

Comal County OFFICE OF COMAL COUNTY ENGINEER

#### License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date:	04/23/2019		Permit Number:	107461
Location Description:	132 EMILY L CANYON LA			
	Subdivision: Unit: Lot: Block: Acreage:	The Greens at Canyon L 3	ake .	
Type of System:	Aerobic Drip Irrigation			
Issued to:	BATM, LLC			

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Commission on Environmental Quality.

The license grants permission to operate the facility. It does not guarantee successful operation. It is the responsibility of the owner to maintain and operate the facility in a satisfactory manner.

Alterations to this permit including, but not limited to:

- Increase in the square feet of living area
- Increase in the number of bedrooms
- A change of use (i.e. residential to commercial)
- Relocation of system components (including the relocation of spray heads)
- Installation of landscaping
- Adding new structures to the system

may require a new permit. It is the responsibility of the owner to apply for a new permit, if applicable.

Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority Comal County Environmental Health

ENVIRONMENTAL HEALTH INSPECTOR

ENVIRONMENTAL HEALTH COORDINATOR

OS 0025599

**Comal County Environmental Health OSSF Inspection Sheet** OSSF Installer #: 05 000 5924 Installer Name: Winters 3rd Inspection Date: 4/23/19 1st Inspection Date: 4/8/19 2nd Inspection Date: Inspector Name: Mike T. Inspector Name: Mike T. Inspector Name: Address: GACENS Q C.L. 132 Emily 107461 Permit#: LN. Amarser 2nd Insp. 3rd Insp. 285.31(a) SITE AND SOIL CONDITIONS & 285.30(b)(1)(A)(iv) SETBACK DISTANCES Site and Soil 285.30(b)(1)(A)(v) **Conditions Consistent with** 4/8/19 Y/22/19 285,30(b)(1)(A)(iii) **Submitted Planning Materials** 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(I) 1 SITE AND SOIL CONDITIONS & 285.91(10) SETBACK DISTANCES Setback 285.30(b)(4) Distances 285.31(d) **Meet Minimum Standards SEWER PIPE Proper Type Pipe** from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, 285.32(a)(1) SDR 26) SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per 285.32(a)(3) Foot SEWER PIPE Two Way Sanitary -Type Cleanout Property Installed (Add. C/O Every 100' &/or 90 285.32(a)(5) degree bends) **PRETREATMENT Installed (If** required) TCEQ Approved Ust 285.32(b)(1)(G)285.32(b)(1 **PRETREATMENT Septic Tank(s)** )(E)(III) **Meet Minimum Requirements** 285.32(b)(1)(E)(IV) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(l) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(II)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(II)(I) PRETREATMENT Grease Interceptors if required for 285.34(d) commercial

MT- 4/8/19 Tark set, Leveled Operational ~ Ready For Couch

MT-4/23/19 Covered & sod

Dissertioner	American	Citations	Notes	1st http.	2nd insp.	and imp
SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(E) 285.31(2) 285.32(b)(1)(F) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(I) 285.32(b)(1)(E)(I) 285.32(b)(1)(C)(II) 285.32(b)(1)(C)(II) 285.32(b)(1)(C)(II) 285.32(b)(1)(A) 285.32(b)(1)(E)(iv)				
ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
SEPTIC TANK Tank Volume Installed						
2 PUMP TANK Volume installed						1
AEROBIC TREATMENT UNIT Size	1	ann an Arabha - Ar ann an Ann an Ailteann an Aireann an Aireann an Aireann an Aireann an Aireann Ann an Aireann	600	4/8/19		4/23/19
AEROBIC TREÁTMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number			solan einc			
DISPOSAL SYSTEM Absorptive		285.33(a)(1) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
6 DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(4) 285.33(a)(2)				
DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

No.	Description Arws	er Citations	Notes	1st insp.	2nd Insp.	3rd Insp.
DU	SPOSAL SYSTEM Drip Irrigation	285.33(a)(1)		ALC: A STATE		
		285.33(a)(3)		-0.5 C	5	1.4
10		285.33(a)(4)			C. C	
		285.33(a)(2)		6 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		
19					2812	La state
DIS	SPOSAL SYSTEM Soil					
- Sul	bstitution	285.33(d)(4)				
20						-
	SPOSAL SYSTEM Pumped	285.33(a)(3)		Stat Then in 1994		
Eff	luent	285.33(a)(1)		화면 같 . 사망이	180.211	
		285.33(a)(2)		with the second	1º 4 Jone My	
21		285.33(a)(3)				-
DIS	SPOSAL SYSTEM Gravelless Pipe					
		285.33(a)(2)				
		285.33(a)(4)				
		285.33(a)(1)				1
22						
DIS	SPOSAL SYSTEM Mound	285.33(a)(3)			State Harris	
		285.33(a)(1)		CONTRACT CONTRACT	Contract (1)	
		285.33(a)(2)			1.00	
		285.33(a)(4)		1. C	2000 Carlos 11	March 1
		403.33(8)(4)			1.000	
23	SPOSAL SYSTEM Other					1
		285.33(d)(6)				
(de	escribe) (Approved Design)	285.33(c)(4)			1	1
24						1
24	AMUTICI D Abcompting Desigling					
	AINFIELD Absorptive Drainline					
	PVC			in the second		
25 OF	4" PVC					a destantes
	AINFIELD Area Installed			Copulation -		
26						
DR	AINFIELD Level to within 1 inch					
ne	r 25 feet and within 3 inches	the second second		Set - Conse		
1.	er entire excavation	285.33(b)(1)(A)(v)				1
OV	er entire excavation					
27					1	
DF	AINFIELD Excavation Width					
D	RAINFIELD Excavation Depth					1000
	AINFIELD Excavation		A CONTRACT OF			
1 100		state -			1	
	paration DRAINFIELD Depth of					A COMPANY
Po	orous Media		1.86.1		1	
DF	AINFIELD Type of Porous Media					
					102 10 1	
28	and the second state of the second	1214 Anna -				
D	RAINFIELD Pipe and Gravel -				Constant States	
0	eotextile Fabric in Place	285.33(b)(1)(E)			The second	
23	and the second sec			- And -		
	RAINFIELD Leaching Chambers				1	
Di	RAINFIELD Chambers - Open End	Aller and a second second second		E Contraction of the second		
	ates w/Splash Plate, Inspection					
	ort & Closed End Plates in Place					
1 1		285.33(c)(2)		380		
(p	er manufacturers spec.)					
	a second a second second second	Mary Mary Mary		1884 A 18 18 19 19		
			A State of the second sec			
30						
1 1	OW PRESSURE DISPOSAL					
S	STEM Adequate Trench Length					
	Width, and Adequate	385 22/4//1//0/0				
	eparation Distance between	285.33(d)(1)(C)(i)				
	renches					
1 1				1		1

to. Description	Amuser	Citations	Notes	1st Insp. 2nd	imsp. 3rd insp.
EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom ) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5° dia.) & Pipe Holes (3/16 - 1/4° dia. Hole Size ) 5 ft. Apart	/	285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)		4/ 8/19	4/23/19
AEROBIC TREATMENT UNIT IS Aerobic Unit Installed According to Approved Guidelines.	1	285.32(t)(1)			
AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions	/				
AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Schlorine Tablets in Place.	1				
PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump					
56 Separate Circuit From Pump PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions 37					
PUMP TANK Secondary restraint system provided PUMP TANK Electrical					
Connections in Approved Junction 39 Boxes / Wiring Buried					

No.	Description	Anweet	Citations	Rotes	1st insp.	and insp.	3rd Imap.
	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?	/	285.33(d)(2)(G)(iii)(II)285.3 3(d)(2)(G)(iii)(III)285.33(d)( 2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)		4/8/19		4/23/A
40	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed	/	285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)				
41	APPLICATION AREA Area Installed	V					
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						

		Comal County E OSSF Ins				Healtl	h				
Installer Name: Winte			-			5 000	592	4			
1st inspection Date: 4/	8/1	2nd Inspection Dat	:e:				pection [				
Inspector Name: mike	1.	Inspector Name:			1	_	spector N				
Permit#: 107461		Address: GACCAS	0	C.L.		132	Em		LN.		
o. Description SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials	Anwser	Citations 285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)			Nótes			1st Insp.		<u>l Insp.</u>	3rd Insp.
SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	/	285.91(10) 285.30(b)(4) 285.31(d)									
SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	/	285.32(a)(1)									
SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot	/	285.32(a)(3)									
SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)	/	285.32(a)(5)									
PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G)285.32(b)(1 )(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(F) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(E) 285.32(b)(1)(E) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(I)						-			
PRETREATMENT Grease Interceptors if required for commercial		285.34(d)									

MT- 4/8/19 Tark set, Levded Operational ~ Ready For Cover

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o. Description	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2 Compartments Provided with		285.32(b)(1)(E) 285.91(2) 285.32(b)(1)(F)				
Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet		285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii) 285.32(b)(1)(D)				
SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(i) 285.32(b)(1)(B) 285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(E)(iv)				
ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
SEPTIC TANK Tank Volume Installed						-
PUMP TANK Volume Installed						
AEROBIC TREATMENT UNIT Size Installed	~		600	4/8/19		
AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	/		Solan Einc			
DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

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2.

No. Description	Anwse		Notes	1st Insp.	2nd Insp.	3rd Insp.
DISPOSAL SYSTEM Drip	Irrigation	285.33(a)(1)				-
- Contraction 1		285.33(a)(3)		and the second		1 August
		285.33(a)(4)				13.5
		285.33(a)(2)				
9 DISPOSAL SYSTEM Soil						1 2 1 2
		285.33(d)(4)				
0 Substitution			the second s			1
DISPOSAL SYSTEM Pum	ped	285.33(a)(3)		Salat - Contract (M		1997
Effluent		285.33(a)(1)		18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.64	412 %
1		285.33(a)(2)		Entre State	1 - T- E.	182 242
DISPOSAL SYSTEM Grav	elless Dine	285.33(a)(3)				1
DISPOSAL STSTEIN GIAV	elless ripe	285.33(a)(2)				
		285.33(a)(4)				
	1	285.33(a)(1)				1
2		203.35(a)(1)				
DISPOSAL SYSTEM Mou	ind	285.33(a)(3)			1231123	1.2000
	States and	285.33(a)(1)		All a state of the		1 1923
		285.33(a)(2)				9
		285.33(a)(4)				With St. 18
23	200310 0		And the second			And -5
DISPOSAL SYSTEM Othe	er	285.33(d)(6)				
(describe) (Approved De	esign)	285.33(c)(4)				
DRAINFIELD Abcomting	Desigling					
DRAINFIELD Absorptive	Drainline				8	
3" PVC	Maria					1.11
or 4" PVC	and the second					-
DRAINFIELD Area Instal	led			Aller and a second		121
	able 4 leab					
DRAINFIELD Level to wi						25 44
per 25 feet and within 3	sinches	285.33(b)(1)(A)(v)				13.5
over entire excavation						18 5
27	Cine Service in 1973					20
<b>DRAINFIELD Excavation</b>	Width					1
<b>DRAINFIELD Excavation</b>	Depth					18.
<b>DRAINFIELD Excavation</b>	and the second					
Separation DRAINFIELD	Depth of					
Porous Media						
DRAINFIELD Type of Po	rous Media					
on an inclusive of PO	i ous meula					
	and the second					
28	Service			and the second state		
DRAINFIELD Pipe and G		000 000 000				100
Geotextile Fabric in Pla		285.33(b)(1)(E)				1. · · · · ·
DRAINFIELD Leaching C			anna sanna sanna anna anna anna anna an			1
DRAINFIELD Leaching C					No Cart	12.10
				With the start		13
Plates w/Splash Plate, I						
Port & Closed End Plate		285.33(c)(2)		del 12 mars		
(per manufacturers spe	:C.)					
	and a start of the				1 100	132
30	Martin Same	The state of the state of the		all a straight and		
LOW PRESSURE DISPOS	SA1		and the many and the second second second second			
SYSTEM Adequate Tren					1	1
					1	
& Width, and Adequate		285.33(d)(1)(C)(i)				
Separation Distance be	tween					
Trenches						

No.	Description	Anwser	Citations	Notes	1st insp.	2nd Insp.	3rd Insp.
	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field ( 1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom ) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size ) 5 ft. Apart	/	285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)		4/ 8/19		
	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.	1	285.32(c)(1)				
	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions	/					
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.	/					
	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
37	PUMP TANK Secondary restraint						
38	system provided PUMP TANK Electrical Connections in Approved Junction						
	Boxes / Wiring Buried						

No.	Description	Anwser	Citations	Notes	1st insp.	2nd Insp.	3rd Insp.
	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?	/	285.33(d)(2)(G)(iii)(II)285.3 3(d)(2)(G)(iii)(III)285.33(d)( 2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)		4/8/19		
40	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed	/	285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



# Comal County office of comal county engineer

# Permit of Authorization to Construct an On-Site Sewage Facility Permit Valid For One Year From Date Issued

Permit Number:	107461
Issued This Date:	05/16/2018
This permit is hereby given to:	BATM, LLC

To start construction of a private, on-site sewage facility located at:

132 EMILY LN CANYON LAKE, TX 78133

Subdivision: The Greens at Canyon Lake Unit: Lot: 3 Block: Acreage:

### APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and County requirements.

Call (830) 608-2090 to schedule inspections.

### COUNTY OF COMAL

### COUNTY ENGINEER'S OFFICE

### **OSSF DEVELOPMENT APPLICATION CHECKLIST**

Staff will complete sha	ded
items Date Received	initial

1	 	
1-7111 1		
10/46		
Permit Number		

Instructions:

Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist **must** accompany the completed application.

**OSSF** Permit

Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate

X Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer

Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.

Kequired Permit Fee

Copy of Recorded Deed

X Surface Application/Aerobic Treatment System

Kecorded Certification of OSSF Requiring Maintenance/Affidavit to the Public

X Signed Maintenance Contract with Effective Date as Issuance of License to Operate

I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.

Signature of Applicant

05/01/18

COMPLETE APPLICATION

Check No.\_

Receipt No.

**INCOMPLETE APPLICATION** 

(Missing Items Circled, Application Refused)

## \* \* \* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \* \* \*

# APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSED TO OPERATE

Date	March 23, 2018		Permit # 107461
Owner Name	BATM, LLC	MAY <b>01</b> 2018 Agent Name	GREG W. JOHNSON, P.E.
Mailing Addres		COUNTY ENGINE	
City, State, Zip		City, State, Zip	NEW BRAUNFELS, TX 78132
Phone#	210-241-3938	Phone #	(830) 905-2778
Email		- Email	gregjohnsonpe@yahoo.com
All corresponde	ance should be sent to: 🗌 Owner 🛛 Agent	Both	Method: 🗌 Mail 🔀 Email
Subdivision Na	me THE GREENS AT CANYON LAKE Unit/Ph	ase/Section	Lot 3 Block
Acreage/Legal			
Street Name/A	ddress 132 EMILY LANE	City C	ANYON LAKE Zip 78133
			and the second se
Type of Devel			
Single Fam			
	Construction (House, Mobile, RV, Etc.)	HOUSE	
Number	of Bedrooms 4		
Indicate	Sq Ft of Living Area2097		
(Planning ma	I or Institutional Facility aterials must show adequate land area for doubling t Facility	the required land need	ed for treatment units and disposal area)
Offices,	Factories, Churches, Schools, Parks, Etc Inc.	licate Number Of Oc	cupants
Restaur	ants, Lounges, Theaters - Indicate Number of S	Seats	
	otel, Hospital, Nursing Home - Indicate Numbe		
	railer/RV Parks - Indicate Number of Spaces		
Miscella	neous		
Estimated Cos	t of Construction: \$350,000(Struc	ture Only)	
Is any portion	of the proposed OSSF located in the United St	ates Army Corps of	Engineers (USACE) flowage easement?
Yes X	ło		
(if yes, owner m	ust provide approval from USACE for proposed OS	SF improvements withi	n the USACE flowage easement)
Source of Wat	er 🔀 Public 🗋 Private Well		
Are Water Sav	ing Devices Being Utilized Within the Residend	ce? 🛛 Yes 🗌 No	, ,
any material fac property for the construct will ne	completed application and all additional information ts. Authorization is hereby given to the permitting a purpose of site/soil evaluation and inspection of pri- to be issued until the Floodplain Administrator has p	uthority and designate vate sewage facilities.	d agents to enter upon the above described I also understand that a permit of authorization to
Prevention Orde	Ault a	04/30/	
Signature of Ow	ner	Date	Page I of 2 Page I of 2 Revised January 2016

195 David Jonas Dr., New Braunfeis, Texas 78132-3760 (830) 608-2090 Fax (830)

#### THE GREENS AT CANYON LAKE, LOT 3

### \* \* \* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \* \* \*

#### APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN **ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE**

Planning Materials & Site	Evaluation as Required Comple	ted By GREG W. JOHNSON, P.E	RECEIVED
System Description	PROPRIETARY;	AEROBIC TREATMENT AND DRIP	TUBINAY 01 2018
Size of Septic System Re	quired Based on Planning Materi	als & Soil Evaluation	COUNTY ENGINEER
Tank Size(s) (Gallons)	SOLAR AIR SA600-768PT	Absorption/Application Area (Sq Ft)	
Gallons Per Day (As Per (Sites generating more than	TCEQ Table III)     300       5000 gallons per day are required to	o obtain a permit through TCEQ)	
	ver the Edwards Recharge Zone? Is must be completed by a Registere	Yes 🔀 No ed Sanitarian (R.S.) or Professional Engine	er (P.E.))
Is there an existing TCEC	approved WPAP for the propert	by? □ Yes 🛛 No	
(if yes, the R. S. or P. E. sha	all certify that the OSSF design compl	lies with all provisions of the existing WPA	».)
(If yes, the R.S. or P. E. sha	Il certify that the OSSF design will co	nent activity require a TCEQ approved omply with all provisions of the proposed V has been approved by the appropriate reg	VPAP. A Permit to Construct will
is the property located ov	ver the Edwards Contributing Zon	ne? XYes No	
Is there an existing TCEC	approval CZP for the property?	🗌 Yes 🛛 No	
(if yes, the P.E. or R.S. shall	I certify that the OSSF design compli	ies with all provisions of the existing CZP)	
(if yes, the P.E. or R.S. shall	I certify that the OSSF design will cor	ent activity require a TCEQ approved C mply with all provisions of the proposed CZ approved by the appropriate regional off	P. A Permit to construct will)
Is this property within	an incorporated city?	es No	1
If yes, indicate the cit	ty:	GREG W. JO B. B. G7587 B. F. G/STE SSIONAL	HNSON REP ENGINE FIRM #2585
m	provided above is true and correct to	March 27, 2018	Page 2 of 2
Signature of Designer		Date	raye z 01 z

195 David Jonas Dr., New Braunfels, Texas 78132-3760 (830) 608-2090 Fax (830) 608-2078

**Revised January 2016** 

AFFIDAVIT



BATM, LLC

THE COUNTY OF COMAL STATE OF TEXAS

#### CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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SURVEY

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities MAY 01 2018 (OSSF's), this document is filed in the Deed Records of Comal County, Texas.

COUNTY ENGINEER The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (TCEQ) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

Π An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert legal description):

UNIT/PHASE/SECTION BLOCK 3 LOT THE GREENS AT CANYON LAKE SUBDIVISION

IF NOT IN SUBDIVISION: \_\_\_\_\_\_ ACREAGE \_\_\_\_\_

(Notary Seal Here)

The property is owned by (insert owner's full name):

This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally.

Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

HPUL ,20 18 WITNESS BY HAND(S) ON THIS 30 DAY OF Ann Sullivan man Owner(s) signature(s) Owner (s) Printed name (s) DAY OF – SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 20 18 THIS AREA FOR COMAL COUNTY CLERK RECORDINC PURPOSES ONLY Filed and Recorded Official Public Records Bobbie Koepp, County Clerk ablic Signature Comal County, Texas GREG W. JOHNSON Notary Public, State of Texas 5/01/2018 12:00:46 PM My Commission Expires May 17, 2018 ERRI 1 Page(s)

201806016610

Bobbie Keepp

#### DAVID WINTERS SEPTICS, LLC PO BOX 195 SPRING BRANCH, TEXAS 78070 830-935-2477 OFFICE 830-935-2470 FAX winters3@gvtc.com

RECEIVED

MAY 01 2018

**Routine Maintenance and Inspection Agreement** 

COUNTY ENGINEER

This Work for Hire Agreement (hereinafter referred to as this "Agreement") is entered into by and between

 BATM, LLC
 (referred to as "Client") and David Winters Septics, LLC. Inc. (hereinafter referred to as "Contractor") located at 132 EMILY LANE / THE GREENS AT CANYON LAKE, LOT 3
 Date beginning on LTO

 and contract ending on \_\_\_\_\_\_\_. By this Agreement the Contractor agrees to render professional service, as described herein, and the Client agrees to fulfill the terms of this Agreement as described herein.
 Date beginning on LTO

This contract will provide for all required inspections, testing and service for your Aerobic Treatment System. The policy will include the following:

- 1. Three (6) inspections per year/service calls (at least one every four months), for a total of 6 over the two year period. Including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting control panel, air pumps, air filters, diffuser operation, and replacing or repairing any component not found to be functioning correctly. Any alarm situations affecting the proper function of the Aerobic, process will be addressed within a 48 hour time frame. After the contract for the one year service agreement expires, work on the remaining warranty does not include labor prices. Repair work on non-warranty parts will include price for labor and parts. The prices will be quoted before work is performed.
- 2. An effluent quality inspection consisting of a visual check of color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.
- If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
- 4. The Client is responsible for the chlorine tablets; they must be filled before or during the service visit.
- Any additional visits, inspections or sample collection required by specific Municipalities, Water/River Authorities, and County Agencies the TCEQ or any other authorized regulatory agency in your jurisdiction will be covered by this policy.

At the conclusion of the initial service policy, our company will make available, for purchase on an annual basis, a continuing service policy cover NORMAL inspection, maintenance and repair.

The Homeowners Manual must be strictly followed or warranties are subject invalidation. Pumping of sludge build up is not covered by this policy and will result in additional charges.

This agreement does not cover any labor or parts for items which must be replaced due to acts of God, ie, lightning strikes, high winds, flooding, freezing.

This agreement DOES NOT COVER materials or parts which must be replaced due to misuse or abuse of the system. These include but are not limited to: Sewage flows exceeding the recommended daily hydraulic design capabilities. Disposal of Non-Biodegradable materials, such as chemicals, grease or oil, sanitary napkins, tampons, baby wipes, disposable diapers. Clogs in the line between the house and the tank.

This agreement DOES NOT COVER LABOR OR PARTS for out of warranty items.

#### ACCESS BY CONTRACTOR

The contractor or anyone authorized by the contractor may enter the property at reasonable times without prior notice for the purpose of service described above. PAYMENT FOR SERVICES

PAGE 1 OF 2

The client will pay compensation to the contractor for the services in the amount of \_\_\_\_\_\_. This compensation shall be payable in one lump sum payment upon acceptance of this agreement. Payments not received within 30 days of the above described due date will be subject to a \$25.00 late penalty.

#### TERMINATION OF THIS AGREEMENT

Either party may terminate this agreement within 10 days of written notice in the event of substantial failure to perform in accordance with its terms by other party without fault of the terminating party. If this agreement is terminated, the contractor will immediately notify the appropriate health authority.

#### LIMIT OF LIABILTY

The Contractor **will not** be liable for indirect, consequential, incidental or punitive damages, whether in contract or any other theory. In no event shall the Contractor's liability for direct damages exceed the price for the services described in this agreement.

Permit #\_\_\_\_

The effective date of this initial maintenance contract shall be the date the license to operate is issued.

Owner

Contractor

**David Winters Septics, LLC** 

PO Box 195

Spring Branch, Texas 78070

Office #830-935-2477 - Fax # 830-935-2470

MP#0001686

Signature of Contractor

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MAY **01** 2018

COUNTY ENC.

BATM, LLC

Name

308 CAMPBELL DRIVE

CANYON LAKE, TX 78133 City, State

Phone # 210-241-3938

Signature of Home Owner

### **ON-SITE SEWERAGE FACILITY** SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: _	March 26, 2018	
Site Location:	The GREENS at CANYON LAKE, LOT 3	RECEIVED
Proposed Excavation Depth:	N/A	MAY 01 2018
Requirements:		1 2018

nents: At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area. COUNTY ENGINEER

For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the

proposed excavation depth. For surface disposal, the surface horizon must be evaluated.

Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
6"	Ш	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 6"	BROWN

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
	SAME		AS		ABOVE	
4	1					
5 L	]					

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability.

03/26/2018 Date

Greg W. Johnson, P.E. 67587-F2585, S.E. 11561

### **OSSF SOIL EVALUATION REPORT INFORMATION**

Date: March 27, 2018		
Applicant Information:	Site Evaluator Informa	tion:
Name: BATM, LLC.	Name: Greg W. Johnson,	P.E., R.S, S.E. 11561
Address: 308 CAMPBELL DRIVE	Address: 170 Hollow O	
City: CANYON LAKE State: TEXAS	City: New Braunfels	
Zip Code: 78133 Phone: (210) 241-3938	Zip Code: 78132 Pho	one & Fax (830)905-2778
Property Location:	Installer Informati	on:
Lot 3 Unit Blk Subd. The GREENS at CANYON	LAKE Name:	
Street Address: 132 EMILY LANE	Company:	
City: CANYON LAKE Zip Code: 7813.	3 Address:	
Additional Info.:	Citer	Chatan
	Zip Code:	Phone RECEIVED
		RECEIVED
Topography: Slope within proposed disposal area: _	<u>20</u> %	
Presence of 100 yr. Flood Zone:	YESNO_X	MAY 01 2018
Existing or proposed water well in nearby area.	YESNO_X	
Presence of adjacent ponds, streams, water impoundments	YESNO_X	COUNTY ENGINEER
Presence of upper water shed	YESNO_X	ENGINEER
Organized sewage service available to lot	YES NO X	

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 27, 2012).

March 27 2019

. JOHNSON, P.E. 67587 - S.E. 11561 GREG

03/21/18 DATE

1 8



FIRM #2585

DRIP TUBING SYSTEM DESIGNED FOR: BATM, LLC 308 CAMPBELL DRIVE CANYON LAKE, TX 78133

RECEIVED MAY 01 2018

COUNTY ENGINEER

### **SITE DESCRIPTION:**

Located in The Greens at Canyon Lake, Lot 3, at 132 Emily Lane, this septic will serve a four bedroom residence (2097 sf) in area with Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

### **PROPOSED SYSTEM:**

A 3 or 4 inch SCH-40 pipe discharges from the residence into a Solar Air SA-600 600 gpd aerobic treatment plant containing a 374 gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a tank operating level from 50-70 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal 1" Super Filter, disk filter " filter then through a 1" SCH-40 manifold to a 2500 sf. drip tubing field, with Netifim Bioline drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to provide a continuous flush and to periodically field flush the system by cycling a 1" ball valve. Solids caught in the disk filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to installing tubing the entire field must be scarified and built up with six inches of Type II or III soil. Drip tubing will be laid and the entire field area will be capped with 6" of loamy soil (Type 2 or 3 - NOT SAND). The field area will be sodded with grass with hearty grass such as Bermuda, St. Augustine, etc. prior to system startup.

Tanks must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

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# MAY 01 2018

### **DESIGN SPECIFICATIONS:**

Daily waste flow: 300 GPD Table III COUNTY ENGINEER Pretreatment tank size: 374 Gal Plant Size: Solar Air SA600 600gpd (TCEQ Approved) Pump tank size: 768 Gal Reserve capacity after High Level: 100 Gal (1/3 day Req'd) Application Rate: Ra = 0.2 gal/sf Total absorption area: Q/Ra = 300 GPD/0.20 = 1500 sf. (Actual 2500 sf.) Total linear feet drip tubing: 1250' Netifim Bioline drip tubing .61 GPH Pump requirement: 625 emitters (a) .61 gph (a) 30 psi = 6.354 gpm Pump Requirement (cont.): Franklin C1 20XC1-05P4-W115 submersible well pump Dosing volume: 50-70 gal. Pump Tank Calculations: 768 Gal (14.5 gal/in.) Volume below working level = 12''= 210 gal Working level = 300 gal = 21.5" Reserve Requirement = 1/3 day = 100 gal. = 7.25" MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

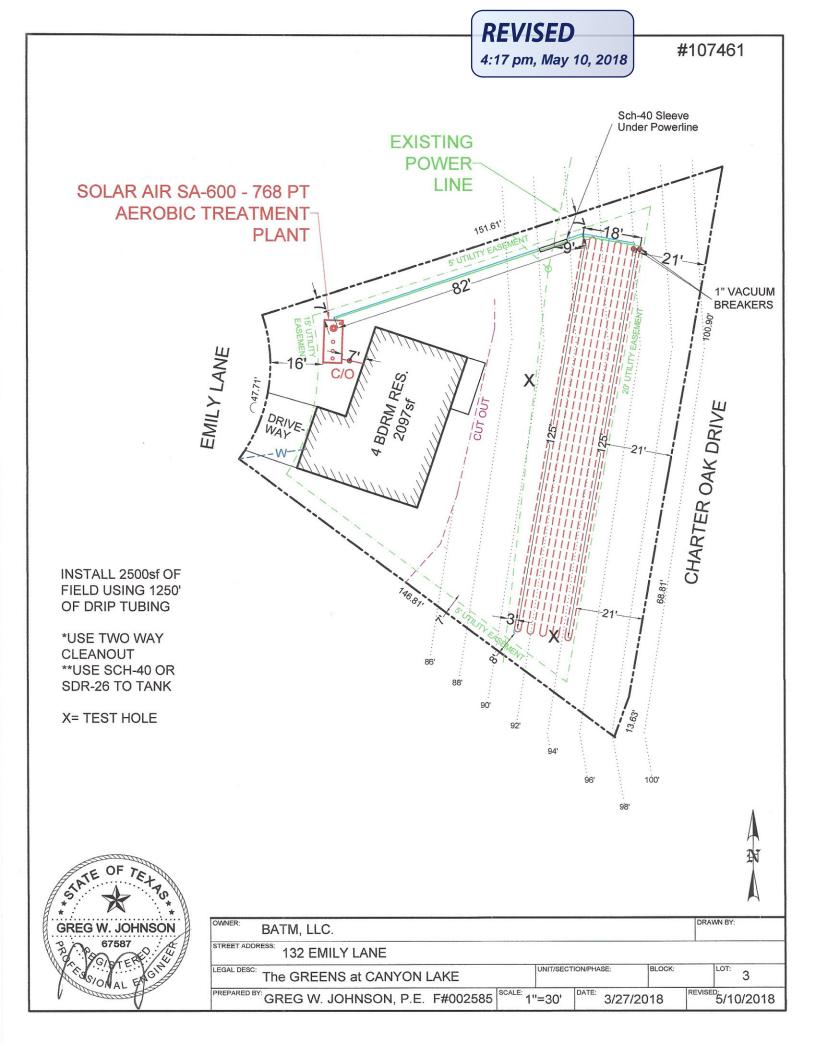
IN DRIP TUBING W/ NOM. DIA. 0.55" ID MSV = 2 FPS (IId<sup>1</sup>2)/4\*7.48 gal/cf\*60 sec/min MSV = 2(3.14159((.55/12)<sup>1</sup>2)/4)\*7.48\*60 MSV = 1.5 gpm PER LINE \* 4 LINES = 6 GPM MIN FLOW RATE

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID MSV = 2 FPS (IId<sup>1</sup>2)/4\*7.48 gal/cf\*60 sec/min MSV = 2(3.14159((1.049/12)<sup>1</sup>2)/4)\*7.48\*60 MSV = 5.4 GPM

101/2018

Greg W. Johnson, P.E. No. 67587, F#2585 170 Hollow Oak New Braunfels, Texas 78132 830/905-2778







P.O. Box 2226 Canyon Lake, Texas 78133-0009 (830) 964-3346 • 1-888-554-4732 www.pec.coop

Se habla español.

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April 12, 2018

Mr. Charles W. Sullivan BATM LLC 8115 FM Highway 2673 Canyon Lake, Texas 78133-6430

Dear Mr. Sullivan:

Pedernales Electric Cooperative (PEC) has approved the request for a partial easement variance on your property situated at 132 Emily Lane. This partial variance is for a proposed one inch (1") Purple Schedule 40 supply line within a 3 or 4 inch sleeve, being across electric utility easement dedications. These utility easement dedications were filed for public record, in the Real Property and/or Plat Records of Comal County, Texas.

Pedernales Electric Cooperative does have existing electric facilities within this electric utility easement dedication. Should you desire to have said easement released in part and/or redefined, please contact our Senior Realty Specialist, Ernest Hernandez, at 1-800-868-4791, Extension 7637.

Sincerely.

David S. Nelson, SR/WA Electrical Distribution Planning & Design Manager

DSN:EAG:eh Y99/6

cc: Mr. Greg W. Johnson, P.E., R.S. Mr. Richard H. Taylor, R.P.L.S.

Enclosures

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MAY 01 2018

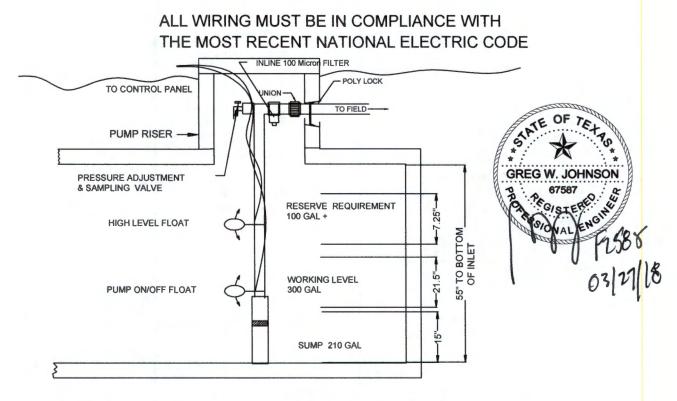
TANK NOTES:

Tanks must be set to allow a minimum of COUNTY ENGINEER 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

A two way sanitary tee is required between residence and tank.

A minimum of 4" of sand, sandy loam, clay loam free of rock shall be placed under and around tanks



# TYPICAL PUMP TANK CONFIGURATION SOLAR-AIR SA-600 768 GAL PUMP TANK

# **Arkal 1" Super Filter**

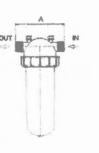
# Catalog No. 1102 0\_\_\_

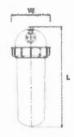
#### Features

- · A "T" shaped filter with two 1" male threads.
- A "T" volume filter for in-line installation on 1" pipelines.
- The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- · Manufactured entirely from fiber reinforced plastic.
- · A cylindrical column of grooved discs constitutes the filter element.
- Spring keeps the discs compressed.
- Screw-on filter cover.
- · Filter discs are available in various filtration grades.

#### **Technical Data**

	1" BSPT (male)	1" NPT (male)	
Inlet/outlet diameter	25.0 mm - nominal diameter		
	33.6 mm - pipe diameter (O. D.)		
Maximum pressure	10 atm	145 psi	
Maximum flow rate	8 m <sup>3</sup> /h (1.7 l/sec)	35 gpm	
General filtration area	500 cm <sup>2</sup>	77.5 in <sup>2</sup>	
Filtration volume	600 cm <sup>3</sup>	37 in <sup>3</sup>	
Filter length L	340 mm	13 13/32"	
Filter width W	130 mm	5 3/32"	
Distance between end connections A	158 mm	6 7/32"	
Weight	1.420 kg	3.13 lbs.	
Maximum temperature	70° C	158 °F	
pH	5-11	5-11	

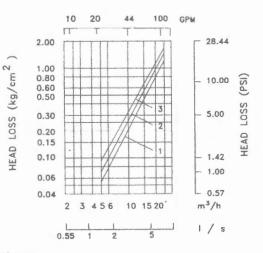




#### **Filtration Grades**

(400 micron / 40 mesh)
(200 micron / 80 mesh)
(130 micron / 120 mesh)
(100 micron /140 mesh)
(55 micron)

#### **Head Loss Chart**



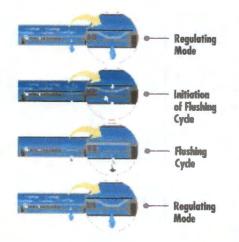
Disc filter, irrigation systems, irrigationglobal.com

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COU

YENGINEER

#### **Pressure Compensating Dripperline** for Wastewater



BioLine's Self-Cleaning, Pressure Compensating Dripper is a fully selfcontained unit molded to the interior wall of the dripper tubing.

NETAFIM

Bioline<sup>®</sup> Dripperline

As shown at left, BioLine is continuously self-cleaning during operation, not just at the beginning and end of a cycle. The result is dependable, clog free operation, year after year.



#### **Product Advantages**

#### The Proven Performer

- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for many years of hard use in wastewater applications.

#### Quality Manufacturing with Specifications Designed to Meet Your Needs

- Pressure compensating drippers assure the highest application uniformity even on sloped or rolling. tennin
- Excellent uniformity with runs of 400 feet or more reducing installation costs.
- Highest quality-control standards in the industry; Cy of 0.25 (coefficient of manufacturer's variation).
- A selection of flows and spacings to satisfy the designer's demand for almost any application rate.

#### Long-Term Reliability

- Protection against plugging:
  - Dripper inlet raised 0.27" above wall of tubing to prevent sediment from entering dripper.
  - Drippers impregnated with Vinyzene to prevent buildup of microbiol slime.
  - Unique self-flushing mechanism passes small particles before they can build up.

#### **Rept Safe**

- A physical barrier on each BioLine dripper helps prevent root intrusion.
- · Protection never wears out never depletes releases nothing to the environment.
- · Working reliably for up to 15 years in subsurface wastewater installations.
- · Additional security of chemical root inhibition with Techfilter supplies Influration to the entire system, effectively inhibiting root growth to the dripper outlets.



- Applications COUNTY ENGINEER For domestic strength wastewater disposal.
- · Installed following a treatment process.
- Can be successfully used on straight septic effluent with proper design, filtration and operation.
- Suitable for reuse applications using . municipally treated effluent designated for irrigation water.

#### **Specifications**

Wall thickness (mil): 45\*

Nominal flow rates (GPH): .4, .6, .9\*

Common spacings: 12", 18", 24"\*

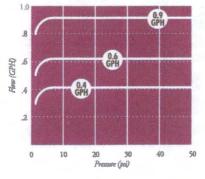
Recommended filtration: 120 mesh

Inside diameter: .570\*

Color: Purple tubing indicates non-potable source

\*Additional flows, spacings, and pipe sizes available by request. Please contact Netafim USA Customer Service for details.

#### **BIOLINE** Flow Rate vs. Pressure





**NETAFIM USA** 5470 E. Home Ave. • Fresno, CA 93727 888.638.2346 • 559.453.6800 FAX 800.695.4753 www.netafimusa.com



**Cross Section of Bioline Dripperline** 

## NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

# RECEIVED

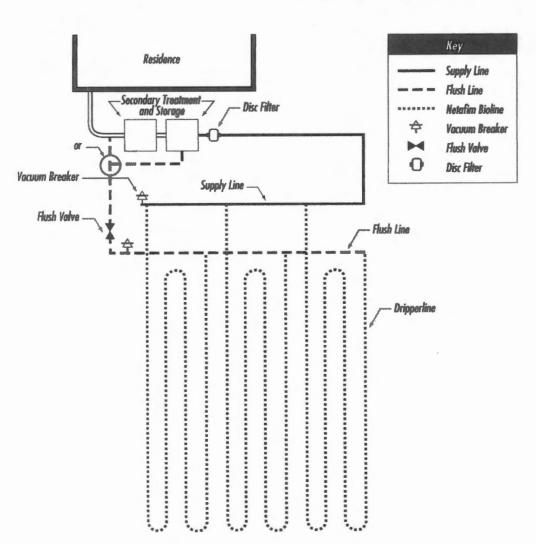
MAY 01 2018

#### SAMPLE DESIGNS

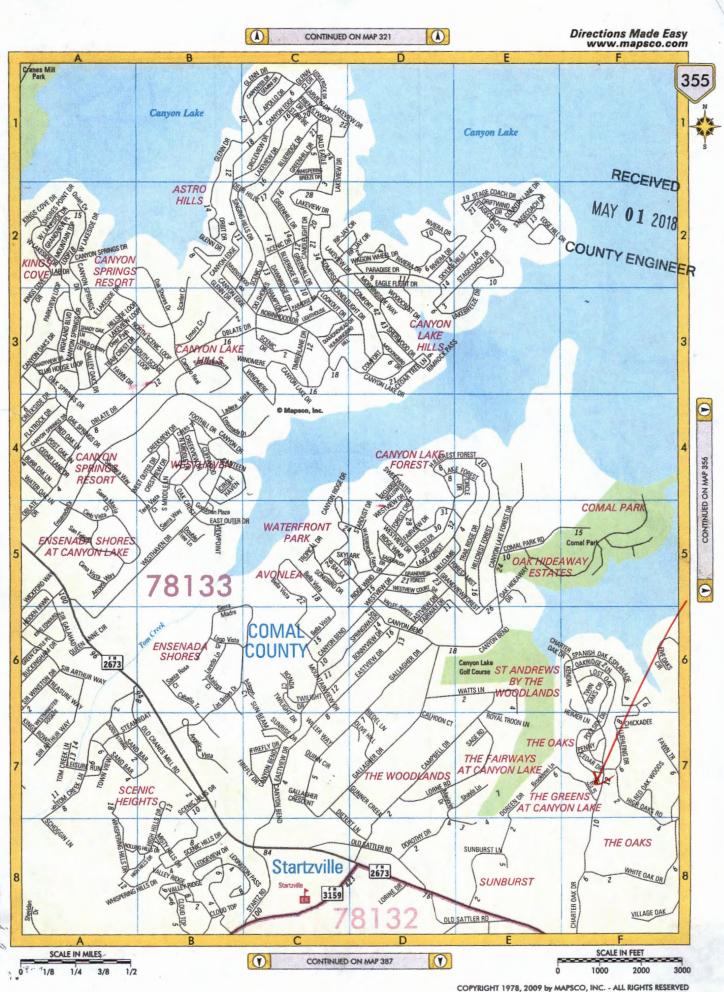
#### SINGLE TRENCH LAYOUT

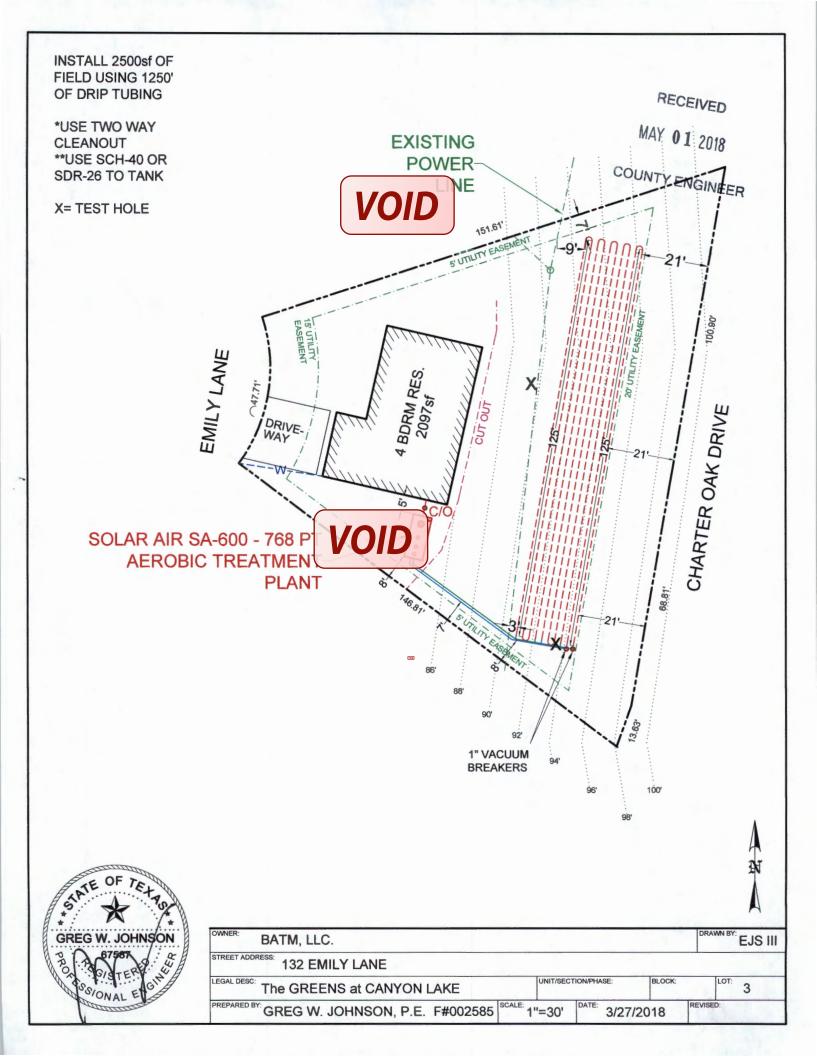
SINGLE TRENCH LAYOUT Rectangular field with supply and flush manifold on same side and in same trench, ENGINEER

- · Locate supply and flush manifold in same trench
- · Drippertines are looped at the end opposite the supply and flush manifolds
- · The longest Bioline length should not exceed 400 ft. Drip fields 200 ft. in length might loop the Bioline once; drip dispersal fields under 100 ft. might be looped twice, as illustrated

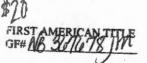








Doc# 20040601747A



Notice Of Confidentiality Rights: If you are a natural person, you may remove or strike RECEIVED MAY 01 2018 COUNTY ENGINEER any of the following information from this instrument before it is filed for record in the public records: your social security number or your driver's license number.

#### WARRANTY DEED WITH VENDOR'S LIEN (Third Party Beneficiary)

THAT DODGER GOLF LIMITED PARTNERSHIP, A Texas Limited Partnership,

THE STATE OF TEXAS

COUNTY OF COMAL

KNOW ALL PERSONS BY THESE PRESENTS

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hereinafter referred to as Grantor (whether one or more) for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other valuable consideration paid by the Grantee named below, the receipt and sufficiency of which are acknowledged by Grantor, and further in consideration of the execution and delivery by the Grantee of that one certain promissory note of even date herewith in the principal sum of \$305,000.00 made by Grantee payable to the order of THE BLANCO NATIONAL BANK as consideration for the amount paid to Grantor, has GRANTED, SOLD, and CONVEYED, and by these presents does GRANT, SELL, and CONVEY to BATM, LLC, herein referred to as Grantee (whether one or more) the following described real property:

Tract I

Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 22, 23, 24, 25, 26, and 27 (Private Road), THE GREENS AT CANYON LAKE, Comal County, Texas, according to map or plat thereof recorded in Volume 13, Pages 142-143, of the Map and Plat Records of Comal County, Texas.

Tract II

Lots 1, 2, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, and 24 (Private Road), THE FAIRWAYS AT CANYON LAKE, Comal County, Texas, according to map or plat thereof recorded in Volume 13, Pages 140-141, of the Map and Plat Records of Comal County, Texas.

Tract III

Lot 2, WOODLANDS SUBDIVISION UNIT TWO, Comal County, Texas, according to map or plat thereof recorded in Volume 6, Page 16, of the Map and Plat Records of Comal County, Texas,

#### SAVE AND EXCEPT

All that certain tract or parcel of land containing 0.499 of an acre of land out of Lot 2, WOODLANDS SUBDIVISION, UNIT 2, Comal County, Texas, as recorded in Volume 6, Page 61, Map and Plat Records of Comal County, Texas, said 0.499 of an acre parcel being more particularly described as follows:

BEGINNING at a 1/2" inch iron rod found on the northwesterly right-of-way line of Dorothy Drive for the most southerly corner and POINT OF BEGINNING of this parcel, same being the most southerly corner of Lot 2 and an easterly corner of Lot 1:

THENCE departing said right of way line and with the common line of Lots 1 and 2, North 30° 47' 29" West, (basic of bearings obtained from said Volume 6, Page 16), a distance of 276.27 feet (called North 30° 47' 29" West, 275.48 feet) to a  $\frac{1}{2}$ " iron rod found for the most westerly corner of this parcel, same being the most westerly corner of Lot 2 and an interior corner of Lot 1;

THENCE continuing with said common line, North 44° 00' 06" East, a distance of 73.02 feet (called North 43° 06' 03" East) to a ½" inch iron rod set for the most northerly corner of this parcel;

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MAY 01 2018

THENCE severing said Lot 2, South 32° 53' 23" East, a distance of 295.234 feet to a ½ inch rod set on the aforementioned right of way line of Dorothy Drive for the most easterly corner to this parcel;

THENCE with said right of way line, South 59° 00' 43" West, a distance of COUNTY ENGINEER 81.27 feet (called South 58° 53' 04" West) to the POINT OF BEGINNING and containing 0.499 of an acre of land.

It is expressly understood and agreed that out of the property conveyed by this deed, the Grantor RESERVES for Grantor and Grantor's successors and assigns, perpetual free and uninterrupted use, liberty and easement for ingress and egress in, across and along a portion of the property described above, described as Lot 27, The Greens At Canyon Lake, Comal County, Texas, according to map or plat thereof recorded in Volume 13, Pages 142-143, Map and Plat Records of Comal County, Texas; and Lot 24, The Fairways At Canyon Lake, Comal County, Texas, according to map or plat thereof recorded in Volume 13, Pages 140-141, Map and Plat Records of Comal County, Texas.

This conveyance is made subject to all and singular, the restrictions, reservations, conditions, easements, and covenants, if any, applicable to and enforceable against the above described property as reflected by the records of the County Clerk of Comal County, Texas.

TO HAVE AND TO HOLD THE PROPERTY, together with all and singular the rights and appurtenances belonging in any way to the Property, subject to the provisions stated above, to Grantee, Grantee's representatives, successors, and assigns forever, and Grantor binds Grantor and Grantor's representatives, successors, and assigns to WARRANT AND FOREVER DEFEND all and singular the Property to Grantee, Grantee's representatives, successors, and assigns against every person-lawfully claiming or to claim all or any part of the Property, subject to the provisions stated above.

The Note to THE BLANCO NATIONAL BANK described above is secured by a vendor's lien retained in favor of THE BLANCO NATIONAL BANK in this deed and by a deed of trust from Grantee to Dean C. Myane, Trustee. The vendor's lien and superior title retained in this deed are transferred and assigned to THE BLANCO NATIONAL BANK, payee in said Note, without recourse on Grantor, at the instance and request of the Grantee herein, having advanced and paid in cash to the Grantor herein that portion of the purchase price of the herein described property as is evidenced by said Note, said Vendor's Lien and Superior Title shall remain until said Note is fully paid according to its terms, at which time this deed shall become absolute.

Ad valorem taxes for the current year have been prorated and are assumed by Grantee. EXECUTED <u>May 5</u>, 2004.

1.

#### **GRANTOR:**

DODGER GOLF LIMITED PARTNERSHIP, A Texas Limited Partnership

By: Dodger Golf II Corp., General Manager

UINT NICHOLS, President

RECEIVED

#### ACCEPTANCE

MAY 01 2018

CHARLES SULLIVAN, Member and Manager, on behalf of BATM, LLC, Grantee, has reviewed the foregoing Warranty Deed, understands all terms and conditions and agrees to accept the deed.

CHARLES SULLIVAN, Member and Manager

JON MANICCIA, Member and Manager, on behalf of BATM, LLC, Grantee, has reviewed the foregoing Warranty Deed, understands all terms and conditions and agrees to accept the deed.

BATM, LLC JON IANICCIA, Member and Manager

STEVE MANICCIA, Member and Manager, on behalf of BATM, LLC, Grantee, has reviewed the foregoing Warranty Deed, understands all terms and conditions and agrees to accept the deed.

BATM, LLC

NICCIA. Member and Manager

ANN SULLIVAN, Manager, on behalf of BATM, LLC, Grantee, has reviewed the foregoing Warranty Deed, understands all terms and conditions and agrees to accept the deed.

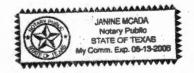
BATM, LLC

w All ANN SULLIVAN, Manager

ACKNOWLEDGMENT

STATE OF TEXAS Cor COUNTY OF

This instrument was acknowledged before me on this the 6 day of Man, 2004, by QUINT NICHOLS, President, of Dodger Golf II Corp., its General Partner, on Schalf of DODGER GOLF LIMITED PARTNERSHIP, A Texas Limited Partnership.



Notary Public, State of Texas

STATE OF TEXAS COUNTY OF am

This instrument was acknowledged before me on this the <u>lo</u> day of <u>Mars</u> 2004, by CHARLES SULLIVAN, Member and Manager, on behalf of BATM, LLC, A Texas Limited Partnership.

ANRY PLA	JANINE MCADA
12AS	N.Jary Public
	STATE OF TEXAS
W AN	My Comm. Exp. 06-13-2006
EQ TY	my connic and our reason

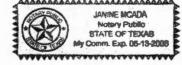
Notary Public, State of Texas

RECEIVED

STATE OF TEXAS COUNTY OF

MAY 01 2018

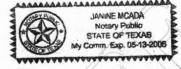
This instrument was acknowledged before me on this the <u>5</u> day of <u>May</u> 2004, OUNTY ENGINEER by JON MANICCIA, Member and Manager, on behalf of BATM, LLC, A Texas Limited Partnership.



Notary Public, State of Texas

STATE OF TEXAS

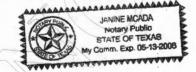
This instrument was acknowledged before me on this the <u>5</u> day of <u>May</u> 2004, by STEVE MANICCIA, Member and Manager, on behalf of BATM, LLC, A Texas Limited Partnership.



Notary Public, State of Texas

STATE OF TEXAS

This instrument was acknowledged before me on this the 5 day of May, 2004, by ANN SULLIVAN, Manager, on behalf of BATM, LLC, A Texas Limited Partnership.



GRANTEE'S ADDRESS IS: 8115 FM 2673 Canyon Lake, TX 78133

RETURN FILED DOCUMENT TO: First American Title 228 S. Seguin New Braunfels, Texas 78130

PREP'ARED IN THE LAW OFFICE OF:

Acie C. McAda P.O. Box 311734 New Braunfels, Texas 78131 mada

#### Notary Public, State of Texas

Doct 200406017478 # Pages 4 85/12/2884 81:37:54 PM Filed & Recorded in Official Records of COMAL CONNEY JOY STREATER COUNTY CLERK Fees \$P8.98

Doc# 200406017478



Canyon Lake: (830) 964-2365 Bastrop: (512) 303-6922

info@aerobicservices.com

#### bastrop@aerobicservices.com MP349 / OS24597

### www.aerobicservices.com

To:	Roxanne Stanford		Tech:	Chris Bau	sch
	132 Emily Ln		Phone:	(409) 594-4523	Date: 2024-04-18
	Canyon Lake, TX	78133	Alt Ph:	<	Service
Agency:	Comal County Env	viornmental Health			Due:
County:	Comal				
Permit No:	107461				
Inspection T	ype: 1x inspecti	on			
<u>ltem</u>		<b>Operational</b>	Inoperative	Not Present	
Aerator:		[X]	[]	[]	<u>Air Pressure:</u> 60
Irrigation Pu	ump:	[X]	[]	[]	
Air Compres	ssor:	[X]	[]	[]	
Pump Scree	en:	[X]	[]	[]	
Chlorinator	:	[X]	[]	[]	
Spray Field	Vegetation:	[X]	[]	[]	
Filters:		[X]	[]	[]	
Sprinkler / E	Drip Backwash:	[X]	[]	[]	
Controls / E	lectric Circuits:	[X]	[]	[]	
Test Results	s and Observations:	(As Required)			
				Mixed Liquor: a	all measurements in inches
Chlorine Resi	dual			Aeration:	56

(ppm):	
Test Method:	Drip
BOD:	
TSS:	
Tank Lids Secured:	Yes <b>[X]</b> / NO <b>[ ]</b>
Pump Out Needed:	Yes <b>[X]</b> / NO <b>[</b> ]
Repairs Made	Yes <b>[X]</b> / NO <b>[</b> ]

Clarifier:	50	
Pump:	12	

#### **Repairs and Comments:**

Inspector:

Cleaned filter and backwashed field. Replaced effluent pump, c series bottom suction. System needs pumped, call office to schedule.

Date: 2024-04-18

Tom Hampton, VP MP349/OS24597

# **WORK ORDER**

**Aerobic Services** 15188 FM 306, Canyon Lake, TX 78133 Canyon Lake: (830) 964-2365 | Bastrop: (512) 303-6922



# www.aerobicservices.com

Customer ID		Scheduled	Se	Serviced	
192616		2024-04-18	4	4.18.24	
Customer Name and Site Address		Contact	Customer Email Address	;	
Roxanne Stanford 132 Emily Ln Canyon Lake, TX		Roxanne Stanford roxstanford@gmail.com			
		Main Phone         S           (409) 594-4523	Secondary Phone	Secondary Phone	
	Canyon Lake TX 78133				
System Permit #	Brand of System	7			
107461	Solar Aire	7			
Work Order Type	Assigned Technician	HEALTH DEPT			
Repair	Chris Bausch	Comal County Enviornmental Health			
DESCRIPTION OF THE WO	ORK ORDER (REASON OF	CALL)			
Found on 1x inspection					
RESULTS OF WORK ORDI	ER				
Replaced effluent nump	c series bottom suctio	on. 1x inspection complet	ied		
riopiacoa cinacin pump					
DIRECTIONS / INSTRUCTION					

Customer's Signature

Date: 2024-04-18

Employee's Signature

 $\subset \mathcal{B}$ 

# **WORK ORDER**

**Aerobic Services** 15188 FM 306, Canyon Lake, TX 78133 Canyon Lake: (830) 964-2365 | Bastrop: (512) 303-6922



# www.aerobicservices.com

Customer ID		Scheduled		Serviced	
192616		2024-04-25		4-25-24	
Customer Name and Site Address		Contact	Customer Email Addr	ess	
Roxanne Stanford		Roxanne Stanford	Main Phone		
132 Emily Ln		Secondary Phone	(409) 594-452	3	
	Lake, TX Canyon Lake TX 78133				
System Permit #	Brand of System				
107461	Solar Aire				
Work Order Type	Assigned Technician	HEALTH	H DEPT	]	
Repair	Nyssa	Cor	nal		
DESCRIPTION OF THE WO	ORK ORDER (REASON OF C	CALL)			
In aeration alarm reservice RESULTS OF WORK ORD	ER			1	
caused it to go into alar	m I ensured everything v	ck pressure to pressure s was functioning properly ine was not pinched befo		pinched by dog house	
DIRECTIONS / INSTRUCTI	ONS FOR THE TECHNICIAN	4		]	
			אבכץטן		

Customer's Signature

Date: 2024-04-25

Employee's Signature

# **WORK ORDER**

**Aerobic Services** 15188 FM 306, Canyon Lake, TX 78133 Canyon Lake: (830) 964-2365 | Bastrop: (512) 303-6922



# www.aerobicservices.com

Customer ID		Scheduled		Serviced	
192616		2024-04-25		4-25-24	
Customer Name and Site Address		Contact	Customer Email Addr	ess	
Roxanne Stanford		Roxanne Stanford	Main Phone		
132 Emily Ln		Secondary Phone	(409) 594-452	3	
	Lake, TX Canyon Lake TX 78133				
System Permit #	Brand of System				
107461	Solar Aire				
Work Order Type	Assigned Technician	HEALTH	H DEPT	]	
Repair	Nyssa	Cor	nal		
DESCRIPTION OF THE WO	ORK ORDER (REASON OF C	CALL)			
In aeration alarm reservice RESULTS OF WORK ORD	ER			1	
caused it to go into alar	m I ensured everything v	ck pressure to pressure s was functioning properly ine was not pinched befo		pinched by dog house	
DIRECTIONS / INSTRUCTI	ONS FOR THE TECHNICIAN	4		]	
			אבכץטן		

Customer's Signature

Date: 2024-04-25

Employee's Signature