

4315 CREEMORE DR

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Groundwater and Wastewater Services File Imaging Project
May 2007
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LOW PRESSURE PIPE CHAMBERED SEPTIC SYSTEM PLAN

4315 CREEMORE DRIVE

MECKLENBURG COUNTY - NORTH CAROLINA

by

Toney C. Jacobs & Associates, Inc.
Consulting Soil Scientists
168 Broadbill Drive
Mooresville, N. C. 28115

September 3, 1996

Mecklenburg County File #12257
TC 105-166-21



To: Mr. Kelly Randall, R. S.
Mecklenburg County Health Dept.
Charlotte, N. C.

Mrs. Emma L Baumgardner
3925 Bellingham Lane
Charlotte, N. C. 28215



Paul G. Pennington

Toney C. Jacobs, CPSS

C A U T I O N

Although little clearing and no grading should be required, do not begin doing equipment work without reading and understanding what is below.

This lot has the minimum acceptable soil for this combined alternative system. Work only while soil is moist or dry and protect drainfield to maximum. Any loss in soil depth will cause the permit to be revoked.

4315 Creemore Drive

LOW PRESSURE PIPE CHAMBERED SEPTIC SYSTEM

Design Considerations

This system is proposed for a single family residential lot of 0.63 acres in a subdivision of older single family homes in Mecklenburg County. This is the last unimproved lot in the area. The system is designed for a 3 bedroom home to be served by public water. The soil on most of the lot is unsuitable for ground absorption by a conventional system, but a small area of the soil is provisionally suitable for a Low Pressure Pipe (LPP) and chambered system Soil texture ranged from a sandy clay to clay loam. The limiting factors for the site were the area not affected by fill, depth to the seasonal high water table area, and provisionally suitable soil mineralogy. It was discussed with both Bill Marlin and Kelly Randall of the Mecklenburg County Health Department to plan the system only in the left front corner of the lot. This discussion included a space saving system and shallow placement.

Because of shallow soil depth and area, an LPP chambered system is considered best suited and permittable for the lot. A repair area will not be required, but a minor area is designed on the site plan. A caution to the installer includes no cutting or leveling. Because of landscape and road ditch no interceptor drain is required as a part of the system.

Location

The 0.63 acre building lot is the first vacant lot on the right after a left off Hood Lane.

Reference

(1) *Design and Installation of Low Pressure Wastewater Treatment Systems,* by Craig Cogger, Bobby L. Carlisle, Dennis Osborne, and Ed Holland. UNC Sea Grant UNC-SC-82-03, May 1982.

(2) *Laws and Rules for Ground Absorption Sewage Disposal Systems 15A NCAC 18A. 1900,* NCDEHNR-DEH.

(3) *The Infiltrator Chamber Leach Field System.* Produce information. Old Saybrook, CT.

Recommendation

Three hundred (300) lineal feet of LPP lines in 36" chambers. Repair is not required, but would be sand filtered shallow place drip technology.

Ownership Responsibility for a LPP Distribution Chambered System

Conservation measures should be undertaken in plumbing fixture specifications to minimize the volume of wastewater entering the disposal system, including, but not limited to the following precautions:

(a) Provide water conserving plumbing fixtures within the facility. Waterclosets must be 1.6 gal. flush (per code). Shower head should also have restrictions or be of low volume design.

(b) Develop conservative water use habits.

(c) Monitor and maintain the system as necessary for proper operation. An Operation Permit will require a maintenance contract to be filed with the Mecklenburg County Health Department. It is recommended that the owner aggressively utilize this requirement because of its importance to system longevity. The management entity (certified operator) should be a part of installation process. If installed by other, it would be best if operator was consulted for a preclosure inspection.

System must be properly installed by a *qualified* and *competent* contractor following the requirements of the Mecklenburg County Department of Environmental Health, DEH, the N.C. Building Code, Plumbing Code, and the Electrical Code. This plan, as any, is a guide to a minimum standard, but cannot take the place of experience and common sense. County inspector should allow minor additional inspection time because of complexity of system and need for exacting levels.

Components of System

1. Two compartment septic tank - 1500 gal.
2. Pumping tank - 1500 gal.
3. Submersible effluent pump and level controls - SSOMA certified
4. High water alarm signals which are UL approved
5. Supply pipe
6. Gate valves
7. Infiltrator laterals with LPP distribution in trenches 36 inches wide, level end to end, and placed to the exact relative level specifications in plan. If the installer does not understand this or its importance, he should not begin construction until certain of all requirements.

Construction Sequence

1. Lines have been flagged as noted on drawing and in specifications.

2. Clear the area of all organic material with minimum soil disturbance (do not grade). Backfill low areas from old pits and shrub removal (crape myrtles and hollies) and any other depressions with clean imported sandy loam and tamp to surrounding compaction and look.

3. Install trenches per cited reference material and this plan. Top grade on pipes or chambers to be "level" from end to end and vertically from manifold and checked by sanitarian. (Note: This is a three valve designed system and uses two size holes). Sanitarian must check that correct drill bits are on site (5/32 and 9/64).

4. All joints in lateral manifold piping shall be watertight connections to insure that the only source of water seepage from the system is through the orifices as designed. Carefully install manifold and lateral network according to the attached design layout. Protect valves with valve box. 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). Turn-up with two 45 degree elbows, not one 90. Area around pipe should be stabilized with crushed stone, both inside and outside of riser. Stone allows for infiltration of waste and wash water when system is maintained. Hang pipe inside per manufacturers recommendations. Backfill on sides of Infiltrator to be washed creek sand.

5. Carefully backfill manifold trenches to grade with clean clay or clay loam soil fill material which is carefully placed and compacted.

6. The installation contractor shall stabilize the area of construction by planting with Kentucky 31 tall Fescue and mulching. Area to be limed and fertilized with 0.5 tons lime, 75 units of N, 150 units P, and 100 units of K per disturbed acre.

7. The septic tank shall consist of an approved 1500 gallon capacity reinforced, precast watertight, concrete tank with full baffle and shall have easy access to each chamber from ground level for inspection. The first chamber of the septic tank shall consist of 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 . Locate the septic tank at such height as to provide approximately 8" of cover soil over top of the tank.

8. The dosing tank shall consist of an approved 1500 gallon capacity, reinforced, precast, watertight concrete tank without baffle and shall have a concrete mounting pad (concrete blocks) for accommodating the pump. Test for leakage per regulations.

Provide access for entry into the tank directly over the pump location, and extending 6" above final grade. Use a 30" diameter concrete well casing or equivalent and concrete well cap or other approved type cover. There must be a seal (masonry or seal rope) between well tile and top of tank.

9. All piping and fitting shall be SCH 40 PVC. Glue for all PVC pipe joints shall be as recommended by the pipe manufacturer. Note: On the distal end of each lateral turn-up should be 2 each, 45 degree elbows, rather than one 90 to facilitate maintenance.

10. Pump: The submerged pump shall be Model ME 33 manufactured by Myers or equal, 115 or 230 v/l phase; capable of pumping 19.4 gallons per minute at 19.9' of head.

11. Pump controls and alarm to meet specifications of .1952, all being compatible.

12. A "Warning Sign" shall be located within the house to inform the occupants of action to take in case the "High Water Alarm" is activated. This sign shall contain the name, address, telephone number, and emergency telephone number of the person to contact upon malfunction of the system. This should be "management entity".

13. Pump and Controls: Details of pump installation are shown in the plan. The pump must be placed on concrete blocks on the bottom of the tank. This prevents the pumping of any solid particles which can clog the pipe system. A piece of nylon rope or other non-corrodible material should be attached to the pump and the outlet pipe for lifting the pump in and out of the chamber. Controls should be fastened to a "tree" or the outlet pipe with clamps or brackets supplied by the manufacturer. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all times. The level control "pump-on" is positioned to pump a specified volume of effluent. The high water control float is then mounted about 3" above the upper pump-on control. (Note: Care must be taken to insure that floats do not become fouled by other components in the tank, such as the electric power cord or the lifting rope. It is highly recommended that a telescoping "tree" be used for floats to facilitate adjustments.) The pump outlet pipe should be connected to the supply manifold with a threaded PVC union (or dresser coupling) to allow quick removal.

14. Electrical Connections: The pump and high water alarm must be placed on separate electrical circuits. (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 should be plugged into a NEMA 4X

approved outdoor receptacle. This must not be located inside the pumping chamber due to the corrosive and explosive gasses that may form from the sewage. This box must be a minimum of 1' above finished grade. Some level control switches have a box built into the housing, but are more expensive than the plug-in devices. Wiring between the pumping chamber and the station should meet State and local code requirements. A lightning arrester is recommended to protect the pump and controls from electrical surges.

15. Proper Operation Check: After all components have been installed and connected, the system should be checked for proper operation. With electrical power turned off, fill the pumping chamber with water from garden hose until the liquid rises to the level of the high-water alarm float. Turn on the electrical power. The alarm light should go on in the house, and the pump should start operating. The alarm light should go off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.

16. Pressure Head Adjustment: The pressure head must be adjusted to match that specified in the design. The pressure head is measured as the height liquid will rise above the turn-up elbow when the pump is running. To adjust the head:

(a) Glue a 4' length of pipe (preferably clear) to a threaded adapter that will screw onto the turn-up adapters. (Call this the "test tube".)

(b) Replace the turn-up cap with the "test tube".

(c) Adjust the gate valves until the effluent reaches the desired height in the "test tube". This may also be done with a weep hole in solid pipe at the desired height. Strive to be within 1/8" accuracy. Remember to include the distance below the ground surface to the lateral line when measuring the height. The pressure head should be as specified for each line. This is the height above the lateral where the liquid should be in the temporary "test tube".

17. Final Landscaping: After the system is installed, the absorption field should be reshaped to shed rainwater and be free of low areas to insure that the system will not be overloaded with excess rainwater and run-on. Grass over system should be maintained "short" to allow maximum surface runoff.

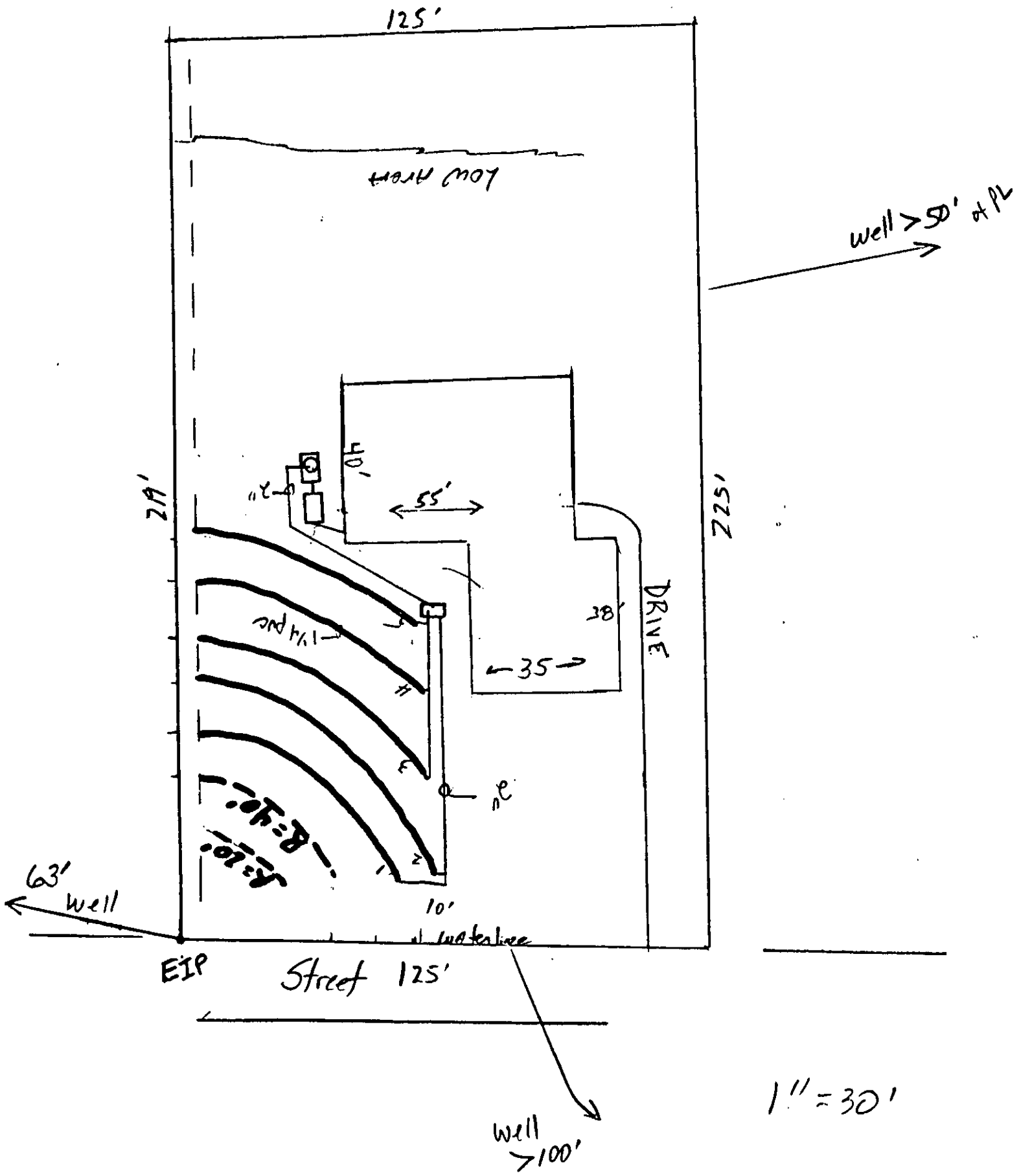
Concluding Note:

This plan was done to facilitate permitting by the Mecklenburg County Health Department by an agent of the owner. Any additions, or additional requirement(s), or deletions to enhance design or workability which will facilitate a permit are welcomed and may be made by note on this plan without returning entire design. The designer realizes that a plan with as many details as this can be changed and/or improved upon. The installer must realize that this is an exact plan and must be installed with exacting measurements. Should the installer desire a change, it must be approved by the health department in writing. Final inspection will also require more time and detail than a conventional system. If there are questions, please give me a call.

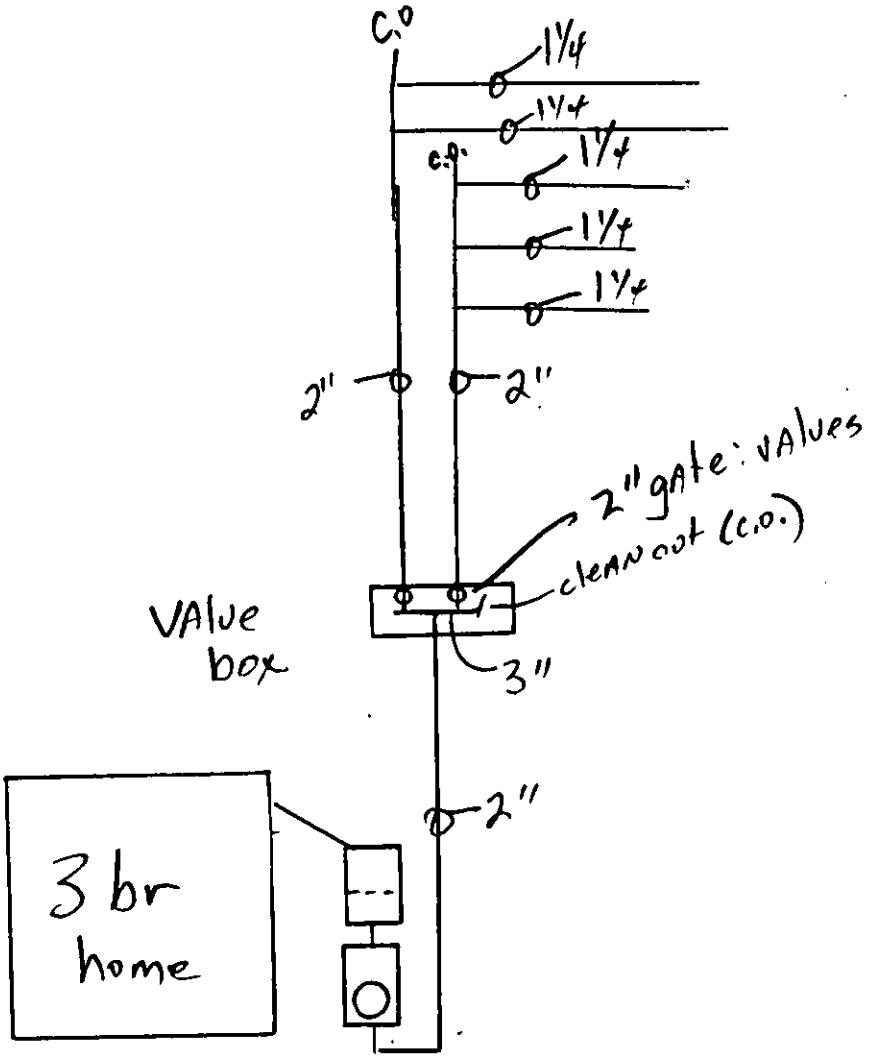
Design Specifications

4315 Creemore Drive

Daily design flow:	360 gpd. - 3bedroom house
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1500 gal.
Effluent loading rate:	0.3 gpd/sf for conventional, but sized to chamber system
Total length and diameter of supply manifold:	app. 60 lf-2" sch 40 PVC
Number and length of laterals:	5 lines totaling 300', 1¼" sch 40 PVC, end fed
Hole size:	9/64" and 5/32"
Hole spacing:	See Table
Total number of holes:	See design table
Flow rate through the system:	19.4 gpm
Elevation head:	12.0'
Pressure head:	2.6"
Friction head:	4.0'
20% contingency	3.3'
Total head:	19.9'
Pump requirements:	19.4 gpm at 19.9' of head; use Myers "ME 33" 1/3 pump or equivalent with compatible electrical
Dosing volume:	136 gal. - 2.6 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 gals.)
Pump run per dose:	approx. 7.0 min.
Check valve:	No
Siphon break hole:	No


125'
Low Area
well > 50' ± PL
219'
225'
10'
55'
2"
1½ PVC
DRIVE
38'
35
1"
63'
well
10'
waterline
EIP
Street 125'
well
> 100'
1" = 30'

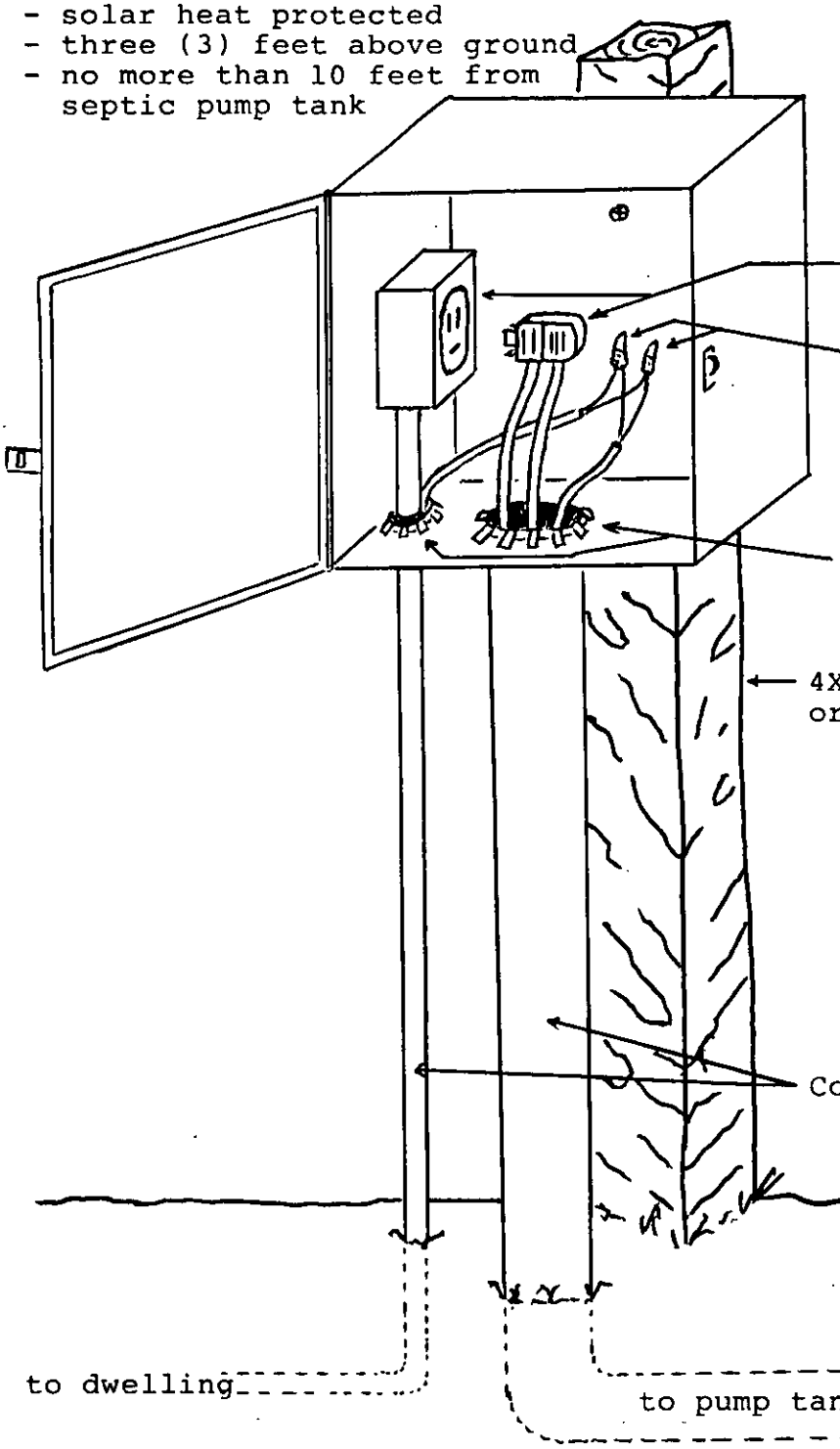
Schematic


C.O
1¼
1¼
C.O
1¼
1¼
1¼
2"
2"
2" gate valves
clean out (c.o.)
valve box
3"
2"
3 br
home

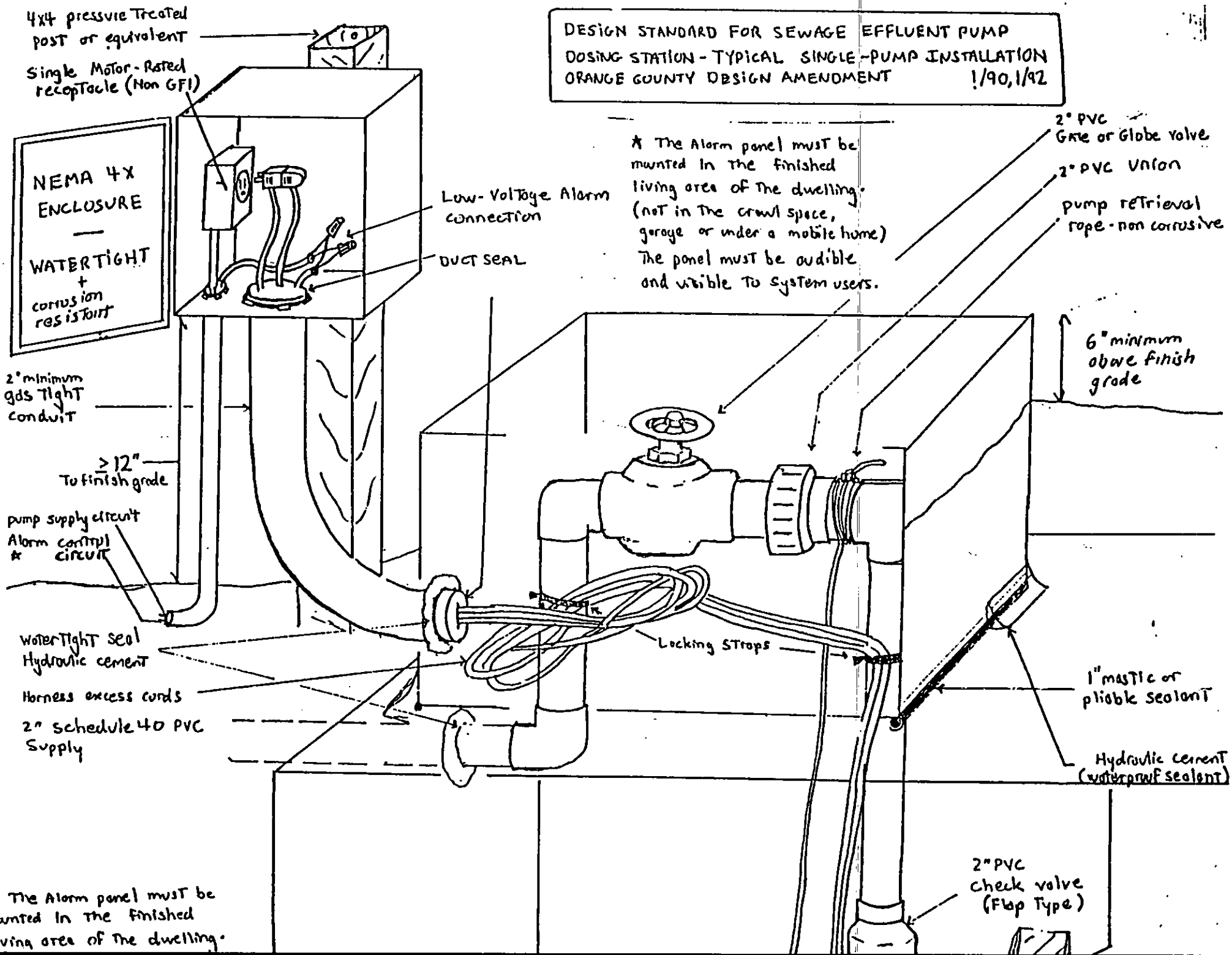
LINE	COLOR	LENGTH (ft)	ASSUMED O.S. ELEVATION	HEAD (ft)	HOLE SIZE (IN)	# HOLES	HOLE SPACING (ft)	FLOW/ HOLE (GPM)	FLOW/LINE (GPM)
1	RED	58	97.2	2.6	5/32	8	7.3	0.466	3.73
2	YELLOW	72	96.4	3.4	5/32	9	8.0	0.533	4.80
3	WHITE	59	95.6	2.0	5/32	9	6.4	0.409	3.68
4	BLUE	56	94.3	3.3	5/32	7	7.9	0.526	3.68
5	RED	56	93.2	4.4	9/64	7	8.0	0.492	3.44
		300'							19.33
									.067

NEMA 4X ENCLOSURE must be:

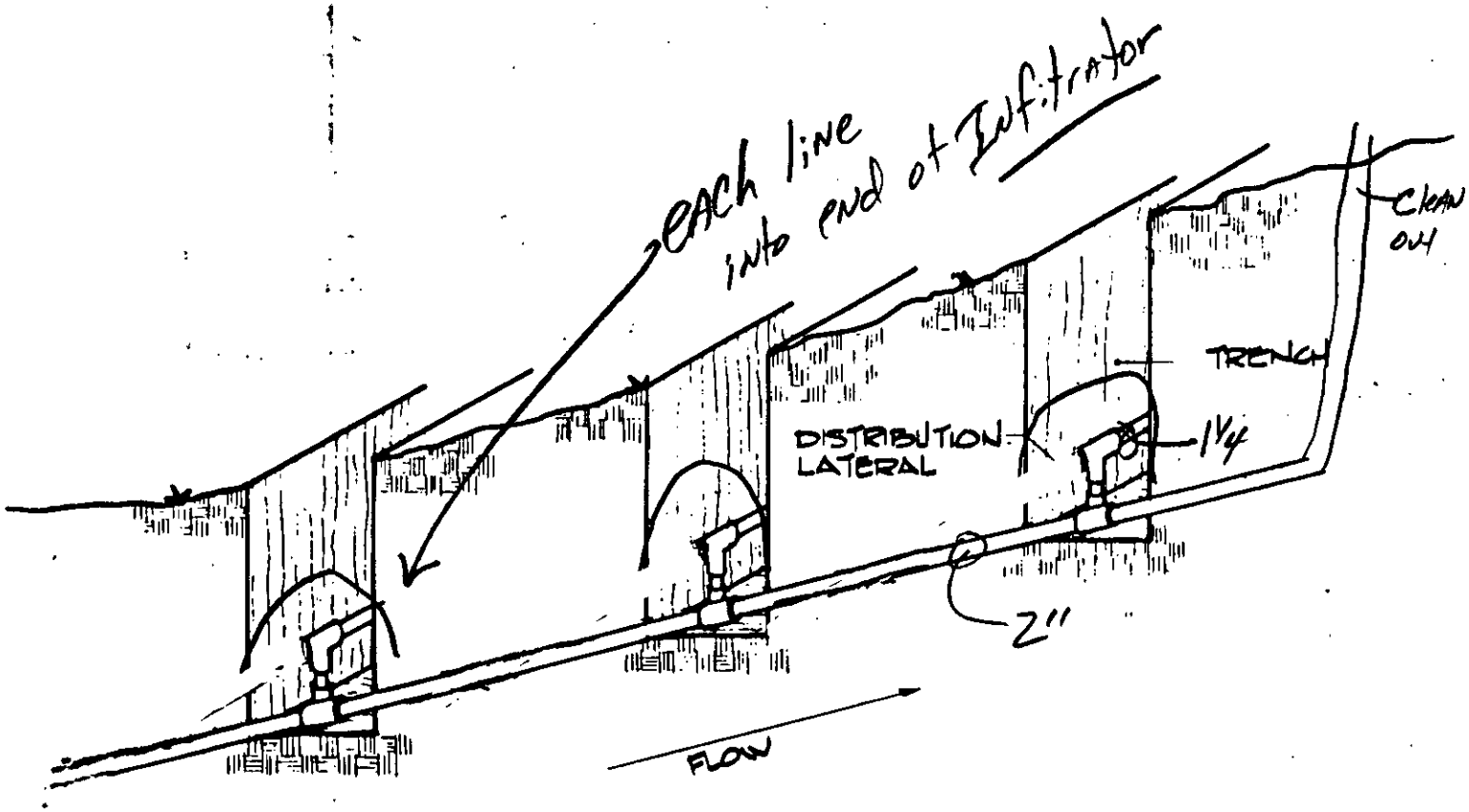
- water tight
- corrosion resistant
- solar heat protected
- three (3) feet above ground
- no more than 10 feet from septic pump tank



DESIGN STANDARD FOR SEWAGE EFFLUENT PUMP
DOSING STATION - TYPICAL SINGLE-PUMP INSTALLATION
ORANGE COUNTY DESIGN AMENDMENT 1/90, 1/92



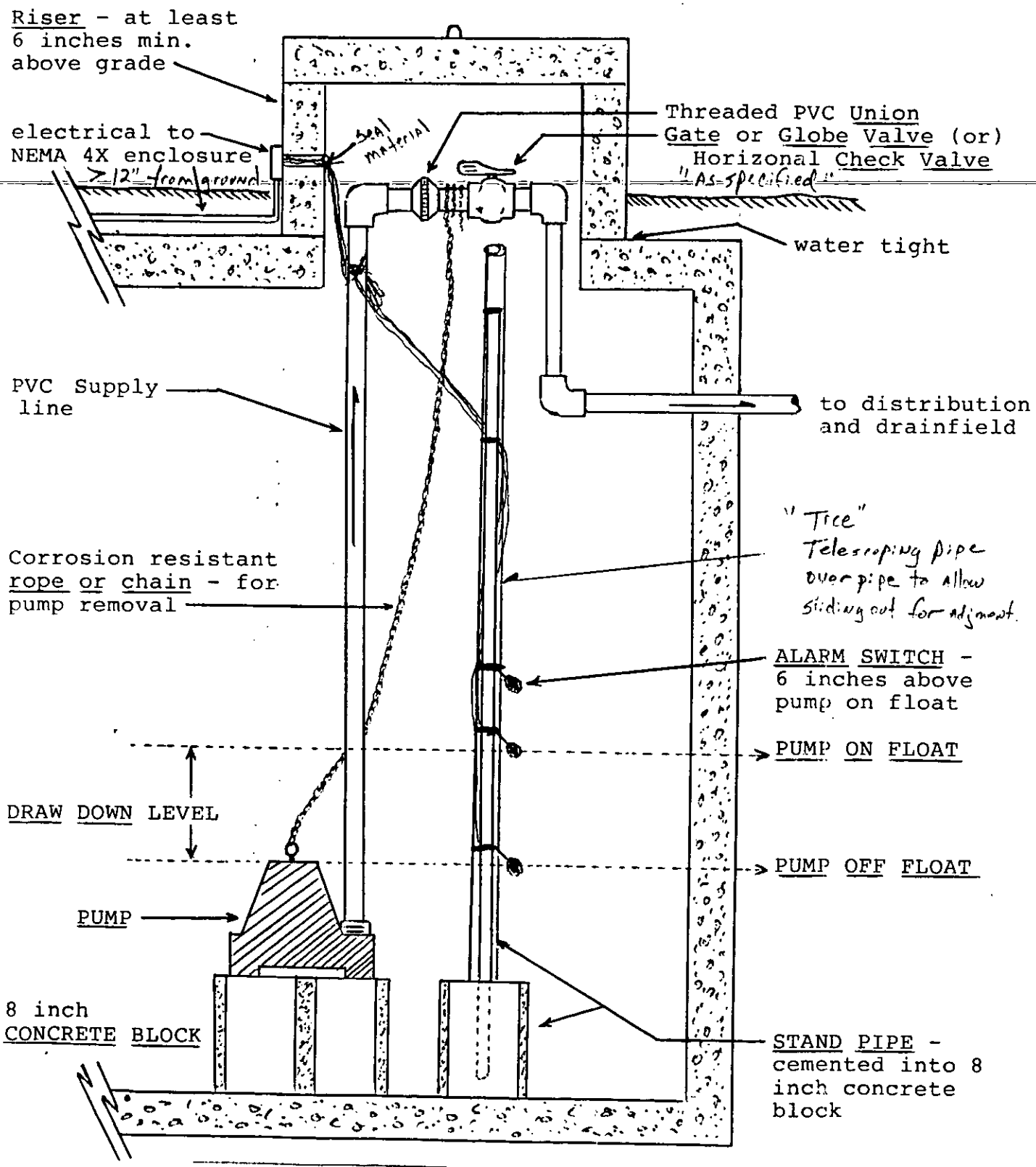
* The Alarm panel must be mounted in the finished living area of the dwelling.



A. PUMPING UPHILL

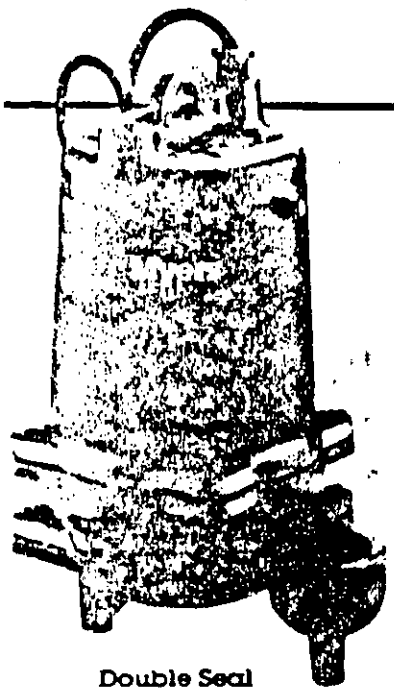
from Cogger et al, 1982)

PUMP DIAGRAM

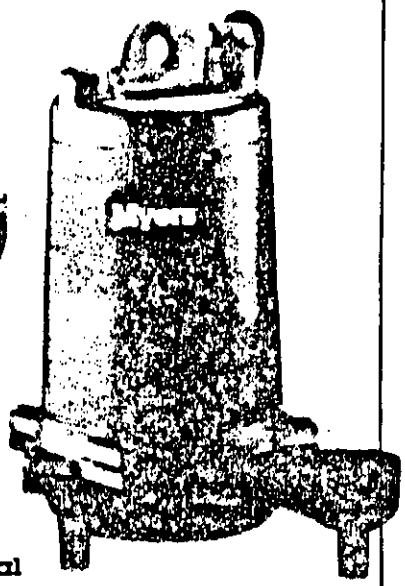


ME SERIES

1/3 through 1-1/2 HP
Effluent Pumps



Double Seal



Single Seal

THE MYERS ME SERIES EFFLUENT PUMPS ARE DESIGNED SPECIFICALLY FOR TODAY'S EFFLUENT PRESSURE DISTRIBUTION MOUNDS, TRENCHES AND HIGH FLOW DRAINAGE APPLICATIONS. The ME Series effluent pumps with their efficient two vane, enclosed impellers provide the ideal performance for optimum dosing. ME Series pumps are constructed of only corrosion resistant materials like cast iron, stainless steel and thermoplastics to assure that they will perform for years to come in the harsh effluent environment and drainage applications. For more information, call your Myers distributor today or the Myers Ashland, Ohio sales office at 419/289-1144.

ADVANTAGES BY DESIGN

IDEAL FOR USE IN MOUND AND TRENCH PRESSURE DISTRIBUTION SYSTEMS

- High efficiency, two vane, enclosed impeller provides ideal performance for most efficient dosing.
- Impeller passes full ¾ inch solids.
- Enclosed impeller design eliminates possibility of jamming or corrosion between impeller and volute.

DURABLE MOTOR WILL DELIVER MANY YEARS OF RELIABLE SERVICE

- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- High torque, permanent split capacitor (PSC), single phase motors. No starting switches or relays to wear out.
- Optional seal leak probe warns of seal leak condition. (Dual seal motors only.) Helps prevent costly motor damage
- Motors have on winding current and temperature sensitive overload. (Single phase only.)

THE ME SERIES EFFLUENT PUMPS ARE DESIGNED FOR YEARS OF MAINTENANCE FREE OPERATION

- Volute seal ring is replaceable. Restores pump to original performance if wear should occur.
- Motor is held in place by 4 screws. Easily removed if service is ever needed.

PRODUCT CAPABILITIES

Capacities To	120 GPM	454 LPM
Heads To	98 ft.	29.8 m
Max. Spherical Solids	¾ in.	19 mm
Liquids Handling	domestic effluent & drain water	
Intermittent Liquid Temp.	up to 140° F	up to 60° C
Motor Electrical Data	1/3 & 1/2 HP, 115 volts, 1 ph 1/3 to 1-1/2 HP, 230 volts, 1 ph 208, 230, 460, 575 volts, 3 ph oil-filled, permanent split capacitor type, 1 ph, 3450 rpm, 60 Hz	
Motor Insulation	Class B (130°C)	
Third Party Approvals	Pending	
Acceptable pH Range	6-9	
Specific Gravity	9-1.1	
Viscosity	28-35 SSU	
Discharge, NPT	2 in.	50.8 mm
Min. Sump Dia. Simplex Duplex	24 in. 36 in.	61 cm 91.4 cm

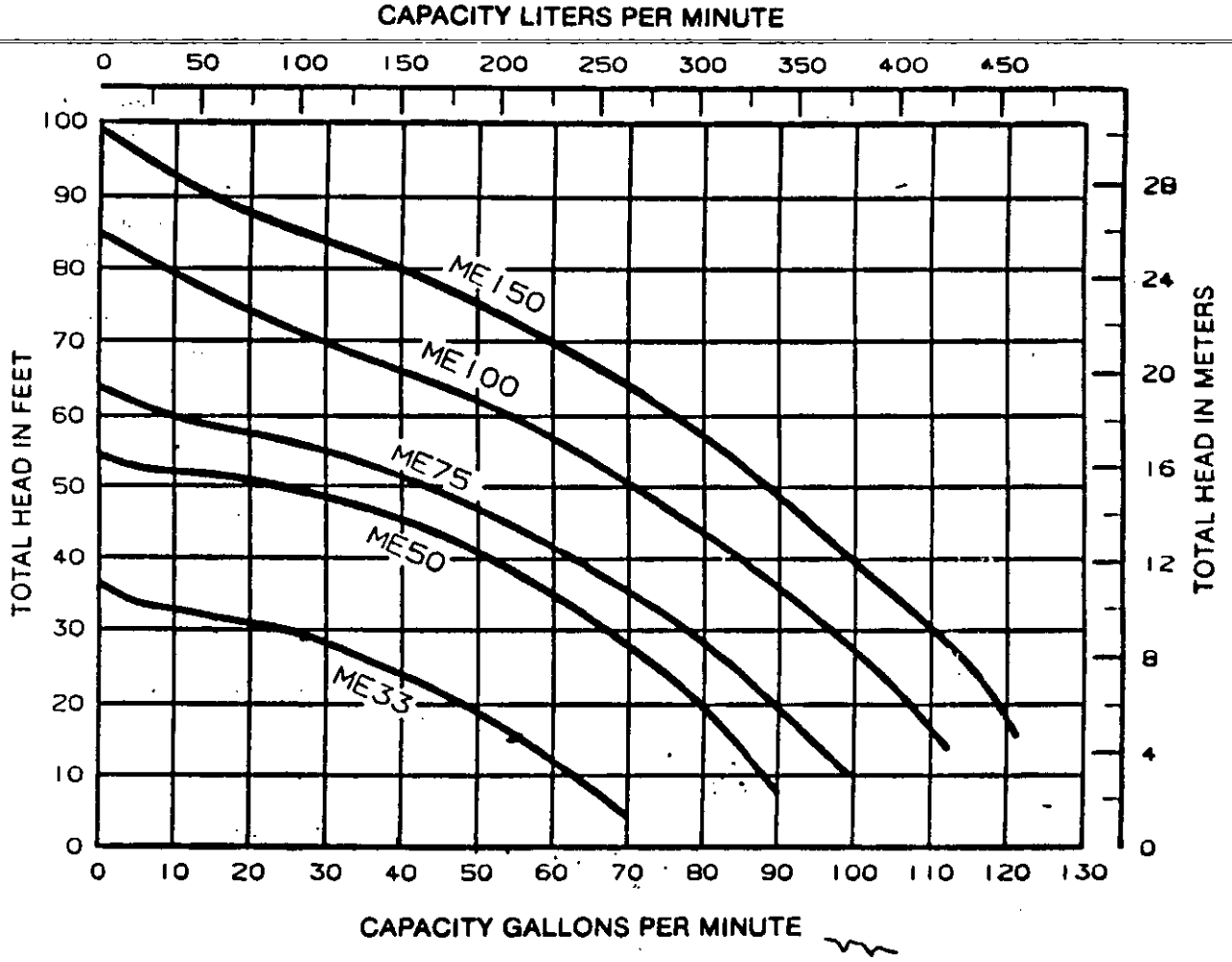
Construction Materials	
Motor Housing, Volute	cast iron, Class 30, ASTM A48-76
Enclosed Two Vane Impeller Standard Optional	engineered thermoplastic bronze
Impeller Wear Ring	304 SST
Volute Sealing Ring	Buna-N
Shaft	416 SST
Power Cord 1/3 & 1/2 HP, 1 Ph 3/4 - 1-1/2 HP, 1 Ph All 3 Ph	 20 ft. 16/3 SJOW/SJOW-A 20 ft. 14/3 SJOW/SJOW-A 20 ft. 14/4 SOW/SOW-A
Shaft Seals Standard Optional Opt. Lower	single carbon & ceramic tandem carbon & ceramic tungsten carbide
Fasteners	300 Series SST

WHERE INNOVATION MEETS TRADITION

Myers

ME Series
1/3 through 1-1/2 HP
Effluent Pumps
Performance Curve

Myers



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419/289-1144 FAX 419/289-6658 Telex 98-7443

K3327 7/91

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TCJ CONSULTING

SITE / SOIL EVALUATION

JOB: Doug Starnes PHONE:_____ DATE:_____

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

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

WEATHER: _____ ANTECEDENT MOISTURE:_____ SURFACE WATER: _____

FACTORS	PROFILE_1	PROFILE_	PROFILE_	PROFILE_
LANDSCAPE POSITION-%	L			
HORIZON I DEPTH	0-12			
Color - Munsell	mottled			
Texture	sl-cl			
Structure	fill			
Consistence				
Boundary				
HORIZON DEPTH II	12-26			
Color - Munsell	well-bn			
Texture	sl			
Mottles				
Structure	gr			
Consistence	fr ss/sp			
Boundary				
HORIZON III DEPTH	26-46			
Color - Munsell	red mott			
Texture	cscl			
Mottles	few/com			
Structure	fr 1m sbk			
Consistence	fr ss/sp			
Boundary				
HORIZON IV DEPTH	46+ fill			
Color - Munsell				
Texture	roots m			
Mottles				
Structure	m			
Consistence				
Boundary				
SOIL WETNESS				
RESTRICTIVE HORIZON				
SAPROLITE				
LTAR				
CLASSIFICATION				

LEGEND

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

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

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

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

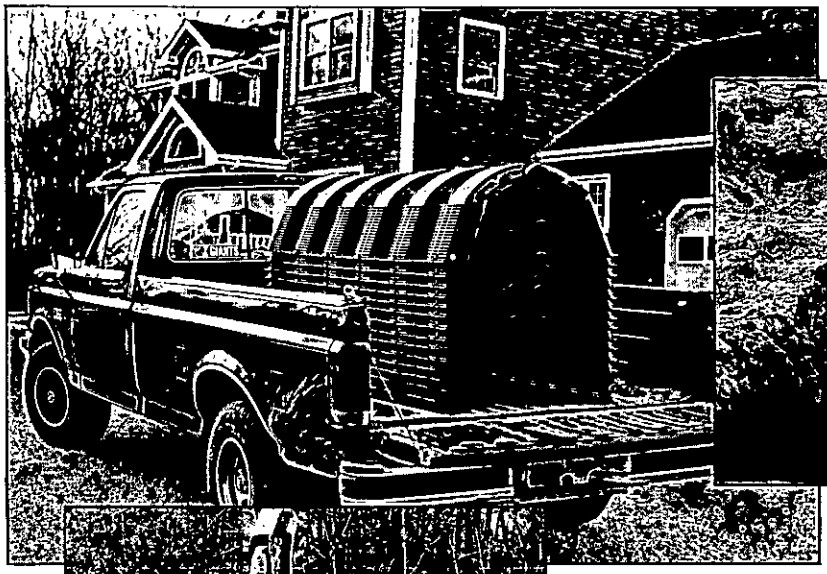
MOIST
vfr - very friable
fr - friable
fi - firm
vfi - very firm
efi - extremely firm

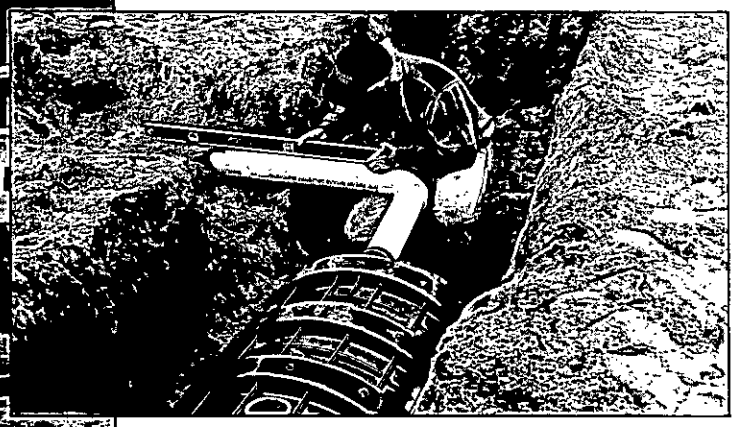
STRUCTURE
sg - single grain
m - massive
cr - crumb
gr - granular
sab - subangular blocky
ab - angular blocky
pl - platy
pr - prismatic

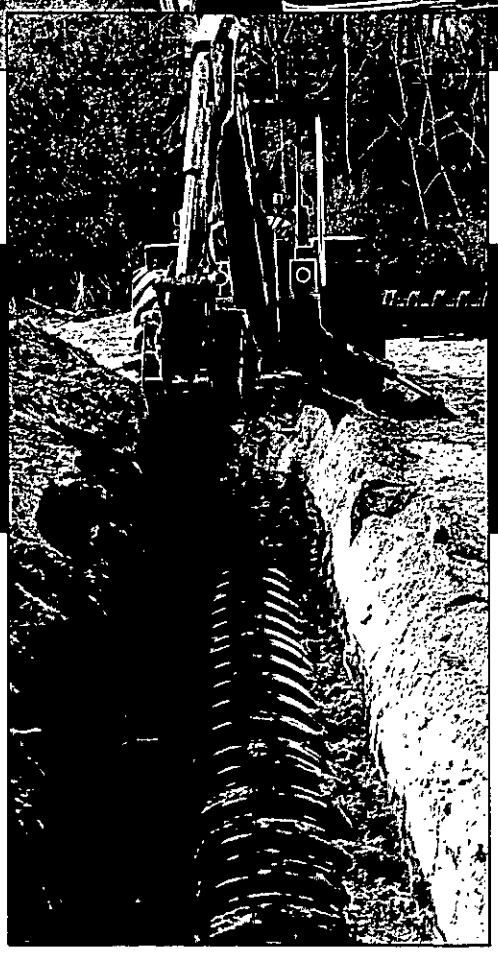
INFILTRATOR®
SYSTEMS INC

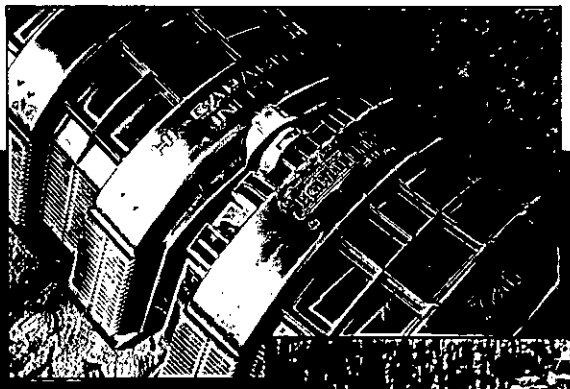
THE
INFILTRATOR® Chamber
Leach Field System

Engineered for Excellence





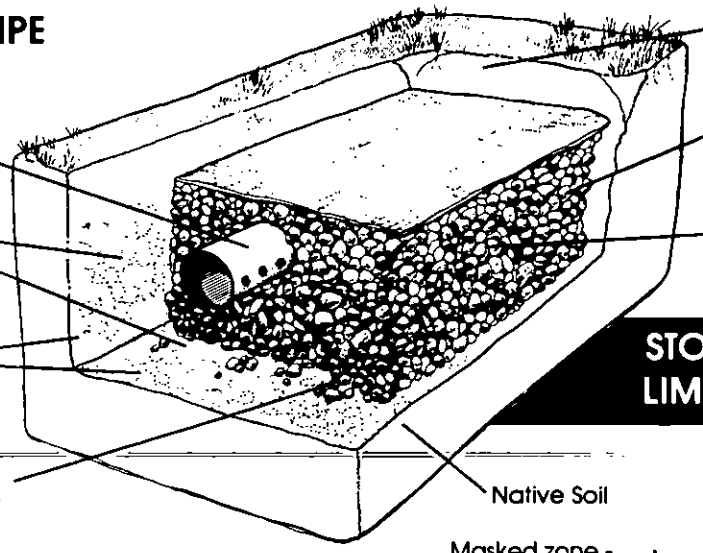




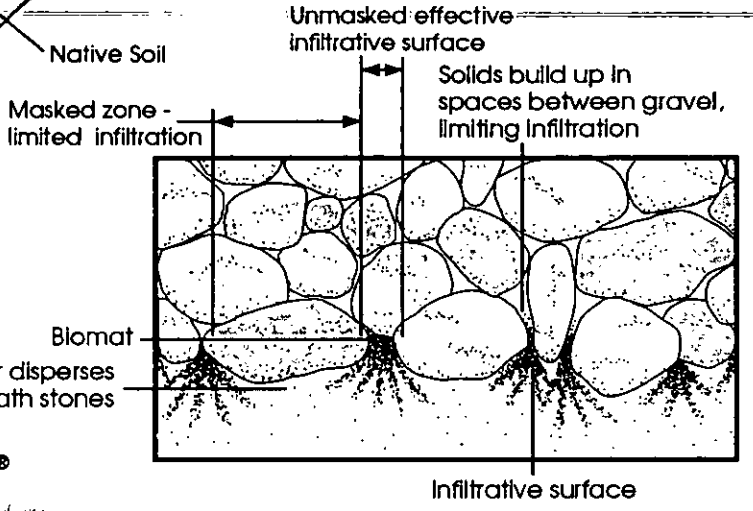


COMPARE THE ADVANTAGES - CHOOSE THE INFILTRATOR®

GRAVEL AND PIPE



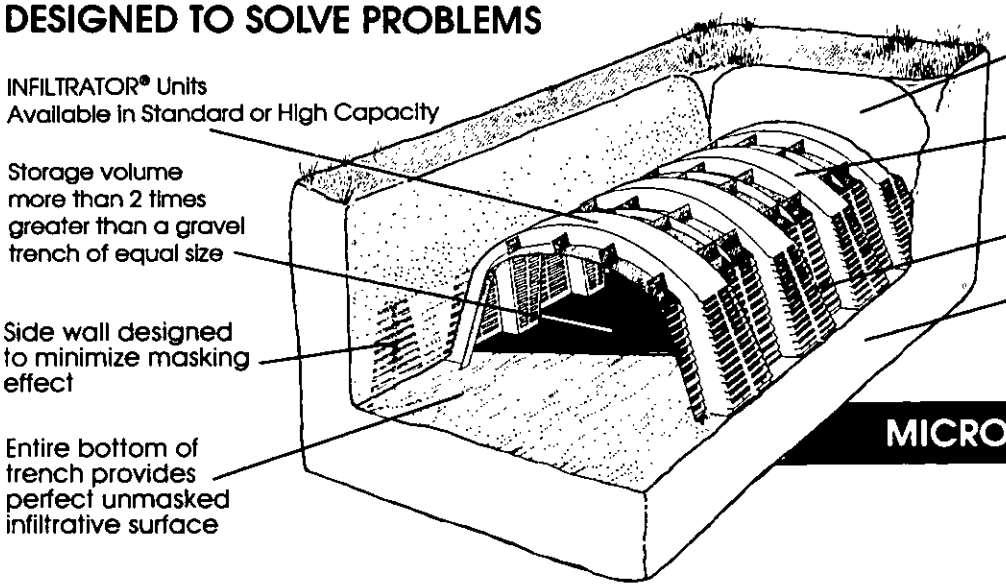
STONE MASKING- LIMITS INFILTRATIVE CAPACITY



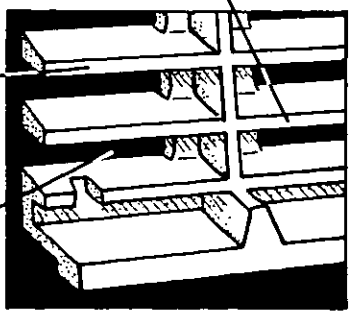
PROBLEMS WITH GRAVEL:

- Reduces infiltration rate 50% to 60% according to experts
- Handling and waste
- Site damage
- Cost

THERE IS A BETTER WAY ... THE INFILTRATOR® DESIGNED TO SOLVE PROBLEMS

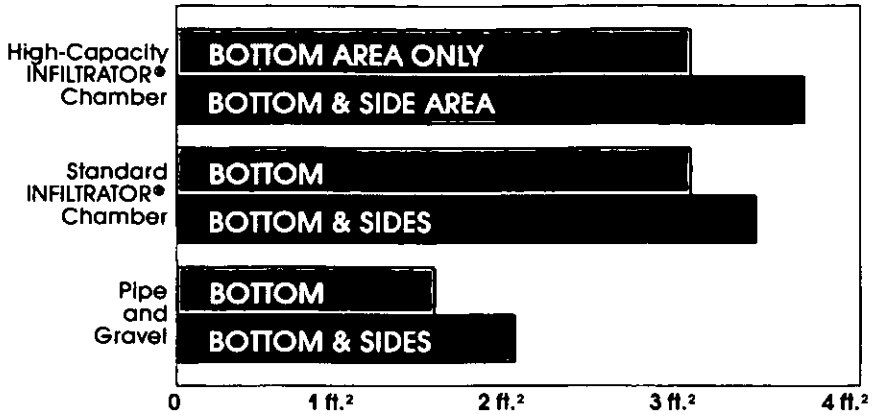


MICRO-LEACHING CHAMBERS®



SPECIFICATIONS	STANDARD INFILTRATOR®	HIGH CAPACITY INFILTRATOR®
SIZE	3' x 6.25' x 1'	3' x 6.25' x 1.33'
WEIGHT	25 lbs.	30 lbs.
STORAGE	10.3ft.^{3} (77 gal.)	16.3 ft.^{3} (122 gal.)

COMPARE THE UNMASKED INFILTRATIVE AREA



Documented research has clearly demonstrated that the INFILTRATOR® chamber provides an optimum infiltrative surface for leaching systems. Many states have already recognized this and granted system size reductions accordingly.

The graph shows that INFILTRATOR® chambers have twice the effective infiltrative surface area per linear foot. This is based on a 36" wide trench with 6" of gravel below the pipe assuming 50% gravel masking, compared to Standard and High Capacity INFILTRATOR® chambers with 50% masking for INFILTRATOR® sidewall, and no bottom masking.



INSTALLATION WAS NEVER EASIER!

1. Excavate 3' wide trenches and prepare infiltrative surface.
2. Screw the end plates in place and slip INFILTRATOR® units together to form desired trench length.
3. Run inlet pipe thru inlet end plate (pipe does not extend the entire length of the system), and backfill with native material (18" depth for H-20 and 12" for H-10).

(Detailed instructions available.)

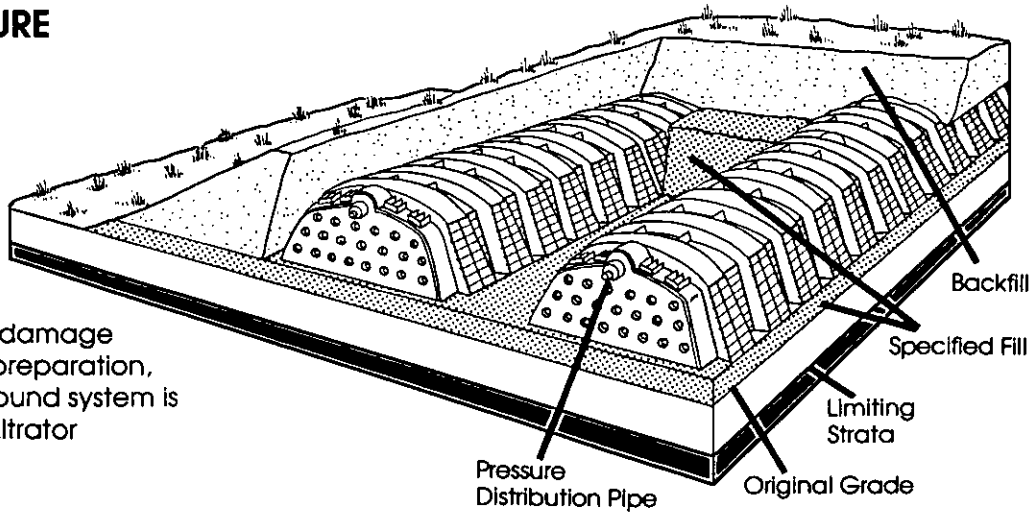
ALTERNATIVE INSTALLATIONS

INFILTRATOR® CHAMBERS ARE GREAT FOR MOUNDS AND PRESSURE DISTRIBUTION TOO!

MOUNDS

INFILTRATORS® can easily replace the gravel in mound or fill systems, in either a trench or bed configuration.

Installation is much easier with no damage to the infiltrative surface. The site preparation, design and construction of the mound system is prescribed by state code, and Infiltrator Systems' installation instructions.



PRESSURE DISTRIBUTION

INFILTRATOR® chambers are easily adapted to pressure distribution. Simply suspend a predrilled pressure pipe in the top of the units with simple, foolproof plastic pipe hangers. Supplemental installation instructions are available for complete details.

INFILTRATORS® ARE ENGINEERED AND TESTED FOR INCREDIBLE STRENGTH

INFILTRATOR® chambers are molded from a high density polyethelene and are impervious to all components of wastewater. They have been structurally tested by a Registered Professional Engineer and are available with an AASHTO rating of H-10 (16,000 lbs./axle with 12" of compacted cover) or H-20 (32,000 lbs./axle with 18" of cover).

THE INFILTRATOR® SYSTEM HAS ADVANTAGES FOR EVERYONE

- A high performance, state-of-the-art system.
- Double the unmasked soil interface area compared to gravel systems.
- Complete system delivered in one pickup truck.
- Fast & easy installation.
- Reduced labor & machine costs.
- Eliminates compaction, shadow effect and mess caused from gravel.
- Easy inspection.
- Structurally strong, H-10 and H-20 load ratings.
- Approved by U.S. Department of Housing and Urban Development — Federal Housing Authority.
- Complete technical back-up information is available.

STORMWATER MANAGEMENT- THE INFILTRATOR® ADVANTAGE

The INFILTRATOR® is a complete systems approach to stormwater management that gives the engineer tremendous design freedom to meet the needs of the individual site. The engineer can use units combined with stone for shallow or deep systems that meet any requirement for storage and treatment, require no heavy equipment except a backhoe for installation, and are highly cost effective. A detailed stormwater brochure is available upon request. **For more information, call INFILTRATOR Systems or your local distributor.**

INFILTRATOR® SYSTEMS INC

Leading the way in septic and stormwater chamber systems



LIMITED WARRANTY

(a) The structural integrity of each INFILTRATOR® unit, when installed in accordance with manufacturer's instructions, is warranted to the original purchaser against defective materials and workmanship for one year from date of manufacture. Should a defect appear within the warranty period, purchaser must inform Infiltrator Systems Inc. of the defect within fifteen (15) days. Infiltrator Systems will supply a replacement unit. Infiltrator Systems' liability specifically excludes the cost of removal and/or installation of the units.

(b) THE WARRANTY IN SUBPARAGRAPH (a) IS EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. THE WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES. THE COMPANY SHALL NOT BE LIABLE FOR PENALTIES OR LIQUIDATED DAMAGES, INCLUDING LOSS OF PRODUCTION AND PROFITS, LABOR AND MATERIALS, OVERHEAD COSTS, OR OTHER LOSS OR EXPENSE INCURRED BY BUYER. SPECIFICALLY EXCLUDED FROM WARRANTY COVERAGE ARE: DAMAGE TO THE UNITS DUE TO ORDINARY WEAR AND TEAR; ALTERATION, ACCIDENT, MISUSE, ABUSE OR NEGLECT OF THE UNITS; THE UNITS BEING SUBJECTED TO STRESSES GREATER THAN THOSE PRESCRIBED IN THE INSTALLATION INSTRUCTIONS; THE PLACEMENT BY BUYER OF IMPROPER MATERIALS INTO BUYER'S SYSTEM; OR ANY OTHER EVENT NOT CAUSED BY THE COMPANY.

FURTHERMORE, IN NO EVENT SHALL THE COMPANY BE RESPONSIBLE FOR ANY LOSS OR DAMAGE TO THE BUYER, THE UNITS OR ANY THIRD PARTY RESULTING FROM ITS INSTALLATION OR SHIPMENT. BUYER SHALL BE SOLELY RESPONSIBLE FOR ENSURING THAT INSTALLATION OF THE SYSTEM IS COMPLETED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES, RULES AND REGULATIONS.

(c) NO REPRESENTATIVE OF THE COMPANY HAS THE AUTHORITY TO CHANGE THIS WARRANTY IN ANY MANNER WHATSOEVER, OR TO EXTEND THIS WARRANTY. NO WARRANTY APPLIES TO ANY PARTY OTHER THAN TO THE ORIGINAL BUYER.

Distributed by

4 Business Park Drive ■ Old Saybrook, CT 06475 ■ 203•388•6639 ■ 800•221•4436 ■ FAX 203•388•6810

PAT. NOS. 4759661, 5017041 and 5156488 Canadian and other patents pending. ©1994 Infiltrator Systems, Inc. A01/1294

INFILTRATOR® and MICRO-LEACHING CHAMBERS® are trademarks of Infiltrator Systems Inc.

Mecklenburg County
Health Department

June 25, 2002

William and Donna Starnes
5803 Chamberlane Dr.
Frisco, TX., 75034

Dear Mr. and Mrs. Starnes:

The State required inspection of the Type IVa septic system, which serves as the wastewater treatment and disposal system for the residence located at 4315 Creemore Lane, Charlotte, North Carolina, was completed on 6/24/02. The results of this inspection are enclosed.

Thank you for your time and cooperation. If you have any further questions you can contact me at (704) 336-5571.

Sincerely,

David Cornelius, R.S.I, Coordinator
Managed Systems Program
Individual Water and Wastewater Systems

Enclosure: Inspection Report
Septic System Owner's Guide

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

INSPECTION OF ENGINEERED SUBSURFACE WASTEWATER SYSTEM

MECKLENBURG COUNTY		12257
Health Department	Name of Establishment	Permit/Project No.
4315 CREEMORE LN.	RESIDENCE	
Location	Type of Establishment	Design Flow
WILLIAM D. & DONNA STARNES	4315 CREEMORE LN. CHARLOTTE NC 28215	
Owner/Agent	Address	Phone
TRI-COUNTY WASTEWATER		
Operator	Address	Phone

Remarks IV a

	Yes	No	REMARKS
1. ESTABLISHMENT:			
Type, size, and sewage flow in accordance with permit?	☑	☐	
2. COLLECTION SYSTEM:			
No evidence of leaks into or out from sewer lines/manholes?	☐	☐	
Free of blockages/solids buildup in lines or manholes?	☐	☐	
3. TANKAGE (Grease Traps/Lift Stations/Septic/Dosing Tanks):			
Tank risers accessible and surface water diverted?	☑	☐	TANKS SHOULD BE PUMPED OUT EVERY 3-5 YRS. TO PREVENT SLUDGE BUILD UP & PROLONG THE LIFE OF YOUR DRAINFIELD.
Tanks and access manholes structurally sound, watertight?	☑	☐	
Sanitary tee(s) in good working condition?	☐	☑	
Tanks pumped, cleaned out as needed?	☐	☑	
4. RAW SEWAGE LIFT STATION (if present):			
Required pumps present, operating, and cycling properly?	☐	☐	
High-water alarm present and operating properly?	☐	☐	
Floats/pipe/valves/disconnects in good working condition?	☐	☐	
Control panel enclosure/components in good condition?	☐	☐	
5. EFFLUENT DOSING SYSTEM:			
Effluent appears clear, free of excess solids?	☐	☑	
PUMP SYSTEMS:			
Required pumps present, operating, and cycling properly?	☑	☐	COULD NOT DETERMINE IF HIGH WATER ALARM WAS AUDIBLE WHEN TRIGGERED MANUALLY.
High-water alarm present and operating properly?	☑	☐*	
Floats/pipe/valves/disconnects in good working condition?	☑	☐	
Control panel enclosure/components in good condition?	☑	☐	
Elapsed time readings: _____ _____ _____			
SIPHON SYSTEMS:			
No evidence of overflow or siphon leakage?	☐	☐	
Siphon(s) appear to be working/alternating properly?	☐	☐	
Bells and vents free of debris and in good condition?	☐	☐	
6. GROUND ABSORPTION FIELDS:			
No evidence of effluent surfacing/reaching surface waters?	☑	☐	
Minimal ponding in subsurface trenches?	☑	☐	
Surface water being effectively diverted away?	☑	☐	
Diversions/ditches/swales/tile drains properly maintained?	☑	☐	
Line cover/vegetation adequate/maintained as needed?	☑	☐	
Protected from traffic, destructive uses?	☑	☐	
Distribution devices in good condition, working properly?	☑	☐	
Repair area properly reserved, maintained?	☑	☐	
LOW-PRESSURE PIPE DRAIN FIELDS:			
Turnups/cleanouts/valves intact and accessible?	☐	☑	REPLACE BROKEN VALVE COVER.
No effluent standing in lower laterals?	☐	☑	
Laterals free of excess solids, cleaned out as needed?	☐	☐	
Pressure head is properly adjusted?	☐	☐	

OVERALL CONDITION AND OPERATION OF SYSTEM: NO EFFLUENT SURFACING.

SUMMARY OF IMPROVEMENTS NEEDED:

Improvement	Repair Within (Days)

DATE: 6/24/02 SIGNED: [signature] RST AGENT
Division of Environmental Health

DENR 3702 (Revised 3/98)
On-Site Wastewater Section (Review 12/98)

– over –

SUMMARY OF IMPROVEMENTS NEEDED (cont.)

Improvement	Repair Within (Days)

INTENT TO SUSPEND OR REVOKE PERMIT

This is to notify you of intent to suspend/revoke your operation permit/certificate of completion 60 days from this date for the following
(circle one) *(circle one)*

violations: _____
[Law or Rule(s)]

If suspended, the operation permit or certificate of completion remains suspended until violations are corrected. A hearing will be held prior to suspension or revocation if you file a petition for a hearing with the Office of Administrative Hearings, P. O. Drawer 27447, Raleigh, NC 27611-7447, in writing within the number of days specified above of your intent to attend the hearing. If you do not petition the Office of Administrative Hearings, the operation permit or certificate of completion will be suspended or revoked.

IMMEDIATE SUSPENSION OR REVOCATION OF PERMIT

This is to notify you of immediate suspension/revocation of your operation permit/certificate of completion for the following violations:
(circle one) *(circle one)*

_____
[Law or Rule(s)]

If suspended, the permit or certificate remains suspended until the violations are corrected. You will be notified of the day and location of a hearing on this suspension or revocation by a hearing officer from the Office of Administrative Hearings.

This the _____ day of _____, 19 _____.

_____ Agent
DIVISION OF ENVIRONMENTAL HEALTH

INSTRUCTIONS

Purpose: Article 11 of Chapter 130A requires the Commission for Health Services to adopt rules governing the design, construction, and operation of on-site wastewater systems. 15A NCAC 18A .1937 specifies that the local health department shall determine whether systems with an Operation Permit are operating properly at a frequency specified in Rule .1961, Table V(a), and that systems which exceed 3,000 gallons per day and other systems which are required to be designed by a professional engineer shall be reinspected annually. This form is developed to be used in making inspections of engineered subsurface wastewater systems.

Preparation: Local environmental health specialists shall complete the form every time they conduct an inspection. Prepare an original and two copies for:

1. Original to be left with the responsible person.
2. Copy for the local health department.
3. Copy for the On-Site Wastewater Section, Division of Environmental Health.

In the event the permit is suspended or revoked, complete the portion above.

Disposition: This form may be destroyed in accordance with Standard 7, Inspection Records, of the *Records Disposition Schedule* published by the N.C. Division of Archives and History.

Additional forms may be ordered from: On-Site Wastewater Section
Division of Environmental Health
P. O. Box 29594
Raleigh, NC 27626-0594
(Courier 52-01-00)

COPY

Send bill to

Pd 85 chk # 5535 5/13/02

INSPECTION STATEMENT
MECKLENBURG COUNTY HEALTH DEPARTMENT

William and Donna Starnes
~~4315 Creemore Lane~~
~~Charlotte, NC 28215~~
5803 Champion Lane Dr
Frisco TX 75034

Please Make Check Payable To:

Mecklenburg County Health Department
700 N. Tryon Street Suite 211
Charlotte, NC 28202

Note: THIS COMPLETED FORM MUST ACCOMPANY PAYMENT!

DESCRIPTION OF PROPERTY

Name	Site Address	Tax Parcel	File Number	System Type
William and Donna Starnes	4315 Creemore Lane	105-166-21	12257	IV a
				Total Amount Due: $85.00

Please use the following space below, to make any corrections to property information.

Name _____

Site Address _____

_____

# of Bedrooms _____

We already pay a company to monitor system twice a year, this is a major rip off Fee.

BILL INFORMATION

Billing Date: 4/1/02

Payment Due Date: 5/1/02

Direct Questions Concerning This Bill to .....(704) 336-5571

☐ *Please check if you have a well.*

Make Check Payable To Mecklenburg County Health Department
Your Cancelled Check Is Your Receipt

DO NOT SEND CASH

0743

21062 AF

SUBSURFACE WASTEWATER DISPOSAL SYSTEM MONITORING REPORT FORM

10S-172-23

Name and Address of System Manager

TRI-COUNTY WASTEWATER

P.O. Box 1830
Indian Trail, NC 28079
(704) 821-8841

Date of Inspection: 2-15-01

☒ 6 Mo. ☐ Follow-up
☐ 12 Mo. ☐ Service Call

County: Mecklenburg

System Classification & Type: LV

Doug Starnes
3925 Bellingham Road
Charlotte NC 28215-2824

Location of System

Lot # _____ Phase _____
Subdivision: _____

(✓=Satisfactory, M= Marginal, X=Unsatisfactory, N=Not Evalulated, NA= Not Applicable)

TANKAGE (septic tanks)

		Scum Level	Sludge Level
Tank risers accessible?	✓		
Signs of infiltration?	✓		
Tanks and access structurally sound?	✓	Septic Tank	
Sanitary tee(s) in good condition?	✓	Water Depth	
Effluent filter cleaned?	✓	Septic Tank Needs Pumping	
Effluent filter in good condition?	✓		

TANKAGE (grease traps)

		Scum Level	Sludge Level
Grease trap risers accessible?	✓		
Signs of infiltration?	✓	Grease Trap	
Grease trap and access structurally sound?	✓	Water Depth	
Sanitary tee(s) in good condition?	✓	Grease Trap Needs Pumping	
Effluent filter cleaned?	✓		
Effluent filter in good condition?	✓		

EFFLUENT DOSING STATION:

Tank Riser Height?	✓	Filter Cleaned	
Signs of Infiltration?	✓	Filter in Good Condition	
Required pumps present and operating properly?	✓	Elapsed Time Readings:	
High water alarm operating properly?	✓	Pump #1	
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2	
Control panel enclosure/components in good condition?	✓	Pump #3	
Effluent appears clear and free of solids?	✓	Pump #4	

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓
Surface water being effectively diverted away?	✓
Line cover & vegetative cover maintained properly?	✓
Protected from traffic, destructive uses?	✓
Distribution devices in good working condition?	✓
Repair area properly reserved, maintained?	✓

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?	✓	Corrected Today
Evidence of leakage, blockage in discharge lines?	✓	Corrected Today
Pressure head is properly adjusted?	✓	Corrected Today

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?	✓	Corrected Today
Laterals free of excess solids?	✓	
Laterals flushed this inspection?	NO	
Pressure head is properly adjusted?	✓	Corrected Today

SWDSMR 3/99

Pump Tank Size 1500 gallons
Level Begin Dose _____ Level End Dose _____ Dose Amount (Gallons) _____
Run Tiime 3.0 Level Begin 62.5 Level End 64.25 Flow Amount 16.6 (gpm)

VALVE#	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
	1	3'	3'	3'
	2	↓	↓	↓
1	3			
	4			
2	5			

RECOMMENDATIONS TO OWNER:

Looks Good

COMPLIANCE STATUS: **COMPLIANT** ✓ **NON-COMPLIANT** _____

SIGNATURE OF "ORC": Michael Gwaltney

DEH

SUBSURFACE WASTEWATER DISPOSAL SYSTEM
MONITORING REPORT FORM

Name and Address of System Manager

TRI-COUNTY WASTEWATER
8037 Fairview Road, Suite G
Charlotte, NC 28227
(704) 545-1711

Date of Inspection: 3-13-00
☒ 6 Mo. ☐ Follow-up
☐ 12 Mo. ☐ Service Call

County: Meck

System Classification & Type: IV

Doug Starnes
3925 Bellingham Road
Charlotte NC 28215-2824

Location of System: 4315 Creemore Ln

Lot # _____ Phase _____
Subdivision: _____

(✓=Satisfactory, M= Marginal, X=Unsatisfactory, N=Not Evalulated, NA= Not Applicable)

TANKAGE (septic tanks)

			Scum Level	Sludge Level
Tank risers accessible?				
Signs of infiltration?		Septic Tank		
Tanks and access structurally sound?		Water Depth		
Sanitary tee(s) in good condition?		Septic Tank Needs Pumping		
Effluent filter cleaned?				
Effluent filter in good condition?				

TANKAGE (grease traps)

			Scum Level	Sludge Level
Grease trap risers accessible?				
Signs of infiltration?		Grease Trap		
Grease trap and access structurally sound?		Water Depth		
Sanitary tee(s) in good condition?		Grease Trap Needs Pumping		
Effluent filter cleaned?				
Effluent filter in good condition?				

EFFLUENT DOSING STATION:

Tank Riser Height?	✓	Filter Cleaned	
Signs of Infiltration?	✓	Filter in Good Condition	
Required pumps present and operating properly?	✓	Elapsed Time Readings:	
High water alarm operating properly?	✓	Pump #1	
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2	
Control panel enclosure/components in good condition?	✓	Pump #3	
Effluent appears clear and free of solids?		Pump #4	

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓
Surface water being effectively diverted away?	✓
Line cover & vegetative cover maintained properly?	✓
Protected from traffic, destructive uses?	✓
Distribution devices in good working condition?	✓
Repair area properly reserved, maintained?	✓

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?		Corrected Today
Evidence of leakage, blockage in discharge lines?		Corrected Today
Pressure head is properly adjusted?		Corrected Today

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?	✓	Corrected Today
Laterals free of excess solids?	✓	
Laterals flushed this inspection?	NA	
Pressure head is properly adjusted?	NA	Corrected Today ✓

Pump Tank Size 1500 gallons
Level Begin Dose N Level End Dose N Dose Amount (Gallons) _____
Run Tiime 1.5 Level Begin 65 Level End 66 Flow Amount 19 (gpm)

VALVE#	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
1	1	3'		3.5'
	2			3'
	3			3'
	4			
2	5			3.5'
				3'

RECOMMENDATIONS TO OWNER:

Looks Good

COMPLIANCE STATUS: **COMPLIANT** ✓ **NON-COMPLIANT** _____

SIGNATURE OF "ORC": Michael Partridge

SUBSURFACE WASTEWATER DISPOSAL SYSTEM
MONITORING REPORT FORM

Name and Address of System Manager

TRI-COUNTY WASTEWATER
8037 Fairview Road, Suite G
Charlotte, NC 28227
(704) 545-1711

Date of Inspection: 8-15-00

☐ 6 Mo. ☐ Follow-up
☑ 12 Mo. ☐ Service Call

County: Mecklenburg

System Classification & Type: IV

Doug Starnes
3925 Bellingham Road
Charlotte NC 28215-2824

Location of System

Lot #_____ Phase _____
Subdivision: _____

(✓=Satisfactory, M= Marginal, X=Unsatisfactory, N=Not Evalulated, NA= Not Applicable)

TANKAGE (septic tanks)

		Scum Level	Sludge Level
Tank risers accessible?			
Signs of infiltration?			
Tanks and access structurally sound?		Septic Tank	
Sanitary tee(s) in good condition?		Water Depth	
Effluent filter cleaned?		Septic Tank Needs Pumping	
Effluent filter in good condition?			

TANKAGE (grease traps)

		Scum Level	Sludge Level
Grease trap risers accessible?			
Signs of infiltration?			
Grease trap and access structurally sound?		Grease Trap	
Sanitary tee(s) in good condition?		Water Depth	
Effluent filter cleaned?		Grease Trap Needs Pumping	
Effluent filter in good condition?			

EFFLUENT DOSING STATION:

Tank Riser Height?	✓	Filter Cleaned	
Signs of Infiltration?	✓	Filter in Good Condition	
Required pumps present and operating properly?	✓	Elapsed Time Readings:	
High water alarm operating properly?	✓	Pump #1	
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2	
Control panel enclosure/components in good condition?	✓	Pump #3	
Effluent appears clear and free of solids?	✓	Pump #4	

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓	
Surface water being effectively diverted away?	✓	
Line cover & vegetative cover maintained properly?	✓	
Protected from traffic, destructive uses?	✓	
Distribution devices in good working condition?	✓	
Repair area properly reserved, maintained?	✓	

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?		Corrected Today
Evidence of leakage, blockage in discharge lines?		Corrected Today
Pressure head is properly adjusted?		Corrected Today

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?	✓	Corrected Today
Laterals free of excess solids?	✓	
Laterals flushed this inspection?	NP	
Pressure head is properly adjusted?	NA	Corrected Today ✓

Pump Tank Size 1500 gallons
Level Begin Dose N Level End Dose N Dose Amount (Gallons) _____
Run Tiime N Level Begin N Level End N Flow Amount _____ (gpm)

VALVE#	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
1	1	3'	0'	3.5'
	2			3'
	3			3'
2	4			3'
	5			3'

RECOMMENDATIONS TO OWNER:

Looks Good

COMPLIANCE STATUS: **COMPLIANT** ✓ **NON-COMPLIANT** _____

SIGNATURE OF "ORC": Michael Gombright

TRI-COUNTY WASTEWATER

11/8/02 Contract service
Reinstated 12/26/02
V. Davis

November 8, 2001

~~Buddy Penley~~ Doug Starnes
4315 Creemore Lane
Charlotte, NC 28215

NOTICE OF CANCELLATION

Effective immediately the Ipp septic system maintenance contract will cancel without further notice for non-payment of renewal fees. A copy of this cancellation will be sent to the Department of Environmental Health as required by law.

Tri-County Wastewater values your business and would like to continue to serve you as a customer. Your immediate attention is needed to continue service. The loss of your business will be missed.

If financial arrangements need to be made please contact our office at (704) 821-8841.

Tim Bannister
Tri-County Wastewater Management

cc: Mecklenburg County DEH

P.O. Box 1839
Indian Trail, NC 28079

704.821.8841
800.448.1298
Fax: 704.821.8892
E-Mail: www.tri-

TRI-COUNTY WASTEWATER

November 8, 2001

Buddy Penley
4315 Creemore Lane
Charlotte, NC 28215

NOTICE OF CANCELLATION

Effective immediately the lpp septic system maintenance contract will cancel without further notice for non-payment of renewal fees. A copy of this cancellation will be sent to the Department of Environmental Health as required by law.

Tri-County Wastewater values your business and would like to continue to serve you as a customer. Your immediate attention is needed to continue service. The loss of your business will be missed.

If financial arrangements need to be made please contact our office at (704) 821-8841.

Tim Bannister
Tri-County Wastewater Management

Cc: Mecklenburg County DEH

P.O. Box 1830
Indian Trail, NC 28079

704.821.8841
800.448.1298
Fax: 704.821.8892
E-Mail: wwm@interlink-cafe.com

TRI-COUNTY WASTEWATER

September 25, 2001

Buddy Penley
4315 Creemore lane
Charlotte, NC 28215

Dear Buddy: previous owner

We were notified that Doug Stames no longer owns the above property. The septic system on this property has been under a service contract with our company since August 1997; our last inspection was done 9/17/01, at which time everything looked good. Attached is a copy of that report, which was pre-paid by Mr. Stames.

However, if you desire to maintain our service, we need to have a contract executed between you and Tri-County Wastewater for our services. State law requires that you have your septic system under contract with a licensed company for maintenance and inspections. Our charge for the basic level of service is $250.00 per year, payable in advance. Two inspections per year are included in this price and we are available to you throughout the year should you have a problem and need to consult with us.

Please call our office at 704-821-8841 and let us know if you would like to have contracts sent to you in order to maintain our service.

Thank you,

Vicki Davis
Tri-County Wastewater Management

Cc: Mecklenburg County Dept. of Environmental Health

11/8/01 – No response from new owners

P.O. Box 1830
Indian Trail, NC 28079

704.821.8841
800.448.1298
Fax: 704.821.8892
E-Mail: wwm@

DEH

SUBSURFACE WASTEWATER DISPOSAL SYSTEM MONITORING REPORT FORM

Name and Address of System Manager

TRI-COUNTY WASTEWATER
8037 Fairview Road, Suite G
Charlotte, NC 28227
(704) 545-1711

Date of Inspection: 8-12-99
☐ 6 Mo. ☐ Follow-up
☒ 12 Mo. ☐ Service Call

County: Meck
System Classification & Type: IV

Doug Starnes
3925 Bellingham Road
Charlotte NC 28215-2824

Location of System: 4315 Creedmoor Cove
Same

Lot # _____ Phase _____
Subdivision: _____

(✓=Satisfactory, M= Marginal, X=Unsatisfactory, N=Not Evalulated, NA= Not Applicable)

TANKAGE (septic tanks)

			Scum Level	Sludge Level
Tank risers accessible?				
Signs of infiltration?	✓	Septic Tank		
Tanks and access structurally sound?	✓	Water Depth	✓	
Sanitary tee(s) in good condition?	NA	Septic Tank Needs Pumping	✓	
Effluent filter cleaned?				
Effluent filter in good condition?				

TANKAGE (grease traps)

			Scum Level	Sludge Level
Grease trap risers accessible?				
Signs of infiltration?	✓	Grease Trap		
Grease trap and access structurally sound?	✓	Water Depth		
Sanitary tee(s) in good condition?	✓	Grease Trap Needs Pumping		
Effluent filter cleaned?				
Effluent filter in good condition?				

EFFLUENT DOSING STATION:

Tank Riser Height?	✓	Filter Cleaned	
Signs of Infiltration?	✓	Filter in Good Condition	
Required pumps present and operating properly?	✓	Elapsed Time Readings:	
High water alarm operating properly?	✓	Pump #1	
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2	
Control panel enclosure/components in good condition?	✓	Pump #3	
Effluent appears clear and free of solids?	✓	Pump #4	

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓
Surface water being effectively diverted away?	✓
Line cover & vegetative cover maintained properly?	✓
Protected from traffic, destructive uses?	✓
Distribution devices in good working condition?	✓
Repair area properly reserved, maintained?	✓

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?		Corrected Today	
Evidence of leakage, blockage in discharge lines?	✓	Corrected Today	
Pressure head is properly adjusted?	✓	Corrected Today	

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?	✓	Corrected Today	
Laterals free of excess solids?	✓		
Laterals flushed this inspection?	NO		
Pressure head is properly adjusted?	✓	Corrected Today	✓

Pump Tank Size 1500 gallons
Level Begin Dose N Level End Dose N Dose Amount (Gallons) N
Run Tiime 3.0 Level Begin 64 Level End 66 Flow Amount _____ (gpm)

VALVE#	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
1	1	3'	0'	3.5'
	2			
	3			
2	4			
	5			

RECOMMENDATIONS TO OWNER:

System looks good!

COMPLIANCE STATUS: **COMPLIANT** ✓ **NON-COMPLIANT** _____

SIGNATURE OF "ORC": Michael Goodwin

SUBSURFACE WASTEWATER DISPOSAL SYSTEM
MONITORING REPORT FORM

Name and Address of ORC:
Tri-County Wastewater Management
8037 Fairview Road, Suite G
Charlotte, NC 28227
(704) 545-1711

Date of Inspection: 2-22-98 ☑ 6 Mo. ☐ 12 Mo. ☐ Service Call.

County: Meck

System Classification: IV

Name and Address of Owner:
Doug Starnes
3925 Bellingham Road
Charlotte NC 28215-2824

Location of System: 4315 Creemore Ln

(✓ = Satisfactory, M = Marginal, ✖ = Unsatisfactory, N - Not Evaluated, NA = Not Applicable)

TANKAGE (grease traps/septic tanks)

			Scum Level	Sludge Level
Tank risers accessible?				
Signs of infiltration?		Septic Tank		
Tanks and access structurally sound?		Grease Trap		
Sanitary tee(s) in good condition?	N/A	Septic Water Depth		
Effluent filter cleaned?				
Effluent filter in good condition?				

RAW SEWAGE LIFT STATION (if present):

Required pumps present & operating properly?		Elapsed Time Readings:
High water alarm operating properly?		Pump #1
Floats, pipes, valves, disconnects in good condition?		Pump #2
Control panel enclosure/components in good condition?		

EFFLUENT DOSING STATION:

Tank Riser Height?	✓	
Signs of Infiltration?	✓	
Required pumps present and operating properly?	✓	Elapsed Time Readings:
High water alarm operating properly?	✓	Pump #1
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2
Control panel enclosure/components in good condition?	✓	Pump #3
Effluent appears clear and free of solids?	✓	Pump #4

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓
Surface water being effectively diverted away?	✓
Line cover & vegetative cover maintained properly?	✓
Protected from traffic, destructive uses?	✓
Distribution devices in good working condition?	✓
Repair area properly reserved, maintained?	✓

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?		Corrected Today
Evidence of leakage, blockage in discharge lines?		
Pressure head is properly adjusted?		Corrected Today

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?	✓	Corrected Today
Laterals free of excess solids?	✓	
Laterals flushed this inspection?	yes	
Zone valves operating properly?	✓	
Pressure head is properly adjusted?	✓	Corrected Today ✓

Pump Tank Size 1500 gallons
Level Begin Dose N Level End Dose N Dose Amount (Gallons) N
Run Time 4.0 Level Begin 62 Level End 65 Flow Amount 21 (gpm)

VALVE #	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
	1	3'	0'	3'
1	2			3'
	3			2'
2	4			2.5'
	5			3.0

RECOMMENDATIONS TO OWNER: System looks good.

COMPLIANCE STATUS: COMPLIANT 1 NON-COMPLIANT

SIGNATURE OF "ORC": Michael Goodnight

SUBSURFACE WASTEWATER DISPOSAL SYSTEM
MONITORING REPORT FORM

Name and Address of ORC	Date of Inspection
Tri-County Wastewater Management 8037 Fairview Road, Suite G Charlotte, NC 28227 (704) 545-1711	3.30.98 ☐ 6 Mo. ☐ 12 Mo. ☐ Service Call. County: Meck. System Classification: IV
Name and Address of Owner Doug Starnes 4315 Creemore LN Charlotte, NC 28215	**Location of System** STARNES

(✓ = Satisfactory, M = Marginal, ✖ = Unsatisfactory, N - Not Evaluated, NA = Not Applicable)

TANKAGE (grease traps/septic tanks)

			Scum Level	Sludge Level
Tank risers accessible?	✓	Septic Tank		
Signs of infiltration?	✓	Grease Trap	N/A	N/A
Tanks and access structurally sound?	M	Septic Water Depth		
Sanitary tee(s) in good condition?	N/A			
Effluent filter cleaned?				
Effluent filter in good condition?				

RAW SEWAGE LIFT STATION (if present):

Required pumps present & operating properly?		Elapsed Time Readings:	
High water alarm operating properly?		Pump #1	
Floats, pipes, valves, disconnects in good condition?		Pump #2	
Control panel enclosure/components in good condition?			

EFFLUENT DOSING STATION:

Tank Riser Height?	✓		
Signs of Infiltration?	✓		
Required pumps present and operating properly?	✓	Elapsed Time Readings:	
High water alarm operating properly?	✓	Pump #1	
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2	
Control panel enclosure/components in good condition?	✓	Pump #3	
Effluent appears clear and free of solids?	✓	Pump #4	

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓	
Surface water being effectively diverted away?	✓	
Line cover & vegetative cover maintained properly?	✓	
Protected from traffic, destructive uses?	✓	
Distribution devices in good working condition?	✓	
Repair area properly reserved, maintained?	✓	

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?		Corrected Today
Evidence of leakage, blockage in discharge lines?		
Pressure head is properly adjusted?		Corrected Today

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?		Corrected Today
Laterals free of excess solids?	✓	
Laterals flushed this inspection?	ND	
Zone valves operating properly?	✓	
Pressure head is properly adjusted?	X	Corrected Today ✓

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Pump Tank Size 1500 gallons
Level Begin Dose N Level End Dose N Dose Amount (Gallons) N
Run Time 5.2 Level Begin 62.5 Level End 66.25 Flow Amount 20 (gpm)

VALVE #	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
1	1	3'	1'	3'
	2		1'	3'
	3		Ø	2'
2	4		1'	4'
	5		Ø	3'

RECOMMENDATIONS TO OWNER: Everything looks good.

Thanks.

COMPLIANCE STATUS: COMPLIANT ✓ NON-COMPLIANT

SIGNATURE OF "ORC":

SUBSURFACE WASTEWATER DISPOSAL SYSTEM
MONITORING REPORT FORM

12257

Name and Address of ORC	Date of Inspection / County / System Classification
Tri-County Wastewater Management 8037 Fairview Road, Suite G Charlotte, NC 28227 (704) 545-1711	3.30.98 ☑ 6 Mo. ☐ 12 Mo. ☐ Service Call. County: Meck. System Classification: I
Name and Address of Owner Doug Starnes 4315 Creemore LN Charlotte, NC 28215	**Location of System** STARNES

(✓ = Satisfactory, M = Marginal, ✖ = Unsatisfactory, N - Not Evaluated, NA = Not Applicable)

TANKAGE (grease traps/septic tanks)

			Scum Level	Sludge Level
Tank risers accessible?				
Signs of infiltration?		Septic Tank		
Tanks and access structurally sound?		Grease Trap		
Sanitary tee(s) in good condition?	N/A	Septic Water Depth	N/A	N/A
Effluent filter cleaned?				
Effluent filter in good condition?				

RAW SEWAGE LIFT STATION (if present):

Required pumps present & operating properly?		Elapsed Time Readings:
High water alarm operating properly?		Pump #1 ____
Floats, pipes, valves, disconnects in good condition?		Pump #2 ____
Control panel enclosure/components in good condition?		

EFFLUENT DOSING STATION:

Tank Riser Height?	✓	
Signs of Infiltration?	✓	
Required pumps present and operating properly?	✓	Elapsed Time Readings:
High water alarm operating properly?	✓	Pump #1 ____
Floats, pipes, valves, disconnects in good condition?	✓	Pump #2 ____
Control panel enclosure/components in good condition?	✓	Pump #3 ____
Effluent appears clear and free of solids?	✓	Pump #4 ____

GROUND ABSORPTION FIELDS (general):

No evidence of effluent surfacing?	✓	
Surface water being effectively diverted away?	✓	
Line cover & vegetative cover maintained properly?	✓	
Protected from traffic, destructive uses?	✓	
Distribution devices in good working condition?	✓	
Repair area properly reserved, maintained?	✓	

PRESSURE MANIFOLD SYSTEM:

Manifold vault, valves, piping in good condition?		Corrected Today ____
Evidence of leakage, blockage in discharge lines?		
Pressure head is properly adjusted?		Corrected Today ____

LOW PRESSURE PIPE SYSTEM:

Turnups/cleanouts/valves intact and accessible?		Corrected Today ____
Laterals free of excess solids?	✓	
Laterals flushed this inspection?	N/D	
Zone valves operating properly?	✓	
Pressure head is properly adjusted?	X	Corrected Today ✓

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Pump Tank Size 1500 gallons
Level Begin Dose N Level End Dose N Dose Amount (Gallons) N
Run Time 5.2 Level Begin 62.5 Level End 66.25 Flow Amount 20 (gpm)

VALVE #	LINE #	DESIGN PRESSURE	OBSERVED PRESSURE	ADJUSTED PRESSURE
1	1	3'	1'	3'
	2		1'	3'
	3		Ø	2'
2	4		1'	4'
	5		Ø	3'

RECOMMENDATIONS TO OWNER: Everything looks good.

Thanks.

COMPLIANCE STATUS: COMPLIANT ✓ NON-COMPLIANT

SIGNATURE OF "ORC":

INSPECTION AND MAINTENANCE AGREEMENT

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

THIS AGREEMENT is made and entered into this 26th day of August, 1997, by and between Doug Starnes (hereinafter the "Owner") and Tri-County Wastewater Management (hereinafter the "Contractor").

WITNESSETH

WHEREAS, the Owner owns or controls the property upon which a ground absorption sewage treatment system (hereinafter "system") is installed, such system being designated a Type IV system under the Rules for Sanitary Sewage Collection, Treatment and Disposal found at 15A N.C. Admin. Code 18A.1900 et seq.; and

WHEREAS, 15A N.C. Admin. Code 18A.1961 requires a contract to be executed between the system owner and a management entity prior to the issuance of an Operation Permit for said system; and

WHEREAS, 15A N.C. Admin. Code 18A.1961 requires that a condition of the Operation Permit for said system be that a properly executed contract between the system owner and a management entity shall be in effect for as long as the system is in use; and

WHEREAS, the Contractor is a management entity of a type authorized by 15A N.C. Admin. Code 18A.1961 to manage a Type IV system.

NOW THEREFORE, in consideration of the premises and of the mutual covenants and promises contained in this Agreement, it is hereby agreed by and between the Owner and the Contractor as stipulated below.

1. The Contractor's Obligations. The Contractor shall have performed the following services on the Owner's system located at 4315 Covemore Lane, Charlotte N.C. 28215

a. The Contractor shall have an inspection of the system performed twice a year in accordance with Table V(b) of 15A N.C. Admin. Code 18A.1961(b) for a Type IV System.

b. The Contractor shall have performed the following routine maintenance procedures in accordance with the conditions of the Operation Permit:

(1) [see attachments]

c. The Contractor shall report the results of its inspections to the local health department at the frequency specified in Table V(b) of 15A N.C. Admin. Code 18A.1961(b) for a Type IV System.

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To Kelly Randall	From Tim Bannister
Co.	Co.
Dept.	Phone #
Fax #	Fax #

d. If an inspection indicates the need for system repairs, the Contractor shall notify the local health department within 48 hours of the inspection.

e. The Contractor shall notify the Owner of needed repairs which are outside of the scope of routine maintenance described in subparagraph (b) above. The Contractor shall perform necessary repairs to the system at the request of the Owner and shall be entitled to payment therefor at the Contractor's normal charge for services and materials.

f. If the Contract is terminated by the Contractor prior to both inspections being completed during a year the annual fee will be pro rated and refunded to the Owner. If any monies are owed to the Contractor by the Owner for any work performed to the system, the refund for cancellation will be deducted.

g. The Contractor shall employ or contract with a Certified Operator to perform the maintenance procedures if required by table V(b) of 15A N.C. Admin. Code 18A.1961(b) for a Type IV System.

h. If the Contractor makes a change in Certified Operators, the Contractor shall notify the local health department within 48 hours of the change and will have a replacement within thirty (30) days.

2. The Owner's Obligations.

a. The Owner shall pay to the Contractor the sum of $250.00 per year for periodic inspections, routine maintenance procedures and periodic reports. The initial annual fee is payable upon the execution of the contract. Annual billings will be made thereafter and payable within fifteen (15) days of billing. The annual fee may be amended upon sixty (60) days advance notice to the Owner. The Owner shall pay to the Contractor his normal and customary fees for any work performed on the system as a result of nonscheduled service or maintenance calls. These fees are due and payable within fifteen (15) days of billing. Payments due to the Contractor and unpaid by the Owner after fifteen (15) days shall accrue interest from the due date until paid at a rate of 1.5 percent per month.

b. Within thirty (30) days of receipt of notice of needed repairs pursuant to paragraph 1.e. above, the Owner shall request the Contractor to complete needed repairs or shall provide to the Contractor evidence that the needed repairs were satisfactorily completed by another entity.

c. The Owner shall provide the Contractor with such access to the system as is reasonably necessary for the Contractor to comply with the terms of this Agreement.

3. Term. This Agreement shall remain in effect until terminated.

a. Automatic Termination.
This agreement shall automatically terminate if the Operation Permit for the system is revoked and all appeals of the revocation are exhausted or time for taking an appeal has passed.

b. Automatic Termination for Cause.
This agreement shall automatically terminate if the Owner fails to pay any fees or charges to the Contractor within the terms specified in paragraph 2.a.

c. Termination by Mutual Consent.
The Parties may mutually agree to terminate this Agreement by giving written notice of termination by mutual consent to the local health department thirty (30) days in advance of the date of termination.

d. Termination by the Owner.
The Owner may terminate this Agreement by giving written notice to the Contractor and to the local health department thirty (30) days in advance of the date of termination.

e. Termination by the Contractor.
The Contractor may terminate this Agreement by giving written notice to the Owner and to the local health department thirty (30) days in advance of the date of termination.

4. Assignment.

a. Assignment by the Owner. The Owner shall notify the Contractor of the name and address of any purchaser of the property on which the system is located. The Owner shall also notify any purchaser of the property on which the system is located of the existence of this Agreement and shall assign all rights and duties under this Agreement to said purchaser.

b. Assignment by the Contractor. The Contractor may assign its rights and duties under this Agreement to another management entity which is qualified pursuant to 15A N.C. Admin. Code 18A.1961 to manage a Type IV system upon thirty (30) days written notice to the Owner and to the local health department.

5. Use of Subcontractors. The Contractor may subcontract with such manufacturers, suppliers and contractors as it deems desirable to perform any of the Contractor's duties under this Agreement. The Contractor shall at all times remain responsible for the performance of and payment for all work performed by all subcontractors.

6. Representations. The Parties represent to each other that each has the power, authority and legal right to enter into and perform its obligations as set forth in this Agreement.

7. Regulatory Amendments. References in this Agreement to sections of the Administrative Code shall include such rules as they may be amended in the future.

8. No Implied Waiver. The waiver by either Party of a default of a breach by the other Party of any provision of this Agreement shall not operate or be construed to operate as a waiver of any subsequent default or breach. The failure at any time of either Party to enforce any provision of this Agreement (a) shall not be construed to be a waiver of such provisions, or of any other provision; and (b) shall not in any way affect the validity of this Agreement, or any part of this Agreement, or the right of either Party thereafter to enforce each and every provision of this Agreement.

9. Notice. Every notice required under this Agreement shall be in writing and shall be deemed sufficiently given if delivered in person or sent by certified or registered mail, return receipt requested, postage prepaid to the Party to be notified and addressed as follows:

To the Owner:
Doug Starnes
4315 Creekmore Lane, Charlotte NC, 28215

To the Contractor:
Tri-County Wastewater Management
712 South Hayne Street, Monroe, NC 28112

To the Local Health Department:
Mecklenburg County Environmental Health Department
700 N. Tryon St., Suite 211, Charlotte, NC 28202

The date of any Notice shall be the date of personal delivery or the date shown on the return receipt as the date of delivery or attempted delivery, as the case may be. Changes in the respective addresses to which notice may be directed may be made from time to time by either Party by notice to the other party.

10. Place of Agreement. This Agreement and any questions concerning its validity, construction or performance shall be governed by the laws of the State of North Carolina, notwithstanding the place of execution, or the order in which the signatures of the Parties are affixed.

11. Effective Date / Unoccupied Property. If the property is unoccupied at the time of the execution of this agreement, the effective date of this agreement may be changed to the date of occupancy with the mutual consent between all parties. This change resets the annual billing structure and the calender for periodic inspections. Fees that are paid upon the execution of this agreement will be held by the Contractor and applied at the date of the change. An attachment showing proof of the occupancy date must be provided by the Owner to the Contractor and the local health department at the time the change is to be made.

12. Entire Agreement and Amendment. This Agreement supersedes all prior negotiations, agreements and understandings between the Parties with respect to the subject matter hereof and constitutes the entire Agreement between the Parties with respect to the subject matter hereof. To be effective, any amendment or modification to this Agreement must be in writing and must be signed by the Parties.

13. Severability. In the event that any provision of this Agreement shall, for any reason, be determined to be invalid, illegal or unenforceable in any respect, the Parties shall negotiate in good faith and agree to such amendments, modifications or supplements of or to this Agreement or such other appropriate actions as shall, to the maximum extent practicable in light of such determination, implement and give effect to the intentions of the Parties as reflected in this Agreement, and the other provisions of this Agreement shall, as so amended, modified, supplemented or otherwise affected by such action, remain in full force and effect.

IN TESTIMONY WHEREOF, the Parties hereto have executed this Agreement in duplicate originals, one of which is retained by each of the Parties, the day and year first above written.

(Owner)

Attest:

(Contractor)

Attest:

(Certified Operator)

Attest:

(Office use only)

Change of effective date for unoccupied property: _____
(If applicable; refer to paragraph 11.)

CERTIFICATE OF COMPLETION/OPERATION PERMIT

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

FILE: 12257 DATE: 8-27-97

TC: 105-166-21 ☒L ☒CRT

SERIAL Nº 17142

Name of Owner EMMA DAWN GARDNER Juris.: _____

Address of Property 4315 CREEMORE DR

Inspection Data:

Tank Material PCC

Total Length of Drainfield 300

Number of Lines 5 @ varies

Cover Depth 1'

Water Supply Source Gamud

Distance to Water Source _____

Excavation Inspected 7-10 97

Tank(s) Inspected 7-10 97

Wash Line Inspected —

High Water Alarm Inspected 8-25 97

PLOT

Design 1992 1500 ST 1000 PTP IFNV TYPE IV CTR# NATHAN OSBORNE

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

☐ installed or constructed ☐ altered or repaired

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

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

☐ Certificate of Completion ☐ Operation Permit

does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of I5A NCAC 18A. 1990 in addition to those listed below under "COMMENTS." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the suspension/revocation of this permit.

COMMENTS: _____

Environmental Health Specialist

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

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR APPROVAL

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

FILE: 12257 DATE: 7-9-97

TC: 105-166-21 ☐ L

SERIAL Nº 17430

Permission is hereby given to ✓ Install or Construct, _____ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 3-11-96. All work shall be completed on or before 8-9-97, after which date this permit shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 1900 which are in effect on the date of the granting of this permit. A Certificate of Completion or an Operation Permit must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

INSTALL W/ PLAN ON FILE

PLOT OF SYSTEM

Liquid Capacity of Septic Tank 1500 gallons

Liquid Capacity of Dosing Tank 1000 gallons

Tank Construction PCC

Trench Depth see plan

Absorption and/or Nitrification Lines:

Trench Width see plan feet

Trench Walls Scored and Porous yes

Total Line Length see plan feet

Number of Lines 5

Depth of ~~Stone~~ _____ inches

Distance from House _____ feet

Distance from Property Line _____ feet

Distance from Well _____ feet

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

NAME OF OWNER EMMA BUAM GARDNER

LOCATION OF PROPERTY 4315 CREEMORE DR

Comments: _____

Kelly Randall
Environmental Health Specialist

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

MECKLENBURG COUNTY REGISTER OF DEEDS
JUDITH A. GIBSON - REGISTER

CUSTOMER RECEIPT: 10/10/96

Date	Time	Inst #	Type	Book	Page	Trx	Amount
10/10/96	10:50	143	PERMIT	8774	590	FEE	12.00
10/10/96	10:50	143	PERMIT	8774	590	COPY	1.05
10/10/96	10:50					TOT	13.05
10/10/96	10:50					CHCK	13.05

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG
105-166-21

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

FILE # 12257
PARCEL # 105-166-21

FILE COPY

The undersigned, Doug STARNES, owner of property located at 4315 Clearmont Dr, (the "site") and described in an instrument recorded in Book _____ at Page _____, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq.; that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as "provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

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

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

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

This instrument was prepared by: Mecklenburg County
Mail after recording to: Doug Starnes
3925 Billingham Ln Charlotte N.C 28215

BK: 08774 PG: 0590/0592 #:0143 13:05
JUDITH A GIBSON REG OF DEEDS MECK NC
FILED FOR REGISTRATION 10/10/96 10:50

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

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

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

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

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

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

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

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, this 10th day of October, 1996.

_____ (Corporate Name)

By: _____

_____ President

ATTEST:

_____

_____ Secretary

(Corporate Seal)

Doug Starnes (SEAL)

_____ (SEAL)

_____ (SEAL)

_____ (SEAL)

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

I, Julian G. Wood, a Notary Public for said County and State, do hereby certify that Doug STARNES personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal, this 10th day of October, 1996.

Julian G. Wood
Notary Public

My Commission Expires:
12-26-2000

JULIAN G. WOOD NOTARY PUBLIC MECKLENBURG CO., N.C.

RBCWM:24751_1/8-30-95

CK#1779 Paid in full

FEE: 200.00 **AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION**
DATE: 10-10-96 **VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE**

DATE: 10-10-96 PERMIT NO: 12257
PARCEL NO: 105-126-21

JOB LOCATION ADDRESS: 4315 Seamore Drive
PROPERTY OWNER: Emma Barringardner
BUILDING CONTRACTOR: _____
SUBDIVISION NAME: _____
AUTHORIZATION ISSUED BY: Kelly Rile DATE: 10-10-96
DEHNR AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NO. 12257, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

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

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

4. OTHER CONDITIONS: agreement form must be executed and recorded prior to installation approval

OWNER CERTIFICATION

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

X Doug Starnes 10/10/96
SIGNATURE OF OWNER/OWNER'S REPRESENTATIVE DATE

CONDITIONS OF IMPROVEMENT PERMIT

Permit Number 12257 Tax Number: 105-166-21

The IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling or disturbance of the soil in the area of the septic tank system or repair area.

CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is NOT transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.

Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

Basement	___ Yes	✓ No	___ Partial Basement
Type Primary Wastewater System Type (circle one): I II III (IV) V VI	___ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	✓ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1
3 Long-term acceptance rate	300 Max gallons/day wastewater flow	900 Absorption Area (sq ft)	9 Trench spacing (min. on centers)
No Serviced by private well	1500 Gallon septic tank	~~300~~ 900 Total trench length (ft)	24" Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)
3 Bedrooms in residence	1500 Gallon pump tank	✓ Depth of stone	
Any surface waters present: No Type:		Minimum separation distance:	
Site modifications required: No			
Additional Conditions: agree ment form must be executed and recorded prior to installation approval			
Repair Area System Type Type (circle one): I II III (IV) V VI NA	___ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1
1809 Absorption Area (Sq ft) 60 Total Trench Length (Ft)	~~24~~ NA Depth of Stone Trench	9 Trench spacing (min. on centers)	24 Maximum Trench Depth
For existing system, enter the year originally installed:			

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

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

Kelly Hall 10/9
DEHNR Authorized Agent Date

[signature] Dave Starnes 10/10/96
Owner/Agent Signature Date

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

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

FEE: 100.00 CK 1773 SC
DATE: 3/19/96

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

[ ] CRT

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 #: 102257

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: ~~Map Book 15 Pg 237~~ 105-166-21

STREET ADDRESS: 4315 CREEMORE DR

SUBDIVISION OR MOBILE HOME PARK NAME: Rolling Acres Subdivision

LOT NUMBER: 9 Block B

TYPE OF BUILDING (CHECK ONE):

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

HEATED SQUARE FOOTAGE: 1700

NUMBER OF BEDROOMS: 3

NUMBER OF OCCUPANTS: 1

FOUNDATION FOR RESIDENCE:

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

TOWNSHIP (CHECK ONE):

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

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

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

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

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

BURIED CABLES, LANDFILLS, STUMPHOLES	__ YES __ NO	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: Buamgardner Emma L.
(LAST) (FIRST) (MI)

ADDRESS: 3240 Barfield DR

CITY: Charlotte STATE: N.C. ZIP:

DAYTIME PHONE: (704) 334-0586

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
(LAST) (FIRST) (MI)

DAYTIME PHONE: ( ) —

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? _____

An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED: Emma Lou Buamgardner DATE: 3/11/96

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

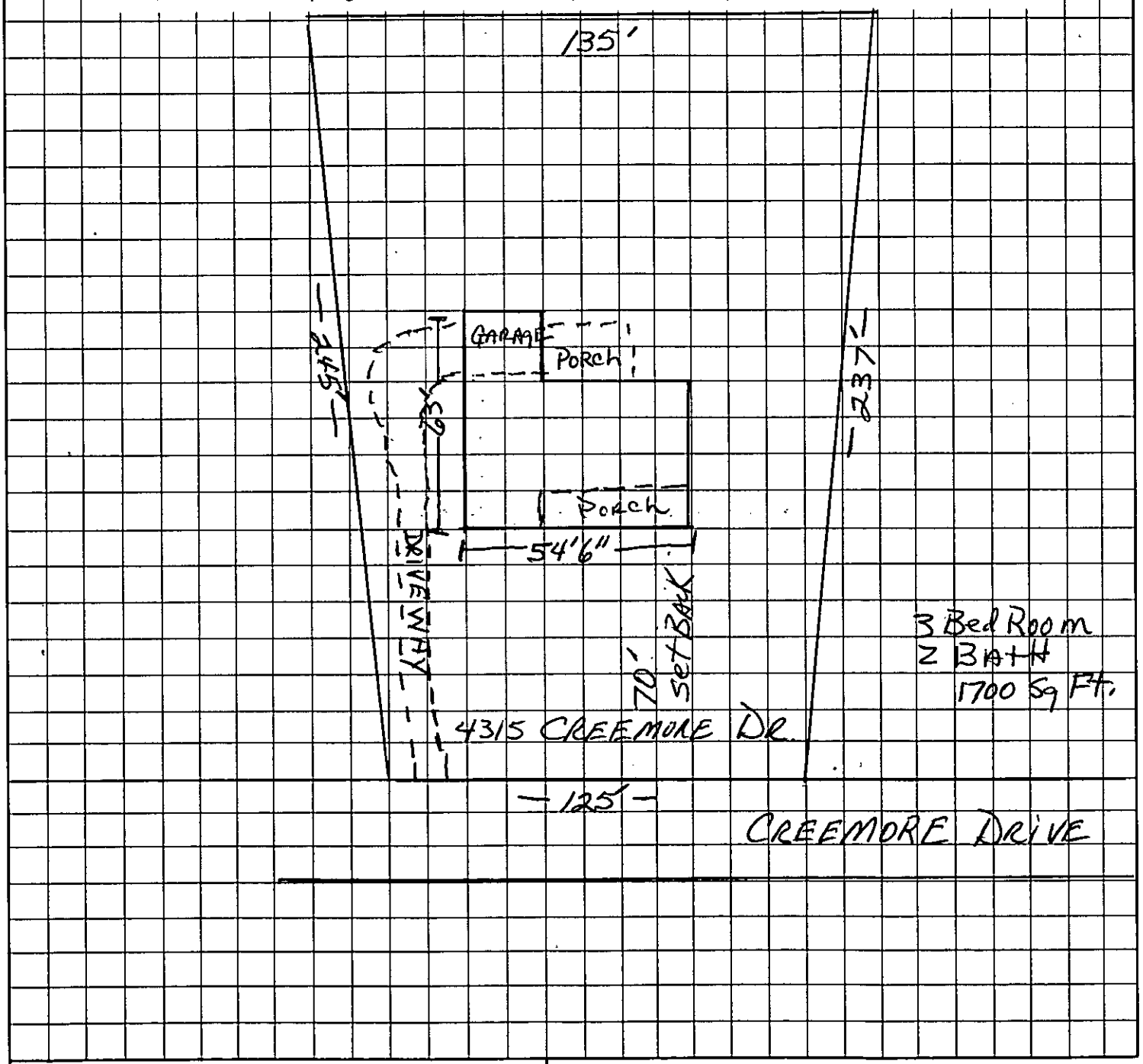
PROPOSED PLOT PLAN

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

FILE: 12257

TC: 105-166-21

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.



Emma L. Baumgardner
OWNER/AGENT SIGNATURE

DATE 3/11/96

APPROVAL DATE _____

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

3/7/02

PARCEL ID# 10516621

WILLIAM D. & DONNA STARNES

NEW OWNER
BOBBY PENLEY

LOC: 4315 CREEMORE DR LN
CHARLOTTE, NC 28215

MAILING: 3204 KIMBEL DR
PLANO TX 75025

(FROM GIS)