Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: D4098 Permit #: 5588 Tax Parcel #: 139-276-02

Property Owner: TRUE HOMES

Job Location Address: ~~2699 BRECKENRIDGE CENTRE DRIVE~~ 7031 FRIAR TUCK LANE

City: ~~MONROE~~ MINT HILL State: NC Zip Code: ~~28110~~ 28277

Operation Permit Issuance Date: 5/7/12 Contractor Name: CHRIS STEVENS

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1000 gallons

Effluent Pump Model: LIBERTY 280

Drainfield Installation ☐ N/A

Trench Depth: 12 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 480 feet

# of Lines: 4 @ 120 feet

Depth of Media: 12 inches (Type) BIOA36

Depth of Cover: 6-8 inches

Distribution Device: PRESSURE MANIFOLD

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

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: >5' feet

Distance from Property Line: >10' feet

Distance from Water Supply Source: >50' feet

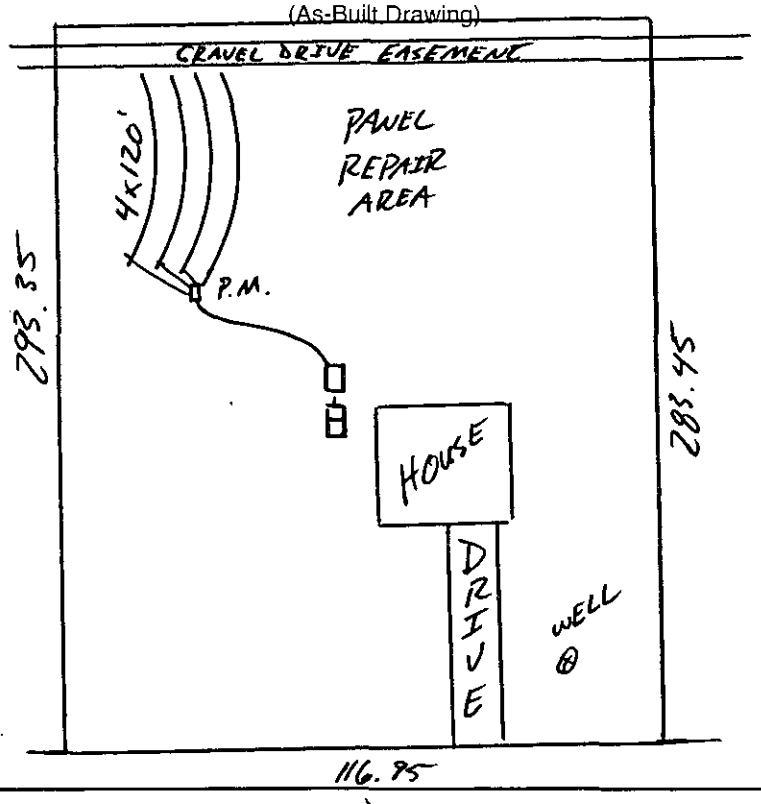
Inspection Dates

Tank(s) Inspected: 5/8/12

Excavation Inspected: 5/8/12

Pump & Controls Inspected: 5/8/12

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



The undersigned has inspected the Septic Tank System described above, and certifies it has been ☒ installed ☐ altered ☐ repaired ☒ as detailed in the plot above ☐ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: III-b, BIOA36, PRESSURE, NA, NA

DENR Authorized Agent: Jeremy Michels, REHS Signature: Jeremy Michels, R.EHS

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On-Site Wastewater Section

OPERATION PERMIT for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 24098 Permit #: 5588 Tax Parcel #: 139-276-02

Property Owner: TRUE HOMES

Job Location Address: 7031 FRIAR TUCK LANE

City: MINT HILL State: NC Zip Code: 28277

OPERATION PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with 15A NCAC 18A .1961.

II. Monitoring: System shall be monitored as required by 15A NCAC 18A .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

IV. Operation: System shall be operated in accordance with 15A NCAC 18A .1961.

System Classification: IIIb

*Operation Permits for Type V and VI systems expire five (5) years from the date of issuance (in accordance with Table V(a)). The system owner must contact GWS six (6) months prior to expiration for permit renewal.

Subsurface system operator required: Yes ☐ No ☒

☐ This type of system requires the system owner to maintain a contract with a certified operator to perform system inspection, maintenance, and reporting as required in 15A NCAC 18A .1961. and Table V(a). The system owner is responsible for all fees associated with these services.

☐ System does not require inspection by GWS on a routine frequency.

☒ System requires inspection by GWS once every five (5) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every three (3) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every six (6) months. The system owner is responsible for all fees associated with the inspection.

V. Other:

DENR Authorized Agent: Jeremy Michelson REHS Date: 5/8/12

Signature: Jeremy Michelson REHS

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NC DENR
Division of Environmental Health
On-Site Wastewater Section

INSTALLATION APPROVAL for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 8409B Permit #: 30005588 Tax Parcel #: 139-276-02

Property Owner: True Homes

Job Location Address: ~~2649 Brokenridge Center Dr.~~ 7031 Friar Tuck Ln

City: ~~Monroe~~ Mint Hill State: NC Zip Code: ~~28110~~ 28227

Installation Approval Issuance Date: 05/04/2012

Permission is hereby given to ☒ install ☐ alter ☐ repair an on-site wastewater treatment & and disposal system, with subsurface soil absorption and effluent discharge, as specified herein at the described location. This approval is granted based upon the application information submitted to our office. All work shall be completed on or before _____, after which date this approval shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 1900 which are in effect on the date of granting this approval. An **Operation Permit** must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now of hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

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

Permitted Design Flow: 480 GPD
Site LTAR: 0.25 GPD/ft² (For new installations only.)
Liquid Capacity of Septic Tank: 1500 gallons
Liquid Capacity of Dosing Tank: 1000 gallons

Drainfield Design ☐ N/A
Trench Depth: 12 inches
Trench Width: 3 feet
Line Spacing: 9 feet (O.C.)
Total line length: 480 feet
# of Lines: 4 @ 120 feet
Depth of Media: 12 inches (Type) 25% Reduction
Distribution Device: Pressure Manifold

Bed Design *(For Repair Installations ONLY.)* ☒ N/A
Bed Depth: _____ inches
Bed Width: _____ feet
Total line length: _____ feet
# of Lines: _____ @ _____ feet
Depth of Media: _____ inches (Type) _____
Distribution Device: _____

Water Supply Source
☐ Municipal ☒ Private Well ☐ Community Well
☐ Other _____

Minimum System Setbacks
Distance from Building Foundation: 5 feet
Distance from Property Line: 10 feet
Distance from Water Supply Source: 50'+ feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)

Install according to permit and plot plan on file with the Health Dept.

Comments: System Classification & Type: III b

DENR Authorized Agent: Jeremy Michael Signature: Jeremy Michael REHS

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NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30005588** GWS File #: **8409B** Tax Parcel #: **139-276-02**

- This 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.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 5/4/2017

Type of Installation: Residential - Modified Plot Plan Lot Number: 2

Structure Type: HOUSE Size (ft^2): 3136 # Bedrooms: 4 # Occupants: 5

Building Foundation: Concrete Slab Water Supply: Private Well

II. Initial System Type: Pump to Approved **System Classification:** IIIb

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1440	Total Trench Length (ft):	480
Maximum Trench Depth (in):	12	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

III. Repair System Type: Pump to Approved **System Classification:** IIIb

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	960	Total Trench Length (ft):	320
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Pressure Manifold		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Jeremy Michael Owner/Legal Agent: _____
Print Name

Signature: Jeremy Michael REHS Signature: _____

Date Issued: 5/4/2012

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30005588** GWS File #: **8409B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 5 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- Additional soil cover, as specified on the plot plan, required over the drain field must be inspected and approved prior to issuance of an Operation Permit.
- This Improvement Permit is being issued based on a supplemental soil investigation performed by staff from our office.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

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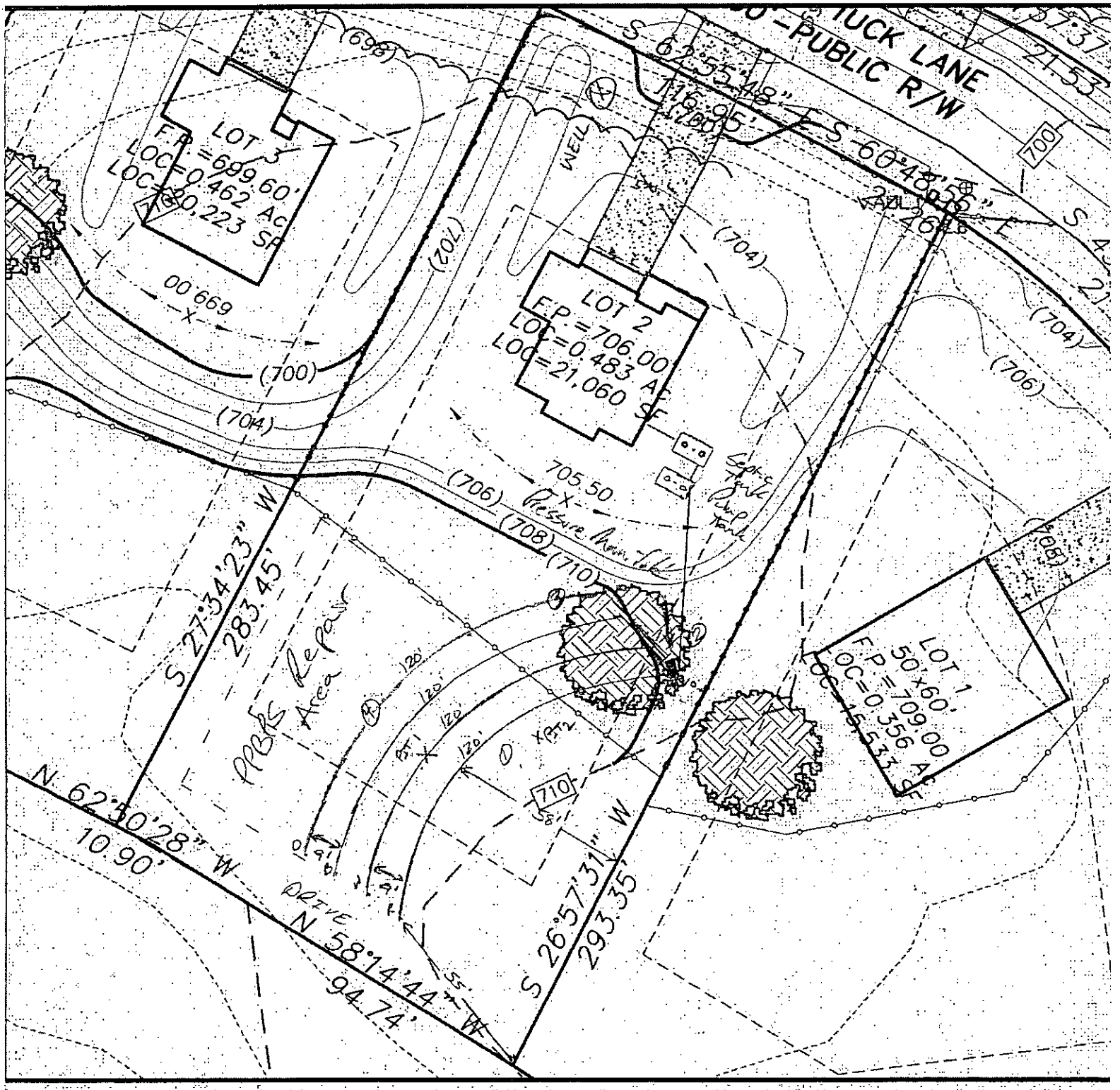
DENR Authorized Agent: Jeremy Michael

Signature: Jeremy Michael REHS.

Date Issued: 5/4/2012

Owner/Legal Agent: _____
Print Name

Signature: _____



LOT GRADING PLAN
LOT 2

SHERWOOD FOREST
MINT HILL, NORTH CAROLINA

CAROLINA DEVELOPMENT SOLUTIONS, LLC
1932 CLARK ELLIOTT STREET
FORT MILL, SC 29708

summit
land services

P.O. BOX 7442
CHARLOTTE, NC 28241
OFFICE: 704.506.0554
FAX: 704.504.1125
WWW.SUMMIT-COMPANIES.COM

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

Sheet: 1 of 1
Property ID: 139-276-02
Lot #: 2
File #: 8409B
AppID: 5376

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: True Homes
Applicant: Same
Address: 2649 Brekonridge Centre Dr. Monroe, NC 28110
Date Evaluated: 12/23/2011
Proposed Facility: Residence
Design Flow (.1949): 480 GPD
Property Size: .925 ac
Location of Site: 7031 Friar Tuck Ln. Mint Hill, NC 28227
Property Recorded:
Water Supply: [ ] Public [X] Individual [X] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN)	SOIL MORPHOLOGY 1941 1941 Structure/ Texture	1941 Consistence Mineralogy	PROFILE FACTORS b 1942 Soil Wetness/ Color	1943 Soil Depth (IN)	1956 Sapro Class	1944 Restr Horiz	Profile Class & LTAR
1	LS, CC 1%	0-32	SBK/C	S/P/FI/SEXP		48"			PS, IV 0.275 GPD/FT^2
		32-48	wABK/C	S/P/FI/SEXP					
2	LS, CC 1%	0-18	SBK/C	S/P/FI/SEXP	Chroma 2 at 24"	24"			U, IV 0.25 GPD/FT^2
		18-24	ABK/C	S/P/FI/SEXP					
3	LS, CC 1%	0-17	SBK/C	S/P/FI/SEXP		30"			U, IV 0.25 GPD/FT^2
		17-30	ABK/C	S/P/FI/SEXP					
		30"	Hit Water						
4	LS, CC 1%	0-37	SBK/C	S/P/FI/SEXP		48"			PS, IV 0.275 GPD/FT^2
		37-48	ABK/C	S/P/FI/SEXP					
5	LS 2%	0-48	SBK/C	S/P/FI/SEXP		48"			PS, IV 0.275 GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIb	Iva
Site LTAR	0.25	0.25

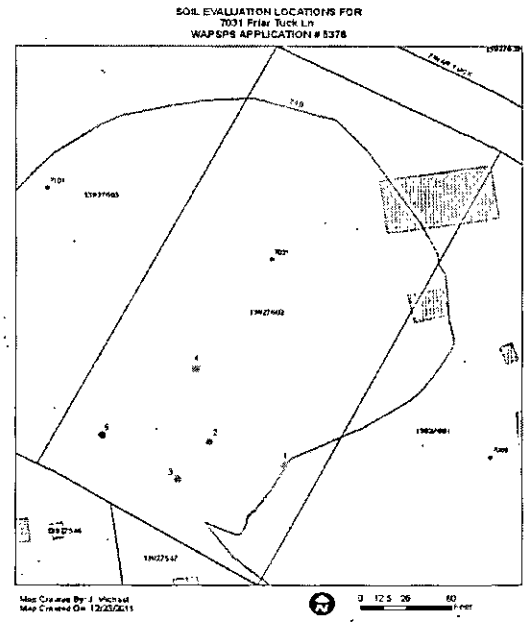
Other Factors (.1946):
Soil Evaluation By: Jeremy Michael
Others Present: Jeremy Michael REHS.
Site Classification (.1948):
Site Evaluation By: Jeremy Michael
Others Present:

COMMENTS:

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-Foot 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				
FP-Flood Plain		CL-Clay Loam		
		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



MECKLENBURG COUNTY

Land Use & Environmental Services Agency
Groundwater & Wastewater Services

April 10, 2012

True Homes
2649 Brekonridge Centre Dr.
Monroe, NC 28110

RE: **Notice of Intent to Revoke Improvement Permit**

Dear True Homes:

The Mecklenburg County Health Department inspected the site for the on-site wastewater system located at **7031 Friar Tuck Ln, Lot 2, File # 8409B** for compliance with the Laws (Article 11 of Chapter 130A of the North Carolina General Statutes), Rules (15A NCAC 18A .1900 et seq.), and Improvement Permit # **30005376** conditions. As a result of this inspection, the Department has determined the following violations:

> Fill material was placed over the proposed nitrification field area changing the soil characteristics from the original site evaluation done in accordance with the Laws and Rules For Sewage Treatment, and Disposal Systems 15A NCAC 18A. 1939 - .1948. The fill material does not meet the rule set forth in 15A NCAC 18A 1957(b)2(a)(b).

This is to notify you that based on these violations, the Department intends to revoke your Improvement Permit 30 days from the date of this notice.

If the health department determines that all of the violations have been corrected before thirty (30) days expire, the revocation will not go into effect. If the permit is revoked, you must apply for a new Improvement Permit and meet the current laws and rules necessary to obtain a new permit.

You have a right to an informal review of this decision. You may request an informal review by the 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 specialist. A request for informal review must be made in writing to the local health department.

You have the right to a formal appeal of this decision by filing a petition for a contested case hearing with the Office of Administration Hearings, 6714 Mail Service Center, Raleigh, NC, 27699-6714. To obtain a petition form (H-06), you may write the Office of Administrative Hearings, call that office at 919.733.0926, or from their web site at www.oah.state.nc.us/hearings. The petition for a contested case hearing must be filed in

accordance with the provisions of North Carolina General Statutes 130A-24, 150B-23, and all other applicable provisions of Chapter 150B. N.C. General Statute 130A-335(g) provides that your hearing would be held in the county where your property is located.

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 NOTICE.** 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 may request.

If you file a petition for a contested case with the Office of Administrative Hearings, you are required by law (NCGS 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 NC Department of Environment and Natural Resources, 1601 Mail Service Center, Raleigh, NC 27699-1601. Sending a petition or copy of the petition to the local health department will NOT satisfy the filing requirements of the NC General Statutes.

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

Sincerely,

Jeremy Michael REHS

Jeremy Michael R.E.H.S.
Environmental Supervisor
700 N. Tryon Street, Suite 211
Charlotte, NC 28202
Office: 704-432-4258

Residential Subsurface Wastewater Treatment and Disposal System Proposal

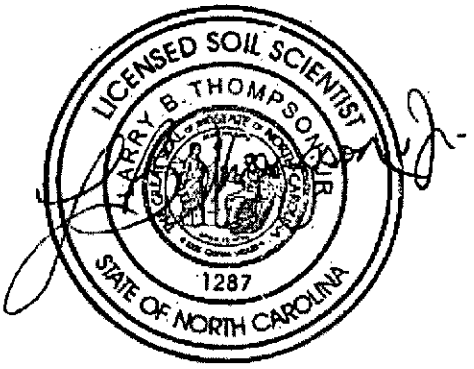
for

Sherwood Forest – Lot 2
7031 Friar Tuck Lane
Mint Hill, North Carolina

Tax Parcel # 139-276-02
MCGWS File # 8409B
May 1, 2012

Prepared for:

True Homes
2649 Brekonridge Center Drive
Monroe, NC 28110
704-238-1229



Prepared by:

Larry Thompson, REHS, PWS, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
Fax: 704-888-6066
larry@thompsonenv.com



cc: Mr. Jeremy Michael, RS
Mecklenburg County Groundwater and Wastewater Services

Details

True Homes has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare a septic proposal for a new 4-bedroom single family residence to be located on Lot 3 of the Sherwood Forest subdivision in Mint Hill, North Carolina.

Based upon a detailed soils investigation performed by TEC on the 0.925 acre lot, it was determined that a sufficient amount of "Suitable" Group IV soils were available for the installation of a Type III accepted system (25% reduction with a Pre-fabricated Porous Block Panel Repair System) for a 4-bedroom residence served by a private well.

True Homes would like to request that Mecklenburg County Groundwater and Wastewater Services (MCGWS) consider issuing the appropriate permits for a subsurface wastewater treatment and disposal system based upon the following proposal.

Location

The subject property is located at 7031 Friar Tuck Lane in Mint Hill, North Carolina. From downtown Charlotte, travel east on US 74 and continue on to NC 27 approximately 9.1 miles. Turn right onto Cabarrus Road, right onto Ferguson Road and right onto Brief Road. Take the second right onto Friar Tuck Lane and Lot 2 will be located on the left.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, August 2007.

Accepted Wastewater System No. AWWS-05-01; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, April 2, 2005.

Accepted Wastewater System No. AWWS-05-02-R1; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, April 2, 2005.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
Professional Wetland Scientist No. 1346
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer No. 1762
NC Certified Wastewater System Inspector No. 17621

Plans and Specifications

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1500 gallons in capacity.
2. The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

B. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1000 gallons in capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. Floats, pump and control circuits, and the control panel shall meet the requirements of Rule .1952(c). Panel and control equipment shall include lightning protection, be protected from unauthorized access, and remain accessible at all times to the system operator.
5. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion resistant, Nema 4x rated control panel. The control panel must be securely mounted outside, adjacent to the pump tank riser and at a minimum of 12 inches above finished grade. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.
6. Float switch tie downs must be made of a corrosion resistant material (all metal in the tanks shall be stainless steel). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).
7. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipe, Fittings and Supply Line

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. The supply line shall be constructed of 2 inch SCH 40 PVC (approximately 60 feet).

D. Pressure Manifold

1. A pressure manifold shall be used to distribute wastewater equally to each of the drainlines.
2. The pressure manifold shall be contained within an adequately sized box/vault that will allow future repair lines to be installed and is designed to allow for drainage of effluent that may accumulate in it during flushing and head pressure adjustments. The box should be placed upon a gravel base.
3. A gate valve shall be provided at the pressure manifold box to allow for final pressure adjustment (2 foot of head pressure as per design).
4. The pressure manifold shall be constructed of SCH 80 PVC.
5. There shall be 4 taps (SCH. 80 PVC - direct thread or saddle), ½ inch in diameter, each to have a true union ball valve that will allow for future removal/replacement. NOTE: Using SCH 40 taps will increase the required pump delivery rate beyond that which is specified in this design.
6. The connecting pipe between the Pressure Manifold taps and the drain field shall be constructed of PVC.

E. Drain Field Installation

1. The drainfield has been previously laid out on-site by the MCGWS utilizing metal stemmed flags. Since that time fill material was placed over the proposed drainfield area, thereby voiding the original permit. True Homes has removed the majority of the fill material over the drainfield area but a small amount remains. As a result, the new drainlines as marked are not on actual contour with the existing elevations but they are on contour with the original grade.
2. Once this area has been approved by the MCGWS, the property owner/builder should mark this area and isolate it as much as possible from construction traffic. Prior to the system installation, the septic contractor shall contact the MCGWS and the system designer for a preconstruction conference at which time the drain field area will be re-verified.
3. Under no circumstances shall any construction take place within the drain field area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the MCGWS should be contacted for permission to proceed with the installation.
4. The specified system is a shallow placed approved accepted system; the **EZ*flow* 1203H** or the **Infiltrator Quick4 Standard Chamber System** may be used

(other innovative systems may be substituted with prior approval by the MCGWS).

5. The drain field consists of four (4) lateral trenches to be constructed 3 foot wide by 120 feet in length.
6. The drainlines for this system should be excavated from the ends of the lines to the pressure manifold (the ends of the lines do not have fill material over them – start the drainline at the proposed trench depth and carry it out at grade, in line with the metal stemmed flags).
7. The maximum trench depth for this system shall be **12 inches** where the drainlines end (the ends are located near the gravel drive on the back portion of the lot).
8. The laterals are to be installed keeping the individual trench bottoms level from beginning to end, following the path identified by the metal stemmed flags.
9. The trenches should be left open for the final inspection by the MCGWS.

F. Final Landscaping

1. Final cover over the drainfield shall be at least 12 inches deep. Additional soil cover for this system will be required to achieve the required depth.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

G. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the MCGWS as soon as possible.
2. Lawn irrigation should not be placed over the drain field area.

Maintenance

H. In General

1. The homeowner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 25 percent of the volume of the tank. In some situations, the tanks may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner has the septic and pump tanks cleaned out annually.

3. When it becomes necessary to clean the effluent filter, the filter should be removed and the accumulated debris washed back into the septic tank – not onto the lawn.
4. Any damp areas, leakages or malfunctions in the drainfield area should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

I. Suggestions to the Homeowner

1. As previously mentioned, if you plan to use a garbage disposal in your home you should plan to have your septic and pump tanks cleaned out annually. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
2. Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
3. Used motor oil or any oily liquids should not be disposed of in a septic tank.
4. Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
5. Run dishwashers and washing machines only when you have a full load.
6. Use liquid detergents. Powdered detergents have binding agents in them that tend to solidify in the wastewater disposal system.
7. Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
8. Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and in some cases certain additives have been found to be detrimental to the life of a system.

Design Specifics

Daily Design Flow:	480 GPD – 4 bedroom house
Septic Tank Size:	1500 gallons (2 compartments)
Pump Tank Size:	1000 gallons (one piece const.)
Effluent Loading Rate:	Design = 0.25 GPD per sq. ft.
Drain Field Type:	Accepted 25% Reduction
Supply Line:	+/- 60 Feet (2 inch SCH 40)
Distribution Method:	Pressure Manifold (SCH 80)
Number of Taps and Size:	(4) ½ inch SCH 80 Taps

Drain Lines:	(4) 3' Wide x 120' Long
Maximum Trench Depth:	12 inches
Final Cover Requirement:	12 inches
Pump Requirements:	21.92 GPM at 14 Feet TDH
Pump Specified:	Goulds WE03L (or equivalent)
Check Valve Required:	Yes

Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
704-301-4881

SHEET 1 OF 1

COUNTY: Mecklenburg
TAX ID: 139-276-02

OWNER: True Homes
LOCATION: Lot 2 - Sherwood Forest

DATE: May 1, 2012

PROFILES		Pit 1	Pit 2	SB-1	SB-2	SB-3	SB-4				
LANDSCAPE POSITION	.1940	ls	ls	ls	ls	ls	ls				
SLOPE (%)	.1940	8%	8%	8%	8%	8%	8%				
HORIZON 1 DEPTH	.1943	0-6	0-11	0-6	0-4	0-3	0-4				
TEXTURE	.1941 (a)(1)										
CONSISTENCE	.1941	vfi	vfi	vfi	vfi	vfi	vfi				
STRUCTURE	.1941 (a)(2)	m	m	m	m	m	m				
CLAY MINERALOGY	.1941 (a)(3)										
HORIZON 2 DEPTH	.1943	6-14	11-17								
TEXTURE	.1941 (a)(1)	cl	cl								
CONSISTENCE	.1941	fr	fr								
STRUCTURE	.1941 (a)(2)	sbk	sbk								
CLAY MINERALOGY	.1941 (a)(3)	se	se								
HORIZON 3 DEPTH	.1943	14-36	17-44								
TEXTURE	.1941 (a)(1)	c	c								
CONSISTENCE	.1941	fi	fi								
STRUCTURE	.1941 (a)(2)	sbk	sbk								
CLAY MINERALOGY	.1941 (a)(3)	se	se								
HORIZON 4 DEPTH	.1943										
TEXTURE	.1941 (a)(1)										
CONSISTENCE	.1941										
STRUCTURE	.1941 (a)(2)										
CLAY MINERALOGY	.1941 (a)(3)										
SOIL WETNESS	.1942										
RESTRICTIVE HORIZON	.1944										
SAPROLITE	.1943/.1956	36	44								
CLASSIFICATION	.1948	ps	ps								
L.T.A.R. (gpd/ft^2)	.1955	0.25	0.275								

OTHER FACTORS (.1946):		**SITE LTAR (gpd/ft^2):**	**0.25**
AVAILABLE SPACE (.1945):	provisionally suitable		
SITE CLASSIFICATION (.1948):	provisionally suitable	SYSTEM TYPE:	25% Reduction - PPBPS Rep.
EVALUATED BY:	Larry Thompson	OTHERS PRESENT:	

COMMENTS: SB-1, SB-2, SB-3 and SB-4 measure the depth of fill to naturally occurring soil.

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

Sheet: 1 of 1
Property ID: 139-276-02
Lot #: 2
File #: 8409B
AppID: 5376

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: True Homes
Applicant: Same
Address: 2649 Brekonridge Centre Dr. Monroe, NC 28110
Date Evaluated: 12/23/2011
Proposed Facility: Residence
Design Flow (.1949): 480 GPD
Property Size: .925 ac
Location of Site: 7031 Friar Tuck Ln. Mint Hill, NC 28227
Property Recorded:
Water Supply: [ ] Public [X] Individual [X] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	SOIL MORPHOLOGY 1941 .1940 Landscape Position/ Slope%	Horizon Depth (IN.)	1941 Structure/ Texture	1941 Consistence Mineralogy	b PROFILE FACTORS 1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr Horiz	Profile Class & LTAR
1	LS, CC 1%	0-32	SBK/C	S/P/FI/SEXP		48"			PS, IV 0.275 GPD/FT^2
		32-48	wABK/C	S/P/FI/SEXP					
2	LS, CC 1%	0-18	SBK/C	S/P/FI/SEXP	Chroma 2 at 24"	24"			U, IV 0.25 GPD/FT^2
		18-24	ABK/C	S/P/FI/SEXP					
3	LS, CC 1%	0-17	SBK/C	S/P/FI/SEXP		30"			U, IV 0.25 GPD/FT^2
		17-30	ABK/C	S/P/FI/SEXP					
		30"	Hit Water						
4	LS, CC 1%	0-37	SBK/C	S/P/FI/SEXP		48"			PS, IV 0.275 GPD/FT^2
		37-48	ABK/C	S/P/FI/SEXP					
5	LS 2%	0-48	SBK/C	S/P/FI/SEXP		48"			PS, IV 0.275 GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIb	Iva
Site LTAR	0.25	0.25

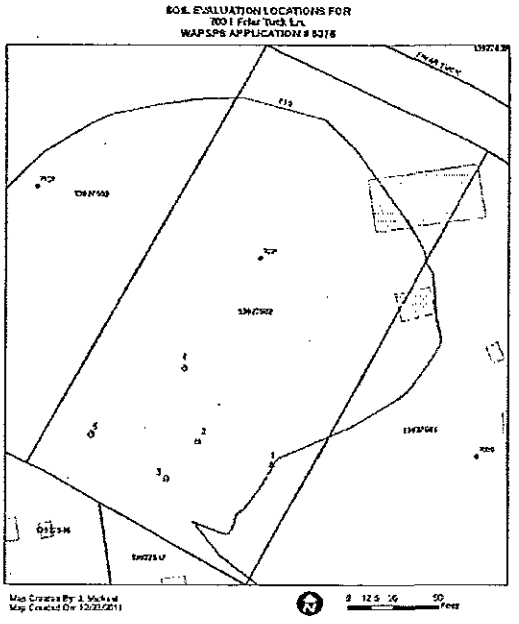
Other Factors (.1946):
Soil Evaluation By: Jeremy Michael
Others Present: Jeremy Michael REHS.
Site Classification (.1948):
Site Evaluation By: Jeremy Michael
Others Present:

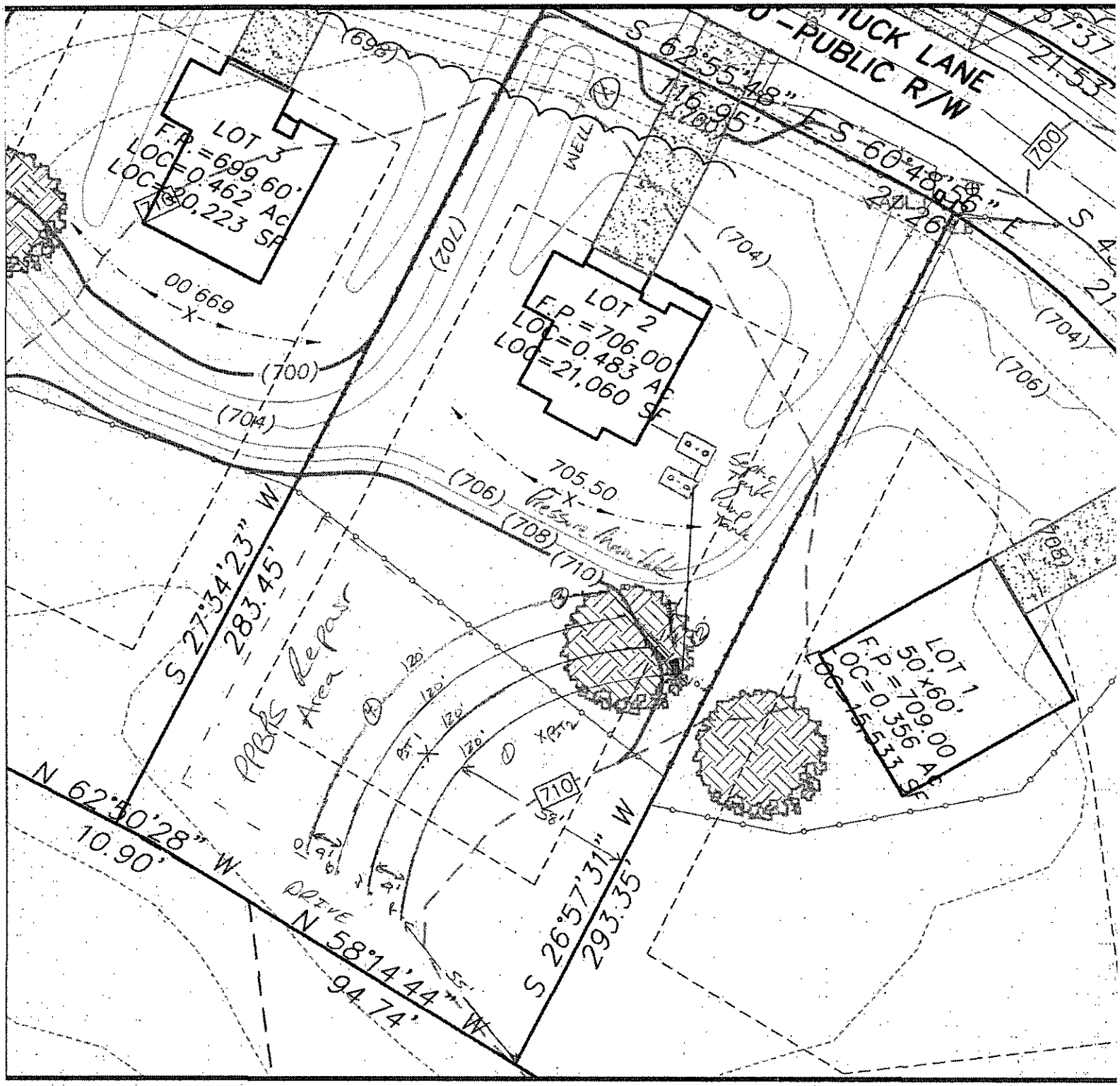
COMMENTS:

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-Foot 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				
FP-Flood Plain		CL-Clay Loam		
		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





LOT GRADING PLAN
LOT 2

SHERWOOD FOREST
MINT HILL, NORTH CAROLINA

CAROLINA DEVELOPMENT SOLUTIONS, LLC
1932 CLARK ELLIOTT STREET
FORT MILL, SC 29708

summit
land services

P.O. BOX 7442
CHARLOTTE, NC 28241
OFFICE: 704.506.0554
FAX: 704.504.1125
WWW.SUMMIT-COMPANIES.COM

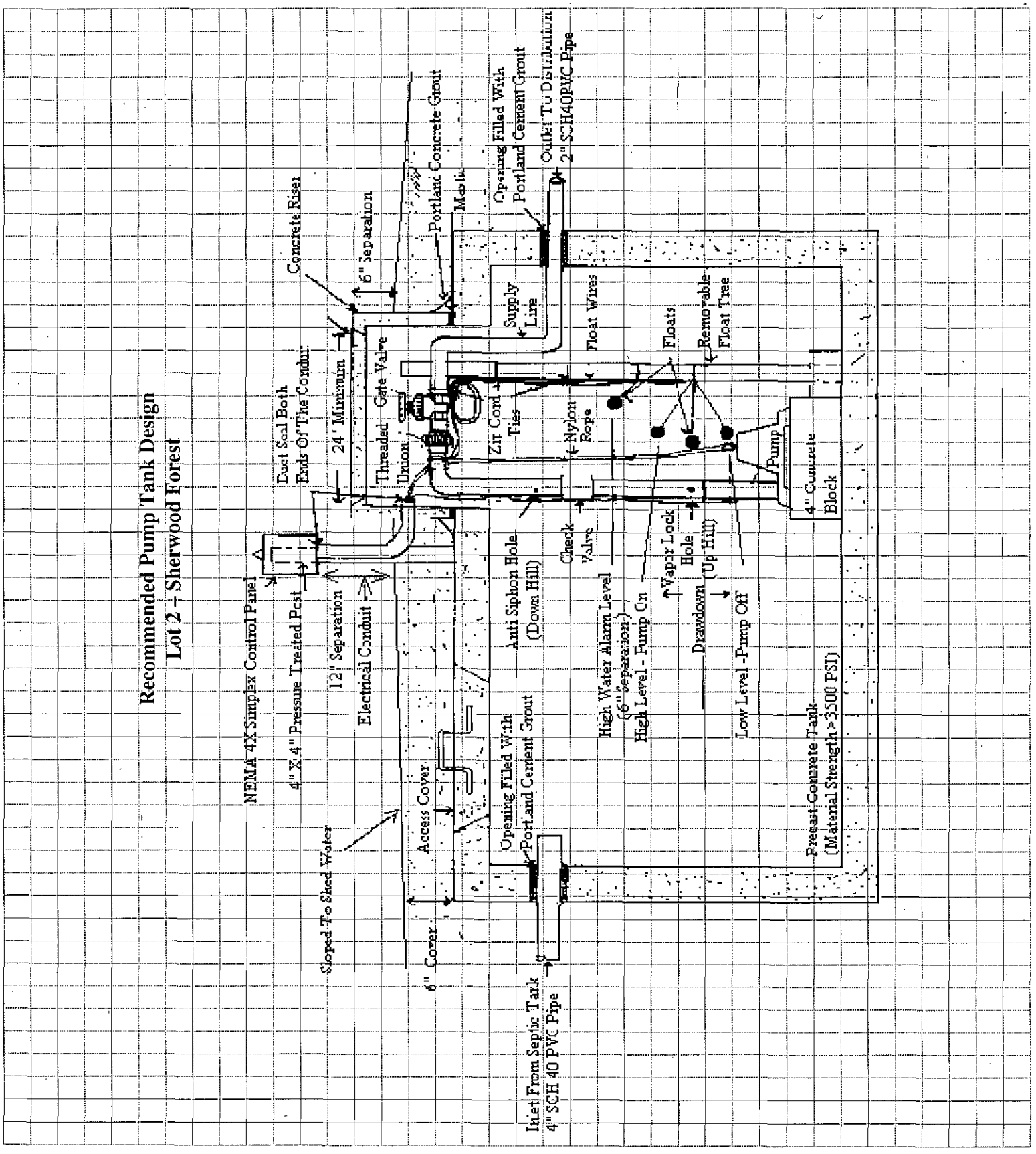
Thompson Environmental Consulting
PO Box 541
Midland, NC 28107-0541

File Number: 8409B

Location: Lot 2 – Sherwood Forest

Date: May 1, 2012

Recommended Pump Tank Design
Lot 2 – Sherwood Forest



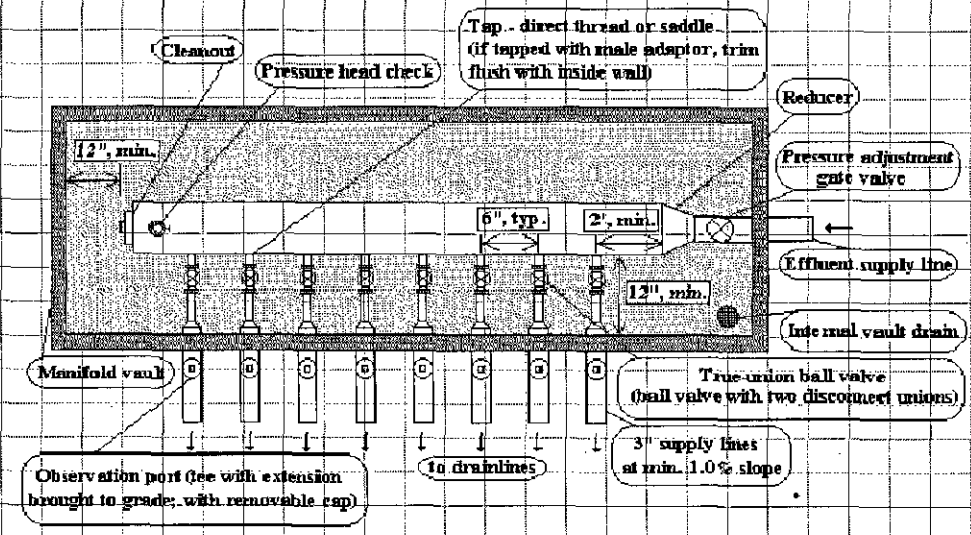
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File Number: 8409B

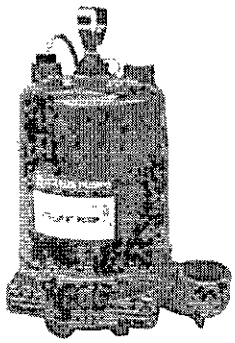
Location: Lot 2 – Sherwood Forest

Date: May 1, 2012

Recommended Pressure Manifold Design



GOULDS PUMPS



Submersible Effluent Pump

MODEL 3885

WE Series

PROSURANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.

APPLICATIONS

Specifically designed for the following uses:

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

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- *Temperature:* 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

FEATURES

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

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

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

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

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

■ Capable of running dry without damage to components.

■ Designed for continuous operation when fully submerged.

MOTORS

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

■ Class B insulation on ⅓-1½ HP models.

■ Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- ⅓ and ½ HP models have NEMA three prong grounding plugs.
- ¾ HP and larger units have bare lead cord ends.

Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

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

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

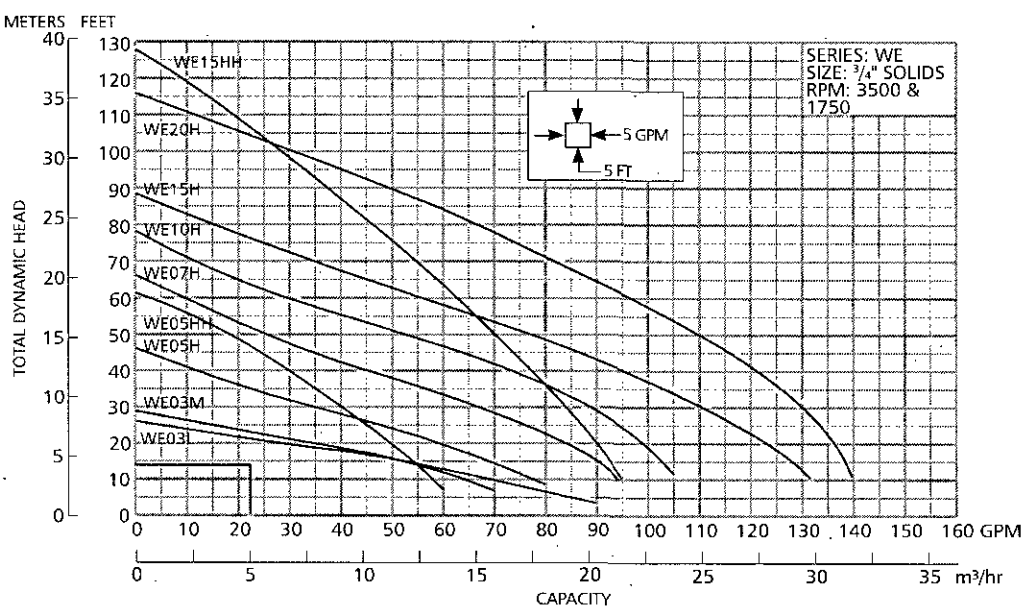
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

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

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



Goulds Pumps

ITT Industries

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B3885

GOULDS PUMPS

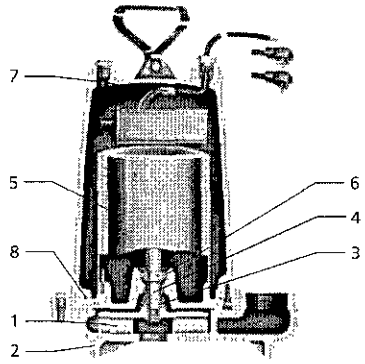
Submersible Effluent Pump

MODEL 3885

WE Series

COMPONENTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical Seal
4	Motor Shaft
5	Motor
6	Ball Bearings
7	Power Cable
8	Casing O-Ring



MODELS

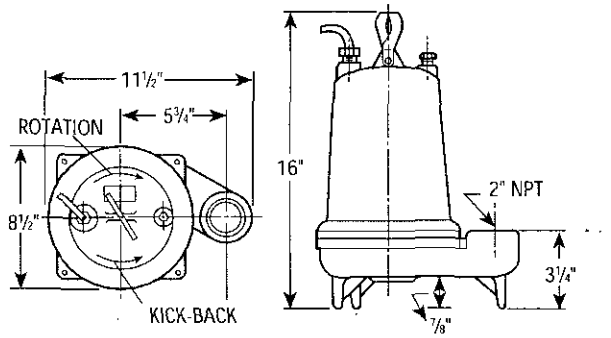
Order No.	HP	Volts	Phase	Max. Amp.	RPM	Solids	Wt. (lbs.)
WE0311L	1/3	115	1	10.7	1750	3/4"	56
WE0318L		208		6.8			
WE0312L		230		4.9			
WE0311M		115		10.7			
WE0318M		208		6.8			
WE0312M		230		4.9			
WE0511H	1/2	115	1	14.5	1750	3/4"	60
WE0518H		208		8.1			
WE0512H		230		7.3			
WE0538H		200	3	4.9			
WE0532H		230		3.3			
WE0534H		460		1.7			
WE0537H		575		1.4			
WE0511HH		115	1	14.5			
WE0518HH		208		8.1			
WE0512HH		230		7.3			
WE0538HH		200	3	4.9			
WE0532HH		230		3.6			
WE0534HH		460		1.8			
WE0537HH		575		1.5			
WE0718H	3/4	208	1	11.0			70
WE0712H		230		10.0			
WE0738H		200	3	6.2			
WE0732H		230		5.4			
WE0734H		460		2.7			
WE0737H		575		2.2			
WE1018H	1	208	1	14.0	3500		
WE1012H		230		12.5			
WE1038H		200	3	8.1			
WE1032H		230		7.0			
WE1034H		460		3.5			
WE1037H		575		2.8			
WE1518H	1½	208	1	17.5			80
WE1512H		230		15.7			
WE1538H		200	3	10.6			
WE1532H		230		9.2			
WE1534H		460		4.6			
WE1537H		575		3.7			
WE1518HH		208	1	17.5			
WE1512HH		230		15.7			
WE1538HH		200	3	10.6			
WE1532HH		230		9.2			
WE1534HH		460		4.6			
WE1537HH		575		3.7			
WE2012H	2	230	1	18.0			83
WE2038H		200	3	12.0			
WE2032H		230		11.6			
WE2034H		460		5.8			
WE2037H		575		4.7			

PERFORMANCE RATINGS (gallons per minute)

Total Head Feet of Water	Order No.	WE03L	WE03M	WE05H	WE07H	WE10H	WE15H	WE05HH	WE15HH	WE20H
	HP	1/3	1/3	1/2	3/4	1	1½	1/2	1½	2
	RPM	1750	1750	3500	3500	3500	3500	3500	3500	3500
	5	86	–	–	–	–	–	–	–	–
	10	70	63	78	–	–	–	58	–	–
	15	52	50	70	90	–	–	53	–	–
	20	27	35	60	83	98	123	49	90	136
	25	–	–	48	76	94	117	45	87	133
	30	–	–	35	67	88	110	40	83	130
	35	–	–	20	57	82	103	35	80	126
	40	–	–	–	45	74	95	30	77	121
	45	–	–	–	35	64	86	25	74	116
	50	–	–	–	25	53	77	–	70	110
	55	–	–	–	–	40	67	–	66	103
	60	–	–	–	–	30	56	–	63	96
	65	–	–	–	–	20	45	–	58	89
	70	–	–	–	–	–	35	–	55	81
	75	–	–	–	–	–	25	–	51	74
	80	–	–	–	–	–	–	–	47	66
	90	–	–	–	–	–	–	–	37	49
	100	–	–	–	–	–	–	–	28	30

DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



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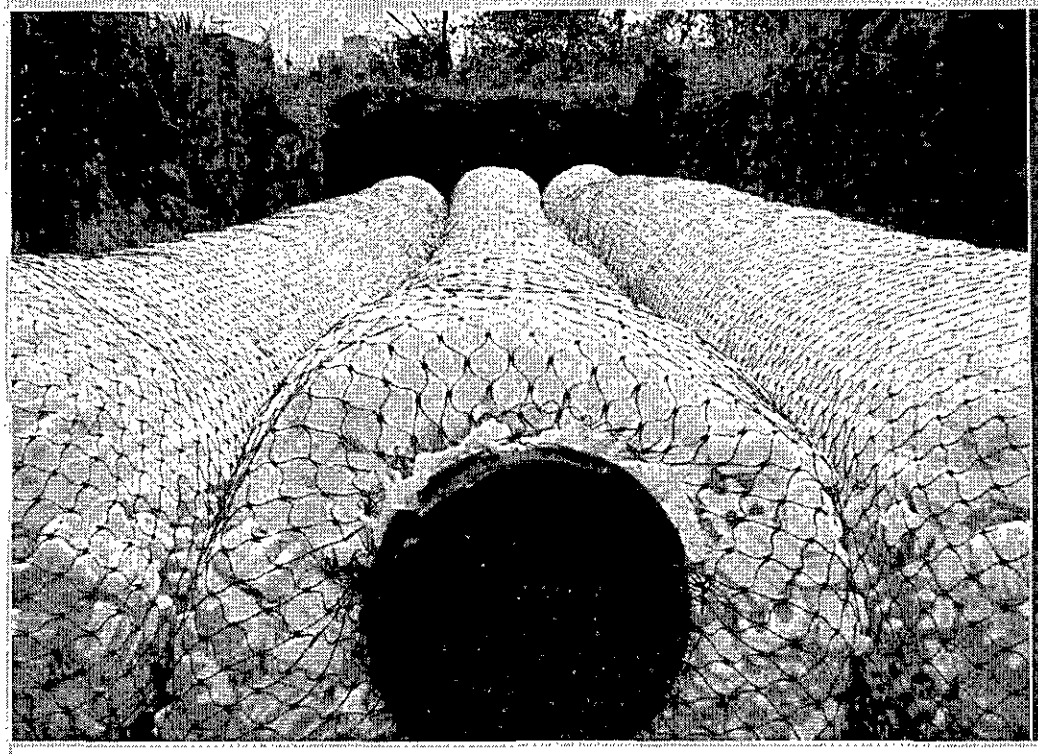
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SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Goulds Pumps

ITT Industries

EZflow by INFILTRATOR



EZflow by Infiltrator is an environmentally friendly replacement to traditional stone and pipe drainfields using an engineered geosynthetic aggregate modular design. The **EZflow** system is designed to improve infiltration performance by eliminating the fines associated with crushed stone, and reducing compaction and embedment associated with stone. Preassembled units include a 3" or 4" perforated pipe surrounded by aggregate and held in place with a durable high-strength netting. This product comes in easy-to-contour 5' and 10' lengths and in diameters of 7, 8, 9, 10, 12, 13, or 14 inches.

Compared with stone and pipe, benefits include:

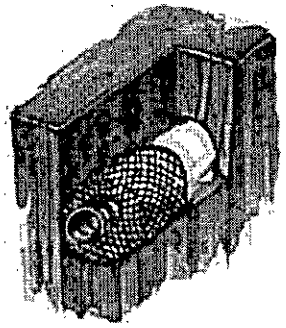
- Always clean and free of fines
- Bundles are quick to install, saving costs on heavy machinery and labor
- Modular construction allows configurations to match trench dimensions for most system shapes and sizes
- Engineered for optimal storage and absorption efficiencies
- Ability to contour along sloped sites and around trees or landscaping
- Lightweight system is perfect for repairs and tight job sites
- Easily hand-carried into position reducing time and labor
- 5' or 10' lengths with simple snap, internal couplers
- Easier cleanup at the job site with the elimination of stone
- Manufactured from recycled materials rather than a mined natural resource
- A wide variety of diameters and configurations to meet any installation professional's needs
- Approved in many jurisdictions with an increased efficiency rating, reducing drain field size
- Also useful for foundation and other drainage applications
- Backed by the leader in the onsite wastewater industry

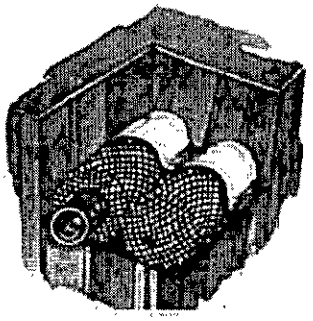
EZflow™ by INFILTRATOR

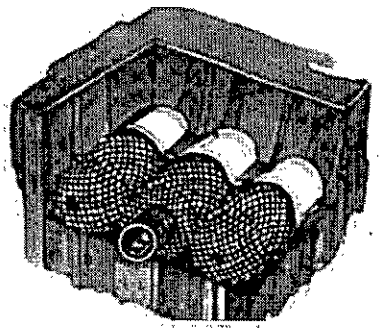
For technical assistance, installation instructions or customer service, call Infiltrator Systems at 800.689.7759.

EZ*flow* by INFILTRATOR

Configurations: Available in 7", 8", 9", 10", 12", 13" and 14" diameter bundles.





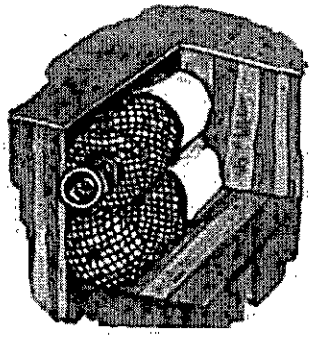


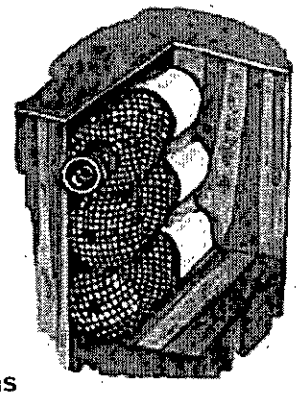
Single Pipe Systems

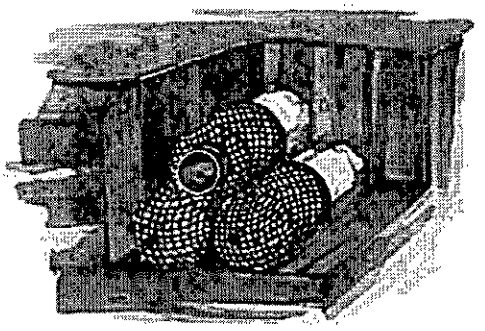
0701P-GEO
0801P-GEO
1001P-GEO
1001LPP-GEO
1201P-GEO
1201LPP-GEO
1401P-GEO

Horizontal Systems

0705H-GEO
0904H-GEO
1002H-GEO
1003H-GEO
1006H-GEO
1202H-GEO
1203H-GEO
1203HP-GEO
1206H-GEO
1209H-GEO
1303H-GEO
1402H-GEO







Vertical Systems

1002V-GEO
1003V-GEO
1004V-GEO
1006V-GEO
1202V-GEO
1203V-GEO
1204V-GEO
1206V-GEO
1402V-GEO

Triangular Systems

1003T-GEO
1203T-GEO
1303T-GEO
1403T-GEO

Notes:

1. *Other systems include 12" square and 10" and 12" bed systems. Bed systems will dictate the number of bundles.*
2. *System dimensions are dependent upon bundle diameter and configuration.*
3. *LLP is for "Low Pressure Pipe" in which a pressurized distribution pipe is field installed within the corrugated pipe.*
4. *Internal pipe and couplings meet the requirements of ASTM F405.*
5. *Bundles are also available without geotextile between the netting and synthetic aggregrate.*

INFILTRATOR SYSTEMS INC. STANDARD LIMITED WARRANTY

(a) The structural integrity of each EZflow by Infiltrator expanded polystyrene drainfield system and other accessories manufactured by EZflow by Infiltrator ("Units"), when installed and operated in a leachfield or an on-site septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units, provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by EZflow by Infiltrator to be covered by this Limited Warranty. EZflow by Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the EZflow system is manufactured by anyone other than EZflow by Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited 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 vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper sizing or improper sizing excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

* * * * * * * *

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.

INFILTRATOR®
systems inc.

6 Business Park Road • P.O. Box 768
Old Saybrook, CT 06475
860.577.7000 • FAX 860.577.7001

800.689.7759
www.ezflowlp.com
www.infiltratorsystems.com

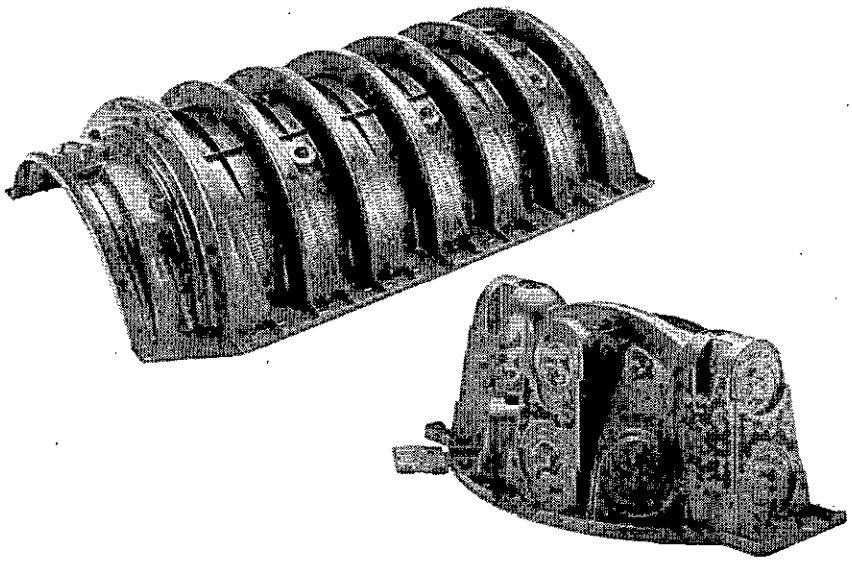
For technical assistance, installation instructions or customer service, call Infiltrator Systems at 800.689.7759.

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EZ010609AW-0

The **Quick4® Standard** Chamber

INFILTRATOR® systems inc.



The evolutionary patent-pending Quick4® Standard Chamber fits in a 36" wide trench and is ideal for curved or straight systems. It features the patent-pending Contour Swivel Connection™ which permits 10-degree turns, right or left. The MultiPort™ end cap allows multiple piping options and eliminates pipe fittings. The chamber's four-foot length provides optimal installation flexibility.

The Quick4 Standard Chamber Offers You These Unique Benefits:

- Advanced contouring connections swivel 10-degrees, right or left
- Latching mechanism allows for quick installation
- Compact nesting provides more trench length in an equivalent stack height
- Four-foot chambers are easy to handle and install
- The Quick4 Standard Chamber supports wheel loads of 16,000 lbs/axle with only 12" of cover
- Certified by the International Association of Plumbing and Mechanical Officials (IAPMO)

The MultiPort End Cap Offers These Unique Benefits:

- Patent-pending tear-out seals on inlet ports provide a tight fit to the pipe
- Eight molded-in inlets/outlets allow for maximum piping flexibility
- Multiple ports eliminate pipe fittings and make looping ends easy
- Patent-pending MultiPort end cap fits on either end of the Quick4 Standard Chamber

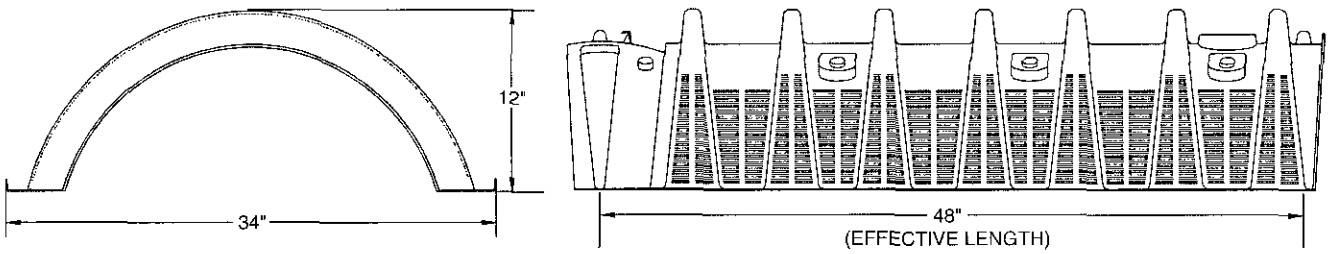
Infiltrator is the number-one septic leachfield chamber system in the onsite industry, with over 42 million units in-ground in all 50 states and 24 countries.

Approved in _____

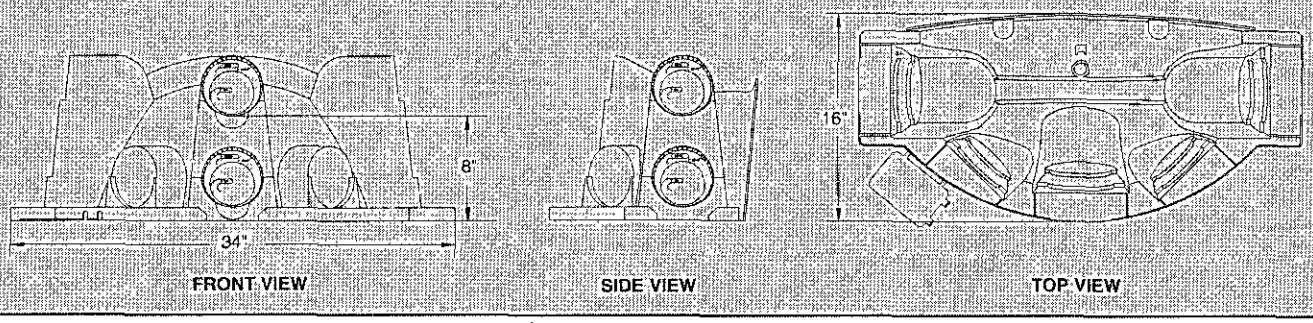


The **Quick4® Standard** Chamber

The Quick4 Standard Chamber



MultiPort End Cap



Quick4 Standard Chamber Specifications	
Size (W x L x H) .....34" x 53" x 12" (86 cm x 135 cm x 31 cm)	Louver Height .....8" (20 cm)
Effective Length .....48" (122 cm)	Invert Height .....8" (20 cm)

INFILTRATOR SYSTEMS, INC. STANDARD LIMITED WARRANTY

(a) The structural integrity of each chamber, end cap and other accessory manufactured by Infiltrator ("Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, *that if a septic permit is not required by applicable law, the warranty period will* begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b)THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited 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 vehicle traffic or other conditions which are not permitted by the installation *instructions; failure to maintain the minimum* ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation, or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws, and Infiltrator's installation instructions.

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* * * * * * *

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6 Business Park Road • P.O. Box 768
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860-577-7000 • FAX 860-577-7001

1-800-221-4436
www.infiltratorsystems.com

For technical assistance, installation instructions or customer service, call Infiltrator Systems at 1-800-221-4436.

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844
Canadian Patents: 1,329,959; 2,004,564 Other patents pending.

Infiltrator, Equalizer, Quick4 and SideWinder are registered trademarks of Infiltrator Systems Inc. Infiltrator is a registered trademark in France. Infiltrator Systems Inc. is a registered trademark in Mexico. ChamberSpacer, Contour, Contour Swivel Connection, MicroLeaching, MultiPort, PolyTuff, PosiLock, QuickCut, QuickPlay, *SnapLock and StraightLock are trademarks of Infiltrator Systems Inc.* © 2006 Infiltrator Systems Inc. Printed in U.S.A.

8409B

MECKLENBURG COUNTY HEALTH DEPARTMENT

Opp# 5588

APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. **SEPTIC / TYPE APPLICATION:** ○ N/A ○ NEW SYSTEM ○ ALTERATION ○ REPAIR ● MODIFIED PLOT PLAN

2. **WELL / TYPE APPLICATION:** ○ N/A ● NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. **JOB LOCATION INFORMATION:**

TAX PARCEL NUMBER: 139-276-02
STREET ADDRESS: 7031 Triar Track LN
CITY: Charlotte
STATE: NC ZIP: 28227
SUBDIVISION NAME: Sherwood Forest
LOT #: 2 LOT SIZE (acres): _____
TOWNSHIP:
○ MECKLENBURG ○ CORNELIUS ○ HUNTERSVILLE
○ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ● MINT HILL

4. **BUILDING INFORMATION:**

BUILDING TYPE:
○ SINGLE MOBILE HOME ○ MODULAR HOME
○ DOUBLE WIDE ○ MULTIPLE FAMILY
● HOUSE ○ OTHER _____
HEATED SQUARE FOOTAGE: 3136
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 5
FOUNDATION TYPE:
● CONCRETE SLAB ○ BASEMENT WITH PLUMBING
○ CRAWL SPACE ○ BASEMENT WITH NO PLUMBING

5. **IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION:** ☑ N/A

NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. **WATER SUPPLY:** ○ MUNICIPAL ● PRIVATE WELL ○ PUBLIC WELL ○ SHARED WELL ○ OTHER _____

7. **PROPOSED USE OF WELL:** ○ N/A ○ IRRIGATION ● POTABLE (DRINKING WATER) ○ OTHER _____

8. **PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE** *(1-MOST DESIRED 5-LEAST DESIRED):*

☐ N/A ☑ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

8A. **RANK:** ____ ____ ____ ____ ____

9. **DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.**

BURIED CABLES, LANDFILLS, STUMPHOLES	○ YES ● NO	GRADING/SOIL REMOVAL PERFORMED	○ YES ● NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	○ YES ● NO	JURISDICTIONAL WETLANDS	○ YES ● NO
WELLS, SPRINGS, OR WATER LINES	○ YES ● NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	○ YES ● NO
EASEMENTS OR RIGHT-OF-WAYS	○ YES ● NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ● NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ● NO	KNOWN UNDERGROUND CONTAMINATION	○ YES ● NO
WASTE STORAGE	○ YES ● NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ● NO

10. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** _____ ☑ UNKNOWN

11. **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** _____ ☐ N/A

12. **PROPERTY OWNER:**

NAME: True Homes
ADDRESS: 2649 Brekonridge Centre Dr
CITY: Monroe
STATE: NC ZIP: 28110
WORK PHONE: _____
MOBILE PHONE: 803-389-3387
FAX: _____
E-MAIL: _____

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**

NAME: Scott Twiddy
ADDRESS: 1932 Clark Elliott St
CITY: Fort Mill
STATE: SC ZIP: 29708
WORK PHONE: _____
MOBILE PHONE: 803-389-3387
FAX: 800-980-4077
E-MAIL: stwiddy.cds@gmail.com

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

Revised on: 12/15/10

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

_____ (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of twelve (12) months from the date of issuance.

_____ (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

Scott Swaney
Property Owner's or Owner's Legal Representative Signature

5/2/2012
Date

OFFICE USE ONLY

O SURVEY PLAT TO SCALE SUBMITTED O SCALED SITE PLAN SUBMITTED O UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $ #100 ~~400~~ DATE FEE RECEIVED: 4/27/12

WELL APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: lws

$400 pd 1/18/12

GWS FILE NUMBER ASSIGNED: 8409B

APPLICATION ID NUMBER ASSIGNED: 5588

COMMENTS:

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