Comal County Environmental Health
OSSF Inspection Sheet

Installer Name: MJ Septic **OSSF Installer #:** OS0028816

1st Inspection Date: 9/18/25 **2nd Inspection Date:** _____ **3rd Inspection Date:** _____

Inspector Name: Hendry **Inspector Name:** _____ **Inspector Name:** _____

Permit#: 119002 **Address:** 703 DRESDEN WOOD DR

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	X	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)		X		
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	X	285.91(10) 285.30(b)(4) 285.31(d)		X		
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	X	285.32(a)(1)		X		
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot	X	285.32(a)(3)		X		
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)	X	285.32(a)(5)		X		
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: 9/18/25 CH:

Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2Compartments Provided withBaffle SEPTIC TANK Inlet Flowline Greater than3" and " T " Provided on Inlet and OutletSEPTIC TANK Septic Tank(s) MeetMinimum Requirements		285.32(b)(1) (E)285.91(2)285.32(b)(1) (F)285.32(b)(1)(E) (iii)285.32(b)(1)(E)(ii) (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	X	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)		X		
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 providedSEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed	X			X		
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	X X		ProFlo 500; as per design	X X		
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
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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)	X	285.33(d)(6) 285.33(c)(4)		X		
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.	X	285.32(c)(1)		X		
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	X X X X			X X X X		
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.	X			X		
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?	X	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)		X		
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	X X	285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)		X X		
42	APPLICATION AREA Area Installed	X			X		
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:	119002
Issued This Date:	09/15/2025
This permit is hereby given to:	Matt & Emily Speer

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

703 DRESDEN WOOD DR
BOERNE, TX 78006

Subdivision:	Dresden Wood
Unit:	1
Lot:	15
Block:	0
Acreage:	1.0200

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.

RECEIVED
By Kathy Griffin at 2:18 pm, Sep 08, 2025

COMAL COUNTY
ENGINEER'S OFFICE

OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

		119002
Date Received	*Initials*	*Permit Number*

Instructions:

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

OSSF Permit

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

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

M E Smith Jr
Signature of Applicant

8/28/25
Date

___ COMPLETE APPLICATION

Check No. _____ Receipt No._____

INCOMPLETE APPLICATION
___ (Missing Items Circled, Application Refeused)

Revised: September 2019

RECEIVED
By Kathy Griffin at 2:18 pm, Sep 08, 2025

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

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

Permit # 119002

Date August 27, 2025

Owner Name Matt and Emily Speer
Mailing Address 703 Dresden Wood Dr
City, State, Zip Boerne, TX 78006
Phone # 361-920-1016
Email mcspeer19@hotmail.com

Agent Name
Agent Address
City, State, Zip
Phone #
Email

All correspondence should be sent to: ☐ Owner ☐ Agent ☒ Both Method: ☐ Mail ☒ Email

Subdivision Name (381B501) DRESDEN WOOD Unit 1 Lot 15 Block n/a
Acreage/Legal 1.02
Street Name/Address 703 Dresden Wood Dr City Boerne Zip 78006

Type of Development:

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) House
Number of Bedrooms 3
Indicate Sq Ft of Living Area 3023

☐ 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: $ existing (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

Are Water Saving Devices Being Utilized Within the Residence? ☒ Yes ☐ No

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.

Signature of Owner

8/28/25
Date

195 David Jonas Dr., New Braunfels, Texas 78132-3760 (830) 608-2090 Fax (830) 608-2078

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

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

Planning Materials & Site Evaluation as Required Completed By Kaeleigh Crandall

System Description aerobic w/ surface spray

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

Tank Size(s) (Gallons) 500 Absorption/Application Area (Sq Ft) 4688ft²

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

(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 ☐ No

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

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

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

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

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

If yes, indicate the city: _____

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

Kaeleigh Crandall
Signature of Designer

9/2/25
Date

195 David Jonas Dr., New Braunfels, Texas 78132-3760 (830) 608-2090 Fax (830) 608-2078

AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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

I

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (commission) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as **(insert legal description)**: _____

Lot 15, Dresden Wood, Unit 1

The property is owned by (**insert owner's full name**): Matt Speer and Emily Speer

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 30 DAY OF August, 2025

Owner(s) signature(s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 30th DAY OF August, 2025

Notary Public, State of Texas

Notary's Printed Name Justin Royal
My Commission Expires: 05/02/2028

JUSTIN ROYAL
Notary Public, State of Texas
Comm. Expires 05-02-2028
Notary ID 134881519

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
09/05/2025 08:20:49 AM
PRISCILLA 1 Pages(s)
202506028755

Bobbie Koepp

OSSF RESIDENTIAL MAINTENANCE AGREEMENT

MJ SEPTIC
Michael J. Long, TCEQ License #MP0001294 Exp Aug 31 2025
1328 W Borgfeld Dr. San Antonio, TX 78260 (210) 875-3625 info@mjseptic.com

Property Owner(s): Matt & Emily Speer Agreement Dates: License to operate date (LTO) to 24ks post (LTO)

Property Address: 703 Dresden Wood City & Zip: Boerne, TX 78006

Subdivision: Dresden Wood Section, Lot, Block: Lot 15, Unit 1

Permitting Authority: Comal Permit Number: _____

The Texas Commission on Environmental Quality (TCEQ) mandates regular inspections and maintenance of all Aerobic Treatment Units (ATUs). These checks must occur every four months throughout the unit's lifespan (*some permitting authorities may adjust this requirement after the first two years of installation; contact your county/permitting authority for more information*).

MJ Septic will inspect and service your ATU every four months for the duration of the contract. For new installations, the contract's effective date aligns with the issuance of the License to Operate (LTO), as required by state guidelines established on June 13, 2001. Laboratory testing for parameters like coliform, TSS, and BOD are not included, and the associated fees are the owner's responsibility.

Renewal Prior to the conclusion of the contract, MJ Septic provides a seamless continuation option for routine maintenance and comprehensive reporting. To ensure uninterrupted service, electronic renewal reminders are promptly and automatically sent, keeping customers informed and allowing for timely action. It is important that you notify the office of any email address and/or phone number changes to avoid missing renewal notices.

Inspections It is crucial that we have full access to your system, including gate codes and combination locks, to conduct inspections effectively. We conduct inspections every four months (three times per year) to ensure the proper functioning of mechanical, electrical, and other applicable components. The annual fee covers the inspections but does not include parts, cleaning/pumping, chlorine/bleach (tablets or liquid), additional service calls, or additional testing required by any regulating authority. Property owner(s) or tenant(s) are not required to be present at time of inspection.

Inspection Notifications Upon scheduling your upcoming inspection, an automated electronic booking confirmation will be sent to the email address(es) and/or mobile number(s) you provided during enrollment. Throughout the duration of your agreement, you are required to reach out to our office and provide any necessary updates to your information. As a reminder, a notification will be sent the day before your scheduled inspection. While there will not be a specific time frame for the inspection, you will receive a notification when the technician is on their way to your property on the day of the scheduled inspection. Property owner(s) or tenant(s) are not required to be present at time of inspection.

Reinspections If we are unable to access your property or system at any time due to circumstances beyond our control, you have the following options:

- ➔ Reschedule the inspection when our regular septic inspection technicians are scheduled to be back in your area again. This option is free of charge. *(could be up to 45+ days)*
- ➔ Reschedule the inspection with a repair technician for a specific date between Tuesday and Thursday. A service call fee of $75 will be charged at the time of booking.
- ➔ Decline the inspection altogether. Please note that this option is not recommended, as there will be an 8-month or greater gap between inspections. You will not be notified of any potential issues, sludge readings, etc. No refunds will be given for declined inspections.

Credit/Debit Card and Payment Terms

a) The full cost of the agreement is to be paid in full at time of enrollment or renewal. If this agreement is part of a new system installation, it was paid in full at that time.
b) To ensure prompt scheduling for all service calls, repairs, and pumping, we require a credit/debit card to be on file with our office upon booking. Please note that this is a mandatory requirement, and no exceptions will be made. Our technicians are not equipped to accept alternative payment methods in the field. Payment will be processed to the card on file immediately upon completion of repairs or service calls, unless otherwise noted.

System Alarms Don't panic if your aerobic septic system's audio or visual alarm activates. It's usually not an emergency. First, silence the alarm using the switch or button on the control panel to avoid disturbing your household or neighbors. During this time, it is important that you reduce all non-essential water usage in the event your system is overfull. Please refer to your OSSF Troubleshooting Guide for helpful information until we can schedule your service call.

a) Contact us for service: It's crucial to notify our office as soon as possible to schedule a service call. If we're closed, leave a voicemail or text us at (210) 875-3625. Alternatively, send an email request to info@mjseptic.com.
b) Scheduling response times: MJ Septic is committed to addressing all major concerns and complaints promptly. Excluding weekends and holidays, we aim to respond within 72 hours from the initial contact with the homeowner(s). Please check our website or Google for our updated hours of operation.
c) System power: To avoid costly complications, it is crucial that you refrain from turning off the main power breaker to shut down the system under any circumstances, even in the occurrence of a system alarm.

Service Calls Outside of regular inspections, a $75 service call fee (excluding parts, cleaning, and pumping) will be charged for service calls requested by homeowners or renters. At the company's discretion, this fee may be credited toward or even waived for an on-site repair. Some examples of service calls that may be encountered include, but are not limited to, responding to audio or visual system alarms, overflowing systems, backed up or clogged systems, chlorinator checks, odor complaints, sludge level rechecks, disconnected airlines, timer adjustments, spray head adjustments, and system power failures.

New Installation Warranty For ATU's under the initial installation warranty (2 years from the initial installation date), if a warrantied part requires replacement within 60 days of the LTO being issued, parts will be replaced free of charge. After 60 days, a $75 warranty credit fee will be assessed for all part replacements or repairs. MJ Septic will only honor warrantied items when there is a valid maintenance contract in place.

Customer Purchased Parts MJ Septic will not install or work on parts purchased and provided by the customer. The use of unauthorized parts may compromise the system's performance and integrity. No exceptions will be made.

Unauthorized Repairs This only applies to systems under the original system installation maintenance contract and/or systems under any type of warranty with MJ Septic. Using a company other than MJ Septic for repairs will void all warranties associated with the maintenance contract. Unauthorized repairs are considered a breach of the maintenance contract and may have legal consequences.

Repairs I During routine inspections or service calls, if the technician discovers parts in need of repair or replacement, we will try to contact the homeowner for on-site repair approval. If on-site repair/replacement is not possible, the customer will be notified by email or the postal service if we do not have an email address on file. All major part replacements include a 2-year warranty (refer to the notes below). There will be a $75 warranty credit fee for all parts if replacement is required during the warranty period. Warranties will only be honored if there is an active maintenance agreement with MJ Septic. If the contract is not current, all warranties are void.

Repairs II Owning an aerobic system comes with the expectation of part replacements and septic tank cleaning needs. Regardless of how meticulously the system is maintained or how responsible your household usage is, certain components will inevitably require replacement. Some of these components, such as diffuser bars (not used by all brands), filters, sprinkler heads, airline, float switches, timers, and audio and visual alarms, are relatively inexpensive and commonly replaced. Septic tank cleaning and other components, such as sprinkler pumps, air compressors, and control panels, can be pricier than smaller parts. The longevity of your system's components varies based on several factors, including the number of users, water usage, dietary choices, medications taken, household cleaning chemicals used, items flushed down the commode, and the typical lifespan of each functional part.

Cost Expectations with Aerobic Septic System Maintenance

- Regular maintenance is essential for the proper function of your aerobic septic system. Even with proper maintenance, optimal design, and controlled household usage, certain components of your aerobic system will inevitably require replacement.

- More common and less expensive parts include, but are not limited to, airline replacement, audio and visual alarms, diffuser bars (only if applicable to your system), filters, float switches, sprinkler heads, and timers.

- Less common and more expensive parts that may need replacing include effluent (spray) pumps, air compressors, and control panels. Septic tank cleaning (pumping) is another service that you should expect to pay for.

- The lifespan of your septic system's components is influenced by various factors. These include, but are not limited to the number of users, water consumption, dietary habits, medication usage, household cleaning products, and what is flushed into the system. Additionally, each component has its own expected lifespan.

- The lifespan of components within your system will vary. Routine inspections assess these components to determine whether they need to be replaced or repaired. These components may include, but are not limited to, the following: air compressor (aerator), filter pads, diffuser bars, sprinkler pumps (effluent/irrigation pumps), control panels, electrical circuit boards, float switches, timers, audio alarms, visual alarms, airline, photocell, toggle switches, wiring, junction boxes, risers and/or lids, sprinkler heads, and chlorinators.

Septic Tank Cleaning (Pumping) & Sludge Readings Since aerobic septic systems are a "treatment unit", the rise of sludge in the pump tank will depend on how the system is being used and if the treatment process is taking place as the system is designed for.

- An aerobic system should never be treated like a city sewer.
- Sludge readings are taken at each routine inspection, or in the event a technician deems it necessary upon other scheduled services.
- Accurate sludge readings cannot be taken in the event the system has had a power failure or the system has been turned off causing the system to overflow.
- Septic tank cleaning (pumping) will be recommended once your sludge levels have reached anywhere between 10-12" inches of sludge in the pump tank chamber of your aerobic system.
- Septic tank cleaning (pumping) may also be recommended for other various reasons, such as, but not limited to, the trash tank chamber being full of solids.
- Sludge readings can increase due to many factors, and the accumulation of sludge within the pump tank may not occur at a consistent or gradual rate.
- The accumulation of sludge in your septic system is influenced by various factors. These include but are not limited to water consumption and usage within the household, the materials entering the system, consecutive laundry loads, simultaneous use of laundry, dishwasher, and showers/baths, hosting gatherings, and internal water leaks such as a running toilet.
- Hydraulic overload can be caused by surges of water entering the system. This throws off the bacterial balance, which prevents proper waste breakdown and leads to faster sludge accumulation in the pump tank. The result is more frequent pumping.
- The items that are flushed down toilets or poured down drains need to be treated by the septic system, they do not just disappear.
- Aerobic systems are designed to treat domestic wastewater and most toilet paper (read labels). Note that even if these items are labeled as "flushable" or "septic safe," they may still harm your system.

Damage and additional expenses for repairs and pumping can be caused by the following items entering the system (this list is not exhaustive):

- Excessive use of the garbage disposal *(if necessary, dishes should be scraped into the trash and wiped with a paper towel prior to washing)*
- Egg shells, coffee grounds, fruit and vegetables, fruit and vegetable peels
- Fats, grease, and oils
- Too many harsh household cleaners, excessive use of laundry detergent, fabric softener, and/or bleach
- Drain cleaners and automatic toilet bowl cleaners
- Wipes of any type (feminine, baby, facial, cleaning), feminine products and feminine product applicators, paper towels, condoms, and cotton swabs
- Hair combings, dental floss, any type of diapers, gauze bandages, and unused medications
- Paint, paint thinners, and varnishes
- Pet hair, kitty litter, cigarette butts, e-cigarettes, any type of plastics

Additional Terms and Conditions, Warranty Violations

Power to the System

- Power to the System: Never turn off the power to your system, even in the event of a system alarm or any other issues. This is not permissible and can cause further complications or damage(s) to the system.
- Alarms: Disconnecting the audio or visual alarms, which serve as critical system alerts for potential septic system issues, can prevent you from being informed about these problems until it's too late. Both audio and visual alarms are essential features that should not be disabled.
- Maintaining proper airflow in the air compressor: In a septic system, the air compressor plays a pivotal role in facilitating the breakdown of waste. Restricting airflow to the air compressor can have detrimental consequences. This restriction can lead to damage to the compressor itself and subsequently disrupt the proper functioning of the entire septic system.

System Alterations or Modifications

- Do not build or construct anything over any part of the aerobic system.
- There are setback requirements for surface improvements near the septic, and failure to meet them could result in expenses to bring the system back into compliance. Please reach out to us if you plan on making surface improvements and we can help you ensure you remain in compliance with code requirements.
- Surface application lines, drip irrigation lines, spray heads or any other components of your aerobic system should never be modified, replaced or tampered with by other contractors. This includes but is not limited to landscaping companies, irrigation companies, or pool companies.
- MJ Septic, LLC must be contacted by property owners prior to any alterations on their property. This includes, but is not limited to, the addition of swimming pools, outdoor kitchens, decks, patios, sport courts, and irrigation systems, to ensure that the necessary measures are taken.
- Some modifications will require obtaining a new permit from the respective county, having a septic designer redesign the system, and having a licensed septic installation company make the appropriate changes onsite.
- If modifications are made without the appropriate permitting approval, property owners will be responsible for any and all associated costs to repair the system to bring it back into compliance. Additionally, any warranties *(if applicable)* will be voided.
- The discharge from septic system surface application heads (septic spray heads) is restricted to areas with natural vegetation.
- Unless otherwise noted, the spray heads should only spray between midnight and 5am.

Additional Terms and Conditions, Warranty Violations, Continued

Irrigation Systems, Landscaping, & Ants

- Avoid installing or allowing your irrigation system to discharge/spray in the same area as your septic spray areas, as it can lead to oversaturation and violates state/county code.
- Ant mounds must not be allowed to form near any part of the aerobic system. If ant mounds appear, they can be treated with ant killer. Any electrical component damage resulting from ants will void all applicable warranties.
- No landscaping elements, including trees, plants, and flowers, should be planted on or over any part of the aerobic system.
- Vegetation, including that around spray heads and the spray area, must be kept mowed and trimmed to allow for safe access and inspection by technicians. Failure to do so may result in a rescheduling fee or dismissal of the inspection.

Liquid Bleach Chlorination Systems (most common in newer systems/homes and buildings) - Never tamper or alter your chlorinator system. This will void any warranties *(if applicable)*.

- Regular household bleach (6-10% Sodium Hypochlorite) is used for liquid chlorinators.
- **Warning!** Never use low splash, splashless, or scented bleach. This will cause complications or damages to the chlorination system and void any warranties *(if applicable)*.
- Chlorine consumption for the typical household is up to one gallon per person per month, add an additional gallon if you have a water softener, but it will only use that much if each person in the house is using 100 gallons a day or more. Some households use more bleach, some less, it depends on water usage. You don't want to use more than 3-4 gallons at a time, so if you have more than 3-4 people in the home and a water softener you might be adding on a bi-weekly basis.
- We recommend checking your chlorine consumption every other week for a couple of months so that you can get a good idea of what your household will use, after which point you can set yourself up on a regular schedule. If you ever have guests over or a period of higher water usage inside of the home you will need to add more during those times.

Tablet Chlorination Systems Never tamper or alter your chlorinator system. This will void any warranties *(if applicable)*.

- Calcium Hypochlorite tablets are available at your local Home Depot or Lowe's. *MJ Septic does not carry this product for resale.*
- **Warning!** Never use swimming pool chlorine tablets or solutions for your septic system. Mixing pool tablets with wastewater tablets could cause a dangerous volatile reaction.
- **Warning!** Always store your septic chlorine tablets in a cool, dry and well-ventilated area.
- **Warning!** Do not store your septic chlorine tablets near water heaters, water heater closets, near gas fixtures or electricity.

When the chlorinator is completely empty, do not add more than 4-5 tablets at a time to prevent the chlorinator canister from clogging. *If* the canister is clogged, use a water hose to rinse and completely clean and clear the canister before adding fresh tablets.

- Exceeding your septic system's rated daily capacity I: The septic system is engineered to manage a specific quantity of waste and water on a daily basis. Surpassing this limit can lead to several detrimental effects, such as the accelerated accumulation of sludge and premature failure of system components.
- Exceeding your septic system's rated daily capacity II: To ensure the proper functioning of your aerobic system, it's crucial not to overload it. Conserving water can help prevent this issue. Be vigilant about fixing leaky faucets and running commodes to avoid unnecessary water usage. Distribute your laundry throughout the week, aiming for one to two loads daily. Avoid doing all your laundry on the same day, as this can create a sudden surge of water entering the system. This hydraulic overload can disrupt the balance of bacteria, hindering the proper breakdown of waste and leading to a faster accumulation of sludge in your pump tank. The result may be a need for more frequent pumping.
- Septic Tank Cleaning & Part Replacement: Regular cleaning and pumping of the septic system are crucial for its optimal functioning. Ignoring recommendations to clean and pump the system can lead to malfunctions and potential issues. Failure to replace necessary parts as needed can exacerbate the situation, further compromising the system's performance.

Homeowner Responsibilities

a) Yard Work/Landscaping: Keep grass, weeds, and plants trimmed and clear of tank access points, the control panel, air compressor, etc. Grass, weeds, and plants can block access to the septic system and its components. This can be potentially damaging to the system if grass/weeds grow into the pipes and lines. Overgrown grass around the aerator can restrict proper airflow. Avoid spraying your irrigation system in the same areas as your septic spray areas which will lead to oversaturation and is against code compliance.
b) Pest Control: To assist in maintaining the longevity and safety of our technicians, regular treatment for ants in the surrounding area is essential. Ants have the potential to form mounds within the electronic components of the system, leading to damage and premature failure. Additionally, treating the septic tank area and components for wasps, hornets, bees, and other insects is crucial to ensure the safety of all individuals involved.
c) Permitting: Obtain approval from a septic designer and permitting authority before making any additions or modifications to your septic system: Any changes to your septic system must be approved by a septic designer and the permitting authority. Failure to obtain approval can result in fines and penalties. See section entitled *Alterations and Modifications to the System.*
d) Chlorination Supply: *This does not apply to drip irrigation systems.* You are responsible for maintaining your own chlorine supply. TCEQ regulation requires proper chlorination for all surface application septic systems. For liquid chlorinators, homeowners are to add 2-3 gallons of 6-10% Sodium Hypochlorite (Household Bleach) per month. Chlorine consumption will vary depending on water usage. For tablet chlorinators, homeowners can purchase Calcium Hypochlorite tablets at a local Home Depot or Lowe's. Warning! Do not use pool tablets, as it poses a significant safety risk. The combination of pool tablets and certain chemicals can result in a hazardous and volatile reaction.
e) Drip Irrigation Systems: *This does not apply to surface application systems.* It is the homeowners responsibility to clean the drip irrigation disc filter anywhere between weekly to monthly, depending on build up. Build up frequency is directly related to individual usage. The drip irrigation filter will be cleaned during routine inspections.

Liability Disclaimer

a) MJ Septic will not be liable for any damage, malfunction, or issues resulting from unauthorized alterations or modifications to the septic system.
b) The property owner bears full responsibility for ensuring compliance with county codes and regulations.

Electronic Acceptance of Maintenance Agreement

a) The agreed-upon price, terms, and conditions are found acceptable and are thus accepted. MJ Septic is granted permission to access the property for the purpose of conducting routine maintenance inspections, as well as for carrying out service calls and repairs, as requested and agreed upon.
b) By reviewing this agreement in its entirety, I acknowledge that I have read and accepted the maintenance agreement guidelines above. I understand that I have the right to terminate my contract within 14 business days of reviewing this agreement and receive a full refund, excluding any initial or routine inspections conducted during that period.
c) MJ Septic maintains the sole authority to modify this document whenever deemed necessary.

MJ Septic will not sign or approve this agreement without a prior electronic approval for septic installation. This applies to all builders, general contractors, and/or property owners acting as the builder or general contractor of record.

Having thoroughly reviewed the terms of this agreement, I understand that upon receiving the License to Operate from my Permitting Authority, I am responsible for contacting MJ Septic to begin the enrollment or transfer process for this agreement and warranty. Following completion of this process, MJ Septic will electronically transmit all OSSF closing documents for my records.

Property Owner(s) Signature(s): _____

Property Owner(s) Signature(s): _____

Date of Property Owner(s) Signature(s): 8/28/25

Authorized MJ Septic Representative Signature: Stephanie E. Perez

Date of MJ Septic Signature: September 04 2025

Comal

OSSF SITE EVALUATION FORM

Applicant/Site Information		Site Evaluator Information	
Name	Matt & Emily Speer	Name	KAELEIGH R. CRANDALL
Address		Address	5596 COUNTY ROAD 5710
City, State, Zip		City, State, Zip	DEVINE, TX 78016
Site location	703 Dresden Wood Dr.	TCEQ or PE License No.	PE 134570

Soil Boring/Backhoe Pit Number 1 Surface Elevation:_____ Proposed Depth Elevation:

Depth (Feet)	Soil Texture	Texture Class (Ia, Ib, II, III, IV)	% Gravel (Required when Texture Class is II or III)	Observation Notes (Restrictive Horizon, Size of Gravel, Groundwater, Mottling, Fractured Rock, Recent Weather. etc.)
0	Clay loam 0" to 17"	III	<30%	none
1				
2				
3	Rock horizon below			
4				
5				
6				

Soil Boring/Backhoe Pit Number: 2 Surface Elevation:_____ Proposed Depth Elevation:

Depth (Feet)	Soil Texture	Texture Class (Ia, Ib, II, III, IV)	% Gravel (Required when Texture Class is II or III)	Observation Notes (Restrictive Horizon, Size of Gravel, Groundwater, Mottling, Fractured Rock, Recent Weather, etc.)
0	Same as above			
1				
2				
3				
4				
5				
6				

By my signature, I hereby certify that the information provided in this report is based on my site observations and are accurate to the best of m ability. I understand that any misrepresentation of the information contained in this report may be grounds to revoke or suspend my licen The site evaluation determined the site is suitable for an Aerobic disposal system with Secondary treatment. According to Table XIII, the site is suitable/not suitable for this proposed system. A copy of Tables IX and XIII have been given the property owner to inform them of other alternatives based upon the results of this site evaluation.

Signature: Kaeleigh Crandall TCEQ or PE license #: 134570 Date: 9/4/23

SITE EVALUATION AND CALCULATIONS

Site Evaluation:

Soil Texture:	Clay loam
Soil Structure:	Blocky
Soil Depth:	0" to 17"
Restrictive Horizon:	Rock horizon from 0" to 17" below surface
Groundwater:	None encountered
Topography:	More than 2% slope at spray areas

Determination: Site was determined to have a Class III soil with no groundwater encountered. Due to the rock over the drainfield area an aerobic treatment unit followed by spray irrigation will be installed. The spray area will be controlled by a commercial irrigation timer.

Calculations:

System is designed for a 3 bedroom residence with a living area of 3023 sq. ft. Water saving devices are used throughout.

Q = 300 gpd

A 500 gallon aerobic treatment system, or equal, shall be installed. It has built in pre-treatment, and pump tanks. The aerobic unit shall be followed by a spray irrigation system. (Reference the System Layout) Chlorinator is required for water entering pump tank compartment. Liquid type chlorination shall be used.

Ri = 0.064 gal. / sq. ft. / day, (For location in Comal County)

Required Area:
A = Q / Ri, **A** = (300 gal. / day) / (0.064 gal. / sq. ft. / day) = **4688 sq. ft.**

calculations continued on next page....

Owner Matt Speer

Location Comal County, Texas

Drawn by: Davy Crandall

Drawing No. 100-10266

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400
FIRM NO. 5549

Date: 9/4/25

Scale: None

Sheet 1 **of** 6

Kaeleigh R. Crandall

STATE OF TEXAS
KAELEIGH ROSE CRANDALL
134570
LICENSED
PROFESSIONAL ENGINEER

9/4/25

SITE EVALUATION AND CALCULATIONS

Calculations:

Install 2 sprinklers. The sprinklers are low angle type, with nozzle and spray radii as shown on the System Layout. See System Layout for spray pattern.

Proposed total area = **4825 sq. ft.**

Overlap and masked area: **0 sq. ft.**

Actual covered area = 4825 sq. ft. (Covered area is greater than required area)

A 1" ball valve will be installed just downstream of the pump either inside of or outside of the pump tank compartment. The ball valve shall be used to adjust the spray radius(radii) of the sprinkler(s) to the value(s) shown on the System Layout. (Reference the attached data for pump curves and nozzle data.)

NOTES FOR INSTALLER (if applicable):

Do not connect water softener back-wash to septic system.

The TCEQ allows washing machine water to be discharged without treatment into a separate gray water system, unless the water contains human waste. Running this water out separate from the septic system can prolong the life of the system.

Areas where tanks and drainfields / spray areas are located shall be built-up or drained so that no ponding of water occurs in these areas.

The design application rate is 0.062 gallons / sq. ft. / day

Dosing cycle quantity is 300 gallons, average. Use a commercial irrigation timer.

The number of dosing cycles per day is one (1).

Owner	Matt Speer	**Drawn by:**	Davy Crandall
Location	See sheet #1	**Drawing No.**	100-10266

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
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FIRM NO. 5549

Date: 9/4/25
Scale: None
Sheet 2 **of** 6

Kaeleigh R. Crandall

KAELEIGH ROSE CRANDALL
134570
LICENSED
PROFESSIONAL ENGINEER
9/4/25

SITE EVALUATION AND CALCULATIONS

The design pressure at each sprinkler head is 30 to 40 psig.

The total length of supply pipe is as shown on the System Layout

Means of preventing siphoning is an anti-siphon valve.

Diameter of supply line is as shown on the System Layout.

Flow control valve is required downstream of the pump.

NOTES TO OWNER OF SYSTEM:
MAINTENANCE AND MANAGEMENT PRACTICES (if applicable):

An OSSF should not be treated as if it were a normal city sewer system.

The excessive use of in-sink garbage grinders and grease discarding should be avoided.

Do not use the toilet to dispose of cleaning tissues, cigarette butts, or other trash.

Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device, to prevent solids from exiting the tank with the liquid.

Septic tanks should be cleaned every two-to-three years to prevent excessive sludge buildup.

Do not build driveways, storage buildings, or other structures over the treatment works or its disposal field.

Chemical additives or the so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may be harmful to the tank's operation.

continued next page.....

Owner	Matt Speer	**Drawn by:**	Davy Crandall
Location	See sheet #1	**Drawing No.**	100-10266

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400
FIRM NO. 5549

Date: 9/4/25
Scale: None
Sheet 3 **of** 6

Kaeleigh R. Crandall
KAELEIGH ROSE CRANDALL
134570
LICENSED
PROFESSIONAL ENGINEER
9/4/25

SITE EVALUATION AND CALCULATIONS

Soaps, detergents, bleaches, drain cleaners, and other household cleaning materials will very seldom affect the operation of the system. However, moderation should be exercised in the use of such materials.

It is not advisable to allow water softener back flush to enter into any portion of the OSSF.

Except for Aerobic systems, the liquid from the OSSF is still heavily laden with bacteria. Contact with this liquid should be avoided, if it surfaces.

WATER CONSERVATION MEASURES (if applicable):

Showers usually use less water than baths. Install a water saving shower head that uses less than 2 1/2 gallons per minute and saves both water and energy.

If you take a tub bath, reduce the level of water in the tub from the level to which you customarily fill it.

Leaky faucets and faulty toilet fill-up mechanisms should be repaired as quickly as possible.

Check toilets for leaks that may not be apparent. Add a few drops of food coloring to the tank. Do not flush. If the color appears in the bowl within a few minutes, the toilet fill or ball-cock valve needs to be adjusted to prevent water from overflowing the stand pipe, or the flapper at the bottom of the toilet tank needs to be replaced.

Reduce the amount of water used for flushing the toilet by installing one of the following: a new toilet (1.6 gallon); a toilet tank dam; or filling and capping one-quart plastic bottles with water (usually one is all that will fit in smaller toilet tanks) and lowering them into the tank of the existing 3.5 gallon or larger toilet. Do not use bricks since they may crumble and cause damage to the fixture.

continued next page.....

Owner	Matt Speer	**Drawn by:**	Davy Crandall
Location	See sheet #1	**Drawing No.**	100-10266

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400
FIRM NO. 5549

Date: 9/4/25
Scale: None
Sheet 4 **of** 6

Kaeleigh R. Crandall
STATE OF TEXAS
KAELEIGH ROSE CRANDALL
134570
LICENSED
PROFESSIONAL ENGINEER
9/4/25

SITE EVALUATION AND CALCULATIONS

Try to run the dishwasher with a full load, whenever possible.

Avoid running the water continuously for brushing teeth, washing hands, rinsing kitchen utensils, or for cleaning vegetables.

Use faucet aerators that restrict flow to no more than 2.2 gallons per minute to reduce water consumption.

Keep a container of drinking water in the refrigerator instead of running the faucet until the water turns cool.

Insulate all hot water pipes to avoid long delays of wasted water while waiting for the heated water.

Ask your city, county, or local government about their programs to conserve water, and how they can help you save water.

Owner	Matt Speer	**Drawn by:**	Davy Crandall
Location	See sheet #1	**Drawing No.**	100-10266

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400
FIRM NO. 5549

Date: 9/4/25

Scale: None

Sheet 5 **of** 6

Kaeleigh R. Crandall

STATE OF TEXAS
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134570
LICENSED
PROFESSIONAL ENGINEER

9/4/25

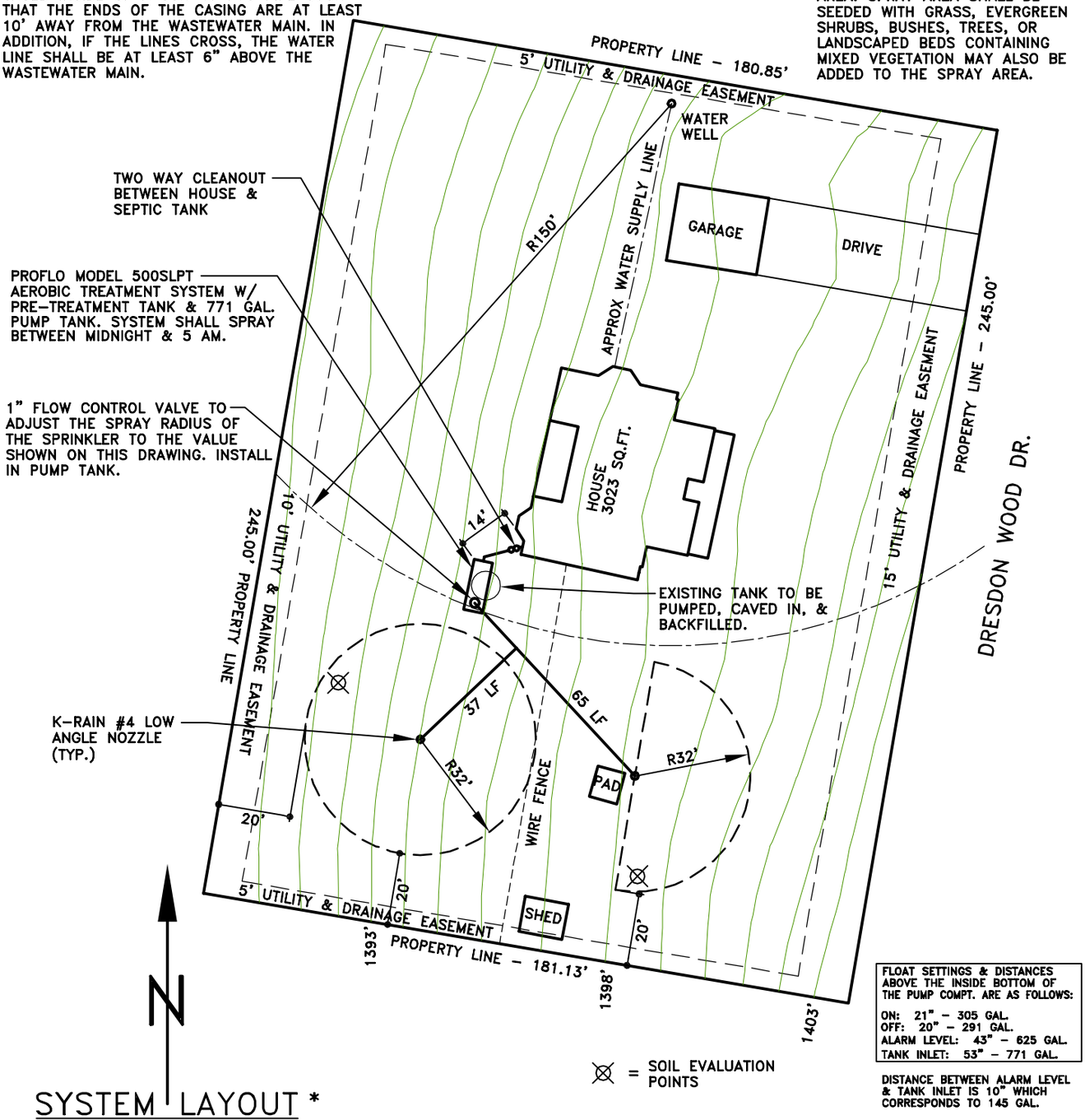
MANGOLD ENGINEERING COMPANY WILL NOT BE RESPONSIBLE FOR THE CONSEQUENCES OF THE USE OF ANY PART OF THE ENGINEERING OF THIS SEPTIC SYSTEM BEFORE THE ENGINEERING HAS BEEN COMPLETELY AND FINALLY APPROVED BY THE APPROPRIATE COUNTY AUTHORITY IN THE COUNTY FOR WHICH IT IS INTENDED. IF TEST HOLES WERE NOT PRESENT DURING THE SITE-EVALUATION, THE OWNER/INSTALLER SHALL BE RESPONSIBLE FOR DIGGING TEST HOLES AND CONTACTING MANGOLD ENGINEERING COMPANY PRIOR TO ANY USE OF THIS ENGINEERING DESIGN.

WHERE A WATER LINE IS CLOSER THAN 10' TO A WASTEWATER MAIN, THE WATER LINE SHALL BE CASED INSIDE OF A SCH 40 PVC PIPE SUCH THAT THE ENDS OF THE CASING ARE AT LEAST 10' AWAY FROM THE WASTEWATER MAIN. IN ADDITION, IF THE LINES CROSS, THE WATER LINE SHALL BE AT LEAST 6" ABOVE THE WASTEWATER MAIN.

ALL SPRINKLERS ARE K-RAIN TYPE W/ LOW ANGLE NOZZLES

THE DISTRIBUTION LINE TO THE SPRINKLERS IS A 1" DIA. SCH 40 PVC LINE

SOIL SHALL BE PRESENT OVER ENTIRE SEPTIC SYSTEM SPRAY AREA. SPRAY AREA SHALL BE SEEDED WITH GRASS, EVERGREEN SHRUBS, BUSHES, TREES, OR LANDSCAPED BEDS CONTAINING MIXED VEGETATION MAY ALSO BE ADDED TO THE SPRAY AREA.



FLOAT SETTINGS & DISTANCES ABOVE THE INSIDE BOTTOM OF THE PUMP COMPT. ARE AS FOLLOWS:

ON: 21" - 305 GAL.
OFF: 20" - 291 GAL.
ALARM LEVEL: 43" - 625 GAL.
TANK INLET: 53" - 771 GAL.

DISTANCE BETWEEN ALARM LEVEL & TANK INLET IS 10" WHICH CORRESPONDS TO 145 GAL.

SYSTEM LAYOUT *

Scale: 1" = 40'

* Septic tank must be a minimum of 50' from any water well. Closest distance from any part of spray area to water well must be 100' minimum, unless well is pressure cemented.
Minimum setback of spray area from property lines is 10'.
Minimum separation distance between septic tank or spray area and water supply lines is 10'.
Setback of spray area from lakes, streams, ponds, and rivers is 50' minimum.

NOTES:

SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT RUN. PIPE IS 4" DIA. SCH 40 PVC.

PRE-TREATMENT TANK IS BUILT ONTO THE AEROBIC TREATMENT UNIT. NO ADDITIONAL TRASH TANK IS REQUIRED IN THIS SYSTEM.

SYSTEM WILL BE INSPECTED BY COUNTY INSPECTOR IN ACCORDANCE WITH CURRENT COUNTY INSPECTION PROCEDURES.

Owner Matt Speer

Location 703 Dresdon Wood Dr.

Drawn by: Davy Crandall

Drawing No. 100-10266A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400
FIRM NO. 5549

Date: 9/5/25

Scale: Noted

Sheet 6 of 6

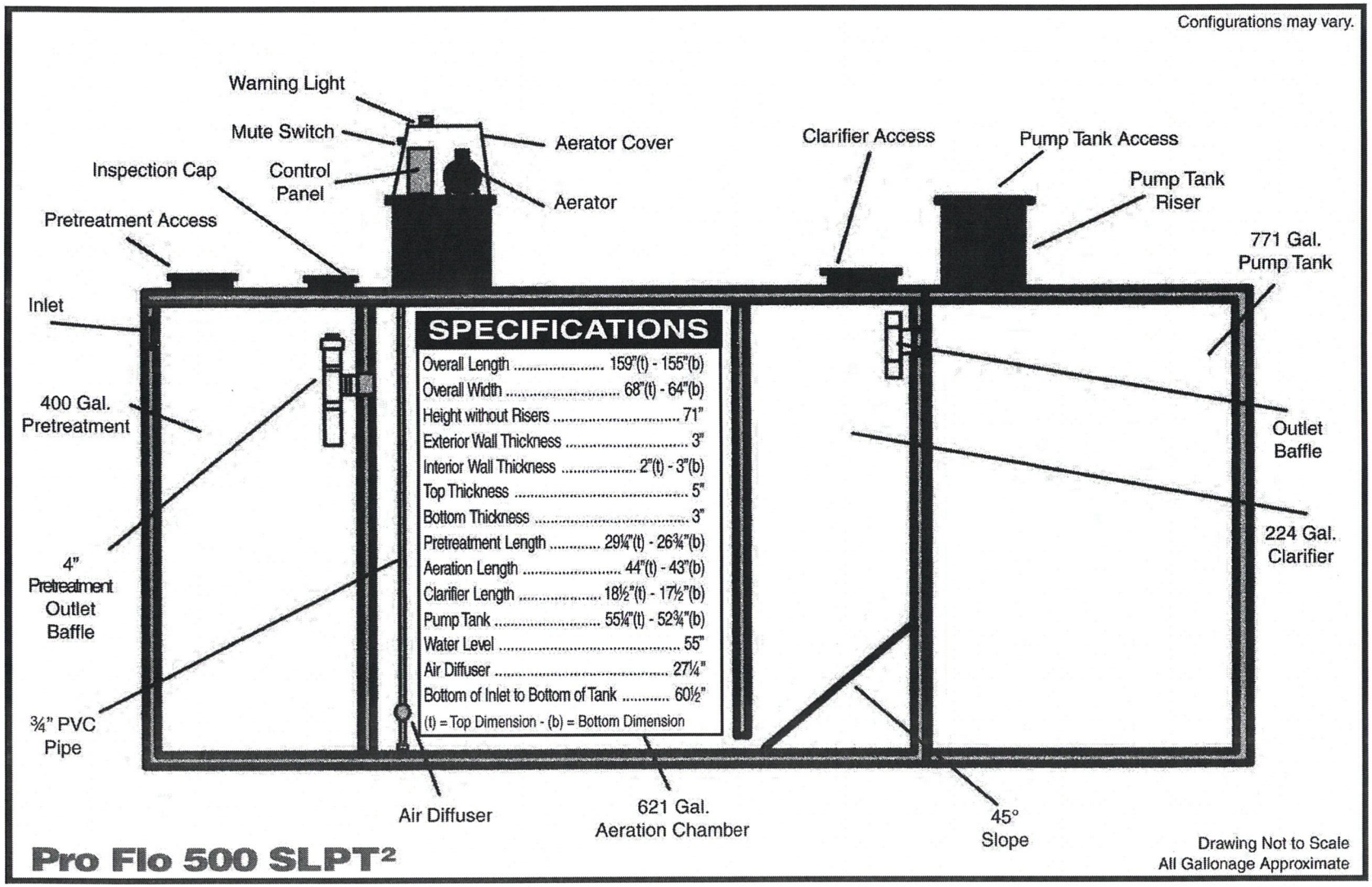
Kaeleigh R Crandall

STATE OF TEXAS
KAELEIGH ROSE CRANDALL
134570
LICENSED PROFESSIONAL ENGINEER

9/5/25

Pro Flo 500 SLPT² System Diagram

Configurations may vary.



Pro Flo 500 SLPT²

Drawing Not to Scale
All Gallonage Approximate

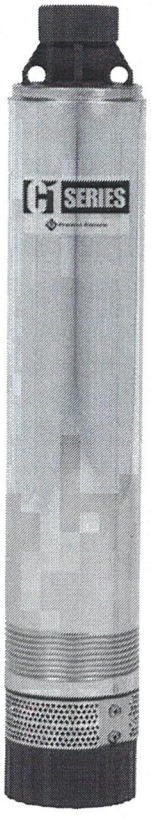
EFFLUENT PUMPS

Little GIANT®

C1 SERIES - 1/2 HP

APPLICATIONS

Gray water pumping, filtered effluent service water pumping,
water reclamation projects such as pumping from rain catchment basins,
aeration and other fountain or pond applications, agriculture and livestock water pumping



FEATURES

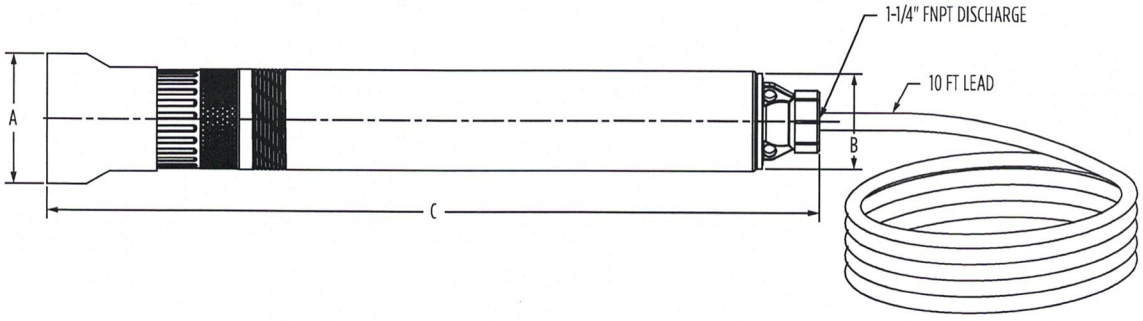
- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components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

SERIES SPECIFICATIONS

Item No	Model	HP	Volts	Hz	Stages	Amps	Watts	Wire	Min. Shut-Off Head		Min. Head @ Rated Flow		Max GPM	Min. Head @ Max. GPM		Max. Amps
									PSI	FT	PSI	FT		PSI	FT	
90301005	10C1-05P4-2W115	1/2	115	60	7	9.0	920	2	93	215	50	115	14	22	50	10
90301010	10C1-05P4-2W230	1/2	230	60	7	4.5	920	2	93	215	50	115	14	22	50	5
90302005	20C1-05P4-2W115	1/2	115	60	5	9.0	920	2	56	130	34	78	28	9	20	10
90302010	20C1-05P4-2W230	1/2	230	60	5	4.5	920	2	56	130	34	78	28	9	20	5
90302015	20XC1-05P4-2W115	1/2	115	60	6	9.0	920	2	68	156	37	85	28	9	21	10
90302020	20XC1-05P4-2W230	1/2	230	60	6	4.5	920	2	68	156	37	85	28	9	21	5
90303005	30C1-05P4-2W115	1/2	115	60	4	9.0	920	2	39	89	19	45	35	13	29	10
90303010	30C1-05P4-2W230	1/2	230	60	4	4.5	920	2	39	89	19	45	35	13	29	50

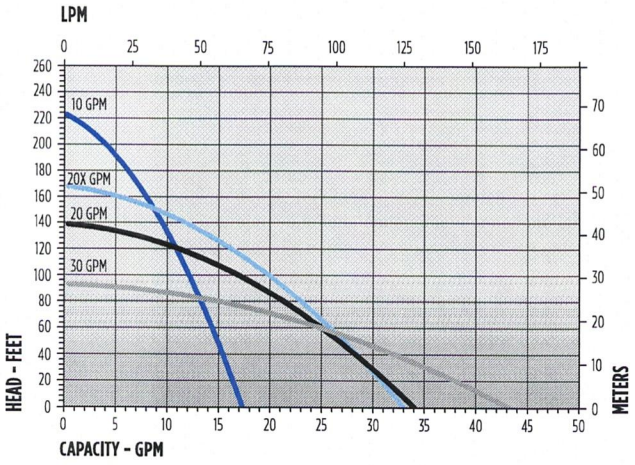
C1 SERIES - 1/2 HP

ENGINEERING DATA



Item No	Model	A	B	C
90301005	10C1-05P4-2W115	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90301010	10C1-05P4-2W230	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90302005	20C1-05P4-2W115	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90302010	20C1-05P4-2W230	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90302015	20XC1-05P4-2W115	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90302020	20XC1-05P4-2W230	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90303005	30C1-05P4-2W115	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm
90303010	30C1-05P4-2W230	5" 12.70 cm	3.9" 9.91 cm	26" 66.04 cm

PERFORMANCE DATA



ProPlus™ Gear Driven Sprinkler Setting Instructions

NOTE: The ***ProPlus*** is factory preset with a 90° arc setting, and includes a pre-installed #2.5 nozzle.

CHANGING A NOZZLE

1▶ REMOVING THE NOZZLE RETENTION SCREW

Use your K-Key or a small flat blade screwdriver to remove the nozzle retention screw by turning counter-clockwise to remove and clockwise to re-install.

2▶ PULL UP THE RISER

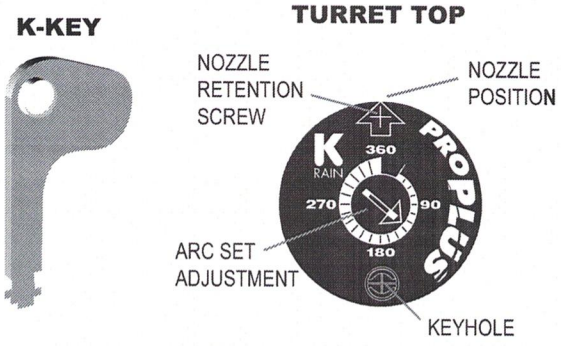
Insert the k-Key in the keyhole on the top of the nozzle turret and turn the key 1/4 turn to insure that the key does not slip out of the keyhole when you pull it up. Firmly pull up the entire spring-loaded riser to access the nozzle socket. Hold the riser assembly with one hand.

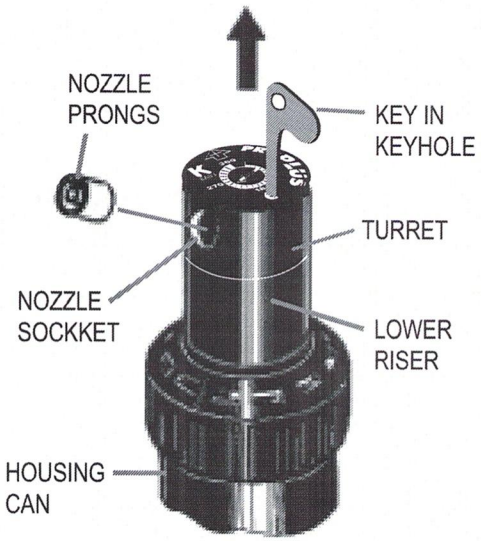
3▶ REMOVING THE NOZZLE

With the nozzle retention screw removed, insert the K-Key into the slot directly under the nozzle "prongs" at the top of the mozzle. Now, turn the key 1/4 turn to "hook" the nozzle and pull the nozzle out.

4▶ INSTALLING A NOZZLE

Press the desired nozzle into the nozzle socket. Make sure the nozzle number is visible and the nozzle "prongs" are up. Then, re-install the nozzle retention screw. **NOTE:** The nozzle retention screw is also a break-up screw and used to adjust the distance of the spray.





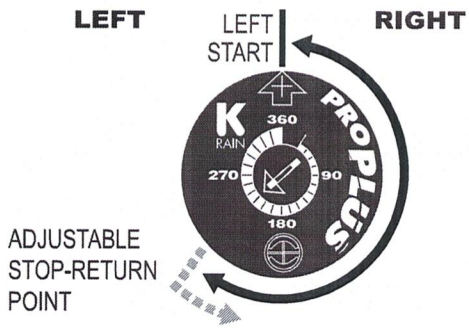
SETTING THE ARC ADJUSTMENT

1▶ FINDING THE LEFT START POSITION

Place your finger on the top center of the nozzle turret. Rotate the turret to the right until it stops and then back to the left until it stops. Notice the position of the nozzle arrow. This is the "Left Start" position. The sprinkler will begin spraying from this position and rotate clockwise until it reaches the right Adjustable Stop-Return Point.

2▶ ORIENTING THE LEFT START POSITION

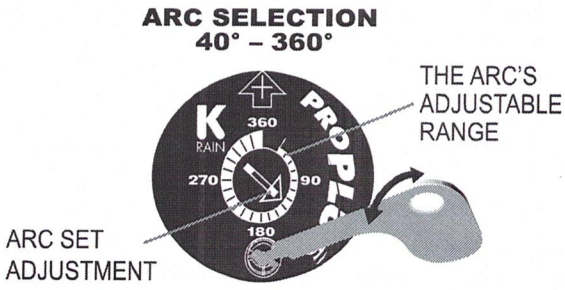
Insert the K-Key in the keyhole on the top of the nozzle turret and turn the key ¼ turn to insure that the key does not slip out of the keyhole when you pull it up. Being careful not to allow the nozzle turret to turn, firmly pull up the entire spring-loaded riser. Hold the lower riser assembly up with one hand. Now turn only the lower riser clockwise or counter-clockwise until the nozzle arrow is pointing where you want the sprinkler to begin spraying.



3▶ CHANGING THE ARC

Insert the K-Key or a small flat blade screwdriver into the Arc Set Adjustment slot. Turn clockwise to increase the arc or counter-clockwise to decrease the arc.

WHEN SET AT 360°, THE *PROPLUS* WILL ROTATE CONTINUOUSLY IN A CLOCKWISE DIRECTION.



ProPlus™ Gear Driven Sprinkler Setting Instructions

SPRINKLER INSTALLATION

1 ▶ INSTALL AND BURY

Do not use pipe dope. Thread the sprinkler on the pipe. Bury the sprinkler flush to grade. **NOTE:** Gear driven sprinklers and pop-up sprays should not be installed on the same watering zone.

2 ▶ INSPECTING THE FILTER

Unscrew the top and lift the complete sprinkler assembly out of the housing can. The filter is located on the bottom of the sprinkler assembly and can be easily pulled out, cleaned and re-installed.

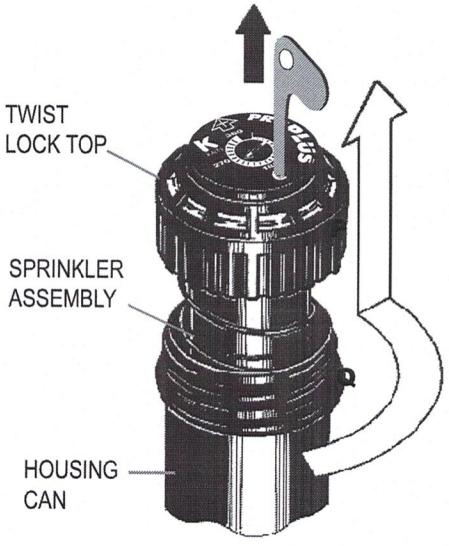
3 ▶ WINTERIZATION TIPS

When using an air compressor to remove water from the system please note the following:

a. Do not exceed 30 PSI.

b. Always introduce air into the system gradually to avoid air pressure surges. Sudden release of compressed air into the sprinkler can cause damage.

c. Each zone should run no longer than 1 minute on air. Sprinklers turn 10 to 12 time faster on air than on water. Over spinning rotors on air can cause damage to the internal components.



PERFORMANCE DATA

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIP in/hr / mm/hr			
	PSI	kPa	Bars	Ft.	M.	GPM	L/M	M³/H	■	▲	■	▲
#0.5	30	207	2.1	28	8.5	0.5	1.9	0.11	0.12	0.14	3	4
	40	276	2.8	29	8.8	0.6	2.3	0.14	0.14	0.16	3	4
	50	345	3.5	29	8.8	0.7	2.7	0.16	0.16	0.19	4	5
	60	414	4.1	30	9.1	0.8	3.0	0.18	0.17	0.20	4	5
#0.75	30	207	2.1	29	8.8	0.7	2.7	0.16	0.16	0.19	4	5
	40	275	2.8	30	9.1	0.8	3.0	0.18	0.17	0.20	4	5
	50	344	3.4	31	9.4	0.9	3.4	0.20	0.18	0.21	5	5
	60	413	4.1	32	9.8	1.0	3.8	0.23	0.19	0.22	5	6
#1.0	30	207	2.1	32	9.8	1.3	4.9	0.30	0.24	0.28	6	7
	40	275	2.8	33	10.1	1.5	5.7	0.34	0.27	0.31	7	8
	50	344	3.4	34	10.4	1.6	6.1	0.36	0.27	0.31	7	8
	60	413	4.1	35	10.7	1.8	6.8	0.41	0.28	0.33	7	8
#2.0	30	207	2.1	37	11.3	2.4	9.1	0.55	0.34	0.39	9	10
	40	275	2.8	40	12.2	2.5	9.5	0.57	0.30	0.35	8	9
	50	344	3.4	42	12.8	3.0	11.4	0.68	0.33	0.38	8	10
	60	413	4.1	43	13.1	3.3	11.4	0.68	0.34	0.36	8	9
2.5 Pre-installed	30	207	2.1	38	11.6	2.5	9.5	0.57	0.33	0.38	8	10
	40	275	2.8	39	11.9	2.8	10.6	0.64	0.35	0.41	9	10
	50	344	3.4	40	12.2	3.2	12.1	0.73	0.39	0.44	10	11
	60	413	4.1	41	12.5	3.5	13.3	0.80	0.40	0.46	10	12
#3.0	30	207	2.1	38	11.6	3.6	13.6	0.82	0.48	0.55	12	14
	40	275	2.8	39	11.9	4.2	15.9	0.96	0.53	0.61	14	16
	50	344	3.4	41	12.5	4.6	17.4	1.05	0.53	0.61	13	15
	60	413	4.1	42	12.8	5.0	19.0	1.14	0.55	0.63	14	16
#4.0	30	207	2.1	43	13.1	4.4	16.7	1.00	0.46	0.53	12	13
	40	275	2.8	44	13.4	5.1	19.3	1.16	0.51	0.59	13	15
	50	344	3.4	46	14.0	5.6	21.2	1.27	0.51	0.59	13	15
	60	413	4.1	49	14.9	5.9	22.4	1.34	0.47	0.55	12	14
#6.0	40	276	2.8	45	13.7	5.9	22.4	1.34	0.56	0.65	14	16
	50	344	3.4	46	14.0	6.0	22.7	1.36	0.55	0.63	14	16
	60	413	4.1	48	14.6	6.3	23.9	1.43	0.53	0.61	13	15
	70	482	4.8	49	14.9	6.7	25.4	1.52	0.54	0.62	14	16
#8.0	40	276	2.8	42	12.8	8.0	30.3	1.82	0.87	1.01	22	26
	50	344	3.4	45	13.7	8.5	32.2	1.93	0.81	0.93	21	24
	60	413	4.1	49	14.9	9.5	36.0	2.16	0.76	0.88	19	22
	70	482	4.8	50	15.2	10.0	37.9	2.27	0.77	0.89	20	23

LOW ANGLE PERFORMANCE DATA

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIP in/hr / mm/hr			
	PSI	kPa	Bars	Ft.	M.	GPM	L/M	M³/H	■	▲	■	▲
#1.0	30	207	2.1	22	6.7	1.2	4.5	.27	0.48	0.55	12	14
	40	276	2.8	24	7.3	1.7	6.4	.39	0.57	0.66	14	17
	50	345	3.4	26	7.9	1.8	6.8	.41	0.51	0.59	13	15
	60	414	4.1	28	8.5	2.0	7.6	.45	0.49	0.57	12	14
#3.0	30	207	2.1	29	8.8	3.0	11.4	.68	0.69	0.79	17	20
	40	276	2.8	32	9.8	3.1	11.7	.70	0.58	0.67	15	17
	50	345	3.4	35	10.7	3.5	13.2	.80	0.55	0.64	14	16
	60	414	4.1	37	11.3	3.8	14.4	.86	0.53	0.62	14	16
#4.0	30	207	2.1	31	9.4	3.4	12.9	.77	0.68	0.79	17	20
	40	276	2.8	34	10.4	3.9	14.8	.89	0.65	0.75	17	19
	50	345	3.4	37	11.3	4.4	16.7	1.00	0.62	0.71	16	18
	60	414	4.1	38	11.6	4.7	17.8	1.07	0.63	0.72	16	18
#6.0	40	275	2.8	38	11.6	6.5	24.6	1.48	0.87	1.00	22	25
	50	344	3.4	40	12.2	7.3	27.7	1.66	0.88	1.01	22	26
	60	413	4.1	42	12.8	8.0	30.3	1.82	0.87	1.01	22	26
	70	482	4.8	44	13.4	8.6	32.6	1.96	0.86	0.99	22	25

**All precipitation rates calculated for 180° operation.*
For the precipitation rate for a 360° sprinkler, divide by 2.

K-RAIN MANUFACTURING CORP.
1640 Australian Avenue
Riviera Beach, FL 33404 USA
PH: 561.844.1002 / 1.800.735.7246
FAX: 561.842.9493
www.krain.com

Part Number: 1100519 Rev. 01

COMAL COUNTY
ENGINEER'S OFFICE

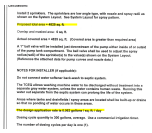
Address: 703 Dresdenwood Dr.

Legal Description: Dresdenwood 1, LOT 15

Dear Property Owner & Agent,
Thank you for your submission. We have reviewed the planning materials for the referenced permit application, and unfortunately, they are insufficient. To proceed with processing this permit, we require the following:

119002.pdf Markup Summary 9-12-2025

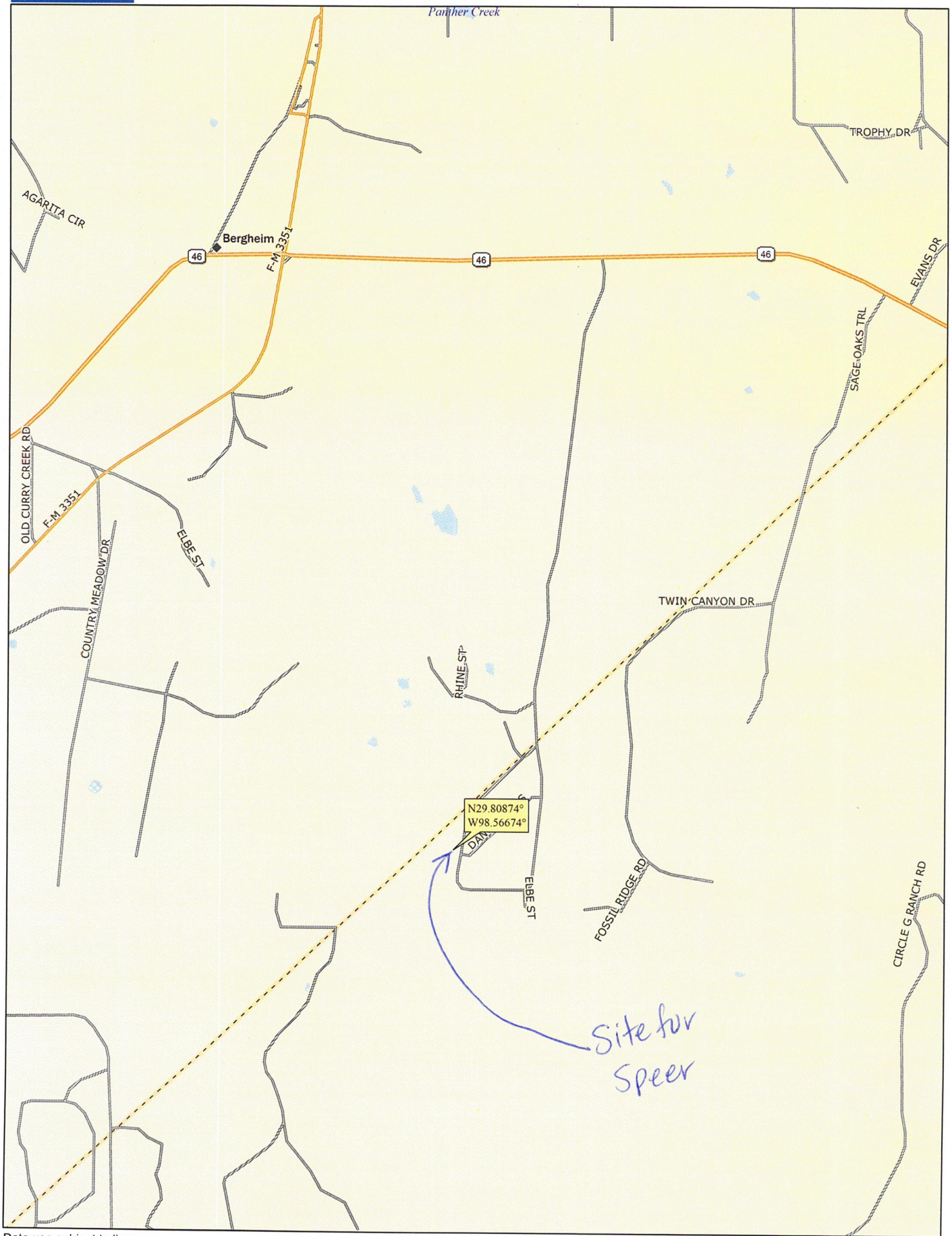
Unchecked (1)



Subject: Line
Page Label: 15
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 9/12/2025 4:22:06 PM
Response:

195 David Jonas Dr, New Braunfels, Texas 78132
(830) 608-2090

DeLorme Street Atlas USA® 2013



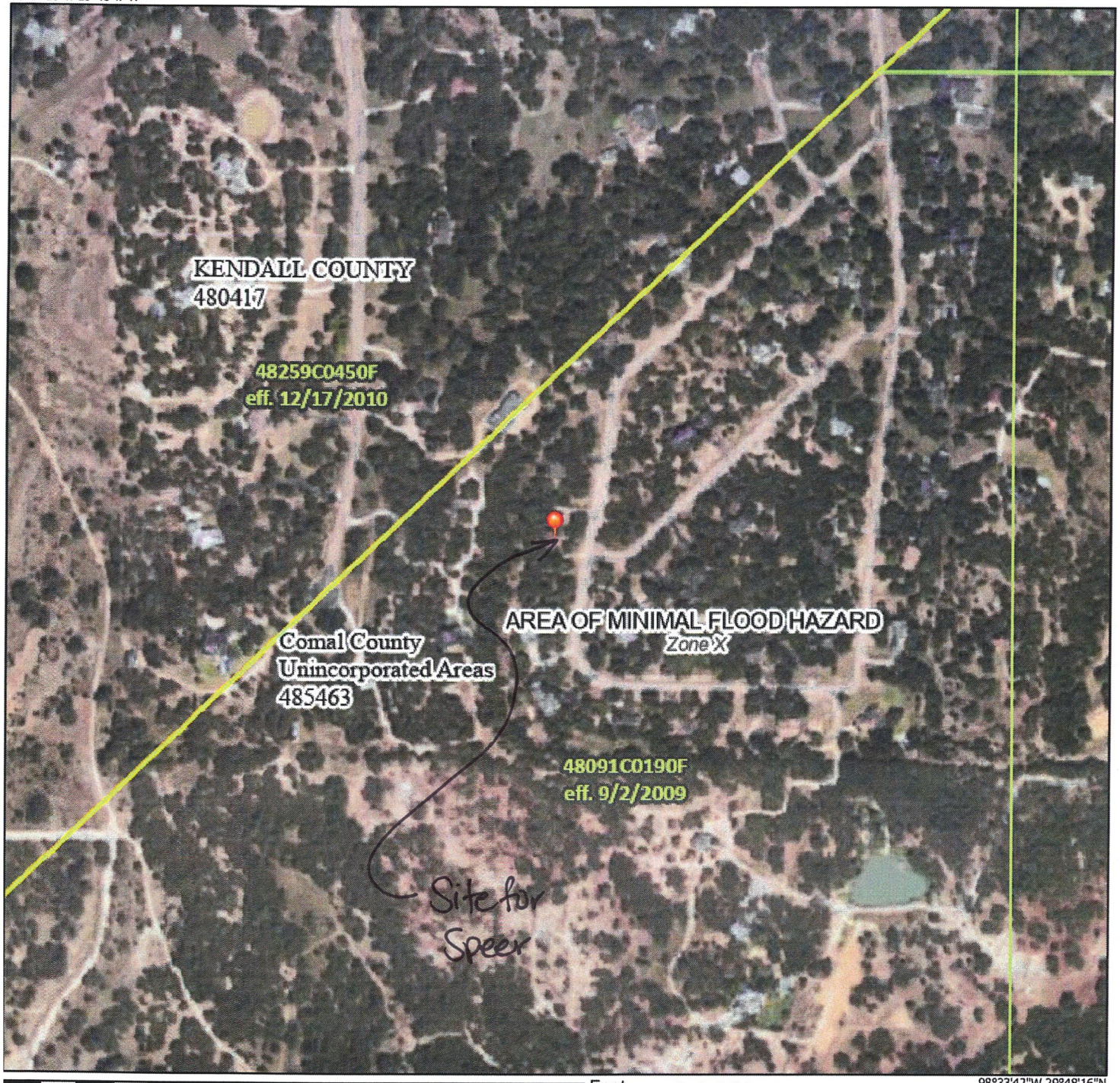
TN
MN (3.2°E)

Scale 1 : 17,600
1" = 1,466.7 ft
Data Zoom 13-5

National Flood Hazard Layer FIRMette

FEMA

98°34'19"W 29°48'47"N



98°33'42"W 29°48'16"N

0 250 500 1,000 1,500 2,000 Feet 1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/4/2025 at 2:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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

WARRANTY DEED WITH VENDOR'S LIEN

Preserve Title Company LLC

GF# 060170

Date: **November 15, 2019**

Grantor: **MARCELLE D. VOSS and WAYNE A. VOSS, by his Agent and Attorney-In-Fact MARCELLE D. VOSS**

Grantor's Mailing Address: 123 Roundabout Ln
(including county) Kerrville, Kerr County, TX 78028

Grantee: **MATT SPEER and EMILY SPEER**

Grantee's Mailing Address: **703 Dresden Wood Dr.**
(including county) **Boerne, Comal County, TX 78006**

Consideration: TEN AND NO/100 DOLLARS ($10.00) and other valuable consideration and a note of even date in the principal amount of **One and no/100** DOLLARS ($ 1.00) executed by Grantee payable to the order of **CANOPY MORTGAGE, LLC**. The note is secured by a vendor's lien retained in favor of **CANOPY MORTGAGE, LLC** in this deed and by a deed of trust of even date from Grantee to **ALLAN B. POLUNSKY**, Trustee.

Property (including any improvements):

Lot 15, DRESDEN WOOD, UNIT 1, situated in Comal County, Texas, as shown on plat recorded in Volume 7, Pages 179-181, Map and Plat Records of Comal County, Texas.

Reservations from and Exceptions to Conveyance and Warranty:

This conveyance is made subject to any easements, conditions, mandatory homeowners assessments and/or restrictions of record affecting the title to the hereinbefore described property .

Grantor, for the consideration and subject to the reservations from and exceptions to conveyance and warranty, grants, sells, and conveys to Grantee the property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's heirs, executors, administrators, successors, or assigns forever. Grantor hereby binds Grantor and Grantor's heirs, executors, administrators, and successors to warrant and forever defend all and singular the property to Grantee and Grantee's heirs, executors, administrators, successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty.

The vendor's lien against and superior title to the property are retained until each note described is fully paid according to its terms,

at which time this deed shall become absolute.

CANOPY MORTGAGE, LLC, at Grantee's request, has paid in cash to Grantor that portion of the purchase price of the property that is evidenced by the note described above. The vendor's lien and superior title to the property are retained for the benefit of **CANOPY MORTGAGE, LLC** and are transferred to that party without recourse on Grantor.

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

Marcelle D. Voss
MARCELLE D. VOSS

Wayne A. Voss by Marcelle D. Voss as attorney in fact
WAYNE A. VOSS, by his Agent and Attorney-In-Fact MARCELLE D. VOSS

THE STATE OF TEXAS }
COUNTY OF Kendall

(Acknowledgment)

JODEE AUSTIN
ID# 12458549-4
Notary Public
STATE OF TEXAS
My Comm. Exp. 09-20-2020

This instrument was acknowledged before me on the 15 day of November, 20 19,

by **MARCELLE D. VOSS**

Jodee Austin — Jodee Austin — 9-20-2020
Notary Public, State of Texas — Notary's Name (printed) — Notary's commission expires

THE STATE OF TEXAS }
COUNTY OF Kendall

(Acknowledgment)

JODEE AUSTIN
ID# 12458549-4
Notary Public
STATE OF TEXAS
My Comm. Exp. 09-20-2020

This instrument was acknowledged before me on the 15 day of November, 20 19,

by **WAYNE A. VOSS, by his Agent and Attorney-In-Fact MARCELLE D. VOSS**

Jodee Austin — Jodee Austin — 9-20-2020
Notary Public, State of Texas — Notary's Name (printed) — Notary's commission expires

THE STATE OF TEXAS }
COUNTY OF _____

(Acknowledgment)

This instrument was acknowledged before me on the _____ day of _____, 20_____,

by

_____ — _____ — _____
Notary Public, State of Texas — Notary's Name (printed) — Notary's commission expires

THE STATE OF TEXAS }

COUNTY OF _____

(Acknowledgment)

This instrument was acknowledged before me on the _____ day of _____, 20_____,

by

_____ _____ _____

Notary Public, State of Texas | Notary's Name (printed) | Notary's commission expires

---

AFTER RECORDING RETURN TO:

MATT SPEER
703 Dresden Wood Dr.
Boerne, TX 78006

PREPARED IN THE LAW OFFICE OF:

MORTON W. BAIRD II
242 W. Sunset, Suite 201
San Antonio, Texas 78209

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
11/18/2019 08:03:23 AM
TERRI 3 Pages(s)
201906041493

County Court of Comal County, Texas

Bobbie Koepp