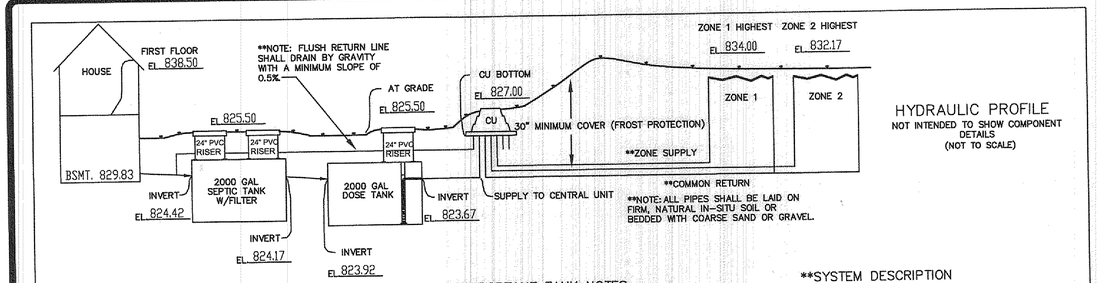
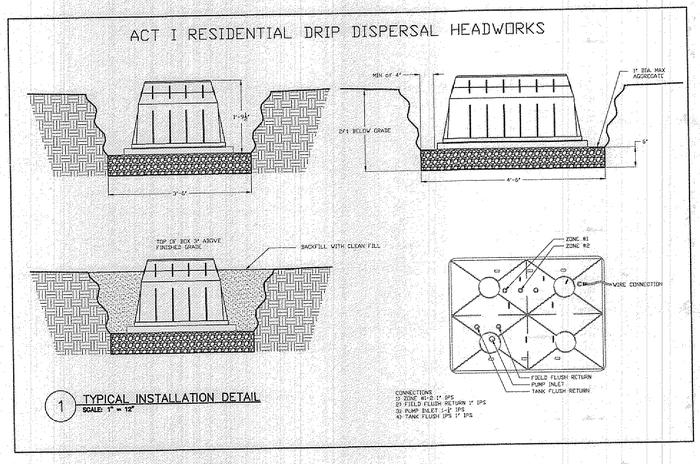


HYDRAULIC PROFILE
NOT INTENDED TO SHOW COMPONENT DETAILS
(NOT TO SCALE)

**IMPORTANT TANK NOTES

THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR PROVIDING WATERPROOF TANKS. BOTH THE SEPTIC TANK AND THE DOSING TANK SHALL BE FITTED WITH FLEXIBLE BOOTS ON THE INLETS AND OUTLETS. TANK OPENINGS ARE TO HAVE ADAPTER RINGS CAST IN THE TOP TO ACCEPT PVC RISERS. TANKS SHALL BE WATER TIGHT PER OHIO ADMINISTRATIVE CODE CHAPTER 3701-29 "SEWAGE TREATMENT SYSTEM RULES".

**SYSTEM DESCRIPTION



Client: Bob Ormston
Location: 10618 Anna Drive

Date: 6/3/2013

1. Soil Texture or Perc Time: _____
2. Soil Structure Shape: _____
   Soil Structure Grade: _____
3. Infiltration Loading Rate(ILR): 0.25 gal/day/ft^2
4. Slope: 5.0 %
5. Infiltration Depth: 24 in.
6. Hydraulic Linear Loading Rate: 2.7 gal/day/ft
7. Maximum Contour Length (MCL): 65 ft

8. Daily Flow
   3.00 No. of Bedrooms x 120.00 Flow / Bedroom = 360.00 GPD

9. Dosing Area
   360.00 Daily Flow / 0.25 ILR = 1440.00 sqft

10. Dosing A. Length
    360.00 Daily Flow / 2.70 HLLR = 133.33 ft

11. Dosing A. Width
    1440.00 Dosing Area / 133.33 Dosing A. Length = 10.80 ft

11a. Dosing Design Width & Length Adjustment
Design Width 12.00 ft Adjusted Dosing Length 120.00 ft

12. Required Dripper Line
    1440.00 Dosing Area / 12 Drip line Spacing = 1440.00 ft

13. Required Zones
    120.00 Dosing A. Length / 65.00 MCL+ = 1.85 Theoretical = 2 Design Zones

14. Zone Breakout Table

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.
Zone No.	Zone Dosing Area (sqft)	Linear Ft. of Tubing (ft)	Longest Lateral (ft)	Dosing Flow Rate (gpm)	Number of Distal Ends	Field Flush Rate (gpm)	Required Total Flow (RTF) (gpm)	Field Flushing Head (ft)	Force Main Supply Line			Return Flush Line			Static Lift (ft)	Total Field Head Loss (TFHL)
									Pipe Dia. (in)	Len. of Run (ft.)	Head Loss (ft)	Pipe Dia. (in)	Len. of Run (ft.)	Head Loss (ft)		
Zone 1	720.0	720.0	130.0	3.7	5.5	8.9	12.6	13.8	1.049	100	8.5	1.049	100	4.4	7	33.64
Zone 2	720.0	720.0	130.0	3.7	5.5	8.9	12.6	13.8	1.049	50	4.2	1.049	50	2.2	6	26.20
Zone 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0		0.00
Zone 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0		0.00
Zone 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0		0.00
Zone 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0		0.00

Note: (14c) Longest lateral may be looped one or more times and is a function of: (7) contour length, Bioline lateral length, #of distal ends, #of zones and (10) dosing area length.

15. Max Required Total Flow: 12.6 (Largest RTF Based on 14g.)

16. Max Total Field Head Loss: 33.6 (Largest TFHL Based on 14p.)

17. Headworks Head Loss: 18 ft

18. Miscellaneous Head Loss: 10 ft

19. Design Total Dynamic Head: 61.6 ft

20. Pump Data: MINIMUM Pump Specifications

STA-RITE S.T.E.P. Plus D Series 20DOM05121 Pump Model Selected
0.5 HP 1 Phase 115 Volts 12.6 GPM @ 115.0 FT.

Note: Selected pump must produce 115 ft @ 12gpm or 35 gpm for filter flush depending on filter model. (auto-flush units only)

21. Dosing Schedule

Peak Flow Adjustment 4.00 Minutes

Peak					Average			
Total Run Time:	96.8	Minutes			Total Run Time	68.1	Minutes	
Total Rest Time:	1343.2	Minutes			Total Rest Time	1371.9	Minutes	
Peak					Avg			
Zone 1	3.7 GPM	13.5	Min/Dose	50.2 Gal/Dose	Zone 1	3.7 GPM	9.5	Min/Dose 35.3 Gal/Dose 3.6 Cycles/Day
Zone 2	3.7 GPM	13.5	Min/Dose	50.2 Gal/Dose	Zone 2	3.7 GPM	9.5	Min/Dose 35.3 Gal/Dose 3.6 Cycles/Day
Zone 3	0.0 GPM		Min/Dose	0.0 Gal/Dose	Zone 3	0.0 GPM	0.0	Min/Dose 0.0 Gal/Dose 0.0 Cycles/Day
Zone 4	0.0 GPM		Min/Dose	0.0 Gal/Dose	Zone 4	0.0 GPM	0.0	Min/Dose 0.0 Gal/Dose 0.0 Cycles/Day
Zone 5	0.0 GPM		Min/Dose	0.0 Gal/Dose	Zone 5	0.0 GPM	0.0	Min/Dose 0.0 Gal/Dose 0.0 Cycles/Day
Zone 6	0.0 GPM		Min/Dose	0.0 Gal/Dose	Zone 6	0.0 GPM	0.0	Min/Dose 0.0 Gal/Dose 0.0 Cycles/Day

Portion of Peak Daily Flow 70%

Maximum Recommended Bioline Lateral Length 300

Notes:
Bioline 0.62 gph and 2 fps flush velocity
Peak Flow Cycle Adjustment should be between 2 and 4 minutes. Higher values could result in damage to the drain field.

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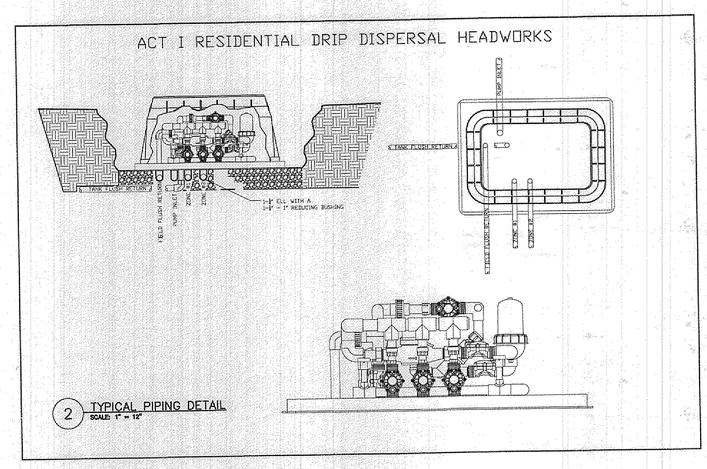

ACTIVE WASTEWATER SYSTEMS

DRIP SEPTIC SYSTEM CONSTRUCTION NOTES:

1. The Installation of equipment for this system shall be in accordance with the manufacturers instructions, specifications, and the permit issued for this site. Installation workmanship is to follow accepted installation practice and shall conform to state and county codes.
2. The contractor (installer) shall meet regulatory registration requirements. The installer shall have certification to verify completion of manufacturers training in the installation of this type of system.
3. The installation will not be made under wet weather conditions.
4. The installation site shall be protected to prevent traffic, material storage, or anything that may damage the original condition of the soil. Damage may be cause to revoke permit.
5. A pre-construction meeting with the responsible individuals shall be held at the site to be sure the site has been protected and to ensure the system installation as designed.
6. Site work will stop, and the designer notified if deviation from the approved design becomes necessary during construction. The contractor will be sole responsibility for any ongoing work.
7. Installer shall use equipment designed to apply low ground pressure on the installation site with as little travel on the site as possible.
8. Use only specified PVC schedule 40 type 1 pipe and fittings, (for pressure applications) and PVC flex pipe for all connections to dripper tube and end loops. Protect all open ends of pipe and tubing from the entry of debris. During construction all open ends of pipe and tubing shall be taped or capped until connected.
9. The cutting of all pipe and tubing shall be with approved pipe cutters only, NO USE OF HACK SAWS ALLOWED. Inspect open ends for debris before taping or capping.
10. Use only specified PVC pipe cleaner and glue on joints as specified by fitting manufacturer. Joints may separate if improper materials and procedures are used.
11. All supply, return, and manifold lines to be installed a minimum of 32" deep. Install the return line with elevation for drainage to the treatment tank.
12. Recommend burial of hydraulic unit enclosure in cold climates with lid 3" above grade. Insulation and heat options are available. When burial option is used a bed of gravel with an under drain may be required.
13. Flush the system when connections are completed. Remove the air release valve and install a flush tube to direct water away from the installation and flush zone. Repeat the procedure on each zone. Debris left in system could clog the emitters. Pressurize the system and check before back fill procedure.
14. The contractor shall install an isolation valve on each zone supply mainline. Valve shall be accessible via a valve box/riser and must be protected from freezing temperatures

12045

REVISIONS	BY

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SITE PLAN
10618 ANNA DR., KIRTLAND, OH 44094-8803
S/L 8 LAZIO'S RIDGE SUBDIVISION VOL. 44 PG. 31

DETAILS

DRAWN WSO
CHECKED DWN
DATE JUNE 3, 2013
SCALE 1" = 20'
JOB NO. 12045
SHEET 3/3
OF SHEETS

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