From:Ritzen, BrendaTo:Thalia Rivas; Olvera,BrandonSubject:RE: Revisions: Permit 117239 Address: 2514 Cypress GardensDate:Wednesday, May 1, 2024 4:04:00 PMAttachments:image001.png

Thalia,

Will the rock berm have any impact on the sewer line running underneath it?

Thank you,



From: Thalia Rivas <rs.tr@ossfdesigns.com>
Sent: Wednesday, May 1, 2024 2:09 PM
To: Olvera,Brandon <Olverb@co.comal.tx.us>; Ritzen, Brenda <rabbjr@co.comal.tx.us>
Subject: Re: Revisions: Permit 117239 Address: 2514 Cypress Gardens

# This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. - Comal IT

Hello,

Sorry, here is the updated revision of the design.

Installer Name:	OSSF Installer #:	
1st Inspection Date:	2nd Inspection Date:	3rd Inspection Date:
Inspector Name:	Inspector Name:	Inspector Name:

Permit#: Address: No. Description Answer Citations 1st Insp. 2nd Insp. 3rd Insp. Notes SITE AND SOIL CONDITIONS & 285.31(a) SETBACK DISTANCES Site and Soil 285.30(b)(1)(A)(iv) Conditions Consistent with Submitted Planning Materials 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i) SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback 285.91(10) Distances 285.30(b)(4) Meet Minimum Standards 285.31(d) SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, 285.32(a)(1) SDR 26) 3 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 Properly Installed (Add. C/O Every 100' &/or 90 285.32(a)(5) degree bends) PRETREATMENT Installed (if required) TCEQ Approved List 285.32(b)(1)(G) PRETREATMENT Septic Tank(s) 285.32(b)(1)(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)(i) 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) 6 PRETREATMENT Grease Interceptors if required for 285.34(d) commercial

**Inspector Notes:** 

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2Compartments Provided withBaffle SEPTIC TANK Inlet Flowline Greater than3" and " T " Provided on Inlet and OutletSEPTIC TANK Septic Tank(s) MeetMinimum Requirements		285.32(b)(1) (E)285.91(2)285.32(b)(1) (F)285.32(b)(1)(E) (iii)285.32(b)(1)(E)(ii) (I)285.32(b)(1)(E)(ii) (I)285.32(b)(1)(E) (i)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (i)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)				
11	SEPTIC TANK Secondary restraint system providedSEPTIC 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						
14	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number						
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
	DISPOSAL SYSTEM Drip Irrigation						
			285.33(c)(3)(A)-(F)				
19							
	DISPOSAL SYSTEM Soil		205 22(4)(4)				
20	Substitution		285.33(d)(4)				
	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(4)				
			285.33(a)(3) 285.33(a)(1)				
24			285.33(a)(1) 285.33(a)(2)				
21	DISPOSAL SYSTEM Gravelless Pipe						
			285.33(a)(3)				
			285.33(a)(2)				
			285.33(a)(4) 285.33(a)(1)				
22							
	DISPOSAL SYSTEM Mound		285.33(a)(3)				
			285.33(a)(1)				
			285.33(a)(2) 285.33(a)(4)				
23	DISPOSAL SYSTEM Other						
	(describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
24			265.55(0)(4)				
	DRAINFIELD Absorptive Drainline 3" PVC						
	or 4" PVC						
25	DRAINFIELD Area Installed						
26							
	DRAINFIELD Level to within 1 inch						
	per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
27							
	DRAINFIELD Excavation Width						
	DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation						
	DRAINFIELD Depth of Porous Media						
	DRAINFIELD Type of Porous Media						
28							
	DRAINFIELD Pipe and Gravel -		205 22/5//4//5/				
29	Geotextile Fabric in Place		285.33(b)(1)(E)				
	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End						
	Plates w/Splash Plate, Inspection						
	Port & Closed End Plates in Place		285.33(c)(2)				
	(per manufacturers spec.)						
30							
	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length						
	& Width, and Adequate		285.33(d)(1)(C)(i)				
	Separation Distance between						
31	Trenches						

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	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)				
33	AEROBIC TREATMENT UNIT IS Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)				
34	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						
37	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						
	PUMP TANK Secondary restraint system provided						
	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

No.	Description	Answer	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) 285.33(d)(2)(G)(iii)(III) 285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iv) 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)				
	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						
	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						

Thalia,

Will the rock berm have any impact on the septic line running underneath it?

Thank you,



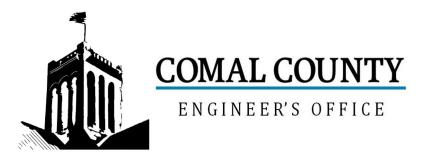
From: Thalia Rivas <rs.tr@ossfdesigns.com>
Sent: Monday, April 22, 2024 9:26 PM
To: Olvera,Brandon <Olverb@co.comal.tx.us>; Ritzen, Brenda <rabbjr@co.comal.tx.us>
Subject: Revision: Permit 117239 Address: 2514 Cypress Gardens Spring Branch Tx

# This email originated from outside of the organization.

Do not click links or open attachments unless you recognize the sender and know the content is safe. - Comal IT

Hello,

Attached are revisions for permit 117239 Address: 2514 Cypress Gardens Spring Branch Tx. If you have any questions please let me know. Thank you.



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

Permit Number:	117239
Issued This Date:	03/15/2024
This permit is hereby given to:	Zerep Enterprises LLC

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

2514 CYPRESS GARDENS BLVD SPRING BRANCH, TX 78070

Subdivision:Cypress Lake GardensUnit:Western SkiesLot:57Block:103Acreage:0.0000

## 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 Comal County requirements.

Call (830) 608-2090 to schedule inspections.

**ON-SITE SEWAGE FACILITY APPLICATION** 

COMAL COUNTY

ENGINEER'S OFFICE

195 DAVID JONAS DR NEW BRAUNFELS, TX 78132 (830) 608-2090 WWW.CCEO.ORG

Date 01-01-2024	4		Permit Nur	mber 1172	39
1. APPLICANT Owner Name	ZEREP ENTERPRISES LLC	Agent Name	Thalia Rivas		
	s2514 CYPRESS GARDENS BLVD	Agent Address			
	SPRING BRANCH, TX, 78070	City, State, Zip			
Phone #	(210)255-9580	Phone #	(210)- 385-34		
Email	APEREZ1679@GMAIL.COM	_ Email		FDESIGNS.COM	٨
2. LOCATION					
	THE CYPRESS LAKE GARDENS SUBDIVISION, WEST	ERN SKIES SECTION	Jnit	Lot 57	Block 103
				Acreage	
	CYPRESS GARDENS BLVD	City SPRING BRA			Zip 78070
	EVELOPMENT				· F
	amily Residential				
	Construction (House, Mobile, RV, Etc.) HOUSE				
	of Bedrooms 3				
	Sq Ft of Living Area 1464 SqFt				
	le Family Residential				
-	materials must show adequate land area for doublin	on the required land nee	ded for treatme	ent units and dis	oosal area)
Type of F		ig the required tand here			
• •	Factories, Churches, Schools, Parks, Etc Inc	licate Number Of Occ	upants		
	ants, Lounges, Theaters - Indicate Number of S				
	otel, Hospital, Nursing Home - Indicate Number				
	railer/RV Parks - Indicate Number of Spaces				
Miscellar		a			
Wiscella					
Estimated Co	ost of Construction: \$250,000	(Structure Only)			
	n of the proposed OSSF located in the United		Engineers (L	ISACE) flowage	e easement?
Yes X					
		water			
4. SIGNATURE					
By signing this a - The completed facts. I certify the	pplication, I certify that: application and all additional information submitted hat I am the property owner or I possess the approp				
site/soil evaluat	s hereby given to the permitting authority and design tion and inspection of private sewage facilities at a permit of authorization to construct will not be is				
by the Corpal C	Couply Flood Damage Prevention Order. consent to the optime posting/public release of my e-		with this perm		
Signature of	bwner .	Date			Page 1 of

COMAL COUNTY ENGINEER'S OFFICE ON-SITE SEWAGE FACILITY APPLICATION ON-SITE SEWAGE FACILITY APPLICATION (830) 608-2090 WWW.CCEO.ORG							
Planning Materials & Site Evaluation as Required Completed By Thalia Rivas. R.S 5067							
System Description Aerobic Treatment Unit with Drip Irrigation							
Size of Septic System Required Based on Planning Materials & Soil Evaluation							
Tank Size(s) (Gallons) _600GPD Aerobic Treatment Unit Absorption/Application Area (Sq Ft) _1680sf/840Inft							
Gallons Per Day (As Per TCEQ Table III) 240GPD							
(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)							
Is the property located over the Edwards Recharge Zone?  Yes X No							
(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))							
Is there an existing TCEQ approved WPAP for the property? $\square$ Yes $igmma$ No							
(If yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)							
If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? 🗌 Yes 🔀 No							
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)							
Is the property located over the Edwards Contributing Zone? X Yes No							
Is there an existing TCEQ approval CZP for the property? 🗌 Yes 🔀 No							
(If yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)							
If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? 🔲 Yes 💢 No							
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)							
Is this property within an incorporated city? 🗌 Yes 🔀 No							
If yes, indicate the city:							

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Designer

05-01-24

Date





202406005514 02/23/2024 03:17:30 PM 1/1

#### AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL STATE OF TEXAS

#### CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities, this document is filed in the Deed Records of Comal County, Texas.

I

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 TCEQ 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 TCEQ, under the authority of the TWC and the Texas Health and Safety Code, requires owners to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the TCEQ requires a deed recording. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This deed certification is not a representation or warranty by the TCEQ of the suitability of this OSSF, nor does it constitute any guarantee by the TCEQ that the appropriate OSSF was installed.

11

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):

Lot 57 Block 103 Subdivision CYPRESS LAKE GARDENS SUBDIVISION, WESTERN SKIES SECTION Unit/Phase/Section

If not in Subdivision:	Acres	Survey
------------------------	-------	--------

The property is owned by (insert owner's full name): \_\_\_\_\_\_ ZEREP ENTERPRISES LLC.

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.

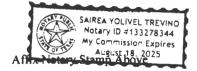
Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

**Owner** Mame Owner Signature **Owner** Name **Owner Signature** This instrument was acknowledged before me on: 2 Day of February, 2024.

SAIREA KEUIRO Notary's Printed Name

Notary Public, State of Texas

Commission Expires: Aug 18th 2025



Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County, Texas 02/23/2024 03:17:30 PM LAURA 1 Page(s) 202406005514



## WASTEWATER TREATMENT SYSTEM MAINTENANCE CONTRACT

Customer		Residential	Initial Contrac	
Zerep Enterprises LLC				
Site Address	Agency			
2514 Cypress Gardens, Spring Branch, Texas 78070	Comal County			
Email	Phone	Permit Number		
aperez1679@gmail.com	(210) 255-9580	10) 255-9580		
System Details	and the second second second second			
Treatment: Aerobic Drip Emitters /				
		and the second		

## AGREEMENT

#### I. General:

This work for hire agreement (hereinafter referred to as "Agreement") is entered into by and between the Client and Luna Environmental, LLC (hereinafter referred to as "Contractor"), located at 4222 FM 482 New Braunfels, Texas 78132. By this agreement, Contractor agrees to render services, as described herein, and Client agrees to fulfill his/her/their responsibilities under the agreement as described herein.

#### II. Dates:

This agreement is for an initial 2-year maintenance contract and begins once the License to Operate (LTO) has been issued.

#### III. Services by Contractor:

1. Inspect and perform routine maintenance on the On-Site Sewage Facility ("OSSF") in compliance with code, regulations, and/or rules of the Texas Commission on Environmental Quality ("TCEQ") and county in which the OSSF is located and the manufacturer's requirements, at a frequency of approximately once every four (4) months.

2. Inspection, adjustment, and servicing of the mechanical, electrical, and other components to ensure proper functioning. This includes inspecting control panels, air pumps, air filters, diffusers, floats, and spray heads.

3. Effluent Inspection will include the following: effluent quality (color, turbidity, overflow, and odor), testing effluent chlorine and pH levels, when necessary, alarm function, filters, operation of effluent pump and chlorinator. Unless otherwise agreed to, Contractor does not provide chlorine. BOD and TSS annually on commercial accounts, additional charges apply.

4. Notify Client of any repairs needed to keep OSSF in proper working condition and up to regulatory standards. Items under warranty may be repaired while the technician is on-site. Additional charges may apply for labor and service calls. Repair quotes of non-warranty items must be approved by Client before work is performed.

5. Report to the appropriate regulatory authority and to Client, as required by the State of Texas' on-site rules and, if required, TCEQ or County rules. All findings must be reported to the appropriate regulatory authority within 14 days.

6. Visit site within 48 hours of a service request.

7. Provide Customer Support line at 855-560-9909.

## IV. Client Responsibilities:

1. Maintain Chlorinator and proper chlorine supply, unless otherwise specified.

2. Provide all necessary lawn or yard maintenance and remove all obstructions, including dogs and other animals as needed to allow the OSSF to function properly and the Contractor easy and safe access to all parts of 3. Immediately notify Contractor of any alarms or system problems.

4. Have tanks pumped out as directed by manufacturer, typically every 3 years.

5. Be available by text, phone, or in person when the Contractor is on site in case of required repair approvals or questions.

6. Maintain site drainage to prevent adverse effects on OSSF.

7. Promptly pay Contractor's bills, fees, and invoices in full.

## V. Access By Contractor:

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 repairs and services described herein.

## VI. Termination of This Agreement:

Either party may terminate this agreement with 30 days' written notice in the event of the other party's substantive failure to perform in accordance with this agreement without fault of the terminating party. Is this agreement is terminated, the Contractor will notify the appropriate regulatory authority.

## VII. Limitation of Liability:

In no event shall the Contractor be liable for indirect, consequential, incidental, or punitive damages, whether in contract, tort, or any other theory of liability. In no event shall the Contractor's liability for the direct damages exceed payments by the Client under this agreement.

## VIII. Payment Terms:

The fee for this agreement only covers the services described herein. This fee does not cover equipment or labor for non-warranty repairs, labor for warranty repairs, or service charges resulting from unscheduled, Client requested trips to the Client's OSSF. Payments not received within 30 days from the date of invoicing will be subject to a \$30.00 late penalty and or a 1.5% monthly carrying charge, whichever is greater. By signing this contract, the Client authorizes the Contractor to remove any parts which were installed but not paid for at the end of 30 days. The Client is still responsible for any labor costs associated with the installation and removal of said parts. All invoices are due upon receipt by Client.

## IX. Severability:

If any provision of this agreement shall be held to be invalid or unenforceable for any reason the remaining provisions shall continue to be held valid and enforceable. If a court finds that any provision of this agreement is invalid or unenforceable, by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

Zerep Enterprises LLC

Luna Environmental / Ryan Seidensticker

Maintenance Provider Name

**Customer Name** 

**Customer Signature** 

Ryan Seidensticker License # MP0001708

Maintenance Provider Signature

Additional Comments / Special Terms

## **OSSF SOIL EVALUATION REPORT INFORMATION**

DATE: 01-29-24

#### **APPLICANT INFORMATION:**

Name: ZEREP ENTERPRISES LLC

Address: 2514 CYPRESS GARDENS BLVD City: SPRING BRANCH TX Zip Code: 78070 Phone: 210-255-9580

#### **PROPERTY LOCATION:**

Lot 57 Unit: Block: 103 Street Address: 2514 CYPRESS GARDENS BLVD City: SPRING BRANCH TX Zip: 78070 Subdivision: CYPRESS LAKE GARDENS WESTERN SKIES SECTION

#### SITE EVALUATOR INFORMATION:

Name: THALIA RIVAS

Address: PO BOX 768

City: Spring Branch State: TEXAS

Zip Code: 78070 Phone: 210-385-3487

USTER

Email: RS.TR@OSSFDESIGNS.COM

License #: 050036382

Depth	Texture Class	Soil Texture	Structure	Drainage	Restrictive Horizon	Observation
Soil Boring #1 0 - 4"	111	CLAY	BLOCKY	< 30% GRAVEL	LIMESTONE @ 4"	BROWN LIMESTONE @ 4"
Soil Boring #2		SAME AS	ABOVE			

TOPOGRAPHY: Slope within proposed disposal area:%						
Presence of 100yr. Flood Zone	YES	NO <u>X</u>				
Existing or proposed water well in nearby area.	YES	NO <u>X</u>				
Presence of adjacent ponds, streams, water impoundments	YES	NOX				
Presence of upper water shed	YES	<u>NO X</u>				
Organized sewage service available to lot	YES	NOX				

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL SANITARIAN AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).

Thalia Rivas R.S 5067 - S.E. 36382

01-29-24

Date

REVISED 3:58 pm, May 01, 2024

# **Drip Tubing System**

DESIGNED FOR: ZEREP ENTERPRISES P.O. BOX 242211 SAN ANTONIO, TX 78224

## SITE DESCRIPTION

Located in Cypress Lake Gardens, Western Skies Section, Block 103, Lot 57 at 2514 Cypress Gardens Blvd. This septic will serve a three bedroom residence (1464 sqft) in area with Type III soil and limestone as described in the Soil Evaluation Report. Property has approximately 4% slope. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

## PROPOSED SYSTEM

A 3inch SCH-40 pipe discharges from the residence into a Pro-Flo Model 5060 600gpd aerobic treatment plant containing a 397gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains 0.5 HP FPS E- SERIES 20FE-W115 submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal Disc filter then through a 1" SCH-40 manifold to a 1680sqft drip tubing field, with Netifim Bioline drip lines set approximately two feet apart with 0.61 gps 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 25-40psi. A 1" SCH-40 return line is installed to continuously flush the system by cycling a 1" ball valve into the pump tank. Solids caught in the disk filter are flushed each cycle back to the trash tank. 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 trenching the site must be scarified and built up with 10" of Type II or Type III soil. In areas where surface rock is exposed there shall be a minimum of 12" of soil between limestone and drip tubing. Drip tubing will be laid and the entire field area will be capped with 6" of sandy loam (Type II – NOT SAND). The field area will be seeded or sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. It is the responsibility of contractor or home owner to install and maintain vegetation. Inspection and clean out ports shall have risers over the port openings which extend to a minimum of tow inches above grade. 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.

## **DESIGN SPECIFICATIONS:**

Q = 240 gallons per day – 3 bedroom residence 1464sf (Table III) Pretreatment tank size: 397 Gal Plant Size: ProFlo Model 5060 600gpd(TCEQ Approved) Pump tank size: 768 Gal Reserve capacity after High Level: 80 gal. (>1/3 day usage) Application Rate: Ra = 0.2 gal/sqft Total absorption area: Q/Ra = 240gpd/0.20 = 1200sqft (Actual 1680sf ) Total linear feet drip tubing: 840' Minimum 600' = 1200sqft/2 Netifim Bioline drip tubing .61 GPH Total number of emitters: 420 emitters @0.61gph @30psi Pump: 0.5 HP FPS E- Series 20FE05P4-2W115 submersible pump or equivalent.

## **<u>PIPE AND FITTINGS:</u>**

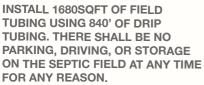
All pipes and fittings in this drip tubing system shall be schedule 40 PVC. All joints shall be sealed with approved solvent- type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective December 29, 2016)

05-01-24

Thalia Rivas, R.S. No. 5067 P.O. Box 768 Spring Branch Tx 78070 Rs.tr@ossfdesigns.com





THE SLOPE OF THE PIPE FROM THE BUILDING TO TREATMENT SYSTEM SHALL BE NO LESS THAN 1/8" FALL PER FOOT OF PIPE.

USE TWO WAY CLEAN OUT SCH 40 OR SDR 26 FROM STRUCTURE TO TREATMENT SYSTEM.

INSTALL VACUUM BREAKERS AT HIGHEST POINT OF SUPPLY AND RETURN LINE.

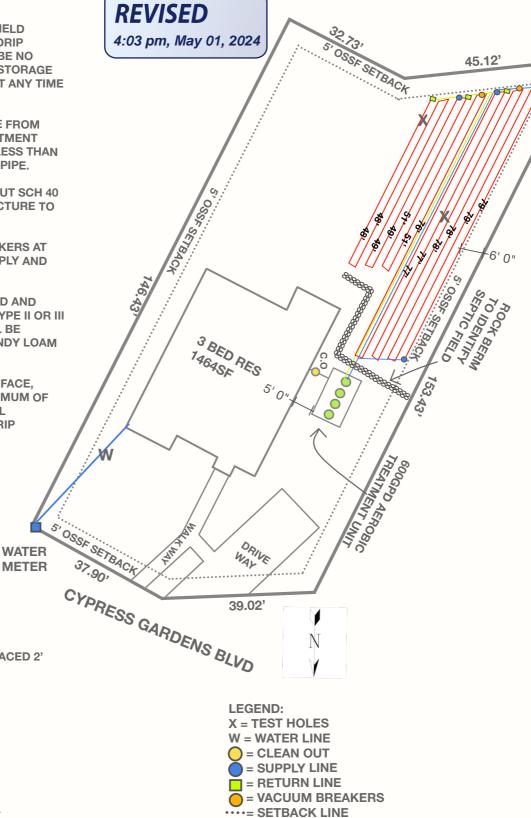
SITE MUST BE SCARIFIED AND BUILT UP WITH 10" OF TYPE II OR III SOIL. DRIP TUBING WILL BE CAPPED WITH 6" OF SANDY LOAM (TYPE II NOT SAND)

WHERE ROCK IS AT SURFACE, THERE SHALL BE A MINIMUM OF 12" OF TYPE II OR III SOIL BETWEEN ROCK AND DRIP TUBING.

INSTALL: 2 LINES @ 79' EACH 2 LINES @ 78' EACH 2 LINES @ 77' EACH

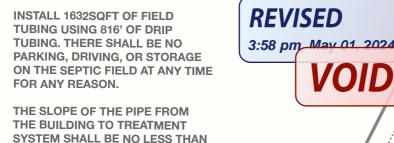
1 LINES @ 76' EACH 2 LINES @ 51' EACH 2 LINES @ 49' EACH 2 LINES @ 48' EACH

840' OF DRIP TUBING SPACED 2' APART.





OWNER: ZEREP ENTERPRISES LLC LEGAL DESCRIPTION: LOT 57, BLOCK 103, CYPRESS LAKE GARENS SUBDIVISION, WESTERN SKIES SECTION ADDRESS: 2514 CYPRESS GARDENS BLVD SPRING BRANCH TX 78070 PREPARED BY: THALIA RIVAS R.S 5067 SCALE: 1" = 25'



**USE TWO WAY CLEAN OUT SCH 40 OR SDR 26 FROM STRUCTURE TO** TREATMENT SYSTEM.

1/8" FALL PER FOOT OF PIPE.

**INSTALL VACUUM BREAKERS AT HIGHEST POINT OF SUPPLY AND RETURN LINE.** 

SITE MUST BE SCARIFIED AND BUILT UP WITH 10" OF TYPE II OR III SOIL. DRIP TUBING WILL BE CAPPED WITH 6" OF SANDY LOAM (TYPE II NOT SAND)

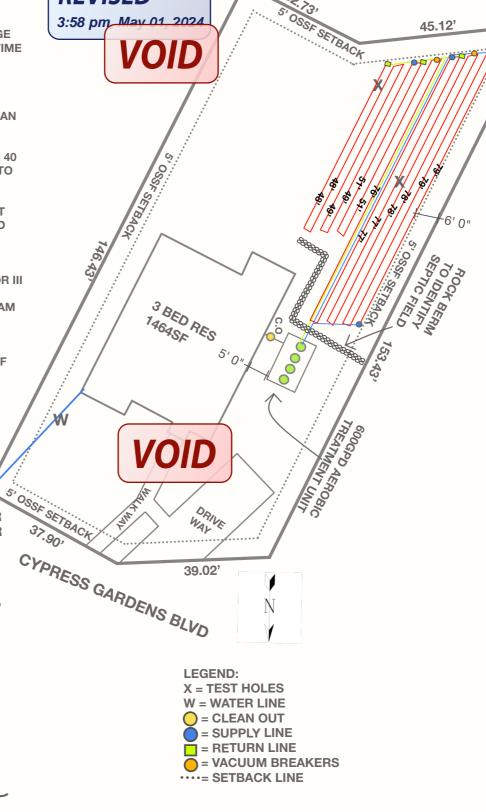
WHERE ROCK IS AT SURFACE, THERE SHALL BE A MINIMUM OF 12" OF TYPE II OR III SOIL **BETWEEN ROCK AND DRIP** TUBING.

**INSTALL:** 2 LINES @ 79' EACH 2 LINES @ 77' EACH 2 LINES @ 76' EACH 2 LINES @ 75' EACH 2 LINES @ 51' EACH 2 LINES @ 50' EACH

816' OF DRIP TUBING SPACED 2' APART.

WATER

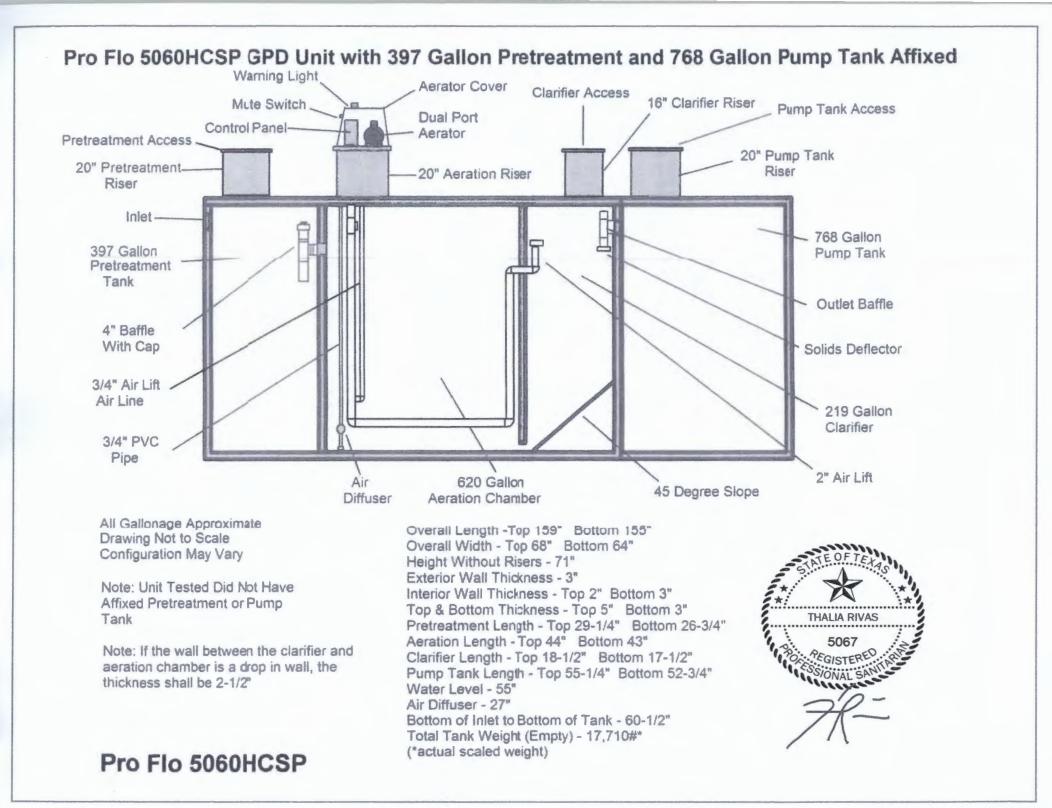
METER



45.12'



**OWNER: ZEREP ENTERPRISES LLC** LEGAL DESCRIPTION: LOT 57, BLOCK 103, CYPRESS LAKE GARENS SUBDIVISION, WESTERN SKIES SECTION ADDRESS: 2514 CYPRESS GARDENS BLVD SPRING BRANCH TX 78070 PREPARED BY: THALIA RIVAS R.S 5067 SCALE: 1" = 25'



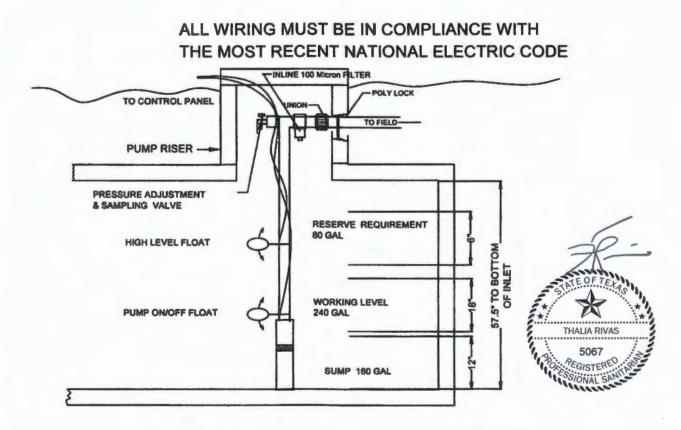
# TANK NOTES:

Tanks must be set to allow a minimum of 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



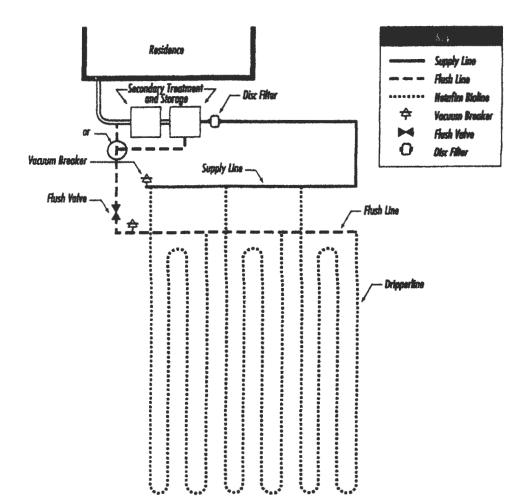
# TYPICAL PUMP TANK CONFIGURATION PRO-FLO 768 GAL PUMP TANK

SAMPLE

#### SINGLE TRENCH LAYOUT

Rectangular field with supply and flush manifold on same aide and in same trench;

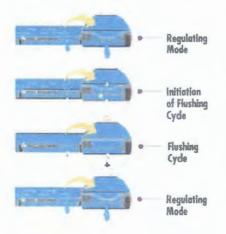
- · Locate supply and flush manifold in same trench
- · Drippertines are looped at the end opposite the supply and flush manifolds
- The longest Bioline length should not exceed 400 ft. Drip fields 200 ft. in length might loop the
  Bioline once; drip dispersal fields under 100 ft. might be looped twice,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



# NETAFIM

# Bioline Dripperline

#### 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.

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 monufacturer 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 terrain.
- · Excellent uniformity with runs of 400 feet or more reducing installation costs.
- . Highest quality-control standards in the industry: Cv 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 microbial stime.
  - Unique self-flushing mechanism passes small particles before they can build up.

#### Root 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 Techfitter supplies Trifluralin to the entire system, effectively inhibiting root growth to the dripper outlets.



#### Applications

- · 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"\*

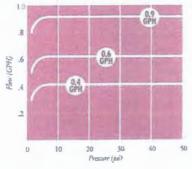
Recommended filtration: 120 mesh

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



achilles

**Cross Section of Bioline Dripperline** 

# 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**

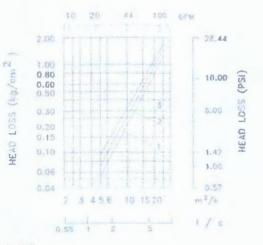
Inlet/outlet diameter	1" BSPT (male) 25.0 mm – nominal diameter 33.6 mm – pipe diameter (O. D.)	1* NPT (male) D.)	
Maximum pressure	10 atm 145 psi		
Maximum flow rate	8 m <sup>3</sup> /h (1.7 l/sec)	35 gpm	
General filtration area	500 cm <sup>2</sup>	77.5 in <sup>2</sup>	
Filtration volume	600 cm <sup>3</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	
pН	5-11	5-11	





#### **Filtration Grades**

Blue	(400 micron / 40 mesh)
Yellow	(200 micron / 80 mesh)
Red	(130 micron / 120 mesh)
Black	(100 micron /140 mesh)
Green	(55 micron)



Disc filter, imgation systems, imgationglobal.com

### Head Loss Chart

# PMR-MF

## **PRESSURE-MASTER REGULATOR - MEDIUM FLOW**

#### Specifications

The pressure regulator shall be capable of operating at a constant, factory preset, non-adjustable outlet pressure of 6, 10, 12, 15, 20, 25, 30, 35, 40, 50, or 60 PSI (0.41, 0.69, 0.83, 1.03, 1.38, 1.72, 2.07, 2.41, 2.76, 3.45, or 4.14 bar) with a flow range between:

4 - 16 GPM (909 - 3634 L/hr) for 6 - 10 PSI models or

2 - 20 GPM (454 - 4542 L/hr) for 12 - 60 PSI models.

The pressure regulator shall maintain the nominal pressure at a minimum of 5 PSI (0.34 bar) above model inlet pressure and a maximum of 80 PSI (5.52 bar) above nominal model pressure\*. Refer to the PRU performance curve to establish specific outlet pressures based on relative inlet pressure and flow rate. Always install downstream from all shut off valves. Recommended for outdoor use only. Not NSF certified.

All pressure regulator models shall be equipped with one of these inlet-x-outlet configurations:

Inlet %-inch Female National Pipe Thread (FNPT) 1-inch Female National Pipe Thread (FNPT) 1-inch Female British Standard Pipe Thread (FBSPT) 1-inch Female British Standard Pipe Thread (FBSPT)

Outlet

%-inch Female National Pipe Thread (FNPT) 1-Inch Female National Pipe Thread (FNPT)

The upper housing, lower housing, and internal molded parts shall be of engineering-grade thermoplastics with internal elastomeric seals and a reinforced elastomeric diaphragm. Regulation shall be accomplished by a fixed stainless steel compression spring, which shall be enclosed in a chamber isolated from the normal water passage.

Outlet pressure and flow shall be clearly marked on each regulator.

The pressure regulator shall carry a two-year manufacturer's warranty on materials, workmanship, and performance. Each pressure regulator shall be water tested for accuracy before departing the manufacturing facility.

The pressure regulator shall be manufactured by Senninger Imigation in Clermont, Florida, Senninger is a Hunter Industries Company.

#### Physical

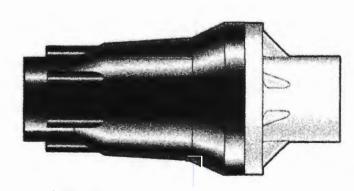
3/4" FNPT x 3/4" FNPT model (shown on right)

Overall Length	5.2 inches (13.1 cm)
Overall Width	2.5 inches (6.4 cm)

1" FNPT x 1" FNPT model

1" FBSPT x 1" FBSPT model

**Overall Length** 5.8 inches (14.6 cm) Overell Width 2.5 inches (6.4 cm)



\* Please consult factory for applications outside of recommended guidelines.

Website sensinger.com Customer Support 1-407-877-5655 A Hunter Industries Company



# PMR-MF PRESSURE-MASTER REGULATOR - MEDIUM FLOW

## Model Numbers

Model #	Flow Range	Preset Operating Pressure	Maximum Inlet Pressure
PMR-6 MF	4 - 16 GPM	6 PSI	80 psi
	(909 - 3634 L/hr)	(0.41 bar)	(5.51 bar)
PMR-10 MF	4 - 16 GPM	10 PSI	90 psi
	(909 - 3634 L/hr)	(0.69 bar)	(6.20 bar)
PMR-12 MF	2 - 20 GPM	12 PSI	90 psi
	(454 - 4542 L/hr)	(0.83 bar)	(6.20 bar)
PMR-15 MF	2 - 20 GPM	15 PSI	95 psi
	(454 - 4542 L/hr)	(1.03 bar)	(6.55 bar)
PMR-20 MF	2 - 20 GPM	20 PSI	100 psi
	(454 - 4542 L/hr)	(1.38 bar)	(6.89 bar)
PMR-25 MF	2 - 20 GPM	25 PSI	105 psi
	(454 - 4542 L/hr)	(1.72 bar)	(7.24 bar)
PMR-30 MF	2 - 20 GPM	30 PSI	110 psi
	(454 - 4542 L/hr)	(2.07 bar)	(7.58 bar)
PMR-35 MF	2 - 20 GPM	35 PSI	115 psi
	(454 - 4542 L/hr)	(2.41 bar)	(7.93 bar)
PMR-40 MF	2 - 20 GPM	40 PSI	120 psi
	(454 - 4542 L/hr)	(2.76 bar)	(8.27 bar)
PMR-50 MF	2 - 20 GPM	50 PSI	130 psi
	(454 - 4542 L/hr)	(3.45 bar)	(8.96 bar)
PMR-60 MF	2 - 20 GPM	60 PSI	140 psi
	(454 - 4542 L/hr)	(4.14 bar)	(9.65 bar)

Website senninger.com | Customer Support 1-407-877-5655 | A Hunter Industries Company

the state of the second s

19SpecPMRMF08 MS1905

COMAL COUNTY ENGINEER'S OFFICE ON-SITE VOID ILITY APPLICATION	195 DAVID JONAS DR NEW BRAUNFELS, TX 78132 (830) 608-2090 WWW.CCEO.ORG		
Planning Materials & Site Evaluation as Required Completed By Thalia Rivas. R.S 5067			
System Description Aerobic Treatment Unit with Drip Irrigation			
Size of Septic System Required Based on Planning Materials & Soil Evaluation			
Tank Size(s) (Gallons)       600GPD Aerobic Treatment Unit       Absorption/Application Area (Sq Ft)	1632sf/816Inft		
Gallons Per Day (As Per TCEQ Table III) 240GPD			
(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)			
Is the property located over the Edwards Recharge Zone? Yes X No (If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.	E.))		
Is there an existing TCEQ approved WPAP for the property? $\square$ Yes $\igmid implies$ No			
(If yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)			
If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPA	AP? 🗌 Yes 🔀 No		
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP <b>WOID</b> by the appropriate regional office.)			
Is the property located over the Edwards Contributing Zone? X Yes No			
Is there an existing TCEQ approval CZP for the property? $\square$ Yes $igodow$ No			
(If yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)			
If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? 🗌 Yes 🔀 No			
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)			
Is this property within an incorporated city? $\square$ Yes $\boxtimes$ No			
If yes, indicate the city:			

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Designer

04-22-24

Date





## SITE DESCRIPTION

Located in Cypress Lake Gardens, Western Skies Section, Block 103, Lot 57 at 2514 Cypress Gardens Blvd. This septic will serve a three bedroom residence (1464 sqft) in area with Type III soil and limestone as described in the Soil Evaluation Report. Property has approximately 4% slope. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

## PROPOSED SYSTEM

A 3inch SCH-40 pipe discharges from the residence into a Pro-Flo Model 5060 600gpd aerobic treatment plant containing a 397gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains 0.5 HP FPS E- SERIES 20FE-W115 submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal Disc filter then through a 1" SCH-40 manifold to a 1632sqft drip tubing field, with Netifim Bioline drip lines set approximately two feet apart with 0.61 gps 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 25-40psi. A 1" SCH-40 return line is installed to continuously flush the system by cycling a 1" ball valve into the pump tank. Solids caught in the disk filter are flushed each cycle back to the trash tank. 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 trenching the site must be scarified and built up with 10" of Type II or Type III soil. In areas where surface rock is exposed there shall be a minimum of 12" of soil between limestone and drip tubing. Drip tubing will be laid and the entire field area will be capped with 6" of sandy loam (Type II – NOT SAND). The field area will be seeded or sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. It is the responsibility of contractor or home owner to install and maintain vegetation. Inspection and clean out ports shall have risers over the port openings which extend to a minimum of tow inches above grade. 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.

## **DESIGN SPECIFICATIONS:**

Q = 240 gallons per day – 3 bedroom residence 1464sf (Table III) Pretreatment tank size: 397 Gal Plant Size: ProFlo Model 5060 600gpd(TCEQ Approved) Pump tank size: 768 Gal





Reserve capacity after High Level: 80 gal. (>1/3 day dsage) Application Rate: Ra = 0.2 gal/sqft Total absorption area: Q/Ra = 240gpd/0.20 = 1200sqft (Actual 1632sf) Total linear feet drip tubing: 816' Minimum 600' = 1200sqft/2 Netifim Bioline drip tubing .61 GPH Total number of emitters: 408 emitters @0.61gph @30psi

Pump: 0.5 HP FPS E- Series 20FE05P4-2W115 submersible pump or equivalent.

## **<u>PIPE AND FITTINGS:</u>**

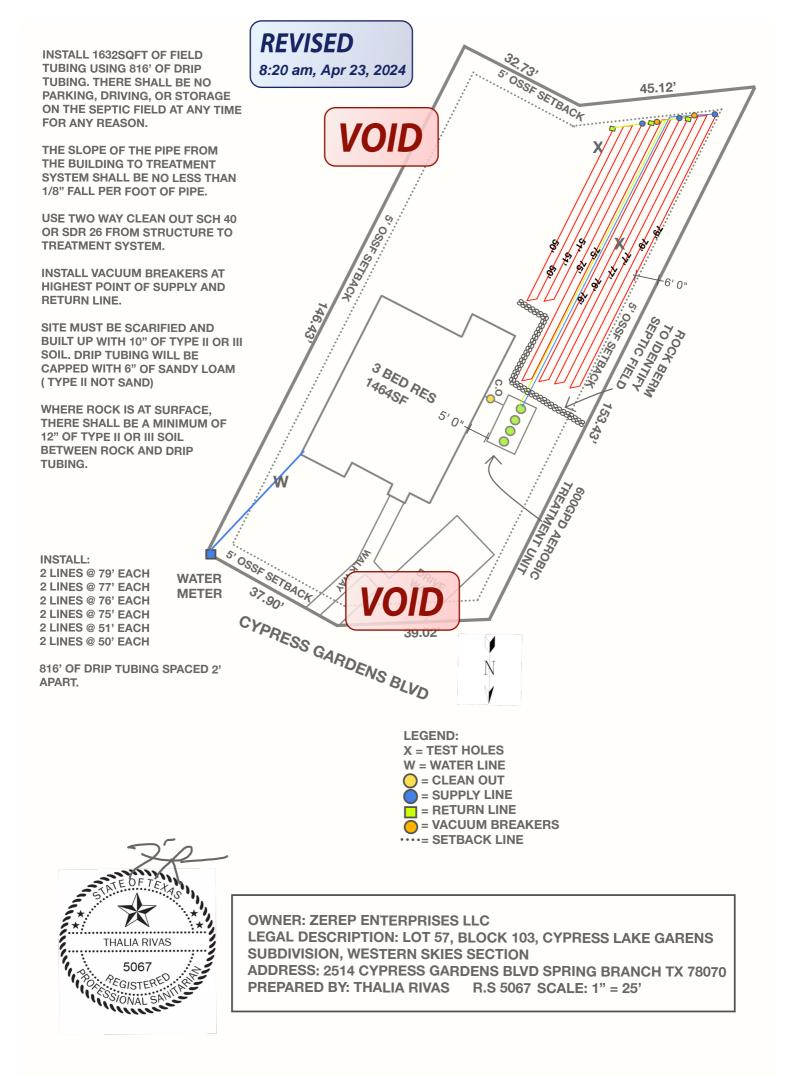
All pipes and fittings in this drip tubing system shall be schedule 40 PVC. All joints shall be sealed with approved solvent- type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective December 29, 2016)

04-22-24

Thalia Rivas, R.S. No. 5067 P.O. Box 768 Spring Branch Tx 78070 Rs.tr@ossfdesigns.com





COMAL COUNTY ENGINEER'S OFFICE ON-SITE SEW VOID APPLICATION	195 DAVID JONA\$ DR NEW BRAUNFELS, TX 78132 (830) 608-2090 WWW.CCEO.ORG		
Planning Materials & Site Evaluation as Required Completed By Thalia Rivas. R.S 5067			
System Description Aerobic Treatment Unit with Drip Irrigation			
Size of Septic System Required Based on Planning Materials & Soil Evaluation			
Tank Size(s) (Gallons)       600GPD Aerobic Treatment Unit       Absorption/Application Area (Sq Ft)       1600sf / 800Inft			
Gallons Per Day (As Per TCEQ Table III) 240GPD			
(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)			
Is the property located over the Edwards Recharge Zone? Yes X No (If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (F	P.E.))		
Is there an existing TCEQ approved WPAP for the property? Ses X No			
(If yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)			
If there is no existing WPAP, does the proposed development activity require a TCEQ approved WP	AP? 🗌 Yes 🔀 No		
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)			
Is the property located over the Edwards Contributing Zon			
Is there an existing TCEQ approval CZP for the property? $\square$ Yes $ imes$ No			
(If yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)			
If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP?	Yes 🔀 No		
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)	A Permit to Construct will not be		
Is this property within an incorporated city? See Yes X No			
If yes, indicate the city:			

By signing this application, I certify that:

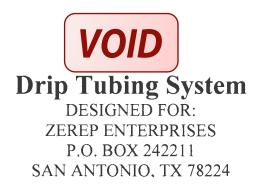
- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

01-30-24

Signature of Designer

Date



## SITE DESCRIPTION

Located in Cypress Lake Gardens, Western Skies Section, Block 103, Lot 57 at 2514 Cypress Gardens Blvd. This septic will serve a three bedroom residence (1464 sqft) in area with Type III soil and limestone as described in the Soil Evaluation Report. Property has approximately 4% slope. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

## PROPOSED SYSTEM

A 3inch SCH-40 pipe discharges from the residence into a Pro-Flo Model 5060 600gpd aerobic treatment plant containing a 397gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains 0.5 HP FPS E- SERIES 20FE-W115 submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal Disc filter then through a 1" SCH-40 manifold to a 1600sqft drip tubing field, with Netifim Bioline drip lines set approximately two feet apart with 0.61 gps 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 25- 40psi. A 1" SCH-40 return line is installed to continuously flush the system by cycling a 1" ball valve into the pump tank. Solids caught in the disk filter are flushed **VOID** breakers installed at the highest point or ck to the trash tank. 1" PVC vacuum d will prevent siphoning of effluent from higher to lower parts of the field. Prior to trenching the site must be scarified and built up with 10" of Type II or Type III soil. In areas where surface rock is exposed there shall be a minimum of 12" of soil between limestone and drip tubing. Drip tubing will be laid and the entire field area will be capped with 6" of sandy loam (Type II – NOT SAND). The field area will be seeded or sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. It is the responsibility of contractor or home owner to install and maintain vegetation. Tank must have a grade riser 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.

## **DESIGN SPECIFICATIONS:**

Q = 240 gallons per day – 3 bedroom residence 1464sf (Table III) Pretreatment tank size: 397 Gal Plant Size: ProFlo Model 5060 600gpd(TCEQ Approved) Pump tank size: 768 Gal



Reserve capacity after High Level: 80 gal. (>1/3 day usage) Application Rate: Ra = 0.2 gal/sqft Total absorption area: Q/Ra = 240gpd/0.20 = 1200sqft (Actual 1600sf ) Total linear feet drip tubing: 800' Minimum 600' = 1200sqft/2 Netifim Bioline drip tubing .61 GPH Total number of emitters: 400 emitters @0.61gph @30psi

Pump: 0.5 HP FPS E- Series 20FE05P4-2W115 submersible pump or equivalent.

## **PIPE AND FITTINGS:**

All pipes and fittings in this drip tubing system shall be schedule 40 PVC. All joints shall be sealed with approved solvent- type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective December 29, 2016)

Thalia Rivas, R.S. No. 5067

Thalia Rivas, R.S. No. 50 P.O. Box 768 Spring Branch Tx 78070 Rs.tr@ossfdesigns.com



**INSTALL 1600SQFT OF FIELD TUBING USING 800' OF DRIP TUBING. THERE SHALL BE NO** PARKING, DRIVING, OR STORAGE **ON THE SEPTIC FIELD AT ANY TIME** FOR ANY REASON.

THE SLOPE OF THE PIPE FROM THE BUILDING TO TREATMENT SYSTEM SHALL BE NO LESS THAN 1/8" FALL PER FOOT OF PIPE.

**USE TWO WAY CLEAN OUT SCH 40 OR SDR 26 FROM STRUCTURE TO** TREATMENT SYSTEM.

**INSTALL VACUUM BREAKERS AT** HIGHEST POINT OF SUPPLY AND **RETURN LINE.** 

SITE MUST BE SCARIFIED AND BUILT UP WITH 10" OF TYPE II OR III SOIL. DRIP TUBING WILL BE CAPPED WITH 6" OF SANDY LOAM (TYPE II NOT SAND)

WHERE ROCK IS AT SURFACE. THERE SHALL BE A MINIMUM OF 12" OF TYPE II OR III SOIL BETWEEN ROCK AND DRIP TUBING.

> 5' OSSF SETBACK WATER METER

**INSTALL:** 16 LINES @ 50' EACH

800' OF DRIP TUBING SPACED 2' APART.

CYPRESS GARDENS BLVD LEGEND: X = TEST HOLES W = WATER LINE = CLEAN OUT = SUPPLY LINE = RETURN LINE = VACUUM BREAKERS ····= SETBACK LINE

N

VOID

"OSSF SETBACK

46.43

W

37.90

5

<sup>3</sup> BED RES

DRIVE

WAY

39.02'

1464SF

VOID

A STATE

5'0"

32.73' 5' 0555 SETBACK

0000

0.0

TREATMENT UNIT BOGRD AEROBIC 45.12'

6'0"

50' 50' 50' 50'

d

5

OSSF SETBACK

153.43,



**OWNER: ZEREP ENTERPRISES LLC** LEGAL DESCRIPTION: LOT 57, BLOCK 103, CYPRESS LAKE GARENS SUBDIVISION, WESTERN SKIES SECTION ADDRESS: 2514 CYPRESS GARDENS BLVD SPRING BRANCH TX 78070 PREPARED BY: THALIA RIVAS R.S 5067 SCALE: 1" = 25'

GF# NB-2018-MK

#### **GENERAL WARRANTY DEED** (Cash)

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REVOKE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

THE STATE OF TEXAS

COUNTY OF COMAL

KNOW ALL MEN BY THESE PRESENTS:

KNIGHT

GF# NB-2018 - MK

THAT THE UNDERSIGNED, OWENS PROPERTY SOLUTIONS, LLC, hereinafter referred to as "Grantor", whether one or more, for and in consideration of the sum of TEN DOLLARS (\$10.00) cash, and other good and valuable consideration in hand paid by the Grantee, herein named, whose address is 2514 CYPRESS GARDENS BLVD, SPRING BRANCH, TX 78070, the receipt and sufficiency of which is hereby fully acknowledged and confessed, has GRANTED, SOLD and CONVEYED, and by these presents does hereby GRANT, SELL and CONVEY unto ZEREP ENTERPRISES LLC, A TEXAS LIMITED LIABILITY COMPANY, herein referred to as "Grantee", whether one or more, all Grantor's right, title and interest in and to the real property described as follows, to-wit:

Ş

LOT 57, BLOCK 103, CYPRESS LAKE GARDENS' SUBDIVISION, WESTERN SKIES SECTION, ACCORDING TO THE MAP OR PLAT THEREOF, **RECORDED IN VOLUME 3, PAGE 18, OF THE DEED AND PLAT RECORDS OF** COMAL COUNTY, TEXAS.

Commonly known as: 2514 CYPRESS GARDENS BLVD, SPRING BRANCH, TX 78070

This conveyance, however, is made and accepted subject to any and all validly existing encumbrances, conditions and restrictions, relating to the hereinabove described property as now reflected by the records of the County Clerk of COMAL County, Texas.

TO HAVE AND TO HOLD the above described premises, together with all and singular the rights and appurtenances thereto in anywise belonging unto the said Grantee, Grantee's heirs, executors, administrators, successors and/or assigns forever; and Grantor does hereby bind Grantor's heirs, executors, administrators, successors and/or assigns, to WARRANT AND FOREVER DEFEND all and singular the said premises unto the said Grantee, Grantee's heirs, executors, administrators, successors and/or assigns, against every person whomsoever claiming or to claim the same or any part thereof.

Current ad valorem taxes on said property having been prorated, the payment thereof is assumed by Grantee.

GENERAL WARRANTY DEED (Cash)

Page 1 of 2

TO BE EFFECTIVE this 17 day of January 2024.
GRANTOR:
OWENS PROPERTY SOLUTIONS, LLC
BY: NAME: ARI OWENS TITLE: MANAGING MEMBER
ACKNOWLEDGMENT
THE STATE OF OKlahous s COUNTY OF Oklahous
The foregoing instrument was acknowledged before me on the day of day of 2024, by ARI OWENS, MANAGING MEMBER of OWENS PROPERTY SOLUTIONS, LLC on behalf of said entity, and in the capacity herein stated.
CONTRACTOR OF CHILDREN
AFTER RECORDING, RETURN FO: ZEREP ENTERPRISES LLC 2514 CYPRESS GARDENS BLVD SPRING BRANCH, TX 78070
damend, KARRANTY DEED (Cash) Page 2 of 2 Filed and Recorded Official Public Records Bobbie Koepp, County Clerk

Comal County, Texas 01/18/2024 03:37:30 PM CHRISTY 2 Pages(s) 202406001639 au - 1

. ... ... .

,

Bobbie Koepp

# **Document # 97912**

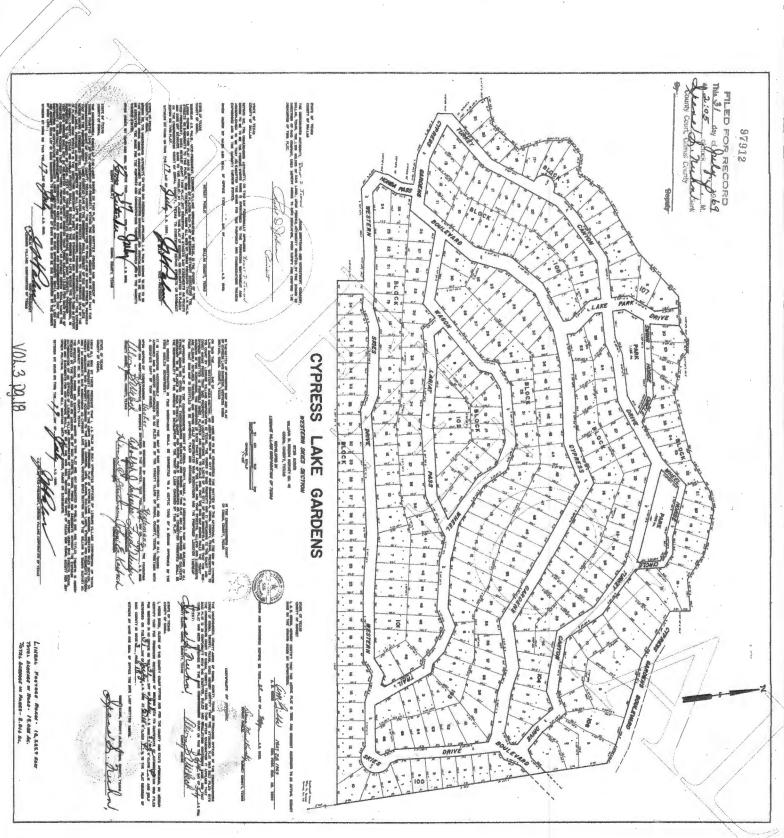
# SUBDIVISION PLAT FILING

NAME OF SUBDIVISION:

Cypress Lake Gardens Western Skies Section

MAPAND	2 	2	
PLAT:	Volume: Page:	3 18	

Recorded Date: July 31, 1969





## OSSF DEVELOPMENT APPLICATION CHECKLIST

Staf	f will complet	e shaded items
4506 - 35-50	Blo	- 117239
Date Received	Initials	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 <u>must</u> accompany the completed application.

OSSF Permit
Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
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.
Required Permit Fee - See Attached Fee Schedule
Copy of Recorded Deed
Surface Application/Aerobic Treatment System
Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
Signed Maintenance Contract with Effective Date as Issuance of License to Operate

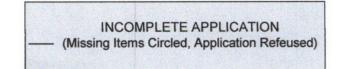
I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.

Signature of Applicant

\_\_\_\_ COMPLETE APPLICATION
Check No. \_\_\_\_\_ Receipt No. \_\_\_\_\_

01-01-2024

Date



Revised: September 2019