



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

11/17/2025	CM	119193
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 **must** 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.

Conie Smith

Signature of Applicant

10-17-25

Date

___ COMPLETE APPLICATION

Check No. _____ Receipt No. _____

INCOMPLETE APPLICATION

___ (Missing Items Circled, Application Refused)



ON-SITE SEWAGE FACILITY APPLICATION

Date 10-17-25

Permit Number 119193

1. APPLICANT / AGENT INFORMATION

Owner Name Edgar Juarez
Mailing Address 660 Horseshoe Track
City, State, Zip Spring Branch, TX 78070
Phone # 512-848-7739
Email _____

Agent Name Bucky Smith
Agent Address 202 Reimer Ave
City, State, Zip San Marcos, TX 78666
Phone # 512-644-6980
Email smithsepticdesign@gmail.com

2. LOCATION

Subdivision Name Rebecca Creek Park Unit _____ Lot 12 Block 28
Survey Name / Abstract Number _____ Acreage .32
Address 660 Horseshoe Track City Spring Branch State TX Zip 78070

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) mobile home

Number of Bedrooms 3

Indicate Sq Ft of Living Area 1064

☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 80,000 (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water ☒ Public ☐ Private Well ☐ Rainwater

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Edgar Juarez
Signature of Owner

10-17-25
Date



ON-SITE SEWAGE FACILITY APPLICATION

Planning Materials & Site Evaluation as Required Completed By Corrie Smith

System Description aerobic drip

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) 600 gpd ATU Absorption/Application Area (Sq Ft) 1200

Gallons Per Day (As Per TCEQ Table III) 240

(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 ☒ 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? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☒ Yes ☐ No

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? ☒ 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.

Corrie Smith
Signature of Designer

10-17-25
Date



WASTEWATER TREATMENT SYSTEM MAINTENANCE CONTRACT

Customer

Edgar Elias Juarez Juarez

Residential



Initial Contract



Site Address

660 Horseshoe Track, Spring Branch, TX 78070

Agency

Comal County

Email

ryanpatrickmurphy08@gmail.com

Phone

7378022683

Permit Number

System Details

Treatment: Aerobic Drip Emitters / System: 1500 Max GPD

MAINTENANCE 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 9595 Ranch Rd 12 Suite #1, Wimberley, TX 78676. 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 & Fees:

This agreement commences upon receipt by the Contractor of notice that the Local Regulatory Agency has given final approval of the installation (for a new or modified system), or on **11/13/2025** for an existing system, provided the Contractor has received payment in full of Fee(s) as agreed herein. The fees for this agreement are **\$550.00** and shall be prepaid per the payment terms outlined herein.

III. Renewal Terms:

The term of this Agreement is **2 year(s)** but in no case shall the Fee to the Contractor be for less than **one (1) year**. This Agreement is non-expiring and automatically renews without need for signing of any additional document(s) – provided Client continues to timely pay the Fee(s) when due. Agreements paid monthly are paid using Contractor's system for automatic debit or automatic draft. Agreements that are prepaid will be invoiced by Contractor before the due date and must be timely paid by Client. If not timely paid before the due date, the Contractor has the right to terminate this Agreement.

IV. Services by Contractor:

1. Inspect and perform routine maintenance on the part with "On-Site Sewage Facility ("OSSF or "the system") 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. Replacement, Replenishment, and

Repairs are additional services not covered by the Fee. Regarding all such work, Contractor shall abide by Client's election in Section V of this agreement.

5. Report to the appropriate regulatory agency 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 agency within 14 days.
6. Visit site within 48 hours of a service request.
7. Provide Customer Support line at (855) 560-9909

V. Client Responsibilities:

1. Maintain a current License to Operate and abide by the conditions and limitations of that license and all requirements for OSSF from the State and Local Regulatory Agency as well as manufacturer's recommendations.
2. Maintain disinfection unit and at all times provide proper and adequate chlorine supply or operating disinfection component, if OSSF is equipped with same.
3. Provide all necessary site, yard, or lawn maintenance and removal of obstacles, including dogs and other animals, as needed to allow the system and its components to function properly and to allow Contractor safe and easy access to all parts of the system and its components.
4. Maintain site drainage to prevent adverse effects on OSSF.
5. Provide for pumping of tanks, when and as suggested by Contractor, at Client's own expense. Typically, every 3 years.
6. Do not exceed the system's physical, hydraulic, or biological limitations
7. Notify Contractor within 24 hours of the occurrence of any and all alarms or problems with any component or with the system.
8. Be available by text, phone, or in person when the Contractor is on-site in case of required repair approvals or questions.
9. Promptly pay Contractor's bills, fees, and invoices in full.
10. Elect one of the following: **Not Authorized**

Yes, I authorize. If during the Contractor's time of the maintenance check any component of the system is found to need replacement, replenishment, or repair, then Client authorizes Contractor to perform the service per the above and bill or charge the Client for such additional services without further approval by Client so long as the service is \$150 or less and the Contractor has the necessary materials to perform the replacement, replenishment, or repair.

No, I do not authorize. If, during the Contractor's maintenance check, any component of the system is found to be in need of replacement, replenishment, or repair, Contractor will notify Client of repairs needed and, where feasible, provide an estimate of costs. No replacement, replenishment, or repairs will be performed without express approval of Client. Additional Service fees will apply for return visits to perform repairs.

VI. Authority

In signing this Agreement, the Client: (1) hereby affirms ownership to the Property as well as the OSSF that is the subject of this Agreement. (2) represents that he/she has authority to permit Contractor's entry upon property to monitor, service, or repair and agrees to hold Contractor and its agents harmless for entry upon such real property for these purposes, and (3) represents to have the authority to bind all owners of the property to the terms of this agreement, or to accept personal responsibility for these terms.

VII. Access By Contractor

Contractor is hereby granted access to the system and all related components for the purposes of performing the Services or Additional Services. Unless other arrangements have been made in advance in writing, Contractor's personnel may enter the property at reasonable times without any form of notice for the purpose of performing the Services or Additional Services. Contractor will require free, unrestricted access to the system and related components for the purpose of performing all work. If upon arrival at the site, Contractor determines that access is prevented, blocked, or restricted, Contractor is not required to perform any of the steps, and will be credited with completion of that maintenance check. Additional maintenance checks to complete the Services shall be billed to Client as an Additional Service.

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. Under no condition shall prepayment of Fee, or the sum of monthly payments of Fee, be for less than **a one-year term**. After **2 year(s)**, prepaid agreements (other than monthly) may be prorated using monthly increments, less other charges as discussed elsewhere in this Agreement.

IX. Application or Transfer of Payment:

The Fee paid for this Agreement may transfer to the subsequent owner(s), however, this Agreement will not transfer. Client will advise subsequent owner(s) of the regulatory requirement for a replacement Agreement. Regulations require that replacement Agreements be signed and received within 30 days of transfer of ownership. Contractor will apply all funds received from Client first to any past-due obligations arising from this Agreement including late charges, returned check charges, and charges for repairs or services not paid within 10 days of invoicing. Unpaid balances on Client's account may lead to the extension of the monthly drafting or debiting program, if applicable, to complete payment of Client's account balance(s).

X. Termination of Agreement:

After a minimum of **2 year(s)**, in order to provide sufficient time to comply with the regulatory requirement for notices from the Contractor to the Local Regulatory Agency, this Agreement may be terminated for any reason by either party with a minimum 30 day written notice, without fault of the terminating party. Contractor shall be due a Fee equal to at least the first year and may also deduct for any other work performed by Contractor but not yet paid by Client, whether invoiced prior to termination or not. Contractor will notify the appropriate Local Regulatory Agency of this termination.

XI. 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.

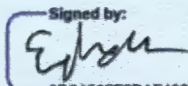
XII. Severability:

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.

Edgar Elias Juarez Juarez

Signed by:

Customer Name



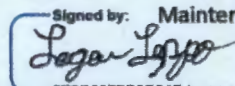
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Customer Signature

Luna Environmental / Logan Leppo

Signed by:

Maintenance Provider Name



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License # MP0002494

Maintenance Provider Signature

Additional Comments / Special Terms



Kristen H. Hoyt, PCAC
COMAL COUNTY TAX ASSESSOR/COLLECTOR
205 N. Seguin Avenue
New Braunfels, TX 78130
(830) 221-1353

2024+ Tax Statement

Property Account Number:
47054

Statement Date: 11/04/2025
Owner: JUAREZ EDGAR
Mailing Address: 252 TRAILS END RD
DRIFTWOOD TX 78619

Property Location: 0000660 HORSESHOE TRACK
Acres: 0
Legal Description: REBECCA CREEK PARK SECOND FILING
BLOCK 28
LOT 12

Exemptions:

IMPROVEMENT VALUE	LAND MARKET VALUE	NON-HOMESITE IMPRV	NON-HOMESITE LAND	AG VALUE	MINERAL VALUE	PERSONAL PROPERTY	TOTAL MARKET VALUE
0	67,640	0	67,640	0	0	0	67,640
Taxing Entities		Exemption Amount		Taxable Value		Tax Rate Per \$100	Base Tax
COMAL COUNTY		0		67,640		0.226715	153.35
COMAL COUNTY LATERAL		0		67,640		0.037515	25.38
COMAL ISD		0		67,640		1.086900	735.18
ESD 1		0		67,640		0.069826	47.23
ESD 4		0		67,640		0.066832	45.21
						TOTAL BASE TAX	1,006.35

Total Amount Due 0.00

*ADDITIONAL COUNTY SALES TAX REDUCED YOUR COUNTY AD VALOREM TAX BY \$52.44.

↓ Detach ↓

Return With Payment



Visit our website for online credit card payments.



47054

CCAD

2024 +Tax Statement
11/04/2025

Property Account Number
47054

Total Amount Due \$0.00

IF PAID IN	AMOUNT DUE
DEC	0.00
JAN	0.00
FEB	0.00
MAR	0.00
APR	0.00
	0.00

Please Make Checks Payable To:
Kristen H. Hoyt, PCAC
Tax Assessor-Collector

JUAREZ EDGAR
252 TRAILS END RD
DRIFTWOOD TX 78619

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE 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.

*Five Star Title
GF #077290 ~~ML~~*

Warranty Deed with Vendor's Lien

Date: May 20, 2025

Grantor: BES Strategic Investments, LLC

Grantor's Mailing Address: 204 S. Austin Street
Seguin, Texas 78155

Grantee: Edgar Juarez, a married person

Grantee's Mailing Address: 252 Trails End Rd.
Driftwood, Texas 78619

Consideration:

Cash and a note of even date executed by Grantee and payable to the order of GRANTOR in the principal amount of FIFTY SEVEN THOUSAND and NO/100 (\$57,000.00) DOLLARS. The note is secured by a first and superior vendor's lien and superior title retained in this deed in favor of GRANTOR and by a first-lien deed of trust of even date from GRANTEE to Anthony O. Schaker, trustee.

Property (including any improvements):

Lot 12, Block 28, Rebecca Creek Park Subdivision, Second Filing, Comal County, Texas, according to plat thereof recorded in Volume 1, Page 28, Map and Plat Records of Comal County, Texas.

Reservations from and exceptions to Conveyance and Warranty:

Validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing restrictions, reservations, covenants, conditions, oil and gas leases, mineral interests outstanding in persons other than Grantor, and other instruments, other than conveyances of the surface fee estate, that affect the property; validly existing rights of adjoining owners in any walls and fences situated on a common boundary; any discrepancies, conflicts, or shortages in area or boundary lines; any encroachments or overlapping of improvements; and taxes for the current year and subsequent amounts for prior

years due to change in land usage, the payment of all of which Grantee assumes and agrees to pay.

Grantor, for the consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

The vendor's lien against and superior title to the Property are retained until each note described is fully paid according to its terms, at which time this deed will become absolute.

BES STRATEGIC INVESTMENTS, LLC

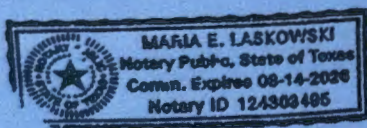
BY: Erik Saengerhausen
IT'S: MANAGING MEMBER

ACKNOWLEDGMENT

STATE OF TEXAS

COUNTY OF GUADALUPE

This instrument was acknowledged before me on May 20, 2025 by Erik Saengerhausen, Managing Member of BES Strategic Investments, LLC.



Maria E. Laskowski
Notary Public, State of Texas
Printed Name of Notary Public

After recording, return to:
FIVE STAR TITLE
304 N. Austin St.
Seguin, Texas 78155

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
05/21/2025 04:24:03 PM
MARY 2 Pages(s)
202506015114



Bobbie Koepp

Warranty Deed with Vendor's Lien/ML

Page 2

Smith Septic Design and Consultation



Designed for:
Juarez Residence
660 Horseshoe Track
Spring Branch, TX



CS 9-8-25

Smith Septic Design and Consultation contact information:

Bucky Smith · 202 Reimer Ave · San Marcos, TX 78666 · 512-644-6980

smithsepticdesign@gmail.com

Design Report
On-Site Sewage Facility
Aerobic Wastewater Treatment System
Drip Irrigation Application

Owner/Site Location:

Juarez Residence
660 Horseshoe Track
Spring Branch, TX



Site Description & Evaluation:

A site evaluation indicated that the site is suitable for an aerobic drip irrigation system. The disposal area has a slope of less than 15% and there was no evidence of shallow groundwater. This residence will utilize a public water supply as a water source. All portions of the proposed OSSF must maintain at least a 10' setback from all water lines. This site does not lie in the regulated 100 year floodplain. There were no recharge features found within 150' of the proposed OSSF. Minimum separation distances as stated in Chapter 285 (TCEQ) On-Site Sewage Facilities, must be maintained. .

Wastewater Design Flow:

This design is for a 3 bedroom mobile home <2500 Square feet = 240 GPD. Low flow fixtures will be utilized. The system is designed for 240 gallons per day.

Aerobic Treatment System Description:

This residence will utilize a Nuwater B-550 ATU. Wastewater from the residence will flow to a 353 gallon trash tank followed by 600 gallon aeration unit and a 768 gallon pump tank. Distribution to the Netafim Bioline tubing is through a SCH 40 PVC supply line. A 100 micron filter, pressure regulator, and check valves will be placed on the supply line. The SCH 40 PVC flush line will have a ball valve installed to set the required flushing velocity back into the pump chamber. Vacuum relief valves will be placed on the highest end of the drain field, one on the supply line and one on the flush line. The system will not be required to use chlorine as a disinfecting agent. Existing soil will be scarified and 6" of soil will be placed on top of the scarified soil. The tubing will be placed on the imported soil. A minimum of 6" of class III soil is required to cover the tubing. The drain field will be seeded or hydro mulched. **I certify that this OSSF meets the requirements of the existing CZP.**

DESIGN SPECIFICATIONS

Daily Flow: 3 bedroom <2500 square feet = 240 gpd

Required Disposal Area: $240/.2 = 1200$ square feet

Length of Tubing: 600 feet

Brand of Tubing: Netafim Bioline 0.6 GPH @35 PSI

Dosing Rate: Bioline tubing will flow 0.62GPH(0.01GPM) @ 35 PSI 600 feet of tubing with emitters every 2 feet = 300 emitters

$300 \text{ emitters} \times 0.01 \text{ GPM} = 3.0 \text{ GPM dosing rate}$

Distribution Pipe: 1" SCH 40 purple manufactured pipe

ATU Pump: Franklin C1 Series

Pump Off: @ 6.0"

Pump On: @ 10.0"

Alarm On: @ 27.0"

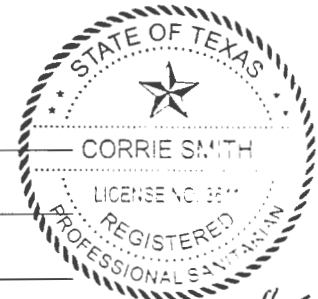
Reserve Above Alarm: 376.74 gallons



Ch 9-8-25

Client: Juarez
Location: 660 Horseshoe Track
Netafim Bioline: 17mm .6gph 24in spacing @ 2fps Flush

Date: 9/8/2025



9-8-25

- Maximum Recommended Bioline Lateral Length: 300
1. Soil Texture or Perc Time: III
2. Soil Structure Shape:
- Soil Structure Grade:
3. Infiltration Loading Rate(ILR): 0.2 gal/day/ft^2
4. Slope: %
5. Infiltration Depth: in.
6. Hydraulic Linear Loading Rate: 4 gal/day/ft
7. Maximum Contour Length (MCL): 150 ft
8. Daily Flow

$$\frac{3.00}{\text{No. of Bedrooms}} \times \frac{80.00}{\text{Flow / Bedroom}} = \frac{240.00}{\text{GPD}}$$

9. Dosing Area

$$\frac{240.00}{\text{Daily Flow}} \div \frac{0.20}{\text{ILR}} = \frac{1200.00}{\text{sqft}}$$

10. Dosing A. Length

$$\frac{240.00}{\text{Daily Flow}} \div \frac{4.00}{\text{HLLR}} = \frac{60.00}{\text{ft}}$$

11. Dosing A. Width

$$\frac{1200.00}{\text{Dosing Area}} \div \frac{120.00}{\text{Dosing A. Length}} = \frac{10.00}{\text{ft}}$$

11a. Dosing Design Width & Length Adjustment

Design Width 10.00 ft Adjusted Dosing Length 120.00 ft

12. Required Dripper Line

$$\frac{1200.00}{\text{Dosing Area}} \div \frac{24}{\text{Drip line Spacing}} = \frac{600.00}{\text{ft}}$$

13. Required Zones

$$\frac{120.00}{\text{Dosing A. Length}} \div \frac{150.00}{\text{MCL+}} = \frac{0.80}{\text{Theoretical}} = \frac{1}{\text{Design Zones}}$$

14. Zone Breakout Table

Zone No.	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.
	Zone Dosing Area (sqft)	Linear Ft. of Tubing (ft)	Longest Lateral (ft)	Dosing Flow Rate (gpm)	Number of Distal Ends	Field Flush Rate (gpm)	Required Total Flow (RTF) (gpm)	Field Flushing Head (ft)	Force Main Supply Line			Return Flush Line			Static Lift (ft)	Total Field Head Loss (TFHL)
Zone 1	1200.0	600.0	300.0	3.0	2.0	3.2	6.2	51.5	Pipe Nom. Dia. (in)	Len. of Run (ft.)	Head Loss (ft)	Pipe Nom. Dia. (in)	Len. of Run (ft.)	Head Loss (ft)	6	59.27
Zone 2	0.0	0.0		0.0	0.0	0.0	0.0	0.1			0.0			0.0		
Zone 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12
Zone 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12
Zone 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12
Zone 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12

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

15. Max Required Total Flow: 6.2 (Largest RTF Based on 14g.)

16. Max Total Field Head Loss: 59.3 (Largest TFHL Based on 14p.)

17. Headworks Head Loss: 18 ft
18. Miscellaneous Head Loss: 10 ft
19. Design Total Dynamic Head: 87.3 ft

20. Pump Data: MINIMUM Pump Specifications

Franklin C1 Series Pump Model Selected
0.5 HP Phase Volts 6.2 GPM @ 87.3 FT.
Note: Selected pump must produce 115 ft @ 12gpm or 35 gpm for filter flush depending on filter model. (auto-flush units only)

21. Dosing Schedule

Dosing Schedule				Peak Flow Adjustment			0.00	Minutes
Peak				Average				
Total Run Time:	80.0			Minutes	Total Run Time		80.0	Minutes
Total Rest Time:	1360.0			Minutes	Total Rest Time		1360.0	Minutes
Peak								
Zone 1	3.00	GPM	10.0	Min/Dose	30.0	Gal/Dose	8.0	Cycles/Day
Zone 2		GPM		Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 3	0.00	GPM		Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 4	0.00	GPM		Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 5	0.00	GPM		Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 6	0.00	GPM		Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Avg								
Zone 1	3.00	GPM	10.0	Min/Dose	30.0	Gal/Dose	8.0	Cycles/Day
Zone 2	6.00	GPM	0.0	Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 3	0.00	GPM	0.0	Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 4	0.00	GPM	0.0	Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 5	0.00	GPM	0.0	Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day
Zone 6	0.00	GPM	0.0	Min/Dose	0.0	Gal/Dose	0.0	Cycles/Day

Portion of Peak Daily Flow

100%

Notes:
Bioline Must Be Selected at Top of Page. Required inputs go in **YELLOW** spaces and adjustments in **BLUE** spaces. Information for the record goes into **GREY** spaces. Incorporates New UniRam Type Emitter. Peak Flow Cycle Adjustment should be between 2 and 4 minutes. Higher values could result in damage to the drain field.

Copyright JNM Technologies, Inc. 7-2009

Juarez Residence
660 Horseshoe Track
Spring Branch, TX 78070

LEGEND

- A: 3 Bedroom, Single Family Residence, < 2,500 Sq. Ft.
- B: 3" or 4" SCH 40 PVC Pipe with Two Way Clean Out
- C: NuWater Aerobic Treatment Unit, Model B-550
- D: 1" SCH 40 PVC Supply Line
- E: 1" SCH 40 PVC Return Line
- F: 600 Linear Feet of Purple Netafim Drip Tubing, 2 Runs @ 300' (See Drain Field Notes)
- G: Waterline
- H: Air/Vacuum Relief Valve
- I: 1.5" Ball Valve (to remain partially open to allow continuous flushing during dosing)
- J: 100 Micron Disc Filter
- K: Driveway
- X: Profile Hole

PROPERTY NOTES

- 30' Building Setback on Front Property Line
- 10' Building Setback on Side Property Lines
- 6' OSSF Setback on All Property Lines
- 5' Utility and Drainage Easement on All Property Lines
- 5' Septic Tank Setback from Structure
- 1' Drip Tubing Setback from Structure

SCALE

1 INCH = 40 FEET

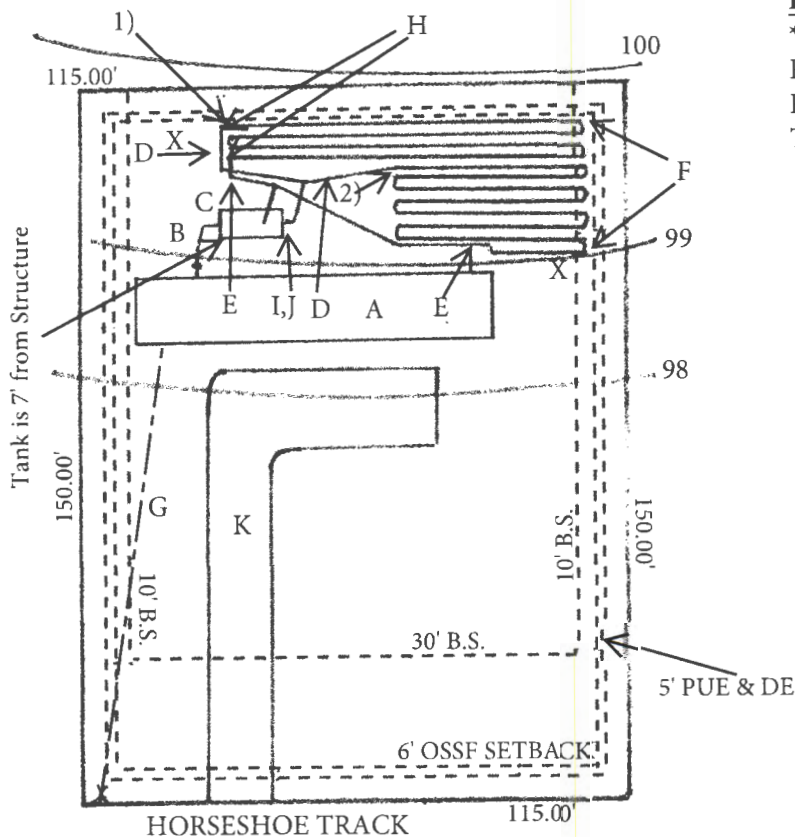
DRAIN FIELD NOTES

* Arrow points to supply connection

Run 1): 4 Lines @ 75' = 300'

Run 2): 7 Lines @ 40', 1 Line @ 20' = 300'

TOTAL: 300' + 300' = 600'



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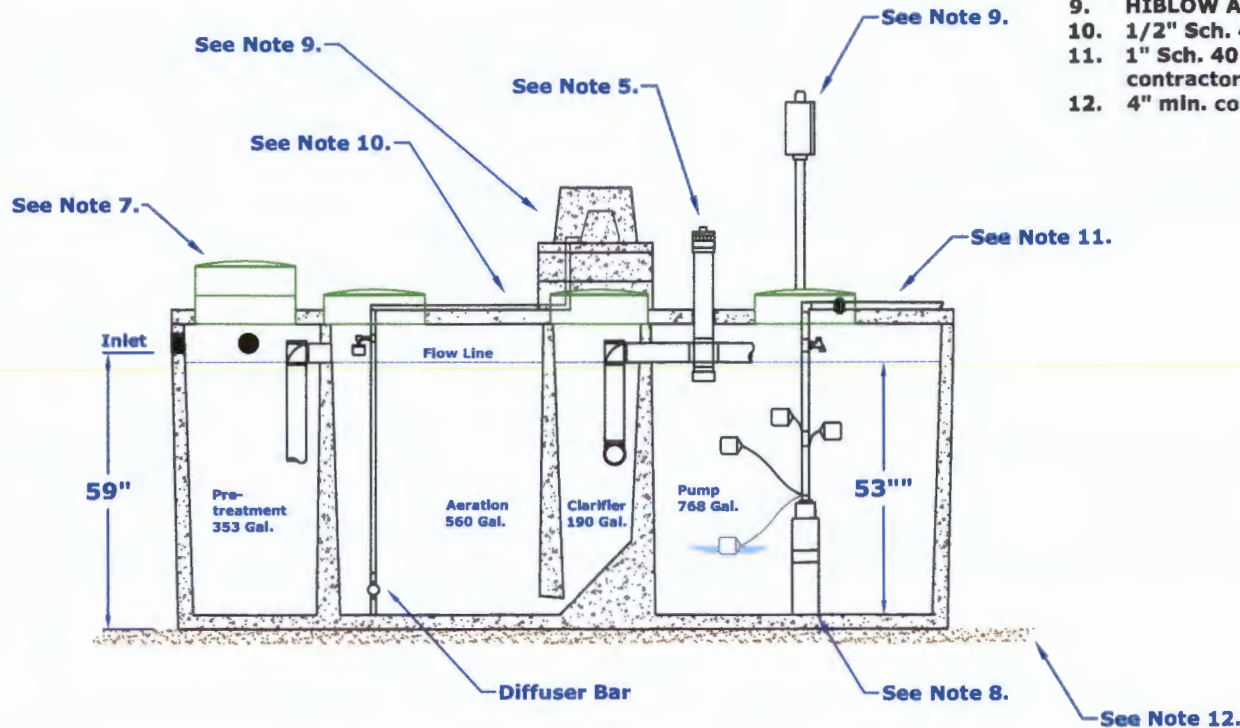
Assembly Details

OSSF



GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Maximum burial depth is 30" from slab top to grade.
3. Weight = 14,900 lbs.
4. Treatment capacity is 600 GPD. Pump compartment set-up for a 360 GPD Flow Rate (4 bedroom, < 4,000 sq/ft living area). Please specify for additional set-up requirements. BOD Loading = 1.62 lbs. per day.
5. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
6. Bio-Robix B-550 Control Center w/ Timer for night spray application. Optional Micro Dose (min/sec) timer available for drip applications. Electrical Requirement to be 115 Volts, 60 Hz, Single Phase, 30 AMP, Grounded Receptacle.
7. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. HIBLOW Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.
12. 4" min. compacted sand or gravel pad by Contractor



DIMENSIONS:

Outside Height: 67"
Outside Width: 63"
Outside Length: 164"

MINIMUM EXCAVATION DIMENSIONS:

Width: 76"
Length: 176"

NuWater B-550 (600 GPD)
Aerobic Treatment Plant (Assembled)

Model: B-550-PC-400PT

March, 2012 - Rev 1
By: A.S.

Scale:

* All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3



Advantage Wastewater Solutions Inc.
444 A Old Hwy No 9
Comfort, TX 78013
830-995-3189
fax 830-995-4051

BIOLINE® DRIPLINE

THE WORLD'S MOST ADVANCED CONTINUOUS
SELF-CLEANING, PRESSURE COMPENSATING DRIPLINE
SPECIFICALLY DESIGNED FOR WASTEWATER

Copper oxide is
impregnated into the
emitter serving as a
natural antimicrobial
agent to help prevent
microbial activity.



PRODUCT ADVANTAGES

- Pressure compensation - all drippers deliver equal flow, even on sloped or rolling terrain.
- Unique flow path - Turbonet technology provides more control of water and a high resistance to clogging.
- Continuous self-flushing dripper design - flushes debris, as it is detected - throughout operation, not just at the beginning or end of a cycle. Ensures uninterrupted dripper operation.
- Single hole dripper outlet from tubing:
 - Better protection against root intrusion
 - Allows the dripline to be used in subsurface applications without need for chemical protection
- Drippers capture water flow from the center of the tubing - ensures that only the cleanest flow enters the dripper.
- Built-in physical root barrier - drippers are protected from root intrusion without the need for chemical protection.
- Three dripper flow rates - provides the broadest range of flow rates available. Allows the designer to match the dripline to any soil or slope condition.
- Bioline tubing is completely wrapped in purple - easily identifying it for non-potable use, regardless of how the tubing is installed.
- Cupron copper oxide is impregnated at specific concentrations, our patent-pending process, ensuring it remains effective throughout the life of the product.
- Bioline can be installed on-surface, under cover or subsurface.
- No special storage requirements - does not degrade if stored outdoors.

APPLICATIONS

- Typically installed following a treatment process
- Can be used with domestic septic tank effluent with proper design, filtration and operation
- Reuse applications including municipally treated effluent designated for irrigation and other disinfected and non-disinfected water sources.

SPECIFICATIONS

- Dripper flow rates: 0.4, 0.6 or 0.9 GPH
- Dripper spacings: 12", 18" or 24" dripper spacings and blank tubing
- Pressure compensation range: 7 to 58 psi
- Maximum recommended system pressure: 58 psi
- Tubing diameter: 0.66" OD, 0.56" ID
- Tubing color: Purple color indicates non-potable
- Coil lengths: 500' or 1,000' (Blank tubing in 250')
- Recommended filtration: 120 mesh
- Bending radius: 7"
- UV resistant
- Tubing material: Linear low-density polyethylene

Additional spacing and pipe sizes available by special order. Please contact Netafim USA Customer Service for details.

BIOLINE DRIPLINE

MAXIMUM LENGTH OF A SINGLE LATERAL WITH 3.0 fps FLUSH VELOCITY ADDITIONAL FLOW OF 2.3 GPM REQUIRED PER LATERAL TO ACHIEVE 3 fps

DRIPPER SPACING	12"			18"			24"		
	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH
15	102	94	84	138	127	113	181	151	137
25	151	136	118	203	184	161	245	223	197
35	183	171	146	260	232	200	315	283	245
40	211	186	158	286	254	218	347	311	267
45	228	200	169	310	274	233	377	335	287
Flow per 100' (GPM / GPH)	0.67/40	1.02/61	1.53/92	0.44/26.7	0.68/41	1.02/61	0.34/20	0.51/31	0.77/46

Lateral lengths are based on flows allowing for a 3 fps flushing/scouring velocity

MAXIMUM LENGTH OF A SINGLE LATERAL WITH 2.5 fps FLUSH VELOCITY ADDITIONAL FLOW OF 2.0 GPM REQUIRED PER LATERAL TO ACHIEVE 2.5 fps

DRIPPER SPACING	12"			18"			24"		
	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH
15	128	115	100	172	155	136	205	187	165
25	183	161	137	248	220	188	301	268	231
35	228	198	166	310	272	229	379	333	283
40	248	214	178	338	295	247	413	362	305
45	268	229	190	364	316	263	447	389	327
Flow per 100' (GPM / GPH)	0.67/40	1.02/61	1.53/92	0.44/26.7	0.68/41	1.02/61	0.34/20	0.51/31	0.77/46

Lateral lengths are based on flows allowing for a 2.5 fps flushing/scouring velocity

MAXIMUM LENGTH OF A SINGLE LATERAL WITH 2.0 fps FLUSH VELOCITY ADDITIONAL FLOW OF 1.6 GPM REQUIRED PER LATERAL TO ACHIEVE 2.0 fps

DRIPPER SPACING	12"			18"			24"		
	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH
15	161	141	119	217	191	164	263	233	201
25	221	190	157	302	261	218	368	321	270
35	268	229	187	370	316	260	455	391	324
40	290	246	200	399	340	278	493	421	347
45	310	261	212	427	362	296	527	449	368
Flow per 100' (GPM / GPH)	0.67/40	1.02/61	1.53/92	0.44/26.7	0.68/41	1.02/61	0.34/20	0.51/31	0.77/46

Lateral lengths are based on flows allowing for a 2 fps flushing/scouring velocity

MAXIMUM LENGTH OF A SINGLE LATERAL WITH 1.5 fps FLUSH VELOCITY ADDITIONAL FLOW OF 1.2 GPM REQUIRED PER LATERAL TO ACHIEVE 1.5 fps

DRIPPER SPACING	12"			18"			24"		
	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH
15	201	171	140	275	235	194	337	289	241
25	266	222	179	368	308	251	453	383	313
35	316	262	210	437	365	295	543	465	369
40	337	280	223	469	391	313	583	487	393
45	358	296	235	497	413	331	619	517	415
Flow per 100' (GPM / GPH)	0.67/40	1.02/61	1.53/92	0.44/26.7	0.68/41	1.02/61	0.34/20	0.51/31	0.77/46

Lateral lengths are based on flows allowing for a 1.5 fps flushing/scouring velocity

MAXIMUM LENGTH OF A SINGLE LATERAL WITH 1.0 fps FLUSH VELOCITY ADDITIONAL FLOW OF 0.9 GPM REQUIRED PER LATERAL TO ACHIEVE 1.0 fps

DRIPPER SPACING	12"			18"			24"		
	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH
15	248	205	163	344	285	228	427	355	285
25	315	258	203	440	361	286	549	453	359
35	367	299	234	513	419	331	643	527	417
40	389	316	248	545	445	350	683	559	441
45	408	332	260	574	468	367	721	589	463
Flow per 100' (GPM / GPH)	0.67/40	1.02/61	1.53/92	0.44/26.7	0.68/41	1.02/61	0.34/20	0.51/31	0.77/46

Lateral lengths are based on flows allowing for a 1 fps flushing/scouring velocity

MAXIMUM LENGTH OF A SINGLE LATERAL WITH 0.5 fps FLUSH VELOCITY ADDITIONAL FLOW OF 0.4 GPM REQUIRED PER LATERAL TO ACHIEVE 0.5 fps

DRIPPER SPACING	12"			18"			24"		
	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH	0.4 GPH	0.6 GPH	0.9 GPH
15	301	242	188	422	341	265	531	429	335
25	369	296	228	520	418	323	655	527	409
35	421	337	260	595	476	368	749	603	467
40	443	354	273	626	501	387	790	635	491
45	464	371	285	656	524	404	829	665	513
Flow per 100' (GPM / GPH)	0.67/40	1.02/61	1.53/92	0.44/26.7	0.68/41	1.02/61	0.34/20	0.51/31	0.77/46

Lateral lengths are based on flows allowing for a 0.5 fps flushing/scouring velocity

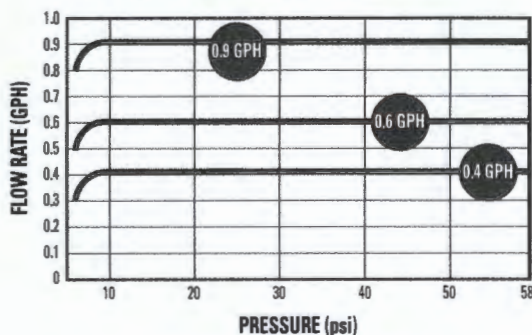
Netafim recommends flushing velocities capable of breaking free any accumulated bioslimes and debris in the piping network.

- Notes:
1. Refer to local regulations for information on flushing velocities that may be written into codes.
 2. Netafim does not endorse a specific flushing velocity.
 3. Flushing velocities should be determined based on regulations, quality of effluent, and type of flushing control.
 4. Using a flushing velocity less than 1 fps does not provide turbulent flow as defined by Reynolds Number.
 5. Higher flushing velocities provide more aggressive flushing.



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DRIPPER FLOW RATE VS. PRESSURE



Between 0 and 7 psi, the dripper functions as a turbulent flow emitter, ensuring that the nominal design flow is not exceeded at system start-up.

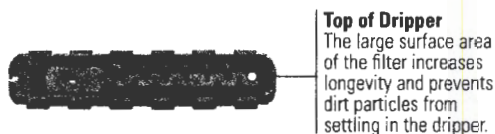
FLOW PER 100 FEET

DRIPPER SPACING	0.4 GPH DRIPPER		0.6 GPH DRIPPER		0.9 GPH DRIPPER	
	GPH	GPM	GPH	GPM	GPH	GPM
12"	40.0	0.67	61.0	1.02	92.0	1.53
18"	26.7	0.44	41.0	0.68	61.0	1.02
24"	20.0	0.34	31.0	0.51	46.0	0.77

Netafim sets the bar for innovation in drip irrigation with copper. Cupron® copper oxide-based technology allows for maximum performance. The integration of copper oxide in the internal emitter, and the unique patented emitter design with physical root barrier provides two levels of protection, giving your system the protection it needs to fight against root intrusion.

- Cupron copper oxide provides one of two layers of defense against root intrusion, a physical root barrier inside the dripper provides the other.
- Cupron copper oxide technology will not wash out, wear off or leach out; remaining effective throughout the life of the product.
- Cupron copper oxide is approved for use by the EPA ensuring peace of mind.

EXPLODED VIEW OF BIOLINE DRIPPER



Chemical-resistant
molded silicon
diaphragm



Bottom of Dripper
Large and effective filter
area prevents penetration of
coarse particles inside flow
path. Superior clog resistance
for efficient irrigation.



SPECIFYING INFORMATION

A Bioline Dripline = 08WRAM

SAMPLE MODEL NUMBER

08WRAM.6-24 V

1 DRIPPER FLOW RATE
0.4 GPH = .4
0.6 GPH = .6
0.9 GPH = 1

2 DRIPPER SPACING
12" = 12
18" = 18
24" = 24

3 COIL LENGTH
500' = V500
1,000' = V

BLANK Tubing Model Number: 250' = 08WRAM-250

BIOLINE DRIPPER OPERATION

Bioline drippers are pressure compensating - delivering the water uniformly into the soil for further treatment or for reuse by the landscape. These unique drippers allow the tubing to be installed on flat topography or steep slopes.

Bioline drippers are protected against microbial activity. Copper oxide impregnated XR drippers – Copper, a natural antimicrobial material, is used to help prevent microbial activity.

Netafim drippers are 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.

ORDERING INFORMATION

FLOW RATE	DRIPPER SPACING	COIL LENGTH	MODEL NUMBER
0.4 GPH	12"	1,000' 500'	08WRAM.4-12V 08WRAM.4-12V500
0.4 GPH	18"	1,000' 500'	08WRAM.4-18V 08WRAM.4-18V500
0.4 GPH	24"	1,000' 500'	08WRAM.4-24V 08WRAM.4-24V500
0.6 GPH	12"	1,000' 500'	08WRAM.6-12V 08WRAM.6-12V500
0.6 GPH	18"	1,000' 500'	08WRAM.6-18V 08WRAM.6-18V500
0.6 GPH	24"	1,000' 500'	08WRAM.6-24V 08WRAM.6-24V500
0.9 GPH	12"	1,000' 500'	08WRAM1-12V 08WRAM1-12V500
0.9 GPH	18"	1,000' 500'	08WRAM1-18V 08WRAM1-18V500
0.9 GPH	24"	1,000' 500'	08WRAM1-24V 08WRAM1-24V500
Blank Tubing 17mm		250'	08WRAM-250

BIOLINE FITTINGS

FITTING APPLICATIONS

- Fits Bioline Dripline

FITTING SPECIFICATIONS

- Barbed fittings for a secure fit
- Easy installation without glue or tools
- Allows for easy on-site inspection of proper fitting installation



TLCOUP
Insert Coupling



TLELL
Insert Elbow



TLTEE
Insert Tee



TLCROS
Insert Cross



TL050MA
1/2" Male Adapter



TL075MA
3/4" Male Adapter



TL075FTEE
Combination Tee
Ins x Ins x 3/4" FPT



TL2W075MA
2-Way Insert
3/4" MPT x Insert



TLIAPE-B
Insert Adapter for 1" or
Larger PE (Requires 11mm
or 7/16" drill or punch)



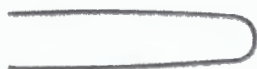
TLIAPVC-B
Insert Adapter with Grommet
1 1/2" or larger PVC Pipe



TDBIT16.5
Drill Bit for TLIAPVC
Fitting (16.5mm or 21/32")



TLFIG8
Figure 8 Line End



TLS6
6" Soil Staple



TLSOV
Shut-Off Valve
Ins x Ins



TLCV
Inline Check Valve

- Flow Range: 0.9 to 4.4 GPM
- Opening Pressure: 10.2 psi
- Closing Pressure: 5.8 psi
(13.4 Feet Column of Water)

FITTING DEFINITIONS

FPT = Female Pipe Thread
MPT = Male Pipe Thread
Ins x Ins = Insert by Insert



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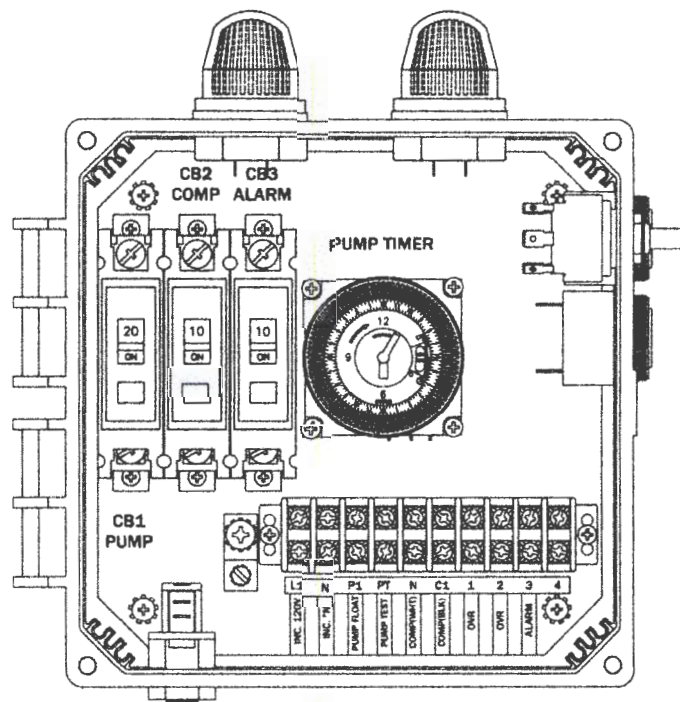


NETAFIM USA
5470 E. Home Ave.
Fresno, CA 93727
CS 888 638 2346
www.netafimusa.com

"A-AV" Model Aerobic Control Panel

Features & Benefits

- Circuit Breakers for Pump, Compressor & Alarm Circuits
- 24 Hr Timer w/15 minute intervals
- Large & Easy to Access Terminal Block
- Externally Mounted Run/Mute/Test Switch w/UV resistant sealing boot
- Externally Mounted Audible Alarm
- Rugged UV resistant Externally Mounted Alarm Light
- Durable Weather Resistant Hinged Poly Enclosure
- Labeled Back Panel
- Ground Lug
- Easily Replaceable Components
- Nema 4x Rating
- Color Coded Internal Wiring
- Built and Labeled to UL 508A Standard
- Works with most Aerobic Treatment Systems
- Provided with Wiring Schematic and Detailed Connection Diagram for Installer
- Mounting Feet for Enclosure
- Two year limited control panel warranty



(50B138-BIO-A-AV SHOWN)

NOTE: Comp. alarm switch located on enclosure door



Available Options

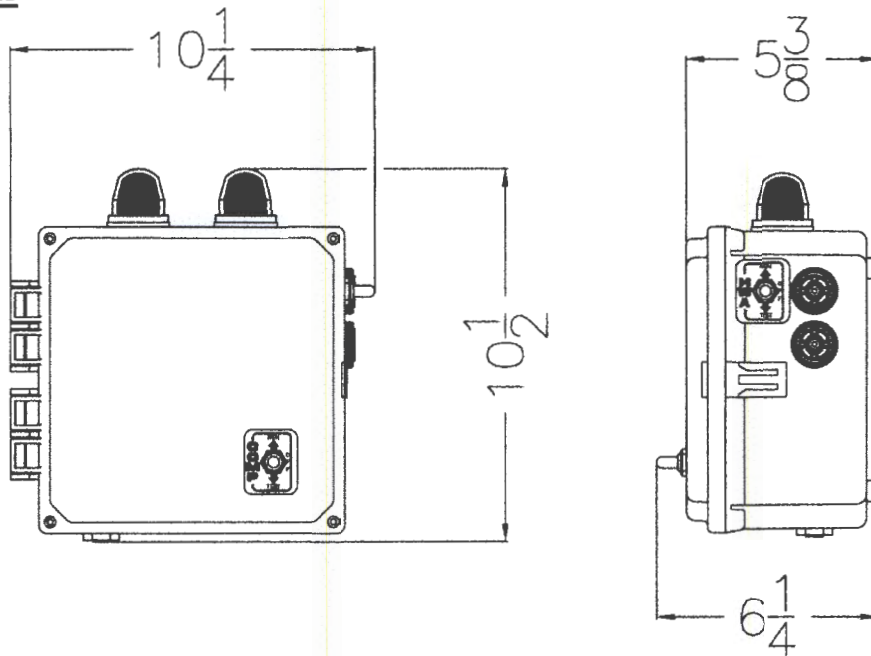
- Externally Mounted Pump Test Switch
- Externally Mounted Air Pressure Switch
- Auto-Dialer
- Locking Stainless Steel Latch
- Repeat Cycle Timer Option
- Mercury or Mechanical Float Switches for the Pump and High Water Alarm Circuits



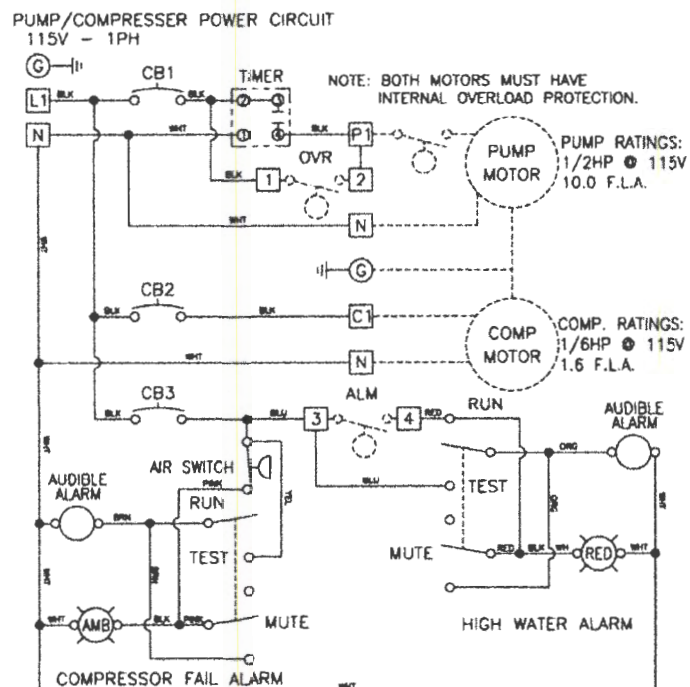
Note: Consult the factory for other available options. Also some options may require an increase in the enclosure size.

"A-AV" Model Aerobic Control Panel

Panel Dimensions



Wiring Schematic



08 9-8-25

C1 SERIES

CISTERN PUMPS

Designed for use in gray water / filtered effluent service applications, the C1 Series cistern pump provides high performance and long life in less than ideal water conditions. The C1 Series pump is able to pass solids up to 1/8" without having a negative effect on the internal hydraulic components.

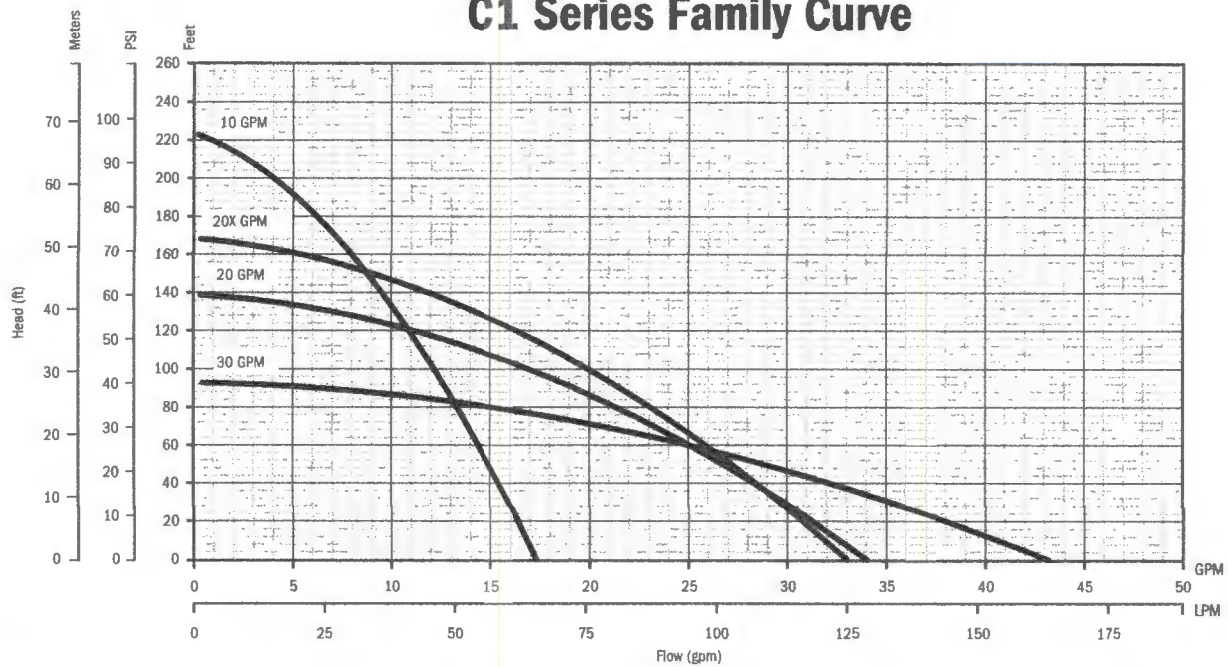
The pump's unique bottom suction design allows for maximum fluid drawdown without compromising durability or overall life, and it does not require the use of a flow induction sleeve. Intended specifically for use in a cistern or tank, C1 Series pumps are suitable for use in agricultural, residential, and commercial installations.



Franklin Electric

franklinwater.com

C1 Series Family Curve



FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, 1/2 hp motor
- Fluid flows of 10, 20, and 30 gpm, with a max shut-off pressure of over 100 psi
- Heavy duty 600 V 10 foot SJ00W jacketed lead

APPLICATIONS

- Gray water pumping
- Filtered effluent service water pumping
- Water reclamation projects such as pumping from rain catchment basins
- Aeration and other foundation or pond applications
- Agriculture and livestock water pumping



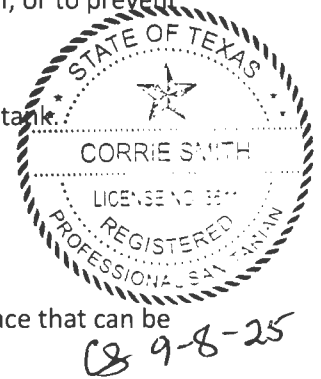
ORDERING INFORMATION

C1 Series Pumps							
GPM	HP	Volts	Stage	Model No.	Order No.	Length (in)	Weight (lbs)
10	1/2	115	7	10C1-05P4-2W115	90301005	26	17
		230	7	10C1-05P4-2W230	90301010	26	17
20		115	5	20C1-05P4-2W115	90302005	25	16
		230	5	20C1-05P4-2W230	90302010	25	16
20X		115	6	20XC1-05P4-2W115	90302015	26	17
		230	6	20XC1-05P4-2W230	90302020	26	17
30		115	4	30C1-05P4-2W115	90303005	25	16
		230	4	30C1-05P4-2W230	90303010	25	16

Note: All units have 10 foot long SJ00W leads.

Tank Notes:

- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a layer, with a minimum thickness of 4 inches, of sand, sandy loam, clay loam, or pea gravel.
- Risers are required over all tank openings and must extend 2" above grade
- Risers shall be permanently fastened to the tank lid.
- The riser lid shall screw down and have a lock or weight 65lbs.
- A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, or to prevent the infiltration of water.
- Tanks must be filled with water for 24-hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8" per foot from house to tank.
- PVC pipe from house to tank must be at least Sch.40 or SDR 26.

**Additional Notes:**

- Install audio-visual alarm for aerator and pump on separate breakers.
- The high water and air compressor alarms shall be audio/visual and mounted in a place that can be easily seen and heard when the alarms are activated.
- A hose bib must be installed in pump tank at tank inspection port.
- The chlorinator must be constructed to allow a chlorine residual of 0.1mg/1 in the pump tank for the period of time between scheduled inspections. The disinfected effluent must obey the standards as stated in §285, TCEQ, On-Site Sewage Facilities. Approved disinfection methods using chlorinated tablets, must use calcium hypochlorite that is properly labeled for wastewater disinfections.

Maintenance Requirements:

- The applicant must furnish to the regulatory authority a valid maintenance contracts with a certified maintenance company before a permit will be issued.
- The maintenance company will verify that the system is operating properly and that they will provide on-going maintenance of the installation.
- The initial contract will be a minimum of 2 years.
- A maintenance contract will authorize the Maintenance Company to maintain and repair the system as needed.
- The owner must continuously maintain a signed written contract with a valid maintenance company and shall submit a copy of the contract to the permitting authority at least 30 days prior to the date service will cease.

Affidavit:

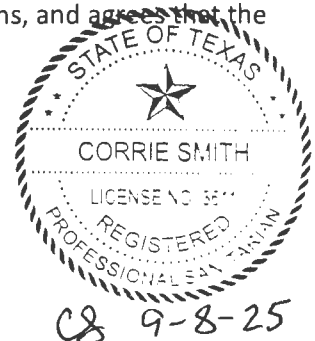
- The applicant must file a certified copy of an affidavit at the County Clerk's office and filed in reference to the real property deed on which the surface application system is to be installed.
- The affidavit will state that the property shall not be transferred to a new owner without:
 - (1) The new owner being advised that the property contains a surface application system for wastewater disposal;

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

Operation and Management Notes:

- The OSSF should not be treated as a normal city Sewer.
- Water conservation practices should be used at all times. Consult your local authorities for more information.
- Run the dishwasher with a full load whenever possible.
- Avoid running water continuously when brushing teeth, washing hands, or cleaning food and utensils.
- Repair any water leaks immediately, such as running toilets or leaky faucets.
- The owner is responsible for cleaning and pumping the septic tank, typically every 2 to 3 years depending on system usage.
- Do not use the toilet to dispose of tissue, feminine hygiene products, trash, cigarettes, etc.
- It is recommended that you do not use the garbage disposal and/or garbage grinders in the facility serviced by this system.
- Household chemicals should be used in moderation.
- According to §285, no water softener will be allowed to enter the OSSF.
- Chemical additives or the so-called enzymes should not be used during the operation of this system. Some of these additives may even be harmful to the facilities operation.
- Do not build driveways, storage buildings, decks, or other structures over the tank or disposal area.
- The OSSF must be protected from coming in contacts with vehicular traffic.
- A strong vegetative cover is essential for the proper operation of this system. The property owner is solely responsible for maintaining this vegetation. The irrigation area should be groomed by mowing on a regular basis.
- If you notice a problem with the spray patterns, or any of the alarms are activated, contact your maintenance provider immediately.
- Never place a greater wastewater load on your system than that prescribed by the design of the system **(240 gallons per day)**.

*The proposed system has been designed generally following the minimum requirements under TCEQ §285 On-Site Sewage Facilities. The site evaluation and subsequent design are based on technical information currently available. The performance of the OSSF is not, and cannot be guaranteed even though all provisions of the Standards have been complied with. If failure should occur, additions to the OSSF may have to be made. In extreme cases a substitute system may be required. By accepting this design, the homeowner/contractor understands the aforementioned conditions, and agrees that the designer will not be liable for any more than the agreed upon design.



**ON-SITE SEWAGE FACILITY (OSSF)
SITE EVALUATION FORM**

1. OWNER INFORMATION:

Property Owner's Full Legal Name: Edgar Juarez

2. PROPERTY INFORMATION (the property or tract for which an Application has been submitted under the Hays County Development Regulations):

911 street address for the Subject Property (if established): 660 Horseshoe Track

City: Spring Branch

Zip Code: 78070

Legal description:

Lot: 12 Block: 28 Subdivision: Rebecca Creek Park Sec: _____ Phase: _____

If not located in a subdivision: Survey: _____

Abstract: _____

Recorded (Vol/Page): _____

If a 911 street address has not yet been assigned to the Subject Property, the Applicant must contact the 911 Coordinator at (512) 393-2160 to obtain an address.

3. SITE EVALUATION INFORMATION:

Name of Site Evaluator: Corrie Smith

OS#: 0029488

Date Performed: 9-1-25

Proposed Excavation Depth: NA

4. REQUIREMENTS:

- At least two soil evaluations must be performed on the site at opposite ends of the proposed disposal area. Locations of soil evaluations must be shown on the application site drawing or designer's site drawing.
- For subsurface disposal, soil evaluations must be performed to a depth of at least 2 feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.
- Please describe each soil horizon and identify any restrictive features in the space provided below. Draw lines at the appropriate depths.

Soil Profile Hole Number: 1

Depth (ft)	Textural Class	Gravel Analysis	Drainage (Mottles/Water Table)	Restrictive Horizon	Observations
0 1 2 3 4 5	<u>III</u>	<u><30%</u>	<u>—</u>	<u>rock</u>	<u>suitable for drip</u>



CS 9-8-25

Soil Profile Hole Number: <u>2</u>					
Depth (ft)	Textural Class	Gravel Analysis	Drainage (Mottles/Water Table)	Restrictive Horizon	Observations
0 1 2 3 4 5	<u>III</u>	<u>430%</u>	<u>—</u>	<u>rock</u>	<u>suitable for drip</u>

5. FEATURES OF SITE AREA:

Presence of 100 year flood zone

Presence of adjacent ponds, streams, water impoundments

Existing or proposed water well in nearby area

Organized sewage available to lot or tract

Recharge features within 150 feet

This site is suitable for a standard On-Site Sewage Facility

☐ Yes	☒ No
☐ Yes	☒ No
☐ Yes	☒ No
☐ Yes	☒ No
☐ Yes	☒ No
☐ Yes	☒ No

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

Signature of Site Evaluator: X Corrie Smith
 Print Name: Corrie Smith
 Date: 9-1-25



CS 9-8-25



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 (OSSF's), 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 (commission) 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.

II

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):

660 Horseshoe Track Spring Branch, TX 78070
Rebecca Creek Park
Block 28
Lot 12

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

Edgar Suarez

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.

WITNESS BY HAND(S) ON THIS 17th DAY OF October, 20 25

Edgar Suarez

Owner(s) signature(s)

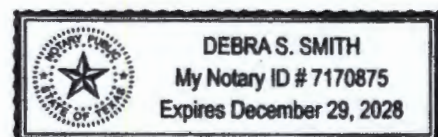
SWORN TO AND SUBSCRIBED BEFORE ME ON THIS

17th DAY OF October 20 25

Debbie S. Smith

Notary Public, State of Texas

Debbie S. Smith





This page has been added to comply with the statutory requirement that the clerk shall stamp the recording information at the bottom of the last page.

This page becomes part of the document identified by the file clerk number affixed on preceding pages.

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
11/12/2025 11:02:04 AM
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Bobbie Koepp