00 CK

FEE: 100
DATE: 7/28/09 SC
CRT [ ]

APPLICATION FOR APPROVAL TO USE AN EXISTING ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM
MECKLENBURG COUNTY - GROUNDWATER & WASTEWATER SERVICES
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

GWS – UES.APP 06/07

FILE #: 75AB

TYPE APPLCATION: JAM 4324

- ☐ ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A / M)
- ☐ EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
- ☒ ADDITION - RENOVATION OR GARAGE WITH NO MAJOR CHANGES (X)
- ☐ COMMERCIAL OR INDUSTRIAL (N)

PERSON FILING APPLICATION:

NAME: Jonathan McSnell
ADDRESS: 13319 Fairington Oaks Dr
CITY: Mint Hill
STATE: NC ZIP: 28227
PHONE: 704.315.8817 (C)
ALTERNATE PHONE: 704.573.1277 (H)

PROPERTY OWNER:

NAME:
ADDRESS: SAME
CITY:
STATE: ZIP:
PHONE:
ALTERNATE PHONE:

JOB LOCATION INFORMATION

TAX/PARCEL #: 195-213-14
STREET ADDRESS: 13319 Fairington Oaks Dr
CITY: Mint Hill
STATE: NC ZIP: 28227
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #: 135

TOWNSHIP:

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

WATER SUPPLY:

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

RESIDENTIAL PROPERTY TYPE:

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

OCCUPANCY (both fields are required):

NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 2

COMMERCIAL / INDUSTRIAL PROPERTY TYPE:

TYPE OF BUSINESS:
EMPLOYEES PER SHIFT:
OF SHIFTS:

INDUSTRIAL WASTES? ☐ YES ☐ NO
UNDERGROUND STORAGE TANKS? ☐ YES ☐ NO

ADDITION TYPE ATTACHED TO EXISTING STRUCTURE:

- ☐ BEDROOM
- ☐ BATHROOM
- ☐ KITCHEN
- ☐ DINING ROOM
- ☐ LIVING ROOM
- ☐ DEN
- ☐ GARAGE
- ☐ SUNROOM
- ☐ PORCH
- ☐ DECK
- ☐ OTHER

ADDITION TYPE DETACHED FROM EXISTING STRUCTURE:

- ☐ DETACHED GARAGE
- ☐ DETACHED GARAGE WITH PLUMBING
- ☐ POOL HOUSE
- ☐ SHOP
- ☐ BARN
- ☒ STORAGE SHED
- ☐ DETACHED PORCH / DECK
- ☐ OTHER

*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 — 7/27/09 Date

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

- No work shall be conducted on the septic tank system until an installation, construction, alteration and/or repair approval is granted y this Department.
- This permit is not transferable.

☐ ADDITION / RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE
☐ MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE

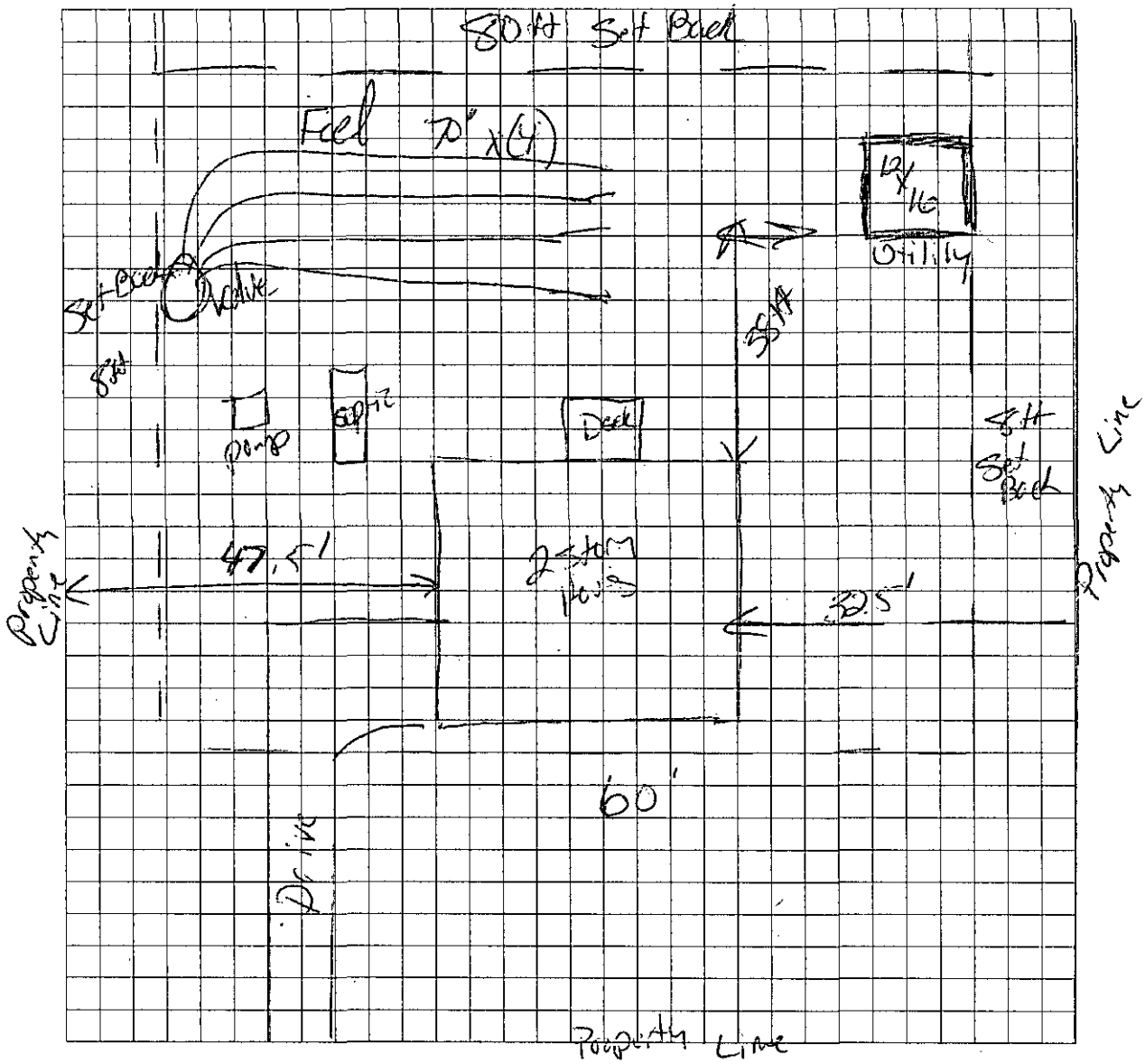
Out Building Meets setbacks off drainfield. Repair can go in front yard
Jeremy Michael 07-29-2009
EHS Signature Date

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

File # 75198
Date

PROPOSED PLOT PLAN

A map showing existing and proposed property lines and easements with dimensions, the location of the single family residence, non-single family residence, or other facility, and appurtenances, the site for the proposed well, and the location of existing or proposed sewer lines and/or sewage disposal systems, surface water bodies, aboveground or underground storage tanks. Name all roads adjoining the property. If this a repair indicate the type of repair.



Owner/Agent Signature

Date 7/27/09

LBC 12/15/04

FILE NUMBER: 7519B Revised On: August 31, 2007 APPLICATION NUMBER: 3045

SEPTIC FEE: 500
DATE: 12/4/07
chk 958

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

WELL FEE: _____
DATE: _____

1. **SEPTIC / TYPE APPLICATION:** ☐ NONE ☑ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFIED PLOT PLAN

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

3. **JOB LOCATION INFORMATION:**
TAX PARCEL NUMBER: 19521102 PO
STREET ADDRESS: 13319 Fairington OAKS DR
CITY: Charlotte
STATE: NC ZIP: 28227
SUBDIVISION NAME: Fairington Oaks
LOT #: 135 LOT SIZE (acres): 1
TOWNSHIP:
☐ 0-MECKLENBURG ☐ 3-CORNELIUS ☐ 6-HUNTERSVILLE
☐ 1-CHARLOTTE ☐ 4-PINEVILLE ☑ 7-MINT HILL
☐ 2-DAVIDSON ☐ 5-MATTHEWS

4. **BUILDING INFORMATION:**
BUILDING TYPE:
☐ SINGLE MOBILE HOME ☐ MODULAR HOME
☐ DOUBLE WIDE ☐ MULTIPLE FAMILY
☑ HOUSE ☐ OTHER _____
HEATED SQUARE FOOTAGE:
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 6
FOUNDATION TYPE:
☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

5. **IF PLANNING TO EXPAND OR ALTER THE EXISTING 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 ☐ PUBLIC WELL ☐ PRIVATE WELL ☐ SHARED WELL ☐ SPRING

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

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

	☐ ANY TYPE	☐ CONVENTIONAL	☐ ACCEPTED	☐ INNOVATIVE	☐ ALTERNATIVE	☑ OTHER LPPBPS
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

10. **PROPERTY OWNER:**
NAME: McLar Homes
ADDRESS: 10150 Mallard Creek Rd Suite 106
CITY: Charlotte
STATE: NC ZIP: 28262
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

11. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**
NAME: Soil and Environmental Consultants, PA
ADDRESS: 236 LePhillip Court Suite C
CITY: Concord
STATE: NC ZIP: 28025
HOME PHONE: WORK PHONE: 704-720-9405
MOBILE PHONE: FAX:

12. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** _____
13 **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** _____

14. **SEPTIC SYSTEM PERMIT APPLICATION SIGNATURE SECTION:**
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 60 months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

[signature] 12/3/07
Property Owner's or Owner's Legal Representative Signature Date

15. **WELL PERMIT APPLICATION SIGNATURE SECTION:**
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 12 months from the date of issuance.

_____
Property Owner's or Owner's Legal Representative Signature Date

☐ SURVEY PLAT TO SCALE SUBMITTED ☐ SCALED SITE PLAN SUBMITTED ☑ UN-SCALED SITE PLAN SUBMITTED

701 ✓ 1334 ✓ 103

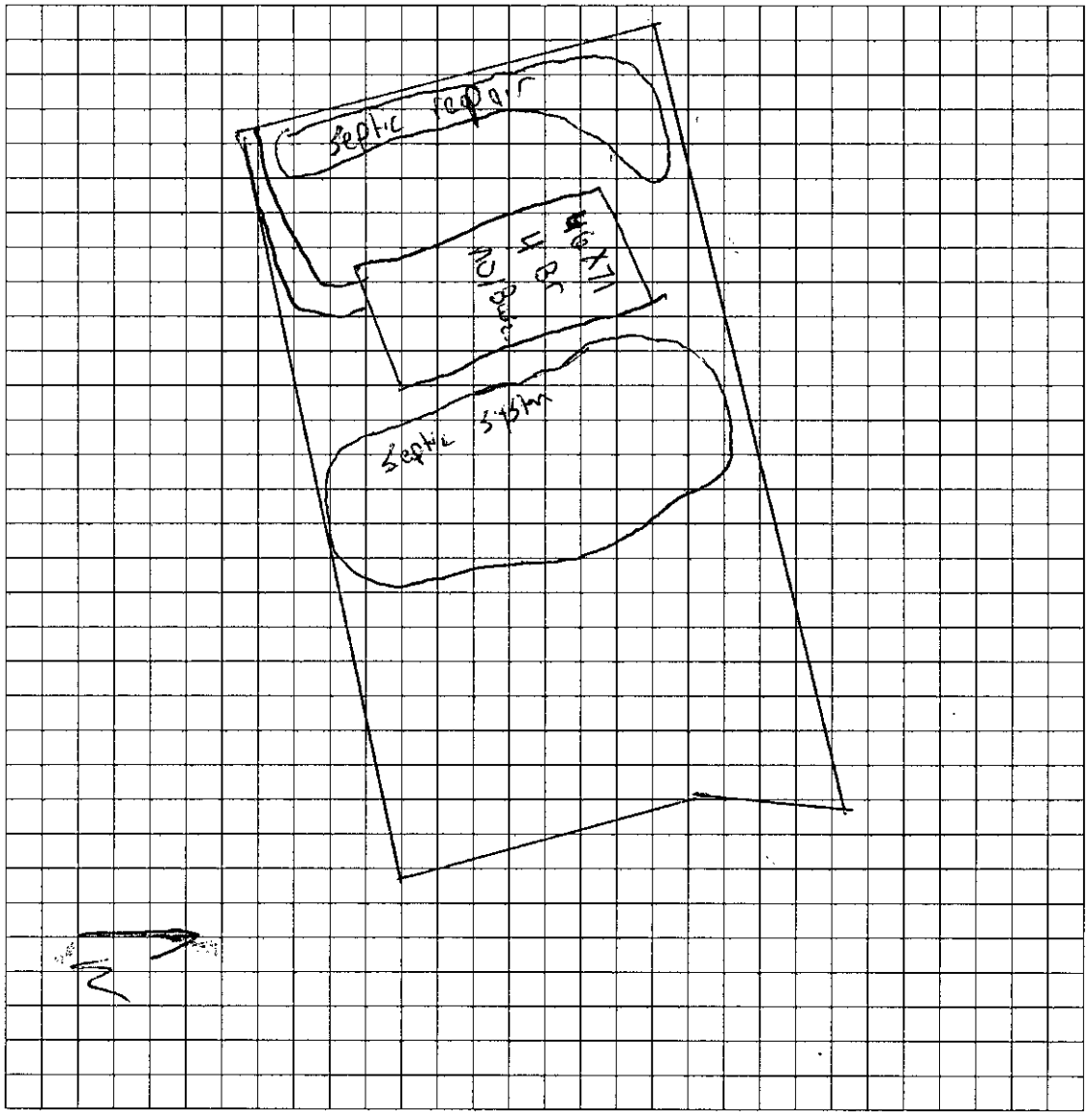
Mecklenburg County
Land Use & Environmental Service Agency
Groundwater & Wastewater Services
700 N. Tryon St., Suite 211
Charlotte, NC 28202
Phone: (704) 336-5103
Fax: (704) 336-6894

File # 7519B
Date_____

PROPOSED PLOT PLAN

Fairington Oaks lot 133

A map showing existing and proposed property lines and easements with dimensions, the location of the single family residence, non-single family residence, or other facility, and appurtenances, the site for the proposed well, and the location of existing or proposed sewer lines and/or sewage disposal systems, surface water bodies, aboveground or underground storage tanks. Name all roads adjoining the property. If this a repair indicate the type of repair.



Owner/Agent Signature	[signature]
Date	12/3/07

LBC 12/15/04

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

Sheet: 1 of 2
Property ID: 195-211-08 po
Lot #: 135
File #: 7519B
AppID: 3045

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: McCor Homes
Applicant: S&EC
Address: 10150 Mallard Creek Rd. Suite 106, Charlotte, NC 28262
Date Evaluated: 12/19/2007
Proposed Facility: Residence
Design Flow (.1949): 480 GPD
Property Size: 1ac
Location of Site: Farington Oaks Subdivision
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	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS-4%	0-9	GR/SCL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48"			PS,IV
		9-40	SBK/C	FI/S/P/SEXP					0.3 GPD/FT^2
		40-48	SBK/C	FI/S/P/SEXP	FEW SAP				
2	LT-8%	0-6	GR/SL	FR/NS/NP	>48"				PS,IV
		6-30	SBK/C	FI/S/P/SEXP					0.3 GPD/FT^2
		30-42	SBK/C	FI/S/P/SEXP	FEW SAP				
		42-48	SBK/CL	FI-FR/SS/SP/SEXP	COMMON SAP				
3	LT-8%	0-9	GR/L	FR/SS/SP/SEXP	>48"				PS,IV
		9-41	SBK/C	FI/S/P/SEXP					0.3 GPD/FT^3
		41-48	SBK/CL	FI-FR/SS/SP/SEXP	COMMON SAP				

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	Iva	Iva
Site LTAR	0.3	0.3

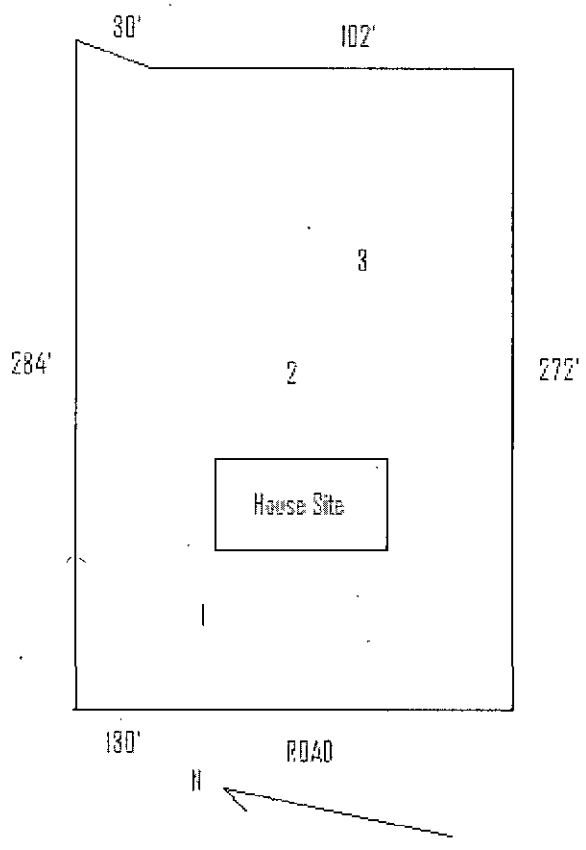
Other Factors (.1946):
Soil Evaluation By: Jeremy Michael
Others Present: Jeremy Michael
Site Classification (.1948):
Site Evaluation By: Jeremy Michael
Others Present: Jason Jackson

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



Soil & Environmental Consultants, PA

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

Attached is a proposed design for a 4 bedroom single family residence PPBPS pressure dosed system at lot 135 of Fairington Oaks Subdivision in Mecklenburg County, North Carolina.

Contents: **Page**

Information for the Installer---------- 1

Design Information

Layout Specifications---------- 2

System Tapsheet---------- 3

Repair Tapsheet---------- 4

Site Plan---------- 5

Pressure Panel Drawing---------- 6

Septic Tank Diagram---------- 7

Pump Tank Diagram---------- 8

Pump Specifications---------- 9-10

Control Panel & Float Specifications---------- 11-14

Electric Box Installation---------- 15

Maintenance of Septic Systems---------- 16-19

Calculations---------- 20

GWS Septic System Design Review — Approved ☒ — Disapproved ☐

GWS File #: 7519B

Design Review: TGT 12-19-07

Field Review: 12-19-07

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

Nov-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.
- 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
- Supply line is an estimated length of 9' of 2"SCH40 PVC
- Pump requires 1/2 hp

Design precludes the building of a basement

Design is based on the house placement as seen on the attached site plan

Movement of house location may void septic design

Fairington Oaks lot 135

Project No. 5-2028

LAYOUT FOR 4 BEDROOM HOME — Sep-07

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH
TBM		5.1			100.0	
INSTR. 1			105.1			
			SYSTEM			
1a	Blue			7.90	97.2	70
2a	Yellow			8.60	96.5	70
3a	Orange			9.00	96.1	70
4a	Red			10.80	94.3	70
			Repair			**280**
1b	Blue			7.90	97.2	38
2b	Yellow			8.60	96.5	30
3b	Orange			9.00	96.1	39
4b	Red			10.80	94.3	38
5	Yellow			11.90	93.2	35
6	Blue			0.50	104.6	35
7	Red			1.10	104.0	57
8	Yellow			1.60	103.5	27
9	Pink			2.40	102.7	50
		Design			**Total**	**349**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	Soil LTAR	DISTRIBUTION
SYSTEM	280	0.285	PPBPS	0.325	LPP
REPAIR	349	0.25	PPBPS	0.325	LPP

Notes:

** TBM of system = top of back left house 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 135

SYSTEM

DESIGN SPECIFICATIONS

Line #	Color	#Panels	#Holes Panel	Line Length	Hole Size	Line Head	Line Flow
1a	Blue	16	1	70	5/32"	2.0	6.56
2a	Yellow	16	1	70	5/32"	2.0	6.56
3a	Orange	16	1	70	5/32"	2.0	6.56
4a	Red	16	1	70	5/32"	2.0	6.56
	Total	**64**		**280**			**26.24**

LAYOUT FOR 4 BEDROOM HOME

REPAIR

DESIGN SPECIFICATIONS

Line #	Color	#Panels	#Holes Panel	Line Length	Hole Size	Line Head	Line Flow
1b	Blue	8	1	38	5/32"	2.0	3.28
2b	Yellow	7	1	30	5/32"	2.0	2.87
3b	Orange	9	1	39	5/32"	2.0	3.69
4b	Red	8	1	38	5/32"	2.0	3.28
5	Yellow	8	1	35	5/32"	2.0	3.28
6	Blue	8	1	35	5/32"	2.0	3.28
7	REd	13	1	57	5/32"	2.0	5.33
8	Yellow	6	1	27	5/32"	2.0	2.46
9	Pink	11	1	50	5/32"	2.0	4.51
	Total	**78**		**349**			**31.98**

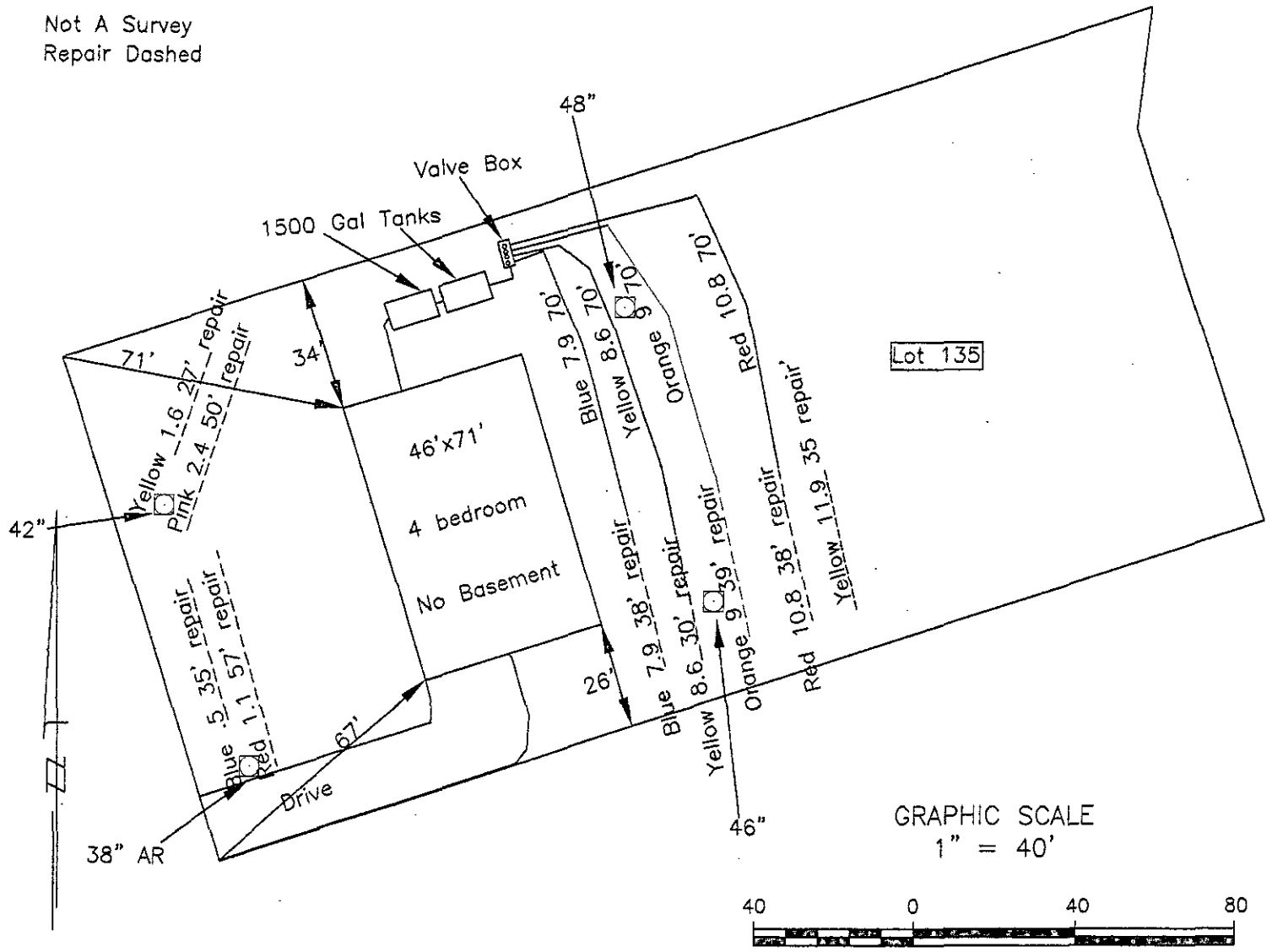
**SUITABLE FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND TOPOGRAPHIC IRREGULARITIES.
THIS MAP ONLY REFLECTS 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 S&EC report.

DRAFT
FOR REVIEW ONLY

Not A Survey
Repair Dashed



PROJECT NO. #5-1553
PROJECT MGR. BP
DRAWN BY B.B.
FIELD WORK B.B.
SCALE 1" = 40'
FILE Y:\jobs\1553

Soil & Environmental Consultants, PA
239 Lafferty Court, Suite C • Concord, North Carolina 28025 • Phone (704)720-9405 • Fax (704) 720-9406

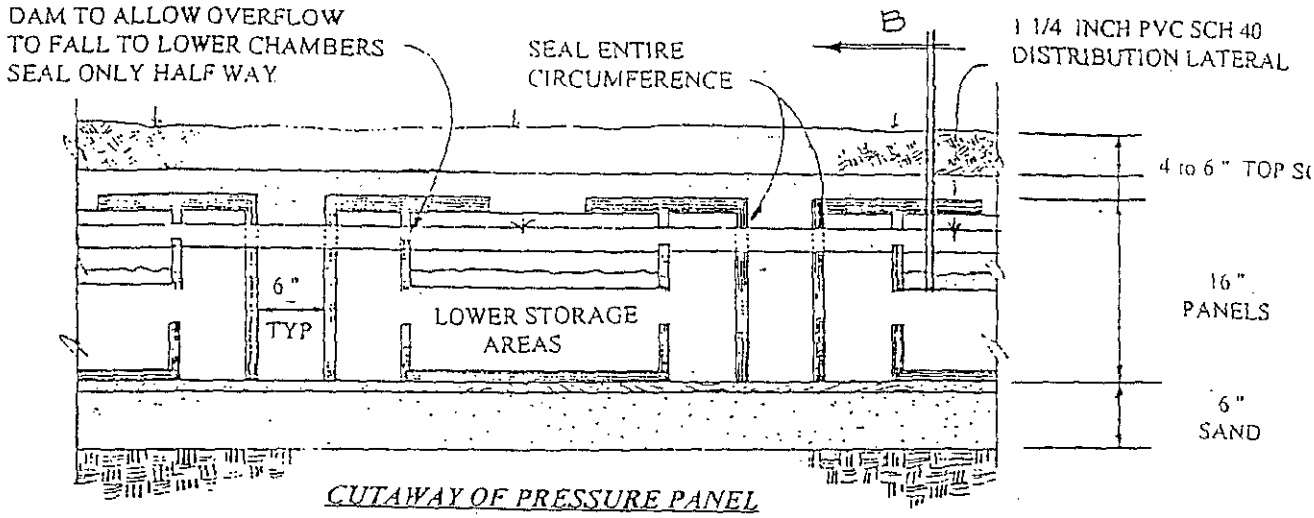
S&EC

Fairington Oaks lot 135
McCar Homes
- Fairington Oaks lot 135 -
MECKLENBURG COUNTY, NORTH CAROLINA
November 2007

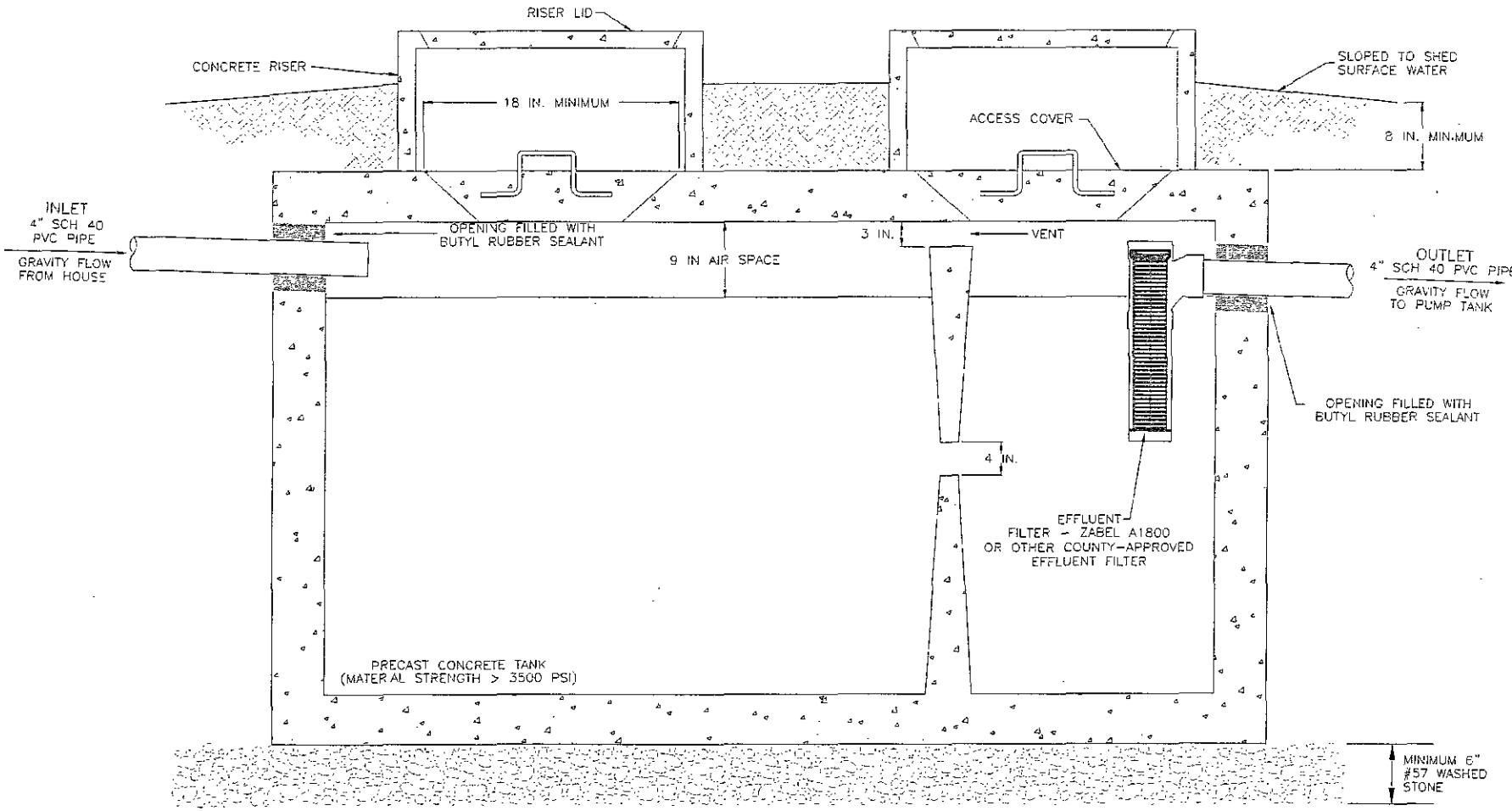
SHEET TITLE
PRELIMINARY SITE PLAN
SKETCH MAP

SHEET 1 OF 1

5



CUTAWAY OF PRESSURE PANEL

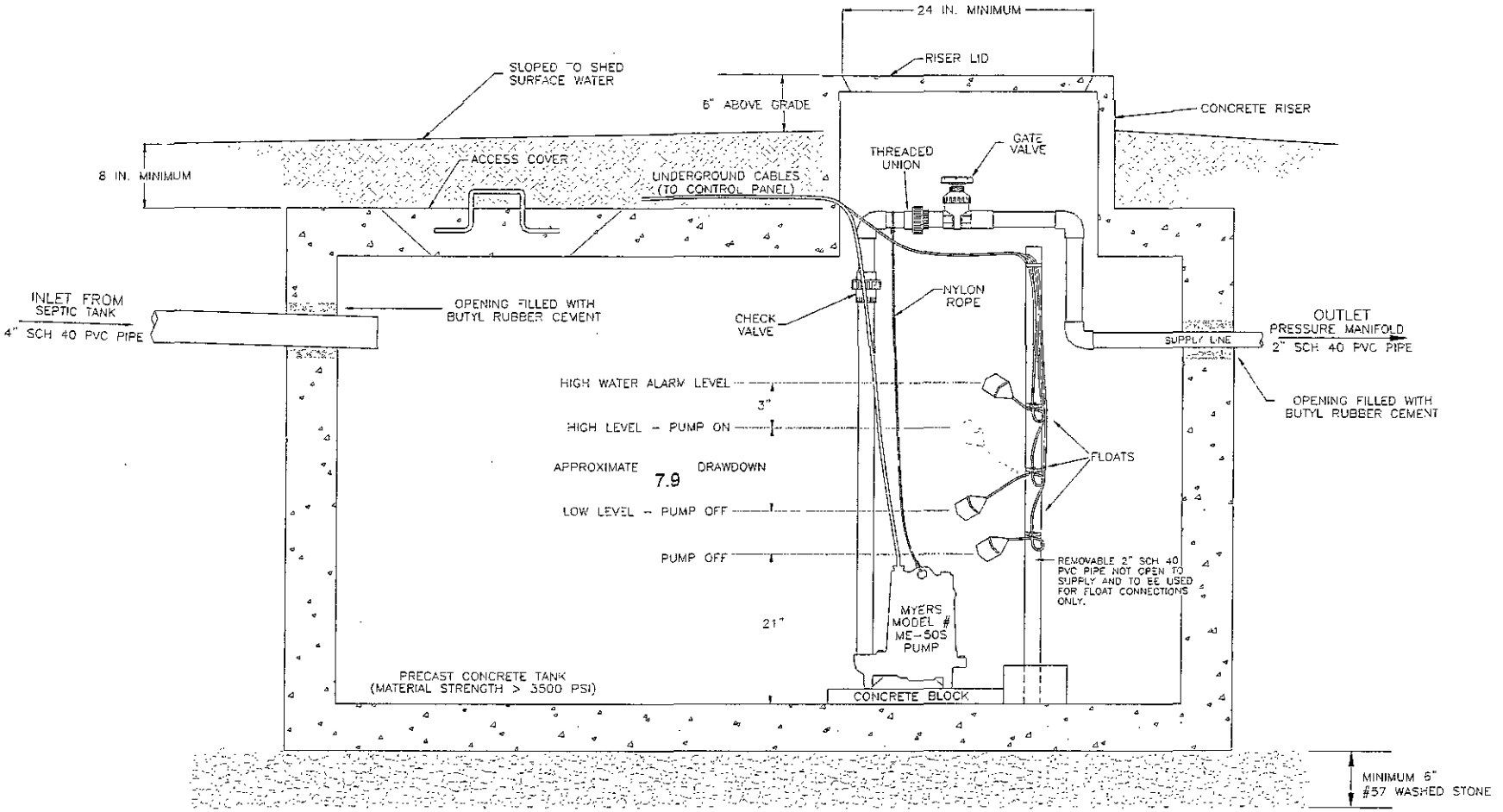


NOTES

1. TANK DIMENSIONS VARY BY MANUFACTURER.

1500 GALLON SEPTIC TANK

PROJECT NO: 4591	PROJECT NAME: **Fairington Oaks lot 135**	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.

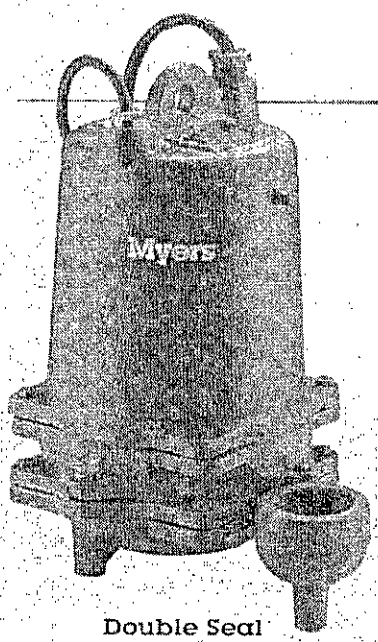
1500 GALLON PUMP TANK

PROJECT NO.	PROJECT NAME
PROJECT 5-1553	Fairington Oaks lot 135
SCALE NTS	SHEET TITLE: PUMP TANK DIAGRAM

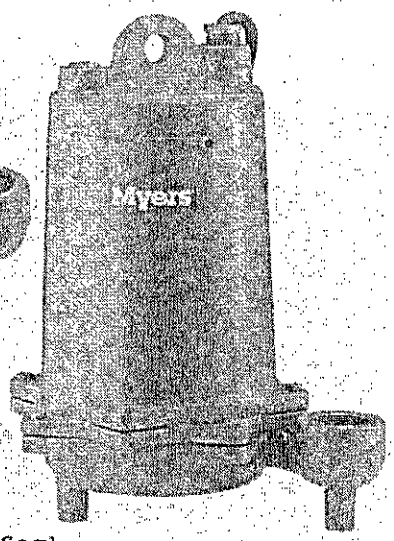
S&EC
Soil & Environmental Consultants, Inc.
11010 Raven Ridge Road Raleigh, North Carolina 27614 Phone: (919) 846-5900 Fax: (919) 846-9467
Web Page: www.SandEC.com

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	engineered thermoplastic
Optional	bronze
Impeller Wear Ring	304 SST
Volute Sealing Ring	Buna-N
Shaft	416 SST
Power Cord	
1/2 HP 1 Ph	20 ft. 16/3 SJOW/SJOW-A
3/4 - 1-1/2 HP 1 Ph	20 ft. 14/3 SJOW/SJOW-A
All 3 Ph	20 ft. 14/4 SOW/SOW-A
Shaft Seals Standard	single carbon & ceramic
Optional	tandem carbon & ceramic
Opt. Lower	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

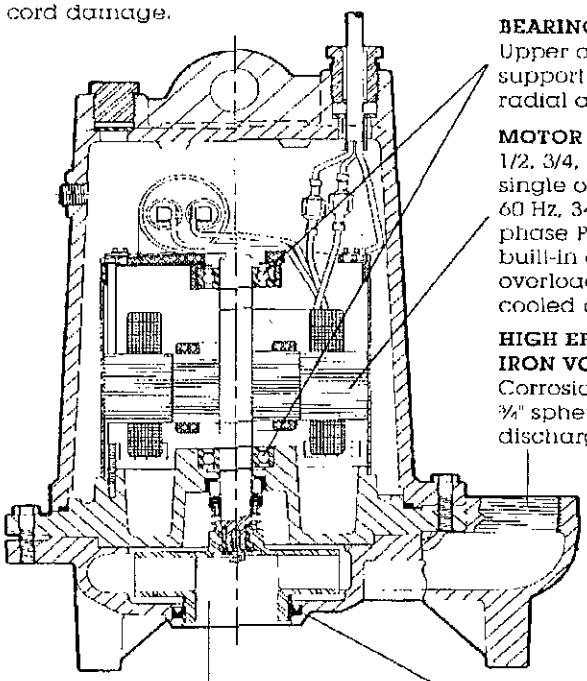
POWER CORD.
Jacket sealed with compression fittings. Individual wires potted with epoxy to prevent wicking in case of cord damage.

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

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

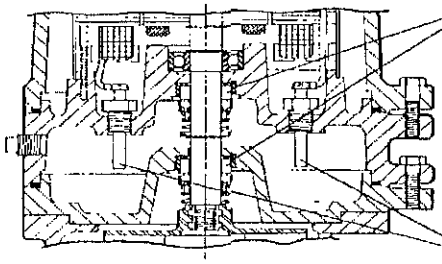
MOTOR
1/2, 3/4, 1 and 1-1/2 HP single or three phase. 60 Hz, 3450 RPM. Single phase PSC motors have built-in on winding overload protection, oil-cooled and lubricated.

HIGH EFFICIENCY CAST IRON VOLUTE
Corrosion resistant. Passes ¾" spherical solids. 2" NPT discharge.



ENCLOSED TWO VANE IMPELLER
high efficiency. Passes ¾" spherical solids with stainless steel wear ring. Optional bronze construction available.

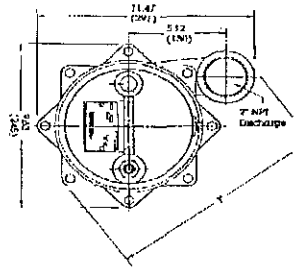
VOLUTE/IMPELLER SEAL RING
Maintains high efficiency and reduces recirculation. Replaceable.

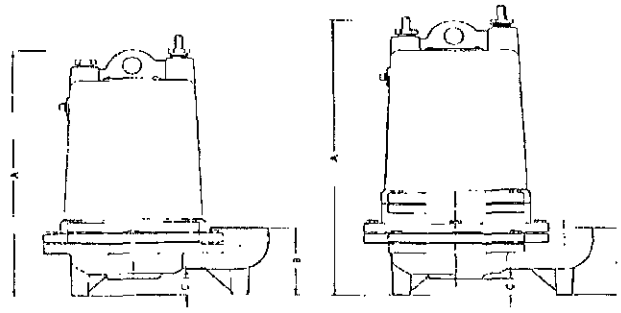


SHAFT SEAL(S)
Carbon and ceramic faces. Optional dual tandem seals. Extends motor life.

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

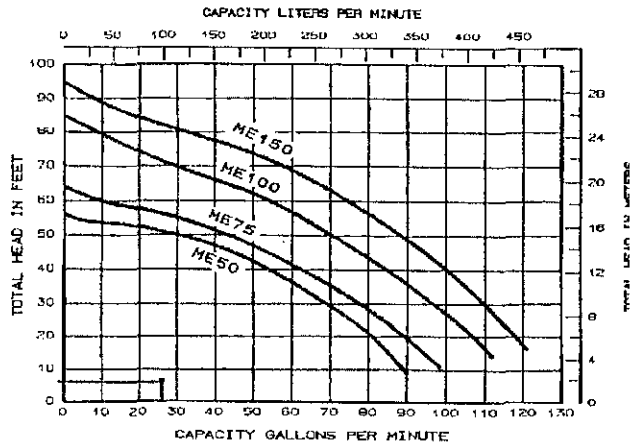
DIMENSIONS





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
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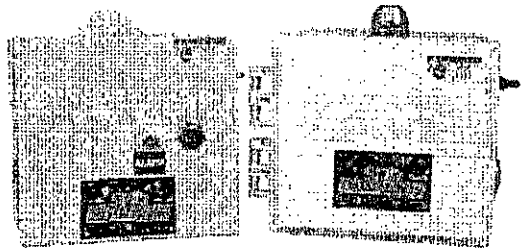
Myers
PENTAIR PUMP GROUP

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

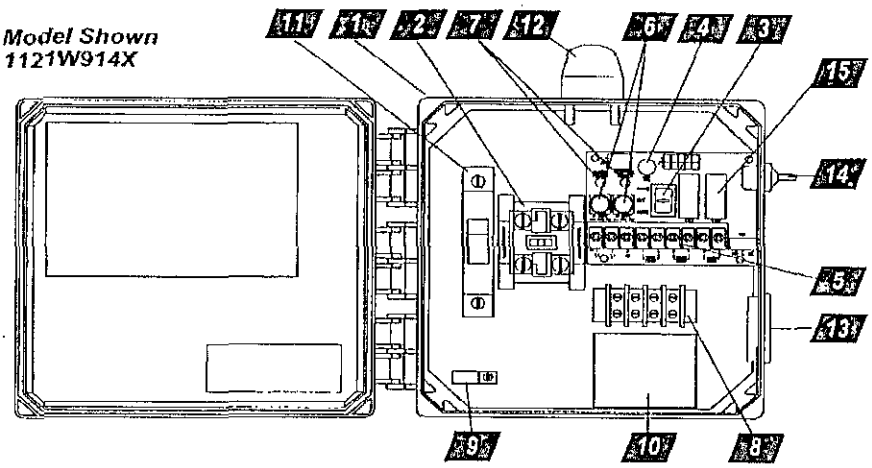
Single phase, simplex motor contactor control.

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)

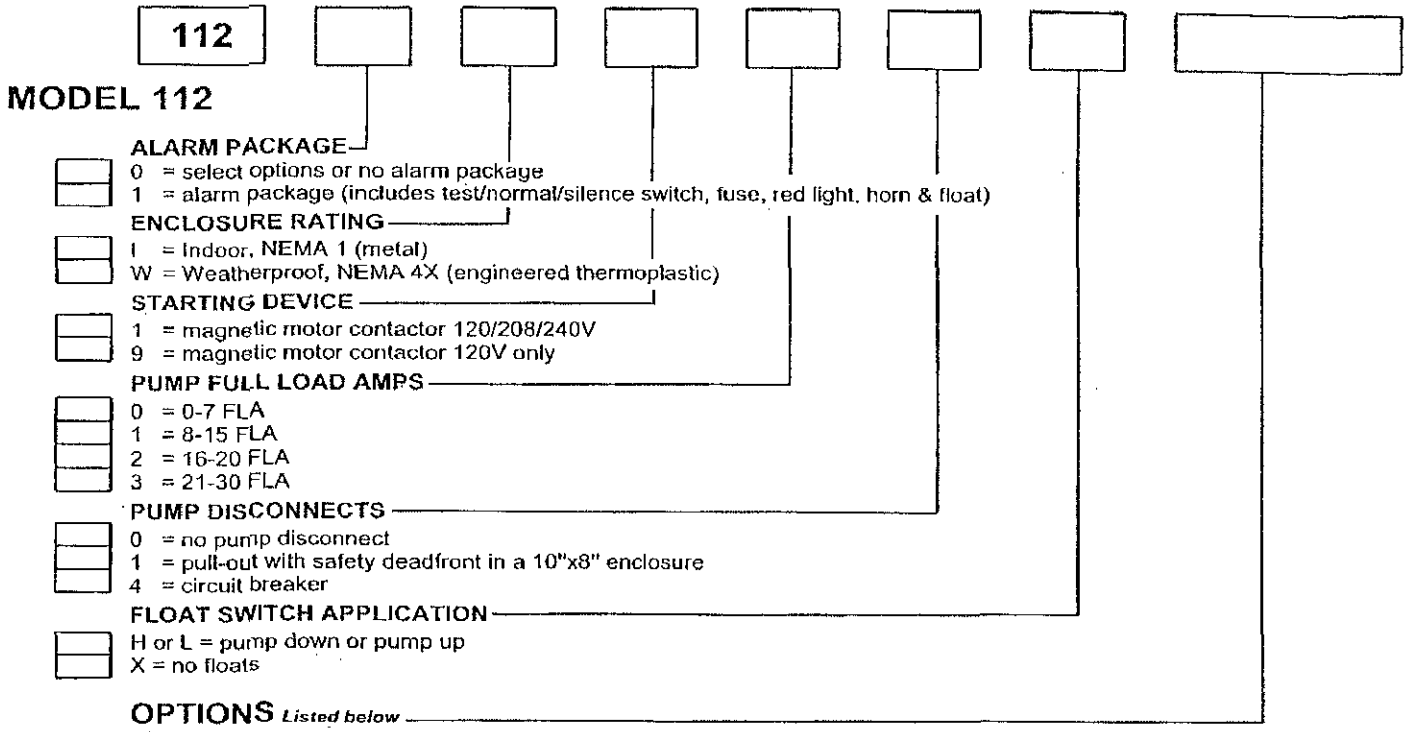
12. **Red Alarm Beacon** provides 360° visual check of alarm condition. **Note:** NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
13. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating). **Note:** NEMA 1 style utilizes an internally mounted buzzer (83 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 or 1-218-847-1317
1-218-847-4617 Fax
email: sje@sjerhombus.com
www.sjerhombus.com



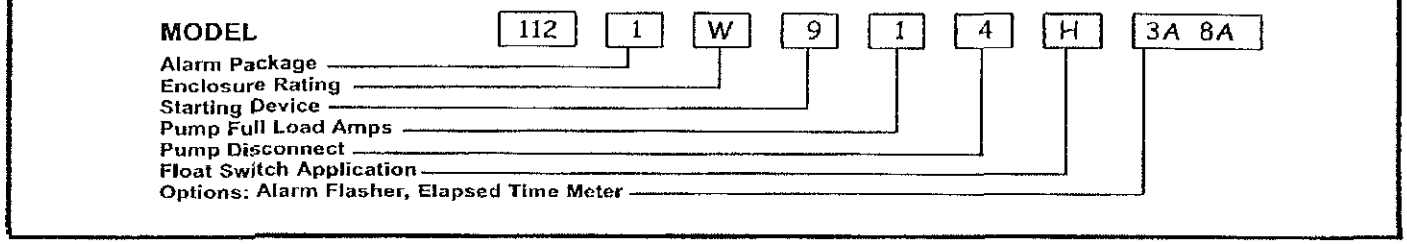
If additional features are required, call the factory for a quote on either a Pro-Line or Engineered Custom control panel system.

	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

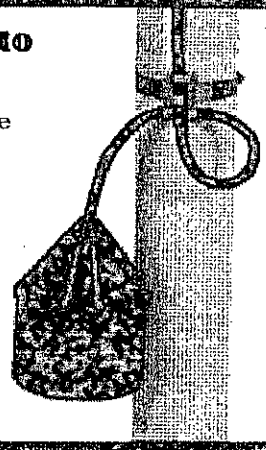
SAMPLE



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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

SJE-Rhombus CONTROLS
SJ ELECTRO SYSTEMS, INC.
PO Box 1708, Detroit Lakes, MN 56502
1-888-DIAL-SJE (1-888-342-5753) 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

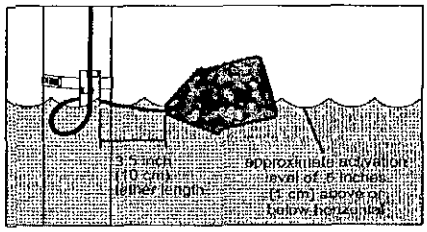
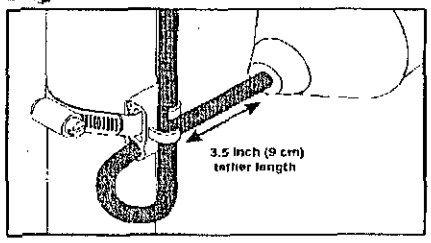


Figure B



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

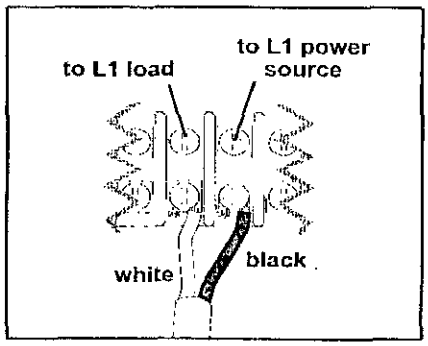
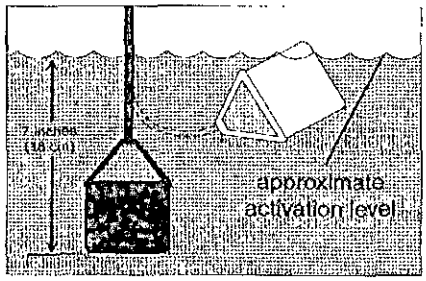


Figure D



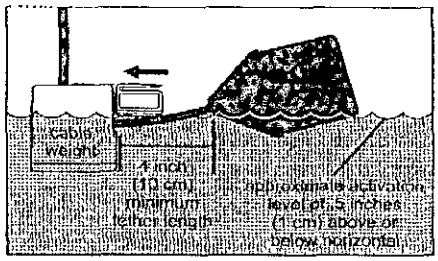
CABLE WEIGHT

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



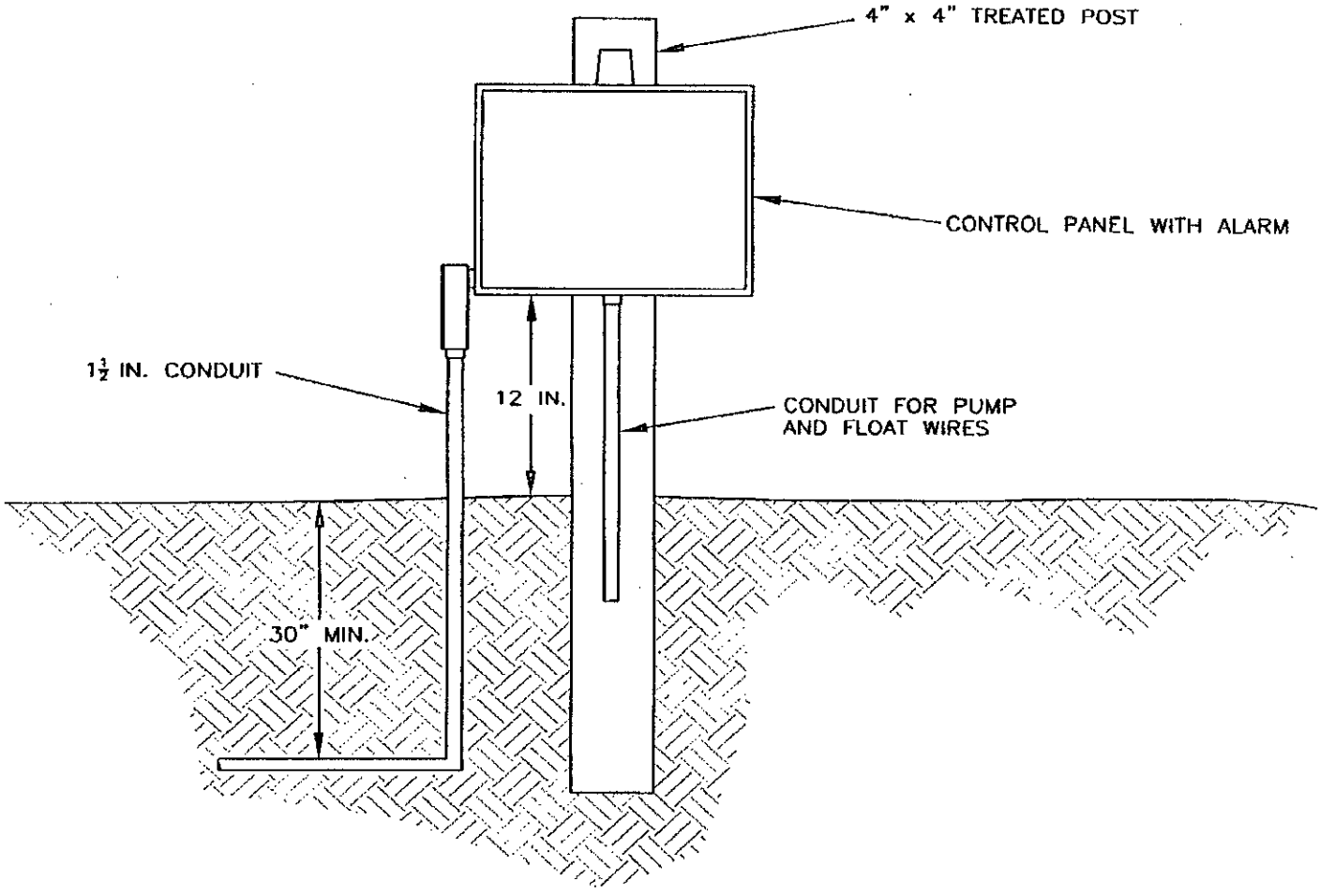
CONTROLS SJE-Rhombus SJ ELECTRO SYSTEMS, INC.
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E-mail: sjc@sjcrhombus.com

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Cat. Page PN 1009509A

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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.

(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.

CALCULATIONS

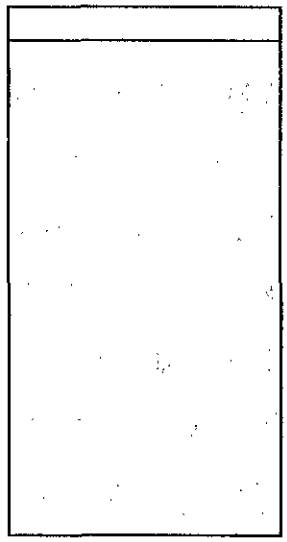
Location Fairington Oaks

Project Number 5-1553 S20

Lot No: 135

No. of Bedrooms	4	
Design Flow	480.00	$^{gal}/_{day}$
LTAR	0.285	$^{gal}/_{ft^2\ day}$
EZ-Lay? (YES OR NO)	No	
Supply Line Length	9	ft.
Supply Line Volume	1.566	gal.
Required Feet of Line	280	ft.
Amount of Line from Layout	280	ft.
Gallons per Minute	26.24	$^{gal}/_{min}$
Required Septic Tank Capacity	1500	gal.
Minimum Standard Tank Size	1500 gal.	
Lateral Line Volume	21.84	gal.
Dosing Volume	230.40	gal.

Note: Dosing Volume based on 3.6 gal/panel



Tank Draw Down	7.9	*Generic Draw Down of 29 gal.per in.*
Pump Run Time	8.78	minutes
Elevation Head	1.3	ft.
Pressure Head	2	ft.
Friction Factor	1.34	ft./100 ft.
Friction Head	0.12	ft.
Laterial Friction	2.4	
Total Dynamic Head (+15%)	6.69	ft.

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

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

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: McCar Homes APPLICATION DATE 12-3-07
ADDRESS: Fairington Oaks Lot 135 DATE EVALUATED: 11/27/07
PROPOSED FACILITY: 4 BR PROPOSED DESIGN FLOW (.1949): 480gpd PROPERTY SIZE: .815
LOCATION OF SITE: Mint Hill, NC Fairington Oaks lot 135 PROPERTY RECORDED: _____
WATER SUPPLY: Private ω Public Well Spring Other _____
EVALUATION METHOD: ΞAuger Boring Pit Cut TYPE OF WASTEWATER: ΞSewage Industrial Process Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L 2-5%	0-10	WFSBK / SCL	SS SP FR / SEXP	>48	>48	NA	PS	.325
		10-48+	MMSBK / C	SS SP FI / SEXP					
2	L 2-5%	0-7	WFSBK / SCL	NS NP FR / NEXP	>46	>46	NA	PS	.325
		7-46+	MMSBK / C	SS SP FI / SEXP					
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	280	349
System Type(s)	PPBPS	PPBPS
Site LTAR	.325	.325

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Bailey, Fulton
OTHER(S) PRESENT: _____

COMMENTS: _____

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 #: **30003045** GWS File #: **7519B** Tax Parcel #: **195-211-08**

- 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):** 12/28/2012

Type of Installation: Residential - New System Lot Number: 135

Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 4 # Occupants: 3

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):	0.285	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	843	Total Trench Length (ft):	281
Maximum Trench Depth (in):	36	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

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

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):	36	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: Jeremy Michael

Signature: Jeremy Michael

Date Issued: 12/28/2007

Owner/Legal Agent: Wendi Utegaard

Print Name

Signature: Wendi Utegaard

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 #: **30003045** GWS File #: **7519B**

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.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.
- All water lines must be at least 10ft off any part of 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:

- 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

Signature: Jeremy Michael

Date Issued: 12/28/2007

Owner/Legal Agent: Wendi Updegraff
Print Name

Signature: Wendi Updegraff

FEE: 300.00
DATE: 8/12/2008

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 7519B

PERMIT NUMBER: 30003045

PARCEL NUMBER: 19521314

JOB LOCATION INFORMATION

ADDRESS: 13319 FAIRINGTON OAKS DR

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28227

ISSUED TO: MCCAR HOMES

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 8/12/2008

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30003045, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION APPROVAL MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

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

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.
   *CONSTRUCTION AUTHORIZATION EXPIRATION DATE: 12/28/2012

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

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

File #: 7519B Permit #: _____ Tax Parcel #: 195-213-14

Property Owner: Mccar Homes

Job Location Address: 13319 Fairington Oaks Dr Lot #135

City: Charlotte State: NC Zip Code: 28227

Installation Approval Issuance Date: 08-07-2008

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 09-07-2008, 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: .285 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: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 281 feet

# of Lines: 4 @ 70 feet

Depth of Media: 11A inches (Type) PANEL GATEVALVE

Distribution Device: Gate Valve

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 according to consultants design and specifications.

Comments: System Classification & Type: IVa

DENR Authorized Agent: Jeremy Michael Signature: Jeremy Michael

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 #: 7619B Permit #: 3045 Tax Parcel #: 195-213-14

Property Owner: Mccar Homes

Job Location Address: 13319 Fairington Oaks Dr Lot # 135

City: Charlotte State: NC Zip Code: 28227

Operation Permit Issuance Date: 7-29-2009 Contractor Name: RCS

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1000 gallons

Effluent Pump Model: _____

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 281 feet

# of Lines: 4 @ 70 feet

Depth of Media: 18 inches (Type) EJ PANEL

Depth of Cover: 18 inches

Distribution Device: GATE VALVE BOX

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

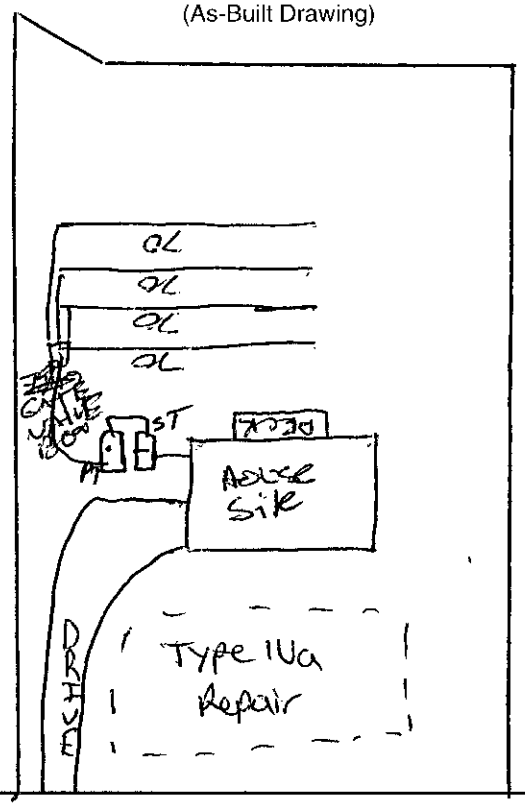
Inspection Dates

Tank(s) Inspected: 08-12-08

Excavation Inspected: 08-12-08

Pump & Controls Inspected: 8-25-08

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: PPBPS, P, LP, N/A I VA

DENR Authorized Agent: Jeremy Michael Signature: Jeremy Michael

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 #: 7519B Permit #: 3095 Tax Parcel #: 195-213-14

Property Owner: McCar Homes

Job Location Address: 13319 Fairington Oaks Dr. Lot #135

City: CHARLOTTE State: NC Zip Code: 28227

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: IVa

*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 Michael Date: 8-25-08

Signature: Jeremy Michael

7519B 13319 Fairington Oaks
195-213-14

Mecklenburg Co. copy

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

THIS AGREEMENT is made and entered into this ____ day of _____, 2008 by and between McCarthomes (hereinafter the "Owner") and R.C.S., Inc. , Joe R. Hudson (hereinafter the "Contractor").

WITNESSETH

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

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

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

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

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

1. The Contractor's Obligations. The Contractor shall perform the following services on the Owner's system located at Lot 135 Fairington Oaks

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

a. The Contractor shall inspect the system at least at the frequency required in Table V(b) of 15A N.C. Admin. Code 18A.1961(b) for a Type lpp system.

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

(1) (from the operation permit)
(2)
(3)

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

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

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

f. The Contractor shall employ of shall contract with a certified operator(s) if required by Table V(b) of 15A N.C. Admin. Code 18A.1961(b) for a Type lpp System.

g. The Contractor shall respond to a request for a nonscheduled service or maintenance call within 24-48 hours after receipt of such request depending on the urgency of the request.

2. The Owner's Obligations.

a. The Owner shall pay to the Contractor the sum of $ 200.00 per year for periodic inspections, routine maintenance procedures and periodic reports. The annual fee may be amended upon sixty(60) days advance notice to the Owner but may not be increased more than 20 percent per year. The Owner shall pay to the Contractor his normal and customary fees for any work performed on the system as a result of nonscheduled service or maintenance calls. All fees are due and payable within thirty (30) days shall accrue interest

from the due date until paid at a rate of 15 percent per month.

b. Within 10 days of receipt of notice of needed repairs pursuant to paragraph 1.e. above, the Owner shall request the Contractor to complete needed repairs or shall provide to the Contractor evidence that the needed repairs were satisfactorily completed by another entity.

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

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

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

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

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

d. Termination by the Contractor.

(1.) The Contractor may terminate this Agreement for cause by giving written notice of intent to terminate this Agreement to the Owner and to the local health department thirty (30) days is advance of the date of termination. Cause shall be defined as:

(a) failure to remit payment for any bill for services performed under and in accordance with this Agreement if said bill is not is not paid within thirty (30) days of receipt by the Owner of the bill. If said bill is paid after notice of termination is given but prior to the date of termination of this Agreement, this Agreement shall continue in

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

effect:

or

(b) failure of the Owner to provide to the Contractor authorization to complete needed repairs or satisfactory evidence that needed repairs to the system were completed by another entity within 10 days of receipt of notice of needed repairs pursuant to paragraph l.e. above. If said authorization to complete needed repairs or evidence of completion of said repairs is provided after notice of termination is given but prior to the date of termination of this Agreement, this Agreement shall continue in effect;

(c) failure of the Owner to allow the Contractor such access to the system as is reasonably necessary in order for the Contractor to comply with the terms of this Agreement.

(2) The Contractor may not terminate this Agreement without cause, but may assign its rights and duties under this Agreement as provided in paragraph 4, below.

4. Assignment.

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

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

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

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

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

Agreement.

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

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

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

To the Owner: McCar Homes
Prosperity Place Three
10150 Mallard Creek Rd, Suite 106
Charlotte, NC 28262

To the Contractor:
R.C.S., Inc.
Joe R. Hudson
PO Box 708
Monroe, NC 28111

To the Local Health Department:
Mecklenburg County Groundwater & Wastewater
700 N. Tryon Street, Suite 211
Charlotte, NC 28202

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

10. Place of Agreement. This Agreement and any questions concerning its validity, construction or performance shall be governed by the laws of the State of

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

North Carolina, notwithstanding the place of execution, or the order in which the signatures of the Parties are affixed.

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

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

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

_____
(Owner)

Attest:

_____

_____
(Contractor)

Attest:

7519B

STANLEY ENVIRONMENTAL SOLUTIONS, INC.

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

INSPECTION AND MAINTENANCE AGREEMENT (rev.11/01)

THIS AGREEMENT is made and entered into this **29th** day of July 2009 by and between **Johnathan Snell** ("Owner") and **Stanley Environmental Solutions, Inc** (hereinafter the "Contractor").

WITNESSETH

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

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

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

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

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

1. **The Contractor's Obligations.** The Contractor shall perform the following services on the Owners system located at: **13319 Fairington Oaks Drive, Mint Hill, NC 28227.**

a. The Contractor shall inspect the system at least at the frequency required in Table V (b) of 15A N.C. Admin. Code 18A.1961(b) for a **Type IV** System.

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

(1) 2 inspections per year; one visual and one to set head pressure maintenance
(2) n/a
(3) n/a

c. The Contractor shall report the results of its inspections to the local health department at the frequency **IV** System.

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

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

f. The Contractor shall employ or shall contract with a certified operator(s) if required by Table V (b) of 15A N.C. Admin. Code 18A.1961(b) for a **Type IV** System.

g. The Contractor shall respond to a request for a nonscheduled service or maintenance call within **24 hours** after receipt of such request.

2. **The Owners Obligations.**

a. The Owner shall pay to the Contractor the sum agreed upon ($250), per year for periodic inspections, routine maintenance procedures and periodic reports. The annual fee may be amended upon **sixty (60) days** advance notice to the Owner. The Owner shall pay to the Contractor his normal and customary fees for any work performed on the system as a result of nonscheduled service or maintenance calls. All fees are due and payable within **15 days** of billing. Payment due to the Contractor and unpaid by the Owner after 15 **days** shall accrue 1.5% interest from the due date until paid.

b. Within **seven (7) days** of receipt of notice of needed repairs pursuant to paragraph 1e. above, the Owner shall request the Contractor to complete needed repairs or shall provide to the Contractor evidence that the needed repairs were satisfactorily completed by another entity.

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

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

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

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

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

d. Termination by the Contractor

(1) The Contractor may terminate this Agreement for the cause by giving written notice of intent to terminate this Agreement to the Owner and to the local health department **thirty (30) days** in advance of the date of termination. Cause shall be defined as:

(a) Failure to remit payment for any bill for services performed under and in accordance with this Agreement if said is not paid within **15 days** of receipt by the Owner of the bill. If said bill is paid after notice of termination is given but prior to the date of termination of this Agreement, this Agreement shall continue in effect; or

(b) Failure of the Owner to provide to the Contractor authorization to complete needed repairs or satisfactory evidence that the needed repairs to the system were completed by another entity within **seven (7) days** of receipt of notice of needed repairs pursuant to paragraph i.c. above. If said authorization to complete needed repairs or evidence of completion of said repairs is provided after notice of termination of this Agreement, this Agreement shall continue in effect;

(c) Failure of the Owner to allow the Contractor such access to the system as is reasonably necessary in order for the Contractor to comply with the terms of this Agreement.

(2) The Contractor may not terminate this Agreement without cause, but may assign its rights and duties under this Agreement as provided in paragraph 4, below

4. <u>Assignment</u>.

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

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

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

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

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

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

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

		To the Owner:
To the Contractor:	**Stanley Environmental Solutions**	**Johnathan Snell**
	PO Box 184	**13319 Fairington Oaks Drive**
	Stanley, NC 28164	**Mint Hill, NC 28227**

To the Local Health Department Mecklenburg County Environmental Health.

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

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

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

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

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

(Owner)

Attest:

Stanley Environmental Solutions, Inc
(Contractor)

Attest:

(hr:mecontract.gm)

ped 7/29/09 By c/c mc

STANLEY SEPTIC TANK SERVICE

P.O. BOX 184 - STANLEY, NC 28164 - 704-263-8186 - Charlotte - 704-596-3353 - Lincolnton - 704-732-3422
Toll Free 1-877-263-8186 – email address jim@stanleyseptic.com

No representation, warranties or opinions are hereby given, written or expressed otherwise, as to the future performance of onsite wastewater system described herein. This onsite wastewater system inspection is a presentation of system facts in place on date of inspection.

Address of Property 13319 Errington Oaks Dr
Street
Charlotte N.C. 28227
City St Zip

Current owner of Record

Inspection requested by: ☐ Owner of record
☑ Other Name Jonathan Snell
Company
Phone

Date of Inspection: 5-6-09

☐ Copy of Operations permit from Mecklenburg County Environmental Health Attached

☐ Operations permit not available
Type of water supply ☑ community
Location of Septic Tank and septic tank details:

5 ft from house or structure
N/A ft from well if applicable
10 ft from water line if applicable
10 ft from property line
1 ft approximate distance from surface to top of tank
access riser (s) ☐ yes ☒ no describe: 20"x20" lids
tank lids intact ☑ yes ☐ no
tank has baffle wall ☑ yes ☐ no
yes inflow to tank is noted as sufficient
no inflow to tank is noted as insufficient or blocked
outlet has filter ☑ yes ☐ no
outlet T is present ☒ yes ☐ no
effluent leaves the outlet ☒ yes ☐ no
roots present in tank ☐ yes ☒ no
evidence of infiltration into tank of surface water ☐ yes ☑ no
no evidence of tank leakage noted
unable to locate tank. System inspection cannot be completed until tank is located
Date tank was last pumped new house ☐ unknown
Client name Date
Billing address

Does system have pump tank? ☑ Yes (complete blanks below) ☐ no

20 ft from house or structure
N/A ft from well if applicable
20 ft from water line if applicable
20 ft from property line
0 approx. distance from surface to top of tank
access risers in place ☑ yes ☐ no
1 ft from septic tank
location of control panel: on top of tank 4x4 post
yes electrical connections are in place and properly grounded
yes alarm working
yes pump working
dosing volume correct ☑ yes ☐ no
unable to operate pump due to lack of electricity at site at time of inspection

System requires a subsurface operator ☐ yes ☑ no
If yes, Operator Name _____ Phone _____
Copy of most recent operator report attached

Drainfield: Located
15 ft from property line
15 ft from septic/pump tank
4 # of lines located
70' length of lines

Type of system: ☑ conventional ☐ accepted ☐ innovative ☐ experimental ☐ control demonstrate

☐ Pretreatment; type of pretreatment _____

Brief description of system type 1500 gallon tank into pump tank

NO Evidence of past or current surfacing at time of inspection

Briefly describe: _____

No large trees or other vegetation noted over drainfield area

NO evidence of traffic over drainfield
briefly describe: _____

Other pertinent facts noted during inspection: _____

Inspector name: Jim Lanier Certification # 10041
Address 131 Mariposa Rd, Stanley, NC
Phone 704 263 8186
Inspector Signature: _____ Date 5-6-09

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

2004 NS OK 7-29-04

GWS File #: 7519B WASPS App #: 3045

Primary ES assigned to project: YJ

Secondary ES assigned to project:

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

LT 1 ☑ Copy to Tracy 7/31/09

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?	Yes ☑	No ☐	N/A ☐
.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 .3	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b) 130A-336 (a)(3)	Proposed System Type stated-Repair System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b) .1937 (f)(g)	Repair area shown 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 ☐

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: 07 08

OP issued date: 08 25 08

Review performed by: IR

Date performed: 1-3-08

UTS 2-3104

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	07/27/09	**Amount:**	100.00
Receipt #:	63637	**Tendered:**	100.00
Check / Auth #:	CHECK 5726	**Returned:**	0.00
Received By:	CRAIGGY		

Account Information

Account #: 200000
Contractor: SNELL JONATHAN
Attn:
Address: 9922 ARLINGTON OAKS DRIVE
Address:
City/State/Zip: CHARLOTTE, NC 28227

Item	Description	Permit#	Quantity	Unit Price	Total Price
0705	MH Exc/Add/Repl w/o System Mod 13319 FAIRINGTON OAKS DR		1	100.00	100.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
400.00					