

INFORMATION ABOUT ON-SITE SEWER FACILITY

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CC	DNCERNING THE PROPERTY AT	3033 McGregor Ln Dripping Springs, TX 78620-3463		
A.	DESCRIPTION OF ON-SITE SEWER FACILITY	ON PROPERTY:		
	(1) Type of Treatment System: Septic Tank	Aerobic Treatment	Unknown	
	(2) Type of Distribution System:		Unknown	
	(3) Approximate Location of Drain Field or Distrib	oution System:	Unknown	
	(4) Installer: Hill Country W (5) Approximate Age: 6 years	laste water Designa	Unknown	
В.	MAINTENANCE INFORMATION:			
	(1) Is Seller aware of any maintenance contract in If yes, name of maintenance contractor: H; Phone: 512-894-4488 contractor Maintenance contracts must be in effect to ope sewer facilities.)			INC.
	(2) Approximate date any tanks were last pumpe	d?		
	(3) Is Seller aware of any defect or malfunction in If yes, explain:		Yes No	
0	(4) Does Seller have manufacturer or warranty in		Yes No	
C.	(1) The following items concerning the on-site ser planning materials permit for original imaintenance contract manufacturer info	wer facility are attached: installation Xifinal inspection when OSS	SF was installed	
	(2) "Planning materials" are the supporting ma submitted to the permitting authority in order to			
	(3) It may be necessary for a buyer to ha transferred to the buyer.	ave the permit to operate an on-site	e sewer facility	
(TX	R-1407) 1-7-04 Initialed for Identification by Buye	er, and Seller,	Page 1 of 2	
Rand	y Hutto, Realtors, 709 A W. US Hwy 290 Dripping Springs TX 78620	Phone: 5128940288 Fax:	Edward Blocker &	

D. INFORMATION FROM GOVERNMENTAL AGENCIES: Pamphlets describing on-site sewer facilities are available from the Texas Agricultural Extension Service. Information in the following table was obtained from Texas Commission on Environmental Quality (TCEQ) on 10/24/2002. The table estimates daily wastewater usage rates. Actual water usage data or other methods for calculating may be used if accurate and acceptable to TCEQ.

<u>Facility</u>	Usage (gal/day) without water- saving devices	Usage (gal/day) with water- saving devices
Single family dwelling (1-2 bedrooms; less than 1,500 sf)	225	180
Single family dwelling (3 bedrooms; less than 2,500 sf)	300	240
Single family dwelling (4 bedrooms; less than 3,500 sf)	375	300
Single family dwelling (5 bedrooms; less than 4,500 sf)	450	
		360
Single family dwelling (6 bedrooms; less than 5,500 sf)	525	420
Mobile home, condo, or townhouse (1-2 bedroom)	225	180
Mobile home, condo, or townhouse (each add'l bedroom)	75	60

This document is not a substitute for any inspections or warranties. This document was completed to the best of Seller's knowledge and belief on the date signed. Seller and real estate agents are not experts about on-site sewer facilities. Buyer is encouraged to have the on-site sewer facility inspected by an inspector of Buyer's choice.

Signature of Seller Edward Blocker	Date	Signature of Seller Tammy Titus Blocker	Blucker	10/14/2 Date
Receipt acknowledged by:				
Signature of Buyer	Date	Signature of Buyer		Date

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Hill Country Wastewater Services, Inc. 300 Sullivan Ridge Dripping Springs, TX 78620

Printed: 7/29/2022 www.hillcountrywastewater.com Permit #: 2016-31216 To: Edward & Tammy Blocker Tech: 3033 McGregor Lane Brand/Mfg.: AquaKlear - Aquaklear **Dripping Springs, TX 78620** System S/N: Aerator and S/N: Site: 3033 McGregor Lane, Dripping Springs Contract: 12/15/2021 - 12/15/2022 Installed: 12/13/2016 Inspections per year: 3 Agency: Hays County Env. Health Phone: (316) 712-3858 Service Due: 8/15/2022 County: Cell: Alt Phone: Subdivision: Madrone Ranch Work: Inspection Type: MP-0000009 Item Operational Inoperative N/A Aerator: Irrigation pump: Air compressor: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Alarm REMOVE ANY ROOTS FROM ALL TANKS EACH INSPECTION CHECK FOR PUMPING Access ports secure: (Y) / N / Refused by owner Test Results and observations: (As Required) Fecal Coliform: Chlorine Residual: Test Method: BOD: TSS: Commercial Lab: Date Submitted: RE Repairs made: Repairs and Comments: Inspector: Date: GC1165 Area: 4/0 NO PAY NO REPAIR GPS: ID = 3421

3033 McGregor Lane, Dripping Springs

Phone: (512) 894-4488

OSSF SOIL EVALUATION FORM

Owner's Name:

Edward Blocker

Physical Address:

3033 McGregor Lane Dripping Springs, Texas

Legal Description:

Lot 8 Madrone Ranch Sect. 2-A

Site Evaluator:

Don Perry OS# 0010248

Date Performed:

08/01/16

Proposed Excavation Depth: Surface

Requirements:

- At least two soil evaluations must be performed on the site, at opposite ends of the proposed disposal area. Locations of soil evaluations must be shown on the application site drawing or designer's site drawing.
- For subsurface disposal, soil evaluations must be performed to a depth of at least 2 ft. below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.

• Please describe each soil horizon and identify any restrictive features in the space provided

below. Draw lines at the appropriate depths.

So	oil Pro	ofile Hole N	umber <u>1</u>	1000 (10 pt. 10)	Soil Profile Hole N	lumber 2
1	epth	Textural	Gravel	Drainage	Restrictive	Observations
I	Ft.	Class	Analysis	(Mottles/	Horizon	
				Water Table)		
0		Class	N/A		None	
		III			Approve	d for surface spray
1						robic treatment system
	Alle	exposed rock	c in spray area			
2			or covered with			
	soil	and seeded.				
3						
4						
-						
7						

Features of Site Area

Presence of 100 year flood zone	No
Presence of adjacent ponds, streams, water impoundments	No
Existing or proposed water well in nearby area	Yes
Organized sewage available to lot or tract	No
Recharge features within 150 feet	No
Suitable for standard system	NA

I certify that the above statements are true and based on my field observations.

Date

8/01/2016



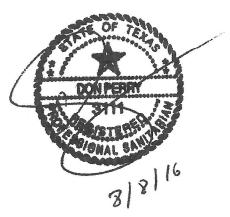
Hill Country Wastewater Designs

Don Perry

Registered Professional Sanitarian
Wastewater System Design and Consultation
Site and Soil Evaluations

Design for:

Edward Blocker 3033 McGregor Lane Dripping Springs, Texas



110 Pin Oak Trail
New Braunfels, Texas 78132

Telephone 512-738-0487

Hill Country Wastewater Designs On-Site Wastewater Designs and Consultation

Don Perry, R.S. 110 Pin Oak Trail New Braunfels, Texas 78132

Telephone number (512) 738-0487

Project No. 2016044 August 2016

Design Report for Wastewater Treatment System Utilizing Surface Spray Application

Property Owner:

Edward Blocker

Location:

3033 McGregor Lane Dripping Springs, Texas

Lot 8 Madrone Ranch Sect. 2-A

Site Description and Evaluation: The site is a 5.00-ac. tract in Madrone Ranch. A site evaluation indicated the site to have suitable soil for an aerobic surface irrigation system. The lot will have a final slope of less than 15 percent in the proposed spray area. All high areas will be graded and low areas filled in to create a uniform slope of less than 15 percent. The existing vegetation consists of some native grasses along with Live oak and Juniper trees. All exposed rock in the proposed spray area will be removed or covered with soil and seeded prior to the final inspection. (See landscaping section for additional requirements.) The residence will utilize a well for potable water. All of the system's tanks will be 50 ft. away from all wells. The proposed spray irrigation area will be 100 ft. from all wells. The site is not over the Edwards Recharge Zone or in a regulated 100-year floodplain. No recharge features were found within 150 ft. of the proposed spray area.

Wastewater Design Flows: This design is for a 3499 sq. ft., 4 bedroom single-family residence using low flow fixtures. The projected daily wastewater flow is 300 gallons.

Description of Proposed Aerobic Treatment System: The residence will utilize an Aqua Klear aerobic treatment system Model AK6BES3, a proprietary treatment plant, approved by the TCEQ for use in Texas. The Model AK6BES3 is a three compartment concrete tank. The system will consist of a 425-gallon pretreatment / trash-tank compartment which will gravity flow into the 600-GPD aerobic treatment compartment. The effluent from the aeration tank will gravity flow through an AquaKlear stack-feed chlorinator into a 751-gallon pump tank compartment. The pump tank compartment serves as a chlorine contact chamber and storage tank. Distribution is through Sch. 40 PVC pipe to low angle sprinkler heads. (Two-29 foot 360° radius patterns.)

The system is considered a packaged system and will be installed according to the manufacturer's instructions.

Wastewater Design Specifications:

Single-Family Residence: $3499 \text{ ft}^2 \text{ 4} \text{ bedrooms with low flow fixtures } Q = 300 \text{ GPD}$

Maximum Application Rate: 0.064-gal/ ft²/day

Spray Area Required: A = Q/Ri $A = 300 GPD/0.064 = 4688 ft^2$

Spray Area Utilized: $A = 3.14(29)^2 \times 2 = 5282 \text{ ft}^2$

Tank Capacities:

Trash Tank: 425-gallon compartment

Aerobic Tank: 600 GPD Aeration compartment

Pump Tank: 751- gallon compartment

Pump Float Settings:

Pump-off Position: 6 inches above tank floor

Pump-on Position: 9 inches above tank floor

Alarm-on Position: 31 inches above tank floor

Daily Operating Capacity: 300 gallons (Please see pump increment chart)

One-Day Reserve Capacity: 312.5 gallons (Please see pump increment chart)

Pump and Sprinkler Heads:

Pump: STA-RITE bottom suction pump 20 DOM 05121, 0.5 HP submersible pump @ 20 GPM.

Sprinkler Heads: Hunter I-20 Ultra sprinkler heads (built-in drain check valve) with nozzle 3.5 LA (Low angle trajectory, 13 degrees) operating at 30 PSI, 29 ft. radius and 2.8 GPM flow per sprinkler.

The sprinkler heads shall be protected by concrete sprinkler donuts or other structures that are acceptable to the department if required.

Note: A commercial irrigation timer will be used to cycle power to the pump-on float switch two times per night. (1a.m. and 4 a.m.)

Flow, Dosing and Head Calculations:

Flow Rate: 2.8 GPM/head x 2 heads = 5.6 GPM

Dosing Rate: 2 doses @ 150 gal/ dose / 5.6 GPM = \sim 27 min/ dose

Total Head:

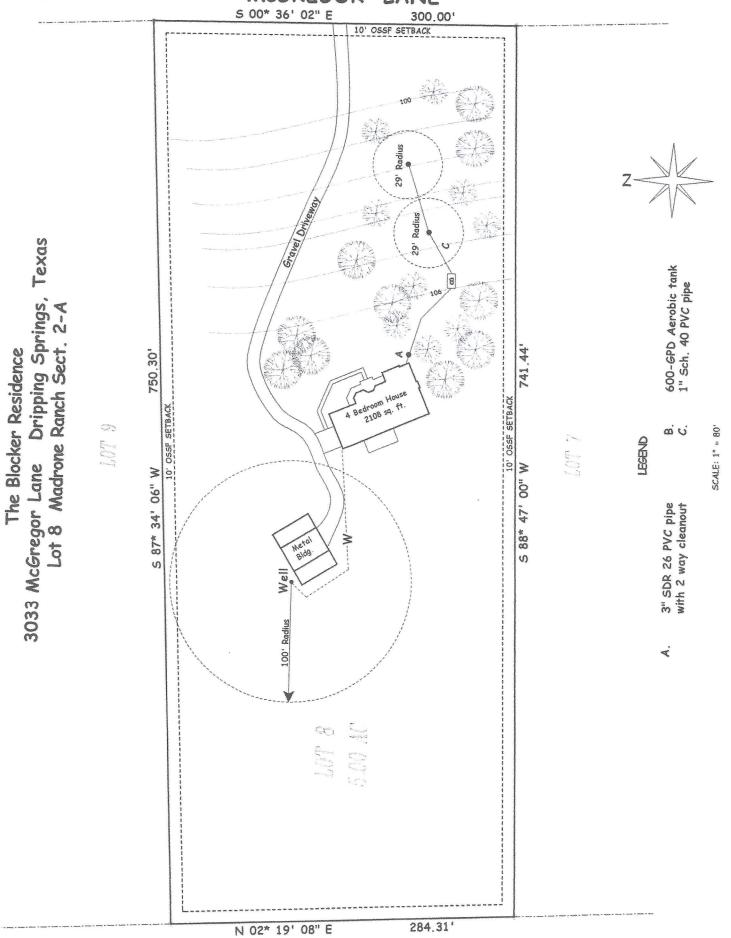
Elevation Head: 5 ft.

Pressure Head: 30 PSI x 2.31 ft/ PSI = 69.3 ft.

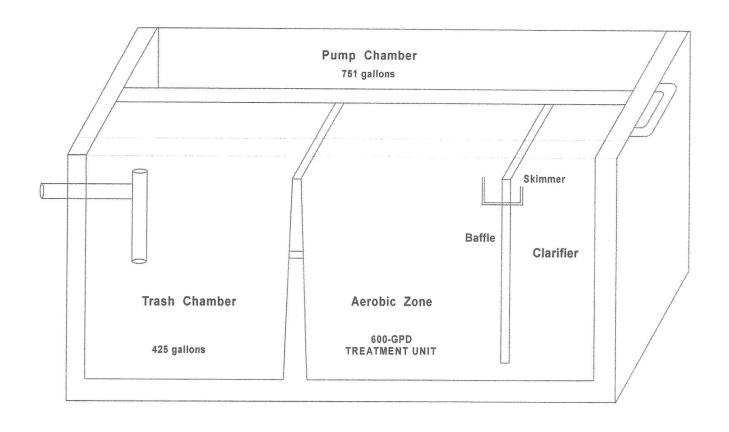
Friction Head: 1" Sch. 40 PVC @ 5.6 GPM = 2.13 per 100 ft.

 $120 \text{ ft.} \times 2.13 / 100 \times 1.2 = 3.07 \text{ ft.}$

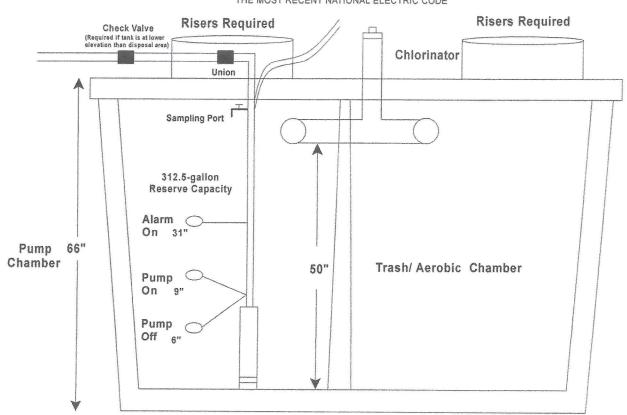
TDH= 5 ft. + 69.3 ft. + 3.07 ft. = 77.37 ft. (Within the pump curve)



AQUA KLEAR 6 BESIDE 3 600 GPD AEROBIC TREATMENT PLANT WITH ATTACHED 425 GAL. PRETANK AND 751 GAL.PUMP TANK



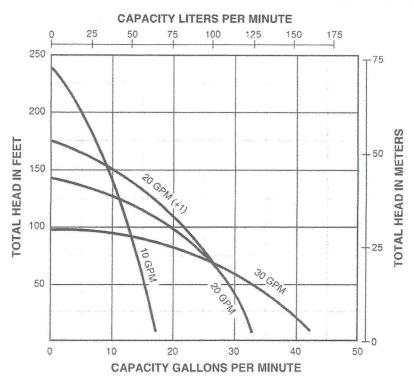
ALL WIRING MUST BE IN COMPLIANCE WITH THE MOST RECENT NATIONAL ELECTRIC CODE





4" multi-stage submersible pump

PUMP PERFORMANCE



Pump	Flow Rate						P.	SI					
Model	(GPM)	0	10	20	30	40	50	60	70	80	90	100	110
10D0M05221	10			15.0	13.7	12.7	11.5	10,2	8.4	6.5	4.3	1.0	
10D0M05121	10			15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0	
20D0M05221	20			30.0	26.0	21.5	14.2	4.4					
20D0M05121	20			30.0	26.0	21.5	14.2	4.4					
30DOM05221	30		38.5	33.3	25.8	16							
30D0M05121	30		38.5	33.3	25.8	16							
20D0M05221+1	20 + 1			30	27.5	24	20	13.5	6				
20D0M05121+1	20 + 1			30	27.5	24	20	13.5	6				

Pump	Flow Rate						В	ar					
Model	(LPM)	0	.69	1.38	2.07	2.76	3.45	4.13	4.82	5.51	6.20	6.89	7.58
10D0M05221	37.85			56.8	51,9	48.1	43.5	38.6	31.8	24.6	16.3	3.8	
10DOM05121	37.85			56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8	
20DOM05221	75.7			113.6	98.4	81.4	53.7	16.7					
20D0M05121	75.7			113.6	98.4	81.4	53.7	16.7					
30DOM05221	113.55		145.7	126.0	97.7	60.6							
30D0M05121	113.55		145.7	126.0	97.7	60.6							
20D0M05221+1	75.7 + 1			113.4	103.9	90.7	75.6	51.0	22.6				
20D0M05121+1	75.7 + 1			113,4	103.9	90.7	75.6	51.0	22.6				

Charts and Specs

I-20 Ultra Blue Standard Nozzle

Pertor	mance D	ata			
Nozzle	Pressure PSI	Radius ft.	Flow GPM	Preci	p in/hr ▲
	25	29'	1.2	0.27	0.32
	35	31'	1.4	0.28	0.32
1.5	45	31'	1.5	0.30	0.35
	55	32'	1.8	0.34	0.39
	65	32'	1.9	0.36	0.41
	25	33,	1.4	0.25	0.29
	35	33"	1.7	0.30	0.35
2.0	45	34'	2.0	0.33	0.38
	55	34"	2.1	0.35	0.40
	65	32'	2.3	0.43	0.50
	25	33'	1.7	0.30	0.35
	35	35"	2.1	0.33	0.38
2.5	45	35'	2.5	0.39	0.45
	55	35'	2.6	0.41	0.47
	65	35'	2.9	0.46	0.53
	25	35'	2.2	0.35	0.40
	35	36'	2.7	0.40	0.46
3.0	45	38.	3.0	0.40	0.46
	55	39"	3.4	0.43	0.50
	65	39'	3.7	0.47	0.54
	25	37'	3.0	0.42	0.49
	35	39"	3.5	0.44	0.51
4.0	45	40'	4.0	0.48	0.56
	55	41'	4.5	0.52	0.60
	65	41"	4.8	0.55	0.63
	25	37'	3.7	0.52	0.60
	35	39'	4.5	0.57	0.66
5.0	45	42'	5.0	0.55	0.63
	55	42'	5.7	0.62	0.72
	65	42'	6.2	0.68	0.78
	25	38'	4.3	0.57	0.66
	35	40'	5.6	0.67	0.78
6.0	45	43"	6.0	0.62	0.72
-	55	44'	6.7	0.67	0.77
	65	44"	7.3	0.73	0.84
	25	37'	6.0	0.84	0.97
	35	41'	7.0	0.80	0.93
8.0	45	44"	8.0	0.80	0.92
	55	46'	9.0	0.82	0.95
	65	46'	9.8	0.89	1.03

I-20 Ultra Low Angle Nozzle Performance Data

	Pressure	Radius	Flow		p in/hr
Nozzle	PSI	ft.	GPM		A
2.0	30	25'	1.6	0.49	0.57
C.V	40	27'	1.9	0.50	0.58
LA	50	28'	2.1	0.52	0.60
	60	30'	2.3	0.49	0.57
2.5	30	27'	2.1	0.55	0.64
Con or all	40	30,	2.5	0.53	0.62
LA	50	33,	2.8	0.49	0.57
Small V	60	35'	3.0	0.47	0.54
3.5	30	29"	2.8	0.64	0.74
2.0	40	32*	3.1	0.58	0.67
LA	50	35"	3.5	0.55	0.64
bas (60	37'	3.8	0.53	0.62
4.5	30	29"	3.4	0.78	0.90
4.0	40	32"	3.9	0.73	0.85
LA	50	35'	4.4	0.69	0.80
Sing Park	60	37'	4.7	0.66	0.76
				200 18 18	

Note: All precipitation rates calculated for 180 degree operation. For the precipitation rate for a 350 degree sprinkler, divide by 2.

I-20 Ultra 18' Short Radius Nozzle **Performance Data**

Nozzle	Pressure PSI	Radius ft.	Flow	Precip	in/hr
.50	30	17'	0.36	0.24	0.28
· JU	40	17'	0.43	0.29	0.33
SR	50	18'	0.50	0.30	0.34
)N	60	19"	0.57	0.30	0.35
1.0	30	17'	0.78	0.52	0.60
1.0	40	17"	0.90	0.60	0.69
SR	50	18'	1.0	0.59	0.69
DI	60	19'	1.1	0.59	0.68
2.0	30	17'	1.4	0.93	1.08
Z.V	40	17"	1.7	1.13	1.31
SR	50	18'	2.0	1.19	1.37
JI	60	191	2.2	1.17	1.35

I-20 Ultra 25' Short Radius Nozzle Performance Data

1.01101	monce p	ara			
Nozzle	Pressure PSI	Radius ft.	Flow GPM	Precip	in/hr
.75	30 40	23' 24'	0.58	0.21	0.24
SR	50 60	25' 26'	0.75 0.83	0.23	0.27 0.27
1.5 SR	30 40 50 60	23' 24' 25' 26'	1.1 1.3 1.5 1.6	0.40 0.43 0.46 0.46	0.46 0.50 0.53 0.53
3.0 SR	30 40 50 60	23' 24' 25' 26'	2.5 2.7 3.0 3.1	0.91 0.90 0.92 0.88	1.05 1.04 1.07 1.02

SPECIFICATION BUILDER

120-04) SS) 3.0
1-20-12 = 12° Pop-10	R	
120-96 of Popular	XX, R, 55, 55-R	
1-20-04	XX, NCV, R, SS , SS-NCV, SS-R, CS	1.5 - 4.0 = Factory-installed nozzle number
1-20-00 × Shigh	XX, R	XX = 8 Standard blue and 4 gray low-angle nozzles
MODEL	FEATURES	OPTIONS



KEY TO FEATURES

XX = Adjustable arc 50-360 degrees, plastic riser, with check valve

NCV = Adjustable arc 50-360 degrees, plastic riser, without check valve

R = Adjustable arc 50-360 degrees, with check valve and reclaimed water ID

SS = Adjustable arc 50-360 degrees, stainless steel riser, with check valve

SS-NCV = Adjustable arc 50-360 degrees, stainless steel riser, without check valve

SS-R = Adjustable arc 50-360 degrees, stainless steel riser, with check valve

and reclaimed water ID

SS = Classes filled 1-30 04 ash (degrees steel)

CS = Clear sprinkler, I-20-04 only (demonstration only)



Construction/Installation

Please see the drawings for component placement. Follow all manufacturers' instructions for the installation of the treatment plant and the aerator.

After the tank holes are dug, a minimum of four inches of sand, sandy loam, clay loam, or pea gravel free of rock shall be placed in the holes. Tanks may then be placed in the holes, but must be left open until inspection, then back-filled with the same material that was placed under the tanks.

All tanks shall be provided with one finished at grade riser per compartment made of pre-cast concrete or rigid ribbed PVC with covers that can be accessed without digging and have secondary restraints.

The house sewer pipe will be 3" or 4" SDR 26 PVC (or better) tied into the stub-out from the house to the Aerobic treatment system. The pipe may be back-filled with the excavated material if allowed. The slope of the sewer pipe shall be a minimum of 1/8" fall per foot of pipe. A two-way clean-out will be placed between the house and the Aerobic plant. Fittings for the house sewer line will be the sanitary type.

4" PVC pipe will run from the trash tank compartment to the treatment plant and from the treatment tank to the pump tank compartment. A tablet chlorinator manufactured by Aqua Klear will be used for disinfection.

See diagram of the pump tank details. A pressure regulation/sampling valve (unthreaded hose-bib or boiler drain) will be placed in the pump tank. The pump tank floats will be wired to a weatherproof junction box outside the tank with a wire run through buried conduit to the breaker box. Electrical power will be run from the breaker box through the alarm panel to the aerator and will run the control circuit from the alarm float in the tank to the control panel as shown on the wiring diagram on the control panel. The audio and visual alarm must be installed in a place that will be conspicuous to the owner. The pump activation controls will be run through a commercial irrigation timer to cycle power on between 12 and 5 A.M. The aerator should be mounted as close to the tank as is practical, but no greater than 50 feet away. A 1" PVC airline will be run from the aerator connector to the airline stub out in the Plant. The aerator should be mounted in housing in a location that is dry, not dusty and is well ventilated.

NOTE: All electrical wiring shall conform to the requirements of the National Electric Code (1999) or under any other standards approved by the executive director. Additionally, all external wiring shall be installed in approved, rigid, non-metallic gray code electrical conduit. The conduit shall be buried according to the requirements in the National Electrical Code and terminated at a main circuit breaker panel or sub-panel. Connections shall be in approved junction boxes. All electrical components shall have an electrical disconnect within direct vision from the place where the electrical device is being serviced. Electrical disconnects must be weatherproof (approved for outdoor use) and have maintenance lockout provisions

Sch. 40 PVC will run to the sprinkler heads. The pipe should be placed 6-8 inches below the

ground, unless crossing water lines. When a water supply must be crossed by a spray irrigation line, the installer will locate the spray irrigation line at least six inches below the water supply line and center a twenty foot long pipe on the water line, thus making the pipe joints at least ten feet from the water line. In situations where the irrigation line cannot be placed below the water line, the irrigation line must be placed at least six inches above the water line, then center a twenty-foot long (or longer) pipe on the water line, and sleeve the irrigation line inside another pressure rated pipe. Pipe routed under traffic bearing areas must be sleeved with Sch. 40 PVC.

Landscaping:

The existing vegetation at this site is suitable for surface irrigation, however all exposed rock within spray area shall be covered with at least 4 inches of soil and seeded with a mix of rye and Bermuda grasses prior to system operation. Some trees may be required to be removed to avoid obstruction of the application area. It is recommended that a good stand of vegetation be established prior to system operation.

Inspection:

One open pit inspection will be performed when system components are in place and operational. Hays County Environmental Health Department may require more inspections.

Maintenance Requirements:

Permit approval requires the applicant to furnish to the regulatory authority a valid maintenance contract with a maintenance company. The maintenance company will verify that the surface irrigation system is operating properly and that they will provide on-going maintenance of the installation. The initial maintenance contract must be valid for a minimum of two years. A maintenance contract will authorize the Maintenance Company to maintain and repair the system as needed. Again, a copy of the signed maintenance contract between the property owner and the approved Maintenance Company shall be provided to the permitting authority prior to final permit approval.

The owner shall continuously maintain a signed written contract with a valid maintenance company and shall submit a copy of the contract to the permitting authority at least 30 days prior to the date service will cease.

If the property owner or Maintenance Company desires to discontinue the provisions of the maintenance contract, the Maintenance Company shall notify, in writing, the permit authority at least 30 days prior to the date service will cease.

If a maintenance company discontinues business, the property owner shall within 30 days of the termination date, contract with another approved maintenance company and provide the permitting authority with a copy of the newly signed maintenance contract.

Affidavit:

Prior to issuance of a permit, a certified copy of an affidavit, which has been duly recorded at the Hays County clerk's office and filed in reference to the real property deed on which the surface application system is to be installed, must be submitted. Such an affidavit shall state that the property shall not be transferred to a new owner without:

- (1) The new owner being advised that the property contains a surface application system for wastewater disposal;
- (2) The permit issued to the previous owner of the property being transferred to the new owner in accordance with §285.20(5) of the TCEQ OSSF Rules, i.e.; the permit will be issued in the name of the owner of the 05SF. Permits shall be transferred to the new owner automatically upon legal sale of the OSSF. The transfer of an OSSF permit under this section shall occur upon actual transfer of the property on which the OSSF is located unless the ownership of the OSSF had been severed from the property.
 - (3) The new owners submitting a valid signed maintenance contract to the permitting authority.

Testing and reporting:

The maintenance company shall inspect each permitted surface irrigation system as directed by the testing and reporting schedule shown in §285.91(4) of the TCEQ OSSF Rules, or as may be required by the Hays County Environmental Health Department. The Maintenance Company shall report any responses to homeowner complaints and the results of its maintenance findings to the Hays County Environmental Health Department within ten days of the specified reporting frequency.

Treated effluent must be disinfected prior to surface application. The efficiency of the disinfection procedure will be established by monitoring the fecal coliform count or total chlorine residual from representative effluent grab samples as directed in the testing and reporting schedule. The frequency of testing and type of tests required are shown in §285.91(4) of the TCEO OSSF Rules.

OSSF Maintenance and management Practices:

- (1) A OSSF should not be treated as if it were a normal city sewer system.
- (2) The excessive use of in-sink garbage grinders and grease discarding should be avoided. In-sink garbage grinders can cause a rapid buildup of sludge or scum resulting in a requirement for more frequent cleaning and possible system failure.
- (3) Do not use the toilet to dispose of cleaning tissue, cigarette butts, or other trash. This disposal practice will waste water and also impose an undesired solids load on the treatment system.
- (4) Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device. If sludge or scum accumulates to this point, solids will leave the tank with the liquid and possibly cause clogging resulting in sewage surfacing or backing up into the house through the plumbing fixtures.
- (5) Since it is not practical for the average homeowner to inspect his tank and determine the need for cleaning, a regular schedule of cleaning the tank at two-to-three year intervals should be established. Commercial cleaners are equipped to readily perform the cleaning operation. Owners of OSSF's shall engage only persons registered with the TCEQ to transport the septic tank cleanings.
- (6) Do not build driveways, storage buildings, or other structures over the treatment works

- or its disposal field.
- (7) Chemical additives or the so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may even be harmful to the tank's operation
- (8) Soaps, detergents, bleaches, drain cleaners, and other household cleaning materials will very seldom affect the operation of the system. However moderation should be exercised in the use of such materials.
- (9) Chapter 285.37 states that back flush or discharge from water treatment equipment installed on or after September 1, 2003 may be discharged into an OSSF if it regenerates using a demand-initiated regeneration (DIR) control device. The water softener must be clearly labeled as being equipped with a DIR device as follows:
 - 1. The label shall be affixed to the outside of the water softener so the label can be easily inspected and read.
 - 2. The label shall provide the name of the company that installed the water softener.
 - 3. The water softener drain line must bypass the treatment system and connect directly to a pump tank.
- (10) The liquid from the OSSF is still heavily laden with bacteria. The surfacing of this liquid constitutes a hazard to the health of those that might come into contact with it.

Water Conservation Practices

- (1) Showers usually use less water than baths. Install water saving shower heads that uses less than two and 1/2 gallons per minute saves both water and energy.
- (2) If you take a tub bath, reduce the level of the water in the tub from the level to which you customarily fill it.
- (3) Leaky faucets and faulty toilets fill-up mechanisms should be repaired as quickly as possible.
- (4) Check toilets for leaks that may not be apparent. Add a few drops of food coloring into the tank. Do not flush. If the color appears in the bowl within a few minutes, the toilet fill or ball-cock valve needs to be adjusted to prevent water from overflowing the stand pipe or the flapper at the bottom of the toilet tank need to be replaced.
- (5) Reduce the amount of water used for flushing the toilet by installing one of the following: a new toilet (1.6 gallons); a toilet dam; or filling and capping one quart plastic bottles with water (usually one is all that will fit in smaller toilet tanks) and lowering them into tank of the existing 3.5 gallon or larger toilet. Do not use bricks since they may crumble and cause damage to the fixture.
 - (6) Try to run the dishwasher with a full load, whenever possible.
- (7) Avoid running the water continuously for brushing teeth, washing hands, rinsing kitchen utensils or for cleaning vegetables.
- (8) Use faucet aerators that restrict flow to no more that 2~2 gallons per minute to reduce water consumption.
- (9) Keep a container if drinking water in the refrigerator instead of running the faucet until it turns cool.
- (10) Insulate hot water pipes to avoid long delays of wasted water while waiting for the heated water.
- (11) Ask your federal, state, county. City or local government about their programs to conserve water and how they can help you save water.