

### PROJECT DESCRIPTION

AN ONSITE WASTEWATER SYSTEM SPECIFYING ENHANCED TREATMENT USING ALTERNATIVE TECHNOLOGY IS PROPOSED TO SERVE NEW DEVELOPMENT OF UP TO A SIX BEDROOM DWELLING TO BE CONSTRUCTED AT 17085 MONTEBELLO ROAD, CUPERTINO, SANTA CLARA COUNTY, CALIFORNIA. AN "ALTERNATIVE" SYSTEM WITH SHALLOW, SUBSURFACE DRIP DISPERSAL IS SPECIFIED TO PROVIDE SUPPLEMENTAL TREATMENT OF THE WASTEWATER DISCHARGED ON THE SITE TO MITIGATE SLOW (FAILED) SOIL PERCOLATION RATES FROM

#### CONSTRAINTS & DESIGN CRITERIA

DEEPER SOILS ON THE SUBJECT PROPERTY.

- 1) THE PROPOSED SYSTEM IS DESIGNED TO SERVE UP TO A 6 BEDROOM DWELLING WITH A DESIGN WASTEWATER FLOW OF 675 GALLONS PER DAY (GPD) PER COUNTY DEH GUIDELINES. THE ADVANTEX WASTEWATER TREATMENT SYSTEM SPECIFIED IS SIZED FOR AVERAGE WASTEWATER FLOWS OF 675 GPD WITH OCCASIONAL PEAK FLOWS OF UP TO 704 GPD.
- 2) SOIL PROFILES DID NOT EXHIBIT ANY EVIDENCE OF SEASONALLY HIGH GROUNDWATER CONDITIONS AT THE SITE. ANY SEASONALLY HIGH GROUNDWATER IS ESTIMATED TO OCCUR AT GREATER THAN 8' BELOW
- 3) NO WELLS, SPRINGS OR WATERCOURSES ARE SITUATED WITHIN 100' OF THE PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM (OWTS).
- 4) THERE DRIPFIELD DESIGNED ON THE SLOPE LESS THAN 50% ON THE EAST FLANK OF THE RIDGE SITUATED OVER 100' FROM THE PROPOSED DRAINFIELD

#### SPECIFICATION

- . BUILDING SEWER LINES, & PROPOSED PROCESSING TANK.
- 1.1. A 4" ABS BUILDING SEWER LINE SHALL BE INSTALLED TO CONVEY ALL RAW SEWAGE FROM DWELLING TO THE PROCESSING TANK. ALL GRAVITY SEWER PIPING MUST MAINTAIN A MINIMUM 2% CONTINUOUS GRADIENT. ALL WASTEWATER INCLUDING GRAYWATER SHALL BE DISCHARGED TO THE PROCESSING TANK.
- 1.2. LOCATE A 2-WAY, 4" ABS CLEANOUT FITTINGS ON THE BUILDING SEWER TO FACILITATE SNAKING AND
- 1.3. A 1,500 GALLON, WATERTIGHT, FIBERGLASS REINFORCED POLYESTER (FRP) TANK, FROM ORENCO SYSTEMS, INC. (OSI), IS SPECIFIED FOR USE AS A PROCESSING TANK WITH THE PROPOSED ADVANTEX (MODE 1) TREATMENT SYSTEM. THE TANK SHALL HAVE 24" DIAMETER OSI ACCESS RISERS WITH FIBERGLASS, BOLT-DOWN LIDS. THE TANK SHALL BE INSTALLED ACCORDING THE MANUFACTURERS GUIDELINES INCLUDING THE 6" CONCRETE COLLAR ABOVE TANK FLANGE TO PREVENT FLOATATION.
- 1.4. THE TANK HOLE SHALL BE EXCAVATED SO THAT THE TANK SITS LEVEL. INSTALL THE ACCESS RISERS
- WITH A WATERTIGHT JOINT USING THE ADHESIVES SUPPLIED BY MANUFACTURER. 1.5. INSTALL THE TANK INLET FITTING WITH A WATERTIGHT JOINT. CAP OFF OR USE A TEST PLUG ON THIS FITTING AND FILL THE TANK WITH CLEAN WATER 2" ABOVE THE JOINT BETWEEN THE RISER AND THE TANK TOP. REPAIR ANY LEAKS.
- 1.6. OBTAIN A WATERTIGHT TANK INSPECTION BY DEH AND DISTRIBUTOR WITH 24 HOURS NOTICE TO EACH. . ADVANTEX TREATMENT SYSTEM
- 2.1. AN ADVANTEX™AX25-RT TREATMENT SYSTEM INCLUDES A BIOTUBE®PUMP PACKAGE FOR RECIRCULATION, PACKED-BED FILTER POD, AND TELEMETRY-ENABLED VERICOMM®CONTROL PANEL.
- 2.2. INSTALL THE ADVANTEX™SYSTEM ACCORDING TO THE INSTALLATION INSTRUCTIONS AND IN THE LOCATION SHOWN ON THE PLAN. THE TREATMENT SYSTEM SHALL BE INSTALLED WITH THE LID 4" ABOVE FINAL GRADE

### 3. DISCHARGE PUMP TANK AND FILTRATE PUMPING

- 3.1. A 1,500 GALLON OSI PUMP TANK SHALL BE INSTALLED ADJACENT TO THE AX25-RT PROCESSING TANK. 3.2. THE PUMP TANK SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND BE MADE WATERTIGHT.
- 3.3. THE PUMP TANK SHALL BE INSTALLED WITH A CONCRETE COLLAR (TO PREVENT FLOATATION) AND BE FILLED WITH CLEAN WATER IMMEDIATELY AFTER INSTALLATION.
- 3.4. INSTALL THE PUMP AND FLOAT TREE ACCORDING TO THE INSTRUCTIONS PROVIDED BY MANUFACTURER/DEALER.
- 3.5. A 1/2 HP EFFLUENT PUMP (PF1005) IS SPECIFIED FOR PRESSURIZED DISPERSAL DISCHARGE.
- 3.6. THE FILTRATE TRANSPORT PIPE TO DISPERSAL SYSTEM SHALL BE 1.0" SCHEDULE 40 PVC.

### <u> 1. SUBSURFACE DRIP DISPERSAL SYSTEM</u>

- 4.1. APPROXIMATELY 1,350 LINEAR FEET OF GEOFLOW PC DRIP TUBING (5 ROLLS WITH 0.5GPH EMITTERS SPACED 12" APART) SHALL BE INSTALLED IN TWO ZONES COVERING A TOTAL AREA OF AT LEAST 1,350 SQUARE FEET IN THE CONFIGURATION SHOWN ON PLAN.
- 4.2. THE DRIP DISPERSAL FIELD SHALL BE INSTALLED ACCORDING TO THE INSTRUCTIONS IN THE GEOFLOW INSTALLATION MANUAL. INSTALLER SHALL ASSURE THAT EACH DRIP LATERAL BE INSTALLED IN SUCH A MANNER AS TO REDUCE THE POTENTIAL OF LOW HEAD DRAINAGE AS DESCRIBED IN THE INSTALLATION MANUAL.
- 4.3.THE DRIP TUBING LATERALS SHALL BE BURIED 8"-10" DEEP AND SPACED NO CLOSER THAN 12" APART. THE SUPPLY HEADER SHALL BE INSTALLED 12" - 18" BELOW GRADE. IT MAY BE EASIER TO INSTALL THE DRIP TUBING FIRST, AND THE SUPPLY AND RETURN HEADERS AFTERWARDS. GREAT CARE MUST BE TAKEN TO KEEP DIRT OUT OF THE DRIP TUBING AND SUPPLY AND RETURN PIPING. ALL PIPING SHALL BE THOROUGHLY FLUSHED AND PRESSURE-TESTED PRIOR TO USE. THE 8 AIR/VACUUM RELIEF VALVES SPECIFIED SHALL BE SUPPLIED BY GEOFLOW.
- 4.4. THE DRIP FIELD FLUSH RETURN LINE IS SPECIFIED TO BE PLUMBED INTO A 40'-LONG, 1.5'-WIDE AND 1.5'-DEEP TRENCH WITH 10 QUICK4 EQUALIZER 24 LOW-PROFILE INFILTRATOR CHAMBERS. TRENCH FLOOR SHALL BE INSTALLED LEVEL.
- 4.5. ALL PRESSURIZED PIPING SHALL BE SCHEDULE 40 PVC. 4.6. DRAINFIELD SHALL MEET SANTA CLARA COUNTY GUIDELINES FOR TREE PROTECTION AND PRESERVATION

#### FOR LAND USE APPLICATIONS. 5. INSTALLER QUALIFICATIONS AND RESPONSIBILITIES

- 5.1. THE SYSTEM INSTALLER SHALL BE LICENSED BY THE STATE OF CALIFORNIA, DEPARTMENT OF CONSUMERAFFAIRS, TO INSTALL SEPTIC SYSTEMS. INSTALLER CERTIFICATION IS REQUIRED BY THE LOCAL ADVANTEX™ DEALER. THE INSTALLER IS REQUIRED TO FULLY READ AND UNDERSTAND THE ADVANTEX™ AND GEOFLOW MANUALS PRIOR TO THE COMMENCEMENT OF WORK.
- 5.2. ALL PIPING SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA PLUMBING CODE.
- 5.3. THE INSTALLER SHALL BE RESPONSIBLE FOR LOCATING ANY PROPERTY LINES, UNDERGROUND UTILITIES OR PIPING. ANY DAMAGE TO THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE INSTALLER.
- 5.4. CONSTRUCTION INSPECTIONS, WATERTIGHT TANK TEST INSPECTION, ADVANTEX™INSTALLATION INSPECTION, AND FINAL OPERATION OF SYSTEM SHALL BE MADE BY THE DEALER/SERVICE PROVIDER AND THE COUNTY OF SANTA CLARA DEPARTMENT OF ENVIRONMENTAL HEALTH. THE INSTALLER SHALL GIVE AT LEAST 24 HOURS NOTICE TO EACH PARTY FOR ALL INSPECTIONS. DESIGNER SHALL PROVIDE AS-BUILT AND FINAL LETTER PER DEH REQUIREMENTS.
- 6. ELECTRICALWORK 6.1. THE VERICOMM®CONTROL PANEL SHALL BE INSTALLED IN THE LOCATION SHOWN ON THE MAP WITH THE
- BOTTOM OF THE PANEL BOX AT 51" FROM THE GROUND SURFACE. 6.2. TWO, 20 AMP, 230V AND ONE 20 AMP, 120V ELECTRICAL CIRCUITS SHALL BE EXTENDED TO THE VERICOMM®PANEL IN A SINGLE CONDUIT. UNDERGROUND CIRCUITS IN SEPARATE CONDUITS SHALL BE INSTALLED FROM THE PANEL TO THE RECIRCULATION PUMP AND DISCHARGE PUMP. A SEPARATE UNDERGROUND CONDUIT CONTAINING A LIVE CAT5 PHONE LINE SHALL BE INSTALLED TO THE VERICOMM®

PANEL. THE SYSTEM WILL NOT BE FINALLED UNTIL EVERYTHING (INCLUDING PANEL TELEMETRY) IS

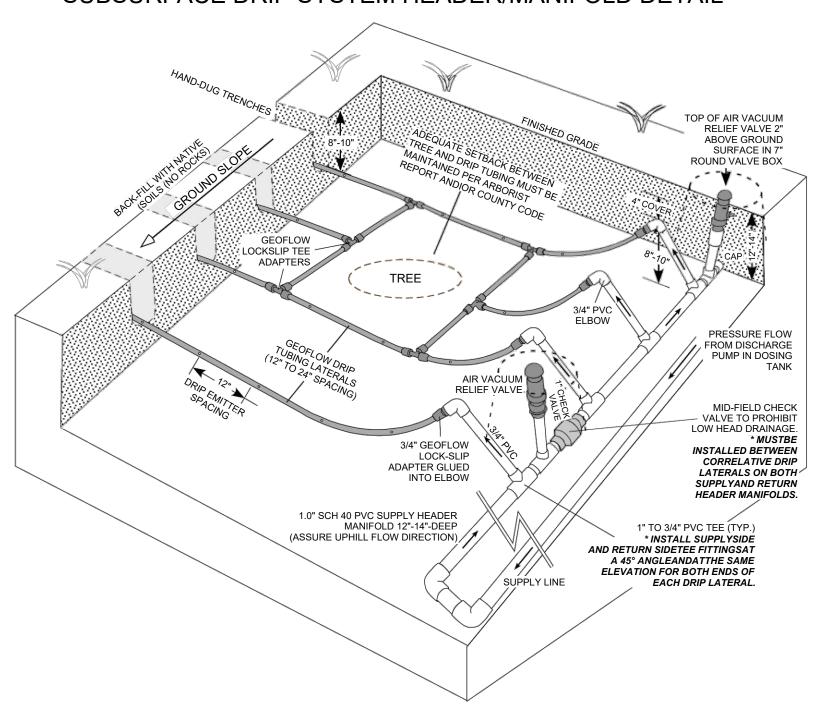
POSITIONED AT DRAINFIELD. 6.3. ALL WORK SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY ELECTRICAL PERMITS REQUIRED.

FUNCTIONAL. LOW VOLTAGE ELECTRICAL LINES SHALL BE RUN TO AUTOMATIC SOLENOID VALVES

# SYSTEM OPERATION AND MAINTENANCE

- 1) THE OWNER SHOULD READ AND OPERATE THE SYSTEM ACCORDING TO THE ADVANTEX & GEOFLOW OPERATION AND MAINTENANCE LITERATURE.
- 2) ORENCO REQUIRES BIANNUAL MAINTENANCE SERVICING OF THE ADVANTEX BY A QUALIFIED TECHNICIAN. 3) COUNTY ENVIRONMENTAL HEALTH WILL ISSUE AN OWTS ANNUAL OPERATING PERMIT AND REQUIRES THAT THE PROPERTY OWNER MAINTAIN A SYSTEM SERVICE AGREEMENT/CONTRACT WITH A QUALIFIED THIRD-PARTY SERVICE PROVIDER. THIS REQUIREMENT WILL BE PLACED ON THE TITLE DEED FOR THE PROPERTY.
- 4) THE DRIP FIELDS SHALL BE AUTOMATICALLY FLUSHED ONE ZONE AT A TIME EVERY 12 MONTHS AT A MINIMUM. THIS IS DONE BY THE CONTROL PANEL SOFTWARE. NO DRIP ZONE SHOULD BE LEFT DORMANT (UN-DOSED) FOR MORE THAN A FEW WEEKS AT A TIME.
- 5) THE TREATMENT TANK IS ALIVE WITH IMPORTANT MICROORGANISMS. DO NOT ADD ANY MATERIALS (PAINT THINNER, PAINT, MOTOR OIL, UNUSED MEDICINE, ETC.) THAT MAY DISRUPT THE BIOLOGIC TREATMENT PROCESS. THE PRIMARY TANK SHOULD BE PUMPED WHEN THE TOTAL OF THE SCUM/SLUDGE THICKNESS IS GREATER THAN 1/3 OF THE TOTAL LIQUID LEVEL DEPTH.
- 6) DO NOT ROUTE WATER SOFTENER BACKFLUSH DISCHARGE TO TREATMENT SYSTEM! THIS DISCHARGE MAY BE ROUTED DIRECTLY TO A DRAINFIELD TRENCH OR AN APPROVED DISPERSAL FIELD. 7) REPAIR ALL PLUMBING LEAKS (ESPECIALLY TOILET LEAKS) PROMPTLY.

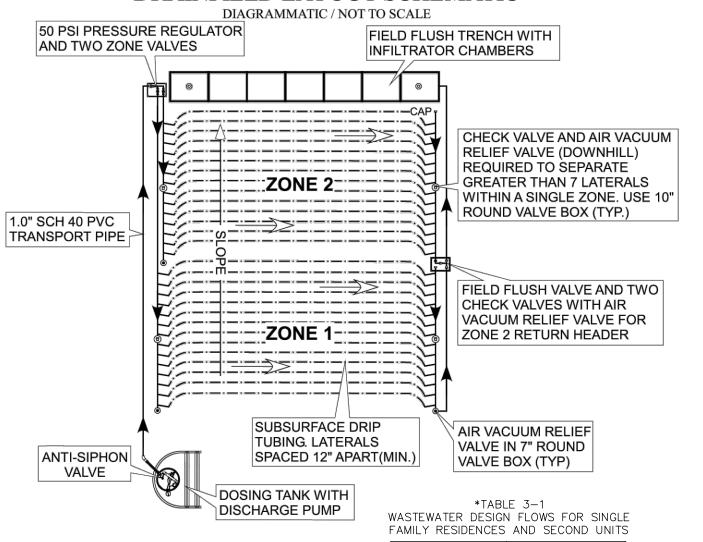
# SUBSURFACE DRIP SYSTEM HEADER/MANIFOLD DETAIL



# DISCHARGE PUMP SELECTION CHART

Parameters				400	PF1010	La	abad	
Discharge Assembly Size	1.00	inches					gend	
Transport Length	10	feet					Sys	tem Curve:
Transport Pipe Class	40							
Transport Line Size	1.00	inches		350			Pi	ımp Curve:
Distributing Valve Model	None				FF1007			
Max Elevation Lift	0	feet					Pump Opti	mal Range:-
Design Flow Rate	9.9	gpm				-	_	
Flow Meter	None	inches					Oper	ating Point()
'Add-on' Friction Losses	69.4	feet		300		$\triangleleft$	De	esign Point()
Calculations						$\dashv$ L		
Transport Velocity	3.7	fps	eet)	050	PF1006			
Frictional Head Losses	s		Total Dynamic Head, TDH (Feet)	250		X		
Loss through Discharge	3.2	feet	₽					
Loss in Transport	0.5	feet	Ď.					
Loss through Valve	0.0	feet	ĕ	200				$\perp$
Loss through Flowmeter	0.0	feet	5	_00				+
Add-on' Friction Losses	69.4	feet	ami		<del>                                     </del>	1		$\wedge \wedge$
Pipe Volumes			Dy.					
Vol of Transport Line	0.4	gals	Tota	150				
Minimum Pump Requi	rements							
Design Flow Rate	9.9	gpm				-		
Total Dynamic Head	73.2	feet		100				
Pump Data						-		
PF1005 High Head Effluent Pu	mp					$ \nearrow $		
10 GPM, 1/2HP				50	<del>                                     </del>			<b>GS</b> i
230 V 1Ø 60Hz, 200V 3Ø60Hz						-		

# DRAINFIELD LAYOUT SCHEMATIC



ART(N	/IN.)		BOX (TYP)	
		R DESIGN	LE 3—1 N FLOWS FOR SIN AND SECOND U	
	No. of Be	edrooms	Design Flow (gal/day)	
	1		150	
	2		300	
	3		450	
	4		525	
	5		600	
	6		675	
	>6	3	+75 per bedroo	om
			TA CLARA — DE ANUAL — MAY 20	

# Table DD-1. Wastewater Application Rates for Subsurface Drip Dispersal Fields

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**Control Panel Detail** 

Not To Scale

–VeriComm<sup>®</sup>

Control Panel

1,500 gal. Orenco Fiberglass Tank

1,500 gal. Orenco Fiberglass Tank

Design and Installation Notes

Start-up And Service To Be Performed By

An AdvanTex Trained Service Provider

• For Expected Flows 6 Bedrooms or less

• Installation To Be Performed By An

AdvanTex Trained Installer Only

Soil Type*	Soil Percolation Rate (MPI)	Wastewater Application Rate (gpd/ft²)		
Coarse Sand	1-4	1.4		
Fine Sand	5-10	1.2		
Sandy Loam	11-20	1.0		
Loam	21-30	0.7		
Clay Loam	31-45	0.6		
Silt-Clay Loam	46-60	0.4		
Clay, non-swell	61-90	0.2		
Clay, swell	91-120	0.1		

# Table DD-2. Drip Dispersal System Management Requirements

	Work	Frequency		
Inspection	Conduct routine visual observations of drip field, downslope area and surroundings for wet areas, pipe leaks or damage, soil erosion, drainage issues, abnormal vegetation, gophers or other problems.  Conduct routine physical inspections of system components, including valves, filters, and headworks box(es).  Perform special inspections of drip field at time of any landscaping work or other digging in drip field area.  Perform inspections of dosing pump(s) and appurtenances (per O&M manual and Performance Evaluation Guidelines, Part 5 of this Manual).  Record observations.	• Every 6 to 12 months.		
Maintenance	<ul> <li>Manually remove and clean filter.</li> <li>Clean and check operation of pressure reducing valves.</li> <li>Clean flush valves and vacuum release valves.</li> </ul>	Clean filter every 6 months.  Other maintenance annually.		
Water Monitoring & Sampling	<ul> <li>Measure and record water levels in dispersal field monitoring wells, as applicable, per permit requirements.</li> <li>Obtain and analyze water samples from dispersal field monitoring wells, as applicable, per permit requirements.</li> </ul>	<ul> <li>According to permit conditions, if applicable.</li> </ul>		
Reporting	Report findings to DEH per permit requirements.  Standard report to include dates, monitoring well and other data collected, work performed, corrective actions taken, and performance summary.  Report public health/water quality emergency to DEH immediately.	<ul> <li>According to permit conditions, typically every 1 to 2 years, depending of system size, usage, history, location.</li> </ul>		

# SOIL PROFILE LOGS AND PERCOLATION TEST RESULTS

# Diaz - 17085 Montebello Rd APN: 351-40-001

# Soil Profile Log 1 (SP-1)

hanging the Way the

Net Discharge (gpm)

"A" soil horizon – Clay Loam with <10% small gravel, dry, many medium-sized roots, strong angular blocky structure, many large pores, slightly hard dry consistence. Dark brown. "B" soil horizon – Gravelly Clay Loam, abundant angular to sub-rounded gravel up to 2 inches in

diameter (~25%), few medium-sized roots, very hard/dense, dry. Reddish-brown "C" horizon - Gravelly Sandy Loam, dry, very hard/dense, few medium roots. Significant increase in hard rock structure (gravel) with depth. Color variable reddish-brown to yellowish-brown. No mottling. Franciscan melange material - highly weathered and fractured mixture of rock with intersticial soil matrix.

#### Soil Profile Log 2 (SP-2) "A/B" soil horizon – Clay Loam, with ~10% small gravel, dry, soft/friable, many roots ranging in size from small to large, strong angular blocky pedogenic structure with many large pores, dark brown.

Gradual transition in Gravelly Sandy Loam soil development with an increase in gravels to ~25%. dry, few medium-sized roots and few small pores. "C" soil horizon – Gravelly Sandy Loam, dry very hard/dense, few medium roots. Hard rock structure (gravel) increases with depth. Color variable reddish-brown to yellowish-brown. No mottling.

SOILPERCOLATION TEST SUMMARYTABLE 9-28-16

HOLE		1	2	3	4	5	6	7	8	9	10	11	12
DEPTH		1.8'	2.1'	1.7'	1.84'	1.67'	1.96'	0.91'	1.06'	0.91'	0.95'		0.97'
Stabilized MPI	R	FAILED	20.80	FAILED	FAILED	6.80	FAILED	FAILED	9.30	2.50	6.90	FAILED	1.50
Adjusted Stabilized MPI	R <sub>1</sub> =R x 1.4		29.12			9.52			13.02	3.50	9.66		2.10
Avg. Adj. Stabilized MPI	$R_2=(\sum R_1)/\#Holes$												
# Bedrooms:													

Franciscan melange material - highly weathered and fractured mixture of rock with intersticial soil matrix.

# TN: < 25 mg/L TSS: 40 mg/L TKN: 65 mg/L **Field Flow Worksheet 1- Field Flow** Total field

BOD: < 10 mg

TSS: < 10 mg/I

(SIDE VIEW

ADVANTEX TREATMENT SYSTEM DETAIL

AX25 Recirc. Tank

AX25 Recirc. Tank

(TOP VIEW)

Access Riser(s) with

Design Notes

Q Peak = 675 gpd

BOD: 150 mg/L

Expected Influent Quality

Expected Flows

Total Overtity of efficient to be disposed nor day		675 a	allons / day
Total Quantity of effluent to be disposed per day		· · ·	
Hydraulic loading rate		1.0 g	allons / sq.ft. / day
MinimumDispersal Field Area		675 s	quare ft.
Total Dispersal Field Area		675 s	quare ft.
Flow per zone			
Number ofZones		1	zone(s)
Dispersal area per zone		675	square ft.
Choose line spacing between WASTEFLOW lines		1	ft.
Choose emitter spacing between WASTEFLOW emit	ters	1	ft.
Total linear ft.per zone (minimum required)		675	ft. per zone
Total number of emitters per zone		675	emitters per zone
Select Wasteflow dripline (16mm)		Wasteflow PC - 1/2gp	h dripline
Pressure at the beginning of the dripfield	2	0 psi	
Feet ofHead at the beginning of the dripfield	Feet ofHead at the beginning of the dripfield		
What is the flow rate per emitter in gph?		0.5	3 gph
Dose flow per zone	Dose flow per zone		

If required, choose flush velocity	0	ft/sec
How many lines of WASTEFLOW per zone?	16	lines
Fill in the actual length of longest dripline lateral	42	ft.
Flush flow required at the end of each dripline	0.00	gpm
Total Flow required to achieve flushing velocity	0.00	gpm
Total Flow per zone- worst case scenario	5.96	gpm
Select Filters and zone valves		
Select Filter Type	BioDisc Filter	
Recommended Filter (item no.)	BioDisc-150	1.5" Disc Filter 0-30g
Select Zone Valve Type	Electric Solenoid	-
Recommended Zone Valve (item no.)	0	0

Recommended Zone Valve (item no.)	0	0
Dosing		
Number ofdoses per day / zone:	12	doses
Timer ON. Pump run time per dose/zone:	9.26	mins:secs
Timer OFF. Pump off time between doses	1:50	hrs:mins
Per Zone - Pump run time per day/zone:	1:53	hrs:mins
All Zones - Number ofdoses per day / all zones	12	doses / day

# SANITARY SEWER DESIGN NOTES

SANTA CLARA COUNTY ONSITE SYSTEM MANUAL (OSM), MAY 2014

MAIN HOUSE NO. BEDROOM = 6FROM TABLE 3-1 OSM 6 BEDROOM HOUSE = 675 GAL/DAY

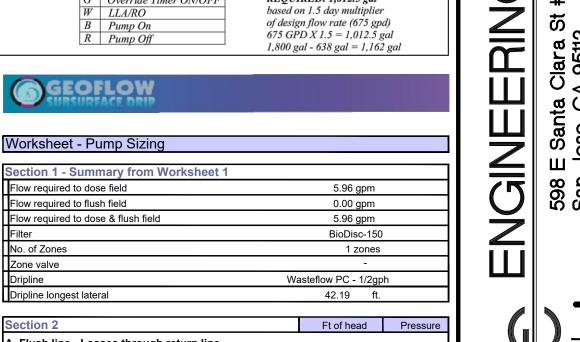
AVERAGE ADJUSTED PERCOLATION RATE = 11.5 MPI FROM TABLE DD-1 OSM WITH 11.5 MPI:

WWDF = 675 GAL/DAY

DRIP DISPERSAL FIELDS = 1.0 GPD/SF MINIMUM DISPERSAL FIELD AREA =  $\frac{675}{1.0}$  = 675.0 SF

WASTEWATER DESIGN FLOW (WWDF)

PROJECT NARATIVE THE SEPTIC SYSTEM IS DESIGNED FOR A PROPOSED 3 BEDROOM SFR AND OVERSIZING



External Splice Box

1,500 gal. FRP

Discharge / Dosing

Pump Tank

with Anti-Siphon Valve

Model MF3A

1 500 Gallon FRP

(End View)

Emergency Storage/Surge Capacity:

REQUIRED: 1,012.5 gal

based on 1.5 day multiplier

of design flow rate (675 gpd)

675 GPD X 1.5 = 1,012.5 gal

1,800 gal - 638 gal = 1,162 gal

64.5" Pump Tank

By Darrin Lee at 12:52 pm, Jan 06, 2023

-capacity

638 gallons

426 gallons

Discharge / Dosing Pump Tank

Orenco 1500 Gallon FRP tanks have a

Max. Volume Capacity = 1,800 gallons

Float Function

High Level Alarm

Pump On

in tank

REVIEWED

- Splice Box

Biotube® Pump Vault

Model PVU68-2425-L

Zone valve Dripline Dripline longest lateral A. Flush line - Losses through return line Size of flush line in inches 113 ft. Length of return line 15 ft. Equivalent length of fittings Elevation change. (ifdownhill enter 0) 0 ft. Pressure loss in 100 ft of pipe 0.00 ft. - ft. -Total pressure loss from end ofdripline to return tank B. Dripline - Losses through Wasteflow dripline Length of longest dripline lateral 34.65 ft. 15.00 psi Minimum dosing pressure required at end ofdripline 0.32 ft. 0.14 psi 34.97 ft. 15.14 psi

Loss through dripline during flushing Total minimum required dripline pressure +B. Minimum Pressure required at beginning of dripfield CALCULATED pressure required at beginning ofdripfield 34.97 ft. 15.90 psi SPECIFIED pressure at beginning ofdripfield (from worksht 1) **46.2 ft.** 20.00 psi Great! SPECIFIED Pressure is greater than CALCULATED Pressure requirement. Go to next ste Zone valve pressure loss (not in diagram) 3.20 ft. 1.39 psi Flow meter pressure loss (not in diagram) ft. - psi Other pressure losses Total loss through drip components **14.29 ft.** 6.19 psi

. Supply line - Minimum Pressure head required to get from pump tank to top of dripfield Size of supply line in inches Length of supply line 95 ft. 20 ft. Equivalent length of fittings Height from pump to tank outlet Elevation change. (ifdownhill enter 0) Pressure loss/gain in 100 ft. ofpipe 2.42 ft. 1.05 psi

Total gain or loss from pump to field **7.8 ft.** 3.37 psi Total dynamic head **68.3 ft.** 29.55 psi Pump capacity \* 6.0 gpm **Pump Model Number** Voltz / Hp / phase

No. 47518

ZONE 1 AREA = 675 SFPROVIDED: ZONE 2 AREA = 675 SF ZONE 1 = 675 LFZONE 2 = 675 LF

AREA OF ZONE 1 DRIP EMITTER QUANTITY OF ZONE 1 AREA OF ZONE 2 DRIP EMITTER QUANTITY OF ZONE 2 675

MEET MAXIMUM 4 SF PER EMITTER REQUIREMENT

WASTEWATER APPLICATION RATES FOR SUBSURFACE

FOR A FUTURE 3 BEDROOM FINISHED BASEMENT WITHIN THE SFR.