AOWE ATO INSTALLATION REPORT PACK-ONE PLLC Stephen Bristow 920 Garner Road Selma NC 27576 919-906-4737 Stevebristow57@gmail.com

November 21, 2024

RE: Briarwood Subdivision Lot 38 Installation Revision- Line Revision/ Pump Tank Added

22 Knoll Way, Sanford NC 27332

PIN: 9588-65-3039

Ownership:

Smith Douglas Builders Natascha Clark nclark@smithdouglas.com 760.485.4115

Septic System Installer: Ricky Noto A and R Residential 845-742-8576

Harnett County Health Department:

The septic drainfield was installed with a Infiltrator Quick 4 Connect System adding two endcaps to the lines. This resulted in an increased line length to 82' and 42' as seen in the attached "As Built" diagram. A pump tank was also installed and the pressure manifold detail is attached. I find these changes acceptable to meet the state requirements.

Please let me know if you have any questions,

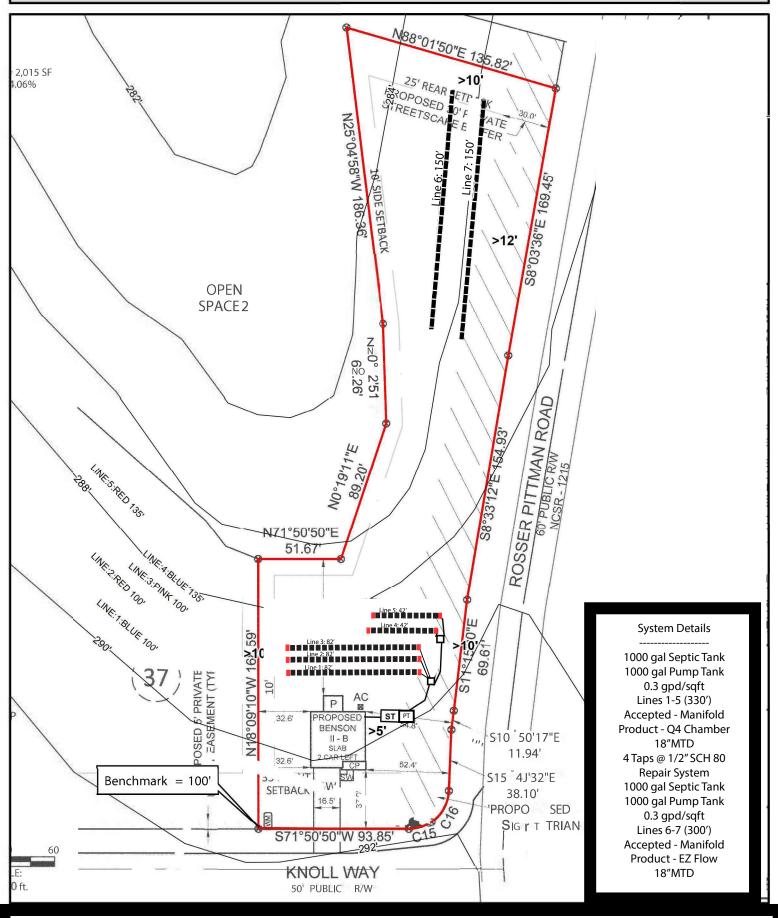
Alen Britan

Stephen W. Bristow, NCLSS # 1167, NC AOWE # 12, NC REHS #904

Attached:

"As Built" Diagram
Pressure Manifold Design
Hydraulic Line Detail

BRIARWOOD BLUFF LOT 38 "AS BUILT"



Legend:
Quick 4 Panels (4'each)
Multiport Endcaps
Repair Line

RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Briarwood Lot 38 Initial System

of BDR: <u>3</u> Daily Flow: <u>360</u> gal/day L.T.A.R.: <u>0.3000</u> gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 990 System Type: Accepted

Number of Taps: $\underline{4}$ Length of Trenches: $\underline{330}$ ft(See Tap Chart for Details)

Depth of Trenches: 18 in Manifold Length: 42 in

Manifold Diameter: 4in sch 80pvc Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: $\underline{50}$ ft Diameter: $\underline{2}$ in sch 40pvc

Friction Loss + Fitting Loss: $\underline{1.40}$ ft(supply line length + 70' for fittings in pump tank)

Design Head: $\underline{2}$ ft Elevation Head: $\underline{6}$ ft

Total Head: 9.40 ft Pump to Deliver: 21.92 gals/min at 9.40 ft head

Dosing Volume: <u>150</u> gals,

Drawdown: 150 gals divided by $\underline{20}$ gals/in = $\underline{7.5}$ inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

TAP CHART

Benchmark	5	is = 100.00	set at front right				Design Head:	2			
Pump tank elev.		6	99.00	Pump elev.	94.00		Manifold elev.	99.40			
	_									# of Panels	Spacing of
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)	Panels (in)
1	Red	6.60	98.40	82	1/2in SCH 80	5.48	90.00	246	0.3659		
2	Lime	6.80	98.20	82	1/2in SCH 80	5.48	90.00	246	0.3659		
3	Blue	7.00	98.00	82	1/2in SCH 80	5.48	90.00	246	0.3659		
4 and 5	lime/Red	7.20	97.80	84	1/2in SCH 80	5.48	90.00	252	0.3571		
			105.00			0	0.00	0	#DIV/0!		
			105.00			0	0.00	0	#DIV/0!		
			105.00			0	0.00	0	#DIV/0!		
			105.00			0	0.00	0	#DIV/0!		
			105.00			0	0.00	0	#DIV/0!		
			105.00			0	0.00	0	#DIV/0!		
			Total Feet =	330	gal/min =	21.92		LTAR =	0.3000		
			Feet Required =	300	Velocity =	2.10		(Itar + 5%)	0.3150		
Total # of Panels (PPBPS)			Des. Flow	360			(Itar w/25% red)	0.4000			
% of Dose Vol.		70		Pump Run=	16.42			(Itar + 5%)	0.4200		
Dose Volume		150		Tank Gal/IN	20						
Dose Pump Time		6.85		Elev. Head	6						
Drawdown in Inch	es	7.5									
Comments:											

