

5621 TURKEY OAK DR

19521229

1/10/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6547B WASPS App #: 1877

Primary ES assigned to project: Philo Walker

Secondary ES assigned to project:

Project Type: New System ☒ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☒	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☒	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☒	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☒	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☒	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☒	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☒	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☒	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☒	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☒	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☒	No ☐	N/A ☐
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☒	No ☐	N/A ☐
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☒	No ☐	N/A ☐
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☒	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☒	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 3			
	Were sufficient auger borings made?	Yes ☒	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR 0.275	Yes ☐	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☒	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☒	No ☐	N/A ☐
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☒	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☒	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☒	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☒	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☒	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☒	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☒	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☒	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☒	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☒	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☒	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☐	No ☐	N/A ☒
130A-336(a)(1)	Property line lengths shown?	Yes ☒	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☒	No ☐	N/A ☐

Operation Permit

.1937(i)	System type as described in table V(a) of rule .1961	Yes ☒	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☒	No ☐	N/A ☐

Certified Operator

II. WASPS Review:

Construction authorization issued	Yes ☒	No ☐	N/A ☐
Installation approval issued	Yes ☒	No ☐	N/A ☐
Operation permit issued	Yes ☒	No ☐	N/A ☐
Other related documentation	Yes ☒	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

_____

_____

_____

_____

_____

IA issued date: 4/3/07

OP issued date: 5/23/07

Review performed by: Jerry Mucha, LRS Date performed: 5/24/07

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 #: 6547B Permit #: 1877 Tax Parcel #: 195 212 29

Property Owner: Farring'tan Oaks LLC

Job Location Address: 5621 Turkey Oak Dr Lot 30

City: Mint Hill State: NC Zip Code: 28227

Operation Permit Issuance Date: 4/4/07 - 5/23/07 Contractor Name: WT Norwood

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: Liberty

Drainfield Installation ☐ N/A

Trench Depth: 28 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 290 feet

# of Lines: 4 @ 70' feet 1 line 30'

Depth of Media: _____ inches (Type) PPBPS

Depth of Cover: _____ inches

Distribution Device: 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: 10 feet

Inspection Dates

Tank(s) Inspected: 4/4/07

Excavation Inspected: 4/4/07

Pump & Controls Inspected: 4/4/07

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

see approved plan on file

2nd Head Pressure set 5-23-07

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: Type IVa Pump to PPBPS / Public Management Entity with a certified Operator Contract shall be on file before OP release

DENR Authorized Agent: Philo S. Walker Signature: Philo S. Walker RS

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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

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

File #: 6547B Permit #: 1877 Tax Parcel #: 195 212 29

Property Owner: Farrington Oaks LLC

Job Location Address: 5621 Turkey Oak Drive Lot 30

City: Mint Hill State: NC Zip Code: 28227

Installation Approval Issuance Date: 4/3/07

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 5/3/07, 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: .275 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Drainfield Design ☐ N/A

Trench Depth: 28 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 290 feet

# of Lines: 4 @ 70 feet 1 line 30'

Depth of Media: _____ inches (Type) PPBPS

Distribution Device: 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: 10 feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)

Install in accordance w/ plot plan on file

Comments: System Classification & Type: Type IVa Pump to PPBPS

DENR Authorized Agent: Philo S. Walker Signature: Philo S. Walker RS

EXHIBIT A
TYPE II, III, IV

MONITORING & INSPECTION PLAN

1. COST: **INITIAL CONTRACT YEAR:**

$ 215.00	(2 required inspections)
$ N/A	(0 required lab)
$ 275.00	Total Initial Year

RENEWAL YEARS:

$ 275.00	(2 required inspections)
$ N/A	(0 required lab)
$ 275.00	Total Renewal Years

c. The Owner shall pay to TCW the aforementioned sums for each parcel listed on Attachment B. The initial annual fees are payable upon the execution of the contract. Annual billings will be made thereafter and payable within 30 days of billing. The annual billings will be made on the anniversary dates. The annual renewal fees may increase no more than 5% per year. The Owner shall pay to TCW his normal and customary fees for any authorized work performed on the System as a result of non-scheduled service or maintenance calls. These fees are due and payable within 30 days of billing. Payments due to TCW, and unpaid by the Owner after 30 days, shall be assessed late payment fee of 15% per month, accruing monthly on the unpaid balance.

4. PERFORMANCE DUTIES:

- Inspections and services that meet state requirements, i.e., inspections of System using an itemized check list, monitoring "septic tanks" to insure proper operation, and make adjustments of imbalances to systems through the distribution devices.
- Inspection report copies are sent to the environmental regulatory agency (if applicable) and homeowner
- New Homeowner Package (educational material about their septic system) is provided
- Emergency service calls at no additional charge.
- 24-hour availability
- The Owner will be advised of any repairs needed and estimated cost of repairs. Repairs will not be made without Owner authorization.
- The Owner will be advised when pumping is recommended

Bacteria Additive Option – Additional $40 per year:

- The addition of a bacterial product into the individual septic tank as needed to maintain the proper level of bacteria.

EXHIBIT B

1. PHYSICAL ADDRESS OF SYSTEM(S):

a. 5621 Turkey Oaks
Matthill NC 28227

b. _____

c. _____

d. _____

Each party has executed this Agreement with full power, authority, and legal right to enter into, to bind itself to the rights, duties and responsibilities under this Agreement, which is binding on the parties, their successors and assigns, heirs and personal representatives, on the date first above written.

ATTEST:

_____

OWNER

_____

TCW Wastewater Management, Inc.

ATTEST:

_____

BY: _____

Title: President

License numbers: SS 12248
SI 23910
2WW 24666

E. **Miscellaneous**

1) Transfer of rights, responsibilities, and duties under this Agreement by any party shall be valid only on written notice and consent signed by all parties, which consent shall not be unreasonably or arbitrarily withheld.

2) TCW may perform its duties and responsibilities by subcontract but TCW will remain directly liable and responsible to the Owner under the terms of this Agreement.

3) Waiver of default or a breach of the Agreement by any party shall not operate nor be construed as a waiver of further or subsequent defaults or breach of this Agreement. Failure to take action in any default or breach does not bear action on such default at any time subsequent to such breach or default.

4) This Agreement constitutes the entire agreement of the parties, incorporating, and superseding all prior representations and negotiations and may not be changed or amended except in writing signed by the parties. The Agreement shall be interpreted under North Carolina law. Any part of the Agreement declared void, illegal, or unenforceable will not affect other provisions of the Agreement.

5) Disputes arising under this Agreement shall be determined by any method of Alternative Dispute Resolution the parties choose, including but not limited to, mediation or arbitration, under the Uniform Arbitration Act of North Carolina or its equivalent, or such means or methods as the parties agree to in writing.

6) Notices are deemed delivered if delivered in person; by certified or registered mail; by courier; or delivery service, if properly receipted, charges and postage prepaid, as follows:

Owner:

_____

_____

_____

_____

TCW Wastewater Management, Inc.
P. O. Box 1830
Indian Trail, NC 28079

Environmental Regulatory Agency:

_____

Mecklenburg County DEH
700 N. Tryon St. #211
Charlotte, NC 28202

_____

_____

_____

A party may change its address my giving notice in the manner provided above.

B. The Owner, in consideration of the services performed, agrees:

1) To pay TCW for its services according to the schedule of charges as set out in Attachment A

2) Within 30 days of receipt of notice of repairs under A (3) above, the Owner(s) must provide proof that repairs have been performed by a licensed or qualified entity and the System is functioning properly or request and authorize TCW to complete the needed repairs.

3) To notify TCW promptly of any emergency or malfunction known to it which may violate environmental, health, or other laws and regulations, and to authorize immediate repair as necessary to restore the System to proper function and operation.

4) To use reasonable efforts to provide and to maintain at all times, such access to the Systems as is reasonably necessary for TCW to comply with its obligations under this Agreement

C. **Terms of the Agreement**

1) This Agreement shall be effective for one year from the date of this contract, and will be automatically renewed from year-to-year thereafter, unless written notice of termination and non-renewal is given to the other party not less than 60 days prior to the end of the then current annual contract year.

2) The real property to be serviced under this contract is listed on Attachment B

3) This Agreement automatically terminates if the Operation Permit for the system is revoked and all appeals of the revocation are exhausted or time for making an appeal has passed

4) The parties may terminate at the end of the then current term by consent of each party or by not less than 60 days written notice to the other party prior to the end of the then current contract year and not less than 30 days written notice to the local environmental regulatory agency

5) This Agreement may be terminated for cause for breach which remains unremedied after 15 days written notice to the defaulting party.

D. **Limited Warranty**

TCW'S SOLE DUTIES AND RESPONSIBILITIES UNDER THIS AGREEMENT IS TO PROVIDE INSPECTION AND ROUTINE MAINTENANCE ONLY AS SPECIFIED IN THIS AGREEMENT INSPECTIONS WILL COMPLY WITH APPLICABLE CODES, LAWS, AND REGULATIONS IN FORCE AT THE TIME OF THE INSPECTION AND REPORT. WORK AND MATERIALS USED IN REPAIRS ARE WARRANTED ONLY TO BE OF GOOD WORKMANSHIP, FREE OF DEFECTS, AND CONFORM TO THE SYSTEMS SPECIFICATIONS AND EQUAL TO THE ORIGINAL PARTS AND EQUIPMENT. THE OWNER'S SOLE REMEDY UNDER THIS EXPRESS WARRANTY IS REPAIR OR REPLACEMENT AND CONSEQUENTIAL DAMAGE OR DAMAGES FOR DELAY ARE LIMITED TO TOTAL SUMS PAID TCW UNDER THIS AGREEMENT FOR THE PARTICULAR LOT OR PARCEL FOR THE THEN CURRENT YEAR. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, ARE EXPRESSLY AND SPECIFICALLY EXCLUDED REPAIRS, REPLACEMENTS, ADDITIONS AND CHANGES BY OTHERS TO THE SYSTEMS COVERED BY THIS AGREEMENT WITHOUT PRIOR NOTICE TO TCW OR ACCEPTANCE OF THE WORK BY TCW DURING THE TERM OF THIS AGREEMENT VOIDS ANY WARRANTY GRANTED HEREIN AS TO TCW.

Att "A"
Inspection Info

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

CONTRACT FOR INSPECTIONS OF ON-SITE WASTEWATER SYSTEMS
TYPE II, III, IV and V

This Contract is entered into this 2 day of May 2007 by and between TCW Wastewater Management, Inc., a North Carolina Corporation of Union County, North Carolina (hereinafter "TCW") and Mecca Homes (hereinafter "The Owner").

Preamble

TCW is contracting with The Owner to provide inspection services as described on Attachment A for the fees or charges also shown in Attachment A.

The Owner owns or controls the property upon which a ground absorption sewage treatment system ("System") is installed, such System being designated as a type II, III, IV or V system under the Rules for Sanitary Sewage Collection, Treatment and Disposal found at 15A N.C. Admin. Code 18A .1900 et seq.; and 15A N.C. Admin. Code 18A.1961 requires that a condition of the Operation Permit for certain systems be that a properly executed inspection contract between the System Owner and a management entity shall be in effect for as long as the System is in use. TCW is a management entity which employees certified operators of a type authorized by 15A N.C. Admin. Code 18a.1961 to manage and inspect type II, III, IV, and V systems.

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 TCW as stipulated below.

Conditions of the Contract

A. TCW, in consideration of the payment by the Owner as set out in the schedule of services and charges in Attachment A, incorporated herein, agrees:

1) To provide the services set out in Attachment A according to the minimum schedule of inspections/services required by regulations for the lots or parcels set out in Attachment B.

2) To report results of the inspections to the local environmental regulatory agency having jurisdiction as required by applicable laws or regulations.

3) If inspections indicate the need for System repairs:

   a) to notify the local environmental regulatory agency within 48 hours.
   b) to give notice to the "Owner" of needed repairs, and, if the necessary repairs are outside the scope of the routine maintenance described in Attachment A, then The Owner may request TCW to provide an estimate. At the authorization of The Owner TCW will perform the necessary repairs at TCW's then prevailing charges for services and materials.

4) If TCW's services are terminated, TCW will notify the local environmental regulatory agency within 48 hours.

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 #: **30001877** GWS File #: **6547B** Tax Parcel #: **195-212-29**

- 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):** 2/9/2012

Type of Installation: Residential - New System Lot Number: 30

Structure Type: HOUSE Size (ft^2): 4313 # Bedrooms: 4 # Occupants: 5

Building Foundation: Crawl Space Water Supply: Municipal

II. Initial System Type: PPBPS (pressurized) **System Classification:** IVa

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.275	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	873	Total Trench Length (ft):	291
Maximum Trench Depth (in):	28	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

III. Repair System Type: PPBPS (pressurized) **System Classification:** IVa

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.275	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	873	Total Trench Length (ft):	291
Maximum Trench Depth (in):	28	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

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: Philo Walker

Signature: Philo Walker RS

Date Issued: 2/9/2007

Owner/Legal Agent: Brian Permenter
Print Name

Signature:

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 #: **30001877** GWS File #: **6547B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 3 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.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.

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: Philo Walker

Signature: Philo Walker RS

Date Issued: 2/9/2007

Owner/Legal Agent: Brian Parmenter
Print Name

Signature:

File # 6547B

Soil & Environmental Consultants, PA

236 LePhillip Court, Suite C • Concord, North Carolina 28025 • Phone: (704) 720-9405 • Fax: (704) 720-9406
www.SandEC.com

APPROVED ON 2-8-07 TCT

Attached is a proposed design for a 4 bedroom single family residence PPBPS pressure dosed system at lot 30 of Fairington Oaks Subdivision in Mecklenburg County, North Carolina.

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Jan-07
S & EC Project No. 5-1553
Design By: E. Bailey

Greensboro Office:
3817-E Lawndale Drive
Greensboro, NC 27455
Phone: (336) 540-8234
Fax: (336) 540-8235

Raleigh Office:
11010 Raven Ridge Road
Raleigh, NC 27614
Phone: (919) 846-5900
Fax: (919) 846-9467

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DEHNR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System and repair will be panel block systems with LPP distribution
- Trench walls should be raked and limed. Trenches 36" wide
- 1-5/32" hole drilled for each panel

Design based on a 4 bedroom home with no basement

PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner:	McCar Homes
County:	Mecklenburg
Location:	Fairington Oaks Lot 30
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	480 gpd
System Flow:	34.62 gpm

Design Specifications

System Type	PPBPS
Drainfield Size:	310
Loading Rate:	0.275 gpd/ft.^{2}
Trench Depth:	28 in.
Trench Width:	36 in.
Septic Tank Size:	1500
Pump Tank Size:	1500
Estimated Supply Line Length:	9
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	1.566 gal.
Dosing Volume:	256g
Valve Box	5 gate valves 1 per lateral
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel *or County Approved Equivalents*
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel *or County* Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	0.21
Elevation Head:	4.90
Lateral Friction	3.03
Total Dynamic Head:	11.65
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 per lateral
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Recommended Pump:	Myers Model ME50 or County Approved Effluent Rated Pump Capable of Delivering 11.65 ft.of Head at 34.62 gpm Total Flow
Additional Comments:	Soil suitability was performed by the Mecklenburg County Health Department.

TYPE IIIa SYSTEM - CO REQUIRED

Fairington Oaks Lot 30

Project No. 5-1553 S17

LAYOUT FOR 4 BEDROOM HOME — Jan-07

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	Design Length
TBM		1.7			100.0		
INSTR. 1			101.7				
			SYSTEM				
5	Red			3.20	98.5	72	70
6	Pink			3.70	98.0	70	70
7	Blue			4.30	97.4	73	70
8	Yellow			5.40	96.3	75	70
9a	Orange			6.40	95.3	83	30
						Total	**310**
			REPAIR				
1	Blue	BS CH CNR	7.2	3.00	103.2	41	
2	Orange			3.60	102.6	78	
3	Yellow			4.10	102.1	27	
4	Pink			4.50	101.7	30	
9b	Orange			6.40	95.3	53	
10	Red			7.40	94.3	53	
11	Pink			8.40	93.3	36	
					Total	**318**	

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	DISTRIBUTION
SYSTEM	310	0.275	PPBPS	LPP
REPAIR	318	0.275	PPBPS	LPP

Notes:

** TBM of system = Back left house pad stake

***TBM is assumed to be 100'*

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**BS and FS indicate rod readings

Lot 30 Fairington Oaks

SYSTEM

DESIGN SPECIFICATIONS

Line #	Color	#Panels	#Holes Panel	Line Length	Hole Size	Line Head	Line Flow
5	Red	16	1	70	5/32"	2.00	6.56
6	Pink	16	1	70	5/32"	2.50	7.36
7	Blue	16	1	70	5/32"	3.00	8.00
8	Yellow	16	1	70	5/32"	3.50	8.64
9a	Orange	7	1	30	5/32"	4.00	4.06
		71 ✓		310 ✓			34.62

LAYOUT FOR 4 BEDROOM HOME

REPAIR

DESIGN SPECIFICATIONS

Line #	Color	#Panels	#Holes Panel	Line Length	Hole Size	Line Head	Line Flow
1	Blue	10	1	41	5/32"	2.0	4.10
2	Orange	18	1	78	5/32"	2.5	8.28
3	Yellow	7	1	27	5/32"	3.0	3.50
4	Pink	7	1	30	5/32"	3.5	3.78
9b	Orange	13	1	53	5/32"	4.0	7.54
10	Red	13	1	53	5/32"	4.0	7.54
11	Pink	9	1	36	5/32"	4.0	5.22
		77		318			

5621 TURKEY OAK - LOT #30

6547B

6

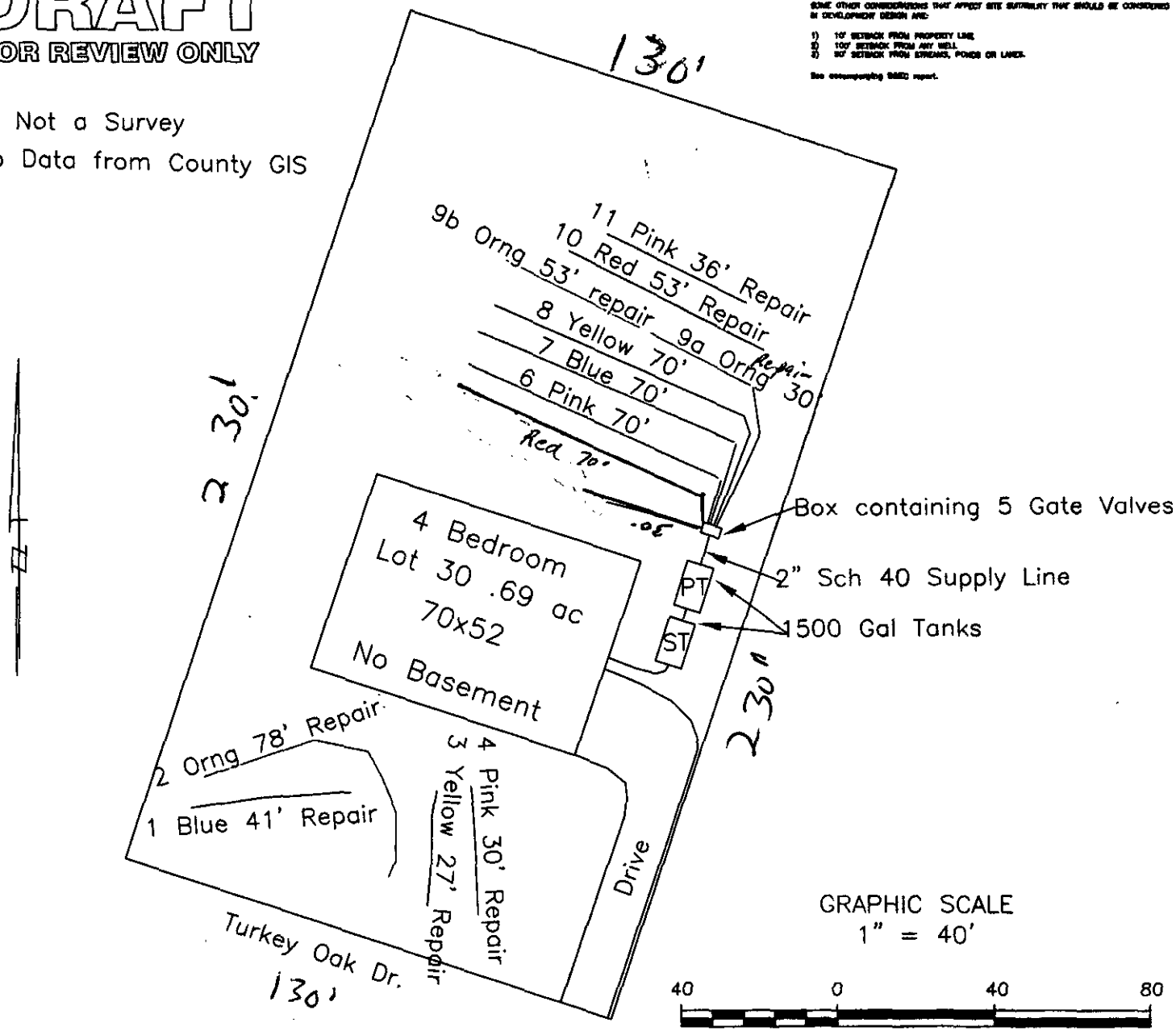
DRAFT
FOR REVIEW ONLY

Not a Survey
Map Data from County GIS

**SUITABLE FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND TOPOGRAPHIC IRREGULARITIES.
THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS. SOME OTHER CONSIDERATIONS THAT AFFECT SITE SUITABILITY THAT SHOULD BE CONSIDERED IN DEVELOPMENT DESIGN ARE:

1) 10' SETBACK FROM PROPERTY LINE
2) 100' SETBACK FROM ANY WELL
3) 50' SETBACK FROM STREAMS, PONDS OR LAKES.

See accompanying SMIS report.



PROJECT NO. 05-1553
PROJECT MGR. WO
DRAWN BY E.B.
FIELD WORK E.B.
SCALE 1" = 40
FILE Y:\jobs\5-1553

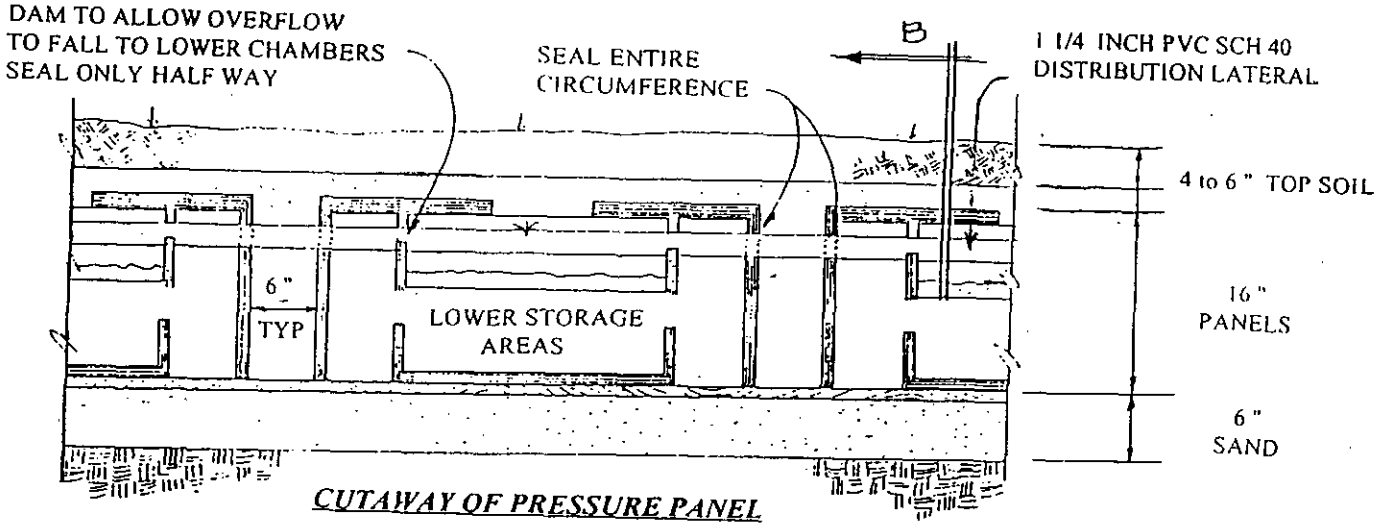
Soil & Environmental Consultants, PA
228 LaPhillip Court, Suite C • Concord, North Carolina 28025 • Phone (704)720-0005 • Fax (704) 720-0008

S&EC

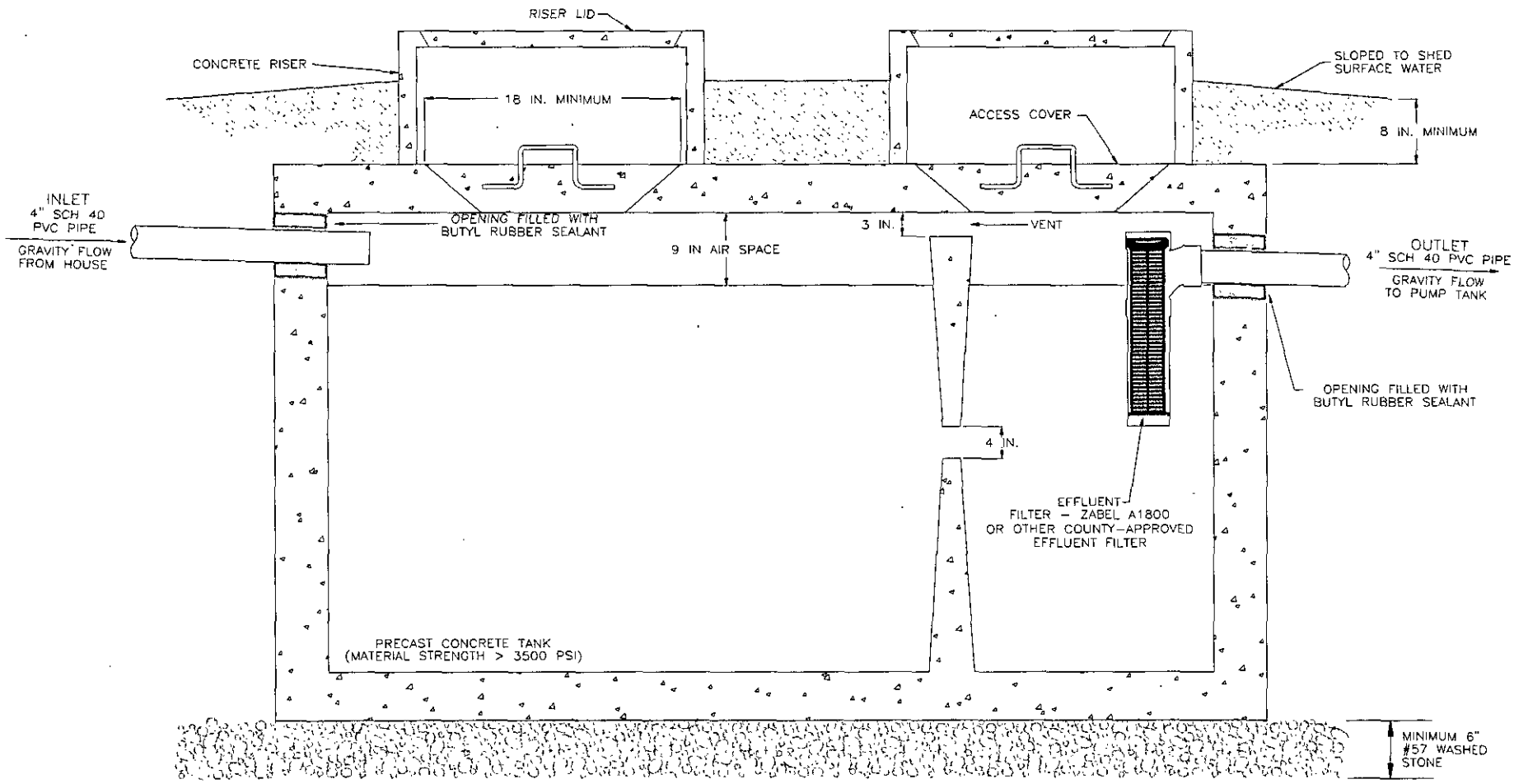
Fairington Oaks Lot 30
RCS INC
- Fairington Oaks Lot 30 -
MECKLENBURG COUNTY, NORTH CAROLINA
JULY 2007

SHEET TITLE: LAYOUT/SITE PLAN SKETCH MAP

SHEET 1 OF 1



CUTAWAY OF PRESSURE PANEL

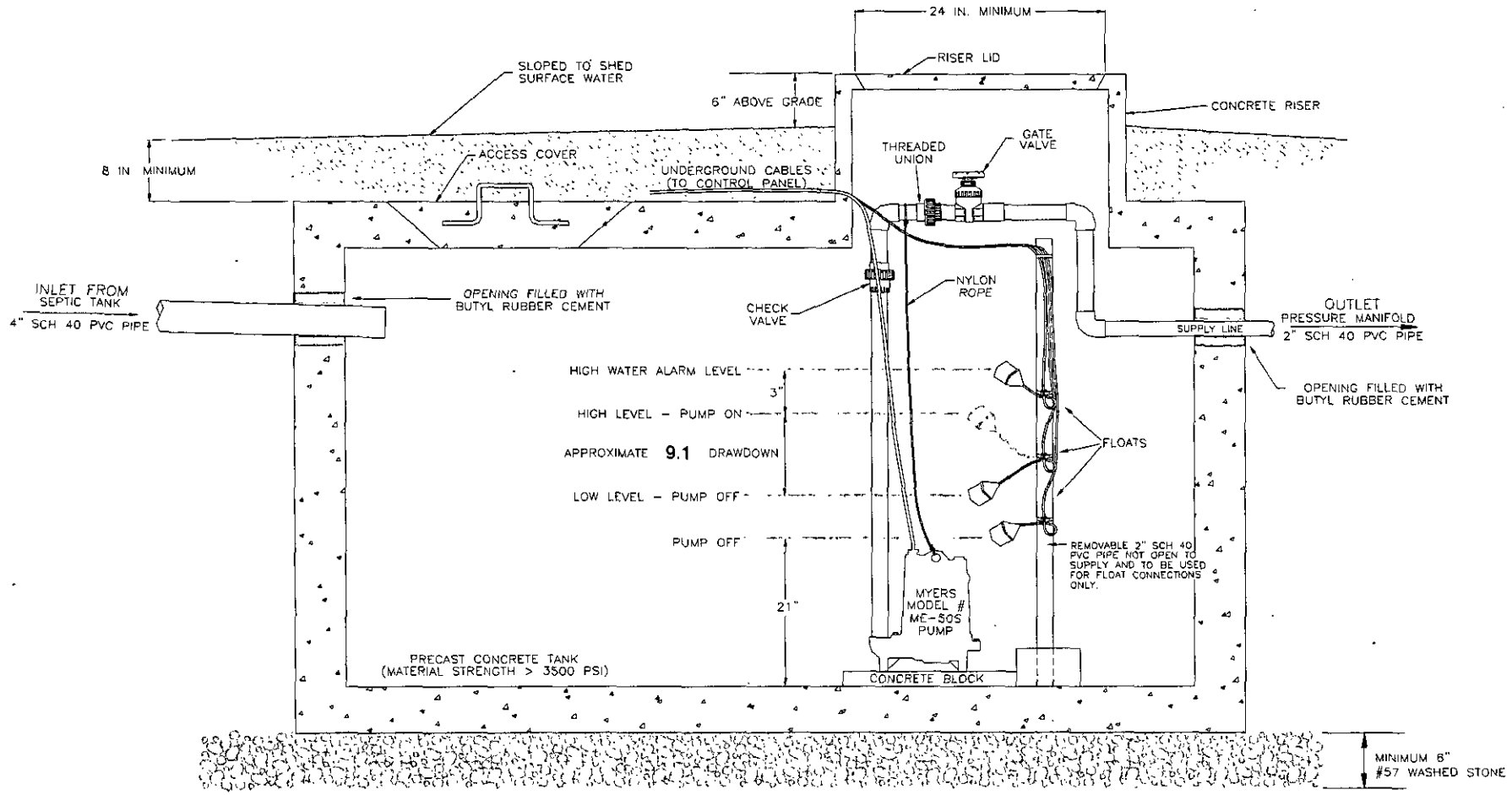


NOTES

1. TANK DIMENSIONS VARY BY MANUFACTURER.

1500 GALLON SEPTIC TANK

PROJECT NO: 4591	PROJECT NAME: **Fairington Oaks Lot 30**	S&EC Soil & Environmental Consultants, Inc.
PROJECT MGR:	SHEET TITLE: SEPTIC TANK DIAGRAM	11010 Raven Ridge Road Raleigh, North Carolina 27614 Phone: (919) 846-5900 Fax: (919) 846-9467 Web Page: www.SandEC.com
SCALE: NTS		



NOTES

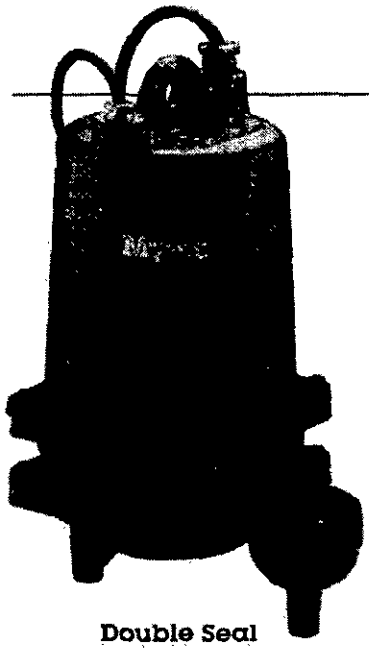
1. TANK DIMENSIONS VARY BY MANUFACTURER.
2. *DRAWDOWN WILL VARY WITH TANK DIMENSIONS.* DRAWDOWN SHOWN BASED ON 21 GALLONS PER INCH.

1500 GALLON PUMP TANK

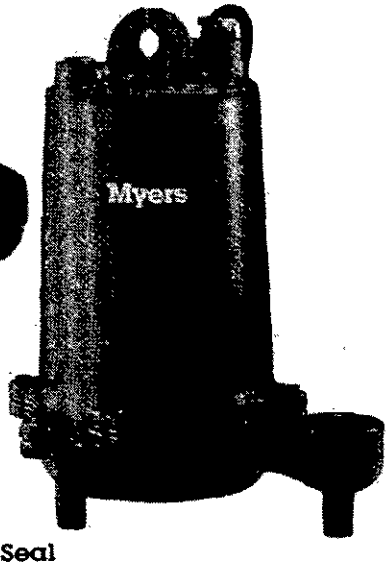
PROJECT NO. 5-1553	PROJECT NAME: Fairington Oaks Lot 30	S&EC Soil & Environmental Consultants, Inc.
PROJECT MGR.		11010 Raven Ridge Road Raleigh, North Carolina 27614 Phone: (919) 846-5900 Fax: (919) 846-9467 Web Page: www.SandEC.com
SCALE NTS	SHEET TITLE: PUMP TANK DIAGRAM	

ME SERIES

1/2 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 CAPAILITIES

Capacities To	120 GPM	454 LPM
Heads To	95 ft.	28.9 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	1/2 HP 115 volts, 1 ph 1/2 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	UL, CSA	
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	24 in.	61 cm
Duplex	36 in.	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 1/2 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

ISO 9001 Certified Company

Myers
PENTAIR PUMP GROUP

ME SERIES

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

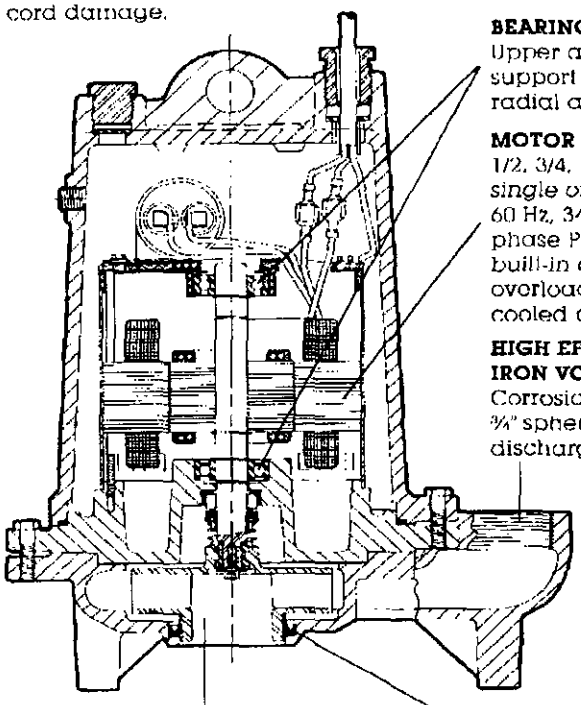
POWER CORD
Jacket sealed with compression fittings. Individual wires potted with epoxy to prevent wicking in case of cord damage.

MOTOR HOUSING
Cast iron for efficient heat transfer and corrosion resistance.

BEARINGS
Upper and lower ball support rotor. Take radial and thrust loads.

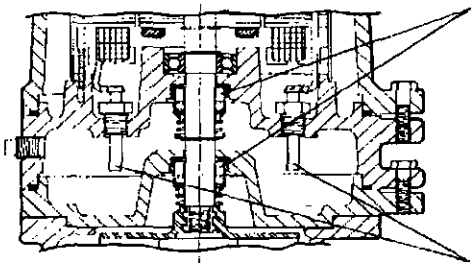
MOTOR
1/2, 3/4, 1 and 1-1/2 HP single or three phase. 60 Hz, 3450 RPM. Single phase PSC motors have built-in on winding overload protection, oil-cooled and lubricated.

HIGH EFFICIENCY CAST IRON VOLUTE
Corrosion resistant. Passes ⅜" spherical solids. 2" NPT discharge.



ENCLOSED TWO VANE IMPELLER
high efficiency. Passes ⅜" spherical solids with stainless steel wear ring. Optional bronze construction available.

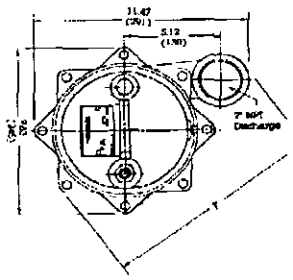
VOLUTE/IMPELLER SEAL RING
Maintains high efficiency and reduces recirculation. Replaceable.

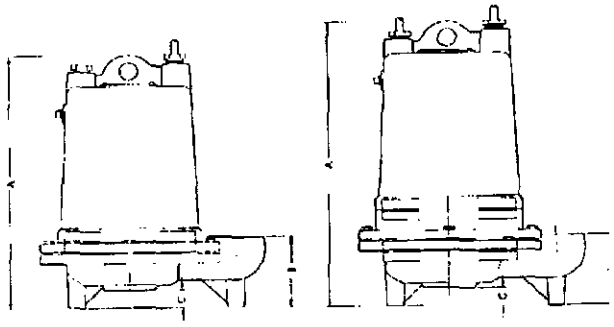


SHAFT SEAL(S)
Carbon and ceramic faces. Optional dual tandem seals. Extends motor life.

SEAL LEAK PROBES
Optional probes (dual seal only) detect water leakage in seal housing. Activates warning light.

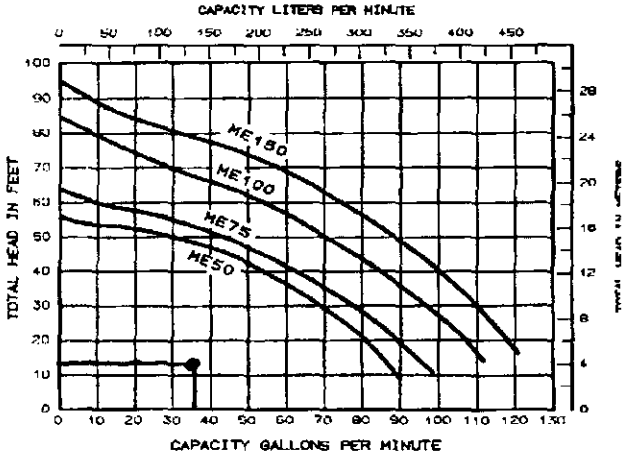
DIMENSIONS





Model Series	Inches (millimeters) A	B	C	F
ME50S	16.8 (427)	4.09 (104)	1.03 (26)	12.13 (308)
ME50D	18.6 (472)	4.09 (104)	1.03 (26)	12.13 (308)
ME75S, ME100S, ME150S	16.8 (427)	4.0 (102)	1.06 (27)	12.5 (318)
ME75D, ME100D, ME150D	18.6 (472)	4.0 (102)	1.06 (27)	12.5 (318)

PERFORMANCE CURVE



K3320 9/98
Printed in U.S.A.

PRINTED WITH SOY INK

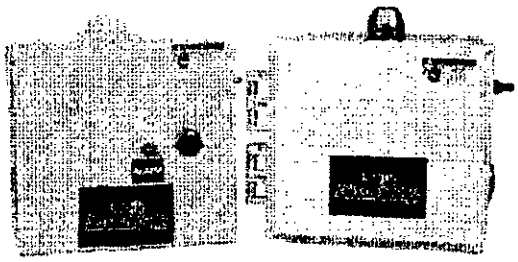
Myers
PENTAIR PUMP GROUP

F. E. Myers, 1101 Myers Parkway, Ashland, Ohio 44805-1969
419/289-1144, FAX: 419/289-6658, www.femyers.com
Myers (Canada), 269 Trillium Drive, Kitchener, Ontario N2G 4W5
519/748-5470, FAX: 519/748-2553

MODEL 112 Control Panel

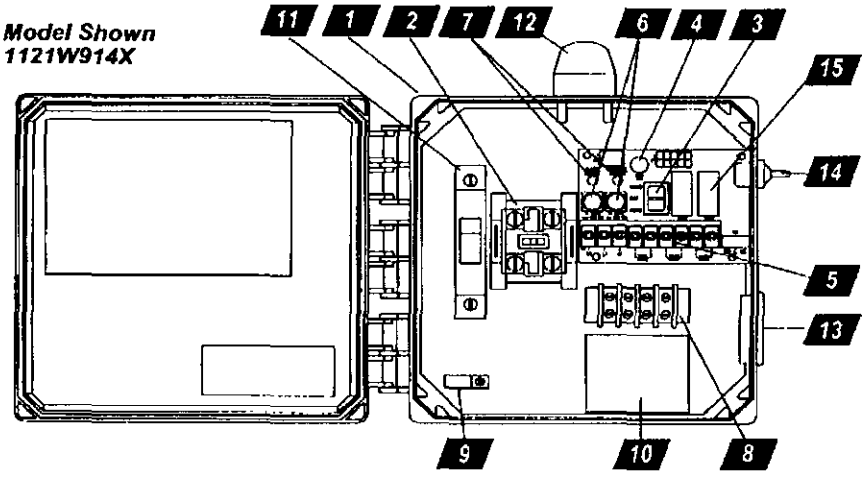
Single phase, simplex motor contactor control.

The Model 112 control panel provides a reliable means of controlling one 120, 208, or 240 VAC single-phase pump in pump chambers, sump pump basins, irrigation systems and lift stations. Two control switches activate a magnetic motor contactor to turn the pump on and off. If an alarm condition occurs, an additional alarm switch activates the audio/visual alarm system.



Indoor *Indoor/outdoor*

Model Shown
1121W914X



1. **Enclosure** measures 8 x 8 x 4 inches (20.32 X 20.32 X 10.16 cm). Choice of NEMA 1 (steel for indoor use), or NEMA 4X (ultraviolet stabilized thermoplastic with removable flanges for outdoor or indoor use).

   * Options selected may increase enclosure size and change component layout.

2. **Magnetic Motor Contactor** controls pump by switching hot electrical lines.
3. **HOA Switch** for manual pump control (mounted on circuit board).
4. **Green Pump Run Indicator Light** (mounted on circuit board).
5. **Float Switch Terminal Block** (mounted on circuit board).
6. **Alarm and Control Fuses** (mounted on circuit board).
7. **Alarm and Control Power Indicators** (mounted on circuit board).
8. **Pump Input Power and Pump Connection Terminal Block**
9. **Ground Lug**
10. **Terminal Block Installation Label**
11. **Circuit Breaker** (optional) provides pump disconnect and branch circuit protection.

STANDARD ALARM PACKAGE (other options available)

12. **Red Alarm Beacon** provides 360° visual check of alarm condition. **Note:** NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
13. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating). **Note:** NEMA 1 style utilizes an internally mounted buzzer (83 to 85 decibel) in lieu of horn.
14. **Exterior Horn Test/Normal/Silence Switch** allows alarm horn to be silenced and testing of horn and light to ensure proper operation of alarm system.
15. **Horn Silence Relay** automatically resets alarm after alarm condition has been resolved (mounted on circuit board).

FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the *United States and Canada*
- Standard package includes three 20' Sensor Float® control switches
- Complete with step-by-step installation instructions
- Three-year limited warranty

c UL us
LISTED

SJE Rhombus CONTROLS
SJ ELECTRO SYSTEMS, INC.
PO Box 1708, Detroit Lakes, MN 56502
1-888-DIAL-SJE 1-218-847-1317
1-218-847-4617 Fax
email: sje@sjerhombus.com
www.sjerhombus.com

112							

MODEL 112

ALARM PACKAGE
0 = select options or no alarm package
1 = alarm package (*includes test/normal/silence switch, fuse, red light, horn & float*)

ENCLOSURE RATING
I = Indoor, NEMA 1 (metal)
W = Weatherproof, NEMA 4X (engineered thermoplastic)

STARTING DEVICE
1 = magnetic motor contactor 120/208/240V
9 = magnetic motor contactor 120V only

PUMP FULL LOAD AMPS
0 = 0-7 FLA
1 = 8-15 FLA
2 = 16-20 FLA
3 = 21-30 FLA

PUMP DISCONNECTS
0 = *no pump disconnect*
1 = pull-out with safety deadfront in a 10"x8" enclosure
4 = circuit breaker

FLOAT SWITCH APPLICATION
H or L = pump down or pump up
X = no floats

OPTIONS *Listed below*

★ Options selected may increase enclosure size and change component layout.

If additional features are required, call the factory for a quote on either a Pro-Line or Engineered Custom control panel system.

	CODE	DESCRIPTION
☐	1A	Red beacon only / no audio *must select 1E if floats included*
☐	1C	*Horn only / no visual* *must select 1E if floats included*
☐	1E	Alarm float
☐	3A	Alarm flasher
☐ ★	4A	Low level cutout *select option 4D if floats included*
☐ ★	4B	Red low-level indicator & alarm *must select 4A also*
☐	4D	Low-level float
☐	6A	Auxiliary alarm contact, form C type
☐ ★	8A	*Elapsed time meter*
☐ ★	8C	Event (cycle) counter
☐	10E	Lockable latch - NEMA 4X
☐	10E	Lockable latch - NEMA 1
☐ ★	10F	Lightning arrester
☐ ★	10K	Anti-condensation heater

	CODE	DESCRIPTION
☐	11C	NEMA 1 alarm panel *must select option 6A*
☐	11D	NEMA 4X alarm panel *must select option 6A*
☐	15A	Control / alarm circuit breaker *Does not include the circuit board as in standard.*
☐	16A	10' cord in lieu of 20'
☐	16B	15' cord in lieu of 20'
☐	16C	30' cord in lieu of 20'
☐	16D	40' cord in lieu of 20'
☐	17A	SJE SignalMaster® / mounting strap ●
☐	17B	*SJE SignalMaster® / externally weighted* ●
☐	17C	Sensor Float® / internally weighted ▲
☐	17D	Sensor Float® / externally weighted ▲
☐	17E	Sensor Float® Mini / pipe clamp ▲
☐	17F	Sensor Float® Mini / externally weighted ▲
☐	19X	Door mounted pump run indicator
☐	21A	Pumpmaster® in lieu of on/off switches ●
☐	21B	PumpMaster® Plus in lieu of on/off switches ●
☐	21C	Super Single® in lieu of on/off switches ▲
☐	21D	Double Float™ in lieu of on/off switches ▲

● Mechanically-activated ▲ *Mercury-activated*

SAMPLE

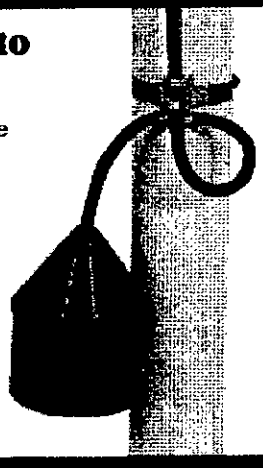
MODEL	112	1	W	9	1	4	H	3A 8A

Alarm Package
Enclosure Rating
Starting Device
Pump Full Load Amps
Pump Disconnect
Float Switch Application
Options: Alarm Flasher, Elapsed Time Meter

© SJE-Rhombus Printed In USA 01/00

SENSOR FLOAT® control switch

Mercury-activated, narrow-angle float switch designed to activate pump control panels and alarms.



This narrow-angle sensing device is used to accurately monitor liquid levels in sewage and non-potable water applications. The Sensor Float® control switch is not sensitive to rotation and is suitable for use with intrinsically safe circuits. Contact SJE-Rhombus regarding specific intrinsically safe applications.

Normally Open Model (high level)
The control switch turns on (closes) when the float tips slightly **above** horizontal signaling a high level, and turns off (opens) when the float drops slightly below horizontal.

Normally Closed Model (low level)
The control switch turns on (closes) when the float drops slightly **below** horizontal signaling a low level, and turns off (opens) when the float tips slightly above horizontal.

FEATURES

- Suitable for use with intrinsically safe circuits.
- Not sensitive to rotation.
- Control differential of .5 inches (1 cm) above or below horizontal.
- UL Listed for use in non-potable water and sewage.
- CSA Certified.
- Three-year limited warranty.

LR54245 LISTED 83N2

Hydraulic

OPTIONS

This switch is available:

- for normally open (high level) applications or normally closed (low level) applications.
- in standard cable lengths of 10, 15, 20, or 30 feet and 3, 5, 6, or 10 meters.
- with three mounting options that allow for flexibility in installation:

  Mounting Clamp: for applications where the switch can be attached to a discharge pipe or similar mounting device.

  Internally Weighted: for applications where the switch can be suspended from above.

  Externally Weighted: for applications where the switch can be suspended from above.

SPECIFICATIONS

CABLE: flexible 18 gauge, 2 conductor (UL,CSA) SJOW, water-resistant (CPE) jacket

FLOAT: 3.38 inch diameter x 4.55 inch long (8.58 cm x 11.56 cm), high-impact, corrosion resistant, PVC housing for use in sewage and non-potable water up to 140°F (60°C)

MAXIMUM WATER DEPTH: 30 feet (9 meters), 13 psi

MERCURY TILT SWITCH: single pole, single throw, mercury-to-mercury contacts, hermetically sealed in a steel capsule and epoxy sealed in the float housing

ELECTRICAL: 5 amp, 120/230 VAC, 50/60 Hz

CONTROLS SJE Rhombus SJ ELECTRO SYSTEMS, INC.
PO Box 1708, Detroit Lakes, MN 56502
1-888-DIAL-SJE 1-218-847-1317
1-218-847-4617 Fax
email: sje@sjerhombus.com
www.sjerhombus.com

Sensor Float® control switch installation instructions

⚠WARNING **ELECTRICAL SHOCK HAZARD**
Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.

⚠WARNING **EXPLOSION OR FIRE HAZARD**
Do not use this product with flammable liquids. Do not install in hazardous locations as defined by National Electrical Code, ANSI/NFPA 70.

Failure to follow these precautions could result in serious injury or death. Replace product immediately if switch cable becomes damaged or severed. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electric Code, ANSI/NFPA 70 so as to prevent moisture from entering or accumulating within boxes, conduit bodies, fittings, float housing, or cable.

MOUNTING THE SWITCH

1. Place the cord into the clamp as shown in Figure B.
2. Locate clamp at desired activation level and secure the clamp to the discharge pipe as shown in Figures A and B. **Note:** Do not install cord under hose clamp.
3. Tighten the hose clamp using a screwdriver. Over tightening may result in damage to the plastic clamp. Make sure the float cable is not allowed to touch the excess hose clamp band during operation.
4. Bring cable leads back to control device and wire according to Figure C.
5. Check installation. Allow system to cycle to insure proper operation.

Note: All hose clamp components are made of 18-8 stainless steel material. See your SJE-Rhombus supplier for replacements.

Figure A

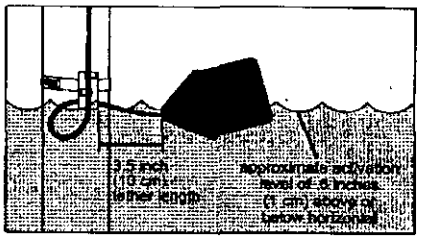
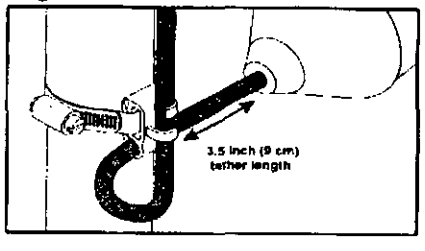


Figure B



INTERNAL WEIGHT

1. Determine desired activation level.
2. Suspend switch 7 inches (18 cm) below desired activation level as shown in Figure D. Switch remains partially submerged during the "on" tipping action. Switch can be totally submerged and still continue to operate properly.
3. Wire cable leads directly into control device as shown in Figure C.
4. Check installation. Allow system to cycle to insure proper operation.

Figure C - Wiring Diagram

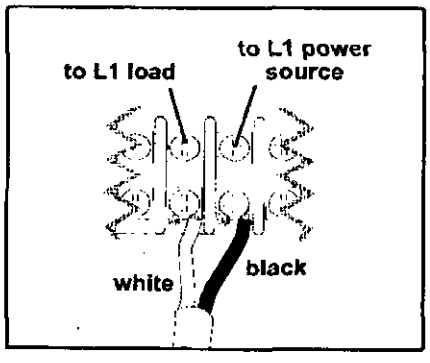
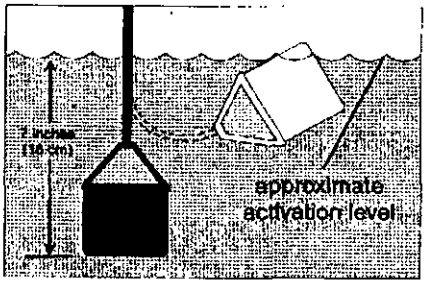


Figure D



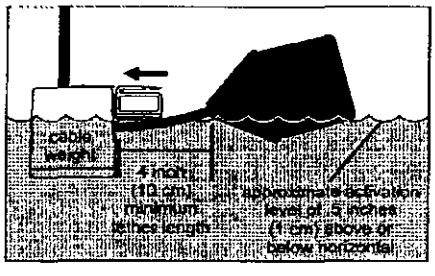
CABLE WEIGHT

1. Determine desired activation level.
2. Suspend switch and cable weight at desired activation level as shown in Figure E.
3. Wire cable leads directly into control device as shown in Figure C.
4. Check installation. Allow system to cycle to insure proper operation.

Cable weight is attached to switch cable at the factory. To adjust:

1. Release clip.
2. Adjust cable weight to desired position.
3. Lay switch cable in weight channel.
4. Align clip with weight channel and slide towards switch cable as shown in Figure E.
5. Snap clip snugly up to cable, moving clip to tightest possible position.

Figure E

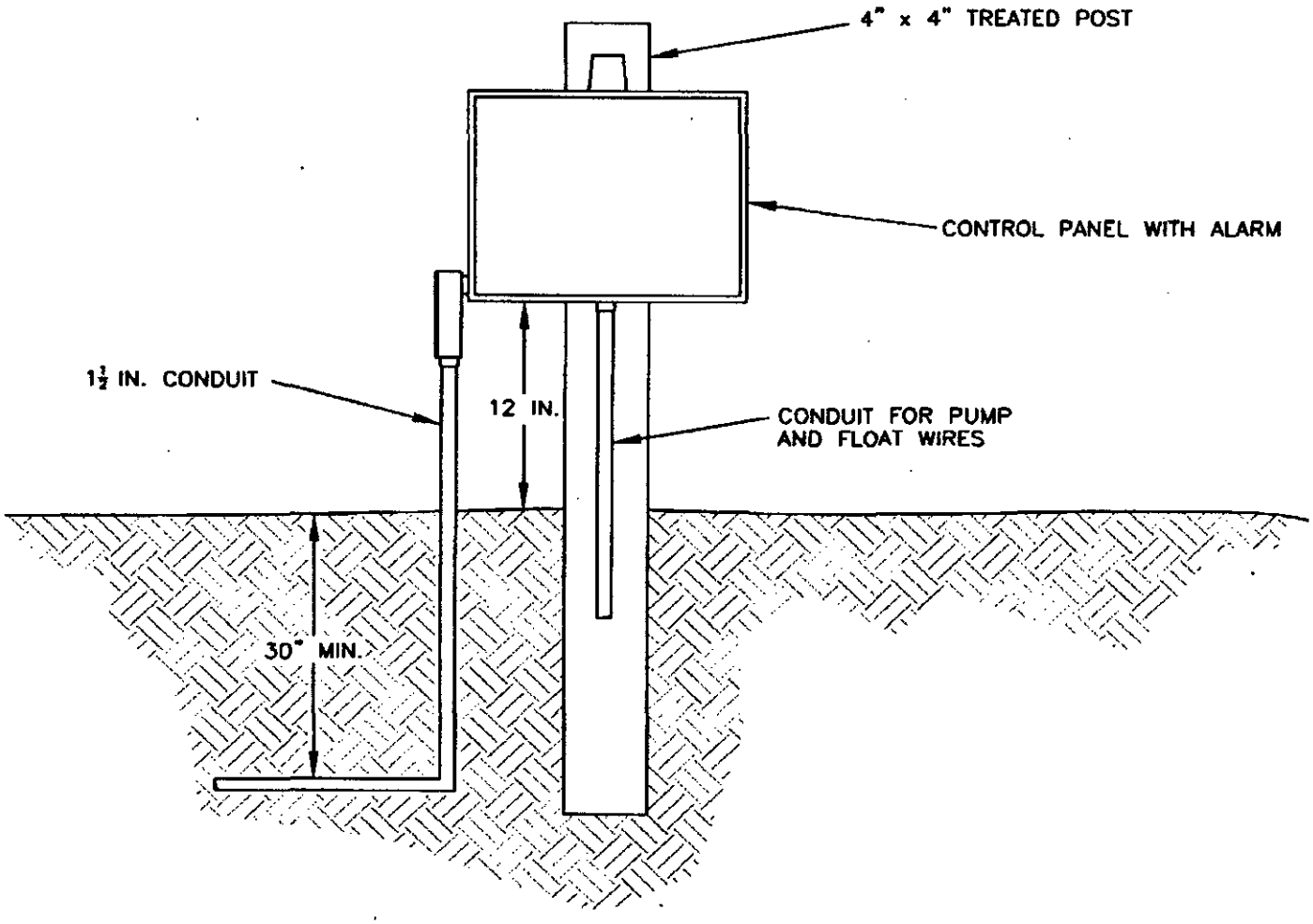


CONTROLS
SJE Rhombus®
SJ ELECTRO SYSTEMS, INC.
22650 County Highway 6 ■ P.O. Box 1708 ■ Detroit Lakes, Minnesota 56502 USA
1-888-DIAL-SJE (1-888-342-5753) ■ Phone: 218-847-1317 ■ Fax: 218-847-4617
E-mail: sje@sjerhombus.com

Instl. Instr. PN 1009646A
Cat. Page PN 1009509A

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Printed in USA 03/00

ELECTRIC BOX



NOTES: ELECTRICAL SYSTEM COMPONENTS SHALL BE INSTALLED TO MEET OR EXCEED MINIMUM REQUIREMENTS SPECIFIED IN THE ELECTRICAL COME. ALL WIRING SHALL BE #12 MINIMUM, AND RATED FOR DIRECT BURY. PROVIDE GROUNDING AS REQUIRED, AND PROVIDE 30" MINIMUM BURY ON CABLES. PROVIDE ONE 20 AMP, DOUBLE POLE, 230 VOLT CIRCUIT BREAKER (FOR PUMP), AND ONE 20 AMP, SINGLE POLE, 115 VOLT CIRCUIT BREAKER (FOR ALARM) IN MAIN PANEL.

CALCULATIONS

Location Fairington Oaks

Project Number 5-1553

Lot No: 30

No. of Bedrooms	4	
Design Flow	480.00	$^{gal}/_{day}$
LTAR	0.275	$^{gal}/_{ft^2\,day}$
EZ-Lay? (YES OR NO)	No	
Supply Line Length	9	ft.
Supply Line Volume	1.566	gal.
Required Feet of Line	291	ft.
Amount of Line from Layout	310	ft.
Gallons per Minute	34.62	$^{gal}/_{min}$
Required Septic Tank Capacity	1500	gal.
Minimum Standard Tank Size	1500	
Lateral Line Volume	24.18	gal.
Dosing Volume	191.70	gal.
	note daosing volume based on75% of max. dosing volume	
Tank Draw Down	9.1	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.54	minutes
Elevation Head	4.9	ft.
Pressure Head	2	ft.
Friction Factor	2.33	ft./100 ft. *(From the interpolater.)*
Friction Head	0.21	ft.
Lateral Friction	3.026	Ft
Total Dynamic Head (+15%)	11.65	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
26.24	1.40
30	1.78
34.62	2.33
35	2.37
38.53	2.84
40	3.03
	-2.89
45	3.77
	-3.52
50	4.58
	-4.62
60	6.42

(1) The pit shall consist of an excavation at least 42 inches square and in no case shall the bottom of an excavation be closer than one foot from the seasonally high water table or rock.

(2) The pit shall be properly curbed to prevent caving. In sandy or loose soil, the curb should extend the full depth of the pit. In tight soils, partial curbing is acceptable if it prevents caving.

(3) The privy floor slab shall be constructed of reinforced concrete. Where it is impractical to secure or construct reinforced concrete floor assemblies, wood construction shall be acceptable provided the floor slab is made of rough sub-flooring and covered with tight tongue-and-groove flooring or other type flooring materials to provide strength and prevent entrance of flies and mosquitoes to the privy pit. Where wood construction is used, floors shall be anchored to at least four-inch by four-inch sills.

(4) Wood used for riser, seat assemblies, and the floor slab shall be tongue-and-groove or plywood (exterior or marine) material.

(5) Privies shall not be used for the disposal of water-carried sewage.

History Note: *Authority G.S. 130A-335(e);*
Eff. July 1, 1982;
Amended Eff. December 1, 1990.

15A NCAC 18A .1960 MAINTENANCE OF PRIVIES

(a) Any person owning or controlling the property upon which a privy is located shall be responsible for these requirements:

(1) The privy building shall afford a reasonable degree of protection from bad weather conditions.

(2) When the pit becomes filled to within 18 inches of the top of the ground, the privy building shall be moved to a new pit and the old pit completely covered with earth.

(3) If the pit caves in, a new pit shall be provided.

(b) The tenant or person occupying the property shall be responsible for these requirements:

(1) The walls, floors, and seat of the privy and grounds immediately adjacent to the building shall be kept in a clean and decent condition.

(2) Fowl and other animals shall not be harbored in the privy building.

(3) Seat cover shall be hinged and closed at all times when the privy is not in use.

(4) Flies shall be excluded from the pit at all times.

(5) Ashes, garbage, and trash shall be kept out of the pit.

History Note: *Authority G.S. 130A-335(e) and (f);*
Eff. July 1, 1982;
Amended Eff. January 1, 1990.

15A NCAC 18A .1961 MAINTENANCE OF SEWAGE SYSTEMS

(a) Any person owning or controlling the property upon which a ground absorption sewage treatment and disposal system is installed shall be responsible for the following items regarding the maintenance of the system:

(1) Ground absorption sewage treatment and disposal systems shall be operated and maintained to prevent the following conditions:

(A) a discharge of sewage or effluent to the surface of the ground, the surface waters, or directly into groundwater at any time; or

(B) a back-up of sewage or effluent into the facility, building drains, collection system, or freeboard volume of the tanks; or

(C) a free liquid surface within three inches of finished grade over the nitrification trench for two or more observations made not less than 24 hours apart. Observations shall be made greater than 24 hours after a rainfall event.

The system shall be considered to be malfunctioning when it fails to meet one or more of these requirements, either continuously or intermittently, or if it is necessary to remove the contents of the tank(s) at a frequency greater than once per month in order to satisfy the conditions of Parts (A), (B), or (C) of this Paragraph. Legal remedies may be pursued after an

authorized agent has observed and documented one or more of the malfunctioning conditions and has issued a notice of violation.

(2) 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.

(b) System management in accordance with Tables V(a) and V(b) of this Rule shall be required for all systems installed or repaired after July 1, 1992. After July 1, 1992, system management in accordance with Tables V(a) and V(b) shall be required for all existing Type V and Type VI systems.

(c) No Improvement Permit or Construction Authorization shall be issued for Type IV, Type V, or Type VI systems, unless a management entity of the type specified in Table V(b) is specifically authorized, funded, and operational to carry out this management program in the service area where the proposed system is to be located.

(d) A local health department may be the public management entity only for systems classified Type IV, V(a) and V(b) and only when specifically authorized by resolution of the local board of health.

(e) A contract shall be executed between the system owner and a management entity prior to the issuance of an Operation Permit for a system required to be maintained by a public or private management entity, unless the system owner and certified operator are the same. The contract shall include the specific requirements for maintenance and operation, responsibilities of the owner and system operator, provisions that the contract shall be in effect for as long as the system is in use, and other requirements for the continued proper performance of the system. It shall also be a condition of the Operation Permit that subsequent owners of the system execute such a contract.

(f) Inspections of the system shall be performed by a management entity at the frequency specified in Table V(b). The management entity shall report the results of their inspections to the local health department at the specified reporting frequency. However, where inspections indicate the need for system repairs, the management entity shall notify the local health department within 48 hours in order to obtain a Construction Authorization for the repairs.

(g) The management entity shall be responsible for assuring routine maintenance procedures and monitoring requirements in accordance with the conditions of the Operation Permit and the contract.

(h) Sewage systems with multiple components shall be classified by their highest or most complex system type in accordance with Table V to determine local health department and management entity responsibilities.

(i) Sewage systems not identified in this Rule shall be classified by the Division of Environmental Health after consultation with the appropriate commission governing operators of pollution control facilities.

(j) The local health department shall routinely review the performance and operation reports submitted in accordance with Table V(b) of this Rule and shall perform an on-site inspection of the systems as required in Table V(a).

(k) The certified operator shall hold a valid and current certificate from the appropriate commission, and nothing in this Section shall preclude any requirements for system operators, in accordance with Article 3 of G.S. 90A.

TABLE V(a)

LOCAL HEALTH DEPARTMENT RESPONSIBILITIES

System Classification	System Description	Permits Required	Minimum System Review Frequency
Type I	a. Privy b. Chemical toilet c. Incinerating toilet d. Other toilet system e. Grease trap	Improvement Permit, Construction Authorization, and Operation Permit	N/A
Type II	a. Conventional septic system (single-family or 480 GPD or less) b. Conventional septic system with 750 linear feet of	Improvement Permit, Construction Authorization, and Operation Permit	N/A

	nitrification line or less c. Conventional system with shallow placement		
Type III	a. Conventional septic system > 480 GPD (excluding single-family residence) b. Septic system with single effluent pump or siphon c. Gravity fill system d. Dual gravity field system e. PPBPS system, gravity dosed f. Large diameter pipe system g. Other non-conventional trench systems	Improvement Permit, Construction Authorization, and Operation Permit	5yrs.(IIIbonly)
Type IV	a. Any system with LPP distribution b. System with more than 1 pump or siphon	Improvement Permit, Construction Authorization, and Operation Permit	3 yrs.
Type V	a. Sand filter pretreatment system b. Any > 3,000-GPD septic tank system with a nitrification field designed for > 1500 GPD c. Aerobic Treatment Unit (ATU) d. Other mechanical, biological, or chemical pretreatment plant (< 3000 GPD)	Improvement Permit, Construction Authorization, and Operation Permit	12 mos.
Type VI	a. Any > 3,000 GPD system with mechanical, biological, or chemical pretreatment system plant b. Wastewater reuse/recycle	Improvement Permit, Construction Authorization, and Operation Permit	6 mos.

TABLE V(b)

MANAGEMENT ENTITY RESPONSIBILITIES

System Classification	Management Entity	Minimum System Inspection/Maintenance Frequency	Reporting Frequency
Type I	Owner	N/A	N/A
Type II	Owner	N/A	N/A
Type III	Owner	N/A	N/A
Type IV	Public Management	2/yr.	12 mos.

	Entity with a Certified Operator or a private Certified Operator		
Type V	Public Management Entity With a Certified Operator or a private Certified Operator	a. 2/yr (0-1500 GPD) 4/yr (1500-3000 GPD) 12/yr (3000-10000 GPD) 1/wk (> 10000 GPD) b. 12/yr (3000-10000 GPD) 1/wk (> 10000 GPD) c. 4/yr. d. 12/yr.	6 mos.
Type VI	Public Management Entity With a Certified Operator	a. 1/wk(3000-10000 GPD) 2/wk(10000-25000 GPD) 3/wk(25000-50000 GPD) 5/wk(> 75000 GPD) b. 12/yr.	3 mos.

(l) A sewage collection, treatment, and disposal system that creates or has created a public health hazard or nuisance by surfacing of effluent or discharge directly into groundwater or surface waters, or that is partially or totally destroyed shall be repaired within 30 days of notification by the state or local health department unless the notification otherwise specifies a repair period in writing. If a system described in the preceding sentence has for any reason been disconnected, the system shall be repaired prior to reuse. The state or local health department shall use its best professional judgement in requiring repairs that will reasonably enable the system to function properly. If, for any reason, a sewage collection, treatment, and disposal system is found to be nonrepairable, or is no longer required, the system shall not be used, and may be required to have any contents removed, collapse any components and backfill, or otherwise secured as directed by the authorized agent to protect the public health and safety.

(m) When necessary to protect the public health, the state or local health department may require the owner or controller of a malfunctioning system to pump and haul sewage to an approved wastewater system during the time needed to repair the system.

History Note: *Filed as a Temporary Amendment Eff. July 3, 1991, for a period of 180 days to expire on December 30, 1991;*
Filed as a Temporary Amendment Eff. June 30, 1990, for a period of 180 days to expire on December 27, 1990;
Authority G.S. 130A-335(e),(f);
Eff. July 1, 1982;
Amended Eff. August 1, 1991; October 1, 1990; January 1, 1990; August 1, 1988;
Temporary Amendment Eff. January 20, 1997;
Amended Eff. August 1, 1998.

15A NCAC 18A .1962 APPLICABILITY

The provisions of this Section shall not apply to properly functioning sewage collection, treatment, and disposal systems in use or for which a valid permit to install a system has been issued prior to July 1, 1977. This provision is applicable only where the sewage flow and sewage characteristics are unchanged. This provision does not affect the requirements for system operation, maintenance, and management in accordance with Rule .1961 of this Section.

History Note: *Authority G.S. 130A-335(e);*
Eff. July 1, 1982;
Amended Eff. August 1, 1991; December 1, 1990.

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

Sheet: 1 of 2
Property ID: 195-212-29
Lot #: 30
File #: ~~6542B~~ 6547B
Code: 2

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Fairington Oaks, LLC
Applicant: Ted Von Badinski
Address: 1518 East 3rd St., Charlotte, N. C. 28204
Date Evaluated: 8/9/06
Proposed Facility: Residence
Design Flow (.1949): 720gpd
Property Size: .69a
Location of Site: 5621 Turkey Oak Drive
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-8	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		8-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
2	"	0-7	GR/CL	FR/SEXP/SS/SP	"	"	"	"	PS, IV
		7-48	SBK/C	FI/SEXP/S/P					.275GPD/FT^2
3	"	0-6	GR/CL	FR/SEXP/SS/SP	>43" TO SOIL WETNESS	43	"	"	"
		6-43	SBK/C	FI/SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IV A	IV a
Site LTAR	.275GPD/FT^2	.275GPD/FT^2

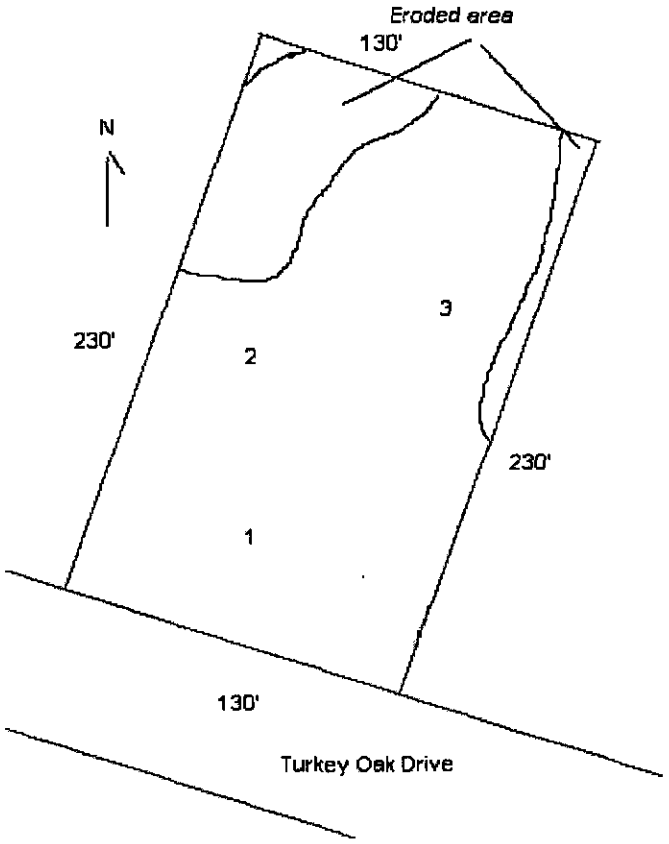
Other Factors (.1946):
Site Classification (.1948): [redacted] prov. suitable
Evaluated By: W. R. Marlin, LSS, 8/11/2006, W. R. Marlin
Others Present:

COMMENTS:
100% repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-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



#904 #1077

GWS – RES. APP 07/05

SEPTIC FEE: _____
DATE: _____
CRT [ ]

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

FILE # 05478

WELL FEE: _____
DATE: _____
CRT [ ]

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

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

JOB LOCATION INFORMATION:

TAX/PARCEL #: 19521229
STREET ADDRESS: 5621 Turka, Oak
CITY: Mint Hill
STATE: NC **ZIP:** 28227
SUBDIVISION OR MOBILE HOME PARK NAME: Fairington Oaks
LOT #: 30
TOWNSHIP:

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

BUILDING INFORMATION:

TYPE OF BUILDING:

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

HEATED SQUARE FOOTAGE: 4313
NUMBER OF BEDROOMS: ~~6~~ 4
NUMBER OF OCCUPANTS 5

FOUNDATION FOR RESIDENCE:

☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☒ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

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

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

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☒ NO TYPE:

WATER SUPPLY:

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

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

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

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

PROPERTY OWNER:

NAME: FAIRINGTON OAKS LLC
ADDRESS: 1518 East 3rd St
CITY: Charlotte
STATE: NC ZIP: 28204
HOME PHONE: 704-370-0303 WORK PHONE:
MOBILE PHONE: FAX:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: VonBADINSKI, TED
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-200-7444 FAX: 704-573-0270

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?

WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

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

Owner's/Agent's Signature 4/25/06 Date

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

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

Owner's/Agent's Signature Date

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

EHS PW

6547 County Permit Review Worksheet

Reviewer VDR

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

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

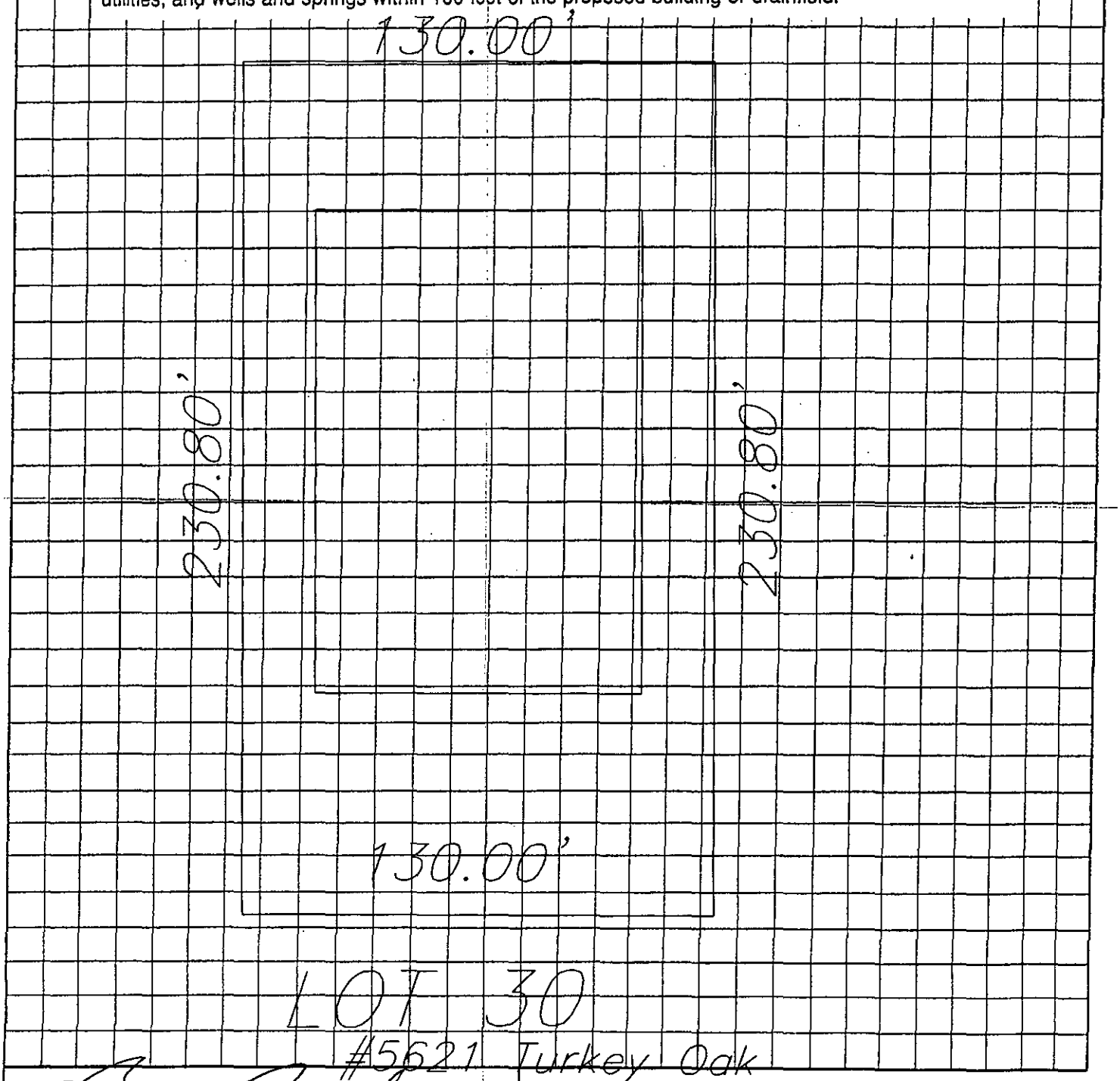
PROPOSED PLOT PLAN

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

FILE: _____

TC: _____

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



OWNER/AGENT SIGNATURE

DATE 2/20/07

APPROVAL DATE _____

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	05/31/06	**Amount:**	5,200.00
Receipt #:	44233	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	AIDOOJK		

Account Information

Account #: X32342
Contractor: MCCAR HOMES CHARLOTTE LLC
Attn:
Address: 10150 MALLARD CREEK RD
Address: SUITE 160
City/State/Zip: CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen TURKEY OAK L 23-29/L42-50		1	5,200.00	5,200.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
28,332.74	207.55				

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	02/13/07	**Amount:**	150.00
Receipt #:	48487	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	CRAIGGY		

Account Information

Account #: X32342
Contractor: MCCAR HOMES CHARLOTTE LLC
Attn:
Address: 10150 MALLARD CREEK RD
Address: SUITE 160
City/State/Zip: CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr 5621 Turkey Oak Rd/file 6547B		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
4,894.23	25,843.30				

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	02/13/07	**Amount:**	150.00
Receipt #:	48488	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	CRAIGGY		

Account Information

Account #: X32342
Contractor: MCCAR HOMES CHARLOTTE LLC
Attn:
Address: 10150 MALLARD CREEK RD
Address: SUITE 160
City/State/Zip: CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval 5621 turkey oak/file 6547B		1	150.00	150.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
5,044.23	25,843.30				

S&EC

Soil & Environmental Consultants, PA

236 LePhillip Court, Suite C • Concord, North Carolina 28025 • Phone: (704) 720-9405 • Fax: (704) 720-9406
www.SandEC.com

Transmittal

To: Mecklenburg County Health Dept
Attn: Philo Walker
700 N. Tryon St.
Charlotte, NC 28202

Project # 5-1553 Date: 1/8/07
Project Name: Fairington Oaks
File:

We Transmit to you Herewith:

- ☐ Drawings
- ☐ Specifications
- ☐ Brochures or photos
- ☐ Correspondence
- ☐ As per your request
- ☐ For your information and files
- ☐ For comment or approval
- ☐ Returned for correction, resubmit
- ☒ Design

Under Separate Cover:

- ☒ By mail
- ☐ By courier
- ☐ By express

No. Copies	Document No.	Date	Description
1		1/7/07	Proposed Design for a 4 bedroom single family residence PPBPS pressure dosed system at lot 30 of Fairington Oaks Subdivision in Mecklenburg County, NC

Remarks:

If enclosures are not as listed as above, kindly notify us at once.

By: Eric Bailey

Greensboro Office:
3817-E Lawndale Drive
Greensboro, NC 27455
Phone: (336) 540-8234
Fax: (336) 540-8235

Raleigh Office:
11010 Raven Ridge Road
Raleigh, NC 27614
Phone: (919) 846-5900
Fax: (919) 846-9467

MECKLENBURG COUNTY
Health Department

October 31, 2006

FARRINGTON OAKS LLC
1518 E. THIRD ST
CHARLOTTE, NC 28204

Re: Application for improvement permit for:
Property Site: 5621 TURKEY OAK, LOT 30
Health Department file number: **6547B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on October 31, 2006 evaluated the above-referenced property at the site designated on the site plan that accompanied your improvement permit application. According to your application the site is to serve a 6 BEDROOM HOUSE, with a daily design flow of 720 gallons per day. The evaluation was done in accordance with the laws and rules governing wastewater systems in North Carolina General Statute 130A-333 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .1900 and related rules.

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

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

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

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

For the reasons set out above, the property is currently classified **UNSUITABLE,** and an improvement

permit shall not be issued for this site in accordance with Rule .1948 (c).

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

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

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

Please note: If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is October 31, 2006. Meeting the 30-day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you might request. Do not wait for the outcome of any informal review if you wish to file a formal appeal.

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

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

Sincerely,

Philo A. Walker RS

Philo Walker, R.S.
Authorized Agent - DENR

Encl: (2)