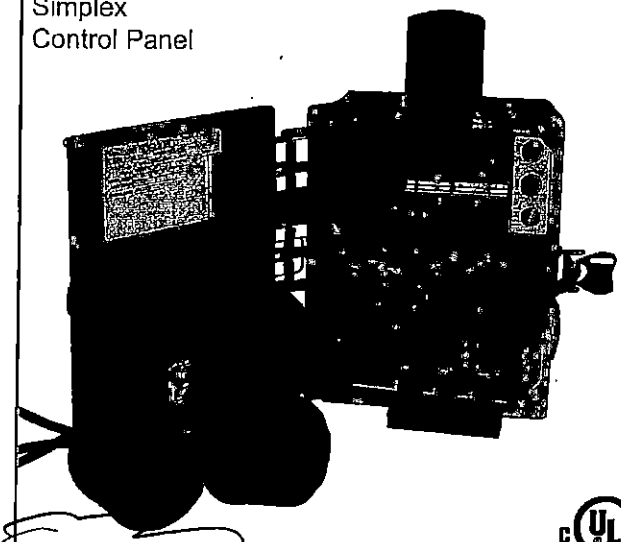
SINGLE PHASE CONTROL PANEL FEATURES

- 115-208-230 Volts.
- Clear dead front panel.
- Complete with (3) 20 ft. control float switches.
- Equipment disconnect.
- Motor contactor (all models except 10-1019 and 10-1023)
- NEMA 4X watertight enclosure with lockable latch.
- Top mounted alarm light.
- Alarm horn provides audio warning of alarm condition (83 to 85 decibel rating).
- Pump run indicator light.
- Horn silence and alarm test toggle switches.
- HOA switch.
- Complete installation instructions included.
- UL Listed for US & Canada.
- Lockable Latch.
- 2 Year Warranty.
- Dry auxiliary contact (not available in Plug-In Panels).

SINGLE PHASE SIMPLEX PLUG-IN CONTROL PANEL

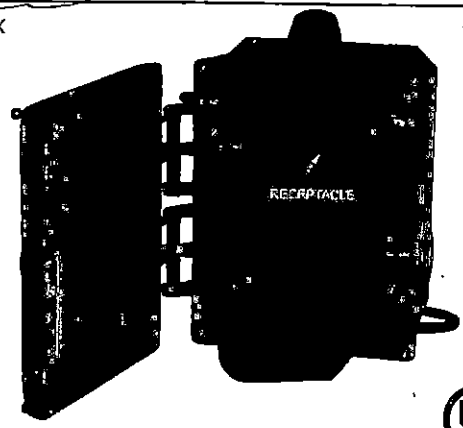
- 115V model 10-1019 or 230V model 10-1023.
- NEMA 4X enclosure with hinged cover.
- Receptacle for use with piggyback pump switch.
- Alarm Horn (83 to 85 decibel rating).
- Terminal strip.
- Horn silence switch to turn alarm on or off.
- Alarm Float only.

Simplex Control Panel



Model 10-0125

Simplex Plug-In Panel



Model 10-1019

SINGLE PHASE SIMPLEX PUMP CONTROL/ALARM SYSTEM				
Model #	**Volts**	**Amp Range**	**Float Switches Included**	**Features**
10-1019	115V	0-15	Alarm Float Only	Plug-In
10-1023	230V	0-15	Alarm Float Only	Plug-In
10-1036	115V, 208-230V	0-7	Three-20' Control Floats	Circuit Breaker Disconnect
10-1037	115V, 208-230V	7-15	Three-20' Control Floats	Circuit Breaker Disconnect
10-1038	115V, 208-230V	15-20	Three-20' Control Floats	Circuit Breaker Disconnect
10-0125*	115V, 208-230V	0-20	Three-20' Control Floats	Pull Out Disconnect

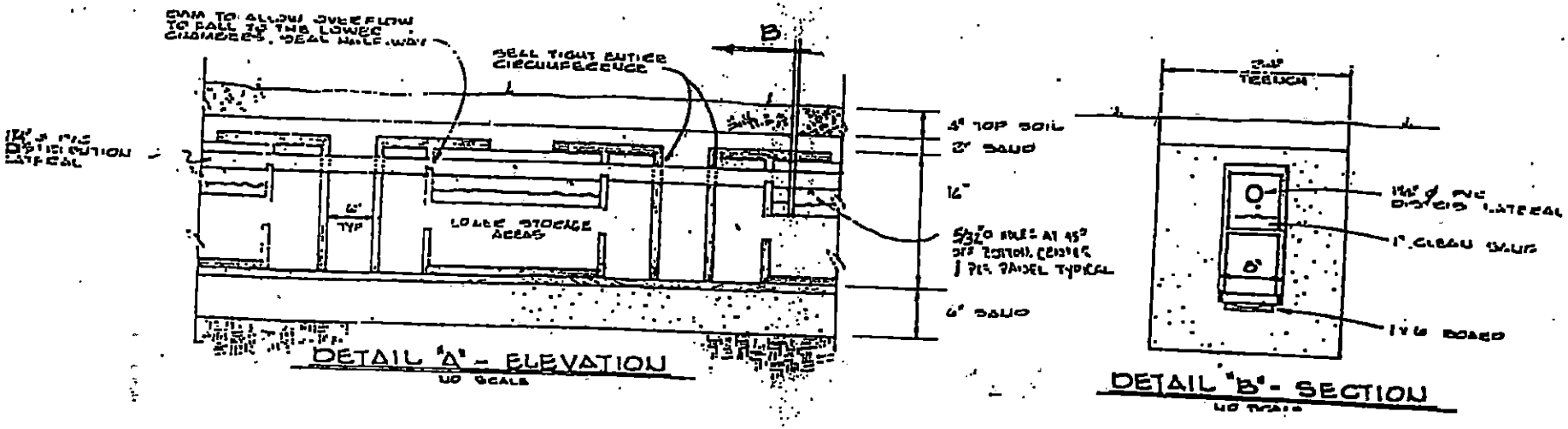
NOTE: 600 and X600 Series single phase pumps require special panels that include start components. See Selection Guide FM1228 and FM1705 for correct panel selection.

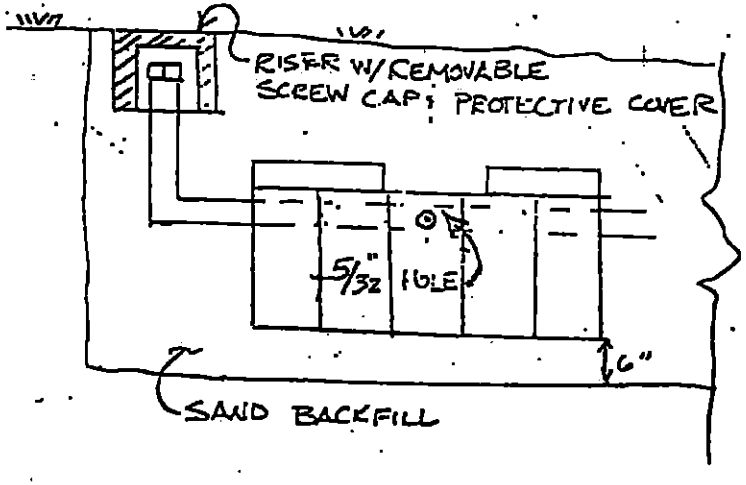
(1) Alarm Float Switch not included, purchase separately. See FM0526.

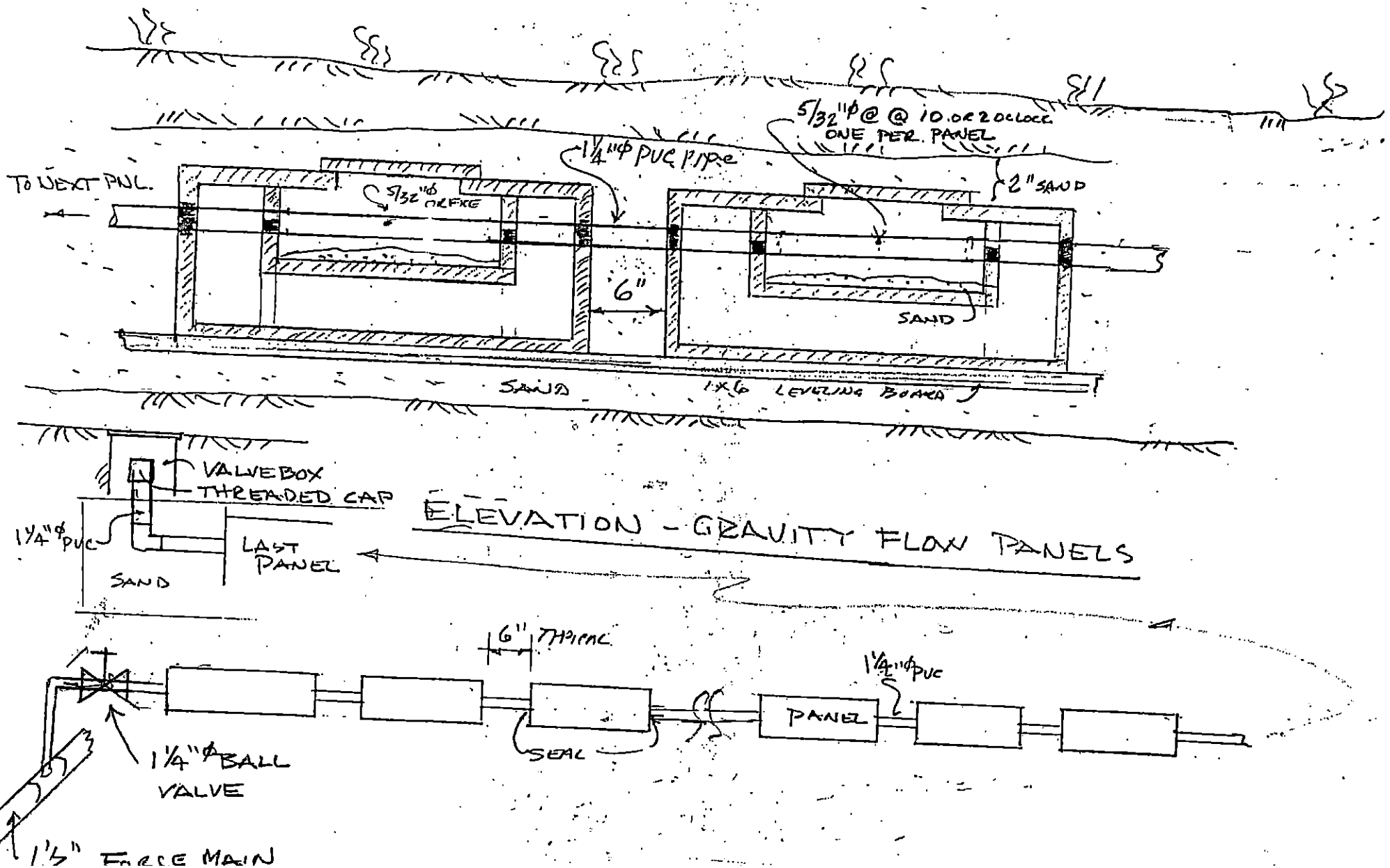
* 10-0125 Branch Circuit Protection provided by the installing electrician.

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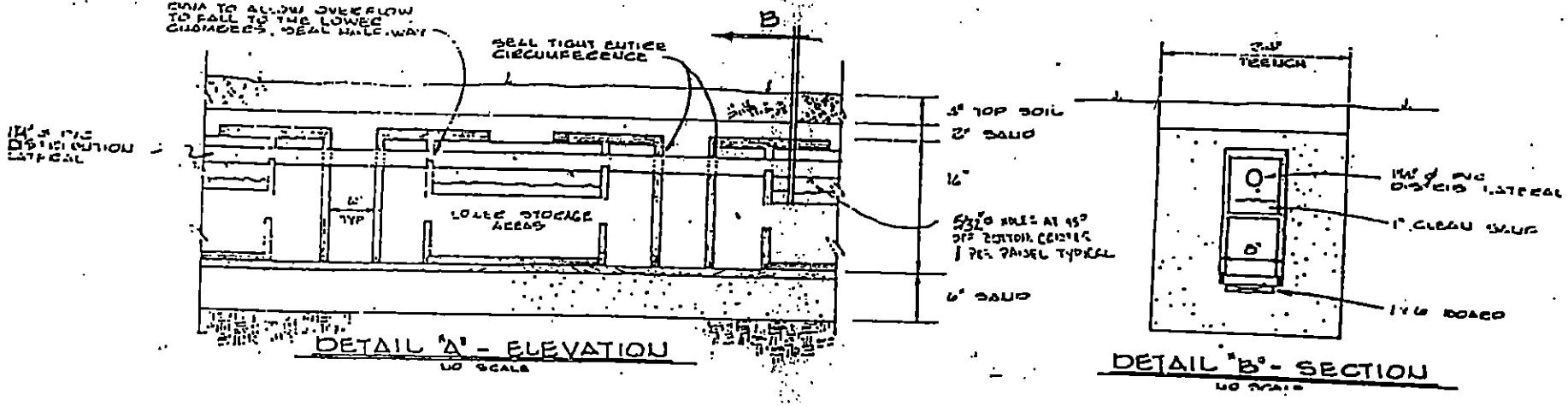
T & J PANEL AS MFGD BY STATESVILLE CONCRETE PRODUCTS

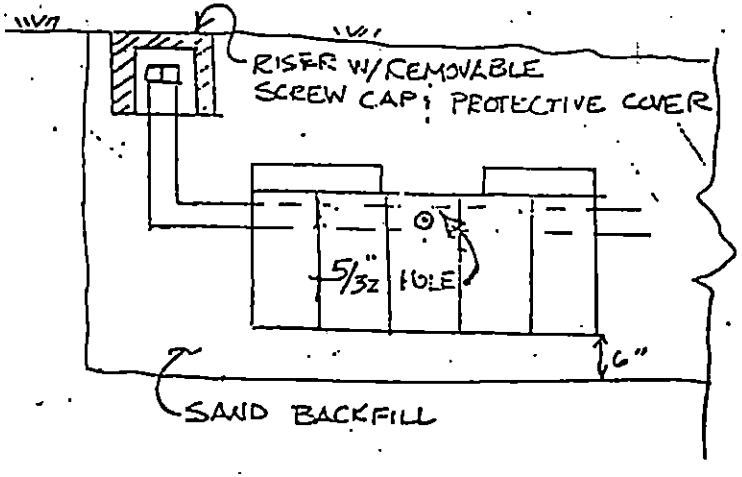




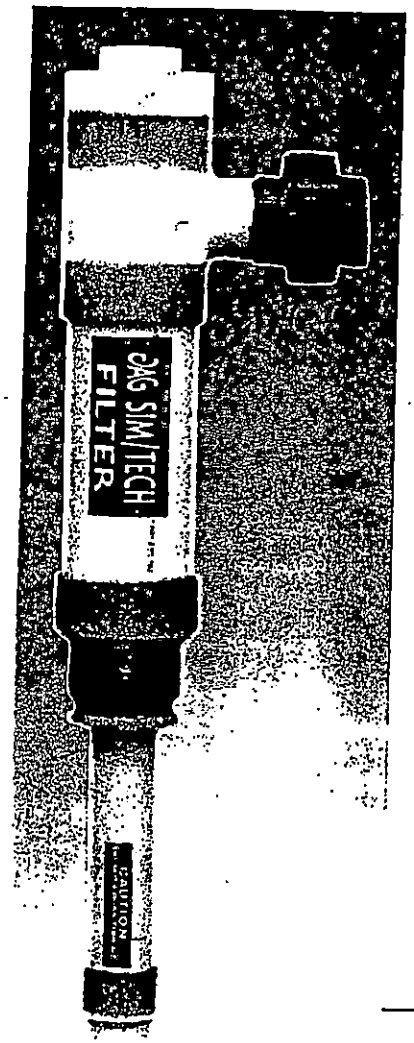

TO NEXT PNL.
5/32" ϕ ORIFICE
1¼" ϕ PVC PIPE
5/32" ϕ @ @ 10 OR 2 O'CLOCK
ONE PER PANEL
2" SAND
6"
SAND
SAND
1X6 LEVELING BOARD
VALVEBOX
THREADED CAP
1¼" ϕ PVC
LAST PANEL
SAND
ELEVATION - GRAVITY FLOW PANELS
6" TYPICAL
1¼" ϕ PVC
PANEL
SEAL
1¼" ϕ BALL VALVE
1½" FORCE MAIN

T & J PANEL AS MFG'D BY STATESVILLE CONCRETE PRODUCTS





B.K. Barringer, Jr. P.E.
104 Westfield Center
MOORESVILLE, NORTH CAROLINA 2





The Sim/Tech Filter, with its unique design and mounting location, allows the filtering screen to be scrubbed while in operation providing maximum maintenance intervals with unmatched performance capabilities.

The filter screen is a type 304 S.S. with .062 diameter holes. It is 3 inches in diameter and 18 inches long with a 69.52 square inch open area. This large 41% open area allows the filter to pass 83.8 gallons per minute at 1 psi. With features like these even a partially clogged screen will keep the system well protected and working properly.

This performance product assures quality effluent with lower BOD and TSS, not directly but indirectly, by assuring your pressurized system functions at 100% efficiency.

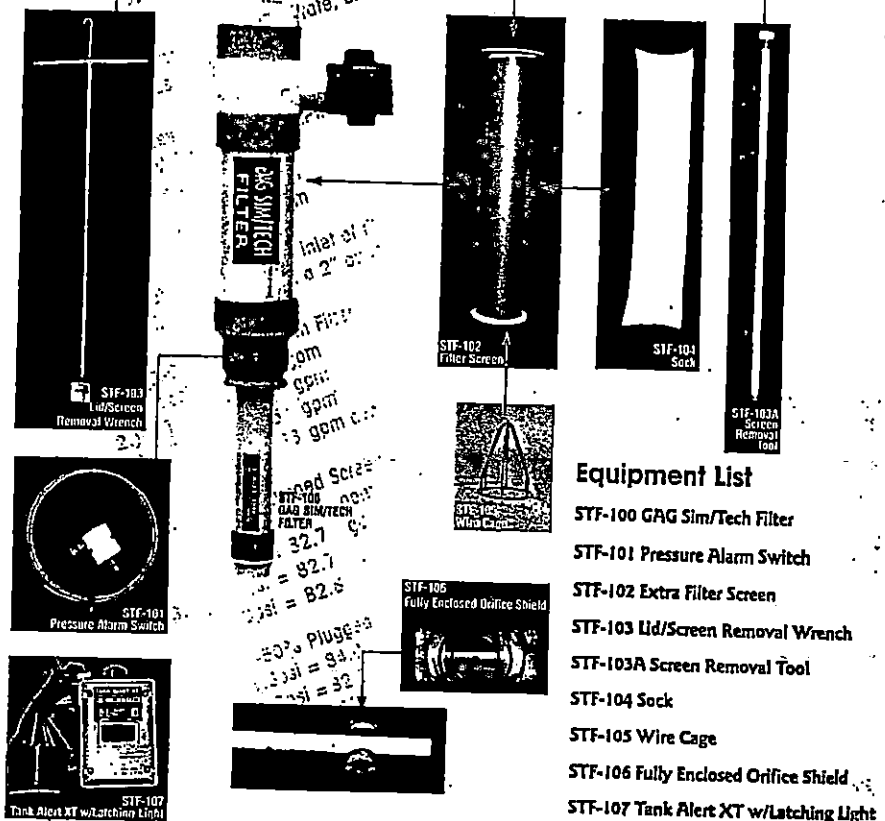
Engineers and designers now have the opportunity to offer a simple safeguard to meet performance standards now and in the future.

- Easy installation
- Low maintenance
- Economical
- Extends life of drainfield
- Improves effluent quality by assuring even distribution
- Ideal for effluent submersible pumps
- Can be used in both residential and commercial applications

An Innovative **Solution**

Engineered *For Performance*





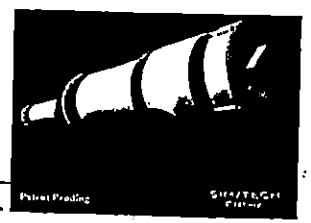
Equipment List

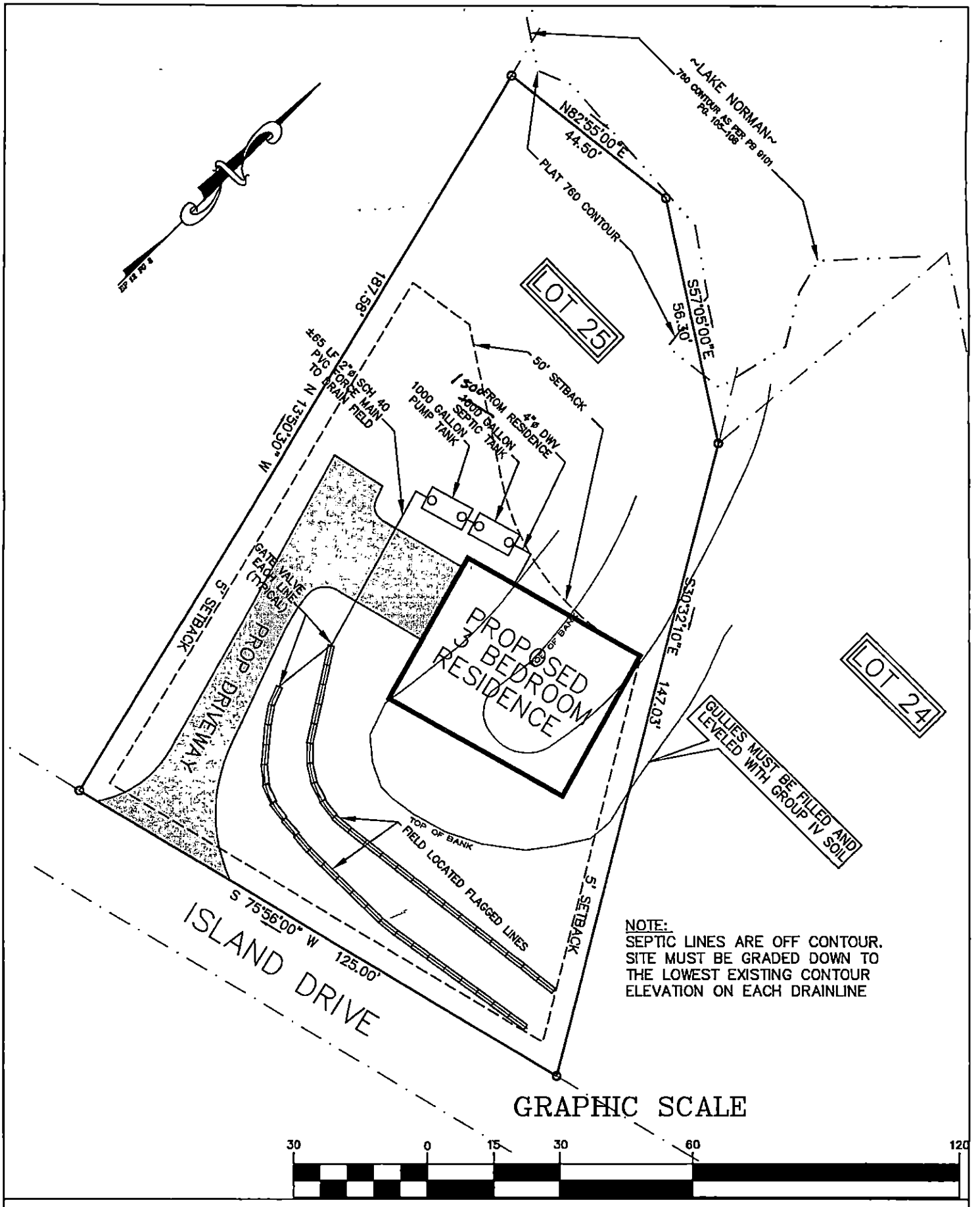
- STF-100 GAG Sim/Tech Filter
- STF-101 Pressure Alarm Switch
- STF-102 Extra Filter Screen
- STF-103 Lid/Screen Removal Wrench
- STF-103A Screen Removal Tool
- STF-104 Sock
- STF-105 Wire Cage
- STF-106 Fully Enclosed Orifice Shield
- STF-107 Tank Alert XT w/Latching Light

Restrictions and Specifications

Total Head Loss .5002ft. or .2lpsi
Flow Rate with a Clean Screen = 120,672 GPD at 1psi
Flow Rate with a 95% Plugged Screen = 114,912 GPD at 1.8psi

Pump chamber detailed drawings and/or CAD disks for the Sim/Tech Filter are available upon request, at no cost, to help aid in your blueprint and drafting needs.





NOTE:
SEPTIC LINES ARE OFF CONTOUR. SITE MUST BE GRADED DOWN TO THE LOWEST EXISTING CONTOUR ELEVATION ON EACH DRAINLINE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

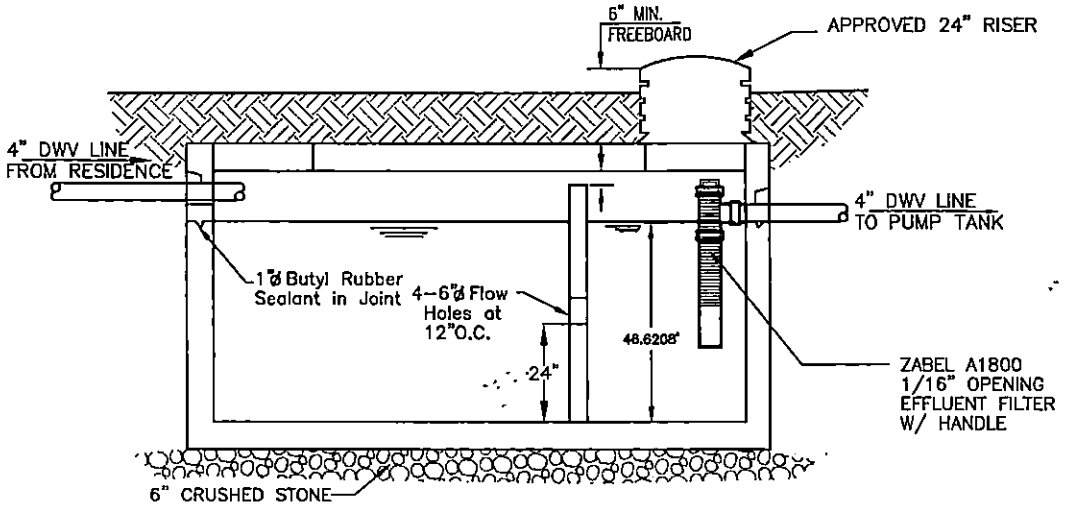
SHEET 1 of 1

ROLLANS SOIL & ENVIRONMENTAL SERVICES
2120 GRAHAM ROAD
MOUNT ULLA, NC 28125
PHONE/FAX: (704) 278 - 0989
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746 - 5046
EMAIL: ROLLANSFORTC@AOL.COM

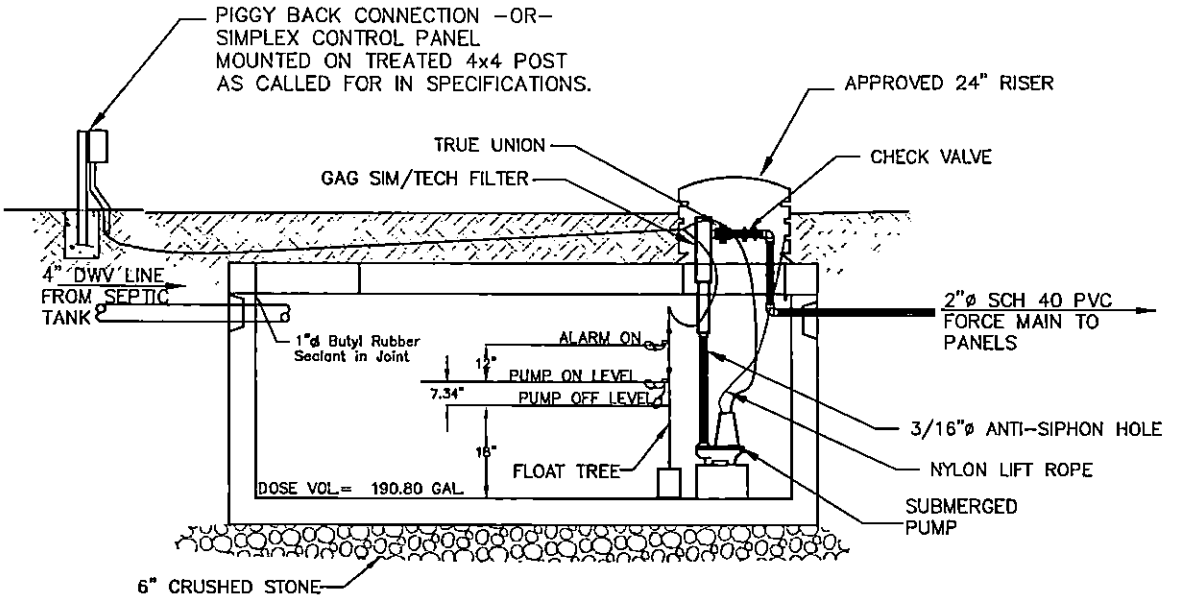
SHEET TITLE:
DETAILED SOILS EVALUATION, DRAINFIELD LAYOUT, AND SITE PLAN FOR LOT # 25

PROJECT NAME:
Collins & Associates
- TWIN COVE -
MECKLENBURG COUNTY, NORTH CAROLINA
SEPTEMBER 2005

PROJECT NO. XXXXXXX
PROJECT NO. XXXXXXX
S.A.R.
DRAWN BY
D.M.D.
FIELD WORK
S.A.R.
SCALE
1" = 30' FT
FILE
CNSXXXXXXX



SECTION VIEW– DEH APPROVED 1000 GAL SEPTIC TANK
N.T.S.



SECTION VIEW-- DEH APPROVED 1000 GAL PUMP TANK
N.T.S.

SHEET 1 of 1

ROLLANS SOIL & ENVIRONMENTAL SERVICES
2120 GRAHAM ROAD
MOUNT ULLA, NC 28125
PHONE/FAX: (704) 278 - 0989
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746 - 5046
EMAIL: ROLLANSPORTC@AOL.COM

SHEET TITLE:
TANK DETAILS
FOR LOT # 25

PROJECT NAME:
- TWIN COVE -
MECKLENBURG COUNTY, NORTH CAROLINA
SEPTEMBER 2006

FILE: C:\DISK\XX-XXXX
SCALE: BAR SCALE ON MAP
FIELD WORK: S.A.R.
DRAWN BY: D.M.D.
PROJECT MGR.: S.A.R.
PROJECT NO.: XX-XXXX

2120 Graham Road
Mt. Ulla, NC 28125
Phone/Fax: (704) 278 – 0989

Samuel A. Rollans, LSS

ROLLANS
SOIL & ENVIRONMENTAL SERVICES

TRANSMITTAL

To:	Jeremy Mikelone, RS	**From:**	Ashley Rollans, LSS
Enclosed:	3 copies of design & profile descr.	**Pages:**	Multiple
Phone:		**Date:**	9/14/05
Re:	Lot 25 Design for Winston	**CC:**	Ry Winston

☐ **Urgent** ☑ **For Review** ☑ **Please Comment** ☑ **Please Reply** ☐ **Please Recycle**

Comments: Jeremy,

Attached are 3 copies of a PPBPS design with low pressure distribution for Lot 25 @Twin Cove. I have included a description of the 9' soil boring in the drainfield area. Bill Marlin has descriptions of the two pit located in the drainfield area. There are notes in the design regarding the filling of the gully and grading of the drainfield area. Also as discussed the roadside ditch must be improved to insure that upslope water is shed around the drainfield. Ry Winston indicated that the home would likely have a half basement on the lake side. I have maintained a 25' setback upslope of the basement wall/foundation drain. This would preclude the use of foundation drains around the foundation wall closest to the road. Please contact me @ 704.746.5046 if you have any questions.

Thank you

Ashley

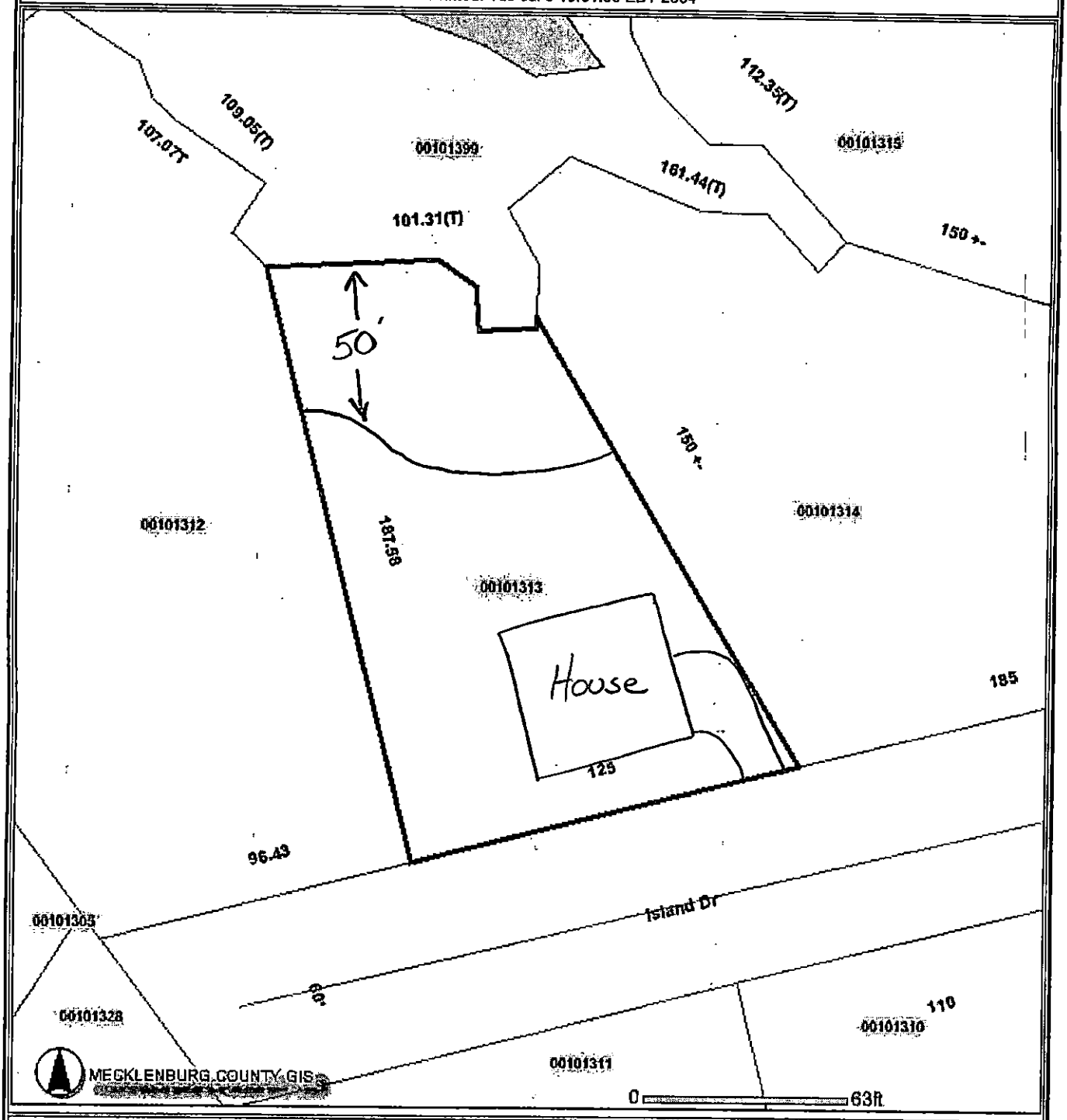
file 56-45B

Mecklenburg County, North Carolina

POLARIS

Property Ownership Land Records Information System

Date Printed: Tue Jul 6 16:31:05 EDT 2004



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

FEE: _____
DATE: _____

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

PERMIT NUMBER: 5645B
PARCEL NUMBER: 00101313

JOB LOCATION ADDRESS: Lot #25 Island Drive
PROPERTY OWNER: Ryland A. Winston
BUILDING CONTRACTOR: _____
SUBDIVISION NAME: Twin Cove
AUTHORIZATION ISSUED BY: Jeremy Michelone, R.S. DATE: 09/23/05

Jeremy Michelone, R.S.
DENR/DEH AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 5645B, 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 THE 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 CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.

5. OTHER CONDITIONS:
   See conditions of Improvement Permit.

MECKLENBURG COUNTY
Health Department

August 03, 2004

Ryland A. Winston
828 Ardsley Road
Charlotte, NC 28207

Re: Application for improvement permit for
Property Site: Lot #25 Island Drive
Health Department file number: **5645B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on **August 02, 2004** 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 three-bedroom residence, with a design wastewater flow of 360 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 .l900 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 **August 03, 2004**. 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,

Jeremy Michelone, R.S.
Authorized Agent - DENR

Encl: (2)

CONDITIONS OF IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATON

Permit Number: 5645B Tax Number: 00101313

- 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)	360 Max gallons/day wastewater flow	600 Absorption Area (ft^2)	9 Trench spacing (min. on centers) (ft)
Serviced by private well: ☐ Yes ☒ No	1500 Gallon septic tank	200 Total trench length (ft)	30 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
3 Bedrooms in residence	1000 Gallon pump tank	NA Depth of stone (in)	

Any surface water present: **YES** Type: **Lake Norman** Minimum separation distance (ft): **50**

Additional conditions: **Install system according to designed plans by consultant.**
Agreement forms on file before CA release.
Property does not require 100% reserve area.

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 stone (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, Construction, Alteration and/or Repair Approval is granted by this Department.

*** This Improvement permit is transferable.

Tommy Mobley R.S. 9/23/05

DENR Authorized Agent Date

Owner/Agent Signature Date

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE: (704) 336-5103
FAX: (704) 336-6894

NC DENR
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION