

Harnett County Environmental Health

EXISTING SYSTEM APPROVAL

 Existing System Approval

 Site modification (e.g., storage shed) or footprint addition with no DDF or wastewater strength increase

 Reconnection when the proposed facility is in the same footprint as existing/previous facility

 Construction Authorization/Notice of Intent to Construct

[issued for reconnection when the proposed facility is not in the same footprint as existing/previous facility pursuant to Session Law 2023-77, Section 5.(c)]

[certified inspectors are not authorized to approve reconnections outside of footprint pursuant to Session Law 2023-77, Section 5.(c)]

Applicant: Anisa PooleMailing Address: 657 West RdCity: CameronState: NC Zip: 28326Phone #: 910-987-9850

Email: _____

Owner: Steve McNiellMailing Address: 2297 NC Hwy 24City: CameronState: NC Zip: 28326Phone #: 919-770-2630

Email: _____

PIN/Lot Identifier: 9575-83-8136Property Location/Address: 2277 NC 24WFacility Type: House/Modular Mobile/Manufactured Home Business Other: _____Operation Permit/ATO #: BCOM2507-0011 Design Daily Flow: 1320 GPDNumber of Bedrooms: _____ Max # Occupants: 110 Other: _____Wastewater Strength: Domestic High Strength Industrial Process WastewaterWater Supply: Private well Public well Shared well Municipal Supply Spring Other: _____

Proposed Property Improvement: _____

All the following must be checked for approval:

- No current or past uncorrected malfunction of the system as described in 15A NCAC 18E .1303(a)(2)
- DDF and wastewater strength for the proposed facility or site modification do not exceed that of the existing system
- Proposed facility or site modification meets the setbacks in Section .0600 of 15A NCAC 18E

Approval Conditions: _____

Inspector's Printed Name: Mark Osborne REHSInspector Certification #: 2613Inspector's Signature: Date: 5-7-26

The existing system approval expires one year after the date of issuance.

****See attached site sketch****

**EXISTING SYSTEM APPROVAL
SITE SKETCH**

Operation Permit/ATO #: BCOM2507-0011

PIN/Lot Identifier: 9575-83-8136

Owner: Steve McNiell

Property Location/Address: 2277 NC 24W

*Existing Septic System Designed by CSS
→ See Attached Paperwork for Design Specification*

**Include the existing and proposed structures and applicable setbacks.*

HTE# 16-53015
PERMIT # 29009

Harnett County Department of Public Health

24455

Operation Permit

New Installation Septic Tank Nitrification Line Repair Expansion

PROPERTY LOCATION: 2297 NC224W

Name: (owner) SOLID ROCK UNITED METH. SUBDIVISION _____ LOT # _____

System Installer: LARRY SHARPE Registration # _____

Basement with plumbing: Garage Number of Bedrooms 199 PERSON DAYCARE TOTAL

Type of Water Supply: Community Public Well Distance from well 100 feet

System Type: IID Types V and VI Systems expire in 5 years.

(In accordance with Table V a)

Owner must contact Health Department 6 months prior to expiration for permit renewal.

This system has been installed in compliance with applicable North Carolina General Statutes, Rules for Sewage Treatment and Disposal, and all conditions of the Improvement Permit and Construction Authorization.

*SYSTEM INSTALLED PER SPECIFICATIONS

*SEE HOTO FILE FOR ALL DETAILS

PERMIT CONDITIONS:

- I. Performance: System shall perform in accordance with Rule .1961.
- II. Monitoring: As required by Rule .1961.
- III. Maintenance: As required by Rule .1961. Other: _____
Subsurface system operator required? Yes No
If yes, see attached sheet for additional operation conditions, maintenance and reporting.
- IV. Operation: _____
- V. Other: _____

D-Box Pump Alarm H2O Line PWR Line

Following are the specifications for the sewage disposal system on the above captioned property.

Type of system: Conventional Other _____ Septic Tank: _____ gallons Pump Tank: _____ gallons

Subsurface Drainage Field: No. of ditches _____ exact length of each ditch _____ feet width of ditches _____ feet depth of ditches _____ inches

French Drain Required: _____ Linear feet

Authorized State Agent _____

REHNS

Date 2/28/17

HTE# 16-5-38815

Harnett County Department of Public Health

29009

Improvement Permit

A building permit cannot be issued with only an Improvement Permit

PROPERTY LOCATION: 2297 NC24W

ISSUED TO: SOLID ROCK UNITED METHODIST SUBDIVISION LOT #

NEW [X] REPAIR [] EXPANSION []

Site Improvements required prior to Construction Authorization Issuance:

Type of Structure: DAYCARE

Proposed Wastewater System Type: PUMP & 25% RECOVERY SYSTEM

Projected Daily Flow: 2985 GPD

Number of bedrooms: Number of Occupants: 199 max TOTAL

Basement [] Yes [X] No

Pump Required: [X] Yes [] No [] May be required based on final location and elevations of facilities

Type of Water Supply: [] Community [X] Public [] Well Distance from well 100 feet

Permit valid for: [X] Five years [] No expiration

Permit conditions:

Authorized State Agent: [Signature]

Date: 8/30/16

SEE ATTACHED SITE SKETCH

The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit.

Construction Authorization

(Required for Building Permit)

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by references into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

ISSUED TO: SOLID ROCK UNITED METHODIST PROPERTY LOCATION: 2297 NC24W

SUBDIVISION LOT #

Facility Type: DAYCARE [X] New [] Expansion [] Repair

Basement? [] Yes [] No Basement Fixtures? [] Yes [] No

Type of Wastewater System** PRESSURE MANIFOLD TO 25% REC. SYS. (Initial) Wastewater Flow: 2985 GPD

(See note below, if applicable [])

(Repair)

Installation Requirements/Conditions

Septic Tank Size _____ gallons

Pump Tank Size _____ gallons

Number of trenches _____

Exact length of each trench _____ feet

Trenches shall be installed on contour at a

Maximum Trench Depth of: _____ inches

(Trench bottoms shall be level to +/- 1/4"

in all directions)

Trench Spacing: _____ Feet on Center

Soil Cover: _____ inches

(Maximum soil cover shall not exceed

36" above the trench bottom)

Pump Requirements: _____ ft. TDH vs. _____ GPM _____ inches below pipe

Aggregate Depth: _____ inches above pipe

Conditions: SEE PROPOSAL FOR ALL SYSTEM SPECIFICATIONS _____ inches total

WATER LINES (INCLUDING IRRIGATION) MUST BE 10FT. FROM ANY PART OF SEPTIC SYSTEM OR REPAIR AREA. NO UTILITIES ALLOWED IN INITIAL OR REPAIR DRAIN FIELD AREA.

**If applicable: I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Signature: _____ Date: _____

This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be transferred when there is a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. SEE ATTACHED SITE SKETCH

Authorized State Agent: [Signature] Date: 8/30/16

Construction Authorization Expiration Date: 8/30/21

HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

P.O. Box 400, Lillington NC 27546-0400
Phone (910) 893-8743 / Fax (910) 893-3594
www.halowensoil.com

15 July 2016

Mr. Thomas Simpson
Solid Foundations, Inc.
PO Box 100
Olivia, NC 28368Reference: Comprehensive Soil Investigation and Septic System Design
Recombination for Solid Rock UMC Lots 1-3
PIN 9575-83-8180, 9575-83-8359, 9575-93-0307

Dear Mr. Simpson,

Site investigations were conducted in June and July 2016 for the above referenced properties, which are located on the northern side of NC 24 in Harnett County, North Carolina. The purpose of the investigation was to determine the ability of each lot to support a subsurface sewage waste disposal system and repair area. All soil ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900". It is our understanding that individual septic systems and public water supplies will be utilized at this site. Wetlands are not present on these properties.

It is our understanding that a daycare facility generating up to 2985 gallons of effluent per day is proposed on Parcel A. Our interpretation of the generated flow includes 170 children and 29 teachers and other staff. The rules require 15 gallons per person and the ratios can be different but the total flow cannot exceed 2985 gallons or 199 total people. Parcel B will continue to support the existing church and outbuildings.

Both properties were investigated and found to be underlain by soils rated as provisionally suitable for subsurface sewage waste disposal (see attached map). These provisionally suitable soils were observed to have loamy sand surfaces to about 30 inches below surface, underlain by friable sandy clay loams to greater than 42 inches. Soil wetness conditions were observed as high as 39 inches below surface in some auger borings. These soils appear adequate to support long term acceptance rates of 0.6 gal/day/sqft. This property appears adequate to support an initial septic system and repair area for up to 2985 gallons of effluent per day.

The initial septic system is proposed as twelve accepted status (EZ Flow or chamber) drainlines with half the lines 90 feet long and the other half being 120 feet long (see attached sketch) utilizing a long term application rate of 0.6 gal/day/ft². The drainlines should be installed off contour with trench depths starting at 21 inches below surface and varying between 18 and 27 inches below surface. Stepdowns should not be necessary. A pump is required to deliver the effluent to the initial drainfield, and pressure-manifold distribution is required.

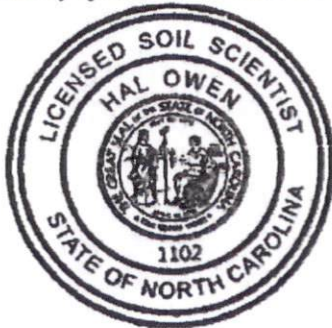
HAL OWEN & ASSOCIATES, INC.

The repair septic system is proposed as eleven accepted status (EZ Flow or chamber) drainlines with one line 100 feet long and the other ten lines 115 feet long, utilizing a long term application rate of 0.6 gal/day/ft². The drainlines should be installed off contour with trench depths starting at 23 inches below surface and varying between 18 and 27 inches below surface. Stepdowns should not be required. A pump is required to deliver the effluent to the repair drainfield, and pressure-manifold distribution is required.

Potential septic system drainlines have been demonstrated with various colored pin flags. It is important that you do not disturb the septic system area. It is recommended that a staked line or protective fence be placed around the system prior to construction to eliminate any potential damage to the soil or the layout of the system.

Parcel B contains existing buildings and two existing septic systems that appeared to be functioning properly on the day of the investigation. These existing septic systems appeared to be located within any setback requirements for this property. A soil investigation was conducted and it appears that an adequate amount of provisionally suitable soil exists on this lot to 100 % repair both systems if they should fail.

This report and the attached septic system design information has been submitted to the Harnett County Health Department for review and the permitting process. I appreciate the opportunity to provide this service and hope to be allowed to assist you again in the future. If you have any questions or need additional information, please contact me at your convenience.



Sincerely,

A handwritten signature in black ink that reads "Hal Owen".

Hal Owen
Licensed Soil Scientist

JAMES E. COOK
D.B. 1367, PG. 789
TRACT 4
PLAT # 99-268



WE ORIGINAL SIGNATURE, REGISTRATION NUMBER
THIS 20th DAY OF JUNE A.D. 2016
MELVIN A. GRAHAM, PLS. REGISTRATION NUMBER

NOTE: THIS SURVEY IS OF ANOTHER CATEGORY, IS THE RECOMBINATION OF EXISTING PARCELS, COURT-ORDERED SURVEY, OR OTHER EXCEPT THE DEFINITION OF SUBDIVISION.

SURVEYOR

STATE OF NORTH CAROLINA
COUNTY OF HARNETT
I, REVIEW OFFICER OF THE HARNETT COUNTY RECORDS DEPARTMENT, HEREBY CERTIFY THAT THE MAP OR PLAT TO WHICH THIS IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.
DATE REVIEW OFFICER

NOTES:
PROPERTY CONSIST OF ALL OF THE SOLID PROPERTY AS RECORDED IN D.B. 1967, 1 & 3 PLAT # 2000-363) HARNETT COUNTY
THIS SURVEY IS TO RECOMBINE 3 LOTS 1 ALL AREAS BY COORDINATE METHOD
COUNTY WATER & PRIVATE SEPTIC SYSTEM
PROPERTY ZONED RA-20M
PROPERTY NOT IN A WATERSHED
TOTAL AREA = 4.24 AC.

LOT 1 PID # 099575 0185 09 PIN # 9575-83-8180.000 REID # 0009723	LOT 2 PID # 09957602 0185 13 PIN # 9575-83-8359.000 REID # 0051065	LOT 3 PID # PIN # REID #
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TOWNSHIP COUNTY
JOHNSONVILLE HARNETT
RECOMBINATION SURVEY FOR
(OWNER)
SOLID FOUNDATIONS INC
P.O. BOX 100

5/8

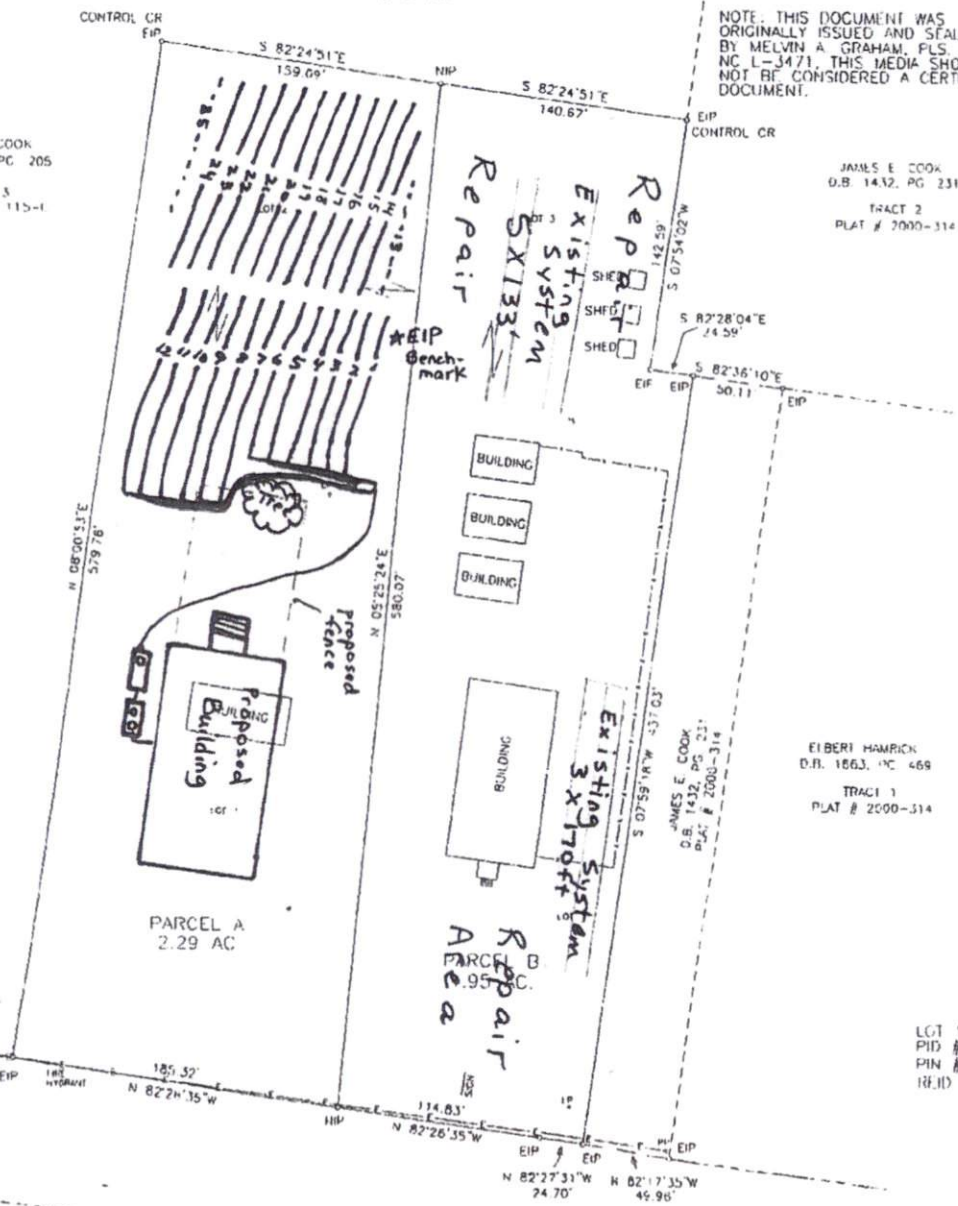
Hal Owen & Associates, Inc.
PO Box 400 Lillington NC 27546
910-893-8743 halowensoil.com

DEFINITION AND JURISDICTION
I, THE SURVEYOR (WE ARE THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON) HEREBY ADOPT THIS PLAN OF SUBDIVISION AND HEREBY ESTABLISH THE MINIMUM REQUIREMENTS AND DEDICATE ALL STREETS, ALLEYS, LOTS AND EASEMENTS TO PUBLIC OR PRIVATE USE AND ALL OF THE LAND SHOWN HEREON TO BE UNDER THE REGULATION JURISDICTION OF THE HARNETT COUNTY RECORDS DEPARTMENT.

TAX PARCEL ID NUMBER
OWNER
OWNER

JAMES E. COOK
D.B. 1203, PG. 205
TRACT 3
P.C. L. S. 115-C

EIBERT HARRICK
D.B. 1863, PG. 469
TRACT 1
PLAT # 2000-314



ORIGINAL 60' R/W
80' R/W BY P.C. F. SL. 394-D

NC 24 80' R/W (PAVED ROAD)

ORIGINAL 60' R/W
80' R/W BY P.C. F. SL. 394-D

7-15-2015

Solid Rock United Methodist

Onsite Wastewater Design Specifications

Design Flow = 2985

Initial System

Pressure Manifold to 1260ft (X 3ft) of Accepted status drainlines (25% reduction)

Installed **off** contour at 18 to 27 inches (start lines at 21")

LTAR 0.6 gal/day/sqft

Lines flagged at site on 9-ft centers.				Relative Elevation (ft)				
Line #	Color	Drainline Length(ft)	Measured Field Line Length (ft)	start	middle	middle	middle	finish
1	B	90	90	100.25		100.34	99.93	100.00
2	Y	90	90	100.21		100.30	99.94	100.09
3	R	90	90	100.02		100.19	99.86	99.9
4	W	90	90	100.10		100.13	99.92	99.89
5	B	90	90	99.91		99.97	99.73	99.93
6	Y	90	90	99.69		100.01	99.64	99.69
7	R	120	120	99.44	99.44	99.85	99.18	99.63
8	W	120	120	99.27	99.30	99.76	99.29	99.51
9	B	120	120	99.20	99.31	99.58	99.19	99.39
10	Y	120	120	99.00	98.94	99.50	99.12	99.21
11	R	120	120	98.74	98.82	99.24	98.94	99.12
12	W	120	120	98.72	98.79	99.24	98.71	99.05
Pump Tank:				98.39				
Total:		1260	1260	BM=100	<i>Benchmark is at EIP of old lot corner</i>			

Repair System

Pressure Manifold to 1250ft (X 3ft) of Accepted status drainlines (25% reduction)

Installed **off** contour at 18 to 27 inches (start lines at 23")

LTAR 0.5 gal/day/sqft

Lines flagged at site on 9-ft centers.				Relative Elevation (ft)		
Line #	Color	Drainline Length(ft)	Measured Field Line Length (ft)	start	middle	finish
13	B		69	100.04		99.71
14	Y	100	101	100.06		99.66
15	R	115	118	100.00	99.68	99.71
16	W	115	118	99.95	99.59	99.51
17	B	115	118	99.89	99.59	98.97
18	Y	115	118	99.74	99.74	98.96
19	R	115	118	99.63	99.59	98.93
20	W	115	117	99.60	99.65	99.13
21	B	115	117	99.30	99.57	99.12
22	Y	115	117	99.23	99.47	99.08
23	R	115	117	99.25	99.51	98.98
24	W	115	117	99.13	99.41	
25	B		78	99.16		99.51
Pump Tank:				98.39		
Total:		1250	1423	BM=100	<i>Benchmark is at EIP of old lot corner</i>	

Hal Owen Associates, Inc.

PO Box 400, Lillington NC 27546

Ph (910) 893-8743 / Fax (910) 893-3594

7/15/2016

Solid Rock United Methodist

Pressure Manifold Design Criteria

Applicant: Solid Foundations Inc. Phone #: _____

Mailing Address: PO Box 100, Olivia NC 28368

Site Address: 2295 NC 24, Cameron NC PIN: 9575-83-8180

people: 199 @ 15gal/person Daily Flow: 2985 gallons

Septic Tank: 3364 gallons (min) Pump Tank: 2243 gallons (min)

LTAR: 0.6 gpd/sqft Effective (trench) LTAR: 0.80 gpd/sqft

Absorption Area: 3731 sqft Linear Length: 1244 ft

TRENCHES Length (ft): see tap chart Depth (in): 18-27 Stone Depth (in): na

SUPPLY LINE Length (ft): 220 Diameter: 3" sch 40 pvc

MANIFOLD Length (ft): 4.5 Diameter: 4" sch 80 pvc Elevation: 101.25

Taps 12 Tap Configuration: 6in. spacing, 2 sides of manifold

Tap Chart

LTAR + 5% = 0.80

Line	Color	Relative Elevation	Drainline Length(ft)	Tap Size/ Schedule	flow (gpm) per tap	gpd	Trench Area	LTAR gpd/sqft
1	B	100.25	90	3/4"sch 40	12.5	212.24	270	0.786
2	Y	100.21	90	3/4"sch 40	12.5	212.24	270	0.786
3	R	100.02	90	3/4"sch 40	12.5	212.24	270	0.786
4	W	100.10	90	3/4"sch 40	12.5	212.24	270	0.786
5	B	99.91	90	3/4"sch 40	12.5	212.24	270	0.786
6	Y	99.69	90	3/4"sch 40	12.5	212.24	270	0.786
7	R	99.44	120	1"sch 80	16.80	285.26	360	0.792
8	W	99.27	120	1"sch 80	16.80	285.26	360	0.792
9	B	99.2	120	1"sch 80	16.80	285.26	360	0.792
10	Y	99	120	1"sch 80	16.80	285.26	360	0.792
11	R	98.74	120	1"sch 80	16.80	285.26	360	0.792
12	W	98.72	120	1"sch 80	16.80	285.26	360	0.792

Total Drainline: 1260 Total Flow: 175.80 Sq. Foot: 3780

Calculations:

Dose Volume: 617.09 gallons, with Pipe Volume at % 75

Dose Pump Run Time (min): 3.51 Daily Pump Run Time (min): 16.98

Drawdown: 617 gallons divided by _____ gal/ inch = _____ inches

Pump Tank Elevation (ft): 98.39 Pump Elevation (ft): 93.39

Friction Head: 19.85 *Hazen Williams Formula (use supply line length+70' for fittings in pump tank)

Elevation Head: 7.86 Design Head: 2 Total Head: 29.71 feet

Pump to Deliver: 175.80 gpm @ 29.71 ft head

NEMA 4X Simplex Control Panel (SJE Rhombus 112 or equal) with elapsed time meter, cycle counter, audible and visible alarm, hand-off-automatic (hoa) switch, and pump on separate circuits is required.

A septic filter is required. Floats to be determined by type of pump tank used.

Possible Pumps Include: _____

Pressure Manifold Design Criteria

Repair Area

Line Number	Line Color	Elevation	Drainline Length(ft)	Tap Size/Schedule	Flow/tap (gpm)	gpd/ft	LTAR (gpd/sqft)
14	Y	100.06	100	3/4"sch 80	11.30	2.229	0.743
15	R	100	115	3/4"sch 40	14.00	2.402	0.801
16	W	99.95	115	3/4"sch 40	14.00	2.402	0.801
17	B	99.89	115	3/4"sch 40	14.00	2.402	0.801
18	Y	99.74	115	3/4"sch 40	14.00	2.402	0.801
19	R	99.63	115	3/4"sch 40	14.00	2.402	0.801
20	W	99.6	115	3/4"sch 40	14.00	2.402	0.801
21	B	99.3	115	3/4"sch 40	14.00	2.402	0.801
22	Y	99.23	115	3/4"sch 40	14.00	2.402	0.801
23	R	99.25	115	3/4"sch 40	14.00	2.402	0.801
24	W	99.13	115	3/4"sch 40	14.00	2.402	0.801

Total Drainline= 1250 Total Flow= 151.30

Pressure Head (ft)= 2.5 Target LTAR* (gpd/sf)= 0.80 LTAR + 5% 0.84
Daily Flow= 2985 Total Flow (gpm)= 151.30 Daily PRT(min)= 19.73
Dose Vol= 612.19 gallons w/ Pipe Vol @% 75 Dose PRT (min)= 4.05

