



COMAL COUNTY

ENGINEER'S OFFICE

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: **07/05/2023** Permit Number: **115830**

Location Description: 608 LUEHLFING DR
CANYON LAKE, TX 78133

Subdivision: THE OAKS
Unit: 2
Lot: 9T (pt)
Block: 0
Acreage: 0.0000

Type of System: Aerobic
Drip Irrigation

Issued to: DONELL L. MARKS

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Commission on Environmental Quality.

The license grants permission to operate the facility. It does not guarantee successful operation. It is the responsibility of the owner to maintain and operate the facility in a satisfactory manner.

Alterations to this permit including, but not limited to:

- Increase in the square feet of living area
- Increase in the number of bedrooms
- A change of use (i.e. residential to commercial)
- Relocation of system components (including the relocation of spray heads)
- Installation of landscaping
- Adding new structures to the system

may require a new permit. **It is the responsibility of the owner to apply for a new permit, if applicable.**

Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority

Comal County Environmental Health

OS0036769

ENVIRONMENTAL HEALTH INSPECTOR

ENVIRONMENTAL HEALTH COORDINATOR

OS0007722

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

| Permit#: | | Address: | | | | | |
|----------|--|----------|---|-------|-----------|-----------|-----------|
| No. | Description | Answer | Citations | Notes | 1st Insp. | 2nd Insp. | 3rd Insp. |
| 1 | SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials | | 285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i) | | | | |
| 2 | SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards | | 285.91(10) 285.30(b)(4) 285.31(d) | | | | |
| 3 | SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26) | | 285.32(a)(1) | | | | |
| 4 | SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot | | 285.32(a)(3) | | | | |
| 5 | SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends) | | 285.32(a)(5) | | | | |
| 6 | PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements | | 285.32(b)(1)(G) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I) | | | | |
| 7 | PRETREATMENT Grease Interceptors if required for commercial | | 285.34(d) | | | | |

Inspector Notes:

**Comal County Environmental Health
OSSF Inspection Sheet**

| No. | Description | Answer | Citations | Notes | 1st Insp. | 2nd Insp. | 3rd Insp. |
|-----|---|--------|---|-------|-----------|-----------|-----------|
| 8 | SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements | | 285.32(b)(1) (E)285.91(2)285.32(b)(1) (F)285.32(b)(1)(E) (iii)285.32(b)(1)(E)(ii) (II)285.32(b)(1)(E)(ii) (I)285.32(b)(1)(E) (i)285.32(b)(1) (D)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (i)285.32(b)(1) (B)285.32(b)(1) (A)285.32(b)(1)(E)(iv) | | | | |
| 9 | ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used | | 285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b) | | | | |
| 10 | SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped | | 285.38(d) | | | | |
| 11 | SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions | | 285.38(d) 285.38(e) | | | | |
| 12 | SEPTIC TANK Tank Volume Installed | | | | | | |
| 13 | PUMP TANK Volume Installed | | | | | | |
| 14 | AEROBIC TREATMENT UNIT Size Installed | | | | | | |
| 15 | AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number | | | | | | |
| 16 | DISPOSAL SYSTEM Absorptive | | 285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3) | | | | |
| 17 | DISPOSAL SYSTEM Leaching Chamber | | 285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2) | | | | |
| 18 | DISPOSAL SYSTEM Drip Irrigation | | 285.33(c)(3)(A)-(F) | | | | |

6/27/23 CA: Water line in front needs to be exposed and sleeved tightline between houses is not sleeved water line between houses is in same trench as tightline system is covered need re inspection fee. Need pump receipt

**Comal County Environmental Health
OSSF Inspection Sheet**

| No. | Description | Answer | Citations | Notes | 1st Insp. | 2nd Insp. | 3rd Insp. |
|-----|--|--------|---|-------|-----------|-----------|-----------|
| 32 | EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart | | 285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F) | | | | |
| 33 | AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines. | | 285.32(c)(1) | | | | |
| 34 | AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions | | | | | | |
| 35 | AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place. | | | | | | |
| 36 | PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump | | | | | | |
| 37 | PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions | | | | | | |
| 38 | PUMP TANK Secondary restraint system provided | | | | | | |
| 39 | PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried | | | | | | |

**Comal County Environmental Health
OSSF Inspection Sheet**

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



COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number: 115830
Issued This Date: 03/06/2023
This permit is hereby given to: DONELL L. MARKS

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

608 LUEHLFING DR
CANYON LAKE, TX 78133

Subdivision: THE OAKS
Unit: 2
Lot: 9T (pt)
Block: 0
Acreage: 0.0000

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

| | | |
|----------------------|-----------------|----------------------|
| | | 115830 |
| <i>Date Received</i> | <i>Initials</i> | <i>Permit Number</i> |

Instructions:

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

OSSF Permit

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

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

Signature of Applicant

02/10/2023

Date

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

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



ON-SITE SEWAGE FACILITY APPLICATION

Date January 16, 2023

Permit Number 115830

1. APPLICANT / AGENT INFORMATION

Owner Name DONELL L. MARKS
Mailing Address 608 LUEHLFING DR
City, State, Zip CANYON LAKE, TX 78133
Phone # 713-922-1795
Email donellsdesigns@yahoo.com

Agent Name GREG JOHNSON, P.E.
Agent Address 170 HOLLOW OAK
City, State, Zip NEW BRAUNFELS TEXAS 78132
Phone # 830-905-2778
Email gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name THE OAKS Unit 2 Lot 9T SW PT Block
Survey Name / Abstract Number
Address 608 LUEHLFING DRIVE City CANYON LAKE State TX Zip 78133

3. TYPE OF DEVELOPMENT

[X] Single Family Residential
Type of Construction (House, Mobile, RV, Etc.) EXISTING HOUSE + Detached living
Number of Bedrooms 2+1
Indicate Sq Ft of Living Area 1556+408

[] 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: \$ EXSTING (Structure Only)

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

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

Source of Water [X] 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.

Signature of Owner

Date 2/15/2023

#115830

REVISED

4:11 pm, May 16, 2023

*** 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 GREG W. JOHNSON, P.E.

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

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

Tank Size(s) (Gallons) FUJI CE-5 500 GPD / 500 PUMP Absorption/Application Area (Sq Ft) 2000

Gallons Per Day (As Per TCEQ Table III) 240

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

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

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

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

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

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

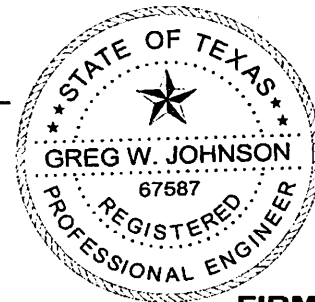
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

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]
Signature of Designer

01/18/2023
Date

AFFIDAVIT

**THE COUNTY OF COMAL
STATE OF TEXAS**

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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

I

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

II

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

2 UNIT PHASE/SECTION _____ BLOCK 9T(pt) LOT _____ THE OAKS _____ SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): DONELL L. MARKS

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.

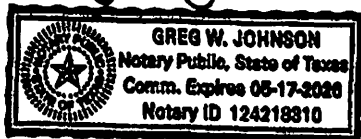
WITNESS BY HAND(S) ON THIS 15 DAY OF February, 2023

[Signature]
Owner(s) signature(s)

DONELL L. MARKS
Owner (s) Printed name (s)

DONELL L. MARKS SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 15 DAY OF February, 2023

[Signature]
Notary Public Signature



Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
02/16/2023 12:07:50 PM
LAURA 1 Pages(s)
202306004908



Bobbie Koepf

GRUENE AEROBIC SERVICES 420 Bear Creek Dr. New
Braunfels, TX 78132

(830) 387-0550

grueneaerobicservices@gmail.com

THE OAKS, U NIT 2, LOT 9T SW PT
608 LUEHLFING DRIVE
CANYON LAKE, TX 78133

INITIAL
TWO YEAR SERVICE POLICY

Gruene Aerobic Services will operate and maintain the sewage treatment spray system located at **PERMIT NUMBER**
DONELL L. MARKS, for the period of *Two (2)* year
Beginning AT LICENSE TO OPERATE and ending _____

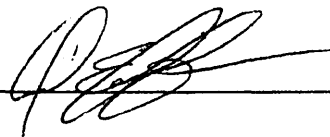
During this period, we will conduct visual inspections every **FOUR (4)** months. We will visually inspect the treatment plant, effluent quality, color, turbidity, odor, sludge and scum buildup. A mechanical visual inspection will include, aerator, irrigation pump, lines and fittings, alarm tests and electrical control conditions. We will also visually inspect the irrigation pump station, spray heads, pressure lines, other tanks, pumps, filters and appurtenances.

This agreement will not cover costs of service calls, labor, or materials which are due to "mis-use" or "abuse" of the system; failure to maintain electrical power to system; sewage flows exceeding the hydraulic/organic design capabilities; disposal of non biodegradable materials (i.e. *baby wipes, plastic, feminine hygiene products*), chemicals, solvents, grease, oil, paint, etc.; or any usage contrary to the requirements listed in the owner's manual or as advised by an authorized service representative. All testing and reporting is required by COMAL County and State regulations. Copies of this contract and all reports will be submitted to the County. ** The system must be accessible at the time of the inspection between the hours of 8AM and 4PM, Monday thru Friday. There will be an extra charge for special appointments. ** Adding chlorine tablets is the responsibility of the owner/user. **Response time for service calls will be within **TWO (2)** work days between the hours of 8AM-4PM Monday thru Friday.

Owner Signature and Date _____



Maintenance Operator _____



Maintenance Operator's License No. MP0001745

Plant Make, Model and Serial No. NUWATER B-550-PC

Owner Contact Phone Number and Email

713-922-1795 donellsdesign@yahoo.com

**THE COUNTY OF COMAL
STATE OF TEXAS**

CERTIFICATION OF SINGLE FAMILY DWELLING

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

I

DONELL L.

Before me this day appeared MARKS, being the owners of the referenced property at 608 LUEHLFING DRIVE. They further state that the Residence and any additional living space on this property will be occupied only by a single family.

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

2 UNIT BLOCK 9T(pt) LOT THE OAKS SUBDIVISION

IF NOT IN SUBDIVISION: ACREAGE SURVEY

The property is owned by DONELL L. MARKS

WITNESS MY HAND ON THIS 15 OF DAY OF February JANUARY, 20 23.

OWNER (SIGNATURE)

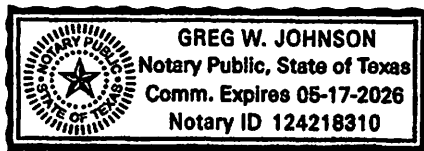
OWNER (SIGNATURE)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 15 DAY OF February JANUARY, 20 23 BY

[Signature]
OWNER NAME (PRINTED)

DONELL L. MARKS
OWNER NAME (PRINTED)

[Signature]
Notary Public Signature



(Notary Seal)

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

Date Soil Survey Performed: January 17, 2023

Site Location: The OAKS, UNIT 2, LOT 9T (Southwest Part)

Proposed Excavation Depth: N/A

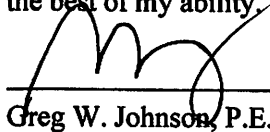
Requirements:

- 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

01/17/2023

 Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date: January 18, 2023

Applicant Information:

Name: DONELL L. MARKS
Address: _____
City: _____ State: TEXAS
Zip Code: _____ Phone: (713) 922-1795

Site Evaluator Information:

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

Property Location:

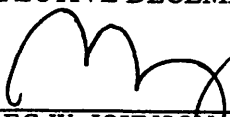
Lot ^{SEE BELOW} Unit 2 Blk _____ Subd. The OAKS
Street Address: 608 LUEHLFING DRIVE
City: CANYON LAKE Zip Code: 78133
Additional Info.: LOT 9T (Southwest Part)

Installer Information:

Name: _____
Company: _____
Address: _____
City: _____ State: _____
Zip Code: _____ Phone _____

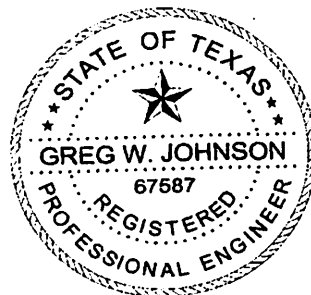
Topography: Slope within proposed disposal area: 6 to 8 %
Presence of 100 yr. Flood Zone: YES ___ NO X
Existing or proposed water well in nearby area. YES ___ NO X
Presence of adjacent ponds, streams, water impoundments YES ___ NO X
Presence of upper water shed YES ___ NO X
Organized sewage service available to lot YES ___ NO X

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).



GREG W. JOHNSON, P.E. 67587 - S.E. 11561

01/18/2023
DATE



FIRM #2585

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:
DONELL L. MARKS
608 LUEHLFING DRIVE
CANYON LAKE, TX 78133**

SITE DESCRIPTION:

Located in The Oak Unit 2, Lot 9T SW Part, at 608 Luehlfing Drive, the proposed system will serve an existing two bedroom residence (1556sf.) and a one bedroom detached living (408 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 Fuji CE500 500gpd aerobic plant. Additionally, a 3-inch SCH-40 pipe discharges from the detached living and joins flow from the residence to the aerobic plant containing a 198-gallon pretreatment tank, an aerobic treatment plant, and a 500-gallon pump tank containing a submersible (Franklin C1 20XC1-05P4-W115) 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 240 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 a 2000 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 30psi installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the disc filter are continuously flushed each cycle back to the pump 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 4" 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" of soil required between tank and drip tubing. The field area will be sodded with grass prior to system startup. Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

DESIGN SPECIFICATIONS:

Daily waste flow: 240 GPD Table III

Pretreatment tank size: 198 Gal

Plant Size: Fuji CE5 500 gpd (TCEQ Approved)

Pump tank size: 500 Gal

Reserve capacity after High Level: 80 Gal (1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf. (Actual 2000 sf.)

Total linear feet drip tubing: 1000' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.0833gpm

Pump Requirement (cont.): Franklin C1 20XC1-05P4-W115 submersible well pump

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

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

$$MSV = 1.5 \text{ gpm PER LINE} * 3 \text{ LINES} = 4.5 \text{ GPM MIN FLOW RATE}$$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

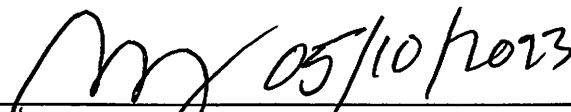
$$MSV = 2(3.14159((1.049/12)^2)/4) * 7.48 * 60$$

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

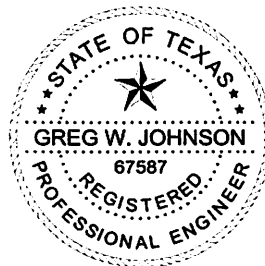
PIPE AND FITTINGS:

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

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

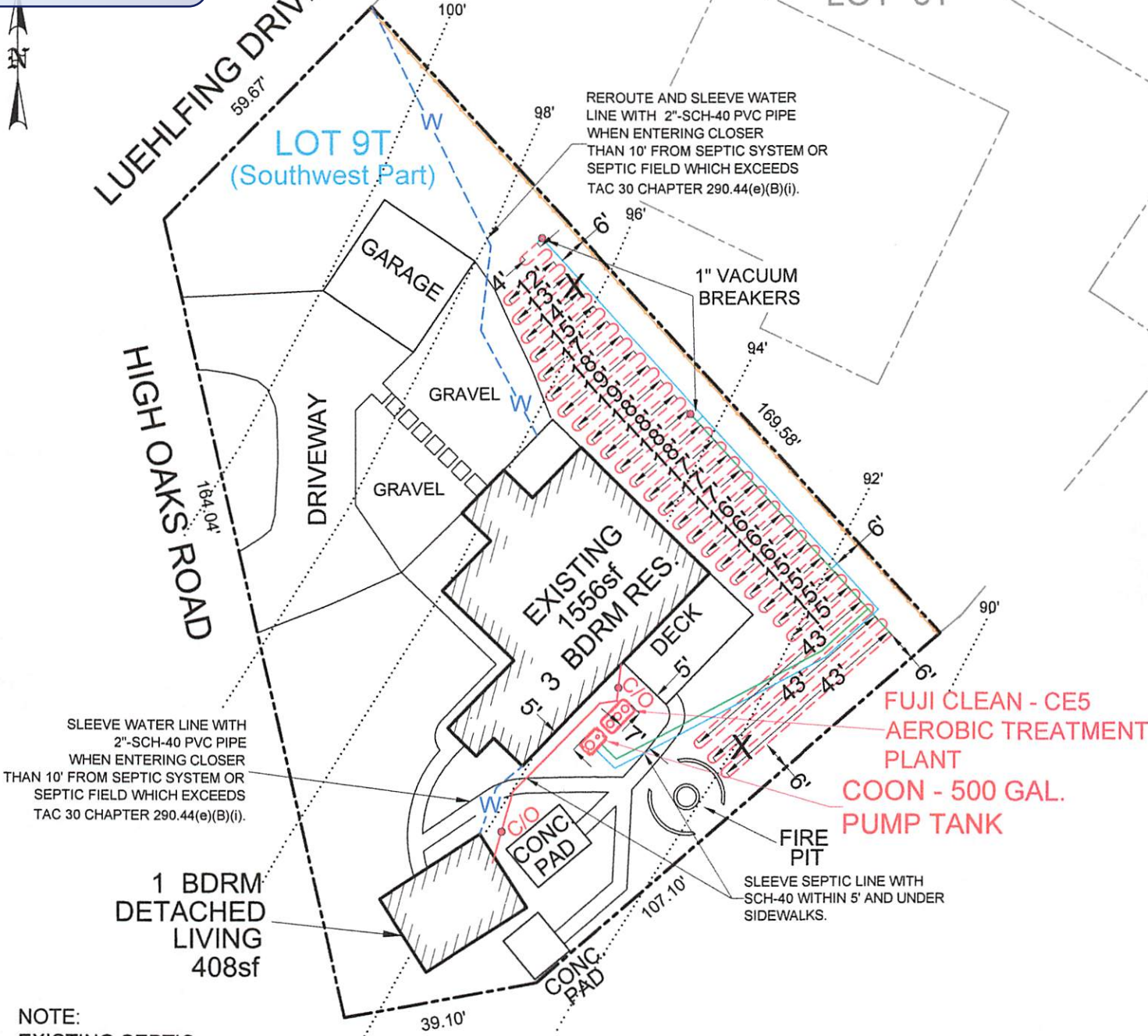


Greg W. Johnson, P.E. No. 67587 / F-2585
170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778



REVISED

4:15 pm, May 16, 2023



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

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

**FUJI CLEAN - CE5
AEROBIC TREATMENT
PLANT
COON - 500 GAL.
PUMP TANK**

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

INSTALL 2028sf OF FIELD USING 1014' 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

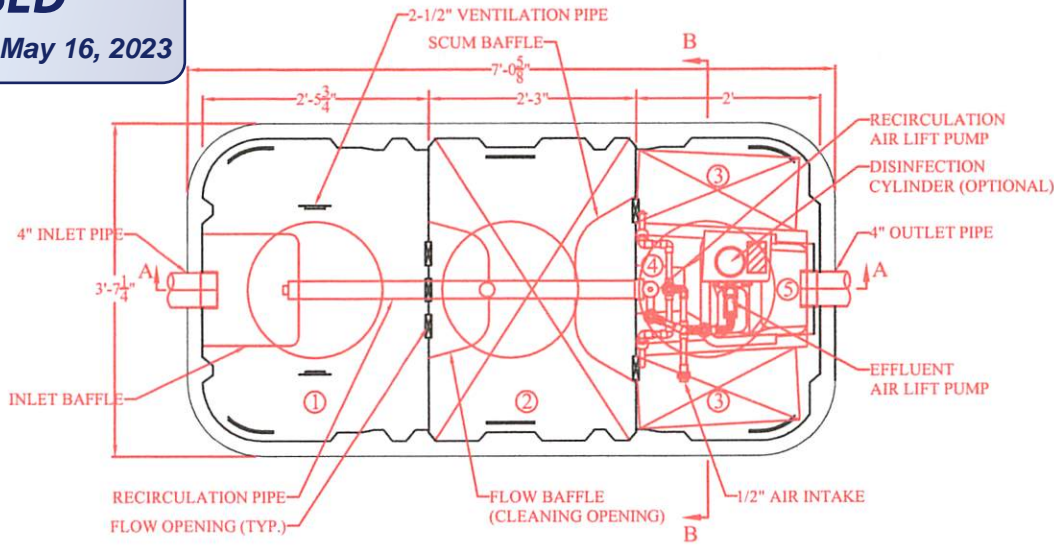
X= TEST HOLE



| | | | |
|---|-----------------------|-------------------|--------------------------|
| OWNER: KARL & DONELL L. MARKS | | DRAWN BY: EJS III | |
| STREET ADDRESS: 608 LUEHLFING DRIVE | | | |
| LEGAL DESC: The OAKS | UNIT/SECTION/PHASE: 2 | BLOCK: | LOT: 9T (Southwest Part) |
| PREPARED BY: GREG W. JOHNSON, P.E. F#002585 | SCALE: 1"=30' | DATE: 1/18/2023 | 2nd REVISION: 5/7/2023 |

REVISED

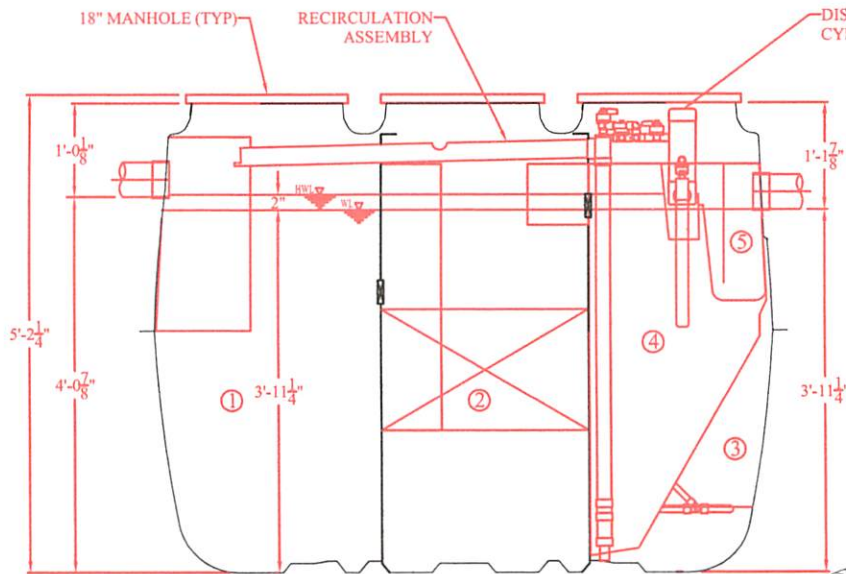
4:15 pm, May 16, 2023



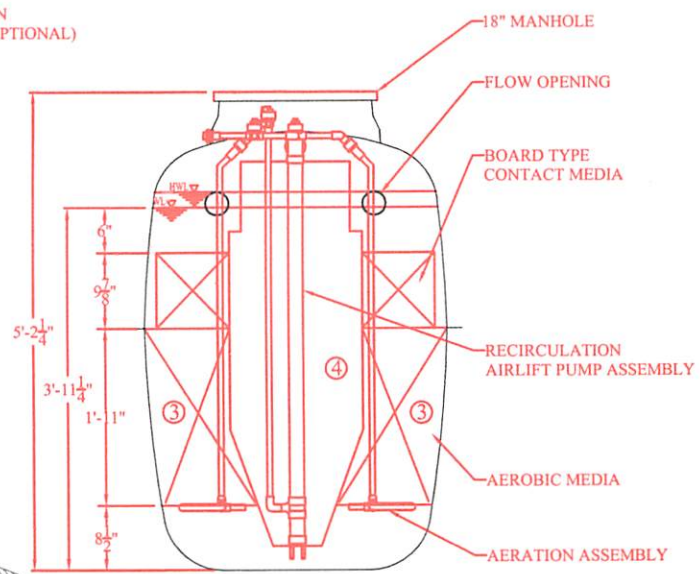
PLAN VIEW

| CHAMBER | | Volume (gal) |
|--------------|------------------------------------|--------------|
| ① | Sedimentation Chamber | 198 |
| ② | Anaerobic Filtration Chamber | 198 |
| ③ | Aerobic Contact Filtration Chamber | 95 |
| ④ | Storage Chamber | 44 |
| ⑤ | Disinfection Chamber | 4 |
| Total Volume | | 540 |

| SPECIFICATIONS | | | |
|--------------------------|---------------------|--------------|-----|
| Anaerobic Media | PP / PE | Filling Rate | 31% |
| Board Type Aerobic Media | PVC / PP / PE | Filling Rate | 16% |
| Aerobic Media | PP / PE | Filling Rate | 55% |
| Blower | 2.8 cfm | | |
| Tank | FRP | | |
| Piping | PVC / PP / PE | | |
| Access Covers | Plastic / Cast Iron | | |
| Disinfectant (Optional) | Chlorine Tablets | | |



SECTION A-A VIEW



SECTION B-B VIEW



*67587
05/10/2022*



CE-5 Structural Drawing

DATE: 03/21/2014 SCALE: 1/2" = 1"

REVISED

4:15 pm, May 16, 2023

TANK NOTES:

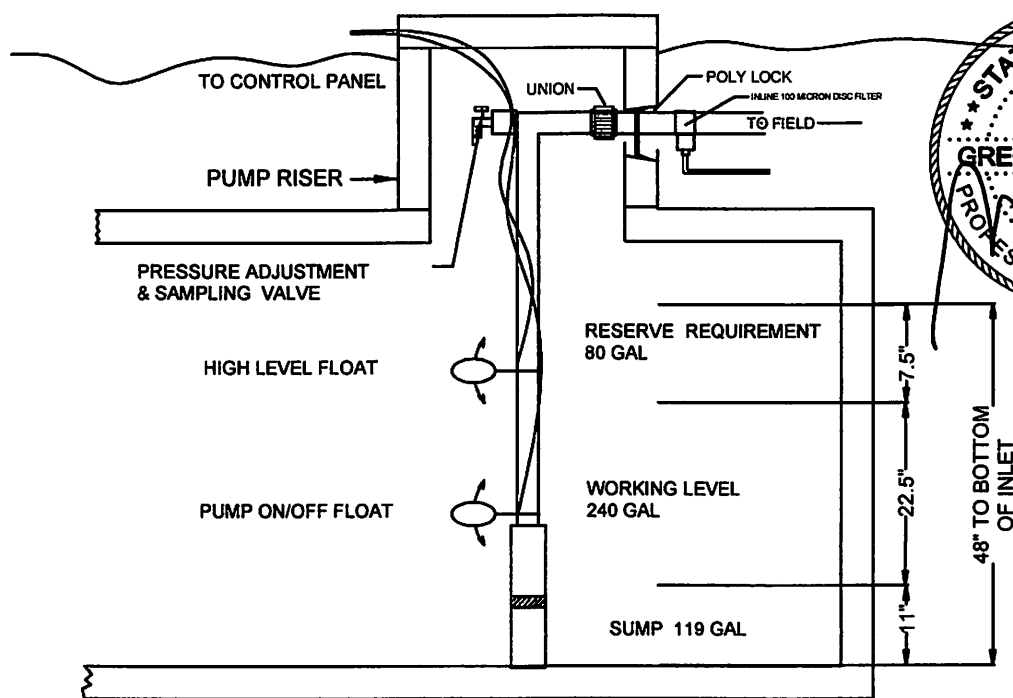
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

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

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

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



**TYPICAL PUMP TANK CONFIGURATION
500 GAL PUMP TANK - 11 gal/in.**

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

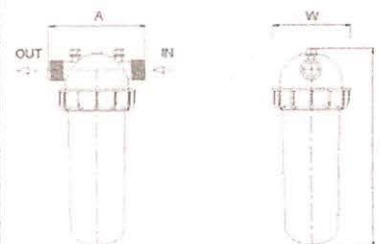
Features

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



Technical Data

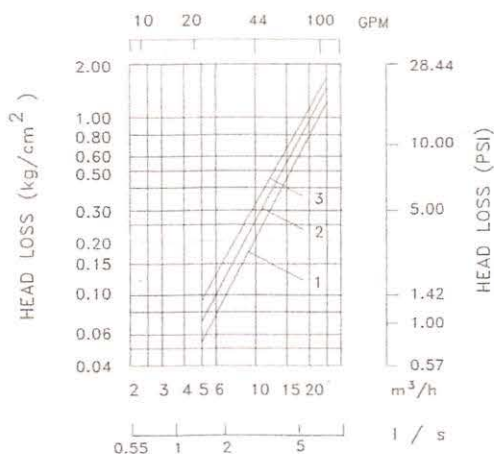
| Inlet/outlet diameter | 1" BSPT (male) | 1" NPT (male) |
|------------------------------------|---|----------------------|
| | 25.0 mm – nominal diameter 33.6 mm – pipe diameter (O. D.) | |
| Maximum pressure | 10 atm | 145 psi |
| Maximum flow rate | 8 m ³ /h (1.7 l/sec) | 35 gpm |
| General filtration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



Filtration Grades

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

Head Loss Chart



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Specifications

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

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

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

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

Inlet

- 3/4-inch Female National Pipe Thread (FNPT)
- 1-inch Female National Pipe Thread (FNPT)
- 1-inch Female British Standard Pipe Thread (FBSPT)

Outlet

- 3/4-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

3/4" FNPT x 3/4" FNPT model (shown on right)

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

1" FNPT x 1" FNPT model

1" FBSPT x 1" FBSPT model

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



* Please consult factory for applications outside of recommended guidelines.



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

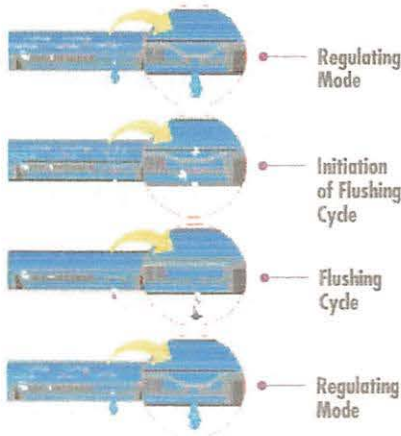
Model Numbers

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



Bioline[®] Dripperline

Pressure Compensating Dripperline for Wastewater



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

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



Product Advantages

The Proven Performer

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

Quality Manufacturing with Specifications Designed to Meet Your Needs

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

Long-Term Reliability

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



Root Safe

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



Applications

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

Specifications

Wall thickness (mil): 45*

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

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

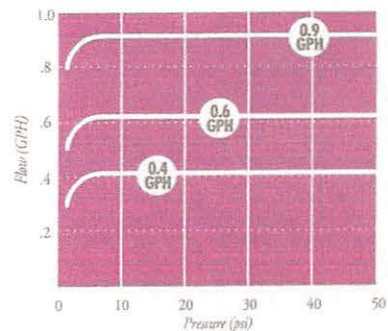
Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable source

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

BIOLINE Flow Rate vs. Pressure



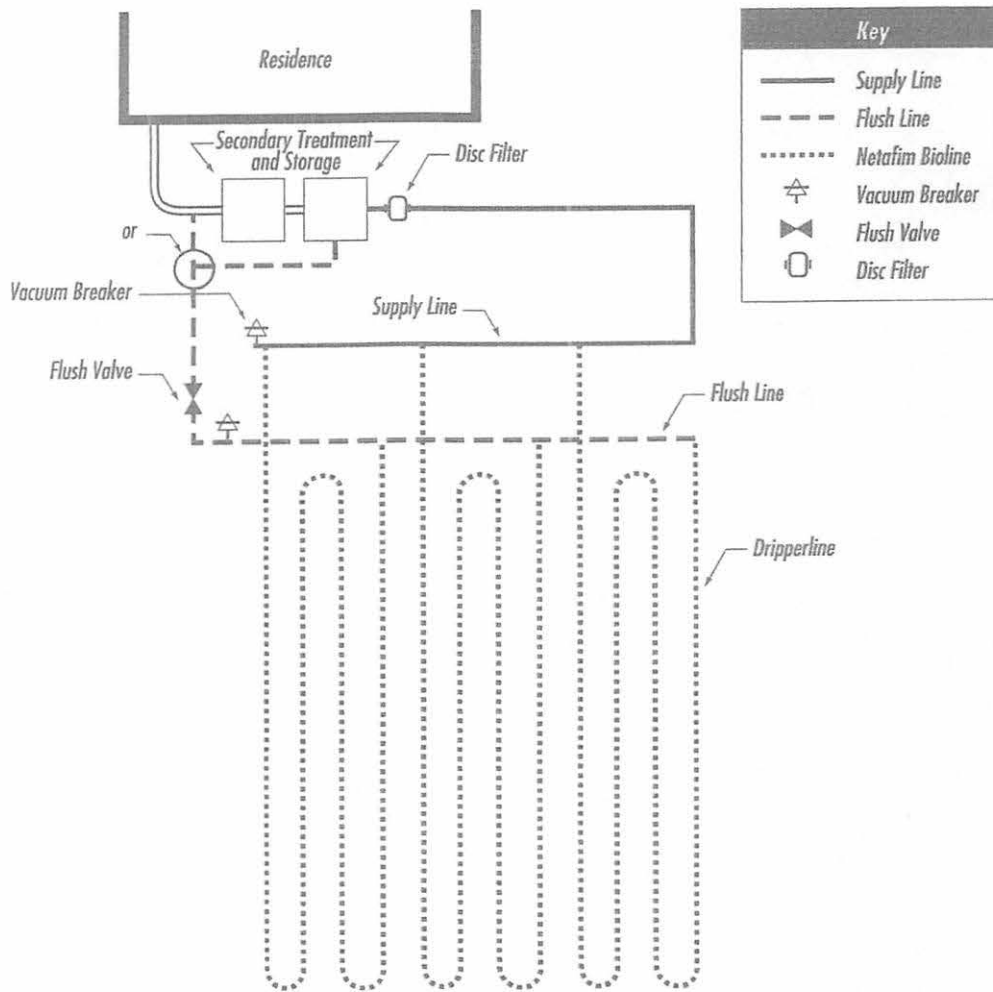
NETAFIM USA
 5470 E. Home Ave. • Fresno, CA 93727
 888.638.2346 • 559.453.6800
 FAX 800.695.4753
www.netafimusa.com

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



Olvera,Brandon

From: Olvera,Brandon
Sent: Friday, March 3, 2023 10:41 AM
To: 'Greg Johnson'; 'donelldesigns@yahoo.com'
Subject: 115830

RE: 608 Luehlfing Dr
The Oaks 2
Lot 9T (SW PT)

Property Owner & Agent,

We received planning materials for the referenced permit application on 02-21-2023 and found those planning materials to be deficient. In order to continue processing this permit, we need the following:

- ✓. Both names on the deed need to be on the application
- ✓. Address the drip tubing over the tanks
3. Revise accordingly and resubmit.

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

Thank You,

Brandon Olvera | Designated Representative | Comal County | www.cceo.org

195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:
DONELL L. MARKS
608 LUEHLFING DRIVE
CANYON LAKE, TX 78133**

SITE DESCRIPTION:

Located in The Oak Unit 2, Lot 9T SW Part, at 608 Luehlfing Drive, the proposed system will serve an existing two bedroom residence (1556sf.) and a one bedroom detached living (408 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 irrigation system as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4-inch HDPE pipe discharges from the residence into the Water Meter (600gpd) aerobic plant. Additionally, a 1-inch SCH-40 pipe discharges from the detached living and joins flow from the residence to the aerobic plant containing a 240-gallon treatment tank, an aerobic treatment plant, and a 1/2-inch submersible (Franklin C1 20XC1-05P4-W115) 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 240 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 a 2000 sf. drip tubing field, with *Nalgon Dripline* 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 30psi installed in the pump tank on the manifold to the field will maintain pressure at 30 psi.** A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the disc filter are continuously flushed each cycle back to the pump 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 4" 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**). The field area will be sodded with grass prior to system startup. **Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.**

DESIGN SPECIFICATIONS:

Daily waste flow: 240 GPD Table III

Pretreatment tank size: 353 Gal

Plant Size: NuWater B550 600gpd (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 80 Gal (1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf. (Actual 2000 sf.)

Total linear feet drip tubing: 1000' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.0833gpm

Pump Requirement (cont.): Franklin C1 20XC1-05P4-W115 submersible well pump

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

$$MSV = 2 FPS ((12)/4)*7.48 gal/cf*60 sec/min$$

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

$$MSV = 1.5 gpm PER LINE * 3 LINES = 4.5 GPM MIN FLOW RATE$$

IN RETURN MANIFOLD W/ NOM. DIA. 1.315" ID

$$MSV = 2 FPS ((12)/4)*7.48 gal/cf*60 sec/min$$


$$MSV = 2(3.14159((1.315/12)^2)/4)*7.48*60$$

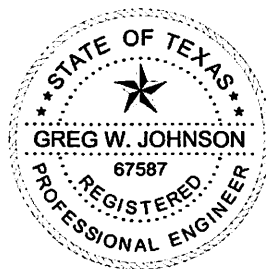
$$MSV = 5.5 GPM MIN$$

PIPE AND FITTINGS:

All pipes and fittings in this drip system shall be 1" schedule 40. 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 December 29,2016)

 01/18/2023
Greg W. Johnson, P.E. No. 67587 / F-2585
170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778



REVISED

8:32 am, May 01, 2023

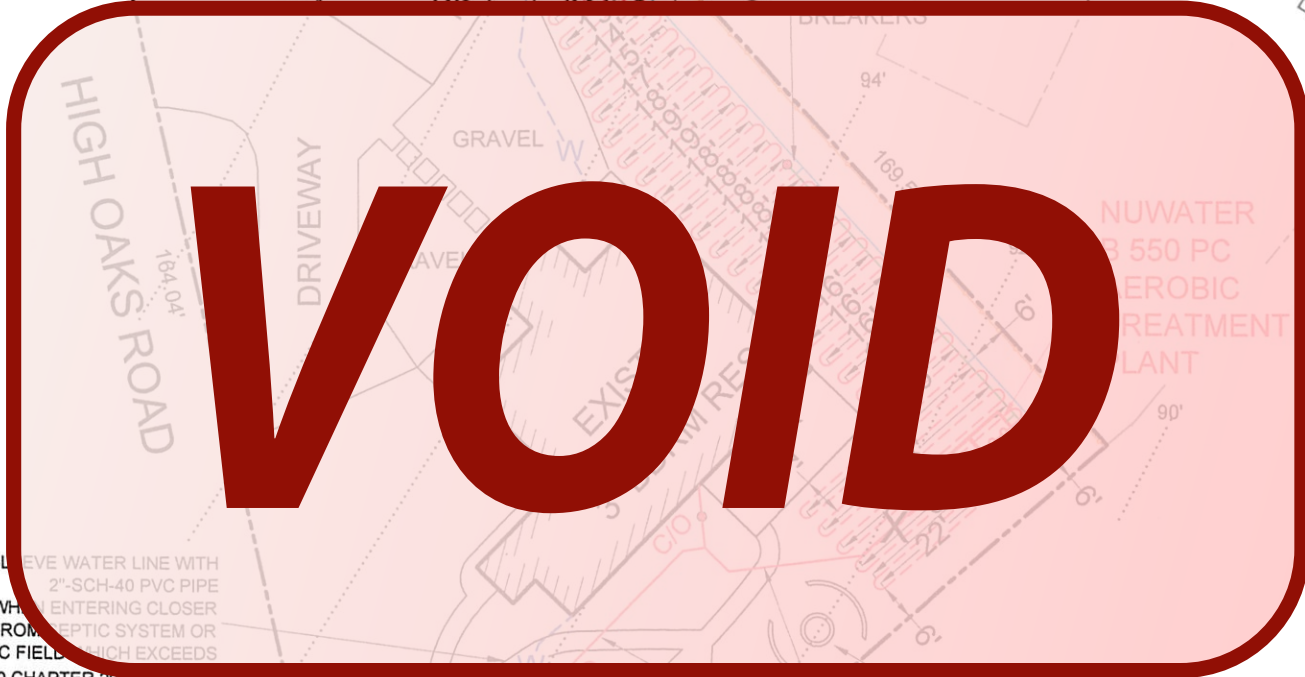
LUEHLFING DRIVE
59.67'

LOT 8T #115830

LOT 9T
(Southwest Part)

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

1" VACUUM
BREAKERS



HIGH OAKS ROAD
184.04'

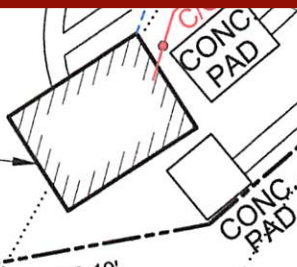
DRIVEWAY

GRAVEL

NUWATER
3 550 PC
AEROBIC
TREATMENT
LANT

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

1 BDRM
DETACHED
LIVING
408sf



FIRE
PIT

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

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

INSTALL 2000sf OF FIELD USING 1000' 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



| | | | |
|---|-----------------------|-------------------|--------------------------|
| OWNER: KARL & DONELL L. MARKS | | DRAWN BY: EJS III | |
| STREET ADDRESS: 608 LUEHLFING DRIVE | | | |
| LEGAL DESC: The OAKS | UNIT/SECTION/PHASE: 2 | BLOCK: | LOT: 9T (Southwest Part) |
| PREPARED BY: GREG W. JOHNSON, P.E. F#002585 | SCALE: 1"=30' | DATE: 1/18/2023 | REVISED: 4/27/2023 |

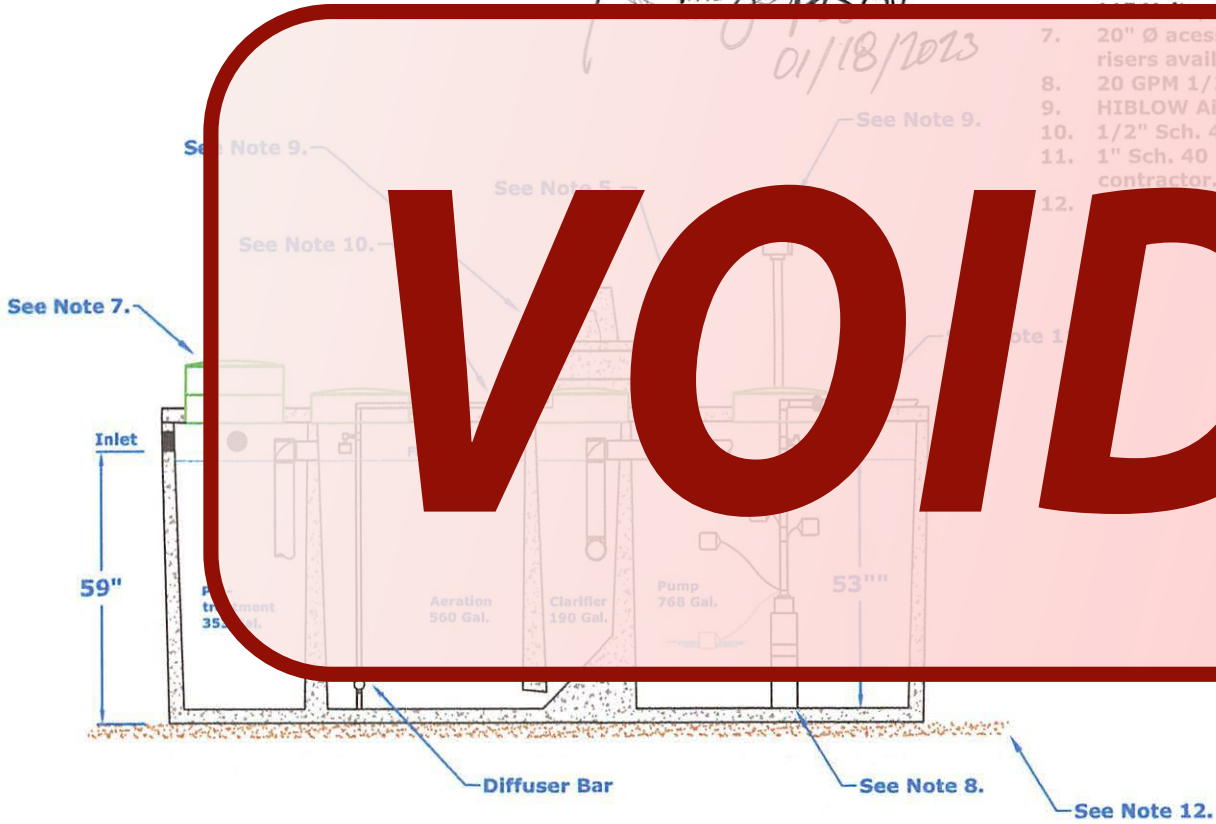
Assembly Details

OSSF



GENERAL NOTES:

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



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

MINIMUM EXCAVATION DIMENSIONS:
 Width: 76"
 Length: 166"

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

Model: B-550-PC-400PT

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

Scale:
 * All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3



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

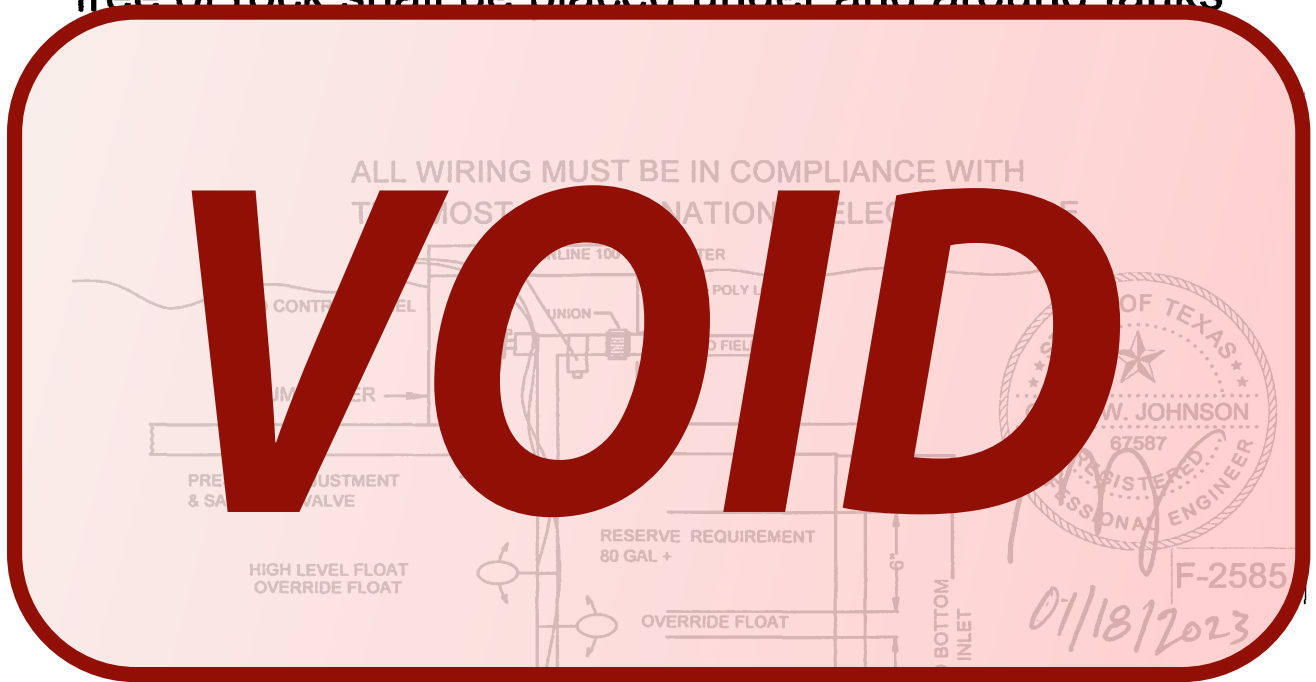
TANK NOTES:

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

Tightlines to the tank shall be SCH-40 PVC.

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

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



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



LUEHLFING DRIVE
59.67'

LOT 8T

LOT 9T
(Southwest Part)

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

GARAGE

1" VACUUM BREAKERS

HIGH OAKS DRIVE

DRIVEWAY

GRAVEL

VOID

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

NEW WATER B 550 PG AEROBIC TREATMENT PLANT

FIRE PIT

1 BDRM DETACHED LIVING 408sf

SCH-40 WITHIN 5' AND UNDER SIDEWALKS.

CONC PAD

39.10'

107.10'

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

INSTALL 2000sf OF FIELD USING 1000' 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



| | | | |
|---|-----------------------|-------------------|--------------------------|
| OWNER: DONELL L. MARKS | | DRAWN BY: EJS III | |
| STREET ADDRESS: 608 LUEHLFING DRIVE | | | |
| LEGAL DESC: The OAKS | UNIT/SECTION/PHASE: 2 | BLOCK: | LOT: 9T (Southwets Part) |
| PREPARED BY: GREG W. JOHNSON, P.E. F#002585 | SCALE: 1"=30' | DATE: 1/18/2023 | REVISED: |

Olvera,Brandon

From: Olvera,Brandon
Sent: Monday, May 1, 2023 8:34 AM
To: 'Greg Johnson'; Ritzen, Brenda
Cc: Traci Field; Katelyn Neumann
Subject: RE: 608 LUEHLING DR - MARKS #115830

Good Morning,
File has been updated.

Thank You,

Brandon Olvera | Designated Representative: OS0034792 | Comal County | www.cceo.org

195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us

From: Greg Johnson <gregjohnsonpe@yahoo.com>
Sent: Thursday, April 27, 2023 11:04 AM
To: Olvera,Brandon <Olverb@co.comal.tx.us>; Ritzen, Brenda <rabbjr@co.comal.tx.us>
Cc: Traci Field <traci@psseptics.com>; Katelyn Neumann <katelyn@psseptics.com>
Subject: 608 LUEHLING DR - MARKS #115830

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

- Comal IT

REVISED TANK ORIENTATION.
THX,
GREG

Send for Greg W. Johnson, P.E.,R.S.)

170 Hollow Oak

New Braunfels, TX 78132

Office/Fax (830) 905-2778

Email: gregjohnsonpe@yahoo.com

*** 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 GREG W. JOHNSON, P.E.

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

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

Tank Size (Gallons) 2000 Absorption/Application Area (Sq Ft)

Gallons Per Day (As Per TCEQ Table III) 240

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

Is the property located in the Edwards Aquifer Recharge Area? [X] No
Is there an existing TCEQ approved WPAP for the property? [X] No
If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? [X] No



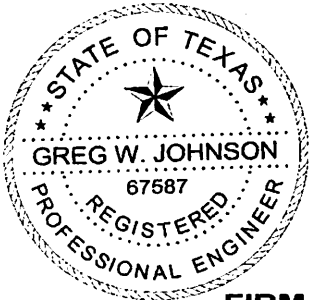
Is the property located over the Edwards Contributing Zone? [X] Yes [] No

Is there an existing TCEQ approval CZP for the property? [] Yes [X] No

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? [] Yes [X] 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 [X] 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 (handwritten signature)

Date 01/18/2023

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:
DONELL L. MARKS
608 LUEHLFING DRIVE
CANYON LAKE, TX 78133**

SITE DESCRIPTION:

Located in The Oak Unit 2, Lot 9T SW Part, at 608 Luehlfing Drive, the proposed system will serve an existing two bedroom residence (1556sf.) and a one bedroom detached living (408 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 of this lot.

PROPOSED SYSTEM

A 3 or 4-inch SCH-40 pipe discharges from the residence into a Water Meter (600gpd) aerobic plant. Additionally, a 1-inch SCH-40 pipe discharges from the detached living and joins flow from the residence to the aerobic plant containing a 3-gallon pre-treatment tank, an aerobic treatment plant, and a 768-gallon pump chamber containing a submersible (Franklin C1) pump (05P4-W1) pump. The well is controlled by a time controller allowing the distribution of 100 gallons per day with an 8 minute run time with float setting at 240 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-inch SCH-40 manifold to a 2000 sf. drip tubing field, with *Netifim Bioline* drip lines set approximately 6 feet apart with 0.6 GPH emitters spaced 12 inches apart as detailed on the attached schematic.

VOID

A pressure regulator PMR-MF 30psi installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the disc filter are continuously flushed each cycle back to the pump 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 4" 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" of soil required between tank and drip tubing.** The field area will be sodded with grass prior to system startup. Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

DESIGN SPECIFICATIONS:

Daily waste flow: 240 GPD Table III

Pretreatment tank size: 353 Gal

Plant Size: NuWater B550 600gpd (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 80 Gal (1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf. (Actual 2000 sf.)

Total linear feet drip tubing: 1000' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.0833gpm

Pump Requirement (cont.): Franklin CP 20KCP 0.51 W/PS submersible well pump

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

$MSV = 2 FPS ((Id \cdot 12) / 4) * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$

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

$MSV = 1.5 \text{ gpm} \cdot R \cdot L \cdot S = 4.5 \text{ MPM} \cdot \text{RATE}$

IN RETURN MANHOLE W/ NOM. DIA. 9" ID

$MSV = 2 FPS ((Id \cdot 12) / 4) * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$

$MSV = 2(3.14159((9/12) \cdot 12) / 4) * 7.48 * 60$

$MSV = 5.65 \text{ FPS}$

VOID

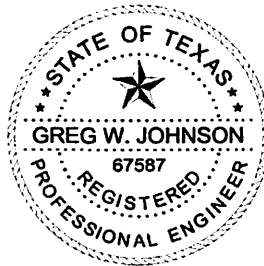
PIPE AND FITTINGS:

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

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

Greg W. Johnson 03/03/2023

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



Olvera,Brandon

From: Olvera,Brandon
Sent: Tuesday, May 16, 2023 4:17 PM
To: Greg Johnson
Cc: Katelyn Neumann; Traci Field
Subject: RE: 608 LUEHLFING DR - MARKS #115830

Good Afternoon,



Update the planning materials to reflect the new ATU being installed.

Thank You,

Brandon Olvera | Designated Representative OS0034792 | Comal County | www.cceo.org

195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us

From: Greg Johnson <gregjohnsonpe@yahoo.com>
Sent: Wednesday, May 10, 2023 11:14 AM
To: Olvera,Brandon <Olverb@co.comal.tx.us>
Cc: Katelyn Neumann <katelyn@psseptics.com>; Traci Field <traci@psseptics.com>
Subject: 608 LUEHLFING DR - MARKS #115830

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- Comal IT

REVISED TANKS.
THX,
GREG

Send for Greg W. Johnson, P.E., R.S.)

170 Hollow Oak

New Braunfels, TX 78132

Office/Fax (830) 905-2778

Email: gregjohnsonpe@yahoo.com

RECEIVED
By Brandon M. Olvera at 1:29 pm, Mar 06, 2023

FILED
C2021-1879A
9/7/2022 9:20 AM
Heather N. Kellar
Comal County
District Clerk
Accepted By:
Krystyl Koehler

FILED FOR RECORD
At 7:15 o'clock A.M
9/9/2022
HEATHER N. KELLAR
CLERK, DISTRICT COURT
COMAL COUNTY, TEXAS
BY SEFA DEPUTY

CAUSE NO. C2021-1879A

**IN THE MATTER OF
THE MARRIAGE OF**

**DONELL LYNN MARKS
AND
KARL EDWARD MARKS**

§ **IN THE DISTRICT COURT**
§
§
§ **22ND JUDICIAL DISTRICT**
§
§ **COMAL COUNTY, TEXAS**

FINAL DECREE OF DIVORCE

On the **8th** day of September 2022 the Court heard this case.

Appearances

Petitioner, DONELL LYNN MARKS, appeared in person and through attorney of record, Carter Casteel, and agreed to these orders as evidenced by her signature affixed hereto.

Respondent, KARL EDWARD MARKS, through attorney of record, MELISSA D. ROWCLIFFE, and agreed to these orders as evidenced by his signature affixed hereto.

Record

The record of testimony was duly reported.

Jurisdiction and Domicile

The Court finds that the pleadings of Petitioner are in due form and contain all the allegations, information, and prerequisites required by law. The Court, after receiving evidence, finds that it has jurisdiction of this case and of all the parties and that at least sixty days have elapsed since the date the suit was filed.

The Court further finds that, at the time this suit was filed, Petitioner had been a domiciliary of Texas for the preceding six-month period and a resident of the county in which this suit was filed for the preceding ninety-day period. All persons entitled to citation were

properly cited.

Jury

A jury was waived, and questions of fact and of law were submitted to the Court.

Agreement of Parties

The Court finds that the parties have entered into a written agreement as contained in this decree by virtue of having approved this decree as to both form and substance. To the extent permitted by law, the parties stipulate the agreement is enforceable as a contract. The Court approves the agreement of the parties as contained in this Final Decree of Divorce.

Divorce

IT IS ORDERED AND DECREED that DONELL LYNN MARKS, Petitioner, and KARL EDWARD MARKS, Respondent, are divorced and that the marriage between them dated June 1, 1985, is dissolved on the ground of insupportability.

Child of the Marriage

The Court finds that there is no child of the marriage of Petitioner and Respondent now under eighteen years of age or otherwise entitled to support and that none is expected.

Division of Marital Estate

The Court finds that the following is a just and right division of the parties' marital estate, having due regard for the rights of each party.

Property to Petitioner

IT IS ORDERED AND DECREED that Petitioner, DONELL LYNN MARKS, is awarded the following as her sole and separate property, and Respondent, KARL EDWARD MARKS, is divested of all right, title, interest, and claim in and to that property:

APPROVED AS TO FORM ONLY:

CASTEEL & CASTEEL, PLLC
254 E. Mill Avenue
New Braunfels, Texas 78130
Tel: (830) 608-1611
Fax: (830) 608-0449

By: 

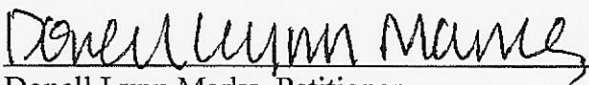
CARTER CASTEEL
Attorney at Law
State Bar No. 03981600
carter@casteellaw.com
Attorney for Petitioner

Law Office of Melissa D. Rowcliffe, P.C.
893 S. Castell Ave.
New Braunfels, Texas 78130
Telephone: 830-608-1650
Fax: 1-830-299-3939
Email: melissa@rowcliffelaw.com

By: 

MELISSA D. ROWCLIFFE
Attorney for Respondent
State Bar No. 00795655

APPROVED AND CONSENTED TO AS TO BOTH FORM AND SUBSTANCE:


Donell Lynn Marks, Petitioner


Karl Edward Marks, Respondent

3/105
GFF: 132-594 JA
FFS: [initials]
CLR: [initials]



20160048680 12/09/2016 01:26:44 PM 1/3

WARRANTY DEED WITH VENDOR'S LIEN

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.

PROVIDENCE TITLE
GF NO. 13200594

Date: DECEMBER 8, 2016 BEING MADE EFFECTIVE DECEMBER 9, 2016

Grantor: CAROLE J. KUENTZ, A SINGLE WOMAN

Grantor's Address (including County):

4787 WEST BIG CREEK ST.
MERIDIAN, ID 83642
ADA COUNTY

Grantee: KARL MARKS, A MARRIED MAN AND DONELL L. MARKS, HIS WIFE

Grantee's Address (including County):

12431 WOODTHORPE LN
HOUSTON, TX 77024-4109
HARRIS COUNTY

Consideration: TEN AND NO/100 (\$10.00) DOLLARS;
and other good and valuable considerations in hand paid by the GRANTEE herein named, the receipt of which is hereby acknowledged;

AND, THE FURTHER CONSIDERATION of the execution and delivery by GRANTEE of that one certain promissory note in the original principal sum of **ONE HUNDRED TWENTY THOUSAND AND NO/100 DOLLARS (\$120,000.00)**, bearing interest as therein specified and being due and payable as therein provided to the order of **QUICKEN LOANS INC.**, and providing for the acceleration of maturity in event of default and for attorney's fees; and secured by the Vendor's Lien and Superior Title retained herein; and being additionally secured by a Deed of Trust of even date therewith to **JASON SILVA**, as Trustee; on the condition that this Vendor's Lien is cumulative of and without prejudice of or to said Deed of Trust;

Property (including any improvements):

BEING LOT 9-T, OF THE OAKS, UNIT II, AN ADDITION TO COMAL COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 1, PAGE 92, OF THE PLAT RECORDS, COMAL COUNTY, TEXAS.

SAVE AND EXCEPT: THE PORTION OF LOT 9-T CONVEYED TO MRS. JONNIE M. MULLINS BY DEED DATED SEPTEMBER 28, 1978 AND RECORDED IN VOLUME 272, PAGE 697, REAL PROPERTY RECORDS, COMAL COUNTY, TEXAS.

Reservations from Conveyance:

None.

Exceptions to Conveyance and Warranty:

Liens described as part of the Consideration and any other liens described in this deed as being either assumed or subject to which title is taken; validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments, other than conveyances of the surface fee estate, that affect the Property; and taxes for current year, which Grantee assumes and agrees to pay.

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

QUICKEN LOANS INC., at Grantee's request, has paid cash to Grantor that portion of the purchase price of the Property that is evidenced by the note. The first and superior vendor's lien against and superior title to the Property are retained for the benefit of QUICKEN LOANS INC. and are transferred to QUICKEN LOANS INC. without recourse against Grantor.

The vendor's lien against and superior title to the property herein conveyed are retained until each note described herein is fully paid according to its terms, at which time this Deed shall become absolute.

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

CCEO
COPY

VOL 272 PAGE 698

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 MRS. JONNIE M. MULLINS, her heirs and assigns forever; and

We do hereby bind ourselves, our heirs, executors and administrators to WARRANT AND FOREVER DEFEND, all and singular, the above said premises unto MRS. JONNIE M. MULLINS, her heirs or assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof, subject to restrictions, reservations, exceptions and easements of record, if any, running with the land.

WITNESS OUR HANDS, this the 28 day of September, 1978.

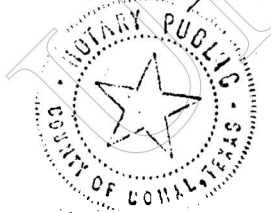
Marshall J. Kuentz
MARSHALL J. KUENTZ

Doryce Jeanne Kuentz
DORYCE JEANNE KUENTZ

THE STATE OF TEXAS §
 §
COUNTY OF COMAL §

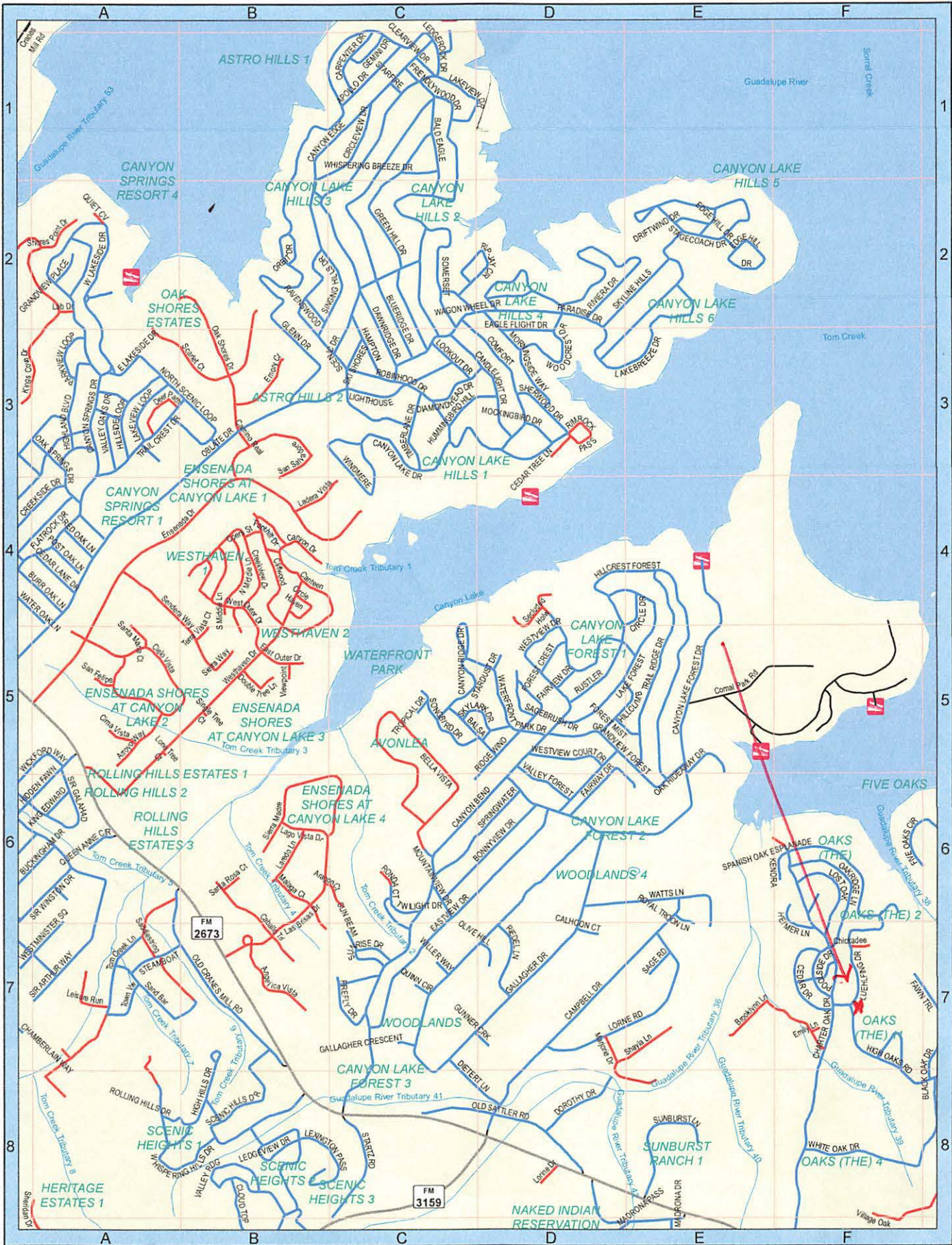
BEFORE ME, the undersigned authority, on this day personally appeared MARSHALL J. KUENTZ and wife, DORYCE JEANNE KUENTZ, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they had executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and SEAL OF OFFICE, this the 28th day of September, 1978.

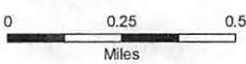
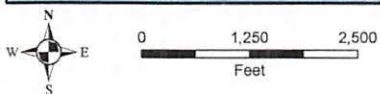


Robert T. Foley

NOTARY PUBLIC, in and for
Comal County, Texas
My commission expires 3-17-78



SEE PAGE 28



Baker Septic Service, a Series LLC
Baker Septic Pumping PS LLC
PO Box 2221
Canyon Lake, TX 78133-0009
830-899-2971

Invoice

| Bill To |
|---|
| Swoyer, Paul 23011 Fm 306 Canyon Lake TX, 78133 830-935-4936 |

Date: 5/24/2023

Invoice # 16199

| Item | Description | Qty | Price | Amount |
|------------|--|------|--------|--------|
| Pump | Septic pump up to 1000 gal. | 1.00 | 450.00 | 450.00 |
| Labor | Labor \$85.00/ hour | | | |
| Add. Waste | Additional waste \$0.45 per gallon (Re:608 Luehfling Dr.) | | | |

bakersepticsservice@yahoo.com

| | |
|------------------|----------|
| Subtotal | \$450.00 |
| Sales Tax (8... | \$0.00 |
| Total | \$450.00 |
| Payments/Credit: | \$0.00 |
| Balance Due | \$450.00 |