

Comal County Environmental Health

OSSF Inspection Sheet

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	Notes	1st Insp.	2nd Insp.	3rd Insp.
1	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials		285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)				
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(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)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

Inspector Notes:

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1) (E) 285.91(2) 285.32(b)(1) (F) 285.32(b)(1)(E) (iii) 285.32(b)(1)(E)(ii) (II) 285.32(b)(1)(E)(ii) (I) 285.32(b)(1)(E) (i) 285.32(b)(1) (D) 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)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
10	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 provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed						
15	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 Drip Irrigation		285.33(c)(3)(A)-(F)				

**Comal County Environmental Health
OSSF Inspection Sheet**

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.						
36	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						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	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)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)				
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number: 118620
Issued This Date: 06/12/2025
This permit is hereby given to: MELANIE LASHUS

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

593 WAGON WHEEL DR
CANYON LAKE, TX 78133

Subdivision: CANYON LAKE HILLS
Unit: 4
Lot: 1946
Block: 0
Acreage: 0.1800

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.



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

		118620
<i>Date Received</i>	<i>Initials</i>	<i>Permit Number</i>

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.

Signature of Applicant

05/02/2025

Date

___ COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

INCOMPLETE APPLICATION
___ (Missing Items Circled, Application Refused)

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

Page 1 of 2
Revised January 2021



COMAL COUNTY
ENGINEER'S OFFICE

RECEIVED

By Brandon Olvera at 1:29 pm, Jul 21, 2025

CANYON LAKE HILLS, UNIT 4, LOT 1946

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

Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

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

Tank Size(s) (Gallons) NUWATER B-550, 600 GPD Absorption/Application Area (Sq Ft) 1448

Gallons Per Day (As Per TCEQ Table III) 180

(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 P.E. or R.S. 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: _____



FIRM #2585

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

Date

April 29, 2025

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

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):

4 UNIT/PHASE/SECTION BLOCK 1946 LOT CANYON LAKE HILLS SUBDIVISION

IF NOT IN SUBDIVISION: ACREAGE SURVEY

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

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 2 DAY OF May, 2025

Melanie Lashus
Owner(s) signature(s)

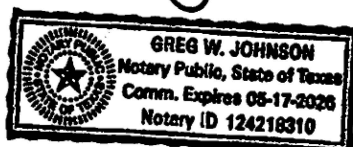
MELANIE LASHUS

Owner (s) Printed name (s)

MELANIE LASHUS

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 2 DAY OF

May, 2025
B. J. Gal
Notary Public Signature



Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
05/02/2025 10:06:52 AM
MARY 1 Pages(s)
202506012808



Bobbie Koepp

RECEIVED

By Brandon Olvera at 12:50 pm, Jul 29, 2025

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

Regulatory Authority Comal
Block Creek Aerobic Services, LLC
444 A Old Hwy #9
Comfort, TX 78013
Off. (830) 995-3189
Fax. (830) 995-4051

Permit/License Number # 118620
Customer Melanie Lashus
Site Address 593 Wagon Wheel Dr.
City Canyon Lake Zip 78133
Mailing Address _____
County Comal Map # _____
Phone 540-273-0602
Email mblashus@gmail.com

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between _____ (hereinafter referred to as "Customer") and Block Creek Aerobic Services, LLC. By this agreement, Block Creek Aerobic Services, LLC and its employees (hereinafter inclusively referred to as "Contractor") agree to render services at the site address stated above, as described herein, and the Customer agrees to fulfill his/her/their responsibilities, as described herein.

II. Effective Date:

This Agreement commences on LTO and ends on _____ for a total of two (2) years (initial agreement) or one (1) year (thereafter). If this is an initial agreement (new installation), the Customer shall notify the Contractor within two (2) business days of the system's first use to establish the date of commencement. If no notification is received by Contractor within ninety (90) days after completion of installation or where county authority mandates, the date of commencement will be the date the "License to operate" (Notice of Approval) was issued by the permitting authority. This agreement may or may not commence at the same time as any warranty period of installed equipment, but in no case shall it extend the specified warranty.

III. Termination of Agreement:

This Agreement may be terminated by either party for any reason, including for example, substantial failure of either party to perform in accordance with the terms of this Agreement, without fault or liability of the terminating party. The terminating party must provide written notice to the non-terminating party thirty (30) days prior to the termination of this Agreement. If this Agreement is terminated, Contractor will be paid at the rate of \$75.00 per hour for any work performed and for which compensation has not been received. After the deduction of all outstanding charges, any remaining monies from prepayment for services will be refunded to customer within thirty (30) days of termination of this Agreement. Either party terminating this Agreement for any reason, including non-renewal, shall notify in writing the equipment manufacturer and the appropriate regulatory agency a minimum of thirty (30) days prior to the date of such termination. Nonpayment of any kind shall be considered breach of contract and a termination of contract.

IV. Services:**Contractor will:**

- Inspect and perform routine upkeep on the On-Site Sewage Facility (hereinafter referred to as OSSF) as recommended by the treatment system manufacturer, and required by state and/or local regulation, for a total of three visits to site per year. The list of items checked at each visit shall be the: control panel, Electrical circuits, timer, Aeration including compressor and diffusers, CFM/PSI measured, lids safety pans, pump, compressor, sludge levels, and anything else required as per the manufacturer.
- Provide a written record of visits to the site by means of an inspection tag attached to or contained in the control panel.
- Repair or replace, if Contractor has the necessary materials at site, any component of the OSSF found to be failing or inoperative during the course of a routine monitoring visit. If such services are not covered by warranty, and the service(s) cost less than \$100.00, Customer hereby authorizes Contractor to perform the service(s) and bill Customer for said service(s). When service costs are greater than \$100.00, or if contractor does not have the necessary supplies at the site, Contractor will notify Customer of the required service(s) and the associated cost(s). Customer must notify Contractor of arrangements to affect repair of system within two (2) business days after said notification.
- Provide sample collection and laboratory testing of TSS and BOD on a yearly basis (commercial systems only).
- Forward copies of this Agreement and all reports to the regulatory agency and the Customer.
- Visit site in response to Customer's request for unscheduled services within forty-eight (48) hours of the date of notification (weekends and holidays excluded) of said request. Unless otherwise covered by warranty, costs for such unscheduled responses will be billed to Customer.

V. Disinfection:

Customer's Initials



RC

Contractor's Initials

____ Not required; X required. The responsibility to maintain the disinfection device(s) and provide any necessary chemicals is that of the Customer.

VI. Electronic Monitoring:

Electronic Monitoring is not included in this Agreement.

VII. Performance of Agreement:

Commencement of performance by Contractor under this Agreement is contingent on the following conditions:

a. If this is an initial Agreement (new installation):

I. Contractor's receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.

If the above conditions are not met, Contractor is not obligated to perform any portion of this Agreement.

VIII. Customer's Responsibilities:

The customer is responsible for each and all of the following:

a. Provide all necessary yard or lawn maintenance and removal of all obstacles, including but not limited to dogs and other animals, vehicles, trees, brush, trash, or debris, as needed to allow the OSSF to function properly, and to allow Contractor safe and easy access to all parts of the OSSF.

b. Protect equipment from physical damage including but not limited to that damage caused by insects.

c. Maintain a current license to operate, and abide by the conditions and limitations of that license, and all requirements for and OSSF from the State and/or local regulatory agency, whichever requirements are more stringent, as well as the proprietary system's manufacturer recommendations.

d. Notify Contractor immediately of any and all alarms, and/or any and all problems with, including failure of, the OSSF.

e. Provide, upon request by Contractor, water usage records for the OSSF so that the Contractor can perform a proper evaluation of the performance of the OSSF.

f. Allow for samples at both the inlet and outlet of the OSSF to be obtained by Contractor for the purpose of evaluating the OSSF's performance. If these samples are taken to a laboratory for testing, with the exception of the service provided under Section IV (d) above, Customer agrees to pay Contractor for the sample collection and transportation, portal to portal, at a rate of \$35.00 per hour, plus the associated fees for laboratory testing.

g. Prevent the backwash or flushing of water treatment or conditioning equipment from entering the OSSF.

h. Prevent the condensation from air conditioning or refrigeration units, or the drains of icemakers, from hydraulically overloading the aerobic treatment units. Drain lines may discharge into the surface application pump tank if approved by system designer.

i. Provide for pumping and cleaning of tanks and treatment units, when and as recommended by Contractor, at Customer's expense.

j. Maintain site drainage to prevent adverse effects on the OSSF.

k. Pay promptly and fully, all Contractor's fees, bills, or invoices as described herein.

IX. Access by Contractor:

Contractor is hereby granted an easement to the OSSF for the purpose of performing services described herein. Contractor may enter the property during Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. Contractor shall have access to the OSSF electrical and physical components. Tanks and treatment units shall be accessible by means of man ways, or risers and removable covers, for the purpose of evaluation as required by State and/or local rules and the proprietary system manufacturer. It is Customers responsibility to keep lids exposed and accessible at all times.

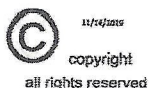
X. Limit of Liability:

Contractor shall not be held liable for any incidental, consequential, or special damages, or for economic loss due to expense, or for loss of profits or income, or loss of use to Customer, whether in contract tort or any other theory. In no event shall Contractor be liable in an amount exceeding the total Fee for Services amount paid by Customer under this Agreement.

XI. Indemnification:

Customer (whether one or more) shall and does hereby agree to indemnify, hold harmless and defend Contractor and each of its successors, assigns, heirs, legal representatives, devisees, employees, agents and/or counsel (collectively "Indemnitees") from and against any and all liabilities, claims, damages, losses, liens, causes of action, suits, fines, judgments and other expenses (including, but not limited to, attorneys' fees and expenses and costs of investigation), of any kind, nature or description, (hereinafter collectively referred to as "Liabilities") arising out of, caused by, or resulting, in whole or in part, from this Agreement.

Customer's Initials



RC

Contractor's Initials

RECEIVED

By Brandon Olvera at 12:50 pm, Jul 29, 2025

THIS INDEMNIFICATION APPLIES EVEN IF SUCH LIABILITIES ARE CAUSED BY THE CONCURRENT OR CONTRIBUTORY NEGLIGENCE OR BY THE STRICT LIABILITY OF ANY INDEMNITEE.

Customer hereby waives its right of recourse as to any Indemnatee when Indemnification applies, and Customer shall require its insurer(s) to waive its/their right of subrogation to the extent such action is required to render such waiver of subrogation effective. Customer shall be subrogated to Indemnitees with respect to all rights Indemnitees may have against third parties with respect to matters as to which Customer provides indemnity and/or defense to Indemnitees. No Indemnification is provided to Indemnitees when the liability or loss results from (1) the sole responsibility of such Indemnatee; or, (2) the willful misconduct of such Indemnatee. Upon irrevocable acceptance of this Indemnification obligation, Customer, in its sole discretion, shall select and pay counsel to defend Indemnitees of and from any action that is subject to this Indemnification provision. Indemnitees hereby covenant not to compromise or settle any claim or cause of action for which Customer has provided Indemnification without the consent of Customer.

XII. Severability:

If any provision of the "Proposal and Contract" shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of the "Agreement" is invalid or unenforceable, but that 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.

XIII. Fee for Services:

The Fee for Services does not include any fees for equipment, material, labor necessary for non-warranty repairs, unscheduled inspections, or Customer requested visits to the site.

XIV. Payment:

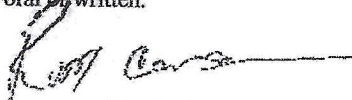
Full payment is due upon execution of this Agreement (Required of new Customer). For any other service(s) or repair(s) provided by Contractor the Customer shall pay the invoice(s) for said service(s) or repair(s) within thirty (30) days of the invoice date. The Contractor shall mail all invoices on the date of invoice. All payments not received within thirty (30) days from the invoice date will be subject to a \$29.00 late penalty and a 1.5% per month carrying charge, as well as any reasonable attorney's fees, and all collection and court costs incurred by Contractor in collection of unpaid debt(s). Contractor may terminate contract at any time for nonpayment for services. Any check returned to Contractor for any reason will be assessed a \$30.00 return check fee.

XV. Application or Transfer of payment:

The fees paid for this agreement may be transferred to subsequent property owner(s); however, this Agreement is not transferable. Customer shall advise the subsequent property owner(s) of the State requirement that they sign a replacement agreement authorizing Contractor to perform the herein described Services, and accepting Customer's Responsibilities. This replacement Agreement must be signed and received in Contractor's offices within ten (10) business days of date of transfer of property ownership. Contractor will apply all funds received from Customer first to any past due obligation arising from this Agreement including late fees or penalties, return check fees, and/or charges for services or repairs not paid within thirty (30) days of invoice date. Any remaining monies shall be applied to the funding of the replacement Agreement. The consumption of funds in this manner may cause a reduction in the termination date of effective coverage per this Agreement. See Section IV.

XVI. Entire Agreement:

This agreement contains the entire Agreement of the parties, and there are no other conditions in any other agreement, oral or written.



Rudy Carson

Block Creek Aerobic Services, LLC,
Contractor
MP# 0002036



Customer Signature

7/25/25

Date



Customer's Initials



RC

Contractor's Initials

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

Date Soil Survey Performed: April 28, 2025

Site Location: CANYON LAKE HILLS, UNIT 4, LOT 1946

Proposed Excavation Depth: N/A

Requirements:

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

Locations of soil boring or dug pits must be shown on the site drawing.

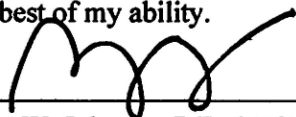
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.

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

SOIL BORING NUMBER <u> </u> SURFACE EVALUATION						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 6"	BROWN
1						
2						
3						
4						
5						

SOIL BORING NUMBER <u> </u> SURFACE EVALUATION						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	SAME		AS		ABOVE	
1						
2						
3						
4						
5						

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



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

04/28/2025

Date

FIRM #2585

DRIP TUBING SYSTEM
DESIGNED FOR:
MELANIE LASHUS
593 WAGON WHEEL
CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Canyon Lake Hills, Unit 4, Lot 1946, at 593 Wagon Wheel, this septic will serve a two bedroom residence (936 sf) in area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 inch SCH-40 pipe discharges from the residence into a NuWater B-550, 600 gpd aerobic treatment plant containing a 353 gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP FPS E-Series-20FE05P4-2W115. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time with a tank operating level from 50-70 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal Disc filter then through a 1" SCH-40 manifold to a 1448 sf. drip tubing field, with *Netifim Bioline* drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to continuously flush the system by throttling a 1" ball valve to the pump tank. Solids caught in the Arkal disc filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to installing drip tubing the site must be scarified and built up with 6" of Type II or III soil. **(A minimum of 12" of soil is required between rock and drip tubing.)** Drip tubing will be laid and the entire field area will be capped with 6" of loamy soil (Type 2 or 3- **NOT SAND**). The field area will be sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. **Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed. Fencing recommended around treatment tanks to limit public access.**

DESIGN SPECIFICATIONS:

Q = 180 gallons per day - 2 bedroom residence (936 sf) (Table III)

Pretreatment tank size: 353 Gal

Plant Size: Solar Air SA600LP, 600 gpd (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 60 gal. (>1/3 day usage)

Application Rate: $R_a = 0.2$ gal/sf

Total absorption area: $Q/R_a = 180 \text{ GPD}/0.2 = 900 \text{ sf}$ (Actual 1448sf)

Total linear feet drip tubing: 724' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 362 emitters @ 0.61 gph @ 30 psi = 3.68gpm

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

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15" = 218 gal

Working level = 180 gal = 17"

Reserve Requirement = 1/3 day = 60 gal. = 6"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

IN DRIP TUBING W/ NOM. DIA. 0.55" ID

$MSV = 2 \text{ FPS } (\pi d^2/4 * 7.48 \text{ gal/cf} * 60 \text{ sec/min})$

$MSV = 2(3.14159((.55/12)^2/4)*7.48*60$

$MSV = 1.5 \text{ gpm} \times 2 = 3 \text{ gpm MIN FLOW RATE}$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

$MSV = 2 \text{ FPS } (\pi d^2/4 * 7.48 \text{ gal/cf} * 60 \text{ sec/min})$

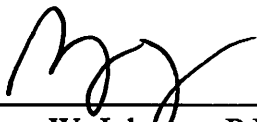
$MSV = 2(3.14159((1.049/12)^2/4)*7.48*60$

$MSV = 5.4 \text{ GPM}$

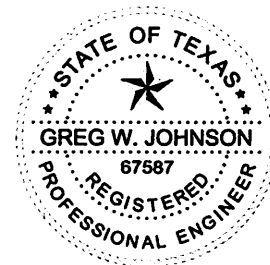
PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" 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. Drip tubing 0.61 gph drip tubing to be used in field. The manifold trench should be kept shallow to prevent interconnection of the trenches.

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

 07/05/25

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



NOTE:
EXISTING SEPTIC
TANK TO BE
PUMPED, CRUSHED
AND BACK FILLED.
EXISTING SEPTIC
SYSTEM TO BE
ABANDONED

RECEIVED

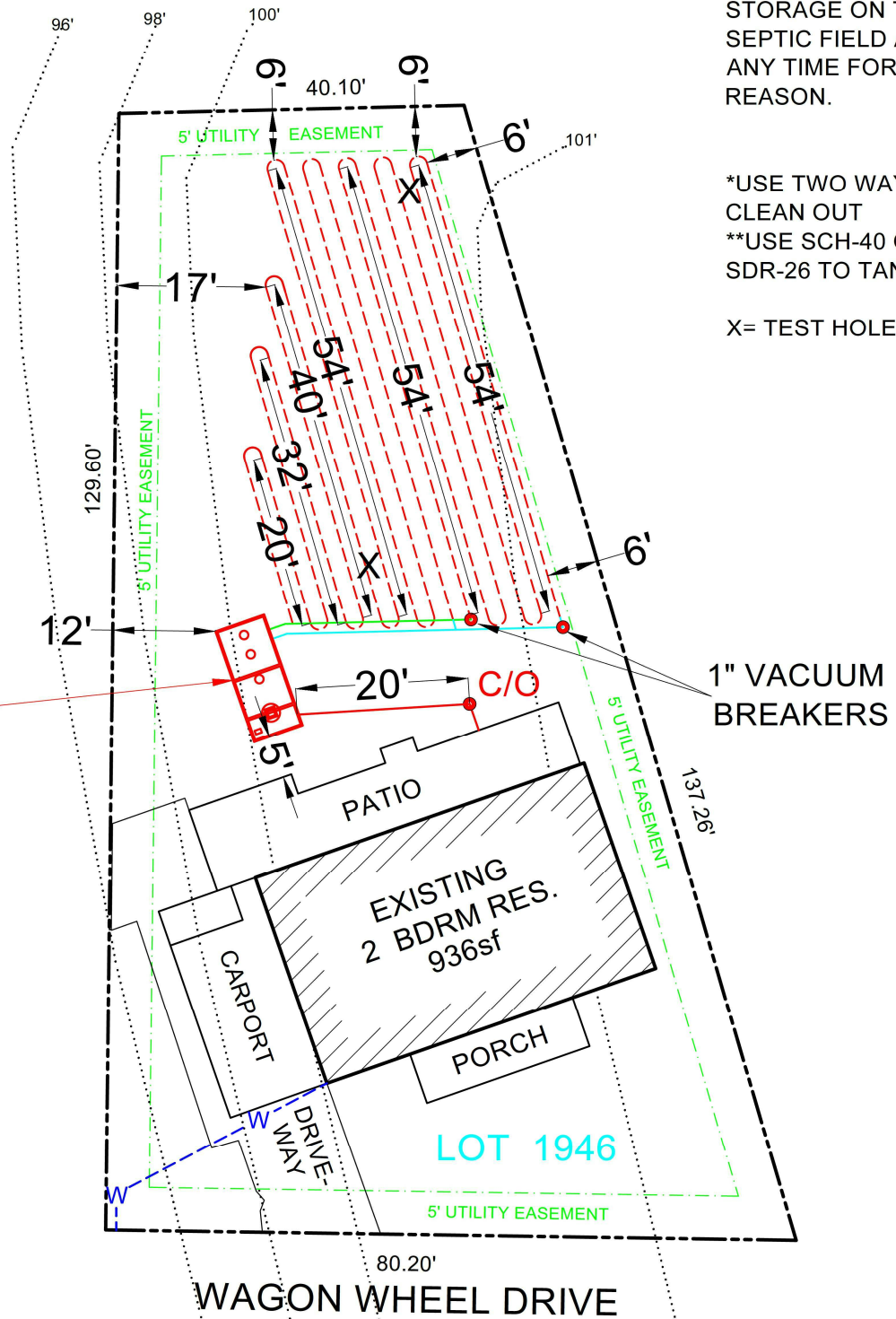
By Brandon Olvera at 1:31 pm, Jul 21, 2025

INSTALL 1448sf OF
FIELD USING 724'
OF DRIP TUBING.
THERE SHALL BE
NO PARKING,
DRIVING OR
STORAGE ON THE
SEPTIC FIELD AT
ANY TIME FOR ANY
REASON.

*USE TWO WAY
CLEAN OUT
**USE SCH-40 OR
SDR-26 TO TANK

X= TEST HOLE

**NUWATER
B 550 PC
AEROBIC
TREATMENT
PLANT**



OWNER: MELANIE LASHUS				DRAWN BY: EJS III	
STREET ADDRESS: 593 WAGON WHEEL DRIVE					
LEGAL DESC: CANYON LAKE HILLS			UNIT/SECTION/PHASE: 4	BLOCK:	LOT: 1946
PREPARED BY: GREG W. JOHNSON, P.E. F#002585		SCALE: 1"=20'	DATE: 4/29/2025		REVISED: 7/16/2025

Assembly Details

OSSF

RECEIVED

By Brandon Olvera at 1:31 pm, Jul 21, 2025

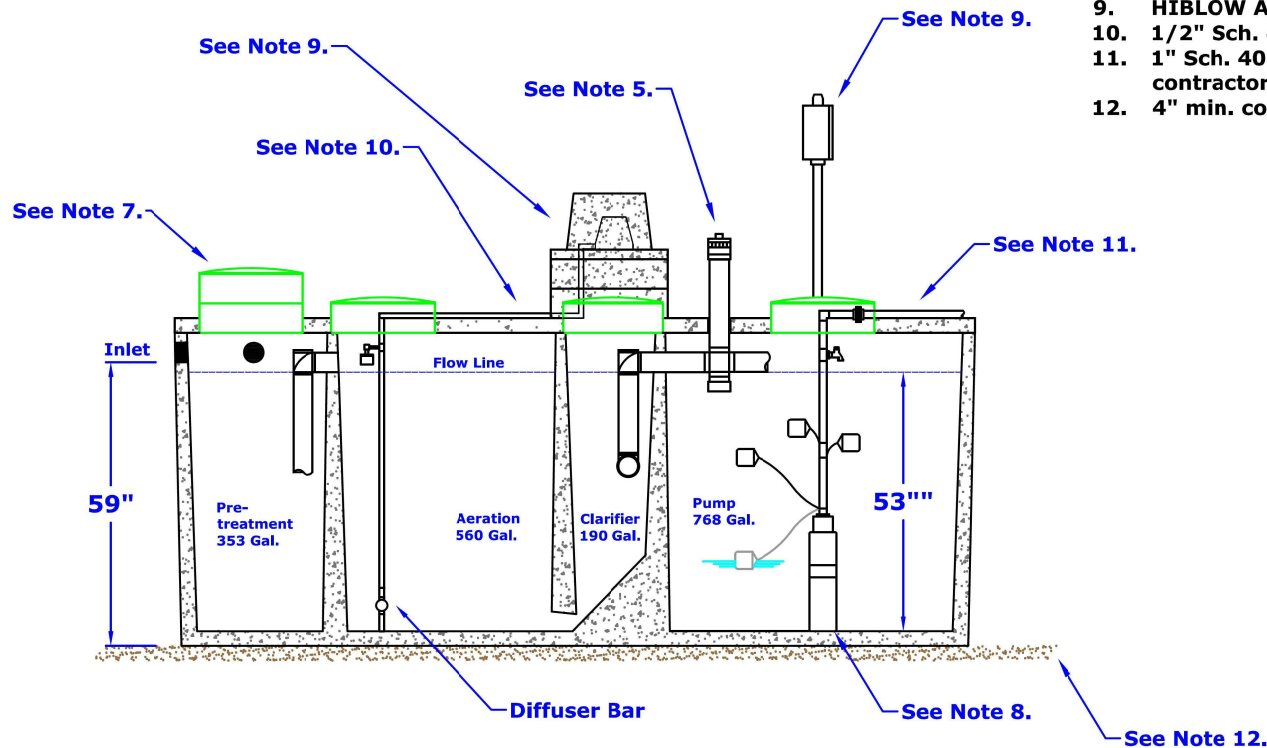


F-2585

07/16/2025

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 LLC.
444 A Old Hwy No 9
Comfort, TX 78013
830-995-3189
fax 830-995-4051

TANK NOTES:

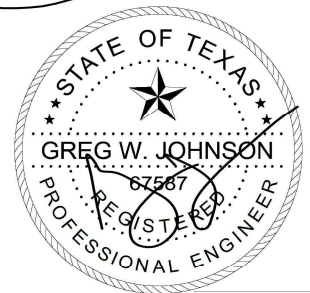
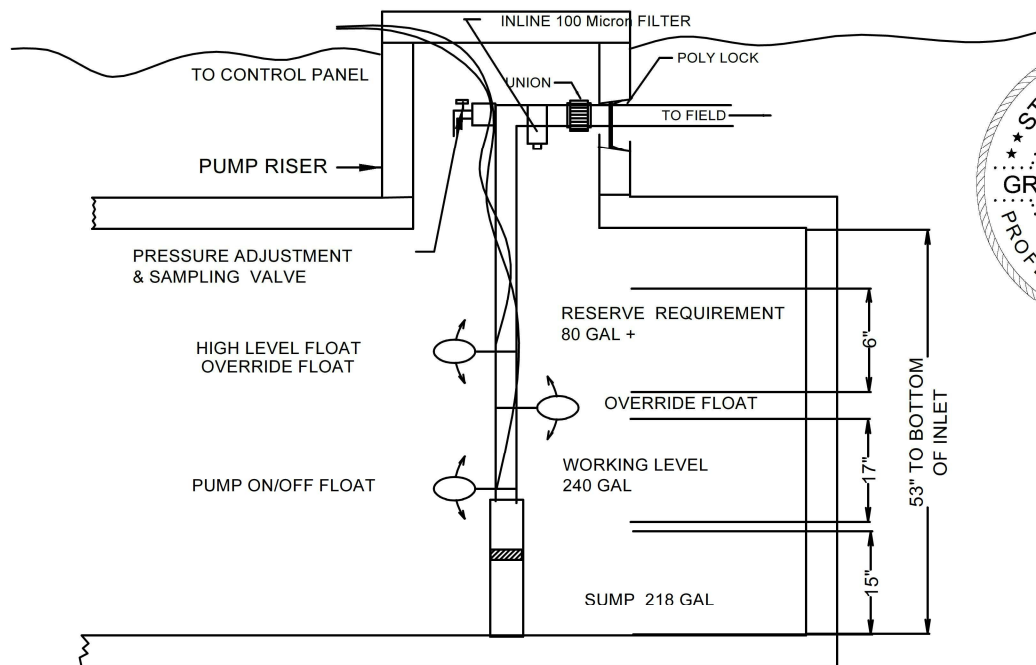
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

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

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

**F-2585**

**TYPICAL PUMP TANK CONFIGURATION
NU-WATER 550PC -400PT 768 GAL PUMP TANK**

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

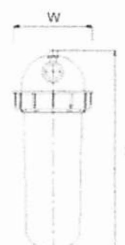
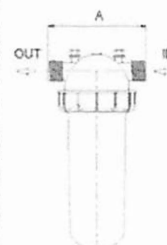
Features

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



Technical Data

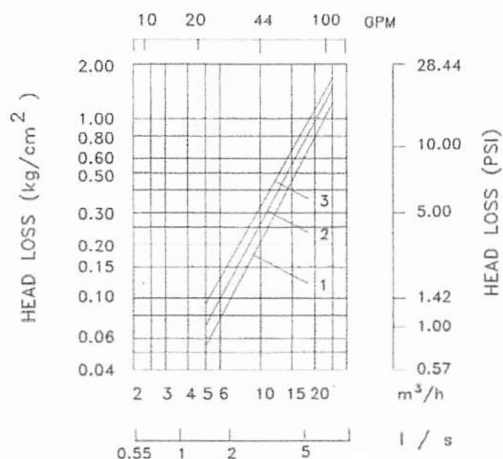
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"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



Filtration Grades

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

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

- ¾-inch Female National Pipe Thread (FNPT)
- 1-inch Female National Pipe Thread (FNPT)
- 1-inch Female British Standard Pipe Thread (FBSPT)

Outlet

- ¾-inch Female National Pipe Thread (FNPT)
- 1-inch Female National Pipe Thread (FNPT)
- 1-inch Female British Standard Pipe Thread (FBSPT)

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 Irrigation in Clermont, Florida. Senninger is a Hunter Industries Company.

Physical

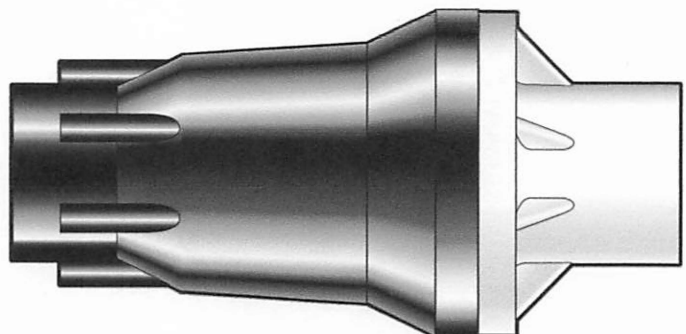
¾" FNPT x ¾" FNPT model (shown on right)

- 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)
- Overall Width 2.5 inches (6.4 cm)



* Please consult factory for applications outside of recommended guidelines.



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

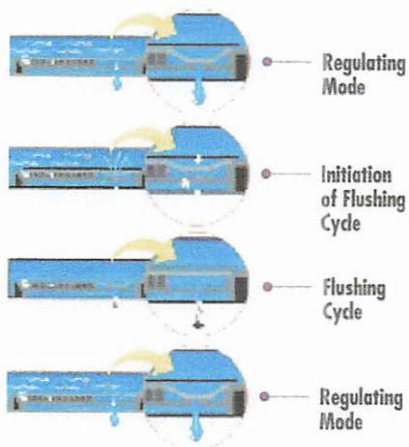
Model Numbers

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



Bioline® Dripperline

Pressure Compensating Dripperline for Wastewater



BioLine's Self-Cleaning, Pressure Compensating Dripper is a fully self-contained 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

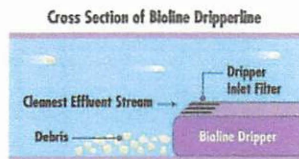
- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for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

Quality Manufacturing with Specifications Designed to Meet Your Needs

- Pressure compensating drippers assure the highest application uniformity - even on sloped or rolling 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 slime.
 - 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 Techfilter - 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"*

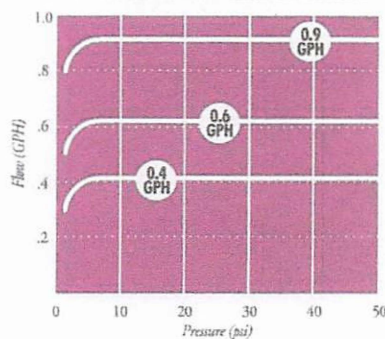
Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-portable 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

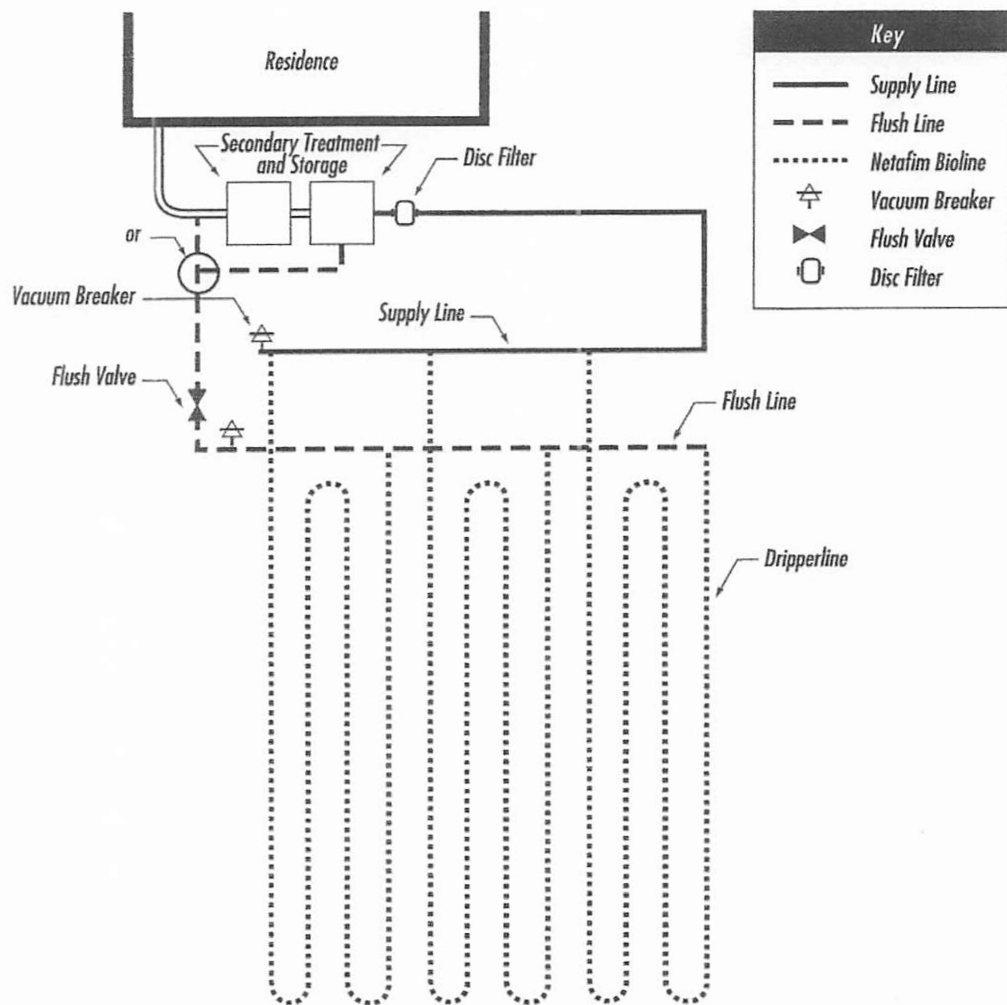
NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

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

- Locate supply and flush manifold in same trench
- Dripperlines 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





COMAL COUNTY

ENGINEER'S OFFICE

RE: *593 Wagon Wheel Drive*
Canyon Lake Hills 4
Lot 1946

Dear Property Owner & Agent,

Thank you for your submission. We have reviewed the planning materials for the referenced permit application. To proceed with processing this permit, we require the following:

- ✓. Our office will be conducting a site visit 06-04-2025.
- 2. Revise accordingly and resubmit.

If you have any questions, you can email me or call the office.

Thank You,

| **Brandon Olvera** | **Designated Representative OS0034792** |

| Comal County | www.cceo.org | f: 830-608-2078 | e: olverb@co.comal.tx.us |



**DRIP TUBING SYSTEM
DESIGNED FOR:
MELANIE LASHUS
593 WAGON WHEEL
CANYON LAKE, TX 78133**

SITE DESCRIPTION:

Located in Canyon Lake Hills, Unit 4, Lot 1946, at 593 Wagon Wheel, this septic will serve a two bedroom residence (936 sf) in area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

VOID

or soil is required between rock and drip tubing.) Drip tubing will be laid and the entire field area will be capped with 6" of loamy soil (Type 2 or 3- **NOT SAND**). The field area will be sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. **Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed. Fencing recommended around treatment tanks to limit public access.**

DESIGN SPECIFICATIONS:

Q = 180 gallons per day - 2 bedroom residence (936 sf) (Table III)
Pretreatment tank size: 376 Gal

Plant Size: Solar Air SA600LP, 600 gpd (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 60 gal. (>1/3 day usage)

Application Rate: $R_a = 0.2$ gal/sf

Total absorption area: $Q/R_a = 180 \text{ GPD}/0.2 = 900 \text{ sf}$ (Actual 1500 sf)

Total linear feet drip tubing: 750' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 375 emitters @ 0.61 gph @ 30 psi = 3.81 gpm

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

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15" = 281 gal

Working level = 180 gal = 10"

Reserve Requirement = 1/3 day = 60 gal. = 3.5"

MINIMUM SCOUR VELOCITY = 2 FPS

IN DRAIN TUBING NOM. DI. = 1.315"

$Q = 2.0 \text{ (ft}^3\text{/sec)} \times 1.48 \text{ gal/cu ft} \times 1.315 \text{ ft} = 3.6 \text{ gpm}$

$Q = 2.0 \text{ (ft}^3\text{/sec)} \times 1.48 \text{ gal/cu ft} \times 1.315 \text{ ft} = 3.6 \text{ gpm}$

$Q = 2.0 \text{ (ft}^3\text{/sec)} \times 1.48 \text{ gal/cu ft} \times 1.315 \text{ ft} = 3.6 \text{ gpm}$

IN REVERSE MANIFOLD NOM. DI. = 1.315"

$Q = 2.0 \text{ (ft}^3\text{/sec)} \times 1.48 \text{ gal/cu ft} \times 1.315 \text{ ft} = 3.6 \text{ gpm}$

$Q = 2.0 \text{ (ft}^3\text{/sec)} \times 1.48 \text{ gal/cu ft} \times 1.315 \text{ ft} = 3.6 \text{ gpm}$


MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" 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. Drip tubing 0.61 gph drip tubing to be used in field. The manifold trench should be kept shallow to prevent interconnection of the trenches.

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

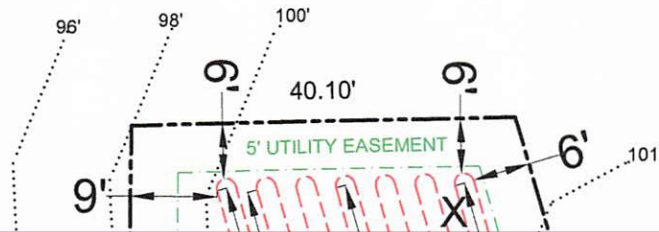
 04/19/25

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



NOTE:
EXISTING SEPTIC
TANK TO BE
PUMPED, CRUSHED
AND BACK FILLED.
EXISTING SEPTIC
SYSTEM TO BE
ABANDONED

INSTALL 1500sf OF
FIELD USING 750'
OF DRIP TUBING.
THERE SHALL BE
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STORAGE ON THE
SEPTIC FIELD AT
ANY TIME FOR ANY
REASON.



*USE TWO WAY
CLEAN OUT

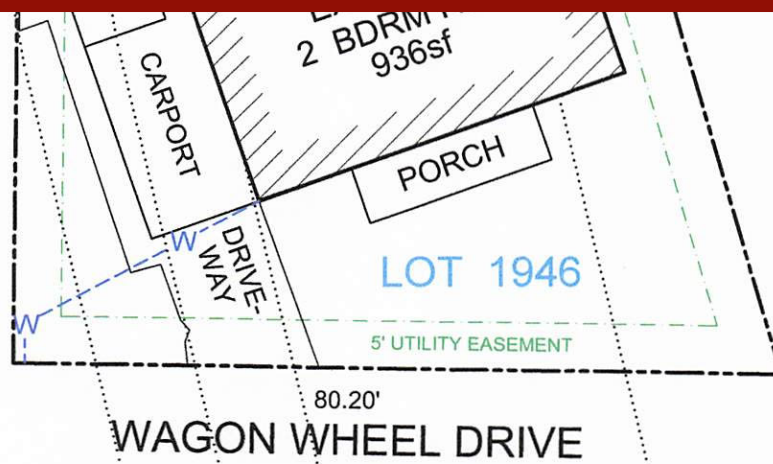
**USE SCH-40 OR
SDR-26 TO TANK

X= TEST HOLE

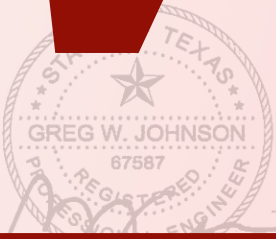
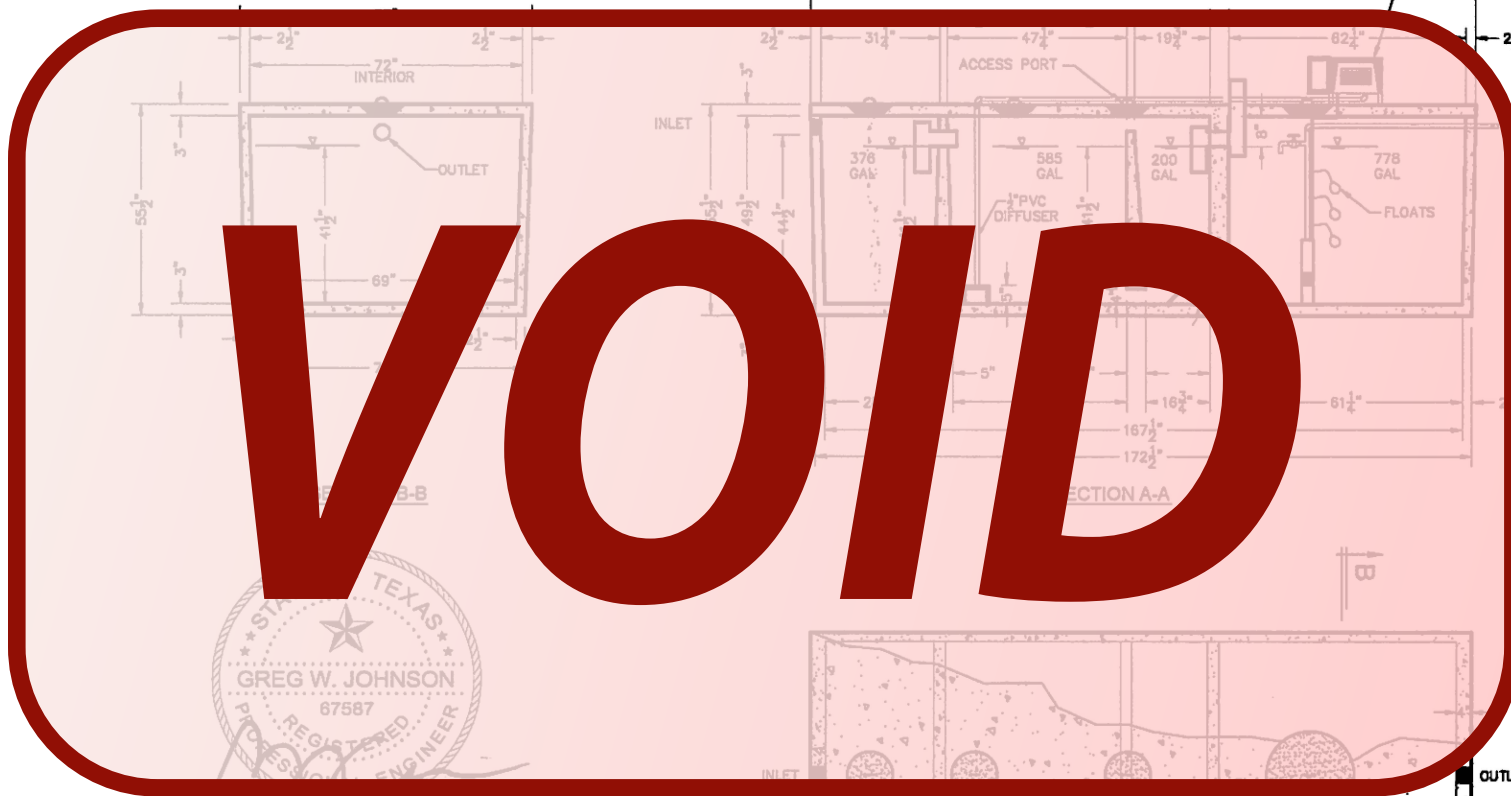
VOID

SOIL AIR
SA-600 LF 778
AEROBIC
TREATMENT
PLANT

VACUUM
BREAKERS



OWNER:	MELANIE LASHUS	DRAWN BY:	EJS III
STREET ADDRESS:	583 WAGON WHEEL DRIVE		
LEGAL DESC:	CANYON LAKE HILLS	UNIT/SECTION/PHASE:	4
		BLOCK:	
		LOT:	1946
PREPARED BY:	GREG W. JOHNSON, P.E. F#002585	SCALE:	1"=20'
		DATE:	4/29/2025
		REVISED:	



04/29/25
F2585

PLAN VIEW

DATE	DEC 2018
PROJECT NO	SA-3
SCALE	3/8" = 1'-0"
SHEET	SA-3
REVISIONS	
BY	
DATE	
DESCRIPTION	
SOLAR AEROBIC 6754 HWY 80 EAST LAKE CHARLES, LA 70615 PHONE: (337) 439-0880	
MODEL SA 6001 P RESIDENTIAL WASTEWATER TREATMENT SYSTEM	
DESIGNER: ESG	
DRAWN: FSD	
CHECKED: ESG	

TANK NOTES:

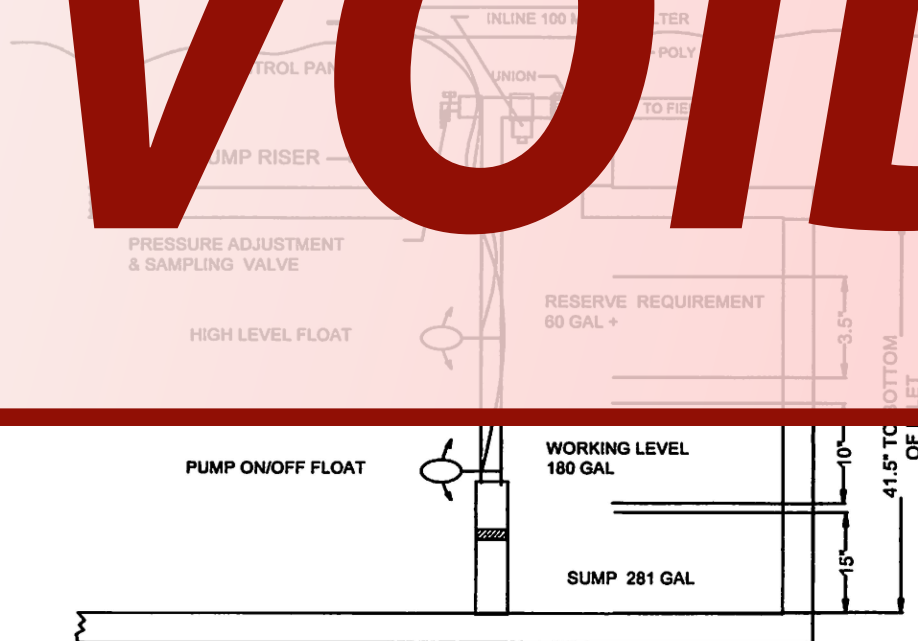
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

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

VOID



04/29/28

TYPICAL PUMP TANK CONFIGURATION

SOLAR-AIR SA-600 LP 778 GAL PUMP TANK

NOT APPROVED

Located in Canyon Lake Hills, Unit 4, Lot 1946, at 593 Wagon Wheel, this septic will serve a two bedroom residence (936 sf) in area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

VOID

DESIGN SPECIFICATIONS:

Pretreatment tank size: 353 Gal

RECEIVED

By Brandon Olvera at 1:30 pm, Jul 21, 2025

NOT APPROVED

Plant Size: Solar Air SA600LP, 600 gpd (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 60 gal. (>1/3 day usage)

Application Rate: $R_a = 0.2$ gal/sf

Total absorption area: $Q/R_a = 180 \text{ GPD}/0.2 = 900 \text{ sf}$ (Actual 1500 sf)

Total linear feet drip tubing: 750' **Netifim Bioline** drip tubing .61 GPH

Pump requirement: 375 emitters @ 0.61 gph @ 30 psi = 3.81 gpm

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

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15" = 218 gal

Working level = 180 gal = 17"

Reserve Requirement = 1/3 day = 60 gal. = 6"

MINIMUM SCOUR CITY (1.0) FPS

IN DRIP TUBING W. M. P. 1.0

$= 2 \text{ FPS} (1.2) = 2.4 \text{ gal/cf}^3/\text{min}$

$= 2(3.14159)((.5) (1.2)/4) * 7.4$

$= 1.4159 \times 2.4 \text{ gpm MIN FLOW RATE}$

IN RETENTION FOLD (1.0) OM. DIA. 1" ID

$M = 1.0 \text{ PS} (\pi d^2/4) = 48 \text{ gal/sec/min}$

$M = 3.14159((1.0) (1.2)/4) * 60$

$MSV = 5.4 \text{ GPM}$

VOID

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" 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. Drip tubing 0.61 gph drip tubing to be used in field. The manifold trench should be kept shallow to prevent interconnection of the trenches.

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



07/16/2025

Greg W. Johnson, P.E. No. 67587, F#2585

170 Hollow Oak

New Braunfels, Texas 78132

830/905-2778



Countryside Construction, Inc.
300 Chapman Parkway, Canyon Lake, TX. 78133
Phone: 830-899-2615 or 1-888-379-3721 Fax: 830-899-6662
Septic System Service Agreement

In consideration of payment for this service contract, we will abide by and agree to its terms and conditions:

Name: MELANIE LASHUS **Address:** 593 WAGON WHEEL DRIVE
Sub-Div./County: CANYON LAKE HILLS / COMAL **City, State, Zip Code:** CANYON LAKE, TX 78133
Permit #: _____ **TYPE, Model# & SIZE:** SOLAR AIR SA600LP **Serial #:** _____
Phone: 540-273-0602

(X) Initial Two Year Service & Two Year Limited Warranty

Legal Description: LOT 1946, CANYON LAKE HILLS, UNIT 4, COMAL COUNTY

The effective date of the initial maintenance contract shall be the date the License to Operate is issued.

This contract will be in effect **FROM:** LTO **TO:** _____

Countryside Construction, Inc. will provide the following:

- An inspection every (4) four months which will include: Servicing of the mechanical & electrical components as necessary to insure system is functioning as engineer designed, pulling and cleaning the Norweco Brand aerator shaft, cleaning compressor, filters of other brands, check chlorine, and test solids test to determine if system should be pumped, back flushing tubing, drip irrigation, and check above ground systems.

VOID

Countryside Construction, Inc., will warranty installation of the septic system to be according to state and county regulations and the designs approved by the county. HOMEOWNER WILL BE RESPONSIBLE FOR SERVICE CALLS, LABOR AND SHIPPING COSTS ON ANY "WARRANTIED PARTS" EXCHANGED DURING WARRANTY. All other components will be according to manufacturer's warranties.

Important: As Countryside Construction, Inc. cannot control what or how much effluent goes into this septic system, we cannot warranty how the system will function. Refer to manufacturers or installer's instructions, for suggestions on septic operation. If necessary, between inspections, it is the property owner's responsibility to clean the micron filters on drip irrigation systems. This service agreement does not cover the cost of service calls, labor or materials that are required or parts out of warranty, the failure to maintain electrical power to the system, **sprinklers that are broken**, leaking, stopped-up or otherwise mal-functioning; or sewage flows exceeding the hydraulic/organic design capabilities and the input of non-biodegradable materials (solvents, grease, oil, paints, etc.), or any usage contrary to the requirements as advised by authorized service representative. Laboratory test work is available at an additional cost. Chlorine, filters, or parts that are out of warranty are available at a reasonable cost.

This contract does not include the pumping of a tank or of any compartment of a tank, or settlement of soil on or around any part of the system regardless of reason:

Violations of the warranty also include: disconnecting the alarm, restricting ventilation to the aerator, overloading the system above its rated capacity; or flooding by external means. Rodent, insect or fire ant damage or any other form of unusual abuse is a violation.

A renewal service contract should be "**activated**" (30) thirty days before expiration of existing contract. We will contact property owner prior to expiration of existing contract.

Served by: Countryside Construction Inc.

Walker Chapman – Installer's Licensee #OS0002929-OSSF

Maintenance Provider Licensee #MP0000035

(X) Melanie Lashus Print Name (X) MELANIE LASHUS Date: 5/2/25
Property Owner Signature

(X) Walker Chapman Date: 5/2/25 Authorized Service Representative (revised 08/13/2020)

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.

GENERAL WARRANTY DEED WITH VENDOR'S LIEN

Date: April 28, 2025

Grantor: Krystal Lee McRee f/k/a Krystal Lee Witt and Travis McRee, a married couple

Grantor's Mailing Address:

140 Jonquil Street
Spring Branch, Texas 78070

Grantee: Melanie Beth Lashus, a single person

Grantee's Mailing Address:

593 Wagon Wheel
Canyon Lake, Texas 78133

Consideration: TEN AND NO/100 DOLLARS and other good and valuable consideration and the further consideration of a note of even date that is in the principal amount of TWO HUNDRED NINETEEN THOUSAND FOUR HUNDRED FIFTY (\$219,450.00) DOLLARS and is executed by Grantee, payable to the order of VELLUM MORTGAGE, INC. The note is secured by a vendor's lien retained in favor of VELLUM MORTGAGE, INC. in this deed and by a deed of trust of even date, from Grantee to Black, Mann & Graham, PLLC, Trustee.

Property (including any improvements):

Lot 1946, CANYON LAKE HILLS, UNIT NO. 4, situated in Comal County, Texas, according to the map or plat thereof, recorded in Volume 2, Page 37, Map and Plat Records, Comal County, Texas.

Reservations From and Exceptions to Conveyance and Warranty:

This conveyance is made and accepted subject to any and all restrictions, covenants, reservations, and easements, if any, relating to the hereinabove described property, but only to the extent they are still in effect, shown of record in the hereinabove mentioned County and State.

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

Grantor, for the consideration, receipt of which is acknowledged, and subject to the reservations from and 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 wise belonging, to have and hold it to Grantee, Grantee's heirs, executor, administrators, successors or assigns forever. Grantor binds Grantor and Grantor's heirs, executors, administrators and successors are hereby bound to warrant and forever defend all and singular the property to Grantee and Grantee's heirs, executors, administrators, successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty.

VELLUM MORTGAGE, INC. at Grantee's request, having paid in cash to Grantor that portion of the purchase price of the property that is evidenced by the Note described, the Vendor's Lien and Superior Title to the Property are retained for the benefit of VELLUM MORTGAGE, INC. and are transferred and assigned to VELLUM MORTGAGE, INC. and its successors and assigns, without recourse on Grantor.

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 shall become absolute.

When the context requires, singular nouns and pronouns include the plural.

Krystal Lee McRee
Krystal Lee McRee f/k/a Krystal Lee Witt

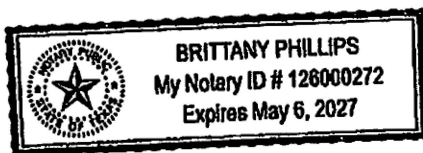
Travis McRee
Travis McRee

ACKNOWLEDGMENT

STATE OF TEXAS

COUNTY OF COMAL

This instrument was acknowledged before me on this 25 day of April 2025 by Krystal Lee McRee f/k/a Krystal Lee Witt and Travis McRee.



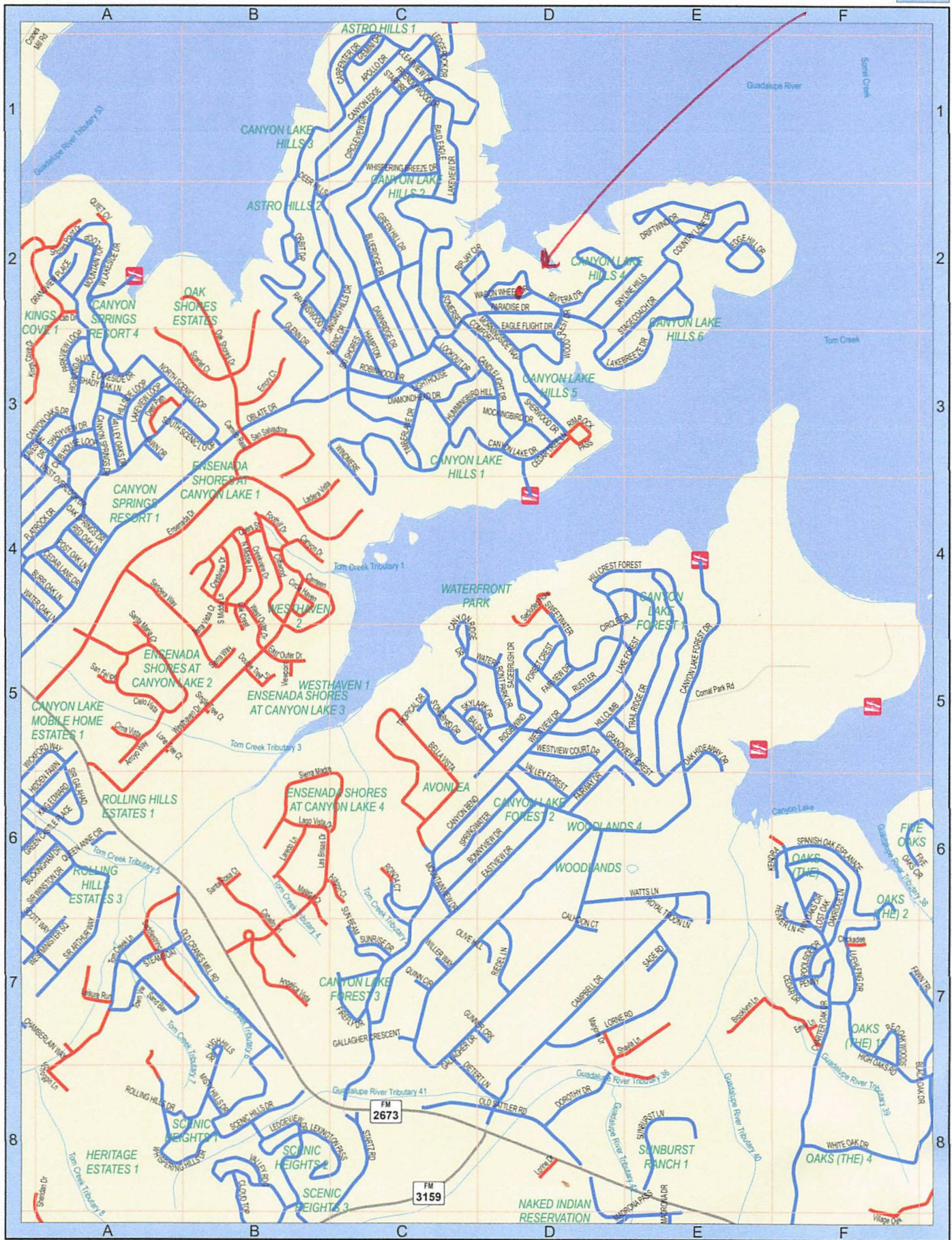
[Signature]
Notary Public, State of Texas

PREPARED IN THE OFFICES OF:
Stevens & Malone, PLLC
P.O. Box 1744
Canyon Lake, Texas 78133
830.964.4426 – tel.
830.964.4426 – fax

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
04/29/2025 11:27:37 AM
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Bobbie Koepp



SEE PAGE 30

