COMAL COUNTY

ENGINEER'S OFFICE

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: **12/28/2023** Permit Number: **116318**

Location Description: 1577 WHISPERING HILLS DR
CANYON LAKE, TX 78133

Subdivision:	SCENIC HEIGHTS
Unit:	1
Lot:	64
Block:	0
Acreage:	0.0000

Type of System: Aerobic
Drip Irrigation

Issued to: COMO HOMES, LLC

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

Corey Allen **OS0036769**
ENVIRONMENTAL HEALTH INSPECTOR

ENVIRONMENTAL HEALTH COORDINATOR

OS0007722

Comal County Environmental Health
OSSF Inspection Sheet

Installer Name: Winters **OSSF Installer #:** OS0005924

1st Inspection Date: 10/25/23 **2nd Inspection Date:** 12/6/23 **3rd Inspection Date:** 12/18/23

Inspector Name: Corey Allen **Inspector Name:** Corey Allen **Inspector Name:** Corey Allen

Permit#: 116318 **Address:** 1577 Whispering Hills

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

Inspector Notes: **10/25/23 CA: Revision for waterline and stub out location tank level no leaks cover tanks**
12/6/23 CA: Operational field to design no tightline not connected to structure
12/18/23 CA: System covered will need curlex revision before lto 12/28/23 Received.

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 SingleTank, 2Compartments Provided withBaffle SEPTIC TANK Inlet Flowline Greater than3" and " T " Provided on Inlet and OutletSEPTIC TANK Septic Tank(s) MeetMinimum Requirements		285.32(b)(1) (E)285.91(2)285.32(b)(1) (F)285.32(b)(1)(E) (iii)285.32(b)(1)(E)(ii) (II)285.32(b)(1)(E)(ii) (I)285.32(b)(1)(E) (i)285.32(b)(1) (D)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (i)285.32(b)(1) (B)285.32(b)(1) (A)285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	x	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)		x		
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system providedSEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed	x		600	x		
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	x x		Solar Aerobic	x x		
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Drip Irrigation	x	285.33(c)(3)(A)-(F)		x		

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.	X	285.32(c)(1)		X		
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions	X X X			X X X		
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.	X			X		
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
37	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried	X					

Comal County Environmental Health
OSSF Inspection Sheet

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

COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number:	116318
Issued This Date:	07/05/2023
This permit is hereby given to:	COMO HOMES, LLC

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

1577 WHISPERING HILLS DR
CANYON LAKE, TX 78133

Subdivision:	SCENIC HEIGHTS
Unit:	1
Lot:	64
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

		116318
Date Received	*Initials*	*Permit Number*

Instructions:

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

OSSF Permit

☒ Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate

☒ Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer

☒ Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.

☒ Required Permit Fee - See Attached Fee Schedule

☒ Copy of Recorded Deed

☒ Surface Application/Aerobic Treatment System

- ☒ Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
- ☒ Signed Maintenance Contract with Effective Date as Issuance of License to Operate

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

Signature of Applicant

06/08/2023
Date

___ COMPLETE APPLICATION

Check No. _____ Receipt No._____

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

Revised: September 2019

RECEIVED
By helmsa at 1:33 pm, Jun 08, 2023

COMAL COUNTY
ENGINEER'S OFFICE

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

ON-SITE SEWAGE FACILITY APPLICATION

Date June 20, 2022 Permit Number 116318

1. APPLICANT / AGENT INFORMATION

Owner Name	COMO HOMES, LLC	Agent Name	GREG JOHNSON, P.E.
Mailing Address	PO BOX 2632	Agent Address	170 HOLLOW OAK
City, State, Zip	CANYON LAKE TEXAS 78133	City, State, Zip	NEW BRAUNFELS TEXAS 78132
Phone #	210-388-3991	Phone #	830-905-2778
Email	joeroosters@yahoo.com	Email	gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name SCENIC HEIGHTS Unit 1 Lot 64 Block

Survey Name / Abstract Number Acreage

Address 1577 WHISPERING HILLS DR City CANYON LAKE State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

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

Number of Bedrooms 3

Indicate Sq Ft of Living Area 1357

☐ 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: $ 250,000 (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.

Signature of Owner 7 June 23 Date

Revised January 2021

#116318

SCENIC HEIGHTS, UNIT 1, LOT 64

* * * 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) 600 **Absorption/Application Area (Sq Ft)** 1440

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

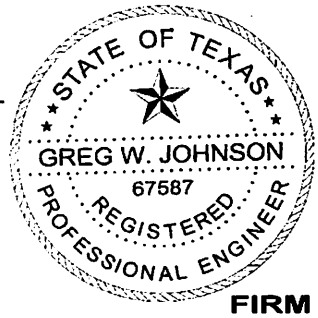
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

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

RECEIVED
By Brandon Olvera at 8:17 am, Dec 06, 2023

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

April 22, 2022
Date

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

AFFIDAVIT

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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

I

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

II

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

1 UNIT/PHASE/SECTION _____ BLOCK 64 LOT SCENIC HEIGHTS SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): COMO HOMES, LLC, a Texas limited liability company

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 7 DAY OF June ,20 23

Owner(s) signature(s)

JOSEPH PARKER - MANAGER
Owner (s) Printed name (s)

JOSEPH PARKER SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 7 DAY OF June ,20 23

Notary Public Signature

GREG W. JOHNSON
Notary Public, State of Texas
Comm. Expires 05-17-2026
Notary ID 124218310

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
06/08/2023 08:05:37 AM
TERRI 1 Pages(s)
202306018091

Bobbie Koepp

Luna Environmental
4222 FM 482
New Braunfels, TX 78132

Phone: (830) 312-8776

sherrie@lunaenviromental.com

Date Printed: 6/7/2023

Customer ID: 8465

Site: 1577 Whispering Hills Dr., Canyon Lake, TX 78133

County: Comal

Subdivision: Scenic Heights

Main Phone
(210) 388-3991

To: Como Homes LLC
P. O . Box 2632
Canyon Lake, TX 78133

Customer's Email: joeroosters@yahoo.com

Installed by: David Winters
Contract with: Luna Environmental
Treatment Type: Aerobic / Disposal: DRIP
MFG: / Brand: SOLAR AIRE / S#:
Disinfectant:

Contract Period

through

NO PERMIT ON FILE

Agency: Comal County Environmental Health
3 visits per year - one every 4 months

Agreement

1. General: This work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between the Client and Luna Environmental, LLC (hereinafter referred to as Contractor), located at 4222 FM 482 New Braunfels, Texas 78132, (830-312-8776) or (830-850-0080). By this agreement, Contractor agrees to render services, as described herein, and Client agrees to fulfill his/her/ their responsibilities under the agreement as described herein.

II. Effective Dates: **If this is an Initial Contract, contract will be for two years and begins when the License To Operate (LTO) has been issued.** A 30 day written notice is required if there is a cancellation before the year of the agreement is up. The written notice will be sent to the local regulatory Agency and any of the agreement unused funds is non-refundable.

Contractor or Client, if choosing to terminate the contract, must give the other party and the local regulatory Agency written notice Thirty (30) Days prior to the ending of the Contract.

IV. Services by Contractor: Contractor will provide the following services (Referred to as the "Services").

1. In compliance with the Local Regulatory Agency and Manufacture's requirements, inspect and perform routine maintenance and upkeep on all parts within the On-Site Sewage Facility (hereafter referred to as the "OSSF") three times per year. Contractor **does not** provide chlorine. Client is solely responsible for maintaining the chlorine in the chlorinator at all times.
2. Contractor will provide a weather proof tag on the control panel containing company name, phone number and inspection dates.
3. Contractor will do inspections 3 times a year, every 4 months.
4. Contractor will report all findings to the appropriate regulatory and authority and to the Client, as required by both the State's On-Site rules and the local Agency's rules. All findings must be reported to local Agency's within 14 days, email is acceptable.
5. The contractor's inspection will include the following; Effluent Quality (Color, Turbity, overflow and Odor), Alarm Function Filters, Operation of Effluent Pump and Chlorine Availability in the Chlorinator, (BOD and TSS Annually on Commercial Accounts, Client is responsible for charges for test)
6. Contractor will respond to client calls and complaints, regarding visual or audible alarms, suspicious conditions and or problems that might confront the Client within 48 hours, excluding weekend and holidays. The Contractor will maintain a 24 hour answering service at 830-312-8776. The unscheduled responses may be billed to the client at going rate.

V. Clients Responsibilities:

1. Maintain Chlorinator and Proper Chlorine supply, if OSSF is equipped with.
2. Provide all necessary lawn or yard maintenance and remove all obstacles, including dogs and other animals as needed to allow the OSSF to function properly and to allow the Contractor easy and safe access to all parts of the OSSF.
3. Immediately notify the Contractor of any alarms of problems with, including failure of the OSSF.
4. Provide for pumping of tanks, generally every 3 years or as suggested by the Contractor at Clients own expense.
5. Upon receiving a written notification of services needed from the Contractor, it becomes the Client's responsibility to contact the Contractor to authorize the service.

6. Contractor will not be responsible for any warranty work; Client must contact the Installer for Warranty Problems.
7. Not allow the backwash from water treatment of water conditioning equipment to enter the OSSF.
8. Maintain site drainage to prevent adverse effects on OSSF.
9. Promptly and fully pay Contractor's Bills, Fees or invoices as described herein.

VI. Contractor will schedule with client, dates to perform the above described Services of repairs. If Contractor is not able to access the site on the date of appointment, a charge of $75.00 will be billed if the inspection for repairs is not able to be completed and are required to be scheduled on another date. The contractor requires access to the OSSF electrical and physical components, including tanks, by means of man ways or risers for the purpose of evaluation of system and equipment as required by the manufacturer and /or rules. If such man ways or risers are not in place, excavation together with other labor and materials will be required and be billed to the Client an additional service at a rate of $75.00 per hour plus materials billed at list process. Excavated soil is to be replaced as best as reasonably possible.

VII. Payments: The fee for this agreement only covers the Services described herein. This fee does not cover equipment or labor supplied for non-warranty repairs or for charges for unscheduled Client, request trips to the Client's site of pumping of the OSSF. Payments not received within 30 days from the date will be subject to a $30.00 late penalty and or a 1.5% carrying charge, whichever is greater, in addition to reasonable attorney's fees. All cost of collection incurred by contractor in collection of any unpaid debt. By signing this contract, the Client is authorizing the Contractor to remove any parts which were installed but not paid for at the end of 30 days. The Client is still responsible for any labor costs associated with the installation and removal of said parts. Invoice due when service is completed. Contract fee is $_____.

VIII. 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 held valid and enforceable. If a court finds that any provision of the agreement is invalid or unenforceable, 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.

Client
Print Name JOSEPH PARKER Signature: _____ Date: 7 June 23

Client Phone number Home 2103883991 Work _____ Cell 210-388-3991

Email Address joeroosters@yahoo.com

Any Gate or Combo code for inspections_____

Contractor Luna Environmental LLC:

MP Signature: James H Sickler Date 6/7/2023
MP NUMBER MP0000996

ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: **April 21, 2022**

Site Location: **SCENIC HEIGHTS, UNIT 1, LOT 64**

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 **SURFACE EVALUATION**

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0 – 6"	**III**	**CLAY LOAM**	**N/A**	**NONE OBSERVED**	**LIMESTONE @ 6"**	**BROWN**
1						
2						
3						
4						
5						

SOIL BORING NUMBER **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

04/21/2022
Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date: April 22, 2022

Applicant Information:

Name: COMO HOMES LLC
Address: c/o P.O. BOX 2632
City: CANYON LAKE State: TEXAS
Zip Code: 78133 Phone: (210) 388-3991

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 64 Unit 1 Blk ___ Subd. SCENIC HEIGHTS
Street Address: 1577 WHISPERING HILLS DR
City: CANYON LAKE Zip Code: 78133
Additional Info.: _____

Installer Information:

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

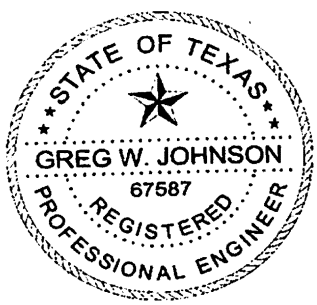
Topography: Slope within proposed disposal area: 3 to 30 %

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

04/22/2022
DATE



FIRM #2585

RECEIVED
By Brandon Olvera at 9:34 am, Dec 28, 2023

#116318

DRIP TUBING SYSTEM
DESIGNED FOR:
COMO HOMES, LLC
P.O. BOX 2632
CANYON LAKE, TX 78133

SITE DESCRIPTION:
Located in Scenic Heights, Unit 1, Lot 64, at 1577 Whispering Hills, the proposed system will serve a three bedroom residence (1357 sf.) situated in an area with shallow Type-III soil as described in the Soil Evaluation Report. 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 Solar Air SA-600LP 600gpd aerobic plant containing a 376-gallon pretreatment tank, an aerobic treatment plant, and a 778-gallon pump chamber containing a submersible well pump. The well pump is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 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 1440 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 flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 6" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil ***(NOT SAND)***. A minimum of 12" soil between drip lines and aerobic tank. The field area will be covered with Curlex erosion control blankets and heavily seeded or just 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: 376 Gal
Plant Size: Solar Air SA-600LP 600 gpd (TCEQ Approved)
Pump tank size: 778-gallon
Reserve capacity after High Level: 80 Gal (>1/3 day Req'd)

RECEIVED
By Brandon Olvera at 9:34 am, Dec 28, 2023

Application Rate: Ra = 0.2 gal/sf
Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf. (Actual 1440 sf.)
Total linear feet drip tubing: 720' ***Netifim Bioline*** drip tubing .61 GPH
Pump requirement: 360 emitters @ .61 gph @ 30 psi = 3.66 gpm
Pump Requirement (cont.): 0.5 HP FPS well pump or equiv. submersible well pump volume: 50-70 gal.
Pump Tank Calculations: 778 Gal (18.75 gal/in.)
Volume below working level = 15"= 281 gal
Working level = 240 gal = 13"
Reserve Requirement = >1/3 day = 80 gal. = 4.5"

MINIMUM SCOUR VELOCITY (**MSV**) > 2 FPS
IN DRIP TUBING W/ NOM. DIA. 0.55" ID
MSV = 2 FPS (Πd↑2)/4*7.48 gal/cf*60 sec/min
MSV = 2(3.14159((.55/12)↑2)/4)*7.48*60
MSV = 1.5 gpm MIN FLOW RATE x 2 = 3 gpm

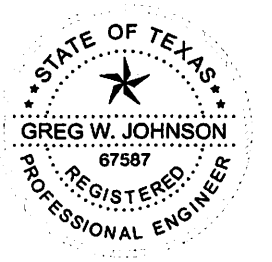
IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID
MSV = 2 FPS (Πd↑2)/4*7.48 gal/cf*60 sec/min
MSV = 2(3.14159((1.049/12)↑2)/4)*7.48*60
MSV = 5.4 GPM

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. Drip tubing 0.61 gph drip tubing to be used in field.

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

12/20/23

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



RECEIVED
By Brandon Olvera at 8:17 am, Dec 18, 2023

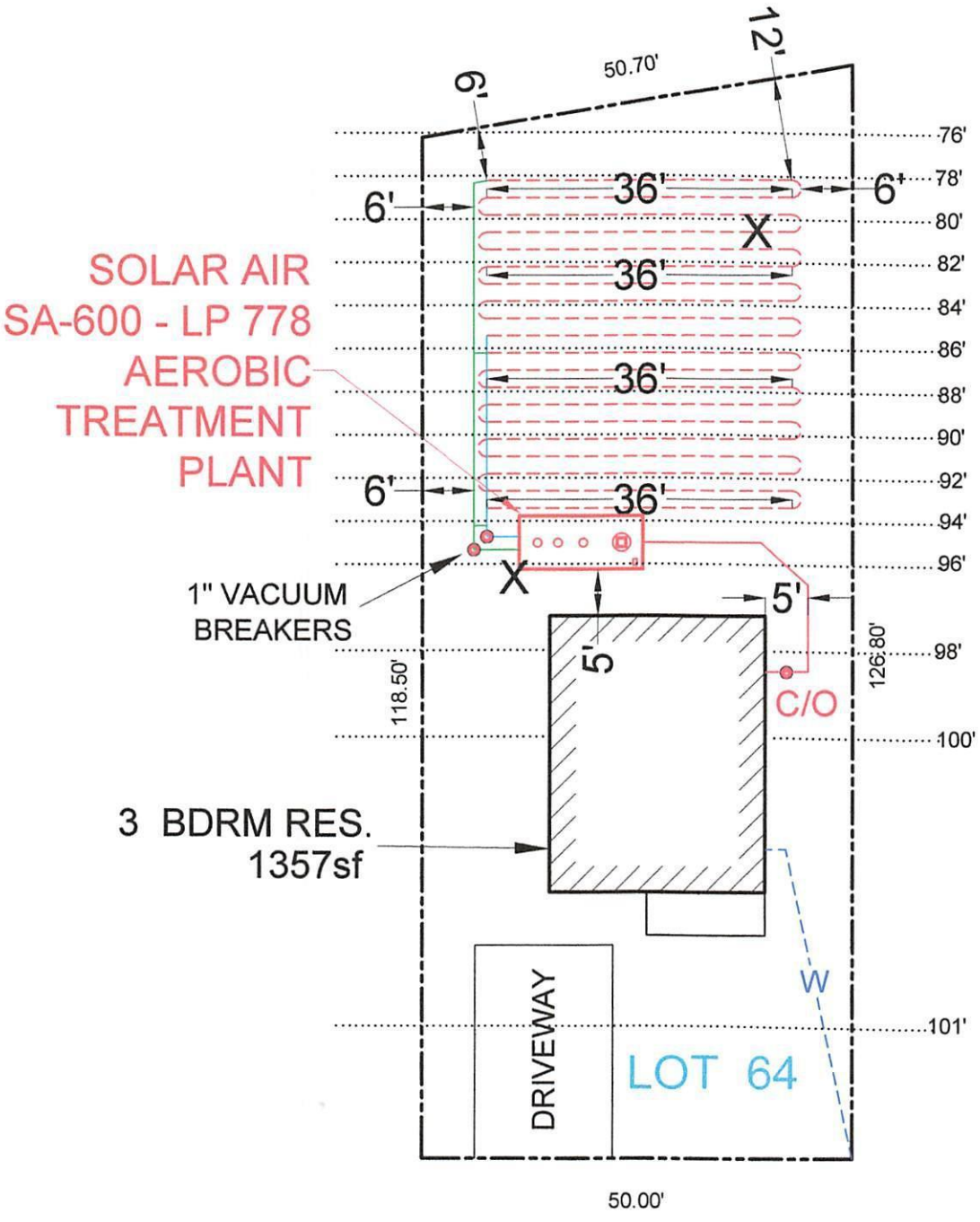
#11638

NOTE:
SLOPED LAND WITH GREATER THAN 30% SLOPE SHALL BE LANDSCAPED AND TERRACED TO MINIMIZE RUNOFF

INSTALL 1440sf OF FIELD USING 720' 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

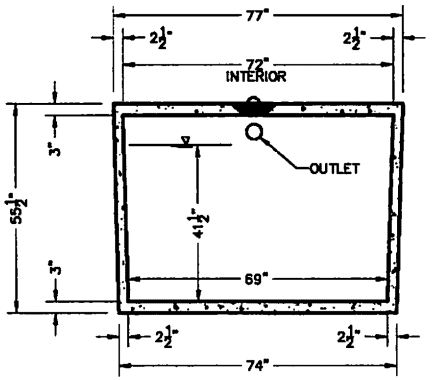
X= TEST HOLE



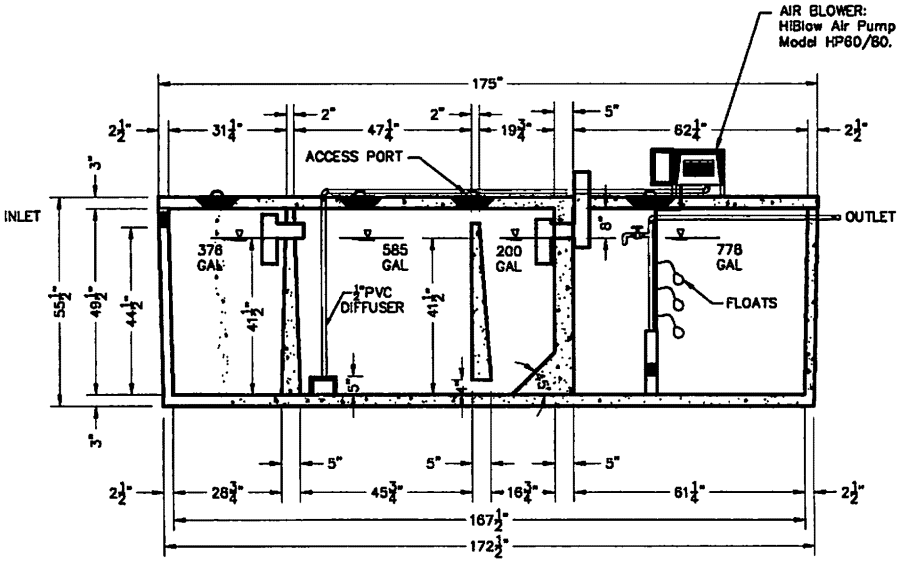
WHISPERING HILLS DRIVE

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

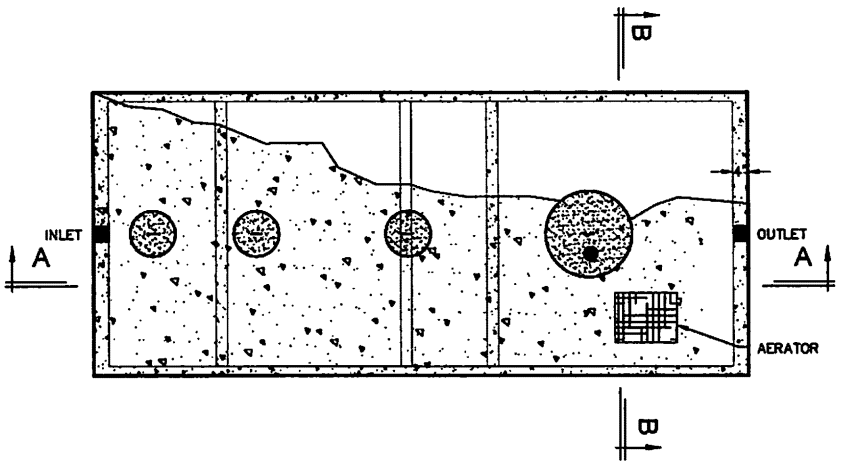
OWNER: COMO HOMES, LLC				DRAWN BY: EJS III	
STREET ADDRESS: 1577 WHISPERING HILLS DRIVE					
LEGAL DESC: SCENIC HEIGHTS		UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 64	
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=20'	DATE: 4/22/2022	2nd REVISION: 12/13/2023		



SECTION B-B



SECTION A-A



PLAN VIEW

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

F2585
04/22/2022

SOLAR AEROBIC
6754 HWY 90 EAST
LAKE CHARLES, LA 70615
PHONE: (337) 439-0680

MODEL SA 600LP
RESIDENTIAL WASTEWATER
TREATMENT SYSTEM

DESIGNER: ESC
DRAWN: ESC
CHECKED: ESC

PROJECT NO
SCALE: 3/8" = 1'-0"
DATE: DEC 2016
SHEET: SA-3

REVISIONS
DATE
BY

Arkal 1" Super Filter

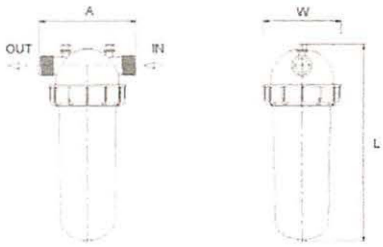
Catalog No. 1102 0_ _ _

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

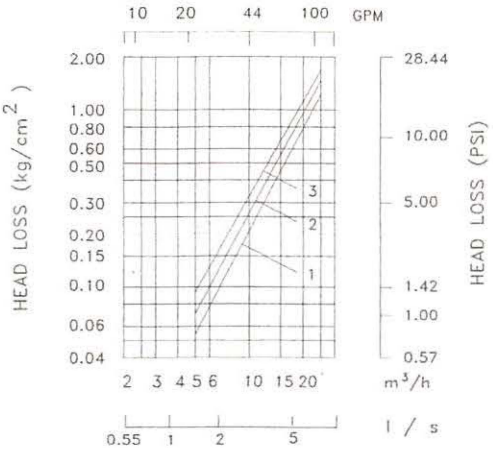
Inlet/outlet diameter	1" BSPT (male) 25.0 mm – nominal diameter 33.6 mm – pipe diameter (O. D.)	1" NPT (male)
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m^3/h (1.7 l/sec)	35 gpm
General filtration area	500 cm^2	77.5 in^2
Filtration volume	600 cm^3	37 in^3
Filter length L	340 mm	13 13/32"
Filter 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	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

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

Overall Length 5.2 inches (13.1 cm)

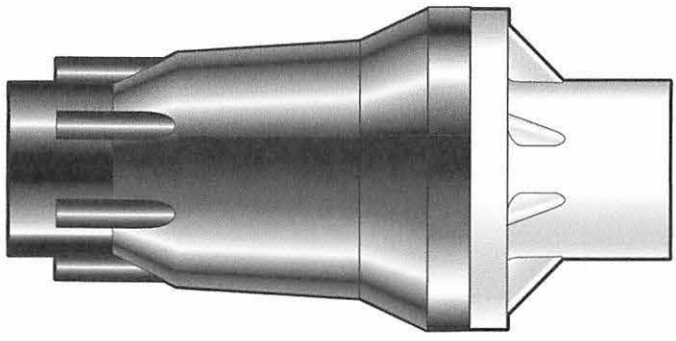
Overall Width 2.5 inches (6.4 cm)

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)

DRIP TUBING SYSTEM
DESIGNED FOR:
COMO HOMES, LLC
c/o P.O. BOX 2632
CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Scenic Heights, Unit 1, Lot 64, at 1577 Whispering Hills, the proposed system will serve a three bedroom residence (1357 sf.) situated in an area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

VOID

PROPOSED SYSTEM:

A 3-inch SCH-40 pipe discharges from the residence into a Solar Air SA-600LP 600gpd aerobic plant containing a 376-gallon pretreatment tank, an aerobic treatment plant, and a
778-gal [illegible] ump char [illegible] contai [illegible] rsible we [illegible] mp. [illegible] is activated
by a tim [illegible] ntroller [illegible] ving [illegible] stribu [illegible] n time [illegible] r day [illegible] an 8 [illegible] run time
with floa [illegible] ting at [illegible] gallo [illegible] A high lev [illegible] dible [illegible] visu [illegible] rm will a [illegible] e should
the pum [illegible] l. Di [illegible] ution [illegible] rough a se [illegible] shin [illegible] 0 mi [illegible] disc filte [illegible] kal) then
through a [illegible] SCH [illegible] manif [illegible] o a 2000sf. [illegible] ubin [illegible] ld, w [illegible] *etifim Bio* [illegible] drip lines
set appro [illegible] te [illegible] o feet a [illegible] with ***0.61 g*** [illegible] mitte [illegible] t eve [illegible] o feet, as [illegible] e attached
schemati [illegible] sure regu [illegible] PMR-M [illegible] si in [illegible] d in [illegible] ump tan [illegible] e manifold
to the fie [illegible] maintain p [illegible] si. A [illegible] SCH [illegible] s installed to
periodically [illegible] sh the system by [illegible] a 1" ball valve. Solids [illegible] in the disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 6" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil ***(NOT SAND)***. A minimum of 12" soil between drip lines and aerobic tank. 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: 376 Gal
Plant Size: Solar Air SA-600LP 600 gpd (TCEQ Approved)
Pump tank size: 778-gallon
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 = 5.0833 gpm
Pump Requirement (cont.): 0.5 HP Dominator well pump or equiv. submersible well pump volume: 50-70 gal.
Pump Tank Calculations: 778 Gal (18.75 gal/in.)

Volume below working level = 15"= 281 gal
Working level = 240 gal = 13"
Reserve Requirement = >1/3 day = 80 gal. = 4.5"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS
IN DRIP TUBING W/ NOM. DIA. 0.55" ID

MSV = 2 FPS (Πd↑2)/4*7.48 gal/cf*60 sec/min
= 2(3.14 .55/1 *60
= 1.5 g MIN W RA = 4.5

IN RET MA OLD OM. DIA " ID
= 2 (Πd↑ 7.48 gal/cf ec/
= 4159((/12)↑2)/4 *6
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. Drip tubing 0.61 gph drip tubing to be used in field.

VOID

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

04/22/2022

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

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

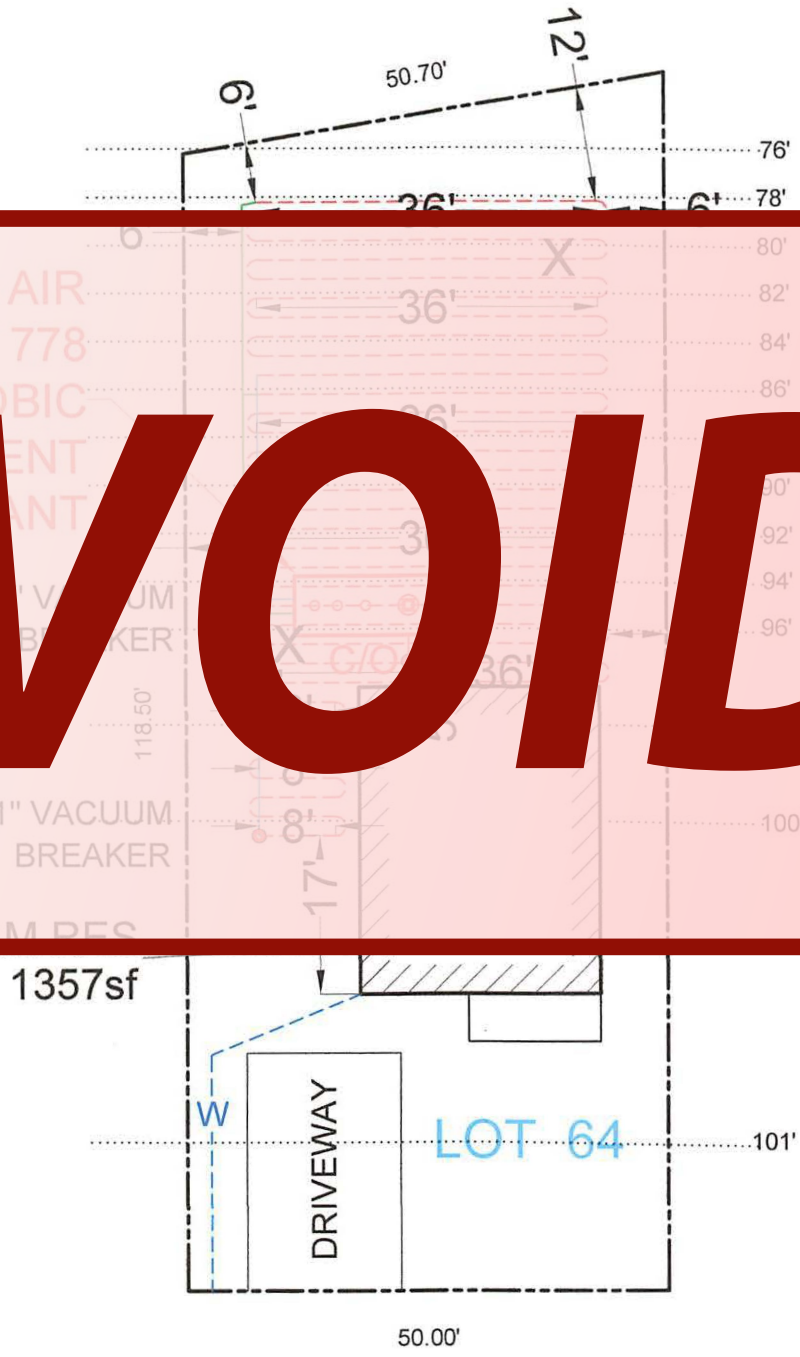
NOTE:
SLOPED LAND WITH GREATER THAN 30% SLOPE SHALL BE LANDSCAPED AND TERRACED TO MINIMIZE RUNOFF

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



WHISPERING HILLS

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

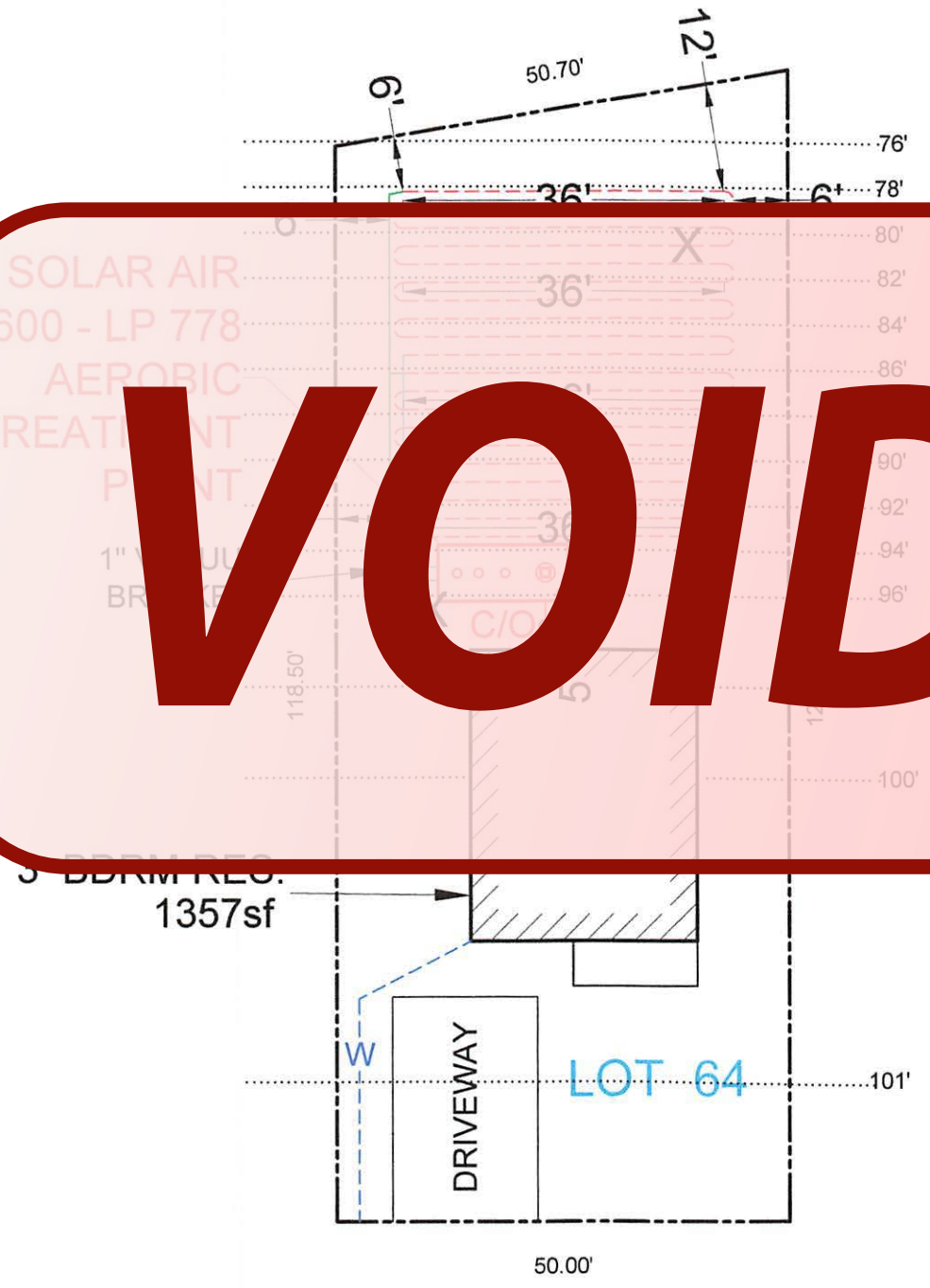
OWNER: COMO HOMES, LLC					DRAWN BY: EJS III
STREET ADDRESS: 1577 WHISPERING HILLS Dr					
LEGAL DESC: SCENIC HEIGHTS		UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 64	
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=20'	DATE: 4/22/2022	REVISED:		

NOTE:
SLOPED LAND WITH GREATER THAN 30% SLOPE SHALL BE LANDSCAPED AND TERRACED TO MINIMIZE RUNOFF

INSTALL 1440sf OF FIELD USING 720' 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



WHISPERING HILLS DRIVE

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

OWNER: COMO HOMES, LLC.				DRAWN BY: EJS III	
STREET ADDRESS: 1577 WHISPERING HILLS DRIVE					
LEGAL DESC: SCENIC HEIGHTS		UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 64	
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=20'	DATE: 4/22/2022	REVISED: 12/5/2023		

RECEIVED
By helmsa at 1:34 pm, Jun 08, 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) 600 **Absorption/Application Area (Sq Ft)** 2000

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

[illegible] 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.))

[illegible] there an existing [illegible] approved [illegible] AP for [illegible] perty [illegible] s ☒
(If yes, the R. S. or P. [illegible] ll certify [illegible] e OSSF [illegible] gn complies [illegible] provisi [illegible] the ex [illegible] WPAP.)

[illegible] there is no existin [illegible] AP, [illegible] e pro [illegible] development [illegible] y re [illegible] a TCE [illegible] roved WPA [illegible] ☐ Yes ☐ No
(If yes, the R.S. or P. E. [illegible] c [illegible] at the O [illegible] sign will comp [illegible] all pr [illegible] s of th [illegible] osed WPAP [illegible] it to Construct will not be issued for the pr [illegible] d [illegible] until the [illegible] ed WPAP has [illegible] appro [illegible] the ap [illegible] ate regional

[illegible] the property locate [illegible] e Edwards Contri [illegible] ☒ Yes [illegible] o

[illegible] there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No
([illegible] yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

If there [illegible] 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: _____

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

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

April 22, 2022
Date

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

Olvera,Brandon

From: Olvera,Brandon
Sent: Wednesday, December 6, 2023 8:44 AM
To: Greg Johnson; Allen,Corey
Cc: Garrett Winters; Susan Winters
Subject: RE: 1577 WHISPERING HILLS - COMO HOMES #116318
Attachments: IMG_20231025_140312734.jpg; IMG_20231025_140100146.jpg; IMG_20231025_140127915.jpg; IMG_20231025_140159957.jpg

Good Morning,

File has been updated. During a tank inspection conducted on 10-25-2023, the water meter and stub out location has changed from the original design. See attached photos.

Thank You,

Note: Beginning January 1, 2024 our reinspection fees will be changing to $150.00. Permit fee includes 3 inspections, $150 each additional inspection

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

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From: Greg Johnson <gregjohnsonpe@yahoo.com>
Sent: Tuesday, December 5, 2023 9:48 AM
To: Olvera,Brandon <Olverb@co.comal.tx.us>
Cc: Garrett Winters <gwinterssepticsgmail.com>; Susan Winters <wintersseptics@gvtc.com>
Subject: 1577 WHISPERING HILLS - COMO HOMES #116318

REVISED.
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 Olvera at 8:29 am, Dec 06, 2023

DRIP TUBING SYSTEM
DESIGNED FOR:
COMO HOMES, LLC
P.O. BOX 2632
CANYON LAKE, TX 78133

SITE DESCRIPTION:
Located in Scenic Heights, Unit 1, Lot 64, at 1577 Whispering Hills, the proposed system will serve a three bedroom residence (1357 sf.) situated in an area with shallow Type-III soil as described in the Soil Evaluation Report. 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 Solar Air SA-600LP 600gpd aerobic plant containing a 376-gallon pretreatment tank, an aerobic treatment plant, and a 778-gallon pump chamber containing a submersible well pump. The well pump is activated [illegible] a time co[illegible]er allo[illegible]istribution [illegible] time[illegible]ith an 8 minute run time [illegible] float se[illegible]t 24[illegible] level [illegible]ble a[illegible]will activate should th[illegible]mp fai[illegible]strib[illegible] is throug[illegible]elf f[illegible]ng 1[illegible]icron di[illegible]er (Arkal) then throu[illegible] 1" S[illegible]0 m[illegible]d to a 144[illegible]rip [illegible]g fie[illegible]ith *Netif[illegible]oline* drip lines set a[illegible]xim[illegible] two [illegible]apart with [illegible]*gph*[illegible]tters [illegible]very two [illegible]as per the attached s[illegible]a[illegible] A pres[illegible] regulator [illegible]MF[illegible]si ins[illegible]d in the p[illegible]ank on the manifold t[illegible]d will ma[illegible] pressu[illegible]0 ps[illegible] 1" [illegible]40 retu[illegible] is installed to periodic[illegible]h the syste[illegible] ball [illegible]. So[illegible] disc filter are flushed eac[illegible]e back to the tra[illegible]. Vacuum [illegible]kers [illegible] the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 6" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil *(NOT SAND)*. A minimum of 12" soil between drip lines and aerobic tank. 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: 376 Gal
Plant Size: Solar Air SA-600LP 600 gpd (TCEQ Approved)
Pump tank size: 778-gallon
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 1440 sf.)
Total linear feet drip tubing: 720' ***Netifim Bioline*** drip tubing .61 GPH
Pump requirement: 360 emitters @ .61 gph @ 30 psi = 3.66 gpm
Pump Requirement (cont.): 0.5 HP Dominator well pump or equiv. submersible well pump
volume: 50-70 gal.
Pump Tank Calculations: 778 Gal (18.75 gal/in.)
Volume below working level = 15"= 281 gal
Working level = 240 gal = 13"
Reserve Requirement = >1/3 day = 80 gal. = 4.5"

MINIMUM SCOUR VELOCITY (**MSV**) > 2 FPS
IN DRIP TUBING W/ NOM. DIA. 0.55" ID
MSV = 2 FPS (11d↑2)/4*7.48 gal/cf*60 sec/min
MSV = 2(3.14159((.55/12)↑2)/4)*7.48*60
MSV = 1.5 gpm MIN FLOW RATE x 2 = 3 gpm

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID
M = 2 FPS 2)/4* sec/mi
M = 2(3.1 (1.0)↑2)/4) *60
M = 5.4

PIPE AN GS:
All pipes a gs in this shall sch 40 P joints shall be sealed w proved solve cement pper recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas

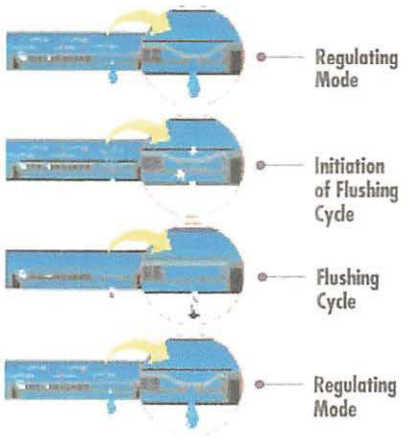
12/5/23

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

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

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.

Cross Section of Bioline Dripperline

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"*

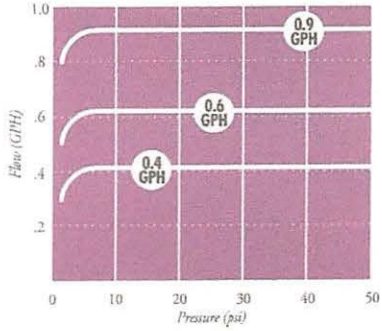
Recommended filtration: 120 mesh

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



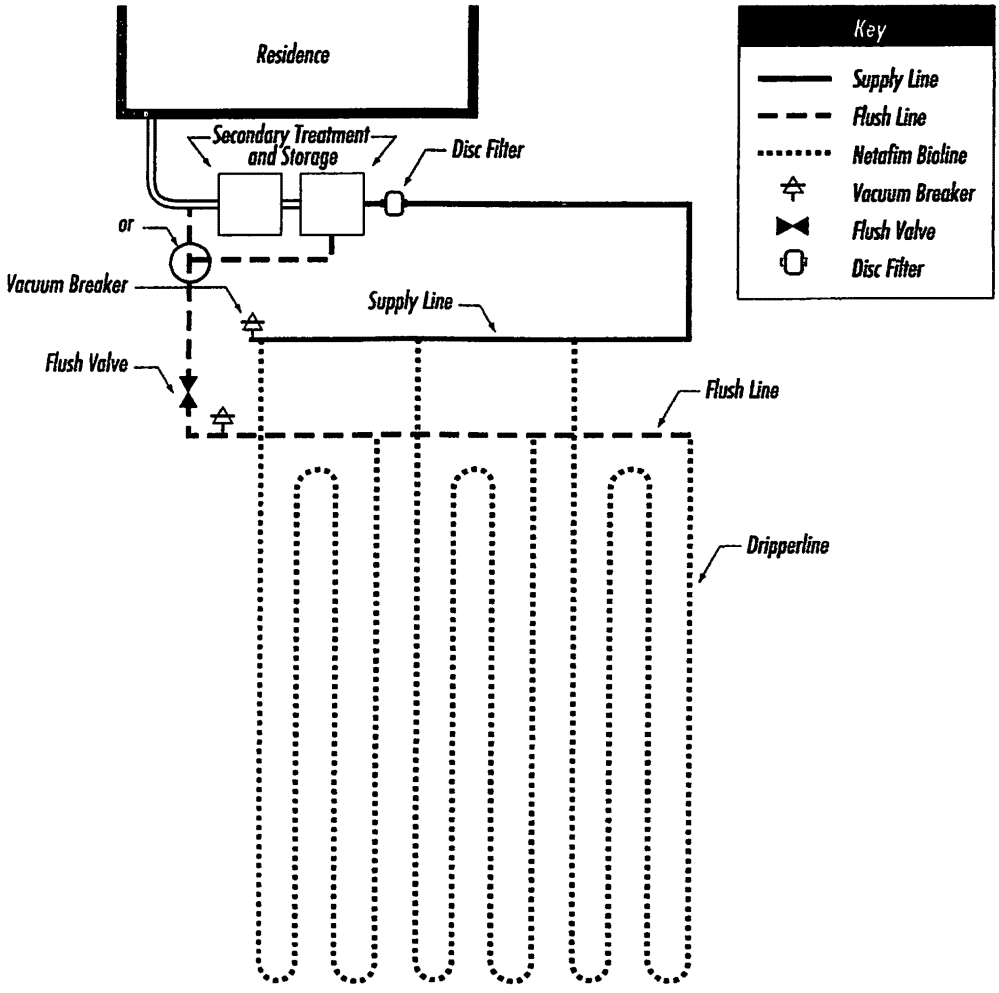
NETAFIM USA
5470 E. Home Ave. • Fresno, CA 93727
888.638.2346 • 559.453.6800
FAX 800.695.4753
www.netafimusa.com

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



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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

Date: May 5, 2023

Grantor: Valeria Perez, an unmarried person

Grantor's Mailing Address (including county):

500 Naked Indian Trail
Canyon Lake, Texas 78133
Comal County

Grantee: COMO Homes, LLC, a Texas limited liability company

Grantee's Mailing Address (including County):

P. O. Box 2632
Canyon Lake, Texas 78133
Comal County

Consideration: TEN AND NO/100 DOLLARS and other good and valuable consideration.

Property (including any improvements):

Lot 64, Scenic Heights Unit No. 1, a subdivision in Comal County, Texas, according to the map or plat thereof, recorded in Volume 2, Page 35, Map and Plat Records, Comal County, Texas.

Reservations from and Exceptions to Conveyance and Warranty:

This conveyance is made and accepted subject to any and all restrictions, covenants, reservations, and easements, if any, relating to the hereinabove described property, but only to the extent they are still in effect, shown of record in the hereinabove mentioned County and State.

Grantor, for the consideration, receipt of which is acknowledged, and subject to the reservations from and exceptions to conveyance and warranty, grants, sells and conveys to Grantee the property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's heirs, executor, administrators, successors or

assigns forever. Grantor binds Grantor and Grantor's heirs, executors, administrators and successors are hereby bound to warrant and forever defend all and singular the property to Grantee and Grantee's heirs, executors, administrators, successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty.

Current ad valorem taxes on said property having been prorated, the payment thereof is assumed by Grantee.

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

Valeria Perez

ACKNOWLEDGMENT

THE STATE OF TEXAS

COUNTY OF COMAL

This instrument was acknowledged before me on this 5 day of May 2023, by Valeria Perez.

BRITTANY PHILLIPS
My Notary ID # 126000272
Expires May 6, 2023

Notary Public, State of Texas

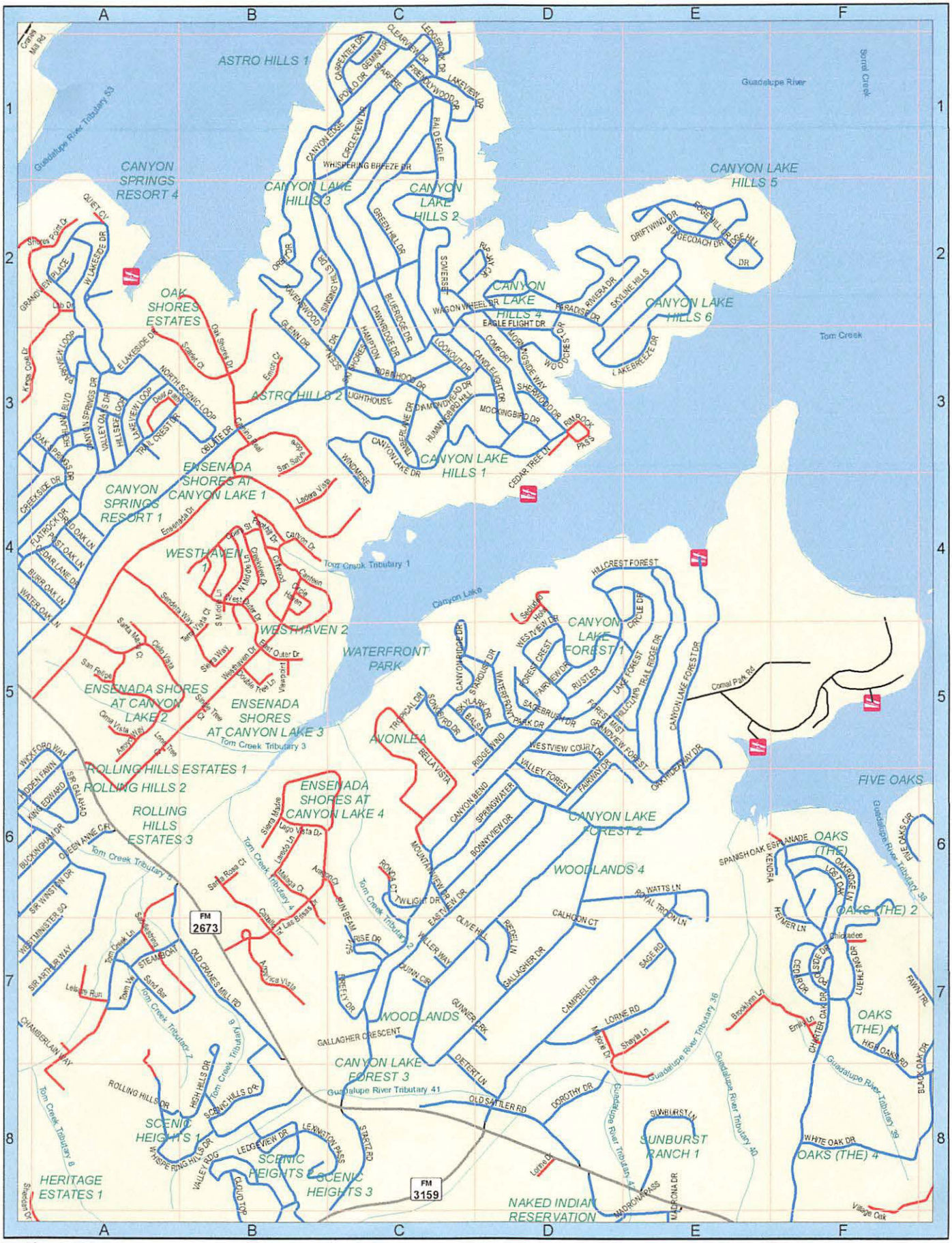
PREPARED IN THE OFFICES OF:

Stevens & Malone, PLLC
P.O. Box 1744
Canyon Lake, Texas 78133
830.964.4426 – tel.
830.964.4426 – fax

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
05/10/2023 09:01:47 AM
TERRI 2 Page(s)
202306014257

Bobbie Koepp

↑ SEE PAGE 18 ↑



↑ SEE PAGE 28 ↑

↓ SEE PAGE 42 ↓

N
W
E
S

0 1,250 2,500
Feet

0 0.25 0.5
Miles

Produced by the Comal County Engineer's Office - 10/1/2021