



# ON-SITE SEWAGE FACILITY APPLICATION

Date April 18, 2024

Permit Number 116147

## 1. APPLICANT / AGENT INFORMATION

Owner Name Y & JB HOMES MASTER LLC  
 Mailing Address PO BOX 592843  
 City, State, Zip SAN ANTONIO TEXAS 78259  
 Phone # 787-642-4771  
 Email jose\_borges28@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 REPLAT OF COMAL HILLS Unit 1 Lot 395 Block 1  
 Survey Name / Abstract Number \_\_\_\_\_ Acreage \_\_\_\_\_  
 Address 1058 CHISOLM TRAIL City SPRING BRANCH State TX Zip 78070

## 3. TYPE OF DEVELOPMENT

Single Family Residential

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

Number of Bedrooms 3

Indicate Sq Ft of Living Area 1350

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: \$ 270,000 (Structure Only)

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

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

Source of Water  Public  Private Well  Rainwater Collection

## 4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

4-18-24

Signature of Owner

Date



# 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: 116147  
Issued This Date: 05/09/2023  
This permit is hereby given to: Y&JB HOMES MASTER, LLC

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

1058 CHISOLM TRL  
SPRING BRANCH, TX 78070

Subdivision: Comal Hills  
Unit: 1  
Lot: 395  
Block: 1  
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.



ON-SITE SEWAGE FACILITY APPLICATION

Date March 2, 2023

Permit Number 116147

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Owner Name Y & JB HOMES MASTER LLC  
Mailing Address PO BOX 592843  
City, State, Zip SAN ANTONIO TEXAS 78259  
Phone # 787-642-4771  
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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 REPLAT OF COMAL HILLS Unit 1 Lot 395 Block 1  
Survey Name / Abstract Number \_\_\_\_\_ Acreage \_\_\_\_\_  
Address 1058 CHISOLM TRAIL City SPRING BRANCH State TX Zip 78070

3. TYPE OF DEVELOPMENT

Single Family Residential

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Restaurants, Lounges, Theaters - Indicate Number of Seats \_\_\_\_\_

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Travel Trailer/RV Parks - Indicate Number of Spaces \_\_\_\_\_

Miscellaneous \_\_\_\_\_

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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]  
Signature of Owner

4/2/2023  
Date

\*\*\* 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) NUWATER B-550-PC 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

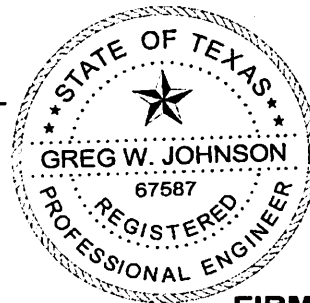
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

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

March 3, 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):

1 UNIT/PHASE/SECTION 1 BLOCK 395 LOT REPLAT OF COMAL HILLS SUBDIVISION

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

The property is owned by (insert owner's full name): Y&JB HOMES MASTER, LLC

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

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

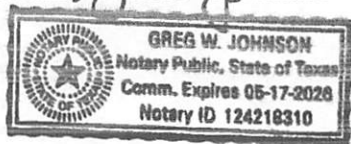
WITNESS BY HAND(S) ON THIS 21 DAY OF APRIL, 2023

X Jose A. Borges  
Owner(s) signature(s)

JOSE A. BORGES - MANAGER  
Owner (s) Printed name (s)

JOSE A. BORGES SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 21 DAY OF APRIL, 2023

[Signature]  
Notary Public Signature



Filed and Recorded  
Official Public Records  
Bobbie Koeppe, County Clerk  
Comal County, Texas  
04/24/2023 08:27:10 AM  
TERRI 1 Pages(s)  
202306012293

Bobbie Koeppe

Maintenance Service Provider  
15188 FM 306  
Canyon Lake, TX 78133  
Office/Fax (830) 964-2365



REPLAT OF COMAL HILLS, UNIT 1, BLOCK 1, LOT 395

SITE ADDRESS	INSTALLER	DATE
1058 CHISOLM TRAIL, SPRING BRANCH, TX 78070	JOE MITCHELL	3/3/2023

### Routine Maintenance and Inspection Agreement

This Work for Hire Agreement (hereinafter referred to as this "Agreement") is entered into by and between Y&JB HOMES MASTER, LLC (referred to as "Client") and Aerobic Services of South Texas (Thomas W. Hampton MP349) (hereinafter referred to as "Contractor") located at 15188 FM 306 Canyon Lake, Texas 78133 (830) 964-2365. By this Agreement the Contractor agrees to render professional service, as described herein, and the Client agrees to fulfill the terms of this Agreement as described herein.

This contract will provide for all required inspections, testing and service for your Aerobic Treatment System. The policy will include the following:

1. 3 inspections a year/services calls (at least one every 4 months), for a total of 6 over the **two year period** including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting the control panel, air pumps, air filters, diffuser operation. Any alarm situation affecting the proper function of the Aerobic process will be addressed within a 48-hour time frame. Repair work on non-warranty parts will include price for parts & labor. The prices will be quoted before work is performed.
2. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.
3. If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
4. The customer is responsible for the chlorine; it must be filled before or during the service visit.
5. Any additional visits, inspections or sample collection required by specific Municipalities, Water/River Authorities, and County Agencies the TCEQ or any other authorized regulatory agency in your jurisdiction will be covered by this policy. BOD and TSS testing is covered by this contract.

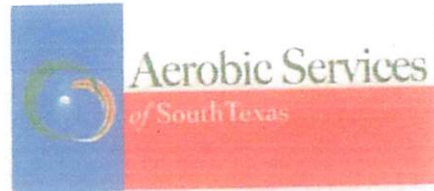
The Homeowners Manual must be strictly followed or warranties are subject to invalidation. **Pumping of sludge build-up is not covered by this policy and will result in additional charges.**

#### ACCESS BY CONTRACTOR

The Contractor or anyone authorized by the Contractor may enter the property at reasonable times without prior notice for the purpose of the above described Services. The contractor may access the System components including the tanks by means of excavation for the purpose of evaluations if necessary. Soil is to be replaced with the excavated material as best as possible.

#### Termination of Agreement

Either party may terminate this agreement within ten days with a written notice in the event of substantial failure to perform in accordance with its terms by the other party without fault of the terminating party. If this Agreement is so terminated, **the Contractor will immediately notify the appropriate health authority of the termination.**



**Limit of Liability**

In no event shall the Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract tort or any other theory. In no event shall the Contractor's liability for direct damages exceed the price for the services described in this Agreement.

**Dispute Resolution**

If a dispute between the Client and the Contractor arises that cannot be settled in good faith negotiations then the parties shall choose a mutually acceptable arbitrator and shall share the cost of the arbitration services equally.

**Entire Agreement**

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

**Severability**

If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this agreement is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

**HOME OWNER**

Y&JB HOMES MASTER, LLC  
NAME / ENTITY

jose\_borges28@yahoo.com  
EMAIL

787-642-4771  
PHONE

[Signature]  
SIGNATURE

**SERVICE PROVIDER**

Aerobic Services of South Texas Inc.

15188 FM 306, Canyon Lake TX 78132

(830) 964-2365

[Signature]  
BWR

Signature of Service Provider and License #  
[Thomas Hampton, OS0024597 - MP0000349]

EFFECTIVE DATE

EXPIRED DATE

INSTALLED

Model #

Blower/Panel Serial #

*The effective date of this initial maintenance contract shall be the date license to operate is issued.*

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

Date Soil Survey Performed: March 02, 2023

Site Location: REPLAT of COMAL HILLS, UNIT 1, BLOCK 1, LOT 395

Proposed Excavation Depth: N/A

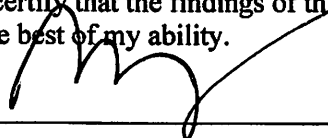
**Requirements:**

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 <u>        </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 10"	BROWN
10"						
1						
2						
3						
4						
5						

SOIL BORING NUMBER <u>        </u> SURFACE EVALUATION <u>        </u>						
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

03/02/23  
\_\_\_\_\_  
Date



**OSSF SOIL EVALUATION REPORT INFORMATION**

Date: March 03, 2023

**Applicant Information:**

Name: Y & JB HOMES MASTER, LLC.  
Address: P.O. BOX 592843  
City: SAN ANTONIO State: TEXAS  
Zip Code: 78259 Phone: (787) 642-4771

**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:**

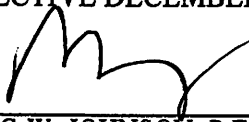
Lot 395 Unit 1 Blk 1 Subd. REPLAT of COMAL HILLS  
Street Address: 1058 CHISOLM TRAIL  
City: SPRING BRANCH Zip Code: 78070  
Additional Info.: \_\_\_\_\_

**Installer Information:**

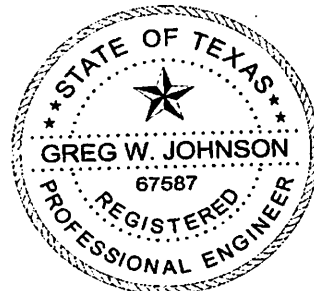
Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_ Phone \_\_\_\_\_

**Topography:** Slope within proposed disposal area: 4 %  
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

03/03/2023  
DATE



**FIRM #2585**

**REVISED**

8:41 am, May 09, 2023

# 116147

**AEROBIC TREATMENT  
DRIP TUBING SYSTEM**

DESIGNED FOR:

Y & JB HOMES MASTER, LLC

P.O. BOX 592843

SAN ANTONIO, TX 78259

**SITE DESCRIPTION:**

Located in the Replat of Comal Hills, Unit 1, Block 1, Lot 395, at 1058 Chisolm Trail, the proposed system will serve a three bedroom residence (1350 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-inch SCH-40 pipe discharges from the residence into a Pro-Flo Model 5060 600gpd aerobic plant containing a 397-gallon pretreatment tank, an aerobic treatment plant, and a 768-gallon pump chamber containing a 0.5 HP FPS E-Series 20FE05P4-2W115 submersible pump or equivalent. 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 Senninger 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 Arkal disk filter are 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 3" 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 sil 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

**REVISED**

8:41 am, May 09, 2023

Plant Size: NuWater B-550 - 400PT 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:  $Q/Ra = 240 \text{ GPD}/0.20 = 1200 \text{ sf.}$  (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: 0.5 HP FPS E-Series 20FE05P4-2W115 submersible pump or equivalent. MINIMUM

SCOUR VELOCITY (MSV) > 2 FPS

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

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

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

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

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

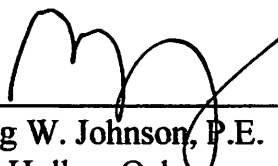
$$\text{MSV} = 2(3.14159((1.049/12)^2)/4) * 7.48 * 60$$

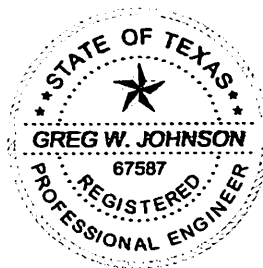
$$\text{MSV} = 5.4 \text{ GPM}$$

**PIPE AND FITTINGS:**

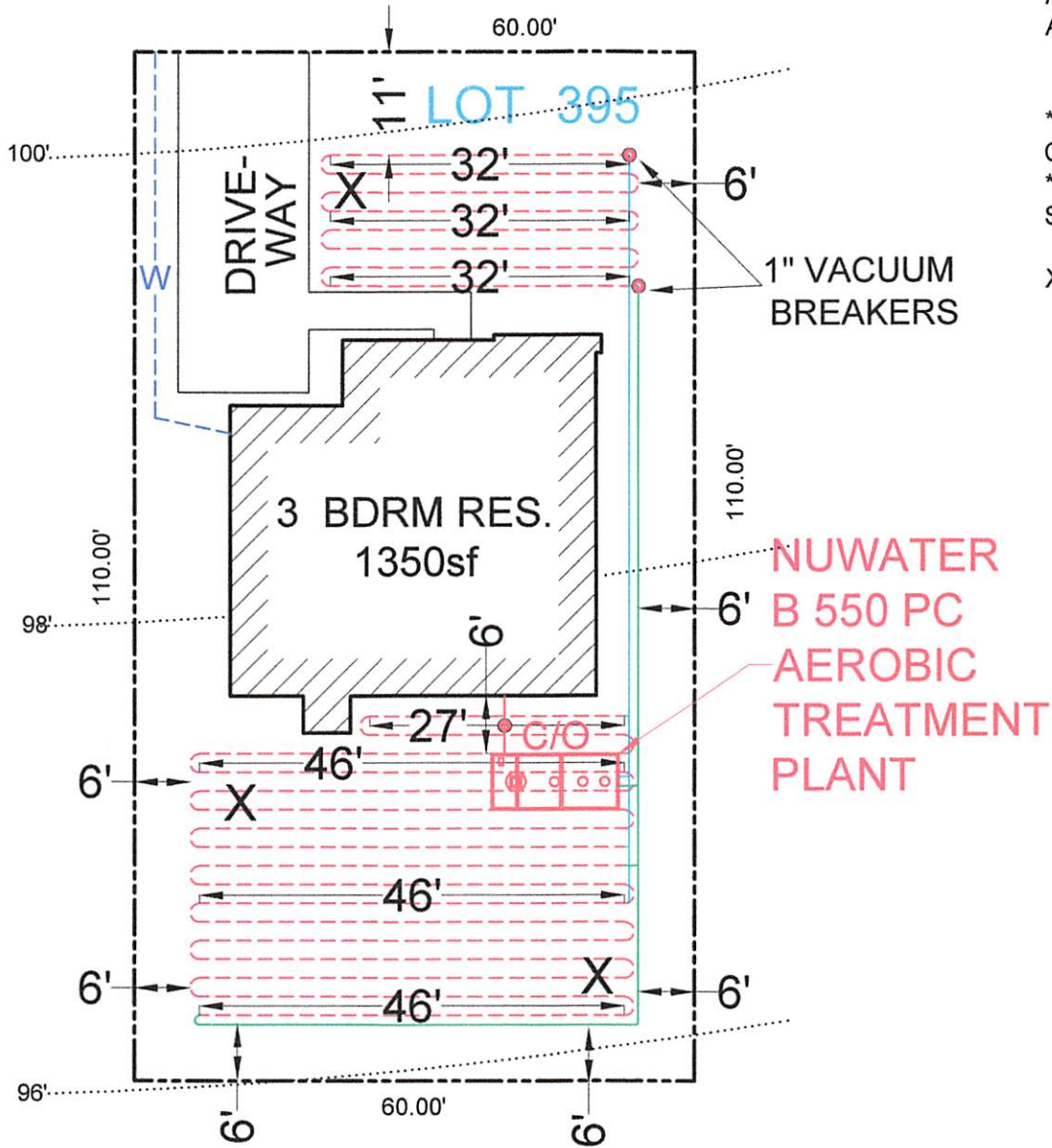
All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

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

 05/01/2023  
\_\_\_\_\_  
Greg W. Johnson, P.E. No. 67587 / F-2585  
170 Hollow Oak  
New Braunfels, Texas 78132  
830/905-2778



# CHISOLM TRAIL



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: Y & JB HOMES MASTER, LLC.		DRAWN BY: EJS III	
STREET ADDRESS: 1058 CHISOLM TRAIL			
LEGAL DESC: REPLAT of COMAL HILLS	UNIT/SECTION/PHASE: 1	BLOCK: 1	LOT: 395
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=20'	DATE: 3/3/2023	REVISED:

# Assembly Details

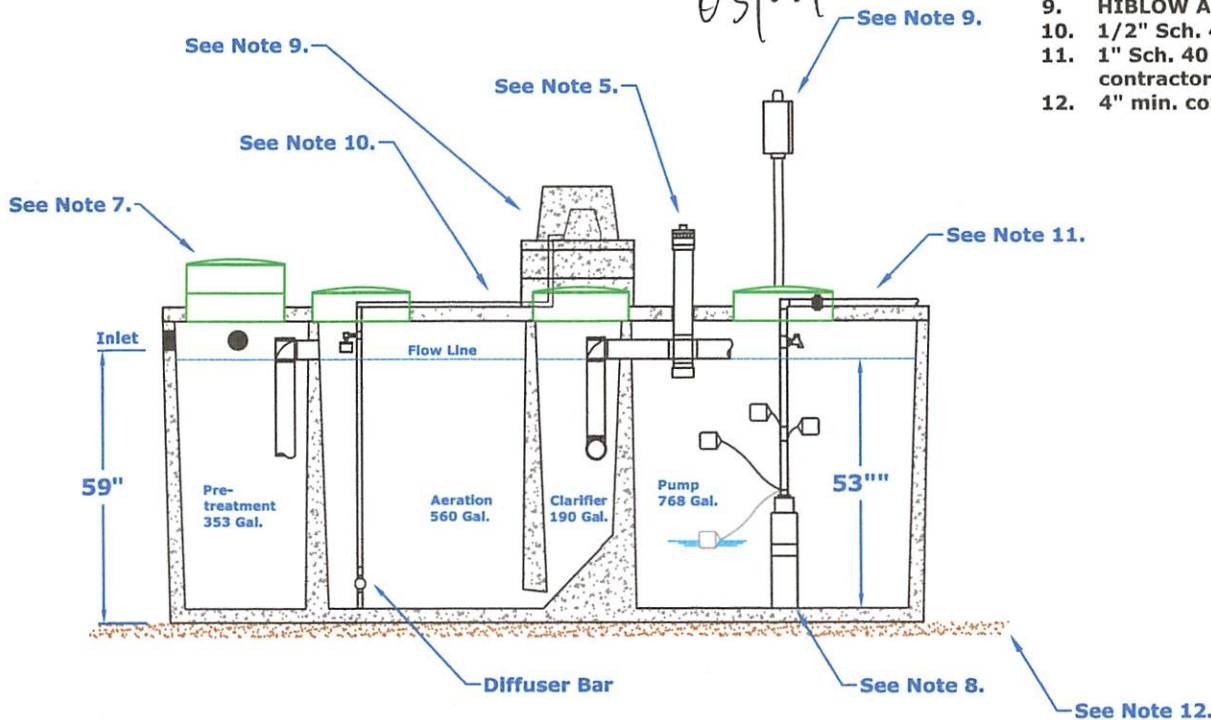
OSSF



*M. Johnson*  
03/03/2023

## 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 beedroom, < 4,000 sq/ft living area). Please specify for additional set-up requirements. BOD Loading = 1.62 lbs. per day.
5. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
6. Bio-Robix B-550 Control Center w/ Timer for night spray application. Optional Micro Dose (min/sec) timer available for drip applications. Electrical Requirement to be 115 Volts, 60 Hz, Single Phase, 30 AMP, Grounded Receptacle.
7. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. HIBLOW Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.
12. 4" min. compacted sand or gravel pad by Contractor



### DIMENSIONS:

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

### MINIMUM EXCAVATION DIMENSIONS:

Width: 76"  
Length: 176"

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

Model: B-550-PC-400PT

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

Scale:  
\* All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3

**Advantage**  
Wastewater Solutions llc

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

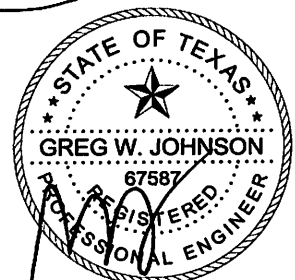
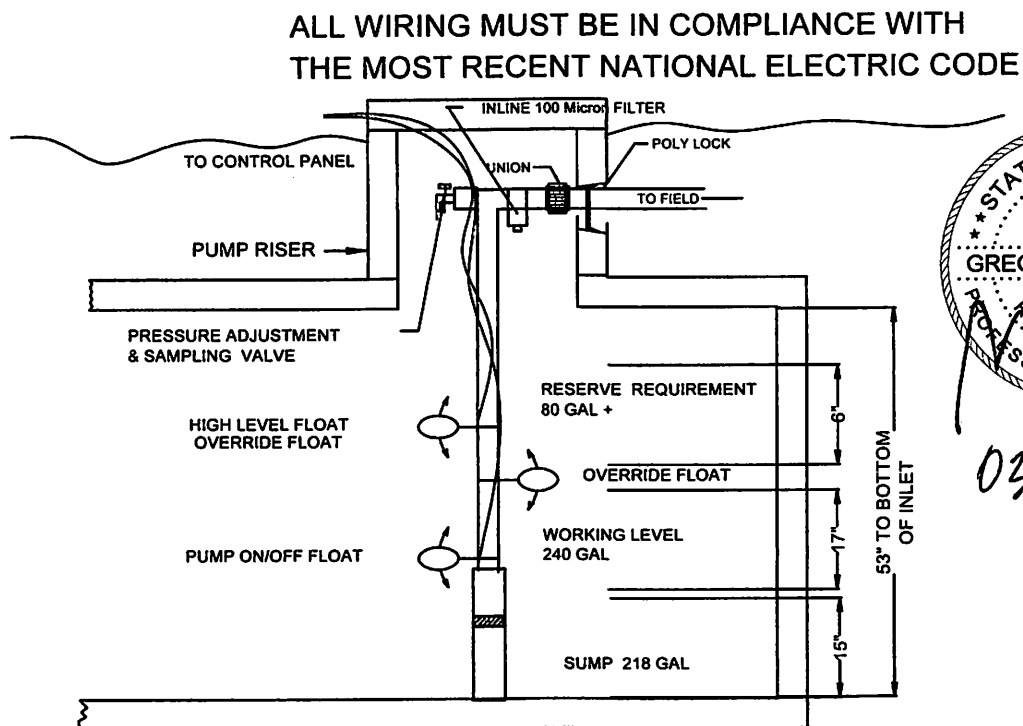
## TANK NOTES:

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



F-2585

03/03/2023

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

# Arkal 1" Super Filter

Catalog No. 1102 0 \_ \_ \_

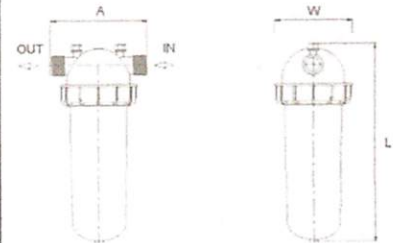
## Features

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



## Technical Data

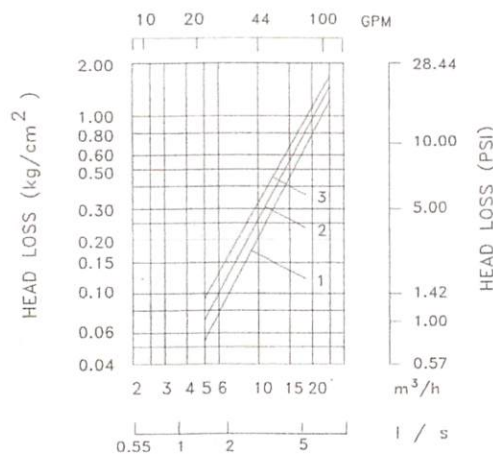
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter 33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m <sup>3</sup> /h (1.7 l/sec)	35 gpm
General filtration area	500 cm <sup>2</sup>	77.5 in <sup>2</sup>
Filtration volume	600 cm <sup>3</sup>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



## Filtration Grades

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

## Head Loss Chart



# PMR-MF

## PRESSURE-MASTER REGULATOR - MEDIUM FLOW

### Specifications

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

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

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

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

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

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

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

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

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

### Physical

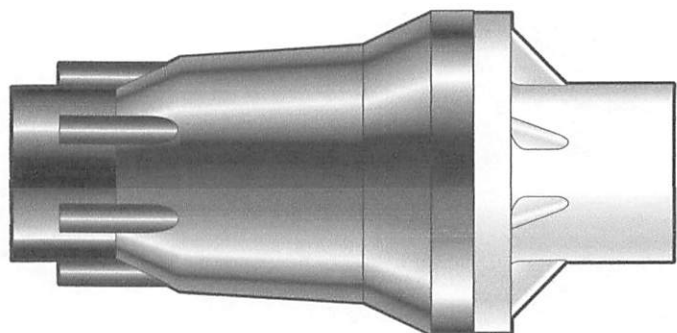
#### ¾" FNPT x ¾" FNPT model (shown on right)

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

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

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

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



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





# PMR-MF

## PRESSURE-MASTER REGULATOR - MEDIUM FLOW

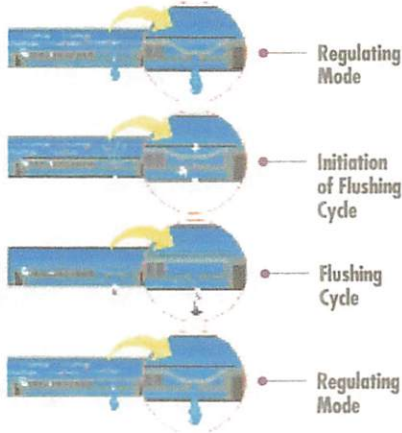
### Model Numbers

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



# Bioline<sup>®</sup> Driperline

## Pressure Compensating Driperline for Wastewater



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

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



### Product Advantages

#### The Proven Performer

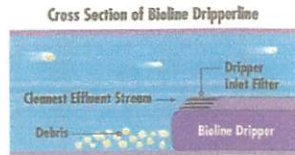
- Tens of millions of feet used in wastewater today.
- BioLine is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for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

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

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

#### Long-Term Reliability

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



#### Root Safe

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



### Applications

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

### Specifications

Wall thickness (mil): 45\*

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

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

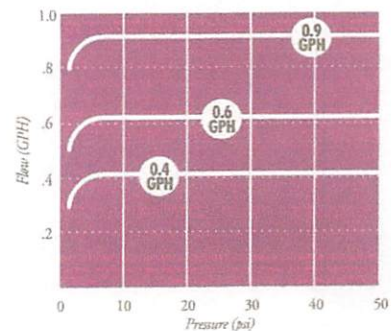
Recommended filtration: 120 mesh

Inside diameter: .570\*

Color: Purple tubing indicates non-potable source

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

BIOLINE Flow Rate vs. Pressure



#### NETAFIM USA

5470 E. Home Ave. • Fresno, CA 93727

888.638.2346 • 559.453.6800

FAX 800.695.4753

www.netafimusa.com

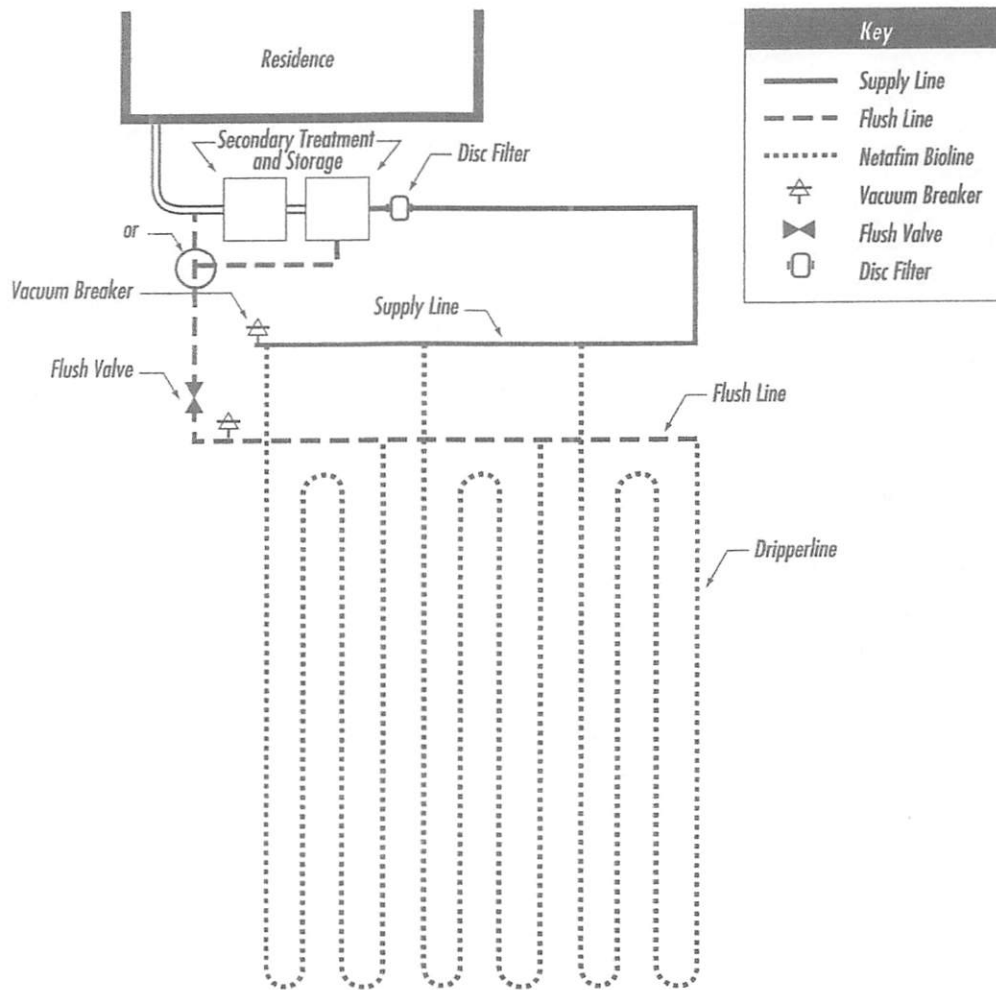
# NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

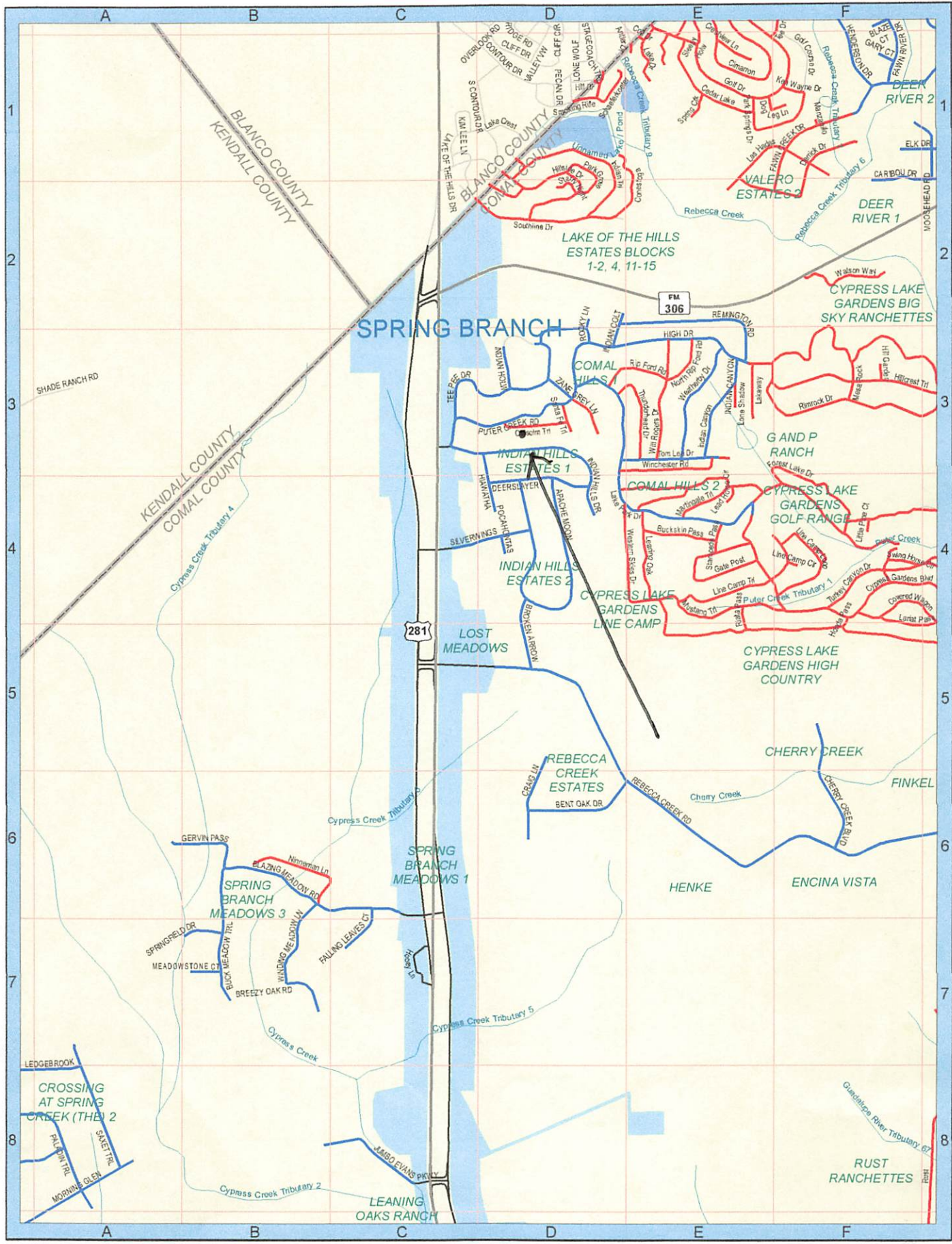
## SAMPLE DESIGNS

### SINGLE TRENCH LAYOUT

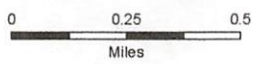
Rectangular field with supply and flush manifold on same side and in same trench;

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





SEE PAGE 14



**From:** [Ritzen, Brenda](#)  
**To:** ["Greg Johnson"](#)  
**Cc:** ["jose\\_borges28@yahoo.com"](mailto:jose_borges28@yahoo.com)  
**Subject:** Permit 116147  
**Date:** Monday, May 1, 2023 8:31:00 AM  
**Attachments:** [image001.png](#)

---

**Re: Y & JR Homes Master LLC  
Replat of Comal Hills Unit 1 Lot 395 Block 1  
Application for Permit for Authorization to Construct an On-Site  
Sewage Facility (OSSF)**

**Greg :**

**I have reviewed the planning materials for the referenced permit submittal and found the following information is needed before I can continue processing this permit:**

- 1. A minimum of 12 inches of soil is required between the drip tubing and the top of the ATU/tanks.**
- 2. Revise as needed and resubmit.**

**Thank you,**



**Brenda Ritzen**  
Environmental Health Coordinator  
195 David Jonas Dr.  
New Braunfels, TX 78132  
DR:OS00007722  
830-608-2090  
[www.cceo.org](http://www.cceo.org)

**VOID** TREATMENT  
DRIP TUBING SYSTEM

DESIGNED FOR:  
Y & JB HOMES MASTER, LLC  
P.O. BOX 592843  
SAN ANTONIO, TX 78259

**SITE DESCRIPTION:**

Located in the Replat of Comal Hills, Unit 1, Block 1, Lot 395, at 1058 Chisolm Trail, the proposed system will serve a three bedroom residence (1350 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-inch SCH-40 pipe discharges from the residence into a Pro-Flo Model 5060 600gpd aerobic plant containing a 397-gallon pretreatment tank, an aerobic treatment plant, and a 768-gallon pump chamber containing a 0.5 HP FPS E-Series 20FE05P4-2W115 submersible pump or equivalent. 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 Senninger 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 Arkal disk filter are 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 3" 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 B-550 - 400PT 600gpd (TCEQ Approved)

**VOID**

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: 0.5 HP FPS E-Series 20FE05P4-2W115 submersible pump or equivalent. MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

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

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

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

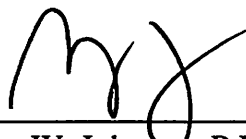
$$MSV = 2(3.14159((1.049/12)^2)/4) * 7.48 * 60$$

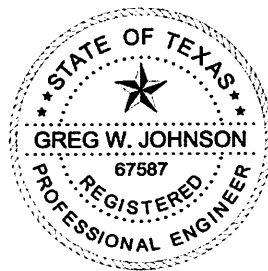
$$MSV = 5.4 \text{ GPM}$$

**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)

  
03/03/2023  
\_\_\_\_\_  
Greg W. Johnson, P.E. No. 67587 / F-2585  
170 Hollow Oak  
New Braunfels, Texas 78132  
830/905-2778



After Recording Return To:  
Patriot Title  
5225 Katy Freeway #510  
Houston, TX 77007  
GF#: 59-02042

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

**GENERAL WARRANTY DEED**

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

THAT THE UNDERSIGNED, LANDTRUST USA, INC., hereinafter called "Grantor," whether one or more, for and in consideration of the sum of TEN DOLLARS (\$10.00) and other valuable consideration to the undersigned in hand paid by Y & JB Homes Master LLC, herein referred to as "Grantee," whether one or more, whose mailing address is 398 Thoroughbred Ln Spring Branch Tx 78089 the receipt and sufficiency of which is hereby fully acknowledged and confessed, has GRANTED, SOLD and CONVEYED, and by these presents does hereby GRANT, SELL and CONVEY unto the said Y & JB Homes Master LLC, all of my undivided right and title and interest to the following described real property, together with all improvements thereon, and hereinafter placed thereon situated in the County of Comal, State of Texas and described as:

**LOT 395, BLOCK 1, REPLAT OF COMAL HILLS UNIT NO. 1, A SUBDIVISION IN COMAL COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 2, PAGE 53, OF THE MAP AND/OR PLAT RECORDS OF COMAL COUNTY, TEXAS.**

This Deed is executed, delivered and accepted subject to any and all validly existing liens, encumbrances, ad valorem taxes for the current and all subsequent years, subsequent assessments for prior years due to changes in land usage or ownership, zoning ordinances, regulations or ordinances of municipal and other governmental authorities, utility assessments and standby fees, if any, applicable to and enforceable against the above described property, and all valid utility easements reflected in the dedication deed, plat or replat of the subdivision in which said







**COMAL COUNTY**  
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION  
CHECKLIST**

Staff will complete shaded items

--	--

Date Received

Initials

116147
--------

Permit Number

**Instructions:**

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

**OSSF Permit**

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

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

Signature of Applicant

04/26/2023

Date

___ COMPLETE APPLICATION
Check No. _____ Receipt No. _____

INCOMPLETE APPLICATION (Missing Items Circled, Application Refeused)
---