

RECEIVED

By Kathy Griffin at 1:24 pm, Nov 10, 2025



**COMAL COUNTY**  
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION  
CHECKLIST**

*Staff will complete shaded items*

--	--

*Date Received*

*Initials*

119168
--------

*Permit Number*

**Instructions:**

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

**OSSF Permit**

- ☒ Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
- ☒ Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer
- ☒ Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.
- ☒ Required Permit Fee - See Attached Fee Schedule
- ☒ Copy of Recorded Deed
- ☒ Surface Application/Aerobic Treatment System
  - ☒ Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
  - ☒ Signed Maintenance Contract with Effective Date as Issuance of License to Operate

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

\_\_\_\_\_  
Signature of Applicant

11/08/2025

\_\_\_\_\_  
Date

\_\_\_ COMPLETE APPLICATION

Check No. \_\_\_\_\_ Receipt No. \_\_\_\_\_

INCOMPLETE APPLICATION

\_\_\_ (Missing Items Circled, Application Refused)



COMAL COUNTY  
ENGINEER'S OFFICE

# ON-SITE SEWAGE FACILITY APPLICATION

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

Date August 19, 2025

Permit Number 119168

## 1. APPLICANT / AGENT INFORMATION

Owner Name MARIA L. GREEN LIVING TRUST  
Mailing Address 5854 BURKLEY SPRINGS ST.  
City, State, Zip SAN ANTONIO TEXAS 78233  
Phone # 210-701-4680  
Email msmlgren@yahoo.com

Agent Name GREG JOHNSON, P.E.  
Agent Address 170 HOLLOW OAK  
City, State, Zip NEW BRAUNFELS TEXAS 78132  
Phone # 830-805-2778  
Email gregjohnsonpe@yahoo.com

## 2. LOCATION

Subdivision Name EMERALD VALLEY Unit        Lot 71A Block         
Survey Name / Abstract Number        Acreage         
Address 490 JAYLEE City CANYON LAKE State TX Zip 78133

## 3. TYPE OF DEVELOPMENT

☒ Single Family Residential

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

Number of Bedrooms 4

Indicate Sq Ft of Living Area 2960

☐ 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: \$ 600,000 (Structure Only)

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

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

Source of Water ☒ Public ☐ Private Well ☐ Rainwater Collection

## 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.

Maria L. Green  
Signature of Owner

Oct 16, 2025  
Date



COMAL COUNTY  
ENGINEER'S OFFICE

## ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR  
NEW BRAUNFELS, TX 78132  
(830) 608-2090  
[WWW.CCEO.ORG](http://WWW.CCEO.ORG)

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

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

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

Tank Size(s) (Gallons) SOLAR AIR SA600LP Absorption/Application Area (Sq Ft) 2400

Gallons Per Day (As Per TCEQ Table III) 300

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

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

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

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(If yes, the R.S. or P. E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

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

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

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(if yes, the P.E. or R.S. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city? ☐ Yes ☒ No

If yes, indicate the city: \_\_\_\_\_



**FIRM #2585**

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable

Signature of Designer

August 20, 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 (OSSFs), 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):

\_\_\_\_\_ UNIT/PHASE/SECTION \_\_\_\_\_ BLOCK T1A LOT \_\_\_\_\_ EMERALD VALLEY \_\_\_\_\_ SUBDIVISION

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

The property is owned by (insert owner's full name): MARIA L GREEN LIVING TRUST,  
MARIA L GREEN, TRUSTEE

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 15 DAY OF OCTOBER, 2025

*Maria L. Green*  
Owner(s) signature(s)

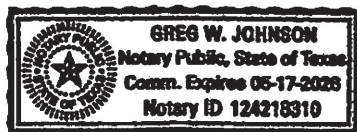
MARIA L GREEN - TRUSTEE  
Owner (s) Printed name (s)

MARIA L. GREEN

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 15 DAY OF

OCTOBER, 2025

*Greg W. Johnson*  
Notary Public Signature



Filed and Recorded  
Official Public Records  
Bobbie Koepp, County Clerk  
Comal County, Texas  
10/17/2025 01:01:21 PM  
PRISCILLA 1 Pages(s)  
202506033501



*Bobbie Koepp*



**Countryside Construction, Inc.**  
**300 Chapman Parkway, Canyon Lake, TX. 78133**  
**Phone: 830-899-2615**

**Septic System Service Agreement**

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

Name: Maria L. Green Address: 490 Jay Lee  
Sub-Div./County: Emerald Valley, Comal City: \_\_\_\_\_  
Permit #: \_\_\_\_\_ TYPE: Drip Model #: SOLAR AIR-600 Serial #: \_\_\_\_\_  
Phone: 210-701-4680

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

Legal Description: LT 71 A, Comal County

The effective date of the initial maintenance contract shall be the date the License to Operate is issued.  
This contract will be in effect **FROM: LTO** TO: \_\_\_\_\_ and will provide the following:

- An inspection every (4) four months which will include: Servicing of the mechanical & electrical components as necessary to ensure system is functioning as engineer designed, pulling and cleaning the aerator shaft, cleaning compressor air filters, check chlorine, conduct solids test to determine if system should be pumped, back flushing tubing for drip irrigation fields and checking sprinklers on above ground systems.
- 1) **The property owner is responsible for "purchasing and keeping chlorine" in the chlorinator, (if applicable):**  
If the chlorine test reveals "No Chlorine" in the system, the property owner may incur an additional cost.
- 2) If any improper operation is observed (which cannot be corrected at that time) the property owner will be notified immediately of the conditions and the estimated cost.
- 3) **ANY PARTS, WARRANTY OR NON-WARRANTY, FREIGHT CHARGES, LABOR OR SERVICE CALLS NOT PAID IN FULL AT THE END OF (30) DAYS SHALL REMAIN THE PROPERTY OF COUNTRYSIDE CONSTRUCTION AND AUTHORIZES CONTRACTOR TO REMOVE AND REPOSSESS ANY PARTS INSTALLED. CLIENT FURTHER AGREES TO PAY ANY LABOR COST OF THE INSTALLATION AND REASONABLE COST OF REMOVAL OF SAID PARTS.**
- 4) **THE SIGNING OF THIS SERVICE AGREEMENT AUTHORIZES COUNTRYSIDE CONSTRUCTION TO ENTER THE PROPERTY TO EXECUTE ALL TERMS OF THIS CONTRACT.**
- 5) The response time to a complaint by the property owner regarding operation of the system, shall be within 48 hours from the time of notification.

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

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

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

**Violations of the warranty** also include: disconnecting the alarm, restricting ventilation to the aerator, overloading the system above its rated capacity; or flooding by external means. Rodent, insect or fire ant damage or any other form of unusual abuse is a violation. A renewal service contract **should be activated (30) thirty days before expiration** of existing contract. We will contact property owner prior to expiration of existing contract.

Served by: **COUNTRYSIDE CONSTRUCTION, INC.**

Robert Keltner – Installer Licensee #OS0028152

Maintenance Provider Licensee #MP0002446

(X) Maria L. Green  
Property Owner Signature  
Robert Keltner  
Robert Keltner

(X) Maria L. Green  
Print Name  
10-30-25  
Date

10-30-25  
Date  
Authorized Service Representative  
(revised 08/26/2025)

# ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: August 19, 2025

Site Location: EMERALD VALLEY, LOT 71A

Proposed Excavation Depth: N/A

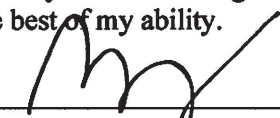
**Requirements:**

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.  
Locations of soil boring or dug pits must be shown on the site drawing.  
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.  
Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

SOIL BORING NUMBER <u>          </u> SURFACE EVALUATION						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 8"	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

08/19/25  
Date



**Date:** August 20, 2025

Name: **MARIA L. GREEN LIVING TRUST**  
Address: **5854 BURKLEY SPRINGS STREET**  
City: **SAN ANTONIO** State: **TEXAS**  
Zip Code: **78233** Phone: **(210) 701-4680**

Name: Greg W. Johnson, P.E., R.S., S.E. 11561  
Address: 170 Hollow Oak  
City: New Braunfels State: Texas  
Zip Code: 78132 Phone & Fax (830)905-2778

Lot **71A** Unit \_\_\_\_ Blk \_\_\_\_ Subd. **EMERALD VALLEY**  
 Street Address: **490 JAYLEE**  
 City: **CANYON LAKE** Zip Code: **78133**  
 Additional Info.: \_\_\_\_\_

Name: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

**FIRM #2585**



**AEROBIC TREATMENT  
DRIP TUBING SYSTEM  
DESIGNED FOR:  
MARIA L. GREEN LIVING TRUST  
5854 BURKLEY SPRINGS ST.  
SAN ANTONIO, TX 78233**

**SITE DESCRIPTION:**

Located in Emerald Valley, Lot 71A, at 490 Jaylee, the septic system will serve a four bedroom residence (2960 sf.) situated in an area with shallow Type III soil as described in the Soil Evaluation Report. Native grasses and oak trees were found throughout this property. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

**PROPOSED SYSTEM:**

A 3 or 4-inch SCH-40 pipe discharges from the residence into a Solar Air SA600LP 600gpd aerobic treatment plant containing a 376 gal. pretreatment chamber and a 778 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP submersible well pump. The well pump is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 300 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to 2400 sf drip tubing field with *Netifim Bioline* drip lines set approximately two feet apart with *0.61 gph* emitters set every two feet, as per the attached schematic. A pressure regulator PMR-MF 40psi installed in the pump tank on the manifold to the field will maintain pressure at 40 psi. A 1" SCH-40 return line is installed to continuously flush the system by throttling a 1" ball valve to the pump tank. Solids caught in the Arkal disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 6" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (***NOT SAND***). ***A minimum of 12" soil required between rock and drip tubing.*** The field area will be covered with Curlex erosion control blankets and heavily seeded or just sodded with grass prior to system startup. **Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed.**

**DESIGN SPECIFICATIONS:**

Daily waste flow: 300 GPD Table III

Pretreatment tank size: 376 Gal

Plant Size: Solar Air SA-600LP 600gpd ATU (TCEQ Approved)

Pump tank size: 778Gal

Reserve capacity after High Level: 100 Gal (>1/3 day Req'd)

Application Rate:  $R_a = 0.2 \text{ gal/sf}$

Total absorption area:  $Q/R_a = 300 \text{ GPD}/0.20 = 1500 \text{ sf. (Actual 2400 sf.)}$

Total linear feet drip tubing: 1200' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 600 emitters @ .61 gph @ 30 psi = 6.1gpm

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

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

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

$$\text{MSV} = 1.5 \text{ gpm PER LINE} * 4 \text{ LINES} = 6 \text{ GPM MIN FLOW RATE}$$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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


$$\text{MSV} = 2(3.14159((1.049/12)^2)/4) * 7.48 * 60$$

$$\text{MSV} = 5.4 \text{ GPM}$$

**PIPE AND FITTINGS:**

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective September 1, 2023)

 8/20/25  
\_\_\_\_\_  
Greg W. Johnson, P.E. No. 67587 / F-2585  
170 Hollow Oak  
New Braunfels, Texas 78132  
830/905-2778





INSTALL 2400sf OF  
FIELD USING 1200'  
OF DRIP TUBING.  
THERE SHALL BE NO  
PARKING, DRIVING  
OR STORAGE ON  
THE SEPTIC FIELD  
AT ANY TIME FOR  
ANY REASON.

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

X= TEST HOLE

SLEEVE SEPTIC  
LINE WITH  
SCH-40 WITHIN  
5' AND UNDER  
SIDEWALK.

SLEEVE WATER LINE  
WITH 2"-SCH-40  
PVC PIPE WHEN  
ENTERING CLOSER  
THAN 10' FROM  
SEPTIC SYSTEM OR  
SEPTIC FIELD  
WHICH MEETS  
TAC 30 CHAPTER  
290.44(e)(B)(i).

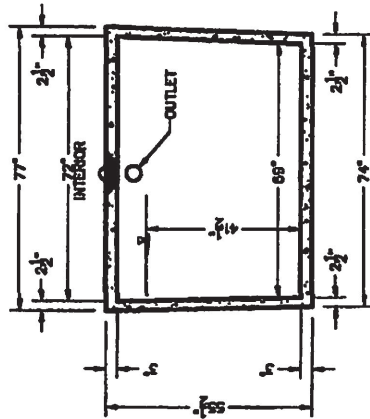
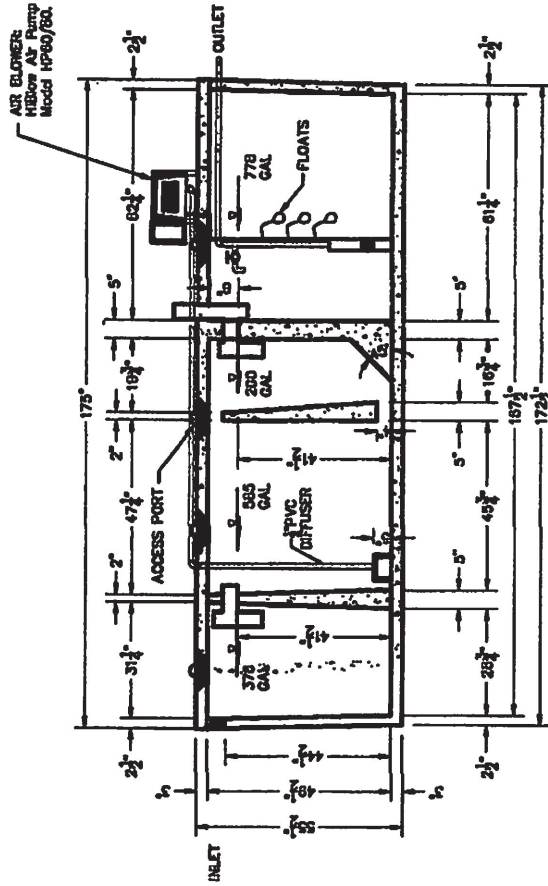
SOLAR AIR  
SA-600 - LP 778  
AEROBIC  
TREATMENT  
PLANT



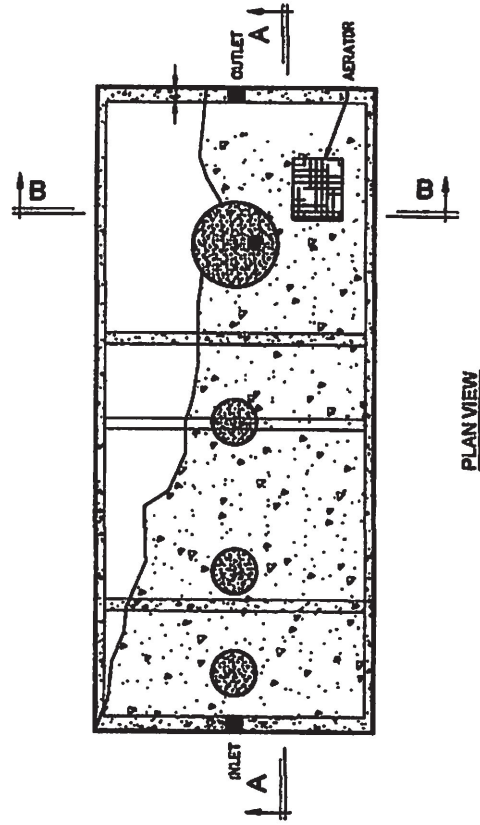
OWNER: MARIA L. GREEN LIVING TRUST		DRAWN BY: EJS III	
STREET ADDRESS: 490 JAYLEE			
LEGAL DESC: EMERALD VALLEY	UNIT/SECTION/PHASE:	BLOCK:	LOT: 71A
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=40'	DATE: 8/20/2025	REVISED:



DESIGNER: F&B	PROJECT NO.	DATE: DEC 2010	SCALE: 1/8" = 1'-0"	SHEET: 5A-3
PROJECT: RESIDENTIAL WASTEWATER TREATMENT SYSTEM	MODEL: SA 600/P	OWNER: LAKE CHARLES, LA 70610	PHONE: (337) 433-0630	SOLAR AEROSOL



F#2585



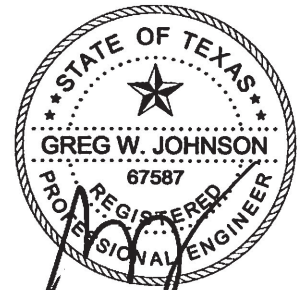
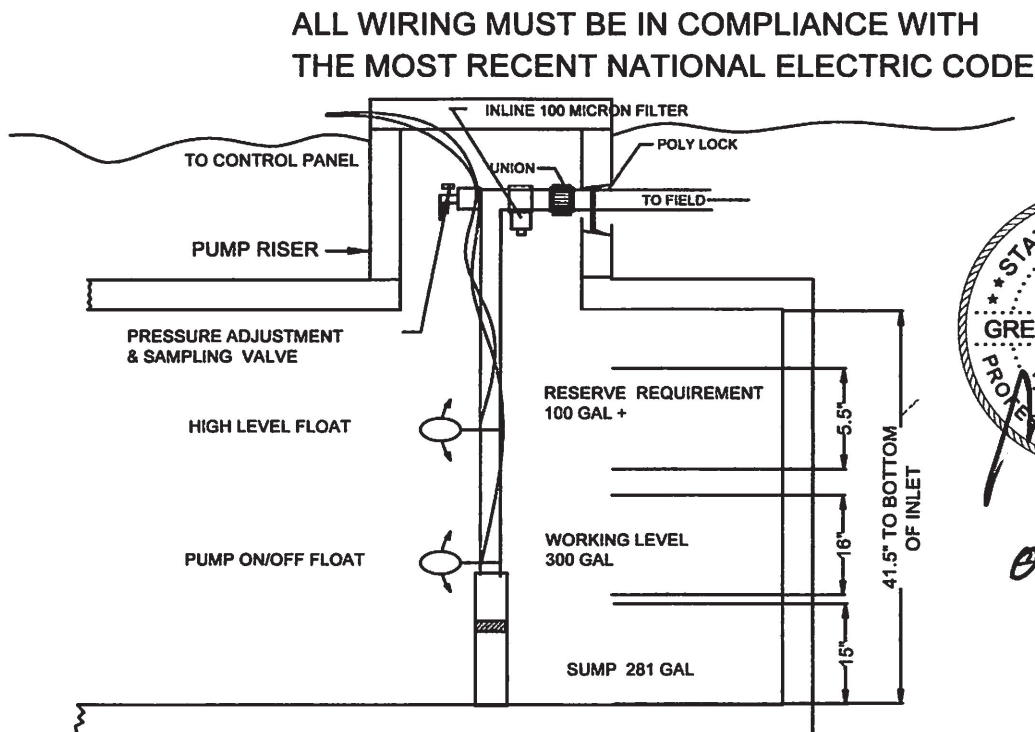
## TANK NOTES:

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



F#2585

08/20/25

**TYPICAL PUMP TANK CONFIGURATION  
SOLAR-AIR SA-600 LP 778 GAL PUMP TANK**

# Arkal 1" Super Filter

Catalog No. 1102 0 \_ \_ \_

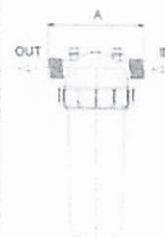
## Features

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



## Technical Data

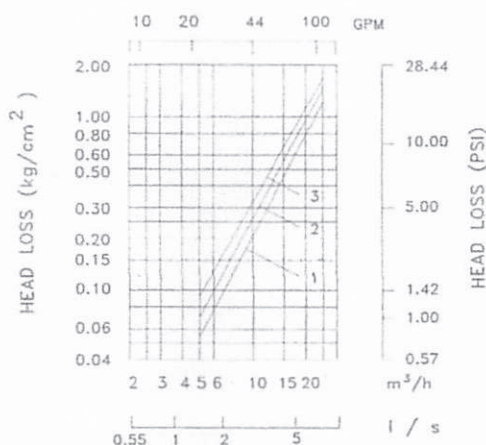
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m <sup>3</sup> /h (1.7 l/sec)	35 gpm
General filtration area	500 cm <sup>2</sup>	77.5 in <sup>2</sup>
Filtration volume	600 cm <sup>3</sup>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



## Filtration Grades

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

## Head Loss Chart







# PMR-MF

## PRESSURE-MASTER REGULATOR - MEDIUM FLOW

### Specifications

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

- 4 - 16 GPM (909 - 3634 L/hr) for 6 - 10 PSI models or
- 2 - 20 GPM (454 - 4542 L/hr) for 12 - 60 PSI models.

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

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

#### Inlet

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

#### Outlet

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

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

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

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

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

### Physical

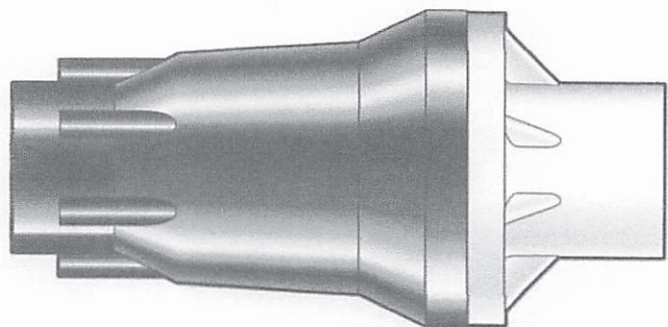
#### ¾" FNPT x ¾" FNPT model (shown on right)

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

#### 1" FNPT x 1" FNPT model

#### 1" FBSPT x 1" FBSPT model

- Overall Length 5.8 inches (14.6 cm)
- Overall Width 2.5 inches (6.4 cm)



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



# PMR-MF

## PRESSURE-MASTER REGULATOR - MEDIUM FLOW

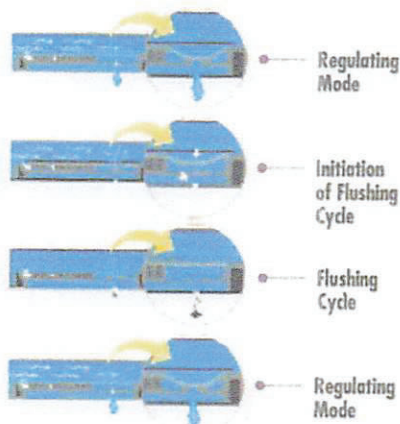
### Model Numbers

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

# NETAFIM™

## Bioline® Dripperline

### Pressure Compensating Dripperline for Wastewater



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

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



### Product Advantages

#### The Proven Performer

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

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

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

#### Long-Term Reliability

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



#### Root Safe

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



### Applications

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

### Specifications

Wall thickness (mil): .45\*

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

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

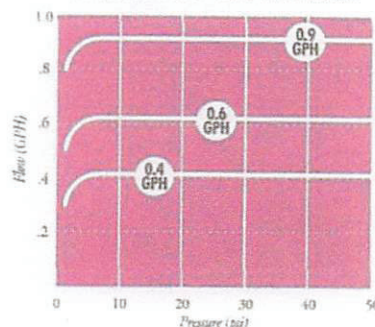
Recommended filtration: 120 mesh

Inside diameter: .570\*

Color: Purple tubing indicates non-potable source

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

BIOLINE Flow Rate vs. Pressure



NETAFIM USA

5470 E. Home Ave. • Fresno, CA 93727

888.638.2346 • 559.453.6800

FAX 800.695.4753

www.netafimusa.com



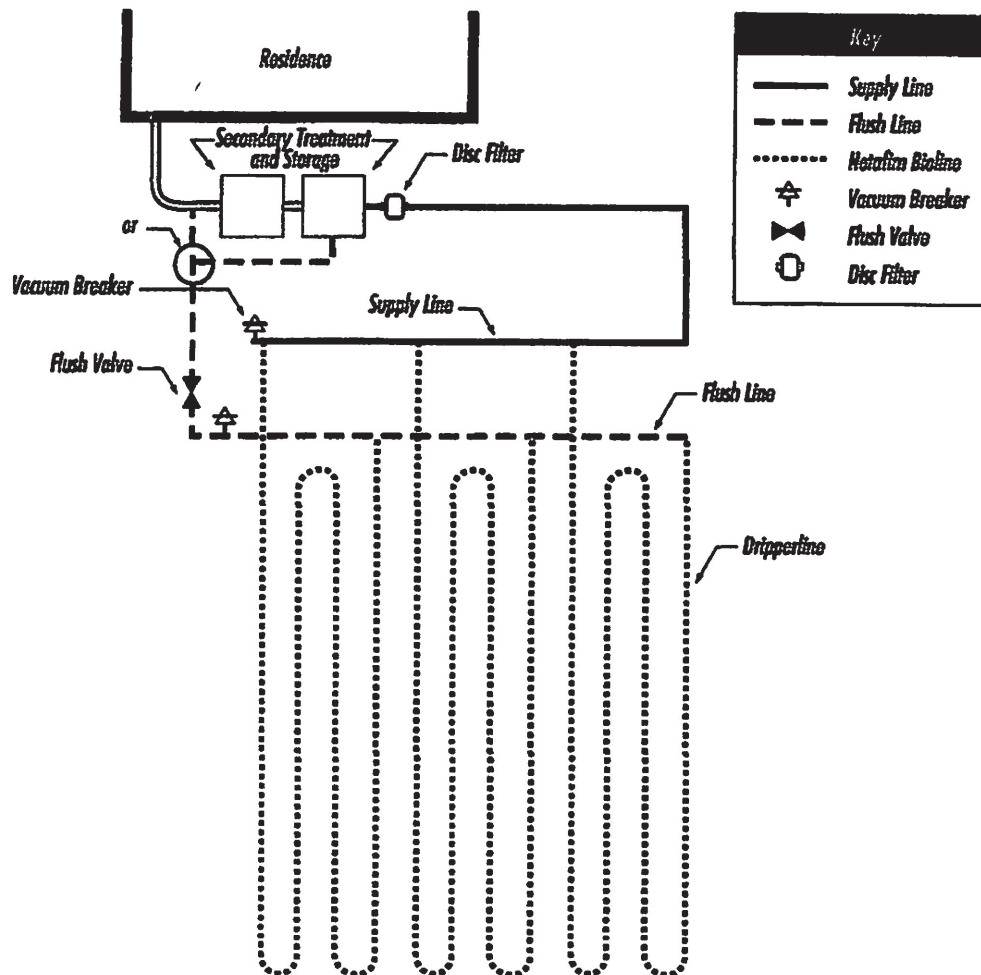
# NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

## SAMPLE DESIGNS

### SINGLE TRENCH LAYOUT

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

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



ORT/GFB 4585 RS  
NR

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

**GENERAL WARRANTY DEED**

THE STATE OF TEXAS                    §  
COUNTY OF COMAL                    §      KNOW ALL MEN BY THESE PRESENTS:

THAT GILBERT LOWE, a single man, hereinafter called Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) cash and other good and valuable consideration in hand paid by MARIA L. GREEN LIVING TRUST, herein-after called Grantee, the receipt and sufficiency of which is hereby acknowledged;

HAS GRANTED, SOLD and CONVEYED, and by these presents does GRANT, SELL and CONVEY unto the said Grantee, the following described property, to-wit:

**Lot 71-A, EMERALD VALLEY SUBDIVISION, a subdivision in Comal County, Texas, according to the Map and Plat thereof recorded in Volume 8, Page(s) 146, of the Map and Plat Records of Comal County, Texas.**

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

Taxes for the current year have been prorated and are thereafter assumed by Grantee.

TO HAVE AND TO HOLD the above described premises, together with, all and singular, the rights and appurtenances thereto in anywise belonging unto the said Grantee, Grantee's heirs, executors, administrators, successors, or assigns forever.

Grantor does hereby bind Grantor, Grantor's heirs, executors, administrators, and successors to warrant and forever defend, all and singular, the said premises unto the said

Grantee, Grantee's heirs, executors, administrators, successors, and assigns against any person whomsoever claiming or to claim the same or any part thereof.

DATED this the 3<sup>rd</sup> day of July, 2024.

  
GILBERT LOWE, a single man

CANADA  
PROVINCE OF Saskatchewan

This instrument was acknowledged before me on this the 3 day of July, 2024, by GILBERT LOWE, a single man.

  
Notary Public in and for the Province of  
Saskatchewan Canada

GRANTEE'S MAILING ADDRESS:

Box 61 5854 Burkley Springs St.  
Lantier San Antonio, TX 78233

3012.deeds  
Old Republic Title Co (RS)  
GF #16685NB



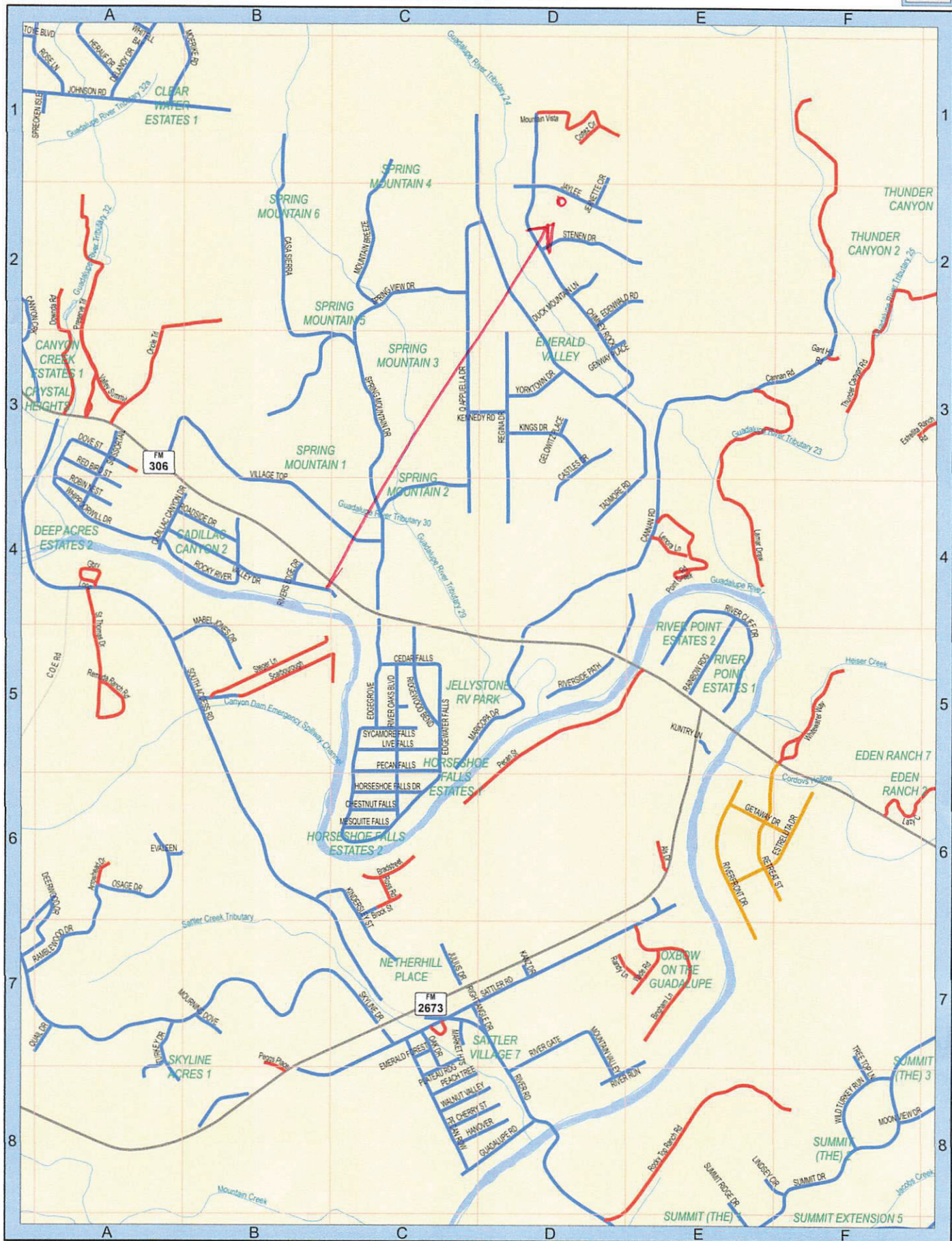
WITNESS AS TO SIGNATURE ONLY--  
NO ADVICE SOUGHT OR GIVEN

Filed and Recorded  
Official Public Records  
Bobbie Koepp, County Clerk  
Comal County, Texas  
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