

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 Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

**Comal County Environmental Health
OSSF Inspection Sheet**

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

**Comal County Environmental Health
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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: 118165
Issued This Date: 01/08/2025
This permit is hereby given to: Midcentury Custom Homes, LLC

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

1752 DEMI JOHN BEND RD
CANYON LAKE, TX 78133

Subdivision: Paradise on the Guadalupe
Unit: 1
Lot: 12
Block: NA
Acreage: 1.3500

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Surface 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

ON-SITE SEWAGE FACILITY APPLICATION

REVISED

11:12 am, Apr 25, 2025

WWW.CCED.ORG

Date

12/6/2022

Permit Number 114346

118165

Terra Simpson

GREG W. JOHNSON, P.E.

1. APPLICANT / AGENT INFORMATION

Owner Name MIDCENTURY CUSTOM HOMES, LLC
Mailing Address c/o 23011 FM 306
City, State, Zip Canyon Lake, TX 78133
Phone # 830-935-4936
Email katelyn@psseptics.com

Agent Name
Agent Address 170 Hollow Oak
City, State, Zip New Braunfels, TX 78132
Phone # 830-905-2778
Email gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name PARADISE ON THE GUADALUPE Unit 1 Lot 12 Block
Survey Name / Abstract Number Acreage
Address 1752 DEMI JOHN BEND RD. City NEW BRAUNFELS State TX Zip 78130

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) HOUSE + DETACHED LIVING

Number of Bedrooms 4+1

Indicate Sq Ft of Living Area 2803+508

☐ 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: \$ 500,000 (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

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 dated with permit application, as applicable.

J Michael Wray

Signature of Owner

12/12/2024

Date



Planning Materials & Site Evaluation as Required Completed By DANUEL GONZALEZ, R.S. 5385, S.E. OS0038056

System Description AEROBIC SURFACE APPLICATION

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

Tank Size(s) (Gallons) 750 GPD Absorption/Application Area (Sq Ft) 5,655

Gallons Per Day (As Per TCEQ Table III) 360 GPD

(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: CANYON LAKE

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

4/23/2025

Date

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):

1 UNIT/PHASE/SECTION BLOCK 12 LOT PARADISE ON THE GUADALUPE SUBDIVISION

IF NOT IN SUBDIVISION: ACREAGE SURVEY

The property is owned by (insert owner's full name): MIDCENTURY CUSTOM HOMES, LLC

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

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

WITNESS BY HAND(S) ON THIS 6 DAY OF October, 2021

[Signature]
Owner(s) signature(s)

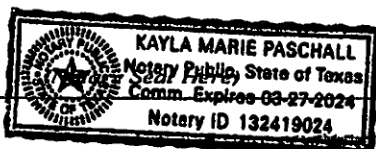
J Michael Wray - MANAGER
Owner(s) Printed name(s)

J Michael Wray SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 6 DAY OF
October, 2021

K Paschall
Notary Public Signature

THIS AREA FOR COMAL COUNTY CLERK RECORDING PURPOSES ONLY

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
04/11/2022 12:45:03 PM
LAURA 1 Pages(s)
202206016845



Bobbie Koepp

Septic Maintenance & Monitoring by

LibertyHillTX Septic & Excavation

PO Box 1143 or 925 Main Street

Liberty Hill, TX 78642

(512) 818-6547



lhtxseptics.excavation@gmail.com

Website: LibertyHillSeptic.com

Service Agreement

Property Owner: Pacific RBFL reo llc

Property Address: 1752 Demi John Bend

City: New Braunfels Email: valentine@lynkcapital.com

County: Comal

Installer: Barton Simpson

Designer: Greg Johnson

System: AA800 Spray

Contract Start Date: Contract End Date:

OSSF Permit #: 118165

This service agreement is for the On-Site Sewage Facility (OSSF) located at the address listed above. The OSSF is to be inspected and serviced at regular intervals for the first two years from the date of final inspection by a licensed provider per TCEQ and/or Regulatory Authority. This agreement shall be construed in accordance with the State of Texas.

The initial contract is for 2 years from the date of final septic system inspection. Installer is responsible for workmanship and 2 year warranty on all parts and labor.

☐ 1 Year Plan (3 Aerobic Inspections done every 4 months)

☒ 2 Year Plan (6 Aerobic Inspections done every 4 months)

Service Program Includes

1. Routine maintenance at 4-month intervals for residential septic systems in accordance with TCEQ and/or Regulatory Authority.
2. OSSF Maintenance-check aerator components for proper operation, control panel, effluent pump, spray head/drip nozzle, check proprietary specific components, other pumps, check and clean any filters, all valves. Flush drain field if needed.
3. Visual inspection of control panel when accessible.
4. Labor expenses required at the home to maintain/service, repair or remove, any part of the control center or mechanical aerator to be returned for factory repair.
5. All maintenance reports will be emailed to the permitting authority and customer within 14 days.
6. Client will be given notification of arrival of contractor to the site to person on location and/or by written notification left onsite
7. In no event shall the contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract tort or any other theory. In no event shall the contractor's liability for direct damages exceed the price for the services described in this agreement..
8. When client requests an unscheduled service visit, the contractor will respond within 2 business days or less. It is the contractors goal to respond to malfunctioning systems asap to prevent any downtime in functionality of the OSSF that results any inconvenience to the client. The unscheduled service visits are billable events that are an addition to the fee for the service agreement.

Customer Responsibilities

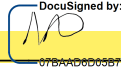
1. Provide and maintain proper level of tablets or liquid chlorinator if the system is equipped with a chlorinator.
2. Perform all necessary yard/lawn maintenance needed to ensure proper functioning of the OSSF and to allow contractor adequate access to all components of the system as well as maintaining adequate site drainage so as not to impact the proper operation of the OSSF.
3. Immediately notify contractor of any problems with the OSSF
4. Upon receiving notification of needed repairs to OSSF, it is the clients responsibility to schedule repairs with contractor. If the client chooses another service provider for repairs, it becomes their responsibility to ensure that they are an licensed installer II and that the repair details are reported to the regulatory authority within 72hrs.
5. Agrees to provide water usage history to contractor in evaluating of OSSF performance.
6. Pump the tanks at clients expense as needed. Contractor can assist client in determining when pumping is required.
7. Agrees to pay contractor bills whether it is the service agreement or an unscheduled service request. *Payment is due at the completion of work.* Bills are considered late and are subject to a 10% increase carrying fee after 30 days.
8. BOD or TSS grab samples (additional charge if needed)
9. Agrees to never modify or alter any component of the OSSF
10. Customer agrees to provide contractor access to the OSSF. Gate code shall be provided to gain access or personal representative will be present.
11. If dogs or any other animals are on the property and are contained within any components of the OSSF, client must ensure animals aren't a threat.

The initial contract is for 2 years from the date of final septic system inspection. Installer is responsible for workmanship and 2 year warranty on all parts and labor.



Barton Simpson, Certified Technician MP # 002688 Installer II # 0029838

Homeowner Signature

DocuSigned by:

07BACD6D05B7430...

207-522-1000

Phone:

*Contract isn't binding until paid in full.

This Agreement constitutes the entire agreement between the customer and contractor and there are no other promises or conditions in any other agreement, oral or written regarding maintenance of the OSSF on this property. This agreement shall be construed in accordance with the State of Texas.

Transfer of this Agreement

Upon transfer of ownership of this property in this agreement, payments to contractor from customer are transferable, however, this service agreement is not. Any subsequent owner must contact the contractor so that a new contract may be initiated. This contract will automatically renew. Contractor must be notified 30 days before renewal date of cancellation. This must be done in less than 30 days from the transfer of ownership of the property. Contractor will pro-rate funds received from the previous owner less any outstanding bills due from previous owner.

Severability

If any provision in this agreement 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 this 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.

Termination of this Agreement

This agreement can be terminated by either party with 30 days written notice in the event of substantial failure to perform in accordance with its terms by the other party without fault of the terminating party. The terminating party will immediately contact the other party in writing as well as the regulatory authority. It will then be the client's responsibility to contract with another Maintenance Provider for the service contract required by law.

**THE COUNTY OF COMAL
STATE OF TEXAS**

CERTIFICATION OF SINGLE FAMILY DWELLING

According to Texas Commission of Environmental Quality Rules for On-Site Sewage Facilities, this document is filed in the Deed Records of **COMAL COUNTY, TEXAS**.

Before me this day appeared I Michael Wray, being the owners of the referenced property at 1752 DEMI JOHN BEND RD.. They further state that the Residence and any additional living space on this property will be occupied only by a single family.

An OSSF requiring a Certification of Single Family Dwelling, will be installed on the property described as:

1 UNIT BLOCK 12 LOT PARADISE ON THE GUADALUPE SUBDIVISION

IF NOT IN SUBDIVISION: ACREAGE SURVEY

The property is owned by MIDCENTURY CUSTOM HOMES, LLC, a Texas limited liability company

WITNESS MY HAND ON THIS 11 OF DAY OF April, 20 20.

[Signature]
OWNER (SIGNATURE)

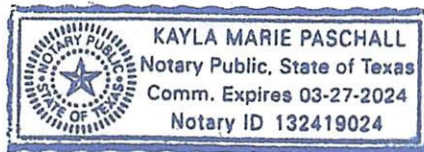
OWNER (SIGNATURE)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 11 DAY OF April, 20 20 BY

I Michael Wray
OWNER NAME (PRINTED)

OWNER NAME (PRINTED)

K Paschall
Notary Public Signature



OSSF SOIL EVALUATION

REVISED

12:40 pm, Apr 17, 2025

Date Performed: 4/4/2025

Property Location: 1752 Demi John Bend Road, Canyon Lake, TX 78133

Proposed Excavation Depth: 0" (Native Grade)

Name of Site Evaluator: Daniel Gonzalez, R.S.

License Number: OS0038056

Requirements:

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

Depth (Inches)	Textural Class	Structure (If applicable)	Drainage (Mottles/Water Table)	Restrictive Horizon	Observations
0"	Class IV	Clay	None observed	Limestone @ 6"	Class IV to 6"; Gravel content <30%; Topograhpy <15% NW
12"					
24"					
36"					
48"					
60"					

Soil Boring Number:

Depth (Inches)	Textural Class	Structure (If applicable)	Drainage (Mottles/Water Table)	Restrictive Horizon	Observations
0"	Class IV	Clay to 6"	None observed	Limestone @ 6"	Class IV to 6"; Gravel content <30%; Topograhpy <15% NW
12"					
24"					
36"					
48"					
60"					

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

Site Evaluator:

Name: Daniel Gonzalez, R.S.

Signature: Daniel Gonzalez

License No.: OS0038056

REVISED

12:40 pm, Apr 17, 2025

DATE: 4/15/2025

OSSF NUMBER: OS0038056

Applicant Information:

Name: Pacific RBLF REO LLC
Address: 1752 Demi John Bend Rd
City: Canyon Lake State: TX
Zip Code: 78133 Phone: Fax:

Site Evaluator Information:

Name: Danuel Gonzalez, R.S.
Address: 2714 Red Lion Ct.
City: San Antonio State: TX
Zip Code: 78259 Phone: 815-713-7798 Fax:

Property Location:

Lot: 12 Block: Subdivision: Paradise on the Guadalupe
County: Comal County Unincorporated Area? **Y** **N**
City: Canyon Lake Zip Code: 78133

Installer Information:

Name: Barton Simpson
Address: 925 Main St
City: Liberty Hill State:
Zip Code: 78642 Phone: 512-818-6547 Fax:

Additional Information:

Legal Description: Paradise on the Guadalupe

Schematic of Lot or Tract

Show:

Compass North, adjacent streets, property lines, property dimensions, location of buildings, easements, swimming pools, water lines, and other structures where known.

Location of existing or proposed water wells within 150 feet of property.

Indicate slope or provide contour lines from the structure to the farthest location of the proposed soil absorption or irrigation area.

Location of soil borings or dug pits (show location with respect to a known reference point).

Location of natural, constructed, or proposed drainage ways, (streams, ponds, lakes, rivers, high tide of salt water bodies) water impoundment areas, cut or fill bank, sharp slopes and breaks.

Lot size (acres): 1.02 1.35

SITE DRAWING

Scale: 1 inch = 50 feet



Show
Compass
North

See Attached Scale Drawing

Site is NOT within the boundaries of the EARZ

Based on this site evaluation, the following systems may be utilized:

✓
✓
✓
✓

✓
✓
✓
✓

☒ SURFACE IRRIGATION
☐ OTHER

Features of Site Area

Presence of 100 year flood zone

Yes

No ☒

Presence of upper water shed

Yes

No ☒

Presence of adjacent ponds, streams, water impoundments

Yes

No ☒

Existing or proposed water well in nearby area

Yes

No ☒

Organized sewage service available to lot or tract

Yes

No ☒

EARZ features within 150' of OSSF

Yes

No ☒

Evidence of groundwater

Yes

No ☒

Site Evaluator:

Name: Danuel Gonzalez, R.S.

Signature: Danuel Gonzalez

License No.: OS0038056

REVISED

11:09 am, Jun 24, 2025

To:

Comal County Engineer's Office
OSSF Department
195 David Jonas Dr
New Braunfels, TX 78132

Subject: Variance Request – OSSF Spray Head Setback (10 ft)

Dear OSSF Reviewer,

I am requesting a variance to allow spray heads for my aerobic on-site sewage facility (OSSF) to be located 10 feet from the property line, in lieu of the standard 25-foot setback required under Comal County OSSF regulations.

Due to physical site constraints, meeting the full setback requirement is not feasible. However, the system will incorporate enhanced safeguards to ensure proper containment and safe operation, including:

- Low-angle spray nozzles (13° or less) aimed inward to prevent overspray
- No effluent discharge beyond property boundaries
- Battery backup for the spray system timer to ensure all spray events occur only between midnight and 5:00 AM, reducing exposure and wind drift risk
- A vegetative buffer consisting of drought-tolerant, densely planted native shrubs (e.g., Texas sage, yaupon holly) along the property line to absorb residual mist and act as a physical barrier
- A low earthen berm (6–12 inches high) along the edge of the spray area to contain runoff and guide effluent inward
- Routine service under contract with a licensed OSSF maintenance provider

A site plan, spray pattern layout, and system specifications are attached in support of this request. These proposed measures offer equal or greater protection to public health and the environment than current setback standards.

Thank you for your consideration. Please feel free to contact me if any further information is required.

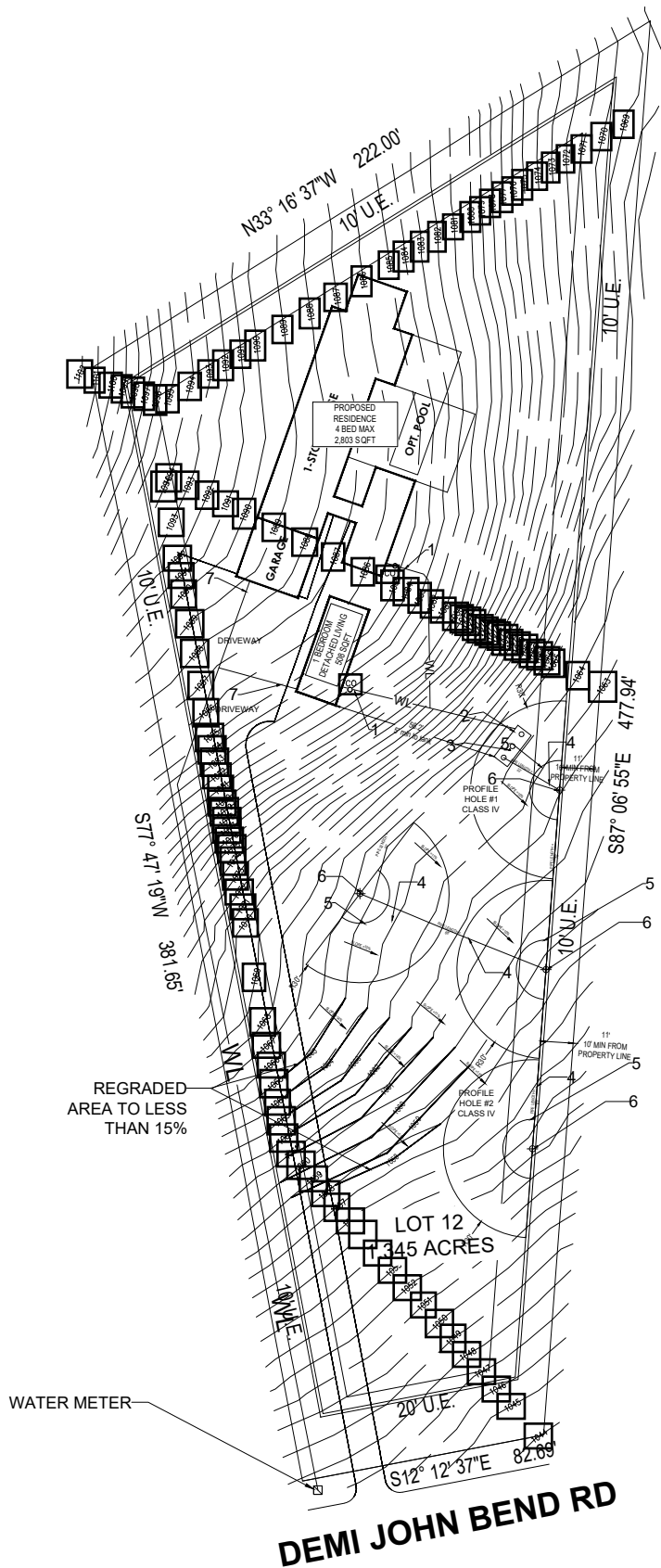
Sincerely,

Danuel Gonzalez, R.S. #5385

A handwritten signature in black ink, appearing to read 'Dd Gals', is written below the typed name.

REVISED

9:09 am, Jun 26, 2025



USE HYDROMULCHING REVEGETATION METHOD AROUND SPRAY AREA

- HYDROMULCHING METHOD ADDS A FIBRE-MULCH TO THE MIXTURE OF SEED, FERTILISER, AND WATER. THE MULCH ESSENTIALLY PROVIDES A SAFEGUARD FOR THE SEED, HELPING IT RETAIN MOISTURE FOR FASTER GERMINATION AND GROWTH, WHILE PROTECTING THE SOIL FROM EROSION AND THE SEEDS FROM WASHING AWAY IN THE RAIN. THESE ORGANIC MULCH FIBRES ARE DESIGNED TO DEGRADE OVER SEVERAL MONTHS, MAKING WAY FOR VEGETATION GROWTH TO ESTABLISH.
- HYDROMULCH WILL KEEP THE SOIL IN PLACE AND DETER ANY FURTHER EROSION FROM HAPPENING SO THAT THE SITE REMAINS INTACT. HYDROMULCH OF LARGE AREAS IN NEW CONSTRUCTION, RECENTLY COMPLETED CONSTRUCTION, AND AREAS THAT HAVE BEEN BURNED OR TILLED FOR RECONSTRUCTION WILL BE TREATED WITH HYDROMULCH.

Additional Information:

- Curlx shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
 - Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.
- Disposal Field Finish:
- The sprinkler system area shall be located in a relatively open area at least 100' away from any well and 10' from any property lines. Spray heads must be 10' from any obstacle.
 - The field area may have to be amended to create a slope of 15% or less, any exposed rock shall be removed or covered prior to operation with 4" suitable soil.
 - The field shall be maintained at all times (mowed).

COMPONENTS SCHEDULE		
1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT ± SCREW-PLUG MIN 1/8" FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180°)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN

OSSF DESIGN

Proposed system information:
The design is for a single family home and casita (w/ no kitchen) that is:
4 bedrooms at 2,803 sqft and 1 bedroom at 508 sqft = total 5 bedrooms at 3,311 sqft
Total Q = **360 GPD** Gallons per day using water saving devices.

Field Disposal Calculations:

The designed load for this system is 360 GPD.

Spray Irrigation:

- Required Field Area: $360 \div 0.064 = 5,625$ sq. ft. minimum field area
- Provided Field Area: **5,654.87** sq. ft.

Sprinkler Heads:

- Number of Heads: 4 (30' Radius @ 180-degree angle.)
- Coverage Area per Head: 1,413.72 sq. ft.
- Sprinkler Setting: 30 PSI, utilizing a 30' radius
- Minimum Spacing of Heads: (refer to site plan)
- Flow (GPM) per Field: (4×3.4) GPM = 13.6 GPM

Total Daily Irrigation Time:

- $360 \text{ GPD} \div 13.6 \text{ GPM} = 26.47$ minutes/day
- Set timer for 30 minutes starting at 2 AM

OSSF DESIGN PROVISIONS

Table IX. OSSF System Designation of the Texas Administrative Code, which is part of Chapter 285 of the On-Site Sewage Facility (OSSF) Rules, specifies the design standards for sewage disposal systems. This section notes that a professional engineer, registered sanitarian is required for the design of Surface Application systems and its planning materials provided that it meets all requirements outlined in the rules.

This design fulfills all the criteria for the design and installation of this system, encompassing aspects such as soil analysis, system sizing, and component placement, among others. The regulations provide comprehensive guidelines and specifications for the design and installation of this system. This OSSF design meets and exceeds the minimum state requirements for OSSF as of June 14, 2023.

The installer must be licensed by the State of Texas and have the governing authority to inspect the system at the required construction and inspection intervals.

This site lies in the FEMA floodplain 48091C0090F FIRM effective 9/2/2009

Criteria for Surface Application systems:

This is an aerobic pre-treatment/chlorination system with a surface application effluent disposal on this site. The aerobic unit must be NSF approved and meet all state and local requirements for effluent quality.

Design Principles:

Primary treatment of effluent will be accomplished using a NSF approved aerobic treatment unit. Treated effluent will then be distributed evenly over the disposal field area at night. Surface application will be the method of effluent dispersal and disposal. The surface soil conditions for this site are adequate to support vegetation growth.

Soil Analysis:

Class IV

Note:

all piping shall be bedded with four inches class ib, class ii or, class iii soil with less than 30% gravel. the bedding soil shall be free of organic material and any rocks or grains larger than half inch.
all property lines and property pins must be verified prior to septic / ossf installation.
Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

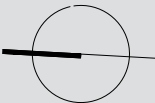
Property ID

R447873

Legal
Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North



Scale

1" = 60'

SITE PLAN
OVERALL



9:09 am, Jun 26, 2025

[illegible]

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS SEPTIC DESIGNS

Date _____

06/09/2025

Design by

DANUEL GONZALEZ



PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

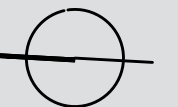
Property ID

R447873

Legal Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North



Scale 1" = 30'

SITE PLAN

SO.2

TAKING CARE OF YOUR SYSTEM

To prevent your system from failing, there are several important considerations that must be taken into account to ensure that the system functions properly, including:

1. Maintenance: Regular maintenance of the system is essential to prevent problems and ensure that it continues to function properly. This includes regular pumping of the septic tank, inspection of the distribution box and drainfield, and other routine tasks.
2. Water usage: The amount of water used in the household can have a significant impact on the performance of the system. It is important to avoid excessive water usage, such as running multiple appliances or fixtures simultaneously, as this can overwhelm the system and cause it to fail.
3. Landscaping: Careful landscaping around the drainfield area is important to ensure that the system functions properly. It is important to avoid planting trees or shrubs near the drainfield, as the roots can damage the pipes and prevent proper drainage.

The following guidelines can help you to avoid these types of chemicals as they should not be disposed of into the system which include any harsh or toxic chemicals that can damage the beneficial bacteria in the septic tank that help to break down waste. This includes the following:

4. Household cleaners: Many common household cleaners contain harsh chemicals that can harm the bacteria in the septic tank. Examples include bleach, disinfectants, and drain cleaners.
5. Personal care products: Certain personal care products, such as soaps, shampoos, and lotions, can contain chemicals that are harmful to the septic system. It is important to use these products in moderation and to avoid excessive use.
6. Pesticides and herbicides: Any type of pesticide or herbicide should be avoided, as these can harm the bacteria in the septic tank and may also contaminate the surrounding environment.
7. Medications: Unused or expired medications should never be disposed of into the septic system, as they can harm the bacteria in the septic tank and may also contaminate the surrounding environment.

Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet

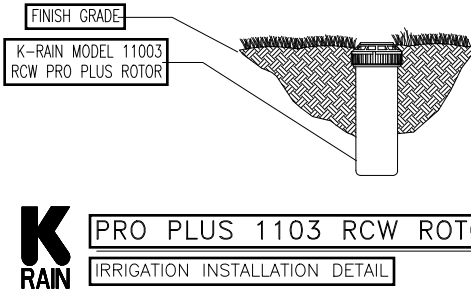
Additional Information:

- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
- Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.

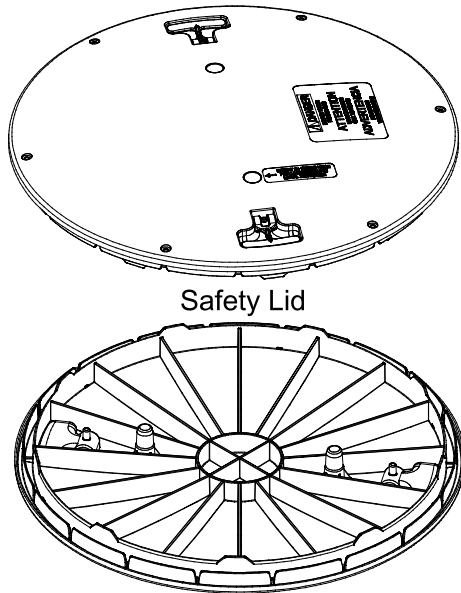
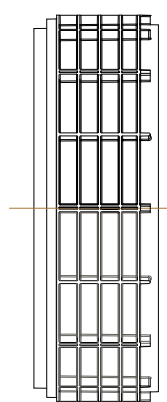
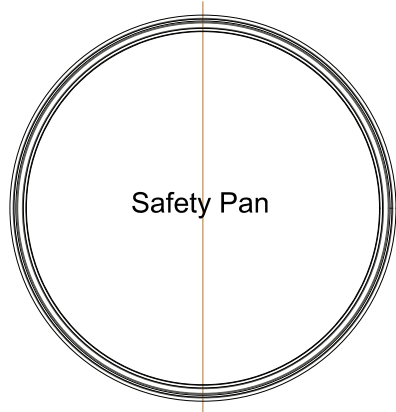
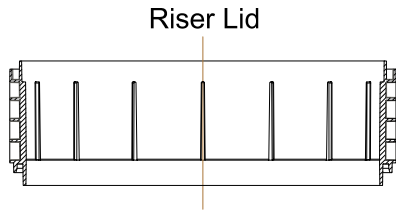
K-RAIN PROPLUS 11003 RCW.,
PERFORMANCE DATA

LOW ANGLE DATA

NOZZLE	PRESSURE PSI	RADIUS FT.	FLOW GPM
#1	30	22'	1.2
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
#6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6



RISER DETAIL w/OPTIONAL COMPONENTS
TYPICAL NTS
DIAMETER AND DEPTH VARIES



Risers must be securely attached, watertight, and protected against unauthorized access. Risers and tank inspection ports will be required to have access safety provisions per 30 TAC 285.38 (12/29/2016).

All tank ports larger than 12-inches in diameter to have risers with access restriction to **2-inches** above grade per 30 tac 285.38 (effective 9/1/2023).



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

Property ID

R447873

Legal
Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

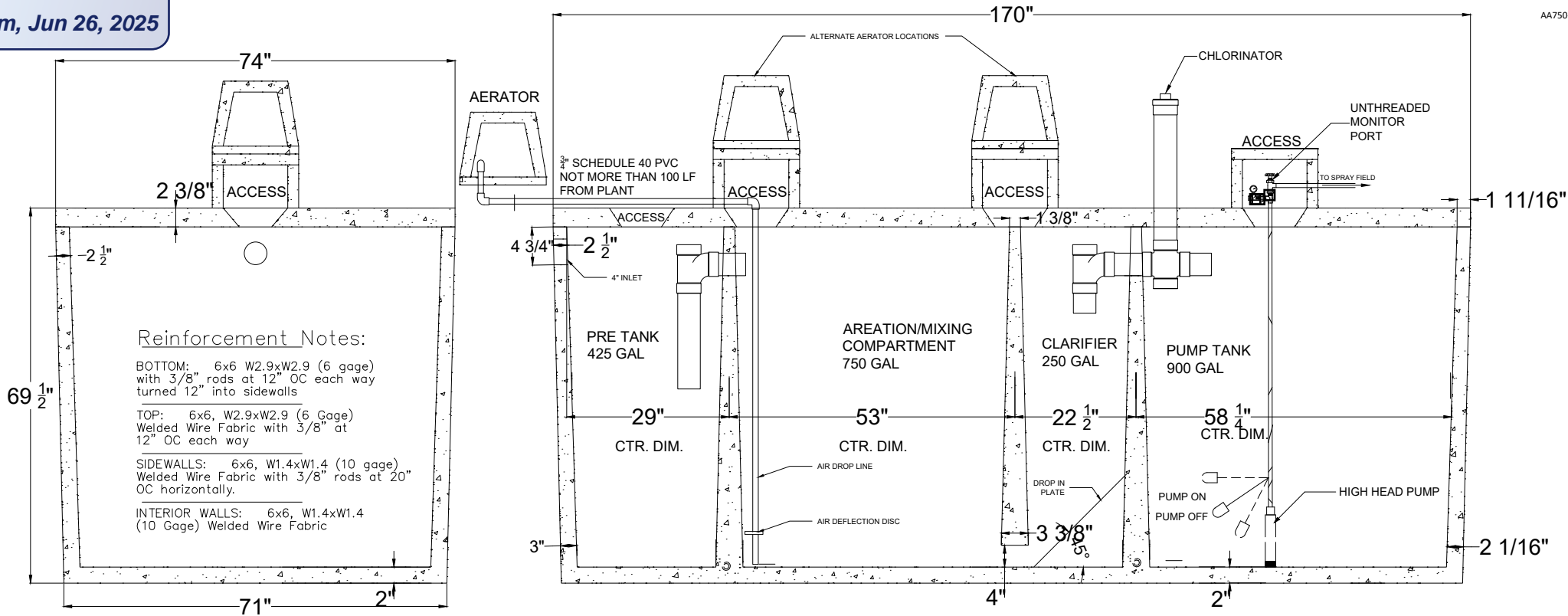
North

Scale NTS

OSSF DETAILS

SO. 4

REVISED
9:09 am, Jun 26, 2025



Reinforcement Notes:

BOTTOM: 6x6 W2.9xW2.9 (6 gage) with 3/8" rods at 12" OC each way turned 12" into sidewalls

TOP: 6x6, W2.9xW2.9 (6 Gage) Welded Wire Fabric with 3/8" at 12" OC each way

SIDEWALLS: 6x6, W1.4xW1.4 (10 gage) Welded Wire Fabric with 3/8" rods at 20" OC horizontally.

INTERIOR WALLS: 6x6, W1.4xW1.4 (10 Gage) Welded Wire Fabric

AA750-4290 Pump Chamber Volume - GPI		
Inch Depth	Gallons in Cubic Inches	Total Gallons @ Depth
55	17.26147537	902.0013337
54	17.22903071	884.7398583
53	17.19661656	867.5108276
52	17.16423293	850.314211
51	17.13187981	833.1499781
50	17.0995572	816.0180983
49	17.0672651	798.9185411
48	17.03500352	781.851276
47	17.00277245	764.8162725
46	16.9705719	747.8135
45	16.93840185	730.8429281
44	16.90626232	713.9045263
43	16.87415331	696.9982639
42	16.8420748	680.1241106
41	16.81002681	663.2820358
40	16.77800933	646.472009
39	16.74602237	629.6939997
38	16.71406592	612.9479773
37	16.68213998	596.2339114
36	16.65024455	579.5517714
35	16.61837964	562.9015269
34	16.58654524	546.2831472
33	16.55474135	529.696602
32	16.52296798	513.1418606
31	16.49122512	496.6188927
30	16.45951277	480.1276675
29	16.42783093	463.6681548
28	16.39617961	447.2403238
27	16.3645588	430.8441442
26	16.33296851	414.4795854
25	16.30140872	398.1466169
24	16.26987945	381.8452082
23	16.2383807	365.5753287
22	16.20691245	349.336948
21	16.17547472	333.1300356
20	16.1440675	316.9545609
19	16.1126908	300.8104934
18	16.08134461	284.6978026
17	16.05002893	268.616458
16	16.01874376	252.566429
15	15.98748911	236.5476853
14	15.95626497	220.5601962
13	15.92507134	204.6039312
12	15.89390822	188.6788599
11	15.86277562	172.7849516
10	15.83167354	156.922176
9	15.80060196	141.0905025
8	15.7695609	125.2899005
7	15.73855035	109.5203396
6	15.70757031	93.78178928
5	15.67662079	78.07421897
4	15.64570178	62.39759818
3	15.61481328	46.7518964
2	15.5839553	31.13708312
1	15.55312782	15.55312782

ECOLOGICAL TANKS, INC
2247 HWY 151 NORTH
DOWNSVILLE, LA 71234
318-644-0397 OFFICE
318-644-7257 FAX

Model AA750-4290

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN ANY RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF ECOLOGICAL TANKS, INC.

Total Volume: 2325 Gal.

Treatment Capacity: 750 GPD

BOD Loading: 1.75 #/Day

ENG: TJR

REV:0

SCALE:
NTS

DATE
6/6/20

DRAWING NO.
AA750-4290w.DWG

SYSTEM DATA:

Chlorinator:

- Tablet Chlorinator: Norweco LF-2000 (calcium hypochlorite tablets) or equivalent.
- Liquid Chlorinator: LBC500 (household liquid chlorine) or equivalent.

Pressure Gauge:

- Tank Pressure: 35.60 PSI.
- Flow Regulation: A pressure gauge and ball valve will be installed to regulate flow to irrigation heads.
- Pressure Regulator: Installed before each head to maintain 30 PSI.

Collection Port:

- Installation: A plastic hose bib (unthreaded or equivalent) will be installed in the pump chamber for periodic effluent sampling.

Pump Timer:

- Controller Model: **ETI model 203 with GRASSLIN / FM/1 STUZH-L** or equivalent.
- Details: Refer to the site plan for calculation outputs.

Alarm System:

- Type: Audio/visual high water alarm (red light).
- Controller Model: **ETI model 203** or equivalent.
- Location: Installed in a highly visible location near the pump tank.
- Function: The alarm will shut down the pump in case of aerator or system failure.

Head Loss and Pump selection - Using sch-40 PVC

General formula = Hazen Williams method.

$$h_{100ft} = 0.002083 (100 / c)^{1.852} q^{1.852} / d^{4.8655}$$

Where,

h_{100ft} = head loss in feet of water per 100 ft of pipe (ft h₂₀ /100 ft pipe)

c = Hazen-Williams roughness constant

q = volume flow (gal/min)

d = inside diameter of pipe (inches)

Loss in Supply line to

Head 1 = 1" Supply (13.6 GPM) @ 22 feet = 2.37 Loss (ft)

Head 2 = 1" Supply (3.4 GPM) @ 70 feet = 0.58 Loss (ft)

Head 3 = 1" Supply (3.4 GPM) @ 68 feet = 0.56 Loss (ft)

Head 4 = 1" Supply (3.4 GPM) @ 61 feet = 0.51 Loss (ft)

Loss in Fittings (20%) = 4.02 (1.20) = 4.83 Loss (feet)

Elevation (including from pump) = 4 feet

Head pressure for Nozzle

$$30 \text{ PSI} \times 2.31 = 69.3 \text{ feet}$$

Total Loss in feet = 4.83 + 4 + 69.3 = 78.13 feet or 33.82 PSI

Provide **13.6 GPM @ 78.13 Ft**

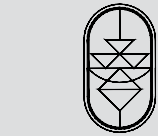
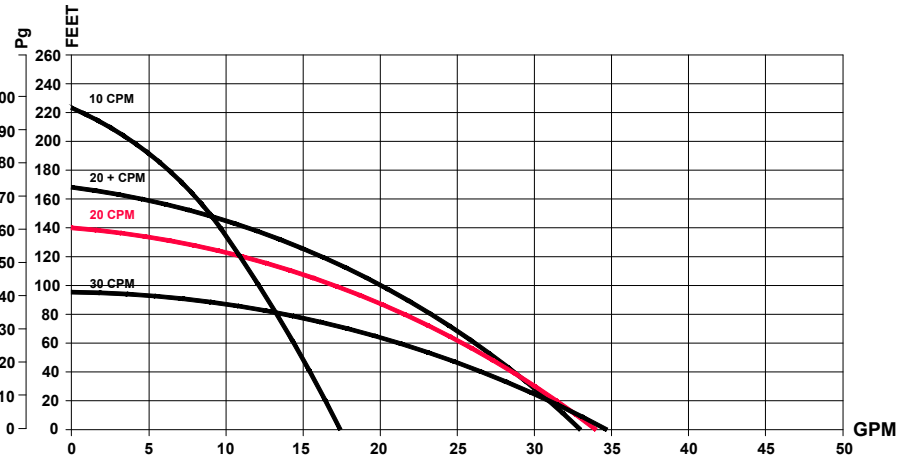
Use: Ashland Pump 10CPM-115 (see spec sheet) or equivalent

Pump Float and Alarm settings:

AA-500-4075 Pump Tank: 902 gal (see table for gals/inch):

- Alarm Height = **37** inches
- Operational Vol = 300 gal - (**18"** or **305.767** gal)
- Pump on = **8** inches (502.451 gal)
- Pump off = **6** inches (93.782 gal)

ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE
ASHLAND PUMP 20 CPM-115
or EQUIVALENT



RULES

Project

1752 Demi John
Bend Road

Drawn by

**OUTSKIRTS
SEPTIC DESIGNS**

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

Property ID

R447873

Legal
Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale NTS

OSSF DETAILS

SO.3

From: [Ritzen,Brenda](#)
To: [LibertyHillTX Septics & Excavation](#); [Olvera,Brandon](#)
Subject: RE: As- Built Revised Design 118165
Date: Thursday, June 26, 2025 9:17:00 AM
Attachments: [image001.png](#)

Barton,

I have updated the permit file. Installation may proceed.

Thank you,



Brenda Ritzen

Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

From: LibertyHillTX Septics & Excavation <lhtxseptics.excavation@gmail.com>
Sent: Wednesday, June 25, 2025 2:43 PM
To: Ritzen,Brenda <rabbjr@co.comal.tx.us>; Olvera,Brandon <Olverb@co.comal.tx.us>
Subject: Fwd: As- Built Revised Design 118165

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

- Comal IT

Hello- Just checking to see if you had a chance to look at the design we sent yesterday.
Please let me know if you didn't get the attachment.

Thank you,
Barton

----- Forwarded message -----

From: LibertyHillTX Septics & Excavation <lhtxseptics.excavation@gmail.com>
Date: Tue, Jun 24, 2025 at 6:06 PM
Subject: Re: As- Built Revised Design 118165
To: <Olverb@co.comal.tx.us>, <brenda.rabbjr@co.comal.tx.us>

From: [Ritzen,Brenda](#)
To: [LibertyHillTX Septics & Excavation](#); [Olvera,Brandon](#)
Subject: RE: FW: As- Built Revised Design 118165
Date: Tuesday, June 24, 2025 11:39:00 AM
Attachments: [image001.png](#)
[Pages from 118165.pdf](#)

Barton,

The variance request is acceptable, but the design still has the min 20 ft. from the property line shown. See highlighted distance on attached. ✓

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

From: LibertyHillTX Septics & Excavation <lhtxseptics.excavation@gmail.com>
Sent: Monday, June 23, 2025 7:29 PM
To: Ritzen,Brenda <rabbjr@co.comal.tx.us>; Olvera,Brandon <Olverb@co.comal.tx.us>
Subject: Re: FW: As- Built Revised Design 118165

This email originated from outside of the organization.

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

- Comal IT

Hi there- Attached is the variance and revision.

Hopefully this meets all of the requirements to be approved.

Please let me know if you have any questions or concerns.

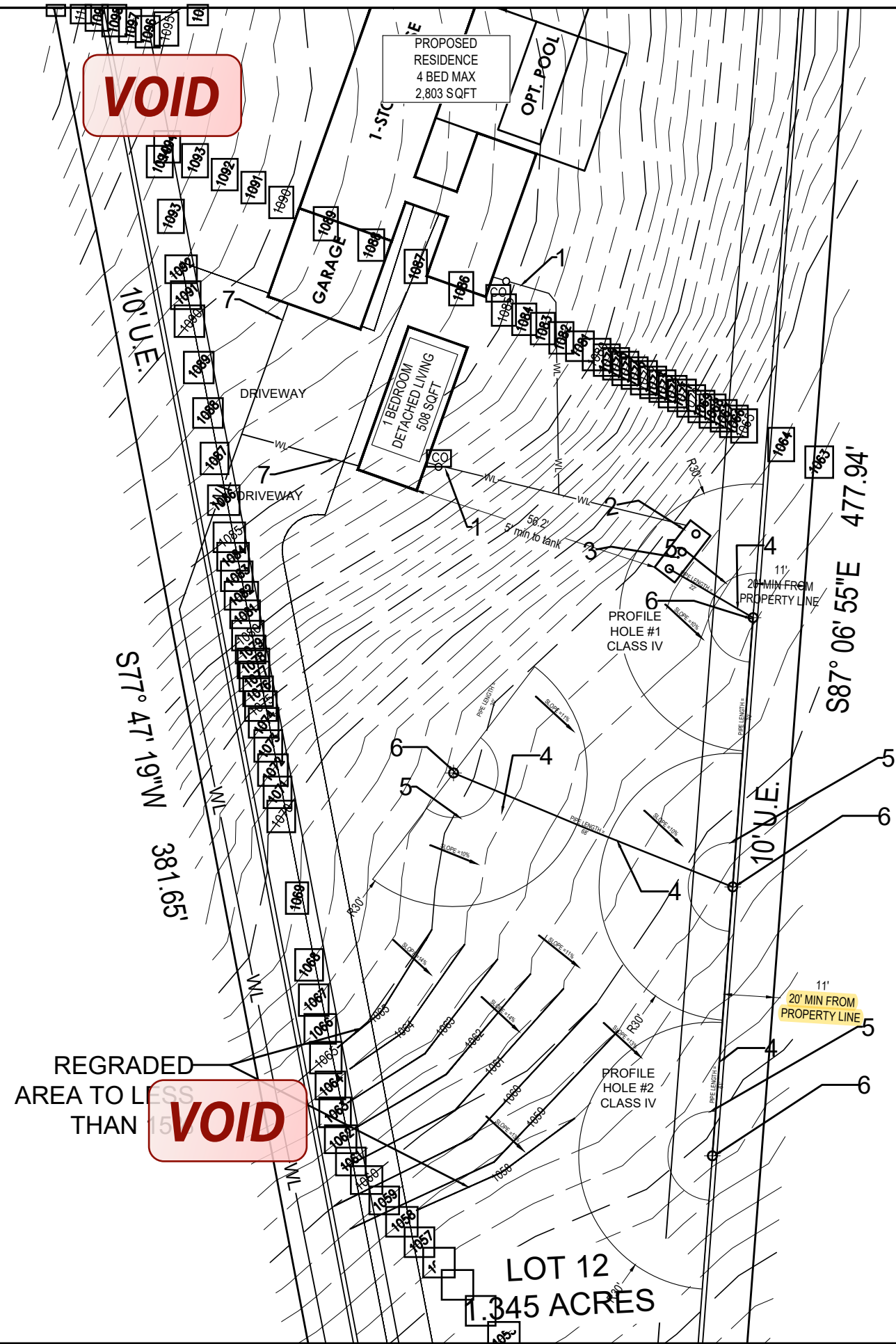
Barton
512-818-6547

On Wed, Jun 11, 2025 at 4:15 PM Ritzen,Brenda <rabbjr@co.comal.tx.us> wrote:

REVISED

11:18 am, Jun 24, 2025

COMPONENTS SCHEDULE		
1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT & SCREW PLUG MIN $\frac{1}{8}$ " FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180 °)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN



RUES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

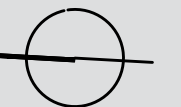
Property ID

R447873

Legal
Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North



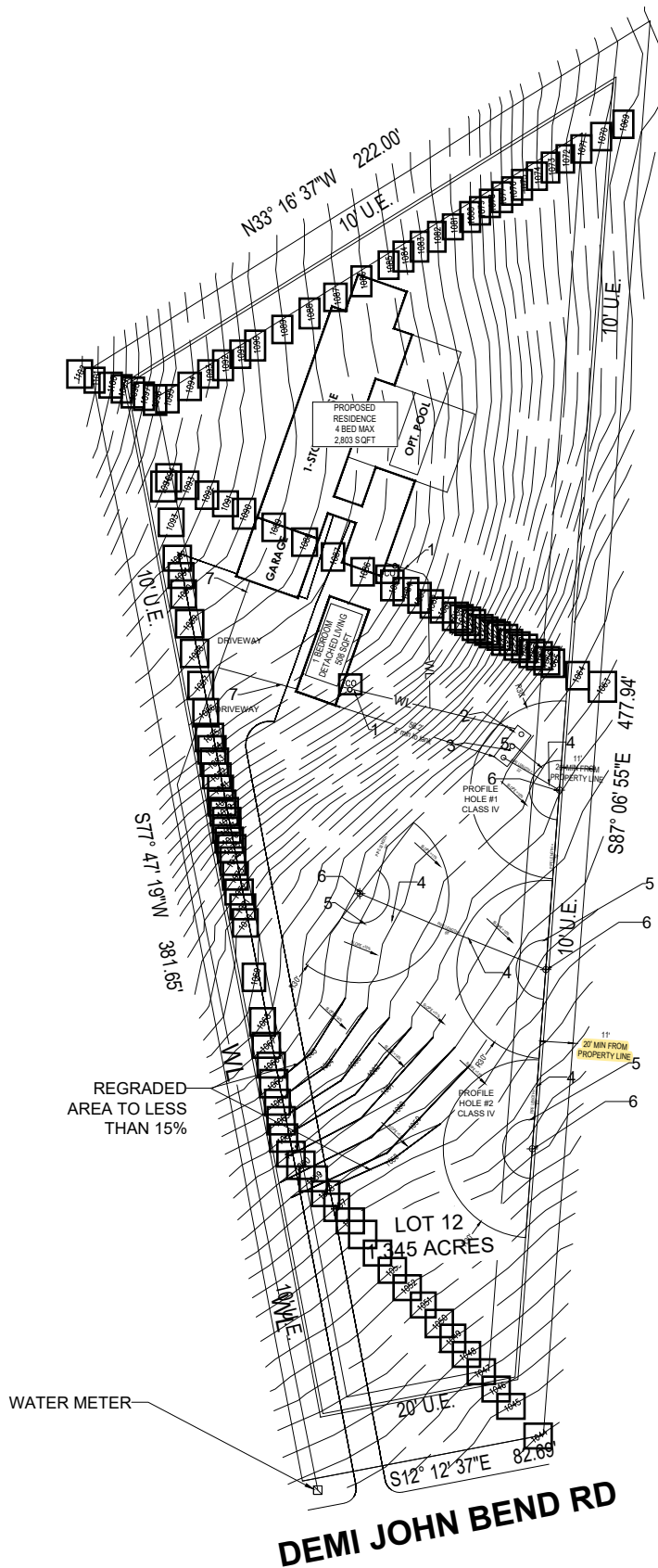
Scale 1" = 30'

SITE PLAN

S0.2

REVISED

11:18 am, Jun 24, 2025



VOID

OSSF DESIGN

Proposed system information:
The design is for a single family home and casita (w/ no kitchen) that is:
4 bedrooms at 2,803 sqft and 1 bedroom at 508 sqft = total 5 bedrooms at 3,311 sqft
Total Q = **360 GPD** Gallons per day using water saving devices.

Field Disposal Calculations:
The designed load for this system is 360 GPD.

- Spray Irrigation:**
- Required Field Area: $360 \div 0.064 = 5,625$ sq. ft. minimum field area
 - Provided Field Area: **5,654.87** sq. ft.
- Sprinkler Heads:**
- Number of Heads: 4 (30' Radius @ 180-degree angle.)
 - Coverage Area per Head: 1,413.72 sq. ft.
 - Sprinkler Setting: 30 PSI, utilizing a 30' radius
 - Minimum Spacing of Heads: (refer to site plan)
 - Flow (GPM) per Field: (4×3.4) GPM = 13.6 GPM
- Total Daily Irrigation Time:**
- $360 \text{ GPD} \div 13.6 \text{ GPM} = 26.47$ minutes/day
 - Set timer for 30 minutes starting at 2 AM

OSSF DESIGN PROVISIONS

Table IX. OSSF System Designation of the Texas Administrative Code, which is part of Chapter 285 of the On-Site Sewage Facility (OSSF) Rules, specifies the design standards for sewage disposal systems. This section notes that a professional engineer, registered sanitarian is required for the design of Surface Application systems and its planning materials provided that it meets all requirements outlined in the rules.

This design fulfills all the criteria for the design and installation of this system, encompassing aspects such as soil analysis, system sizing, and component placement, among others. The regulations provide comprehensive guidelines and specifications for the design and installation of this system. This OSSF design meets and exceeds the minimum state requirements for OSSF as of June 14, 2023.

The installer must be licensed by the State of Texas and have the governing authority to inspect the system at the required construction and inspection intervals.

This site lies in the FEMA floodplain 48091C0090F FIRM effective 9/2/2009

Criteria for Surface Application systems:

This is an aerobic pre-treatment/chlorination system with a surface application effluent disposal on this site. The aerobic unit must be NSF approved and meet all state and local requirements for effluent quality.

Design Principles:
Primary treatment of effluent will be accomplished using a NSF approved aerobic treatment unit. Treated effluent will then be distributed evenly over the disposal field area at night. Surface application will be the method of effluent dispersal and disposal. The surface soil conditions for this site are adequate to support vegetation growth.

Soil Analysis:
Class IV

Note:
all piping shall be bedded with four inches class ib, class ii or, class iii soil with less than 30% gravel. the bedding soil shall be free of organic material and any rocks or grains larger than half inch.
all property lines and property pins must be verified prior to septic / ossf installation.
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Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet

USE HYDROMULCHING REVEGETATION METHOD AROUND SPRAY AREA

- HYDROMULCHING METHOD ADDS A FIBRE-MULCH TO THE MIXTURE OF SEED, FERTILISER, AND WATER. THE MULCH ESSENTIALLY PROVIDES A SAFEGUARD FOR THE SEED, HELPING IT RETAIN MOISTURE FOR FASTER GERMINATION AND GROWTH, WHILE PROTECTING THE SOIL FROM EROSION AND THE SEEDS FROM WASHING AWAY IN THE RAIN. THESE ORGANIC MULCH FIBRES ARE DESIGNED TO DEGRADE OVER SEVERAL MONTHS, MAKING WAY FOR VEGETATION GROWTH TO ESTABLISH.
- HYDROMULCH WILL KEEP THE SOIL IN PLACE AND DETER ANY FURTHER EROSION FROM HAPPENING SO THAT THE SITE REMAINS INTACT. HYDROMULCH OF LARGE AREAS IN NEW CONSTRUCTION, RECENTLY COMPLETED CONSTRUCTION, AND AREAS THAT HAVE BEEN BURNED OR TILLED FOR RECONSTRUCTION WILL BE TREATED WITH HYDROMULCH.

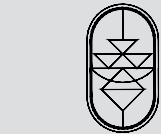
Additional Information:

- Curlflex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
 - Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.
- Disposal Field Finish:
- The sprinkler system area shall be located in a relatively open area at least 100' away from any well and 10' from any property lines. Spray heads must be 10' from any obstacle.
 - The field area may have to be amended to create a slope of 15% or less, any exposed rock shall be removed or covered prior to operation with 4" suitable soil.
 - The field shall be maintained at all times (mowed).

COMPONENTS SCHEDULE

1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT # SCREW-PLUG MIN $\frac{1}{8}$ " FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180°)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN

VOID



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

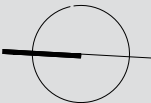
Property ID

R447873

Legal
Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

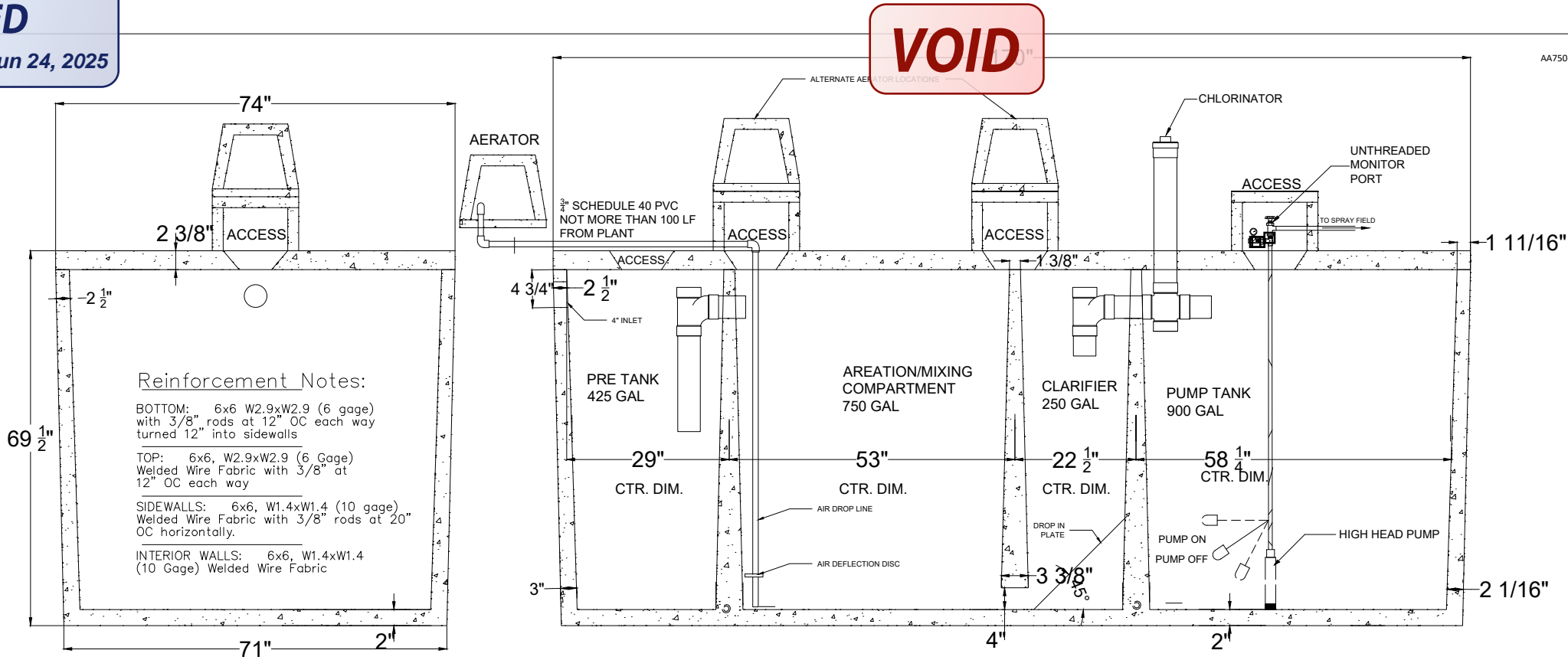


Scale

1" = 60'

SITE PLAN
OVERALL





Reinforcement Notes:

BOTTOM: 6x6 W2.9xW2.9 (6 gage) with 3/8" rods at 12" OC each way turned 12" into sidewalls

TOP: 6x6, W2.9xW2.9 (6 Gage) Welded Wire Fabric with 3/8" at 12" OC each way

SIDEWALLS: 6x6, W1.4xW1.4 (10 gage) Welded Wire Fabric with 3/8" rods at 20" OC horizontally.

INTERIOR WALLS: 6x6, W1.4xW1.4 (10 Gage) Welded Wire Fabric

AA750-4290 Pump Chamber Volume - GPI		
Inch Depth	Gallons in Cubic Inches	Total Gallons @ Depth
55	17.26147537	902.0013337
54	17.22903071	884.7398583
53	17.19661656	867.5108276
52	17.16423293	850.314211
51	17.13187981	833.1499781
50	17.0995572	816.0180983
49	17.0672651	798.9185411
48	17.03500352	781.851276
47	17.00277245	764.8162725
46	16.9705719	747.8135
45	16.93840185	730.8429281
44	16.90626232	713.9045263
43	16.87415331	696.9982639
42	16.8420748	680.1241106
41	16.81002681	663.2820358
40	16.77800933	646.472009
39	16.74602237	629.6939997
38	16.71406592	612.9479773
37	16.68213998	596.2339114
36	16.65024455	579.5517714
35	16.61837964	562.9015269
34	16.58654524	546.2831472
33	16.55474135	529.696602
32	16.52296798	513.1418606
31	16.49122512	496.6188927
30	16.45951277	480.1276675
29	16.42783093	463.6681548
28	16.39617961	447.2403238
27	16.3645588	430.8441442
26	16.33296851	414.4795854
25	16.30140872	398.1466169
24	16.26987945	381.8452082
23	16.2383807	365.5753287
22	16.20691245	349.336948
21	16.17547472	333.1300356
20	16.1440675	316.9545609
19	16.1126908	300.8104934
18	16.08134461	284.6978026
17	16.05002893	268.616458
16	16.01874376	252.566429
15	15.98748911	236.5476853
14	15.95626497	220.5601962
13	15.92507134	204.6039312
12	15.89390822	188.6788599
11	15.86277562	172.7849516
10	15.83167354	156.922176
9	15.80060196	141.0905025
8	15.7695609	125.2899005
7	15.73855035	109.5203396
6	15.70757031	93.78178928
5	15.67662079	78.07421897
4	15.64570178	62.39759818
3	15.61481328	46.7518964
2	15.5839553	31.13708312
1	15.55312782	15.55312782

ECOLOGICAL TANKS, INC
2247 HWY 151 NORTH
DOWNSVILLE, LA 71234
318-644-0397 OFFICE
318-644-7257 FAX

Model AA750-4290

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN ANY RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF ECOLOGICAL TANKS, INC.

Total Volume: 2325 Gal.

Treatment Capacity: 750 GPD

BOD Loading: 1.75 #/Day

ENG: TJR

REV:0

SCALE:
NTS

DATE
6/6/20

DRAWING NO.
AA750-4290w.DWG

SYSTEM DATA:

Chlorinator:

- Tablet Chlorinator: Norweco LF-2000 (calcium hypochlorite tablets) or equivalent.
- Liquid Chlorinator: LBC500 (household liquid chlorine) or equivalent.

Pressure Gauge:

- Tank Pressure: 35.60 PSI.
- Flow Regulation: A pressure gauge and ball valve will be installed to regulate flow to irrigation heads.
- Pressure Regulator: Installed before each head to maintain 30 PSI.

Collection Port:

- Installation: A plastic hose bib (unthreaded or equivalent) will be installed in the pump chamber for periodic effluent sampling.

Pump Timer:

- Controller Model: **ETI model 203 with GRASSLIN / FM/1 STUZH-L** or equivalent.
- Details: Refer to the site plan for calculation outputs.

Alarm System:

- Type: Audio/visual high water alarm (red light).
- Controller Model: **ETI model 203** or equivalent.
- Location: Installed in a highly visible location near the pump tank.
- Function: The alarm will shut down the pump in case of aerator or system failure.

Head Loss and Pump selection - Using sch-40 PVC

General formula = Hazen Williams method.

$$h\ 100ft = 0.002083\ (100 / c)1.852\ q^{1.852} / d^{4.8655}$$

Where,

$h\ 100ft$ = head loss in feet of water per 100 ft of pipe ($ft\ h20 / 100\ ft\ pipe$)

c = Hazen-Williams roughness constant

q = volume flow (gal/min)

d = inside diameter of pipe (inches)

Loss in Supply line to

Head 1 = 1" Supply (13.6 GPM) @ 22 feet = 2.37 Loss (ft)

Head 2 = 1" Supply (3.4 GPM) @ 70 feet = 0.58 Loss (ft)

Head 3 = 1" Supply (3.4 GPM) @ 68 feet = 0.56 Loss (ft)

Head 4 = 1" Supply (3.4 GPM) @ 61 feet = 0.51 Loss (ft)

$$\text{Loss in Fittings (20\%)} = 4.02\ (1.20) = 4.83\ \text{Loss (feet)}$$

$$\text{Elevation (including from pump)} = 4\ \text{feet}$$

Head pressure for Nozzle

$$30\ \text{PSI} \times 2.31 =$$

$$69.3\ \text{feet}$$

$$\text{Total Loss in feet} = 4.83 + 4 + 69.3 = 78.13\ \text{feet or } 33.82\ \text{PSI}$$

Provide **13.6 GPM @ 78.13 Ft**

Use: Ashland Pump 10CPM-115 (see spec sheet) or equivalent

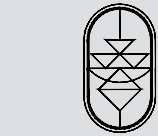
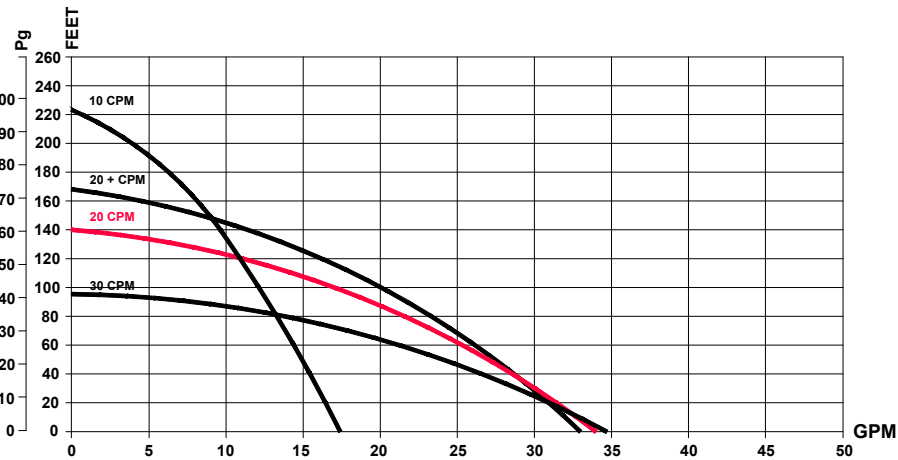
Pump Float and Alarm settings:

AA-500-4075 Pump Tank: 902 gal (see table for gals/inch):

- Alarm Height = **37** inches
- Operational Vol = 300 gal - (**18"** or **305.767** gal)
- Pump on = **8** inches (502.451 gal)
- Pump off = **6** inches (93.782 gal)

ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE

ASHLAND PUMP 20 CPM-115
or EQUIVALENT



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

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CANYON LAKE, TX
78133

COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale

NTS

OSSF DETAILS

S.O. 3

TAKING CARE OF YOUR SYSTEM

To prevent your system from failing, there are several important considerations that must be taken into account to ensure that the system functions properly, including:

1. Maintenance: Regular maintenance of the system is essential to prevent problems and ensure that it continues to function properly. This includes regular pumping of the septic tank, inspection of the distribution box and drainfield, and other routine tasks.
2. Water usage: The amount of water used in the household can have a significant impact on the performance of the system. It is important to avoid excessive water usage, such as running multiple appliances or fixtures simultaneously, as this can overwhelm the system and cause it to fail.
3. Landscaping: Careful landscaping around the drainfield area is important to ensure that the system functions properly. It is important to avoid planting trees or shrubs near the drainfield, as the roots can damage the pipes and prevent proper drainage.

The following guidelines can help you to avoid these types of chemicals as they should not be disposed of into the system which include any harsh or toxic chemicals that can damage the beneficial bacteria in the septic tank that help to break down waste. This includes the following:

4. Household cleaners: Many common household cleaners contain harsh chemicals that can harm the bacteria in the septic tank. Examples include bleach, disinfectants, and drain cleaners.
5. Personal care products: Certain personal care products, such as soaps, shampoos, and lotions, can contain chemicals that are harmful to the septic system. It is important to use these products in moderation and to avoid excessive use.
6. Pesticides and herbicides: Any type of pesticide or herbicide should be avoided, as these can harm the bacteria in the septic tank and may also contaminate the surrounding environment.
7. Medications: Unused or expired medications should never be disposed of into the septic system, as they can harm the bacteria in the septic tank and may also contaminate the surrounding environment.

Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
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Additional Information:

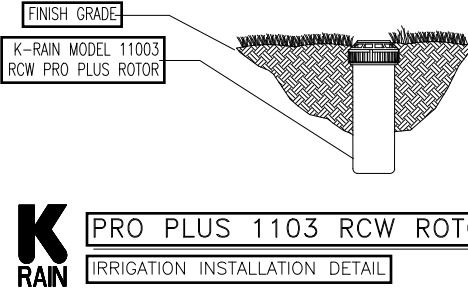
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VOID

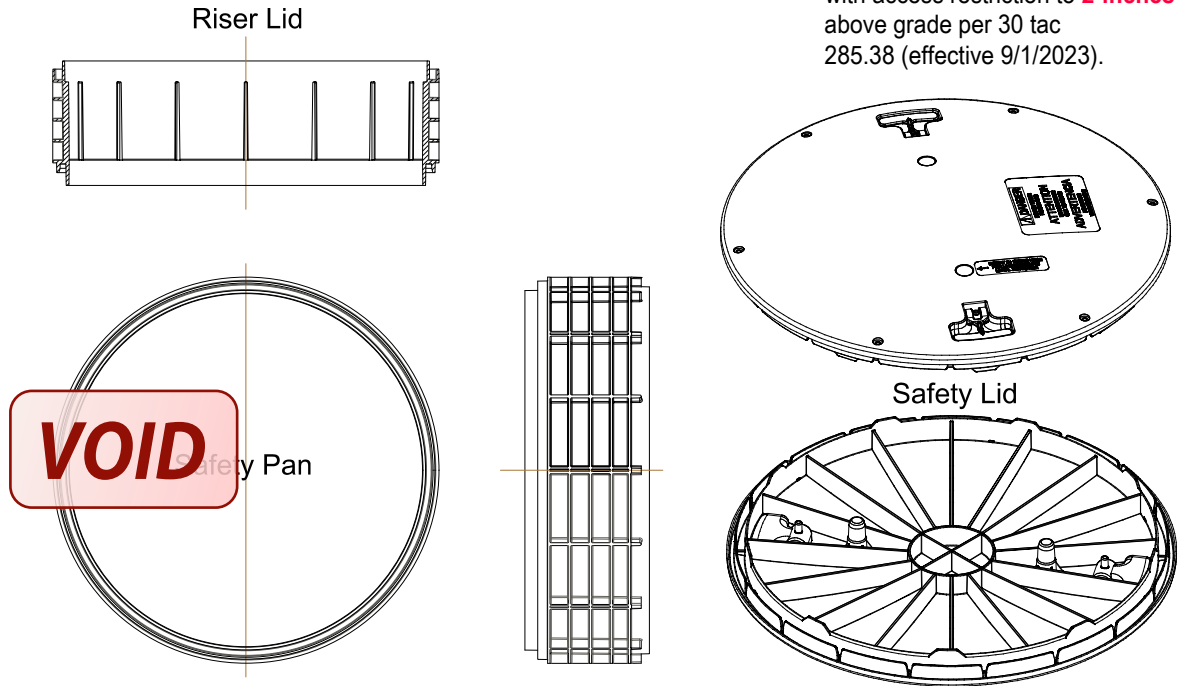
K-RAIN PROPLUS 11003 RCW, PERFORMANCE DATA

LOW ANGLE DATA

NOZZLE	PRESSURE PSI	RADIUS FT.	FLOW GPM
#1	30	22'	1.2
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
#6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6



RISER DETAIL w/OPTIONAL COMPONENTS
TYPICAL NTS
DIAMETER AND DEPTH VARIES



Risers must be securely attached, watertight, and protected against unauthorized access. Risers and tank inspection ports will be required to have access safety provisions per 30 TAC 285.38 (12/29/2016). All tank ports larger than 12-inches in diameter to have risers with access restriction to 2-inches above grade per 30 tac 285.38 (effective 9/1/2023).



RULES

Project

1752 Demi John Bend Road

Drawn by

OUTSKIRTS SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN BEND ROAD
CANYON LAKE, TX 78133

COMAL COUNTY

Property ID

R447873

Legal Description

PARADISE ON THE GUADALUPE
LOT 12 UNIT 1

North

Scale NTS

OSSF DETAILS

SO. 4

From: [Ritzen,Brenda](#)
To: lhtxseptics.excavation@gmail.com
Subject: FW: As- Built Revised Design 118165
Date: Wednesday, June 11, 2025 4:15:00 PM
Attachments: [2025_06_09_1752DemiJohnBendRd_OSSFDesignPlan.pdf](#)
[image001.png](#)

Re: Midcentury Custom Homes, LLC
Paradise on the Guadalupe Unit 1 Lot 12, 1752 Demi John Bend Rd.
Application for Permit for Authorization to Construct an On-Site Sewage
Facility

Barton,

I have reviewed the revised planning materials and found the following information is needed:

1. Maintain required 20 ft. setback from the edge of the spray areas to the property line.
2. Revise as needed and resubmit.

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

From: Olvera,Brandon <Olverb@co.comal.tx.us>
Sent: Wednesday, June 11, 2025 3:09 PM
To: Ritzen,Brenda <rabbjr@co.comal.tx.us>
Subject: FW: As- Built Revised Design 118165

118165

Thank You,

| **Brandon Olvera** | **Designated Representative OS0034792** | Comal County |
| www.cceo.org |
| 195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078
| e: olverb@co.comal.tx.us |

RECEIVED

By Brenda Ritzen at 1:28 pm, Jun 18, 2025

VOID

To:
Comal County Engineer's Office
OSSF Department
195 David Jonas Dr
New Braunfels, TX 78132

Subject: Variance Request – OSSF Spray Head Setback (10 ft)

Dear OSSF Reviewer,

I, Danuel Gonzalez, R.S., am requesting a variance to allow spray heads for my aerobic on-site sewage facility (OSSF) to be located 10 feet from the property line, instead of the standard 25-foot setback required under Comal County OSSF rules.

Due to lot constraints, full compliance is not possible. The system will include the following safeguards to ensure safe and responsible operation:

- Low-angle spray nozzles ($\leq 13^\circ$) directed inward
- No discharge beyond property boundaries
- Vegetative buffer or berm between spray area and property line
- Routine service by a licensed maintenance provider

A site plan and design details are attached. These measures provide equal or greater protection to public health and the environment.

Please contact me if additional documentation is needed. Thank you for your time and consideration.

Sincerely,
Danuel Gonzalez, R.S. #5385

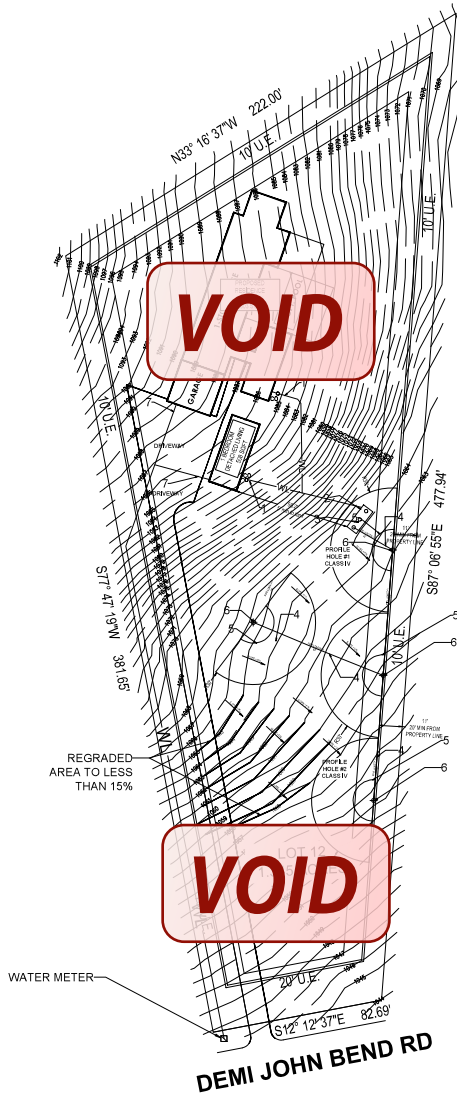


VOID

•

REVISED

4:07 pm, Jun 11, 2025



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5	10' RADIUS TO A TREE	SEE SITE PLAN
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7	WATER LINE INTO HOME	SEE SITE PLAN

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Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

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LOT 12 UNIT 1

North



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1" = 60'

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OVERALL

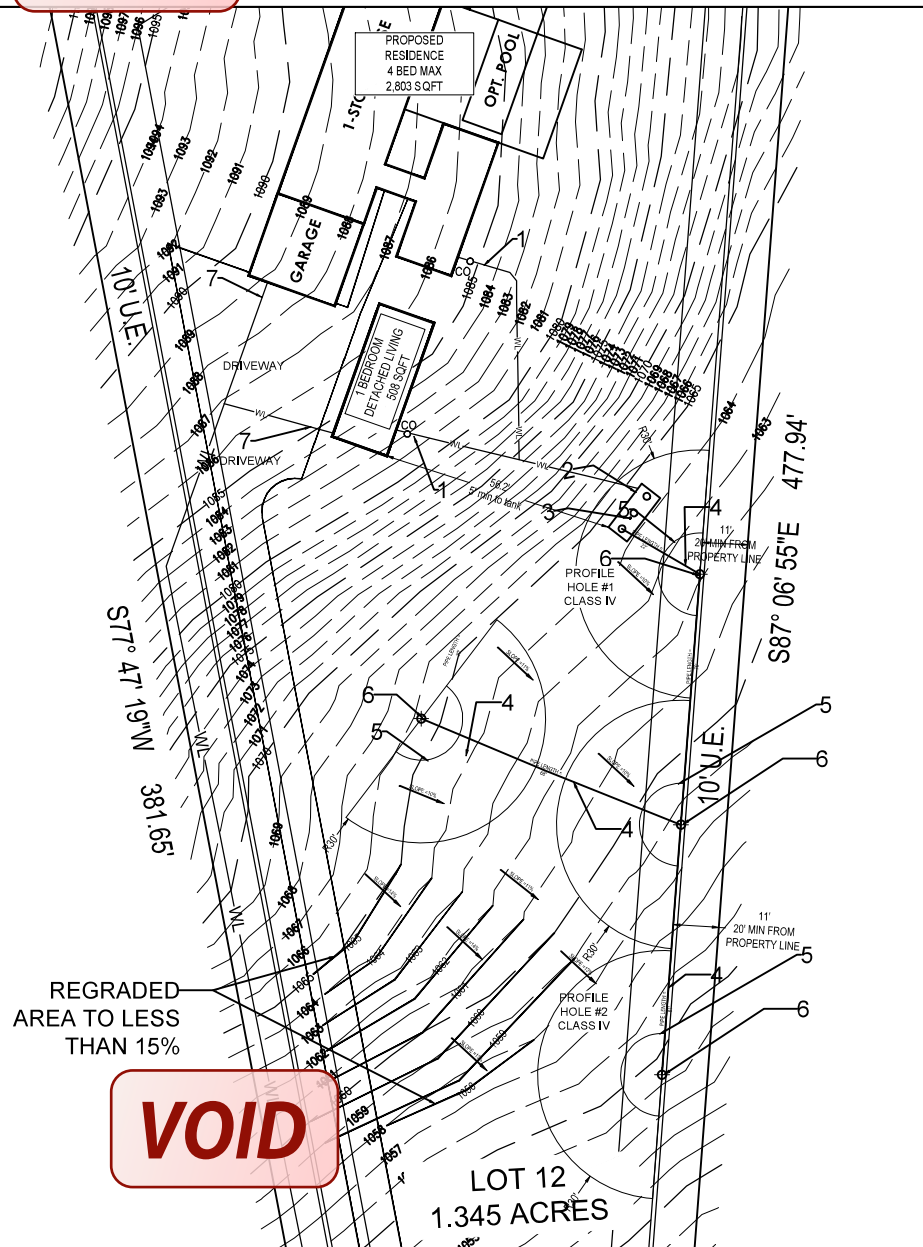
SO.1

4:07 pm, Jun 11, 2025

REGRADED
AREA TO LESS
THAN 15%

VOID

COMPONENTS SCHEDULE		
1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT # SCREW PLUG MIN $\frac{1}{8}$ " FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180 °)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN



1752 Demi John
Bend Road

OUTSKIRTS
SEPTIC DESIGNS

06/09/2025

DANUEL GONZALEZ



1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

R447873

**PARADISE ON THE
GUADALUPE**
LOT 12 UNIT 1

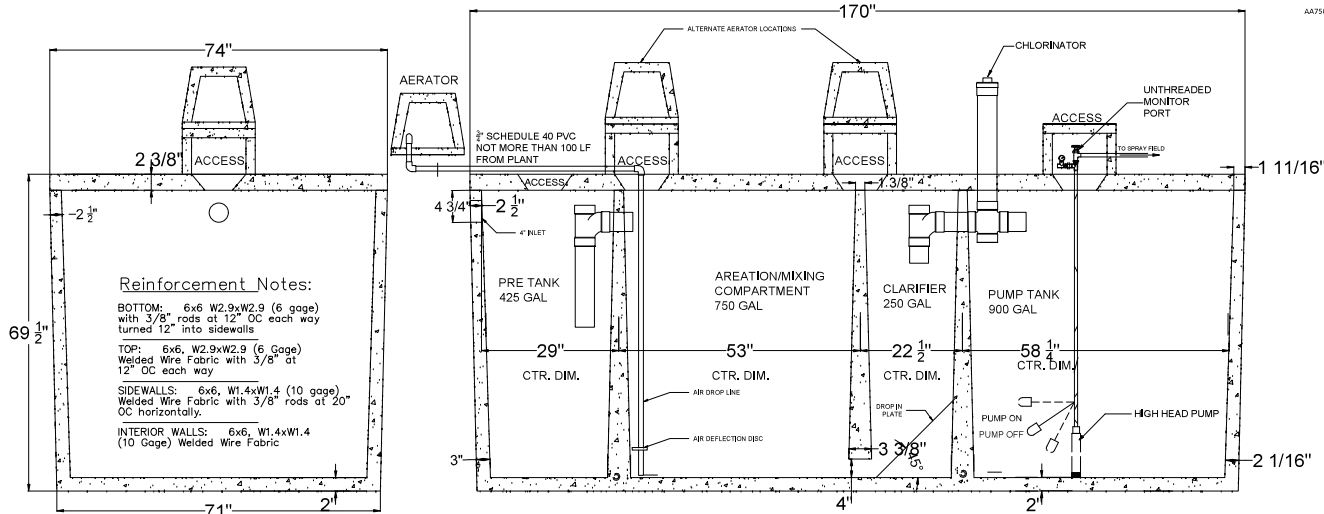
SITE PLAN

SO.2

REVISED

4:07 pm, Jun 11, 2025

VOID



AA750-4290 Pump Chamber Volume - GPH

Inch Depth	Gallons in Cubic Inches	Total Gallons @ Depth
55	17.25147537	802.003357
54	17.22903071	884.739885
53	17.20661656	867.5108276
52	17.18423393	850.314211
51	17.16187981	833.1499781
50	17.0995572	816.0180983
49	17.0671651	798.8185411
48	17.03500392	781.851276
47	17.00277245	764.8162725
46	16.9705719	747.81135
45	16.93840185	730.8429281
44	16.90626232	713.9045263
43	16.87415331	696.982639
42	16.8420746	680.1241105
41	16.81002681	663.2820358
40	16.7780093	646.47209
39	16.7460237	629.6939997
38	16.71406592	612.9479773
37	16.68211998	596.2339114
36	16.65024455	579.5517714
35	16.61837964	562.9015269
34	16.58654524	546.2831472
33	16.55474135	529.698602
32	16.52296798	513.1418606
31	16.49122512	496.6188927
30	16.45951277	480.1276675
29	16.42783093	463.6681548
28	16.39617961	447.2403238
27	16.3645588	430.8441442
26	16.33296851	414.479554
25	16.30140872	398.1466169
24	16.26987945	381.8452082
23	16.2383807	365.5752287
22	16.20691245	349.336848
21	16.17547472	333.1300356
20	16.14406675	316.9546609
19	16.1126898	300.8043694
18	16.08134461	284.6978026
17	16.05002893	268.616458
16	16.01874796	252.566029
15	15.98748911	236.5476853
14	15.95624987	220.5601962
13	15.92501134	204.6039112
12	15.89398022	188.6785599
11	15.86277962	172.7849516
10	15.83167354	156.922176
9	15.80066196	141.080525
8	15.76965609	125.289005
7	15.73865595	109.5203596
6	15.707671931	93.7847808
5	15.67662079	78.0421897
4	15.645620178	62.33759818
3	15.61461328	46.7518064
2	15.5836553	31.13708312
1	15.55312782	15.55312782

ECOLOGICAL TANKS, INC 2247 HWY 151 NORTH DOWNSVILLE, LA 71234 318-644-0397 OFFICE 318-644-7257 FAX	Model AA750-4290	Total Volume: 2325 Gal.	Treatment Capacity: 750 GPD		BOD Loading: 1.75 #/Day
	NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN ANY RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF ECOLOGICAL TANKS, INC.	ENG: TJR	REV: 0	SCALE: NTS	DATE 6/6/20
					DRAWING NO. AA750-4290w.DWG

SYSTEM DATA:

Chlorinator:

- Tablet Chlorinator: Norweco LF-2000 (calcium hypochlorite tablets) or equivalent.
- Liquid Chlorinator: LBC500 (household liquid chlorine) or equivalent.

Pressure Gauge:

- Tank Pressure: 35.60 PSI.
- Flow Regulation: A pressure gauge and ball valve will be installed to regulate flow to irrigation heads.
- Pressure Regulator: Installed before each head to maintain 30 PSI.
- Collection Port:
- Installation: A plastic hose bib (unthreaded or equivalent) will be installed in the pump chamber for periodic effluent sampling.

Pump Timer:

- Controller Model: ETI model 203 with GRASSLIN / FM1 STUZH-L or equivalent.
- Details: Refer to the site plan for calculation outputs.

Alarm System:

- Type: Audio/visual high water alarm (red light).
- Controller Model: ETI model 203 or equivalent.
- Location: Installed in a highly visible location near the pump tank.
- Function: The alarm will shut down the pump in case of aerator or system failure.

Head Loss and Pump selection - Using sch-40 PVC

General formula = Hazen Williams method.

$$h_{100ft} = 0.002083 (100 / c) 1.852 q^{1.852} / d^{4.8655}$$

Where,

h_{100ft} = head loss in feet of water per 100 ft of pipe (ft h20 /100 ft pipe)

c = Hazen-Williams roughness constant

q = volume flow (gal/min)

d = inside diameter of pipe (inches)

Loss in Supply line to

Head 1 = 1" Supply (13.6 GPM) @ 22 feet = 2.37 Loss (ft)

Head 2 = 1" Supply (3.4 GPM) @ 70 feet = 0.58 Loss (ft)

Head 3 = 1" Supply (3.4 GPM) @ 68 feet = 0.56 Loss (ft)

Head 4 = 1" Supply (3.4 GPM) @ 61 feet = 0.51 Loss (ft)

Loss in Fittings (20%) = 4.02 (1.20) = 4.83 Loss (feet)

Elevation (including from pump) =

Head pressure for Nozzle

$$30 \text{ PSI} \times 2.31 =$$

Total Loss in feet = 4.83 + 4 + 69.3 = 78.13 feet or 33.82 PSI

Provide 13.6 GPM @ 78.13 Ft

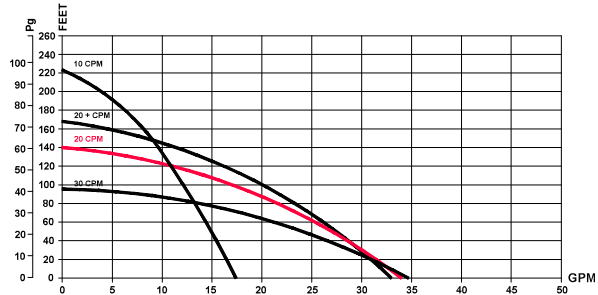
Use: Ashland Pump 10CPM-115 (see spec sheet) or equivalent

Pump Float and Alarm settings:

AA-500-4075 Pump Tank: 902 gal (see table for gals/inch):

- Alarm Height = 37 inches
- Operational Vol = 300 gal - (18" or 305.767 gal)
- Pump on = 8 inches (502.451 gal)
- Pump off = 6 inches (93.782 gal)

ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE ASHLAND PUMP 20 CPM-115 or EQUIVALENT



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale

NTS

OSSF DETAILS

SO.3

REVISED

4:07 pm, Jun 11, 2025

VOID

TAKING CARE OF YOUR SYSTEM

To prevent your system from failing, there are several important considerations that must be taken into account to ensure that the system functions properly, including:

1. Maintenance: Regular maintenance of the system is essential to prevent problems and ensure that it continues to function properly. This includes regular pumping of the septic tank, inspection of the distribution box and drainfield, and other routine tasks.
 2. Water usage: The amount of water used in the household can have a significant impact on the performance of the system. It is important to avoid excessive water usage, such as running multiple appliances or fixtures simultaneously, as this can overwhelm the system and cause it to fail.
 3. Landscaping: Careful landscaping around the drainfield area is important to ensure that the system functions properly. It is important to avoid planting trees or shrubs near the drainfield, as the roots can damage the pipes and prevent proper drainage.
- The following guidelines can help you to avoid these types of chemicals as they should not be disposed of into the system which include any harsh or toxic chemicals that can damage the beneficial bacteria in the septic tank that help to break down waste. This includes the following:
4. Household cleaners: Many common household cleaners contain harsh chemicals that can harm the bacteria in the septic tank. Examples include bleach, disinfectants, and drain cleaners.
 5. Personal care products: Certain personal care products, such as soaps, shampoos, and lotions, can contain chemicals that are harmful to the septic system. It is important to use these products in moderation and to avoid excessive use.
 6. Pesticides and herbicides: Any type of pesticide or herbicide should be avoided, as these can harm the bacteria in the septic tank and may also contaminate the surrounding environment.
 7. Medications: Unused or expired medications should never be disposed of into the septic system, as they can harm the bacteria in the septic tank and may also contaminate the surrounding environment.

Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet

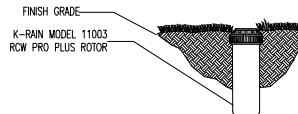
Additional Information:

- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
- Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.

K-RAIN PROPLUS 11003 RCWL PERFORMANCE DATA

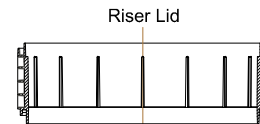
LOW ANGLE DATA

NOZZLE	PRESSURE PSI	RADIUS FT.	FLOW GPM
#1	30	22'	1.2
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
#6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6

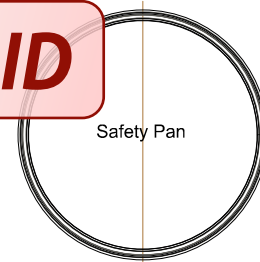


K PRO PLUS 1103 RCW ROTOR
IRRIGATION INSTALLATION DETAIL

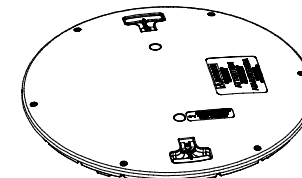
RISER DETAIL w/OPTIONAL COMPONENTS TYPICAL NTS DIAMETER AND DEPTH VARIES



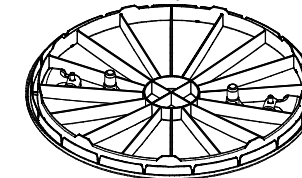
Riser Lid



Safety Pan



Safety Lid



Risers must be securely attached, watertight, and protected against unauthorized access. Risers and tank inspection ports will be required to have access safety provisions per 30 TAC 285.38 (12/29/2016).

All tank ports larger than 12-inches in diameter to have risers with access restriction to **2-inches** above grade per 30 tac 285.38 (effective 9/1/2023).



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

06/09/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale NTS

OSSF DETAILS

SO.4



VOID

PAUL SWOYER SEPTIC SUPPLY &
SERVICE
23011 FM 306
CANYON LAKE, TX 78133

MP#0001708

CHRISTOPHER RYAN SEIDENSTICKER

PROPERTY LEGAL DESCRIPTION:

LOT 12, PARADISE ON THE GUADALUPE, UNIT 1

Customer: MIDCENTURY CUSTOM HOMES, LLC

Site Address: 1752 DEMI JOHN BEND RD.

City/State: NEW BRAUNFELS, TEXAS **Zip:** 78130

County: COMAL **Permit#:**

Phone Number:

E-mail:

I. General: This On-Site Sewage Facility Service Agreement (hereinafter referred to as "Agreement") is entered into by and between MIDCENTURY CUSTOM HOMES, LLC, (hereinafter referred to as "Client") and PS Supply & Service LLC. (hereinafter referred to as "Contractor"). By this agreement, Contractor agrees to render services, as described herein (the "Services"), and the client agrees to fulfill his/her/their responsibilities under this agreement herein.

II. Effective Dates: This agreement commences on the date of License to Operate is issued for Three (3) years.

Date of License to Operate: LTO Last Date of Service: 3 yrs from LTO

III. Services by Contractor: Contractor will provide the following Services:

1. Inspect and perform routine maintenance on the On-Site Sewage Facility ("OSSF") in compliance with the code, regulations, and/or rules of the Texas Commission on Environmental Quality ("TCEQ") and county in which the OSSF is located (the "County") and the manufacturer's requirements, at a frequency of approximately once every four (4) months.
2. Report to the appropriate regulatory authority and to Client, as required by the State of Texas' on-site rules and, if required, TCEQ or County rules. All findings must be reported to the appropriate regulatory authority within 14 days.
3. Notify Client and repair any components of the OSSF that are found to be in need of repair during the inspection. If warranty, you just do it. If not, Client will be responsible. Repairs will be made so brought up to compliance and bill forward.
4. Visit site in response to Client's request for unscheduled service within two business days from the date of Contractor's actual receipt of Client's request. Unscheduled service visits are not included in the fee agreement herein and will be billed to the client in addition to fees under this Agreement.
5. Provide notification of arrival to site to the Client or to site personnel. Additionally, Contractor will leave written notification of the visit at the site or with site personnel upon completion of inspection, and forward such notice to the appropriate regulatory authority within fourteen (14) days.

IV. Payment(s): Client shall pay to Contractor included w/ septic, for the Services describe herein (the "Inspection and Routine Maintenance Fee"), excepting those described in Section III (4), or Section IX, herein. The Fee does not include equipment, parts or labor supplied for anything beyond routine inspection and routine maintenance. Payments for such additional services are due at the time services are provided or rendered. Payments not received within thirty (30) days from the due date will be subject the greater of a \$20.00 late penalty or 1.5% carrying charge on the original balance for each month or portion thereof a balance in past due. If for any reason such charges are found to be usurious by a court of competent jurisdiction, such charges shall be reduced to the maximum allowable by law. By signing this contract, Client authorizes Contractor to remove any parts installed, but not paid in full at the end of the thirty (30) days. Client agrees to pay for any labor cost associated with the installation and the reasonable cost of removal of said parts.

Client:

mw

Contractor:

PS

VOID**V. Client's Responsibilities:** Client is responsible for each and all of the following:

1. To maintain chlorinator and provide proper chlorine supply, if OSSF is so equipped.
2. To provide all necessary yard or lawn maintenance and removal of obstacles as needed to allow the OSSF to function properly, and to allow Contractor ready access to all parts of the OSSF.
3. To maintain a current license to operate, and abide by the conditions and limitations of that license and all requirements for on-site sewage facilities from the State and local regulatory agency.
4. To maintain the OSSF in accordance with manufacturer's recommendations.
5. To immediately notify Contractor and Agency of any and all problems with, the OSSF, including failure thereof.
6. Upon receipt of any written notification of required services from Contractor, to contact Contractor and authorize the required service. If Client elects a different contractor to perform the required service, Client is responsible for ensuring the substitute contractor holds the proper license (Installer II) and is certified by the manufacturer. Additionally, Client shall be responsible for ensuring proper notification is given to the appropriate regulatory authority, as required by the State and/or local regulatory authority rules.
7. To provide Contractor with water usage records, upon request, for evaluation by Contractor of the OSSF performance.
8. To pay required sampling charges for samples collected for testing (e.g. Biological Oxygen Demand/Total Suspended Solids ("BOD/TSS")) that may be required on the OSSF.
9. To prevent backwash from water treatment or water conditioning equipment to enter the OSSF.
10. To provide, at Client's expense, for pumping of tanks as needed.
11. To maintain site drainage sufficient to prevent adverse effects on the OSSF.
12. To promptly and fully pay Contractor's bills, fees, or invoices as described herein.

VI. Access by Contractor: Client agrees to allow Contractor, or personnel authorized by the Contractor, to enter the property at reasonable times without prior notice for the purpose of performing the Services described herein. Such entry shall include access to the OSSF electrical and physical components, including tanks, by means of manways or risers for the purpose of evaluations required by the manufacturer, and/or regulatory authority rules. If such manways or risers are not in place, Client shall allow and be responsible for payment of required excavation, including labor and materials, necessary to allow access to the OSSF or any required components. Such excavation shall be billed at the rate of \$75.00 per hour for labor, plus materials billed at list price. Contractor shall make only those efforts reasonable under the circumstances to replace excavated soil.

VII. Application or Transfer of Payment: The fees paid for this agreement may transfer to any subsequent owner(s) of the property on which the OSSF is located. The subsequent owner(s) must sign a similar agreement authorizing Contractor to perform the above-described Services, and accepting Client's responsibilities. The replacement Agreement must 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, return check charges, and charges for repairs or services not paid within 30 days of invoicing. The consumption of the payment in this manner may lead to termination of the agreement by Contractor

VIII. Termination of Agreement: This agreement may be terminated by either party with 30 days written notice. If this agreement is so terminated by Client, Contractor shall be paid at the rate of \$75.00 per hour for any work performed or required, but not yet paid. If terminated by Contractor, all amounts outstanding shall be due within thirty days of termination. The party terminating will immediately notify the other party, the equipment manufacturer, and the regulatory agency of the termination.

IX. Limitation of Liability: In no event shall 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 direct damages exceed payments by the Client under this Agreement.

X. Severability and Reformation: If any provision in this Agreement shall be held to be invalid or unenforceable for any reason, it shall be reformed to the minimum extent necessary to effect the intent of the Parties. If any provision is such that it cannot reasonably be reformed, it shall be struck from this Agreement and the remaining provisions shall continue to be valid and enforceable.

XI. Performance of Agreement: Commencement of performance by Contractor under this agreement is contingent on the following conditions: (1) Contractor receiving a fully executed original copy of this agreement. (2) Contractor receiving payment in full of the fee(s) described herein. If the above conditions are not met, then Contractor is from any obligation to perform any portion of this agreement.

XII. Modification. This Agreement may not be changed or modified except by an instrument in writing, signed by both Contractor and Client.

XIII. Waiver. Except as otherwise noted in this Agreement, the waiver by other party of a breach of any provision of this Agreement shall not operate or be construed as a continuing waiver or as a consent to or waiver of any subsequent breach hereof.

Client: Contractor:

VOID

XIV. Headings. The Article and Section headings in this Agreement are for the convenience of reference only and do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

XV. GOVERNING LAW AND CHOICE OF VENUE. EACH OF THE PARTIES HERETO HEREBY CONSENTS TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND TO THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS – SAN ANTONIO DIVISION, AS WELL AS TO THE JURISDICTION OF ALL COURTS TO WHICH AN APPEAL MAY BE TAKEN FROM SUCH COURTS, FOR THE PURPOSE OF ANY SUIT, ACTION, OR OTHER PROCEEDING ARISING OUT OF, OR IN CONNECTION WITH, THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, INCLUDING, WITHOUT LIMITATION, ANY PROCEEDING RELATING TO ANCILLARY MEASURES IN AID OF ARBITRATION, PROVISIONAL REMEDIES AND INTERIM RELIEF, OR ANY PROCEEDING TO ENFORCE ANY ARBITRAL DECISION OR AWARD. EACH PARTY HERETO EXPRESSLY WAIVES ANY AND ALL RIGHTS TO BRING ANY SUIT, ACTION, OR OTHER PROCEEDING IN OR BEFORE ANY COURT OR TRIBUNAL OTHER THAN COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND COVENANTS THAT IT SHALL NOT SEEK IN ANY MANNER TO PROSECUTE OR DEFEND ANY DISPUTE OTHER THAN AS SET FORTH IN THIS ARTICLE XVI OR TO CHALLENGE OR SET ASIDE ANY DECISION, AWARD, OR JUDGMENT OBTAINED IN ACCORDANCE WITH THE PROVISIONS HEREOF. EACH OF THE PARTIES HERETO HEREBY EXPRESSLY WAIVES ANY AND ALL OBJECTIONS IT MAY HAVE TO VENUE, INCLUDING, WITHOUT LIMITATION, THE INCONVENIENCE OF SUCH FORUM, IN ANY OF SUCH COURTS.

XVI. JURY TRIAL WAIVER. THE PARTIES HEREBY UNCONDITIONALLY WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY AND ALL CLAIMS OR CAUSES OF ACTION ARISING FROM OR RELATING TO THEIR RELATIONSHIP. THE PARTIES ACKNOWLEDGE THAT A RIGHT TO A JURY IS A CONSTITUTIONAL RIGHT, THAT THEY HAVE HAD AN OPPORTUNITY TO CONSULT WITH INDEPENDENT COUNSEL, AND THAT THIS JURY WAIVER HAS BEEN ENTERED INTO KNOWINGLY AND VOLUNTARILY BY ALL PARTIES TO THIS AGREEMENT. IN THE EVENT OF LITIGATION, THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

Approved by Contractor:

DocuSigned by:

MP#0001708

CHRISTOPHER RYAN SEIDENSTICKER

Approved by Client:

J Michael Wray

5CEE9D90326F4F2...

XVII. Reservation of Rights. Contractor reserves all rights not specifically granted herein.

XVIII. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

XIX. Counsel. Contractor has previously recommended that Client engage counsel to assist him/her/it in reviewing this Agreement and all other matters relating to it. Contractor and Client shall each bear his/her/its own costs and expenses in connection with the negotiation and documentation of this Agreement.

XX. Entire Agreement: This agreement contains the entire agreement of the parties, and there are no promises or conditions in any other agreement, oral or written. The Parties expressly disclaim reliance on any prior statements, oral or written, by either party not expressly provided for herein.

Client:

DS

MW

Contractor:

RS

VOID

REVISED

11:17 am, Apr 25, 2025

OSSF DESIGN

Proposed system information:

The design is for a single family home and casita (w/ no kitchen) that is:
4 bedrooms at 2,803 sqft and 1 bedroom at 508 sqft = total 5 bedrooms at 3,311 sqft
Total Q = 360 GPD Gallons per day using water saving devices.

Field Disposal Calculations:

The designed load for this system is 360 GPD.

Spray Irrigation:

- Required Field Area: $360 \div 0.064 = 5,625$ sq. ft. minimum field area
- Provided Field Area: **5,654.87** sq. ft.

Sprinkler Heads:

- Number of Heads: 4 (30' Radius @ 180-degree angle.)
- Coverage Area per Head: 1,413.72 sq. ft.
- Sprinkler Setting: 30 PSI, utilizing a 30' radius
- Minimum Spacing of Heads: (refer to site plan)
- Flow (GPM) per Field: (4×3.4) GPM = 13.6 GPM

Total Daily Irrigation Time:

- $360 \text{ GPD} \div 13.6 \text{ GPM} = 26.47$ minutes/day
- Set timer for 30 minutes starting at 2 AM

OSSF DESIGN PROVISIONS

Table IX. OSSF System Designation of the Texas Administrative Code, which is part of Chapter 285 of the On-Site Sewage Facility (OSSF) Rules, specifies the design standards for sewage disposal systems. This section notes that a professional engineer, registered sanitarian is required for the design of Surface Application systems and its planning materials provided that it meets all requirements outlined in the rules.

This design fulfills all the criteria for the design and installation of this system, encompassing aspects such as soil analysis, system sizing, and component placement, among others. The regulations provide comprehensive guidelines and specifications for the design and installation of this system. This OSSF design meets and exceeds the minimum state requirements for OSSF as of June 14, 2023.

The installer must be licensed by the State of Texas and have the governing authority to inspect the system at the required construction and inspection intervals.

This site lies in the FEMA floodplain 48091C0090F FIRM effective 9/2/2009

Criteria for Surface Application systems:

This is an aerobic pre-treatment/chlorination system with a surface application effluent disposal on this site. The aerobic unit must be NSF approved and meet all state and local requirements for effluent quality.

Design Principles:

Primary treatment of effluent will be accomplished using a NSF approved aerobic treatment unit. Treated effluent will then be distributed evenly over the disposal field area at night. Surface application will be the method of effluent dispersal and disposal. The surface soil conditions for this site are adequate to support vegetation growth.

Soil Analysis: Class IV

Note:
all piping shall be bedded with four inches class ib, class ii or, class iii soil with less than 30% gravel. the bedding soil shall be free of organic material and any rocks or grains larger than half inch.

all property lines and property pins must be verified prior to septic / ossf installation.

Minimum Required Separation Distances for OSSF

Building foundation to sewage treatment tank: 5 Feet

Soil absorption trench to groundwater: 3 Feet

Soil absorption system or sewer pipe to property lines: 5 Feet

Soil absorption system or sewer pipe to water-lines: 10 Feet

Soil absorption system to public utility easements: 1 Feet

USE HYDROMULCHING REVEGETATION METHOD AROUND SPRAY AREA

- HYDROMULCHING METHOD ADDS A FIBRE-MULCH TO THE MIXTURE OF SEED, FERTILISER, AND WATER. THE MULCH ESSENTIALLY PROVIDES A SAFEGUARD FOR THE SEED, HELPING IT RETAIN MOISTURE FOR FASTER GERMINATION AND GROWTH, WHILE PROTECTING THE SOIL FROM EROSION AND THE SEEDS FROM WASHING AWAY IN THE RAIN. THESE ORGANIC MULCH FIBRES ARE DESIGNED TO DEGRADE OVER SEVERAL MONTHS, MAKING WAY FOR VEGETATION GROWTH TO ESTABLISH.
- HYDROMULCH WILL KEEP THE SOIL IN PLACE AND DETER ANY FURTHER EROSION FROM HAPPENING SO THAT THE SITE REMAINS INTACT. HYDROMULCH OF LARGE AREAS IN NEW CONSTRUCTION, RECENTLY COMPLETED CONSTRUCTION, AND AREAS THAT HAVE BEEN BURNED OR TILLED FOR RECONSTRUCTION WILL BE TREATED WITH HYDROMULCH.

Additional Information:

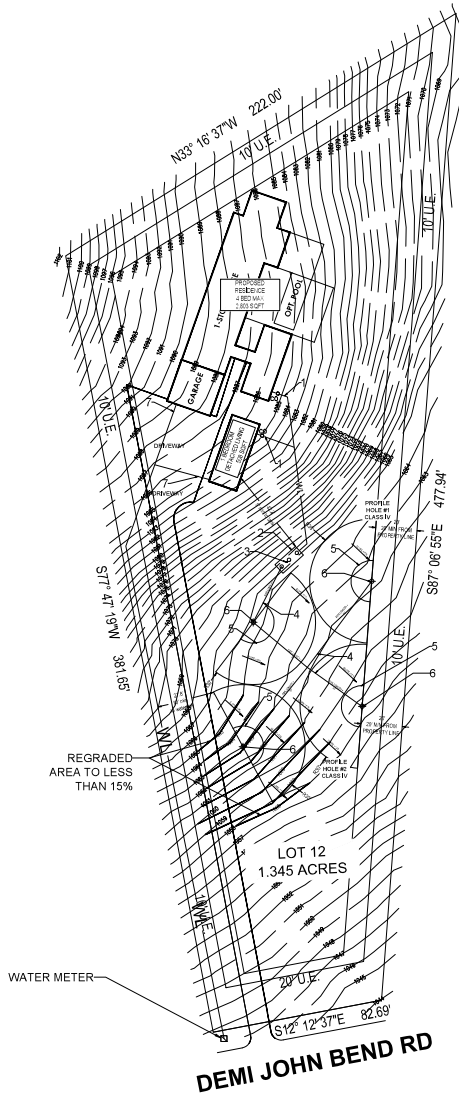
- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be used to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.

- Any future construction or swimming pool, irrigation etc must maintain 10' separation to all spray area.

- The sprinkler system area shall be located in a relatively open area at least 100' away from any water source. 10' from any property line. 30' from any heads must be 10' from any obstacle.
- The field area may have to be amended to create a slope of 15% or less, any exposed rock shall be removed or covered prior to operation with 4" suitable soil.
- The field shall be maintained at all times (mowed).

COMPONENTS SCHEDULE

1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT 4 SCREW PLUG MIN 1/2" FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180°)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

04/23/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

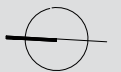
Property ID

R447873

Legal
Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North



Scale 1" = 60'

SITE PLAN
OVERALL

SO.1

VOID

11:17 am, Apr 25, 2025



1752 Demi John
Bend Road

OUTSKIRTS
SEPTIC DESIGNS

04/23/2025

DANUEL GONZALEZ



PACIFIC RBLF REO LLC

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

R447873

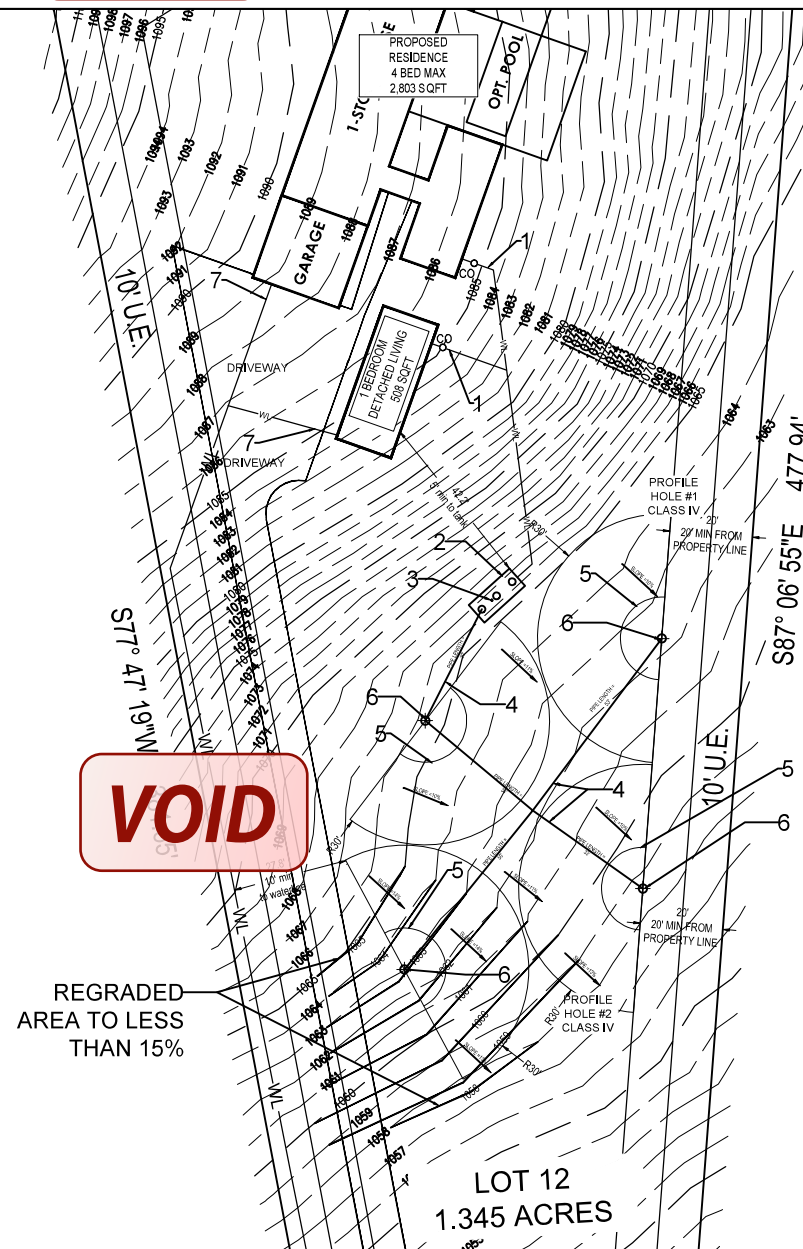
PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

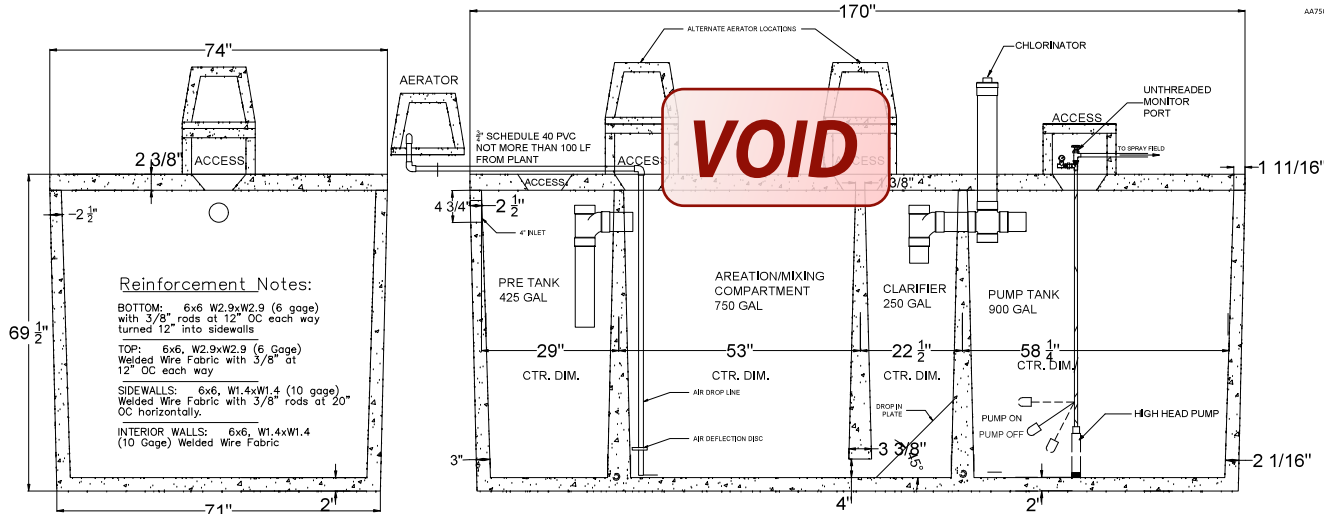


SITE PLAN

SO.2

COMPONENTS SCHEDULE		
1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT ‡ SCREW PLUG MIN $\frac{1}{8}$ " FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180 °)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN





AA750-4290 Pump Chamber Volume - GPH		
Inch Depth	Gallons in Cubic Inches	Total Gallons @ Depth
55	17.25147537	802.003357
54	17.22903071	884.739883
53	17.20661656	867.5108276
52	17.18423393	850.314211
51	17.16187981	833.1499781
50	17.0995572	816.0180983
49	17.07671651	798.8185411
48	17.05500392	781.851276
47	17.00277245	764.8162725
46	16.9707719	747.81135
45	16.95840185	730.8429281
44	16.90626232	713.9045263
43	16.87415331	696.9982639
42	16.84207046	680.1241105
41	16.81002681	663.2820358
40	16.7780093	646.47209
39	16.7460237	629.6939997
38	16.71406592	612.9479773
37	16.68211998	596.2339114
36	16.65024455	579.5517714
35	16.61837964	562.9015269
34	16.58654524	546.2831472
33	16.55474135	529.698602
32	16.52296798	513.1418606
31	16.49122512	496.6188927
30	16.45951277	480.1276675
29	16.42783093	463.6681548
28	16.39617961	447.2403238
27	16.3645588	430.8441442
26	16.33296851	414.4795554
25	16.30140872	398.1466169
24	16.26987945	381.8452082
23	16.2383807	365.5752287
22	16.20691245	349.336848
21	16.17547472	333.1300356
20	16.14406676	316.9546609
19	16.11269804	300.8043694
18	16.08134461	284.6978026
17	16.05002893	268.616458
16	16.01874736	252.566029
15	15.98748911	236.5476853
14	15.95626497	220.5601962
13	15.92507134	204.6009312
12	15.89390822	188.6785599
11	15.86277962	172.7849516
10	15.83167354	156.922176
9	15.80060196	141.080523
8	15.76956609	125.289905
7	15.73856935	109.5203396
6	15.70757593	93.7817808
5	15.67662079	78.07421897
4	15.64570178	62.39759818
3	15.61480328	46.7518064
2	15.5839553	31.13709312
1	15.55312782	15.55312782

ECOLOGICAL TANKS, INC 2247 HWY 151 NORTH DOWNSVILLE, LA 71234 318-644-0397 OFFICE 318-644-7257 FAX	Model AA750-4290		Total Volume: 2325 Gal.		Treatment Capacity: 750 GPD		BOD Loading: 1.75 #/Day	
	ENG: TJR		REV:0		SCALE: NTS		DRAWING NO. AA750-4290w.DWG	

SYSTEM DATA:

Chlorinator:

- Tablet Chlorinator: Norweco LF-2000 (calcium hypochlorite tablets) or equivalent.
- Liquid Chlorinator: LBC500 (household liquid chlorine) or equivalent.

Pressure Gauge:

- Tank Pressure: 35.60 PSI.
- Flow Regulation: A pressure gauge and ball valve will be installed to regulate flow to irrigation heads.
- Pressure Regulator: Installed before each head to maintain 30 PSI.
- Collection Port:
- Installation: A plastic hose bib (unthreaded or equivalent) will be installed in the pump chamber for periodic effluent sampling.

Pump Timer:

- Controller Model: ETI model 203 with GRASSLIN / FM1 STUZH-L or equivalent.
- Details: Refer to the site plan for calculation outputs.

Alarm System:

- Type: Audio/visual high water alarm (red light).
- Controller Model: ETI model 203 or equivalent.
- Location: Installed in a highly visible location near the pump tank.
- Function: The alarm will shut down the pump in case of aerator or system failure.

Head Loss and Pump selection - Using sch-40 PVC

General formula = Hazen Williams method.

$$h_{100ft} = 0.002083 (100 / c) 1.852 q^{1.852} / d^{4.8655}$$

Where,

h_{100ft} = head loss in feet of water per 100 ft of pipe (ft h20 /100 ft pipe)

c = Hazen-Williams roughness constant

q = volume flow (gal/min)

d = inside diameter of pipe (inches)

Loss in Supply line to

Head 1	=	1" Supply (10.2 GMP) @ 39 feet = 3.71 Loss (ft)
Pipe to split point =	=	1" Supply (10.2 GMP) @ 34 feet = 2.46 Loss (ft)
Head 2	=	1" Supply (10.2 GMP) @ 34 feet = 0.50 Loss (ft)
Head 3	=	1" Supply (10.2 GMP) @ 34 feet = 0.31 Loss (ft)
Head 4	=	1" Supply (10.2 GMP) @ 34 feet = 0.47 Loss (ft)

$$\text{Loss in Fittings (20\%)} = 7.15 (1.20) = 8.94 \text{ Loss (feet)}$$

$$\text{Elevation (including from pump)} = 4 \text{ feet}$$

$$\begin{aligned} \text{Head pressure for Nozzle} \\ 30 \text{ PSI} \times 2.31 &= 69.3 \text{ feet} \end{aligned}$$

$$\text{Total Loss in feet} = 8.94 + 4 + 69.3 = 82.24 \text{ feet or } 35.60 \text{ PSI}$$

Provide 13.6 GPM @ 82.24 Ft

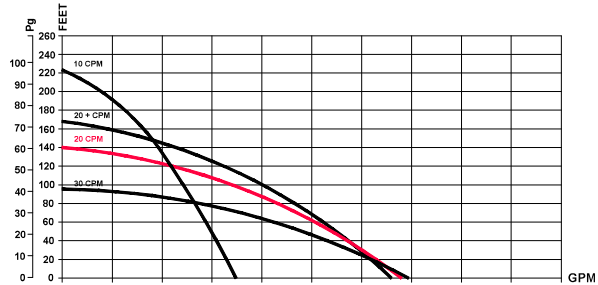
Use: Ashland Pump 10CPM-115 (see spec sheet) or equivalent

Pump Float and Alarm settings:

AA-500-4075 Pump Tank: 902 gal (see table for gals/inch):

- Alarm Height = 37 inches
- Operational Vol = 300 gal - (18" or 305.767 gal)
- Pump on = 8 inches (502.451 gal)
- Pump off = 6 inches (93.782 gal)

ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE ASHLAND PUMP 20 CPM-115 or EQUIVALENT



RULES

Project

1752 Demi John
Bend Road

Drawn by

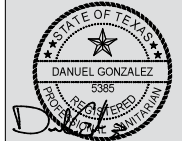
OUTSKIRTS
SEPTIC DESIGNS

Date

04/23/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale

NTS

OSSF DETAILS

SO.3

REVISED

11:18 am, Apr 25, 2025

VOID

TAKING CARE OF YOUR SYSTEM

To prevent your system from failing, there are several important considerations that must be taken into account to ensure that the system functions properly, including:

- Maintenance:** Regular maintenance of the system is essential to prevent problems and ensure that it continues to function properly. This includes regular pumping of the septic tank, inspection of the distribution box and drainfield, and other routine tasks.
 - Water usage:** The amount of water used in the household can have a significant impact on the performance of the system. It is important to avoid excessive water usage, such as running multiple appliances or fixtures simultaneously, as this can overwhelm the system and cause it to fail.
 - Landscaping:** Careful landscaping around the drainfield area is important to ensure that the system functions properly. It is important to avoid planting trees or shrubs near the drainfield, as the roots can damage the pipes and prevent proper drainage.
- The following guidelines can help you to avoid these types of chemicals as they should not be disposed of into the system which include any harsh or toxic chemicals that can damage the beneficial bacteria in the septic tank that help to break down waste. This includes the following:
- Household cleaners:** Many common household cleaners contain harsh chemicals that can harm the bacteria in the septic tank. Examples include bleach, disinfectants, and drain cleaners.
 - Personal care products:** Certain personal care products, such as soaps, shampoos, and lotions, can contain chemicals that are harmful to the septic system. It is important to use these products in moderation and to avoid excessive use.
 - Pesticides and herbicides:** Any type of pesticide or herbicide should be avoided, as these can harm the bacteria in the septic tank and may also contaminate the surrounding environment.
 - Medications:** Unused or expired medications should never be disposed of into the septic system, as they can harm the bacteria in the septic tank and may also contaminate the surrounding environment.

Minimum Required Separation Distances for OSSF
 Building foundation to sewage treatment tank: 5 Feet
 Soil absorption trench to groundwater: 3 Feet
 Soil absorption system or sewer pipe to property lines: 5 Feet
 Soil absorption system or sewer pipe to water-lines: 10 Feet
 Soil absorption system to public utility easements: 1 Feet

Additional Information:

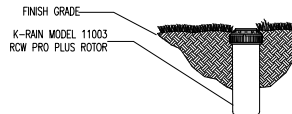
- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
- Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.

VOID

K-RAIN PROPLUS 11003 RCWL PERFORMANCE DATA

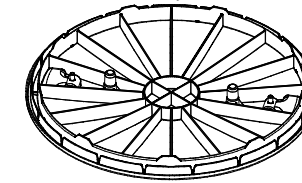
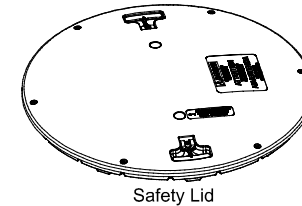
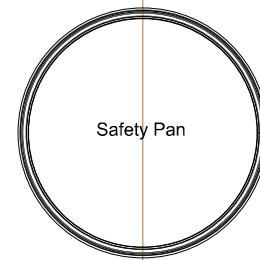
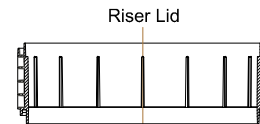
LOW ANGLE DATA

NOZZLE #1	PRESSURE PSI	RADIUS FT.	FLOW GPM
30	22'	1.2	
40	24'	1.7	
50	26'	1.8	
60	28'	2.0	
#3			
30	29'	3.0	
40	32'	3.1	
50	35'	3.5	
60	37'	3.8	
#4			
30	31'	3.4	
40	34'	3.9	
50	37'	4.4	
60	38'	4.7	
#6			
40	38'	6.5	
50	40'	7.3	
60	42'	8.0	
70	44'	8.6	



K RAIN PRO PLUS 1103 RCW ROTOR
 IRRIGATION INSTALLATION DETAIL

RISER DETAIL w/OPTIONAL COMPONENTS TYPICAL NTS DIAMETER AND DEPTH VARIES



Risers must be securely attached, watertight, and protected against unauthorized access. Risers and tank inspection ports will be required to have access safety provisions per 30 TAC 285.38 (12/29/2016).

All tank ports larger than 12-inches in diameter to have risers with access restriction to **2-inches** above grade per 30 tac 285.38 (effective 9/1/2023).



RULES

Project
 1752 Demi John Bend Road

Drawn by
 OUTSKIRTS SEPTIC DESIGNS

Date
 04/23/2025

Design by
 DANUEL GONZALEZ



Owner
 PACIFIC RBLF REO LLC

Address
 1752 DEMI JOHN BEND ROAD
 CANYON LAKE, TX 78133
 COMAL COUNTY

Property ID
 R447873

Legal Description
 PARADISE ON THE GUADALUPE
 LOT 12 UNIT 1

North

Scale
 OSSF DETAILS

SO.4

From: [Ritzen,Brenda](#)
To: "[LibertyHillTX Septics & Excavation](#)"; [Danuel Gonzalez](#)
Cc: katie@psseptics.com; "gregjohnsonpe@yahoo.com"
Subject: RE: Revisions 118165
Date: Friday, April 25, 2025 11:34:00 AM
Attachments: [image001.png](#)

Terra,

Revisions have been approved.

Thank you,



Brenda Ritzen

Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

From: LibertyHillTX Septics & Excavation <lhtxseptics.excavation@gmail.com>
Sent: Thursday, April 24, 2025 9:41 PM
To: Ritzen,Brenda <rabbjr@co.comal.tx.us>; Danuel Gonzalez <gonzalez.danuel.a@gmail.com>
Subject: Re: Revisions 118165

This email originated from outside of the organization.

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

- Comal IT

Hi Brenda,

Attached is the revised design and application. Please let us know if there is anything we need to change.

Thank you so much for your patience,
Terra

On Wed, Apr 23, 2025 at 11:31 AM Ritzen,Brenda <rabbjr@co.comal.tx.us> wrote:

From: [Ritzen,Brenda](#)
To: [LibertyHillTX Septics & Excavation](#)
Subject: RE: Revisions 118165
Date: Wednesday, April 23, 2025 11:30:00 AM
Attachments: [image001.png](#)
[pages from 118165.pdf](#)

Terra,

I have reviewed the revised planning materials and found the following information is still needed:

- ✓ 1. There is conflicting information on the permit application (pages 1 & 2) and the design on the number of bedrooms and sq. ft. of living area and system design requirements. Note: As per the design -s 4 bedrooms less than 3500 sq. ft. plus 1 bedroom detached living less than 1500 sq. ft. allows a maximum of 4998 sq. ft. (6 bedrooms). This would require a system sized for 420 gpd.
- ✓ 2. The permit application indicates that Greg Johnson is the agent for this permit.
- ✓ 3. The designer must sign the 2nd page of the permit application.
4. Revise as needed and resubmit.

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org



COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWER

VOID

APPLICATION

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

Date 12/6/2022

Permit Number 114346
118165

1. APPLICANT / AGENT INFORMATION

Owner Name MIDCENTURY CUSTOM HOMES, LLC
Mailing Address c/o 23011 FM 306
City, State, Zip Canyon Lake, TX 78133
Phone # 830-935-4936
Email katelyn@psseptics.com

Agent Name GREG W. JOHNSON, P.E.
Agent Address 170 Hollow Oak
City, State, Zip New Braunfels, TX 78132
Phone # 830-905-2778
Email gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name PARADISE ON THE GUADALUPE Unit 1 Lot 12 Block

Survey Name / Abstract Number Acreage

Address 1752 DEMI JOHN BEND RD. City NEW BRAUNFELS State TX Zip 78130

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) HOUSE + DETACHED LIVING

Number of Bedrooms 4+1

Indicate Sq Ft of Living Area 2803+508

☐ 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: \$ 500,000 (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 improvements within the USACE flowage easement)

Source of Water ☒ Public ☐ Private Well

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.

J Michael Wray
Signature of Owner

12/12/2024
Date



VOID

Planning Materials & Site Evaluation as Required Completed By Daniel Gonzalez, R.S. 5385, S.E. OS0038056

System Description Aerobic Surface Application

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

Tank Size(s) (Gallons) 500 GPD Absorption/Application Area (Sq Ft) 5,284.16

Gallons Per Day (As Per TCEQ Table III) 300 GPD

(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

VOID

If yes, indicate the city: Canyon Lake

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.

Daniel Gonzalez, R.S.

Signature of Designer

4/15/2025

Date

REVISED

10:51 am, Apr 23, 2025

VOID

OSSF DESIGN

Proposed system information:

The design is for a single family home and casita that is:
4 bedrooms or 3,500 sq ft or less and 1 bedroom or 1,500 sqft or less
Total Q = 360 GPD Gallons per day using water saving devices.

Field Disposal Calculations:

The designed load for this system is 360 GPD.

Spray Irrigation:

- Required Field Area: $360 \div 0.064 = 5,625$ sq. ft. minimum field area
- Provided Field Area: **5,654.87** sq. ft.

Sprinkler Heads:

- Number of Heads: 4 (30' Radius @ 180-degree angle.)
- Coverage Area per Head: 1,413.72 sq. ft.
- Sprinkler Setting: 30 PSI, utilizing a 30' radius
- Minimum Spacing of Heads: (refer to site plan)
- Flow (GPM) per Field: (4×3.4) GPM = 13.6 GPM

Total Daily Irrigation Time:

- $360 \text{ GPD} \div 13.6 \text{ GPM} = 26.47$ minutes/day
- Set timer for 30 minutes starting at 2 AM

OSSF DESIGN PROVISIONS

Table IX. OSSF System Designation of the Texas Administrative Code, which is part of Chapter 285 of the On-Site Sewage Facility (OSSF) Rules, specifies the design standards for sewage disposal systems. This section notes that a professional engineer, registered sanitarian is required for the design of Surface Application systems and its planning materials provided that it meets all requirements outlined in the rules.

This design fulfills all the criteria for the design and installation of this system, encompassing aspects such as soil analysis, system sizing, and component placement, among others. The regulations provide comprehensive guidelines and specifications for the design and installation of this system. This OSSF design meets and exceeds the minimum state requirements for OSSF as of June 14, 2023.

The installer must be licensed by the State of Texas and have the governing authority to inspect the system at the required construction and inspection intervals.

This site lies in the FEMA floodplain 48091C0090F FIRM effective 9/2/2009

Criteria for Surface Application systems:

This is an aerobic pre-treatment/chlorination system with a surface application effluent disposal on this site. The aerobic unit must be NSF approved and meet all state and local requirements for effluent quality.

Design Principles:

Primary treatment of effluent will be accomplished using a NSF approved aerobic treatment unit. Treated effluent will then be distributed evenly over the disposal field area at night. Surface application will be the method of effluent dispersal and disposal. The surface soil conditions for this site are adequate to support vegetation growth.

Soil Analysis: Class IV

Note:
all piping shall be bedded with four inches class ib, class ii or, class iii soil with less than 30% gravel. the bedding soil shall be free of organic material and any rocks or grains larger than half inch.

all property lines and property pins must be verified prior to septic / ossf installation.
Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet

USE HYDROMULCHING REVEGETATION METHOD AROUND SPRAY AREA

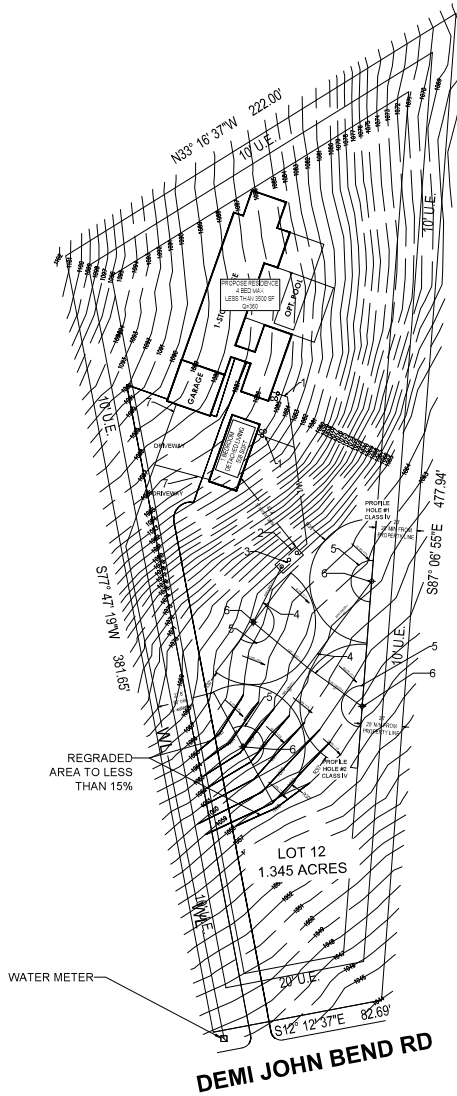
- HYDROMULCHING METHOD ADDS A FIBRE-MULCH TO THE MIXTURE OF SEED, FERTILISER, AND WATER. THE MULCH ESSENTIALLY PROVIDES A SAFEGUARD FOR THE SEED, HELPING IT RETAIN MOISTURE FOR FASTER GERMINATION AND GROWTH, WHILE PROTECTING THE SOIL FROM EROSION AND THE SEEDS FROM WASHING AWAY IN THE RAIN. THESE ORGANIC MULCH FIBRES ARE DESIGNED TO DEGRADE OVER SEVERAL MONTHS, MAKING WAY FOR VEGETATION GROWTH TO ESTABLISH.
- HYDROMULCH WILL KEEP THE SOIL IN PLACE AND DETER ANY FURTHER EROSION FROM HAPPENING SO THAT THE SITE REMAINS INTACT. HYDROMULCH OF LARGE AREAS IN NEW CONSTRUCTION, RECENTLY COMPLETED CONSTRUCTION, AND AREAS THAT HAVE BEEN BURNED OR TILLED FOR RECONSTRUCTION WILL BE TREATED WITH HYDROMULCH.

Additional Information:

- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be used to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
 - Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.
- Disposal Field Finish:
- The sprinkler system area shall be located in a relatively open area at least 100' away from any well and 10' from any property lines. Spray heads must be 10' from any obstacle.
 - The field area may have to be amended to create a slope of 15% or less, any exposed rock shall be removed or covered prior to operation with 4" suitable soil.
 - The field shall be maintained at all times (mowed).

COMPONENTS SCHEDULE

1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT 4 SCREW PLUG MIN 1" FALL PER FT	SEE SITE PLAN
2	AA750-4290 (75' GPM)	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE FERTILISER SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 1003 RCW #4 NOZZLE (180°)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN



RULES

Project
1752 Demi John
Bend Road
Drawn by
OUTSKIRTS
SEPTIC DESIGNS
Date
04/17/2025
Design by
DANUEL GONZALEZ

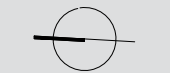


Owner
PACIFIC RBLF REO LLC
Address
1752 DEMIO JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

Property ID
R447873

Legal
Description
PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North



Scale 1" = 60'





SITE PLAN
OVERALL

SO.1

From: [Ritzen,Brenda](#)
To: [LibertyHillTX Septics & Excavation](#)
Subject: RE: Revisions 118165
Date: Thursday, April 17, 2025 2:03:00 PM
Attachments: [image001.png](#)

Terra,

I have reviewed the revised planning materials and found the following information is needed before I can continue processing the referenced revision submittal:

1. There is conflicting information on the permit application (pages 1 & 2) and the design on the number of bedrooms and sq. ft. of living area and system design requirements.
2. The permit application indicates that Greg Johnson is the agent for this permit.
3. The designer must sign the 2nd page of the permit application and the planning materials.
4. Designer must provide the following:
 - a. Sign the 2nd page of the permit application and the planning materials.
 - b.  Maintain required 20 ft. setback from the edge of the spray areas to the property lines.
 - c.  Indicate the amount of slope thru the spray area.
 - d.  Submit a vegetation plan for the spray area.
 - e.  Show location of water line to detached living area.
5. Revise as needed and resubmit.

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

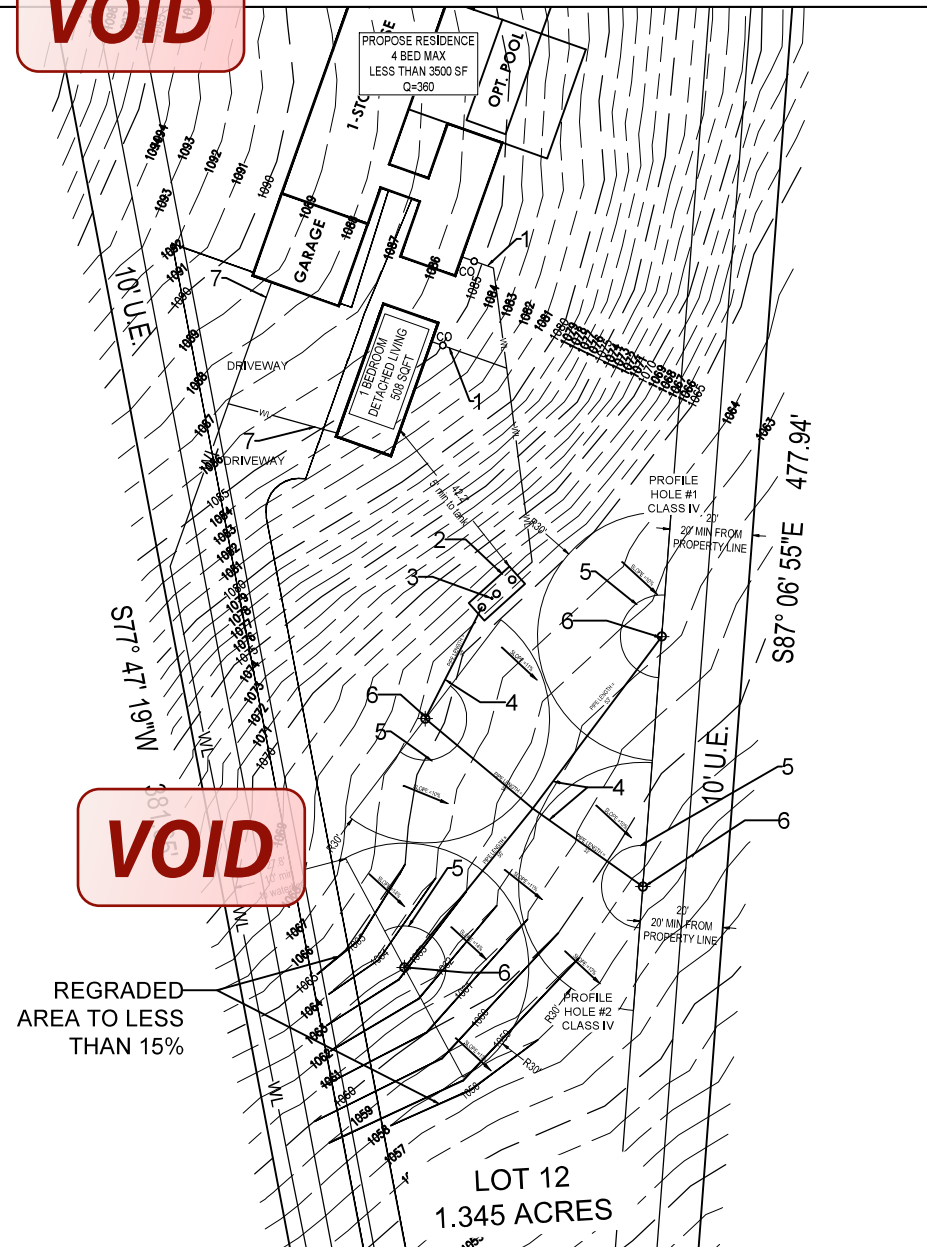
From: LibertyHillTX Septics & Excavation <lhtxseptics.excavation@gmail.com>
Sent: Thursday, April 17, 2025 11:44 AM
To: Ritzen,Brenda <rabbjr@co.comal.tx.us>; LHTX Contracting <lhtxseptics.excavation@gmail.com>
Subject: Fwd: Revisions 118 165

This email originated from outside of the organization.

10:51 am, Apr 23, 2025

VOID

COMPONENTS SCHEDULE		
1	3" or 4" SCH 40 W/ 2 WAY CLEANOUT # SCREW PLUG MIN $\frac{1}{8}$ " FALL PER 1'	SEE SITE PLAN
2	AA750-4290 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 11003 RCW #4 NOZZLE (180°)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN



1752 Demi John
Bend Road

OUTSKIRTS
SEPTIC DESIGNS

04/17/2025

DANUEL GONZALEZ



PACIFIC RBLF REO LLC

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

R447873

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

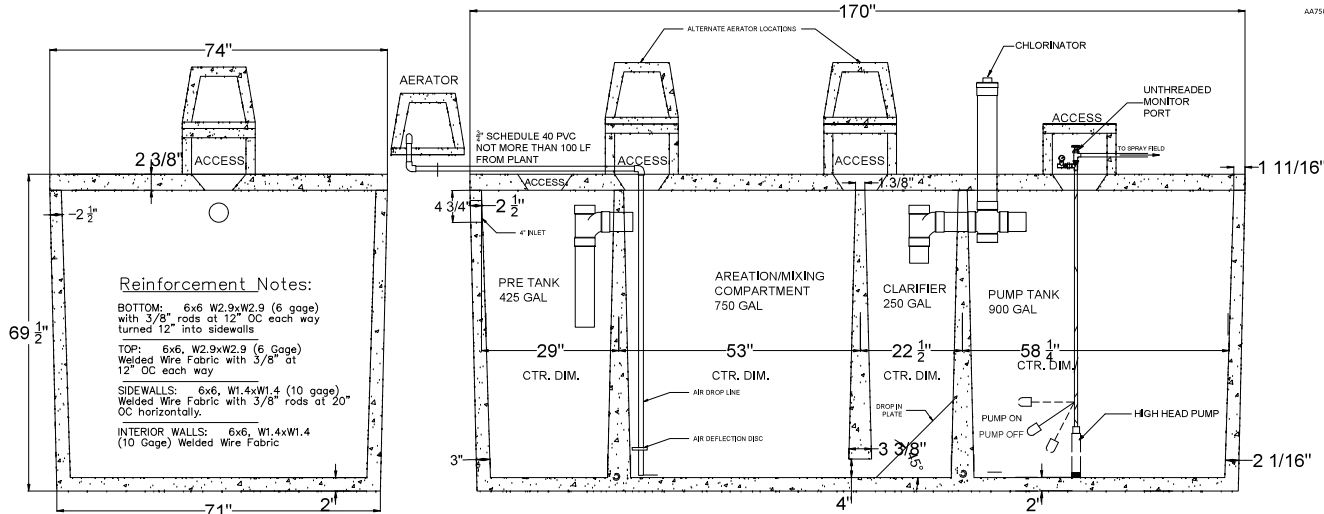
SITE PLAN

SO.2

REVISED

10:51 am, Apr 23, 2025

VOID



AA750-4250 Pump Chamber Volume - GPH

Inch Depth	Gallons in Cubic Inches	Total Gallons @ Depth
55	17.25147537	802.003357
54	17.22903071	884.739853
53	17.20661656	867.5108276
52	17.18423393	850.314211
51	17.13187981	833.1499781
50	17.0995572	816.0180983
49	17.0672551	798.8185411
48	17.03500392	781.851276
47	17.00277245	764.8162725
46	16.9705719	747.81135
45	16.93840185	730.8429281
44	16.90626232	713.9045263
43	16.87415331	696.982639
42	16.8420746	680.1241105
41	16.81002681	663.2820358
40	16.7780093	646.47209
39	16.7460237	629.6939997
38	16.71406592	612.9479773
37	16.68213988	596.2339114
36	16.65024455	579.5517714
35	16.61837964	562.9015269
34	16.58654524	546.2831472
33	16.55474135	529.698602
32	16.52296798	513.1418606
31	16.49122512	496.6188927
30	16.45951277	480.1276675
29	16.42783093	463.6681548
28	16.39617961	447.2403238
27	16.3645588	430.8441442
26	16.33296851	414.4795554
25	16.30140872	398.1466169
24	16.26987945	381.8452082
23	16.2383807	365.5752387
22	16.20691245	349.336848
21	16.17547472	333.1300356
20	16.14406676	316.9549609
19	16.11269084	300.8145094
18	16.08134461	284.6978026
17	16.05002893	268.616458
16	16.01874736	252.5666029
15	15.98748911	236.5476853
14	15.95626497	220.5601962
13	15.92507134	204.6039312
12	15.89390822	188.6785599
11	15.86277962	172.7849516
10	15.83167554	156.922176
9	15.80060196	141.080525
8	15.7695609	125.289905
7	15.73855059	109.5203396
6	15.70757931	93.7817808
5	15.67662079	78.07421897
4	15.64570178	62.39759818
3	15.61481328	46.7518064
2	15.5839553	31.13709312
1	15.55312782	15.55312782

ECOLOGICAL TANKS, INC 2247 HWY 151 NORTH DOWNSVILLE, LA 71234 318-644-0397 OFFICE 318-644-7257 FAX	Model AA750-4290	Total Volume: 2325 Gal.	Treatment Capacity: 750 GPD		BOD Loading: 1.75 #/Day
	NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN ANY RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF ECOLOGICAL TANKS, INC.	ENG: TJR	REV: 0	SCALE: NTS	DATE 6/6/20
					DRAWING NO. AA750-4290w.DWG

SYSTEM DATA:

Chlorinator:

- Tablet Chlorinator: Norweco LF-2000 (calcium hypochlorite tablets) or equivalent.
- Liquid Chlorinator: LBC500 (household liquid chlorine) or equivalent.

Pressure Gauge:

- Tank Pressure: 35.60 PSI.
- Flow Regulation: A pressure gauge and ball valve will be installed to regulate flow to irrigation heads.
- Pressure Regulator: Installed before each head to maintain 30 PSI.
- Collection Port:
- Installation: A plastic hose bib (unthreaded or equivalent) will be installed in the pump chamber for periodic effluent sampling.

Pump Timer:

- Controller Model: ETI model 203 with GRASSLIN / FM/1 STUZH-L or equivalent.
- Details: Refer to the site plan for calculation outputs.

Alarm System:

- Type: Audio/visual high water alarm (red light).
- Controller Model: ETI model 203 or equivalent.
- Location: Installed in a highly visible location near the pump tank.
- Function: The alarm will shut down the pump in case of aerator or system failure.

Head Loss and Pump selection - Using sch-40 PVC

General formula = Hazen Williams method.

$$h_{100ft} = 0.002083 (100 / c) 1.852 q^{1.852} / d^{4.8655}$$

Where,

h_{100ft} = head loss in feet of water per 100 ft of pipe (ft h20 /100 ft pipe)

c = Hazen-Williams roughness constant

q = volume flow (gal/min)

d = inside diameter of pipe (inches)

Loss in Supply line to

Head 1 = 1" Supply (13.6 GMP) @ 30 feet = 3.71 Loss (ft)

Pipe to split point = 1" Supply (10.2 GMP) @ 34 feet = 2.46 Loss (ft)

Head 2 = 1" Supply (3.4 GMP) @ 53 feet = 0.50 Loss (ft)

Head 3 = 1" Supply (3.4 GMP) @ 33 feet = 0.31 Loss (ft)

Head 4 = 1" Supply (3.4 GMP) @ 53 feet = 0.50 Loss (ft)

Loss in Fittings (20%) = 7.45 (1.20) = 8.94 Loss (ft)

Elevation (including from pump) = 4 feet

Head pressure for Nozzle
30 PSI x 2.31 = 69.3 feet

Total Loss in feet = 8.94 + 4 + 69.3 = 82.24 feet or 35.60 PSI

Provide 13.6 GPM @ 82.24 Ft

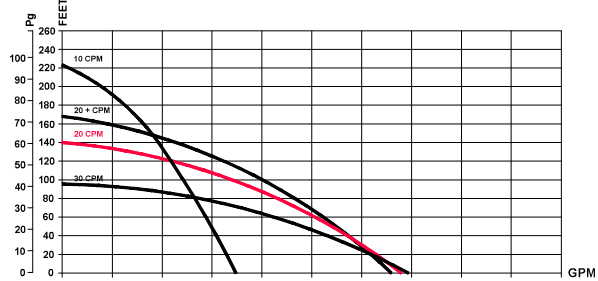
Use: Ashland Pump 10CPM-115 (see spec sheet) or equivalent

Pump Float and Alarm settings:

AA-500-4075 Pump Tank: 902 gal (see table for gals/inch):

- Alarm Height = 37 inches
- Operational Vol = 300 gal - (18" or 305.767 gal)
- Pump on = 8 inches (502.451 gal)
- Pump off = 6 inches (93.782 gal)

ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE ASHLAND PUMP 20 CPM-115 or EQUIVALENT



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

04/17/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale NTS

OSSF DETAILS

SO.3

REVISED

10:51 am, Apr 23, 2025

VOID

TAKING CARE OF YOUR SYSTEM

To prevent your system from failing, there are several important considerations that must be taken into account to ensure that the system functions properly, including:

1. Maintenance: Regular maintenance of the system is essential to prevent problems and ensure that it continues to function properly. This includes regular pumping of the septic tank, inspection of the distribution box and drainfield, and other routine tasks.
 2. Water usage: The amount of water used in the household can have a significant impact on the performance of the system. It is important to avoid excessive water usage, such as running multiple appliances or fixtures simultaneously, as this can overwhelm the system and cause it to fail.
 3. Landscaping: Careful landscaping around the drainfield area is important to ensure that the system functions properly. It is important to avoid planting trees or shrubs near the drainfield, as the roots can damage the pipes and prevent proper drainage.
- The following guidelines can help you to avoid these types of chemicals as they should not be disposed of into the system which include any harsh or toxic chemicals that can damage the beneficial bacteria in the septic tank that help to break down waste. This includes the following:
4. Household cleaners: Many common household cleaners contain harsh chemicals that can harm the bacteria in the septic tank. Examples include bleach, disinfectants, and drain cleaners.
 5. Personal care products: Certain personal care products, such as soaps, shampoos, and lotions, can contain chemicals that are harmful to the septic system. It is important to use these products in moderation and to avoid excessive use.
 6. Pesticides and herbicides: Any type of pesticide or herbicide should be avoided, as these can harm the bacteria in the septic tank and may also contaminate the surrounding environment.
 7. Medications: Unused or expired medications should never be disposed of into the septic system, as they can harm the bacteria in the septic tank and may also contaminate the surrounding environment.

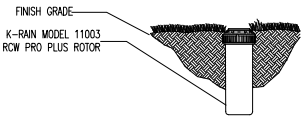
Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet

Additional Information:

- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
- Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.

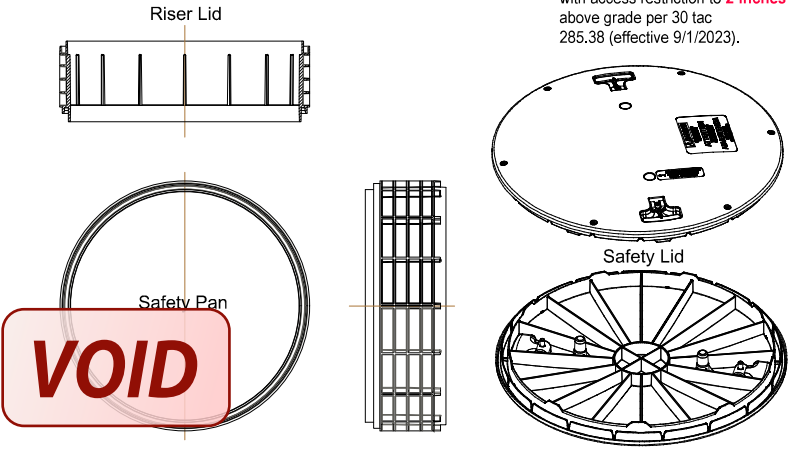
K-RAIN PROPLUS 11003 RCW,
PERFORMANCE DATA

LOW ANGLE DATA			
NOZZLE	PRESSURE PSI	RADIUS FT.	FLOW GPM
#1	30	22'	1.2
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
#6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6



K PRO PLUS 1103 RCW ROTOR
IRRIGATION INSTALLATION DETAIL

RISER DETAIL w/OPTIONAL COMPONENTS
TYPICAL NTS
DIAMETER AND DEPTH VARIES



Risers must be securely attached, watertight, and protected against unauthorized access. Risers and tank inspection ports will be required to have access safety provisions per 30 TAC 285.38 (12/29/2016).

All tank ports larger than 12-inches in diameter to have risers with access restriction to **2-inches** above grade per 30 tac 285.38 (effective 9/1/2023).



RULES

Project
1752 Demi John
Bend Road
Drawn by
OUTSKIRTS
SEPTIC DESIGNS
Date
04/17/2025

Design by
DANUEL GONZALEZ



Owner
PACIFIC RBLF REO LLC

Address
1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

Property ID
R447873

Legal
Description
PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale
NTS
OSSF DETAILS

50.4

* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * * *

VOID

APPLICATION FOR PERMIT TO CONSTRUCT AN
ON-SITE SEWAGE TREATMENT FACILITY AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.System Description PROPRIETARY; AEROBIC TREATMENT AND SURFACE IRRIGATION

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

Tank Size(s) (Gallons) MAXX AIR M800 Absorption/Application Area (Sq Ft) 5654Gallons Per Day (As Per TCEQ Table III) 360

(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.)

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 ☐ NoIs there an existing TCEQ approval CZP for the property? ☒ Yes ☐ No

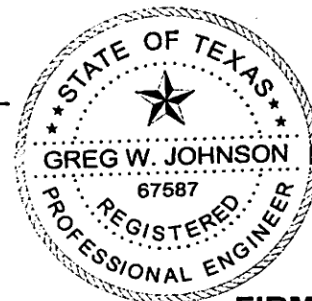
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

If there is no existing CZP, does the proposed development 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

10/25/2021
Date

VOID

Greg W. Johnson, P.E.

170 Hollow Oak

New Braunfels, Texas 78132

830/905-2778

October 23, 2021

Comal County Office of Environmental Health

195 David Jonas Drive

New Braunfels, Texas 78132-3760

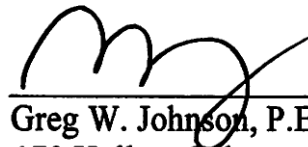
RE- SEPTIC DESIGN
1752 DEMI JOHN BEND RD.
PARADISE ON THE GUADALUPE, UNIT 1, LOT 12
CANYON LAKE, TX 78133
MIDCENTURY CUSTOM HOMES, LLC

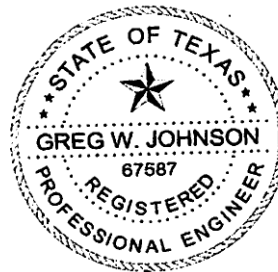
Ms. Brenda Ritzen/Allyse Gros,

The referenced property is located within the Edwards Aquifer Contributing Zone. This OSSF design will comply with requirements in the CZP.

Temporary erosion and sedimentation controls should be utilized as necessary prior to construction. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, activities must be suspended immediately and the applicant or his agent must immediately notify the TCEQ Regional Office. After that operations can only proceed after the Executive Director approves **VOID** additional engineered impact plans.

Designed in accordance with Chapter 285, Subchapter D, §285.40, 285.41, & 285.42, Texas Commission on Environmental Quality (Effective December 29, 2016).

 10/23/2021
Greg W. Johnson, P.E. No. 67587 / F#2585
170 Hollow Oak
New Braunfels, Texas 78132 - 830/905-2778



Greg **VOID** Johnson, P.E.
170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778

October 25, 2021

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, Texas 78132-3760

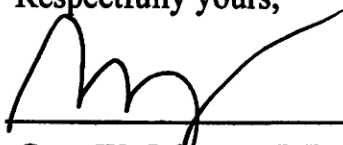
RE- Septic Design
1752 DEMI JOHN BEND RD
PARADISE ON THE GUADALUPE, UNIT 1, LOT 12
CANYON LAKE, TX 78133
MIDCENTURY CUSTOM HOMES, LLC

Ms. Ritzen/Gros,

Due to the lack of available application area it is necessary to have the setback from the property line to the spray at ten feet as required by TCEQ Chapter 285 rules Table X. I hereby request a variance to the twenty foot setback to property lines as required by Comal County Order and equivalent protection will be maintained by including a battery backup to the timer clock to assure sprayers to only spray during the predawn hours. In my professional opinion this variance will not pose a threat to the environment or public health.

If I can be of further assistance please contact me.

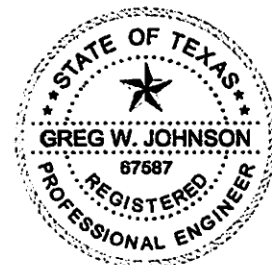
Respectfully yours,



Greg W. Johnson, P.E., F#2585

October 25, 2021

Date



VOID

REVISED

12:53 pm, Apr 17, 2025

OSSF DESIGN

Proposed system information:

The design is for a single family home that is:

5 bedrooms or 4,500 sq ft or less

Total Q = 360 GPD Gallons per day using water saving devices.

Field Disposal Calculations:

The designed load for this system is 360 GPD.

Spray Irrigation:

- Required Field Area: $360 \div 0.064 = 5,625$ sq. ft. minimum field area
- Provided Field Area: **5,654.87** sq. ft.

Sprinkler Heads:

- Number of Heads: 4 (30' Radius @ 180-degree angle.)
- Coverage Area per Head: 1,413.72 sq. ft.
- Sprinkler Setting: 30 PSI, utilizing a 30' radius
- Minimum Spacing of Heads: (refer to site plan)
- Flow (GPM) per Field: (4×3.4) GPM = 13.6 GPM

Total Daily Irrigation Time:

- $360 \text{ GPD} \div 13.6 \text{ GPM} = 26.47$ minutes/day
- Set timer for 30 minutes starting at 2 AM

OSSF DESIGN PROVISIONS

Table IX. OSSF System Designation of the Texas Administrative Code, which is part of Chapter 285 of the On-Site Sewage Facility (OSSF) Rules, specifies the design standards for sewage disposal systems. This section notes that a professional engineer, registered sanitarian is required for the design of Surface Application systems and its planning materials provided that it meets all requirements outlined in the rules.

This design fulfills all the criteria for the design and installation of this system, encompassing aspects such as soil analysis, system sizing, and component placement, among others. The regulations provide comprehensive guidelines and specifications for the design and installation of this system. This OSSF design meets and exceeds the minimum state requirements for OSSF as of June 14, 2023.

The installer must be licensed by the State of Texas and have the governing authority to inspect the system at the required construction and inspection intervals.

This site lies in the FEMA floodplain 48091C0090F FIRM effective 9/2/2009

Criteria for Surface Application systems:

This is an aerobic pre-treatment/chlorination system with a surface application effluent disposal on this site. The aerobic unit must be NSF approved and meet all state and local requirements for effluent quality.

Design Principles:

Primary treatment of effluent will be accomplished using a NSF approved aerobic treatment unit. Treated effluent will then be distributed evenly over the disposal field area at night. Surface application will be the method of effluent dispersal and disposal. The surface soil conditions for this site are adequate to support vegetation growth.

Soil Analysis: Class IV

Note:
all piping shall be bedded with four inches class ib, class ii or, class iii soil with less than 30% gravel. the bedding soil shall be free of organic material and any rocks or grains larger than half inch.

all property lines and property pins must be verified prior to septic / ossf installation.

Minimum Required Separation Distances for OSSF

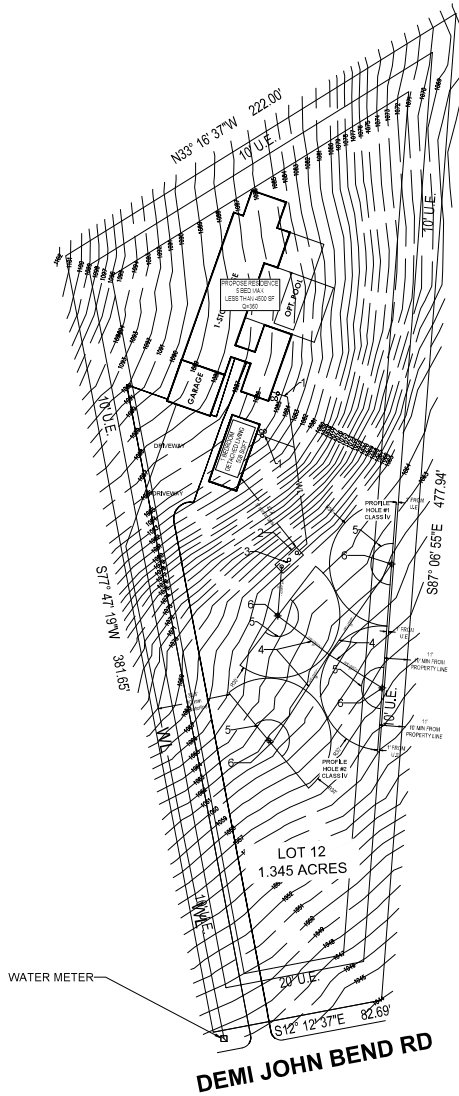
Building foundation to sewage treatment tank: 5 Feet

Soil absorption trench to groundwater: 3 Feet

Soil absorption system or sewer pipe to property lines: 5 Feet

Soil absorption system or sewer pipe to water-lines: 10 Feet

Soil absorption system to public utility easements: 1 Feet



Additional Information:

- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be used to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope,

- Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.

Disposal Field Finish:

- The sprinkler system area shall be located in a relatively open area at least 100' away from any well and 10' from any property lines. Spray heads must be 10' from any obstacle.
- The field area may have to be amended to create a slope of 15% or less, any exposed rock shall be removed or covered prior to operation with 4" suitable soil.
- The field shall be maintained at all times (mowed).

COMPONENTS SCHEDULE

VOID		
1	3" or 4" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
2	AA150-4230 (750 GPD) ATU	SEE DETAIL
3	CHLORINATOR	SEE DETAIL
4	1" SCH-40 PVC PURPLE PIPE (USE SCH-40 SLEEVE UNDER ANY IMPROVEMENTS)	SEE SITE PLAN
5	10' RADIUS TO A TREE	SEE SITE PLAN
6	30' RADIUS K-RAIN PROPLUS 1003 RCW #4 NOZZLE (180°)	SEE SITE PLAN
7	WATER LINE INTO HOME	SEE SITE PLAN



RULES

Project

1752 Demi John Bend Road

Drawn by

OUTSKIRTS SEPTIC DESIGNS

Date

04/16/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN BEND ROAD
CANYON LAKE, TX 78133

COMAL COUNTY

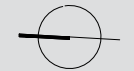
Property ID

R447873

Legal Description

PARADISE ON THE GUADALUPE
LOT 12 UNIT 1

North

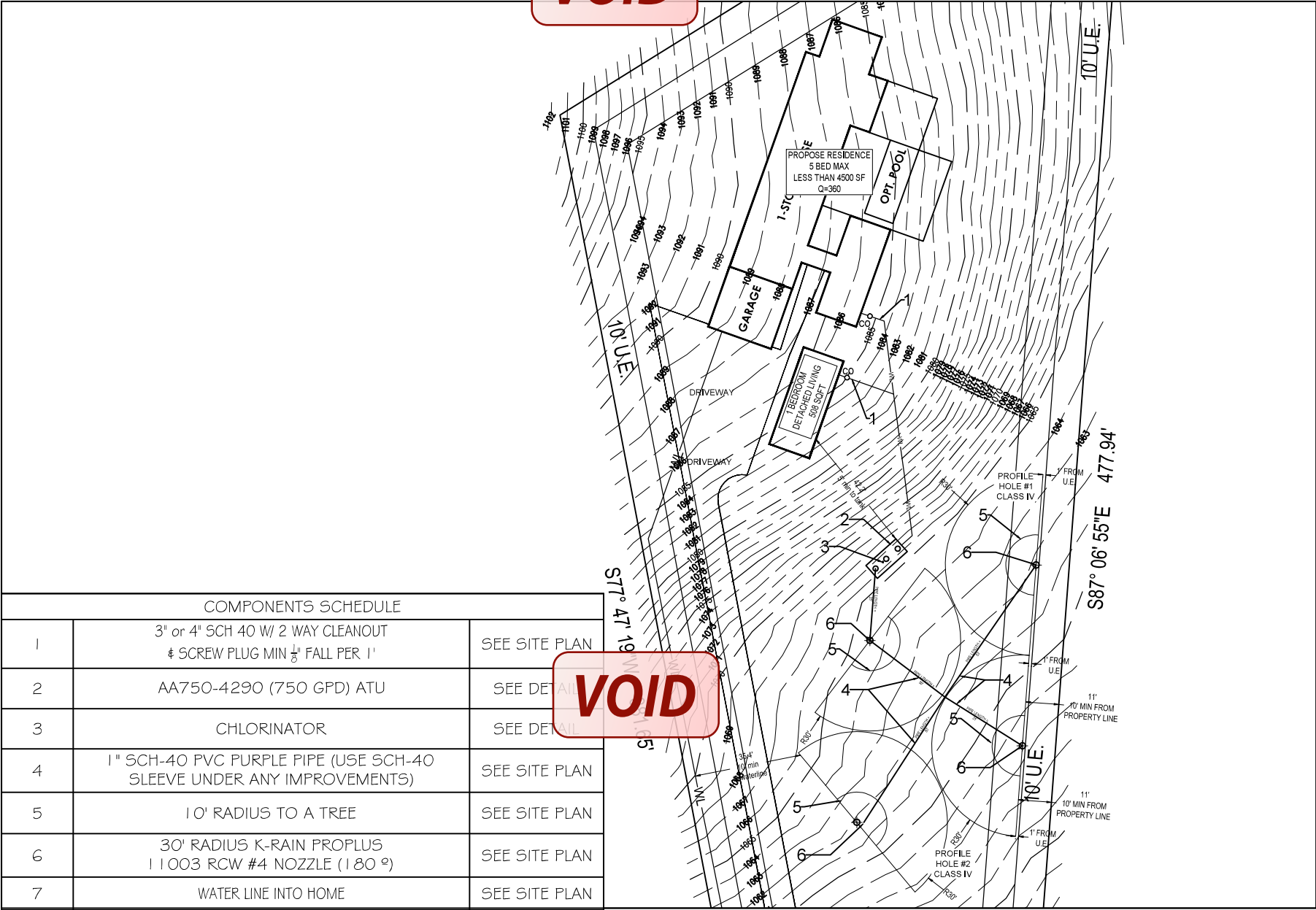


Scale 1" = 60'

SITE PLAN OVERALL

SO.1

VOID




RULES

Project
1752 Demi John
Bend Road

Drawn by
OUTSKIRTS
SEPTIC DESIGNS

Date
04/16/2025

Design by
DANUEL GONZALEZ



Owner
PACIFIC RBLF REO LLC

Address
1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

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PARADISE ON THE
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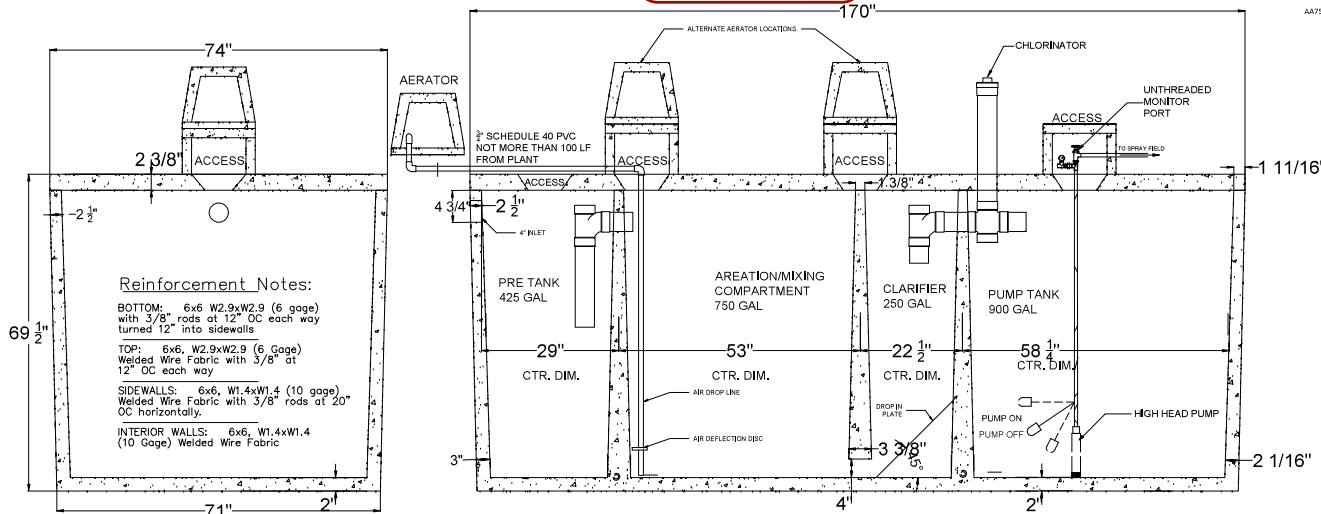

Scale
1" = 30'

SITE PLAN
S0.2

VOID

REVISED

12:54 pm, Apr 17, 2025



AA750-4290 Pump Chamber Volume - GPH

Inch Depth	Gallons in Cubic Inches	Total Gallons @ Depth
55	17.25147537	802.001337
54	17.22903071	884.739883
53	17.20661656	867.5108276
52	17.18423393	850.314211
51	17.16187981	833.1499781
50	17.0995572	816.0180983
49	17.0671651	798.8185411
48	17.03500392	781.851276
47	17.00277245	764.8162725
46	16.9705719	747.81135
45	16.93840185	730.8422981
44	16.90626232	713.9045263
43	16.87415331	696.9982639
42	16.8420746	680.1241105
41	16.81002681	663.2820358
40	16.77800993	646.47209
39	16.74602337	629.6939997
38	16.71406592	612.9479773
37	16.68213198	596.2339114
36	16.65024455	579.5517714
35	16.61837964	562.9015269
34	16.58654524	546.2831472
33	16.55474135	529.698602
32	16.52296798	513.1418606
31	16.49122512	496.6188927
30	16.45951277	480.1276675
29	16.42783093	463.6681548
28	16.39617961	447.2403238
27	16.3645588	430.8441442
26	16.33296851	414.479554
25	16.30140872	398.1466169
24	16.26997945	381.8452082
23	16.2386807	365.5752287
22	16.20851245	349.336848
21	16.17847472	333.1300356
20	16.14846076	316.9546609
19	16.11846984	300.8145894
18	16.08849441	284.6978026
17	16.05853493	268.616458
16	16.02859176	252.566029
15	15.99874811	236.5476853
14	15.96892497	220.5601962
13	15.93912014	204.6039112
12	15.89930822	188.6785599
11	15.86277962	172.7849516
10	15.83167354	156.922176
9	15.80060196	141.080525
8	15.76956609	125.289005
7	15.73856593	109.5203596
6	15.707597031	93.7847802
5	15.67662079	78.07421897
4	15.64570178	62.39759818
3	15.614801228	46.7518064
2	15.5839553	31.13709312
1	15.55312782	15.55312782

ECOLOGICAL TANKS, INC 2247 HWY 151 NORTH DOWNSVILLE, LA 71234 318-644-0397 OFFICE 318-644-7257 FAX	Model AA750-4290 <small>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN ANY RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF ECOLOGICAL TANKS, INC.</small>	Total Volume: 2325 Gal.	Treatment Capacity: 750 GPD	BOD Loading: 1.75 #/Day
ENG: TJR	REV:0	SCALE: NTS	DATE: 6/6/20	DRAWING NO. AA750-4290w.DWG

SYSTEM DATA:

Chlorinator:

- Tablet Chlorinator: Norweco LF-2000 (calcium hypochlorite tablets) or equivalent.
- Liquid Chlorinator: LBC500 (household liquid chlorine) or equivalent.

Pressure Gauge:

- Tank Pressure: 34.90 PSI.
- Flow Regulation: A pressure gauge and ball valve will be installed to regulate flow to irrigation heads.
- Pressure Regulator: Installed before each head to maintain 30 PSI.
- Collection Port:
- Installation: A plastic hose bib (unthreaded or equivalent) will be installed in the pump chamber for periodic effluent sampling.

Pump Timer:

- Controller Model: ETI model 203 with GRASSLIN / FM/1 STUZH-L or equivalent.
- Details: Refer to the site plan for calculation outputs.

Alarm System:

- Type: Audio/visual high water alarm (red light).
- Controller Model: ETI model 203 or equivalent.
- Location: Installed in a highly visible location near the pump tank.
- Function: The alarm will shut down the pump in case of aerator or system failure.

Head Loss and Pump selection - Using sch-40 PVC

General formula = Hazen Williams method.

$h_{100ft} = 0.002083 (100 / c) 1.852 q^{1.852} / d^{4.8655}$

Where,

h_{100ft} = head loss in feet of water per 100 ft of pipe (ft h20 /100 ft pipe)

c = Hazen-Williams roughness constant

q = volume flow (gal/min)

d = inside diameter of pipe (inches)

Loss in Supply line to

Head 1 = 1" Supply (13.6 GPM) @ 25 feet = 3.09 Loss (ft)

Pipe to split point = 1" Supply (13.6 GPM) @ 25 feet = 1.73 Loss (ft)

Head 2 = 1" Supply (13.6 GPM) @ 25 feet = 0.47 Loss (ft)

Head 3 = 1" Supply (13.6 GPM) @ 25 feet = 0.29 Loss (ft)

Head 4 = 1" Supply (13.6 GPM) @ 25 feet = 0.50 Loss (ft)

Loss in Fittings (20%) = 6.08 (1.20) = 7.30 Loss (feet)

Elevation (including from pump) = 4 feet

Head pressure for Nozzle
30 PSI x 2.31 = 69.3 feet

Total Loss in feet = 7.30 + 4 + 69.3 = 80.60 feet or 34.90 PSI

Provide 13.6 GPM @ 80.60 Ft

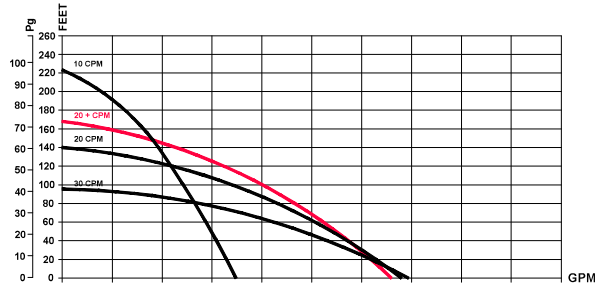
Use: Ashland Pump 10CPM-115 (see spec sheet) or equivalent

Pump Float and Alarm settings:

AA-500-4075 Pump Tank: 902 gal (see table for gals/inch):

- Alarm Height = 37 inches
- Operational Vol = 300 gal - (18" or 305.767 gal)
- Pump on = 8 inches (502.451 gal)
- Pump off = 6 inches (93.782 gal)

ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE ASHLAND PUMP 20 + CPM-115 or EQUIVALENT



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

04/16/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133
COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale

NTS

OSSF DETAILS

SO.3

VOID

REVISED

12:54 pm, Apr 17, 2025

TAKING CARE OF YOUR SYSTEM

To prevent your system from failing, there are several important considerations that must be taken into account to ensure that the system functions properly, including:

1. Maintenance: Regular maintenance of the system is essential to prevent problems and ensure that it continues to function properly. This includes regular pumping of the septic tank, inspection of the distribution box and drainfield, and other routine tasks.
 2. Water usage: The amount of water used in the household can have a significant impact on the performance of the system. It is important to avoid excessive water usage, such as running multiple appliances or fixtures simultaneously, as this can overwhelm the system and cause it to fail.
 3. Landscaping: Careful landscaping around the drainfield area is important to ensure that the system functions properly. It is important to avoid planting trees or shrubs near the drainfield, as the roots can damage the pipes and prevent proper drainage.
- The following guidelines can help you to avoid these types of chemicals as they should not be disposed of into the system which include any harsh or toxic chemicals that can damage the beneficial bacteria in the septic tank that help to break down waste. This includes the following:
4. Household cleaners: Many common household cleaners contain harsh chemicals that can harm the bacteria in the septic tank. Examples include bleach, disinfectants, and drain cleaners.
 5. Personal care products: Certain personal care products, such as soaps, shampoos, and lotions, can contain chemicals that are harmful to the septic system. It is important to use these products in moderation and to avoid excessive use.
 6. Pesticides and herbicides: Any type of pesticide or herbicide should be avoided, as these can harm the bacteria in the septic tank and may also contaminate the surrounding environment.
 7. Medications: Unused or expired medications should never be disposed of into the septic system, as they can harm the bacteria in the septic tank and may also contaminate the surrounding environment.

Minimum Required Separation Distances for OSSF
Building foundation to sewage treatment tank: 5 Feet
Soil absorption trench to groundwater: 3 Feet
Soil absorption system or sewer pipe to property lines: 5 Feet
Soil absorption system or sewer pipe to water-lines: 10 Feet
Soil absorption system to public utility easements: 1 Feet

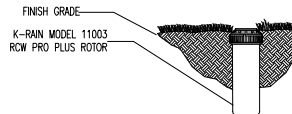
Additional Information:

- Curlex shall be used for stabilizing over the imported soils for the entire field or a vegetative cover is to be use to cover all drain fields prior to final inspection being passed, if field area is greater than 10% slope.
- Any future potable water line, such as swimming pool, irrigation etc must maintain 10' separation to any ossf component.

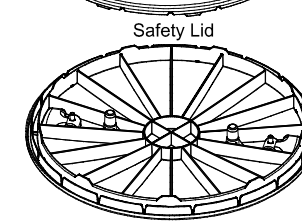
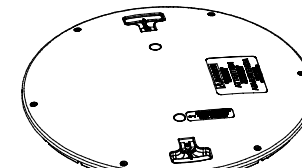
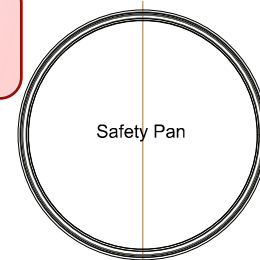
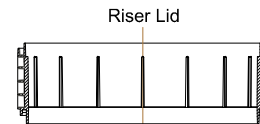
K-RAIN PROPLUS 11003 RCW,
PERFORMANCE DATA

LOW ANGLE DATA

NOZZLE #1	PRESSURE PSI	RADIUS FT.	FLOW GPM
30	22'	1.2	
40	24'	1.7	
50	26'	1.8	
60	28'	2.0	
#3	30	29'	3.0
40	32'	3.1	
50	35'	3.5	
60	37'	3.8	
#4	30	31'	3.4
40	34'	3.9	
50	37'	4.4	
60	38'	4.7	
#6	40	38'	6.5
50	40'	7.3	
60	42'	8.0	
70	44'	8.6	



K RAIN PRO PLUS 1103 RCW ROTOR
IRRIGATION INSTALLATION DETAIL

RISER DETAIL w/OPTIONAL COMPONENTS
TYPICAL NTS
DIAMETER AND DEPTH VARIES

Risers must be securely attached, watertight, and protected against unauthorized access. Risers and tank inspection ports will be required to have access safety provisions per 30 TAC 285.38 (12/29/2016).

All tank ports larger than 12-inches in diameter to have risers with access restriction to **2-inches** above grade per 30 tac 285.38 (effective 9/1/2023).



RULES

Project

1752 Demi John
Bend Road

Drawn by

OUTSKIRTS
SEPTIC DESIGNS

Date

04/16/2025

Design by

DANUEL GONZALEZ



Owner

PACIFIC RBLF REO LLC

Address

1752 DEMI JOHN
BEND ROAD
CANYON LAKE, TX
78133

COMAL COUNTY

Property ID

R447873

Legal

Description

PARADISE ON THE
GUADALUPE
LOT 12 UNIT 1

North

Scale NTS

OSSF DETAILS

S0.4

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

VOID

Date Soil Survey Performed: October 22, 2021

Site Location: PARADISE on the GUADALUPE, UNIT 1, LOT 12

Proposed Excavation Depth: N/A

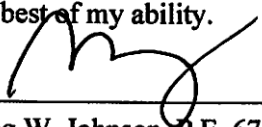
Requirements:

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	IV	CLAY	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

10/22/2021
Date

FIRM #2585

VOID

LOT 12

GARAGE

4 BDRM RES.
2803sf

POOL

MAXX AIR M-800
AEROBIC TREATMENT
PLANT

1 BDRM
DETACHED
LIVING
508sf

DRIVEWAY

VOID

SPRAY AREA = 5654sf

X= TEST HOLES



OWNER: MIDCENTURY CUSTOM HOMES, LLC.		DRAWN BY: EJS III	
STREET ADDRESS: 1752 DEMI JOHN BEND RD.			
LEGAL DESC: PARADISE on the GUADALUPE	UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 12
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=40'	DATE: 10/25/2021	REVISED:

VOID

LOT 12

222.00'

10' UTILITY EASEMENT

GARAGE

4 BDRM RES. 2803sf

POOL

1 BDRM DETACHED LIVING 508sf

DRIVEWAY

59'10S

59'

59'

34'

60'

52'

60'

60'

60'

11'

11'

11'

80'

82.69'

DEMI JOHN BEND ROAD

MAXX AIR M-800 AEROBIC TREATMENT PLANT

SPRAY AREA = 5654sf

X = TEST HOLES

VOID



OWNER: MIDCENTURY CUSTOM HOMES, LLC.		DRAWN BY: EJS III	
STREET ADDRESS: 1752 DEMI JOHN BEND RD.			
LEGAL DESC: PARADISE on the GUADALUPE		UNIT/SECTION/PHASE: 1	BLOCK: LOT: 12
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=60'	DATE: 10/25/2021	REVISED:

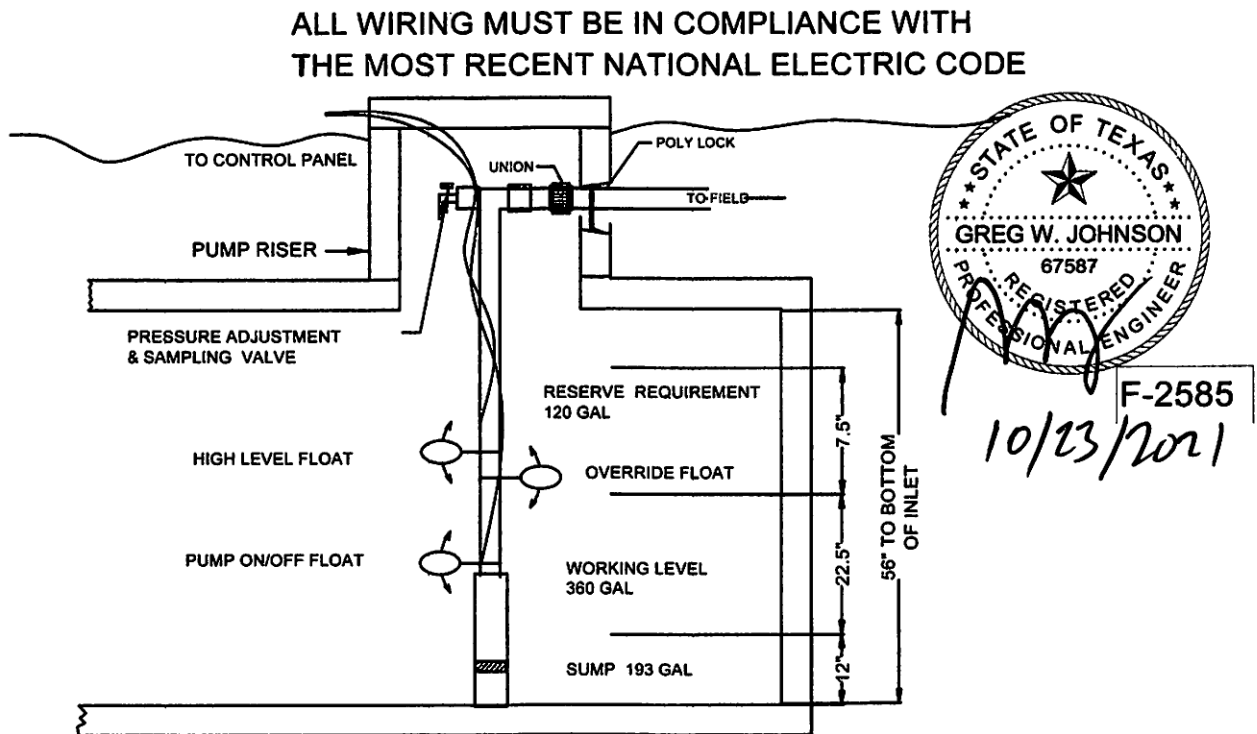
TANK NOTES:

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

Tightlines to the tank shall be SCH-40 PVC.

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

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



**TYPICAL PUMP TANK CONFIGURATION
MAXX AIR-M800 PUMP TANK**

Exceptions to Conveyance and Warranty: All presently recorded restrictions, reservations, easements, covenants and conditions that affect the property and taxes for the current year, the payment of which Grantee assumes.

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 when the claim is by, through, or under Grantor but not otherwise, 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.

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

PARADISE I ON THE GUADALUPE, LLC
a Texas limited liability company

By: [Signature]
Printed Name: Harry B. Adams IV
Title: Vice President

THE STATE OF TEXAS *
COUNTY OF BEXAR *

This instrument was acknowledged before me on this the 29th day of September, 2021, by Harry B. Adams IV, Vice President of PARADISE I ON THE GUADALUPE, LLC, a Texas limited liability company, in the capacity therein stated on behalf of said company.



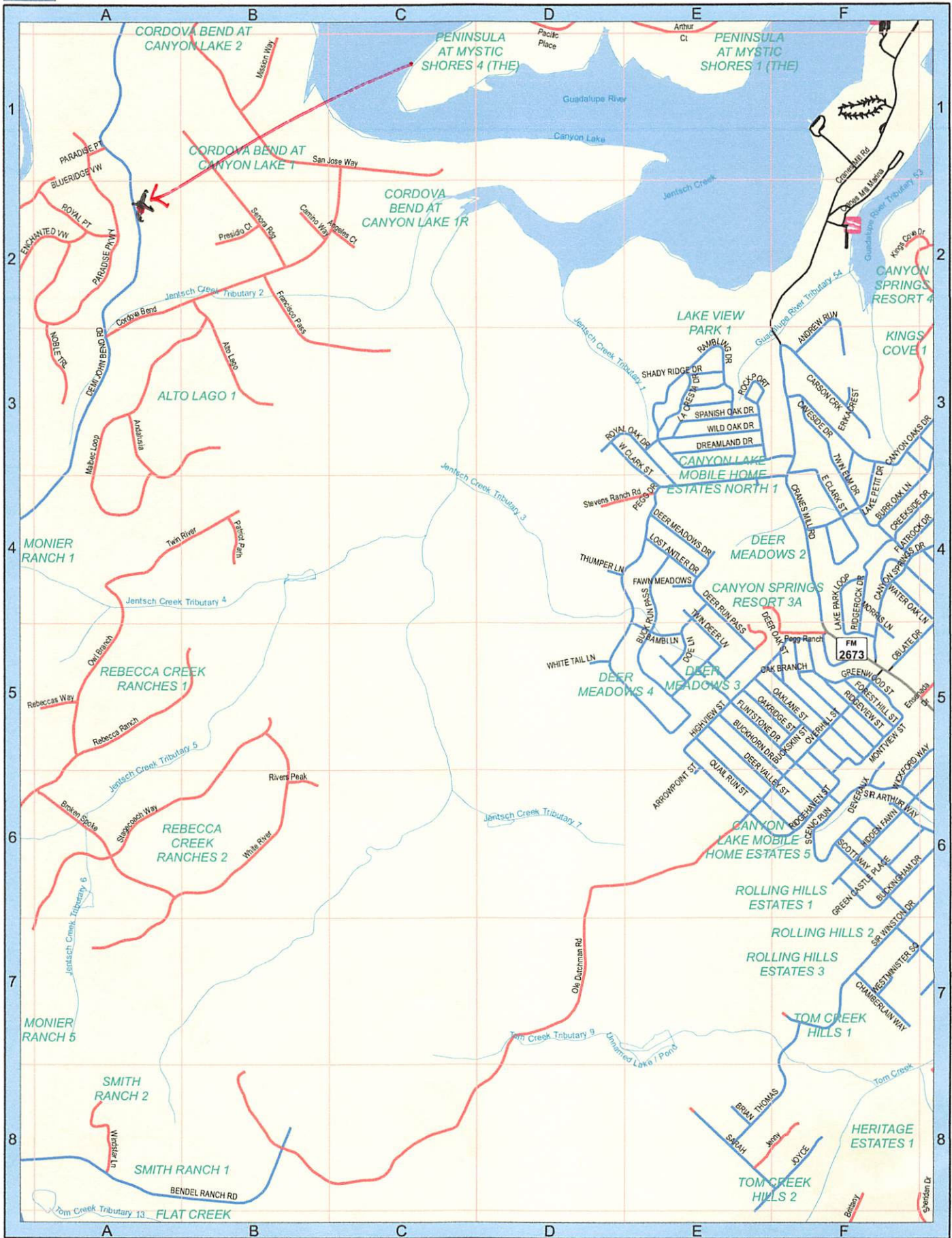
AFTER RECORDING RETURN TO
New Braunfels Title Company
GF No. NBT-2282-2021

[Signature]
NOTARY PUBLIC, STATE OF TEXAS

PREPARED IN THE LAW OFFICE OF:
Kristen Quinney Porter
P.O. Box 312643
New Braunfels, Texas 78131-2643

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
09/30/2021 12:07:41 PM
CASHONE 2 Pages(s)
202106051358

Bobbie Koepp



SEE PAGE 29



0 1,250 2,500
Feet

0 0.25 0.5
Miles



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: 114346
Issued This Date: 04/19/2022
This permit is hereby given to: MIDCENTURY CUSTOM HOMES, LLC

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

1752 DEMI JOHN BEND RD
CANYON LAKE, TX 78133

Subdivision: PARADISE ON THE GUADALUPE
Unit: 1
Lot: 12
Block: 0
Acreage: 0.0000

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Surface 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

--	--

Date Received

Initials

114346

Permit Number

118165

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

12/12/2024

Date

<input type="checkbox"/> COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

<input type="checkbox"/> INCOMPLETE APPLICATION (Missing Items Circled, Application Refused)	
---	--