

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

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

Inspector Notes:

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

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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
19	DISPOSAL SYSTEM Drip Irrigation		285.33(c)(3)(A)-(F)				
20	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)				
21	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(4) 285.33(a)(3) 285.33(a)(1) 285.33(a)(2)				
22	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
23	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
24	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
25	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC						
26	DRAINFIELD Area Installed						
27	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)				
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

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

**Comal County Environmental Health
OSSF Inspection Sheet**

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



COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number: 117904
Issued This Date: 10/08/2024
This permit is hereby given to: Kenneth Murchison and Jonna Murchison

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

116 RAVEN CT
CANYON LAKE, TX 78133

Subdivision: The Point at Rancho del Lago
Unit: 1
Lot: 31
Block: n/a
Acreage: 0.5900

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Surface Irrigation

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

Call (830) 608-2090 to schedule inspections.



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

		117904
<i>Date Received</i>	<i>Initials</i>	<i>Permit Number</i>

Instructions:

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

OSSF Permit

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

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

Signature of Applicant

Date

____ COMPLETE APPLICATION Check No. _____ Receipt No. _____
--

INCOMPLETE APPLICATION ____ (Missing Items Circled, Application Refused)



RECEIVED

By Brandon Olvera at 9:51 am, Dec 04, 2024

Date November 12, 2024

Permit Number 117904

1. APPLICANT / AGENT INFORMATION

Owner Name KENNETH & JONNA MURCHISON
Mailing Address 1521 PARTON ROAD
City, State, Zip CANYON LAKE TEXAS 78133
Phone # 512-468-3030
Email jonna847@gmail.com

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

2. LOCATION

Subdivision Name THE POINT AT RANCHO DEL LAGO Unit PHASE 1 Lot 31 Block _____
Survey Name / Abstract Number _____ Acreage _____
Address 116 RAVENS COURT 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 2499

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: \$ 500,000 (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.

X Kenneth & Jonna Murchison 11-14-24
Signature of Owner Date



COMAL COUNTY
ENGINEER'S OFFICE

RECEIVED

By Brandon Olvera at 9:51 am, Dec 04, 2024

ON-SITE SEWAGE FACILITY APPLICATION

THE POINT AT RANCHO DEL LAGO, PHASE 1, LOT 31

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

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

System Description PROPRIETARY; AEROBIC TREATMENT AND SURFACE IRRIGATION

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

Tank Size(s) (Gallons) NUWATER B-550-PC Absorption/Application Area (Sq Ft) 4241

Gallons Per Day (As Per TCEQ Table 111) 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.)

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

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

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

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

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

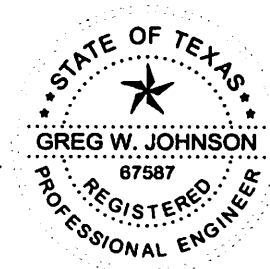
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

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

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

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

November 13, 2024
Date

Y/S

THE COUNTY OF COMAL

STATE OF TEXAS



202406026602 09/03/2024 02:13:35 PM 1/1

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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

I

The Texas Health and Safety Code, Chapter 366 authorizes the TCEQ to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the TCEQ 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 TCEQ, under the authority of the TWC and the Texas Health and Safety Code, requires owners to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the TCEQ 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 TCEQ of the suitability of this OSSF, nor does it constitute any guarantee by the TCEQ 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):

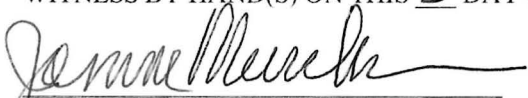
Legal Description: Lot 31, The Point at Rancho del Lago, Phase 1

This property is owned by: Kenneth Murchison Jonna Murchison

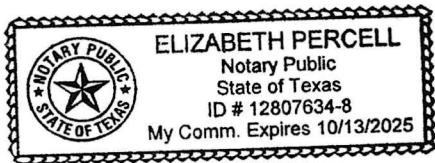
This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic system for a single-family residence shall either obtain a maintenance contract within 30 days or maintain the system personally.


The owner will, upon any sale or transfer of the above-described property, request a transfer of the permit for the OSSF to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from Comal County.

WITNESS BY HAND(S) ON THIS 3 DAY OF September, 2024.


Jonna Murchison (Owner)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 3rd DAY OF September, 2024.




Notary Public, State of Texas

Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
09/03/2024 02:13:35 PM
TERRI 1 Page(s)
202406026602





WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

Regulatory Authority Comal
Block Creek Aerobic Services, LLC
444 A Old Hwy #9
Comfort, TX 78013
Off. (830) 995-3189
Fax. (830) 995-4051

Permit/License Number _____
Customer Jonna Murchison
Site Address 116 Raven Court
City Canyon Lake Zip 78133
Mailing Address 1521 Parton Dr.
County Comal Map # _____
Phone 512-468-3030
Email Jonna847@gmail.com

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between Jonna Murchison (hereinafter referred to as "Customer") and Block Creek Aerobic Services, LLC. By this agreement, Block Creek Aerobic Services, LLC and its employees (hereinafter inclusively referred to as "Contractor") agree to render services at the site address stated above, as described herein, and the Customer agrees to fulfill his/her/their responsibilities, as described herein.

II. Effective Date:

This Agreement commences on License to Construct and ends on _____ for a total of two (2) years (initial agreement) or one (1) year (thereafter). If this is an initial agreement (new installation), the Customer shall notify the Contractor within two (2) business days of the system's first use to establish the date of commencement. If no notification is received by Contractor within ninety (90) days after completion of installation or where county authority mandates, the date of commencement will be the date the "License to operate" (Notice of Approval) was issued by the permitting authority. This agreement may or may not commence at the same time as any warranty period of installed equipment, but in no case shall it extend the specified warranty.

III. Termination of Agreement:

This Agreement may be terminated by either party for any reason, including for example, substantial failure of either party to perform in accordance with the terms of this Agreement, without fault or liability of the terminating party. The terminating party must provide written notice to the non-terminating party thirty (30) days prior to the termination of this Agreement. If this Agreement is terminated, Contractor will be paid at the rate of \$75.00 per hour for any work performed and for which compensation has not been received. After the deduction of all outstanding charges, any remaining monies from prepayment for services will be refunded to customer within thirty (30) days of termination of this Agreement. Either party terminating this Agreement for any reason, including non-renewal, shall notify in writing the equipment manufacturer and the appropriate regulatory agency a minimum of thirty (30) days prior to the date of such termination. Nonpayment of any kind shall be considered breach of contract and a termination of contract.

IV. Services:

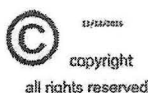
Contractor will:

- a. Inspect and perform routine upkeep on the On-Site Sewage Facility (hereinafter referred to as OSSF) as recommended by the treatment system manufacturer, and required by state and/or local regulation, for a total of three visits to site per year. The list of items checked at each visit shall be the: control panel, Electrical circuits, timer, Aeration including compressor and diffusers, CFM/PSI measured, lids safety pans, pump, compressor, sludge levels, and anything else required as per the manufacturer.
- b. Provide a written record of visits to the site by means of an inspection tag attached to or contained in the control panel.
- c. Repair or replace, if Contractor has the necessary materials at site, any component of the OSSF found to be failing or inoperative during the course of a routine monitoring visit. If such services are not covered by warranty, and the service(s) cost less than \$100.00, Customer hereby authorizes Contractor to perform the service(s) and bill Customer for said service(s). When service costs are greater than \$100.00, or if contractor does not have the necessary supplies at the site, Contractor will notify Customer of the required service(s) and the associated cost(s). Customer must notify Contractor of arrangements to affect repair of system with in two (2) business days after said notification.
- d. Provide sample collection and laboratory testing of TSS and BOD on a yearly basis (commercial systems only).
- e. Forward copies of this Agreement and all reports to the regulatory agency and the Customer.
- f. Visit site in response to Customer's request for unscheduled services within forty-eight (48) hours of the date of notification (weekends and holidays excluded) of said request. Unless otherwise covered by warranty, costs for such unscheduled responses will be billed to Customer.

V. Disinfection:

KM JM

Customer's Initials



RC

Contractor's Initials

____ Not required; X required. The responsibility to maintain the disinfection device(s) and provide any necessary chemicals is that of the Customer.

VI. Electronic Monitoring:

Electronic Monitoring is not included in this Agreement.

VII. Performance of Agreement:

Commencement of performance by Contractor under this Agreement is contingent on the following conditions:

a. If this is an initial Agreement (new installation):

I. Contractor's receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.

If the above conditions are not met, Contractor is not obligated to perform any portion of this Agreement.

VIII. Customer's Responsibilities:

The customer is responsible for each and all of the following:

a. Provide all necessary yard or lawn maintenance and removal of all obstacles, including but not limited to dogs and other animals, vehicles, trees, brush, trash, or debris, as needed to allow the OSSF to function properly, and to allow Contractor safe and easy access to all parts of the OSSF.

b. Protect equipment from physical damage including but not limited to that damage caused by insects.

c. Maintain a current license to operate, and abide by the conditions and limitations of that license, and all requirements for and OSSF from the State and/or local regulatory agency, whichever requirements are more stringent, as well as the proprietary system's manufacturer recommendations.

d. Notify Contactor immediately of any and all alarms, and/or any and all problems with, including failure of, the OSSF.

e. Provide, upon request by Contractor, water usage records for the OSSF so that the Contractor can perform a proper evaluation of the performance of the OSSF.

f. Allow for samples at both the inlet and outlet of the OSSF to be obtained by Contractor for the purpose of evaluating the OSSF's performance. If these samples are taken to a laboratory for testing, with the exception of the service provided under Section IV (d) above, Customer agrees to pay Contractor for the sample collection and transportation, portal to portal, at a rate of \$35.00 per hour, plus the associated fees for laboratory testing.

g. Prevent the backwash or flushing of water treatment or conditioning equipment from entering the OSSF.

h. Prevent the condensation from air conditioning or refrigeration units, or the drains of icemakers, from hydraulically overloading the aerobic treatment units. Drain lines may discharge into the surface application pump tank if approved by system designer.

i. Provide for pumping and cleaning of tanks and treatment units, when and as recommended by Contactor, at Customer's expense.

j. Maintain site drainage to prevent adverse effects on the OSSF.

k. Pay promptly and fully, all Contractor's fees, bills, or invoices as described herein.

IX. Access by Contractor:

Contractor is hereby granted an easement to the OSSF for the purpose of performing services described herein. Contractor may enter the property during Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. Contractor shall have access to the OSSF electrical and physical components. Tanks and treatment units shall be accessible by means of man ways, or risers and removable covers, for the purpose of evaluation as required by State and/or local rules and the proprietary system manufacturer. It is Customers responsibility to keep lids exposed and accessible at all times.

X. Limit of Liability:

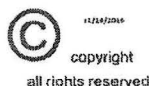
Contractor shall not be held liable for any incidental, consequential, or special damages, or for economic loss due to expense, or for loss of profits or income, or loss of use to Customer, whether in contract tort or any other theory. In no event shall Contractor be liable in an amount exceeding the total Fee for Services amount paid by Customer under this Agreement.

XI. Indemnification:

Customer (whether one or more) shall and does hereby agree to indemnify, hold harmless and defend Contractor and each of its successors, assigns, heirs, legal representatives, devisees, employees, agents and/or counsel (collectively "Indemnitees") from and against any and all liabilities, claims, damages, losses, liens, causes of action, suits, fines, judgments and other expenses (including, but not limited to, attorneys' fees and expenses and costs of investigation), of any kind, nature or description, (hereinafter collectively referred to as "Liabilities") arising out of, caused by, or resulting, in whole or in part, from this Agreement.

Km JM

Customer's Initials



RC

Contractor's Initials

THIS INDEMNIFICATION APPLIES EVEN IF SUCH LIABILITIES ARE CAUSED BY THE CONCURRENT OR CONTRIBUTORY NEGLIGENCE OR BY THE STRICT LIABILITY OF ANY INDEMNITEE.

Customer hereby waives its right of recourse as to any Indemnitee when Indemnification applies, and Customer shall require its insurer(s) to waive its/their right of subrogation to the extent such action is required to render such waiver of subrogation effective. Customer shall be subrogated to Indemnitees with respect to all rights Indemnitees may have against third parties with respect to matters as to which Customer provides indemnity and/or defense to Indemnitees. No Indemnification is provided to Indemnitees when the liability or loss results from (1) the sole responsibility of such Indemnitee; or, (2) the willful misconduct of such Indemnitee. Upon irrevocable acceptance of this Indemnification obligation, Customer, in its sole discretion, shall select and pay counsel to defend Indemnitees of and from any action that is subject to this Indemnification provision. Indemnitees hereby covenant not to compromise or settle any claim or cause of action for which Customer has provided Indemnification without the consent of Customer.

XII. Severability:

If any provision of the "Proposal and Contract" 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 the "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.

XIII. Fee for Services:

The Fee for Services does not include any fees for equipment, material, labor necessary for non-warranty repairs, unscheduled inspections, or Customer requested visits to the site.

XIV. Payment:

Full payment is due upon execution of this Agreement (Required of new Customer). For any other service(s) or repair(s) provided by Contractor the Customer shall pay the invoice(s) for said service(s) or repair(s) within thirty (30) days of the invoice date. The Contractor shall mail all invoices on the date of invoice. All payments not received within thirty (30) days from the invoice date will be subject to a \$29.00 late penalty and a 1.5% per month carrying charge, as well as any reasonable attorney's fees, and all collection and court costs incurred by Contractor in collection of unpaid debt(s). Contractor may terminate contract at any time for nonpayment for services. Any check returned to Contractor for any reason will be assessed a \$30.00 return check fee.

XV. Application or Transfer of payment:

The fees paid for this agreement may be transferred to subsequent property owner(s); however, this Agreement is not transferable. Customer shall advise the subsequent property owner(s) of the State requirement that they sign a replacement agreement authorizing Contractor to perform the herein described Services, and accepting Customer's Responsibilities. This replacement Agreement must be signed and received in Contractor's offices within ten (10) business days of date of transfer of property ownership. Contractor will apply all funds received from Customer first to any past due obligation arising from this Agreement including late fees or penalties, return check fees, and/or charges for services or repairs not paid within thirty (30) days of invoice date. Any remaining monies shall be applied to the funding of the replacement Agreement. The consumption of funds in this manner may cause a reduction in the termination date of effective coverage per this Agreement. See Section IV.

XVI. Entire Agreement:

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



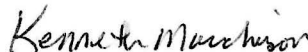
Rudy Carson

Block Creek Aerobic Services, LLC,
Contractor
MP# 0002036

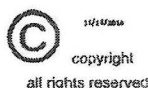


Customer Signature

9/3/24
Date



Customer's Initials



RC

Contractor's Initials

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: November 12, 2024

Site Location: The POINT at RANCHO DEL LAGO, PHASE 1, LOT 31

Proposed Excavation Depth: N/A

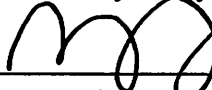
Requirements:

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 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0; text-align: center;">4"</div> 1 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 2 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 3 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 4 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 5 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div>	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 4"	BROWN

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 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 1 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 2 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 3 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 4 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div> 5 <div style="border: 1px solid black; width: 40px; height: 20px; margin: 2px 0;"></div>	SAME		AS		ABOVE	

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

11/12/24

 Date

Comments

Add Comment

Sort ▲

▼ **JCONNOR**

edited

10/3/2024 2:52 PM

Nothing unusual. Contours reflect terrain on site.

Close

**CCEO
COPY**

OSSF SOIL EVALUATION REPORT INFORMATION

Date: November 13, 2024

Applicant Information:

Name: KENNETH & JONNA MURCHISON
Address: 1521 PARTON ROAD
City: CANYON LAKE State: TEXAS
Zip Code: 78133 Phone: (512) 468-3030

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:

The POINT at RANCHO

Installer Information:

Lot 31 Unit 1 Blk Subd. DEL LAGO
Street Address: 116 RAVENS COURT
City: CANYON LAKE Zip Code: 78133
Additional Info.:

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

Topography: Slope within proposed disposal area: 6 to 15 %

Presence of 100 yr. Flood Zone:	YES <u> </u> NO <u>X</u>
Existing or proposed water well in nearby area.	YES <u> </u> NO <u>X</u>
Presence of adjacent ponds, streams, water impoundments	YES <u> </u> NO <u>X</u>
Presence of upper water shed	YES <u> </u> NO <u>X</u>
Organized sewage service available to lot	YES <u> </u> NO <u>X</u>

Design Calculations for Aerobic Treatment with Spray Irrigation:

Commercial

Q = GPD _____

Residential Water conserving fixtures to be utilized? Yes X No

Number of Bedrooms the septic system is sized for: 3 Total sq. ft. living area 2499

Q gal/day = (Bedrooms +1) * 75 GPD - (20% reduction for water conserving fixtures)

Q = (3 +1)*75-(20%) = 240

Trash Tank Size 353 Gal.

TCEQ Approved Aerobic Plant Size 600 G.P.D.

Req'd Application Area = $Q/R_i = \frac{240}{0.064} = 3750$ sq. ft.

Application Area Utilized = 4241 sq. ft.

Pump Requirement 12 Gpm @ 41 Psi (Redjacket 0.5 HP 18 G.P.M. series or equivalent)

Dosing Cycle: ON DEMAND or X TIMED TO DOSE IN PREDAWN HOURS

Pump Tank Size = 768 Gal. 14.5 Gal/inch.

Reserve Requirement = 80 Gal. 1/3 day flow.

Alarms: Audible & Visual High Water Alarm & Visual Air Pump malfunction

With Chlorinator NSF/TCEQ APPROVED

SCH-40 or SDR-26 3" or 4" sewer line to tank

Two way cleanout

Pop-up rotary sprinkler heads w/ purple non-potable lids

1" Sch-40 PVC discharge manifold

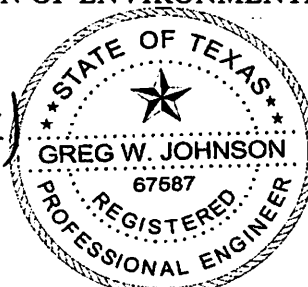
APPLICATION AREA SHOULD BE SEEDED AND MAINTAINED WITH VEGETATION.

EXPOSED ROCK WILL BE COVERED WITH SOIL.

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
GREG W. JOHNSON, P.E. F#002585 - S.E. 11561

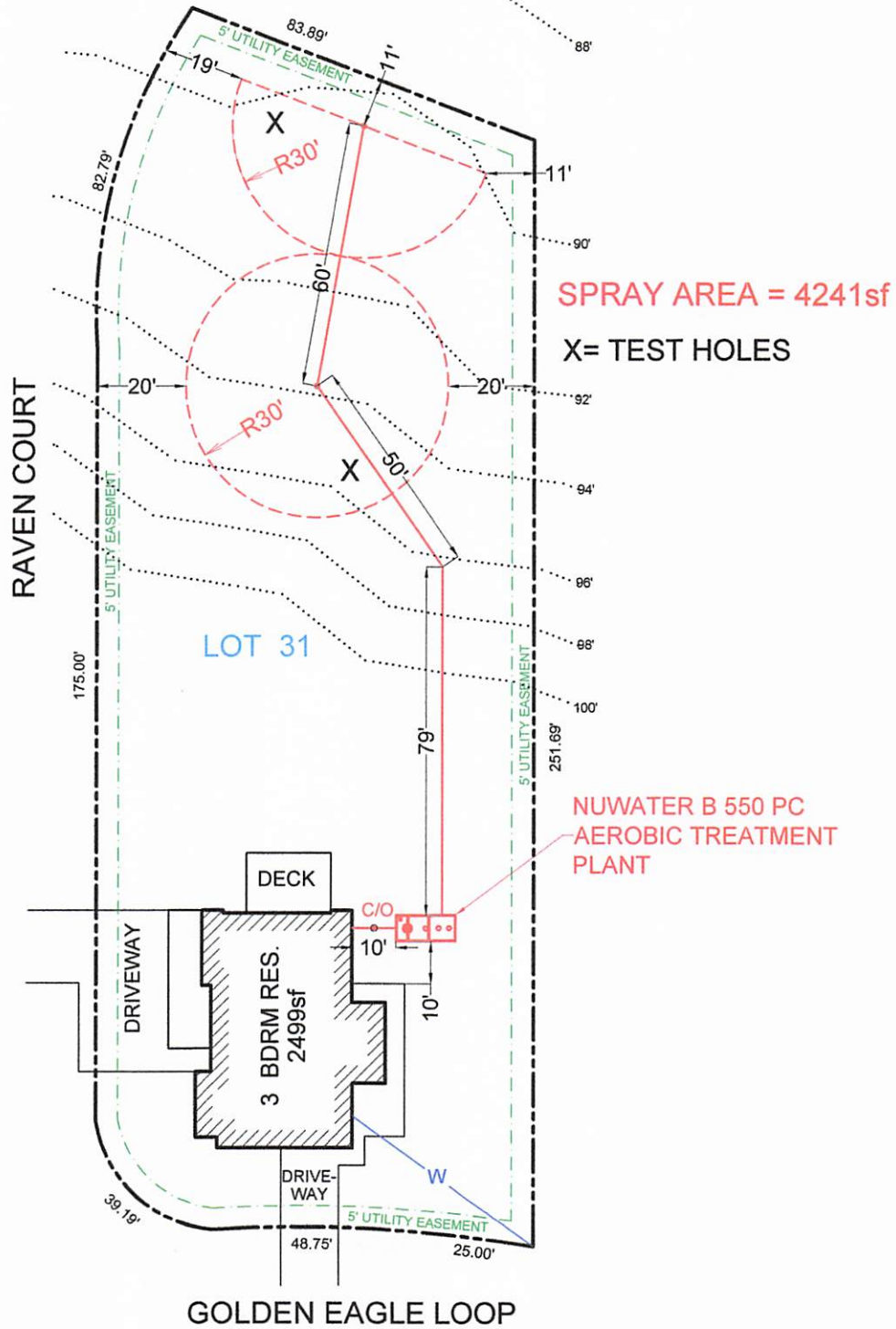
11/13/2024
DATE



FIRM #2585

RECEIVED

By Brandon Olvera at 9:54 am, Dec 04, 2024



OWNER: KENNETH & JONNA MURCHISON		DRAWN BY: EJS III	
STREET ADDRESS: 116 RAVENS COURT			
LEGAL DESC: The POINT at RANCHO DEL LAGO	UNIT/SECTION/PHASE: 1	BLOCK: 1	LOT: 31
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=40'	DATE: 11/13/2024	REVISED:

Assembly Details

OSSF

RECEIVED

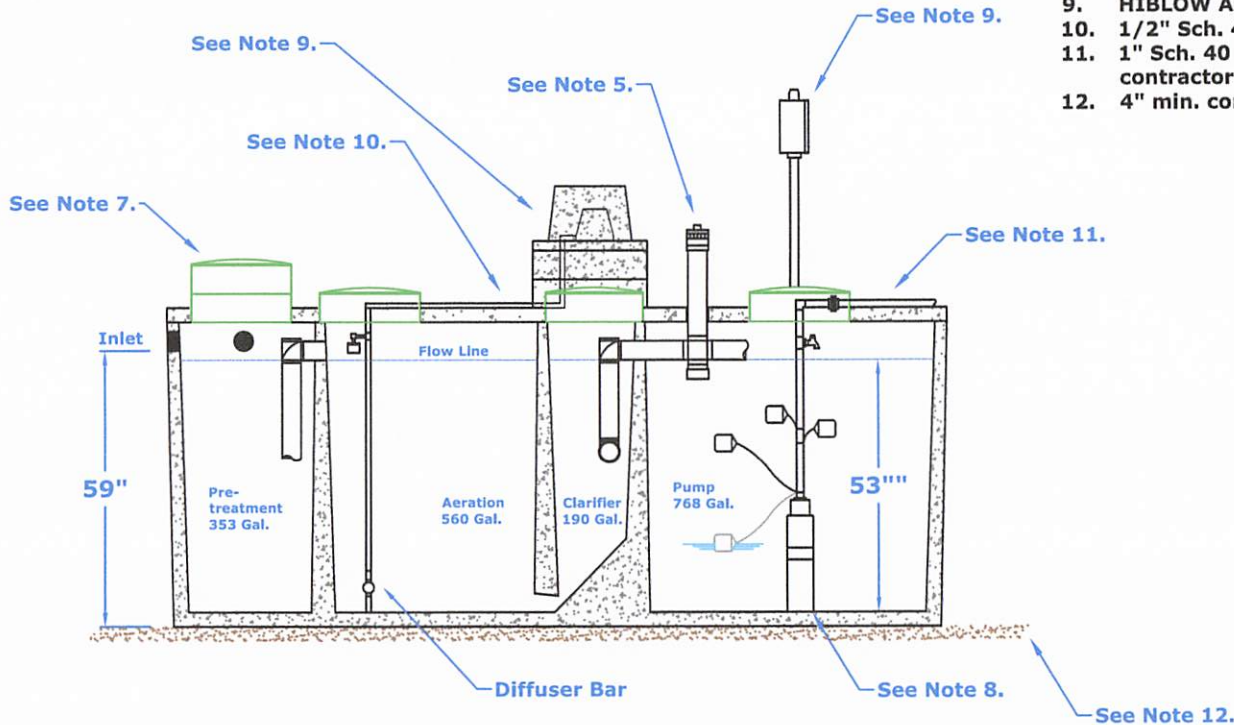
By Brandon Olvera at 9:54 am, Dec 04, 2024



Handwritten: F2585
11/13/24

GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Maximum burial depth is 30" from slab top to grade.
3. Weight = 14,900 lbs.
4. Treatment capacity is 600 GPD. Pump compartment set-up for a 360 GPD Flow Rate (4 bedroom, < 4,000 sq/ft living area). Please specify for additional set-up requirements. BOD Loading = 1.62 lbs. per day.
5. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
6. Bio-Robix B-550 Control Center w/ Timer for night spray application. Optional Micro Dose (min/sec) timer available for drip applications. Electrical Requirement to be 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.
 444 A Old Hwy No 9
 Comfort, TX 78013
 830-995-3189
 fax 830-995-4051

RECEIVED

By Brandon Olvera at 9:54 am, Dec 04, 2024

TANK NOTES:

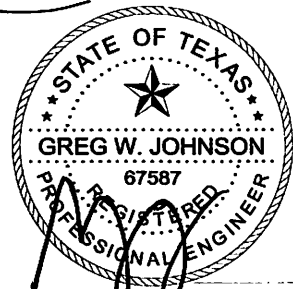
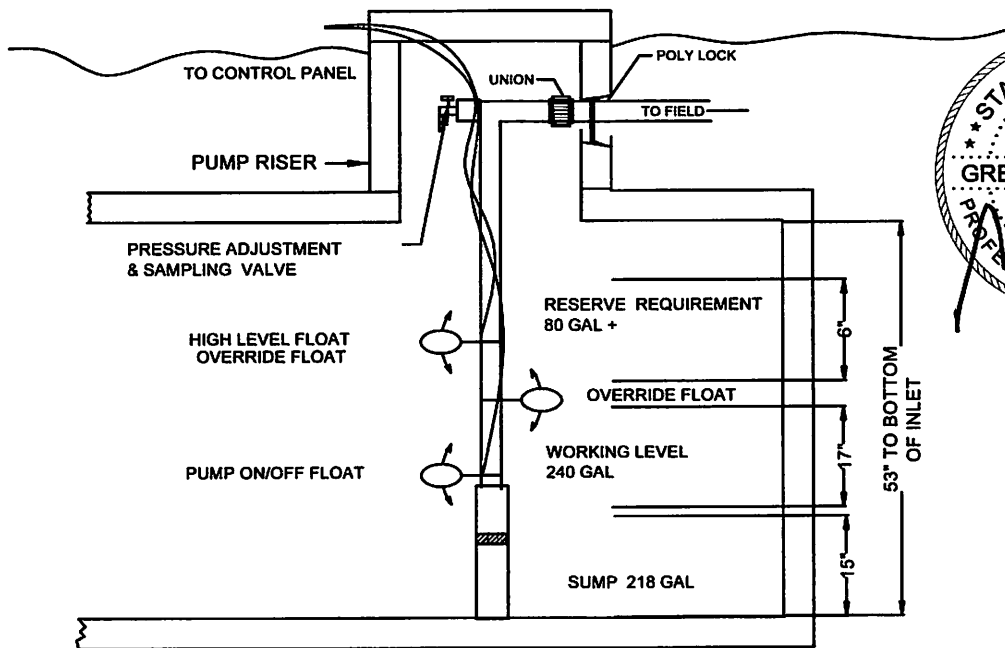
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

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

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

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



F-2585

11/13/24

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

RECEIVED

By Brandon Olvera at 9:54 am, Dec 04, 2024

E-Series

FPS

Environmental Series Pumps

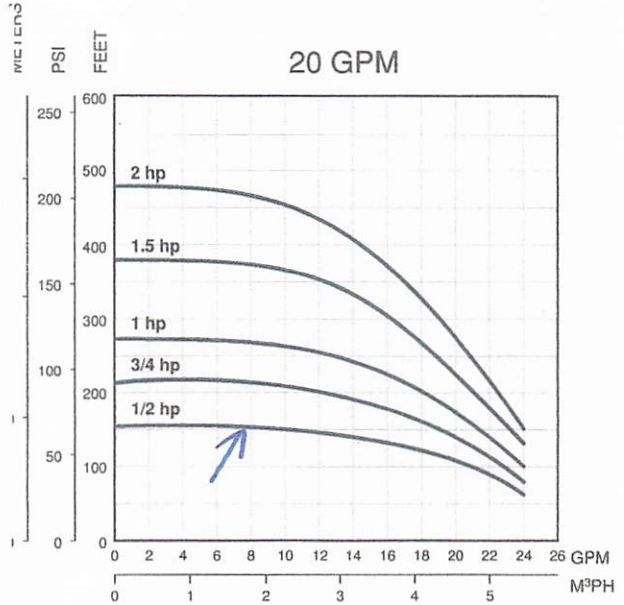
Thermoplastic Performance

LOW ANGLE NOZZLE PERFORMANCE CHART

Nozzle	PSI	Radius	GPM
#1	30	22'	1.5
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
#6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6

KRAIN
Pro-Plus

*



Thermoplastic Units Ordering Information

1/2 - 1.5 HP Single-Phase Units

Order No.	Model	GPM	HP	Volt	Wire	Wt.
94741005	10FE05P4-2W115	10	1/2	115	2	24
94741010	10FE05P4-2W230	10	1/2	230	2	24
94741015	10FE07P4-2W230	10	3/4	230	2	28
94741020	10FE1P4-2W230	10	1	230	2	31
94741025	10FE15P4-2W230	10	1.5	230	2	46
94742005	20FE05P4-2W115	20	1/2	115	2	25
94742010	20FE05P4-2W230	20	1/2	230	2	25
94742015	20FE07P4-2W230	20	3/4	230	2	28
94742020	20FE1P4-2W230	20	1	230	2	31
94742025	20FE15P4-2W230	20	1.5	230	2	40

Thermoplastic 1/2 - 2 HP Pump Ends

Order No.	Model	GPM	HP	Volt	Wire	Wt.
94751005	10FE05P4-PE	10	1/2	N/A	N/A	6
94751010	10FE07P4-PE	10	3/4	N/A	N/A	7
94751015	10FE1P4-PE	10	1	N/A	N/A	8
94751020	10FE15P4-PE	10	1.5	N/A	N/A	12
94752005	20FE05P4-PE	20	1/2	N/A	N/A	6
94752010	20FE07P4-PE	20	3/4	N/A	N/A	7
94752015	20FE1P4-PE	20	1	N/A	N/A	8
94752020	20FE15P4-PE	20	1.5	N/A	N/A	10
94752025	20FE2P4-PE	20	2	N/A	N/A	11



COMAL COUNTY

ENGINEER'S OFFICE

RE: *116 Raven Ct.*
The Point at Rancho Del Lago 1
Lot 31

Dear Property Owner & Agent,

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

- ✓ Our Office will be conducting a site visit on 10-03-2024.
- 2. Application Page 2:
 - a. Indicate the incorporated city.
- 3. Revise accordingly and resubmit.

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

Thank You,

| **Brandon Olvera** | **Designated Representative OS0034792** |
| Comal County | www.cceo.org | f: 830-608-2078 | e: olverb@co.comal.tx.us |



Planning Materials & Site Evaluation as Required Completed By John J. Haag, P.E.

System Description Aerobic drip disposal

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

Tank Size(s) (Gallons) 600 gpd Absorption/Application Area (Sq Ft) 1500 min.

Gallons Per Day (As Per TCEQ Table III) 300

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

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

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

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

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

Is there at least one acre of single family dwelling? Yes No

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

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with the 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 Edwards Contributing Areas? Yes No

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

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

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

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

Is this property within an incorporated city? Yes No

If yes, indicate the city: _____

By signing this application, I certify that:

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

Signature of Designer

09/11/24
Date

ON-SITE SEWAGE FACILITY (OSSF) SITE EVALUATION FORM

1. OWNER INFORMATION	
Property Owner's Full Legal Name: <u>Jonna Murchison</u>	

2. PROPERTY INFORMATION				
City: <u>Canyon Lake</u>			Zip Code: <u>78113</u>	
Legal Description:				
Lot: <u>31</u>	Block:	Subdivision: <u>The Point at Rancho del Lago</u>	Unit:	Phase: <u>1</u>
If not located in subdivision: Survey:				
Abstract:			Recorded (Vol/Pg):	

3. SITE EVALUATION INFORMATION:	
Name of Site Evaluator: <u>John J. Haag</u>	PE #: <u>90138</u>
Date Performed: <u>09/11/2024</u>	Proposed Excavation Depth: <u>Surface</u>

REQUIREMENTS:

At least two soil evaluations must be performed on the site at opposite ends of the proposed disposal area. Locations of soil evaluations must be shown on the application site plan or designer's site drawing.

For subsurface disposal, soil evaluations must be at a depth of at least 2 feet below the proposed excavation depth.

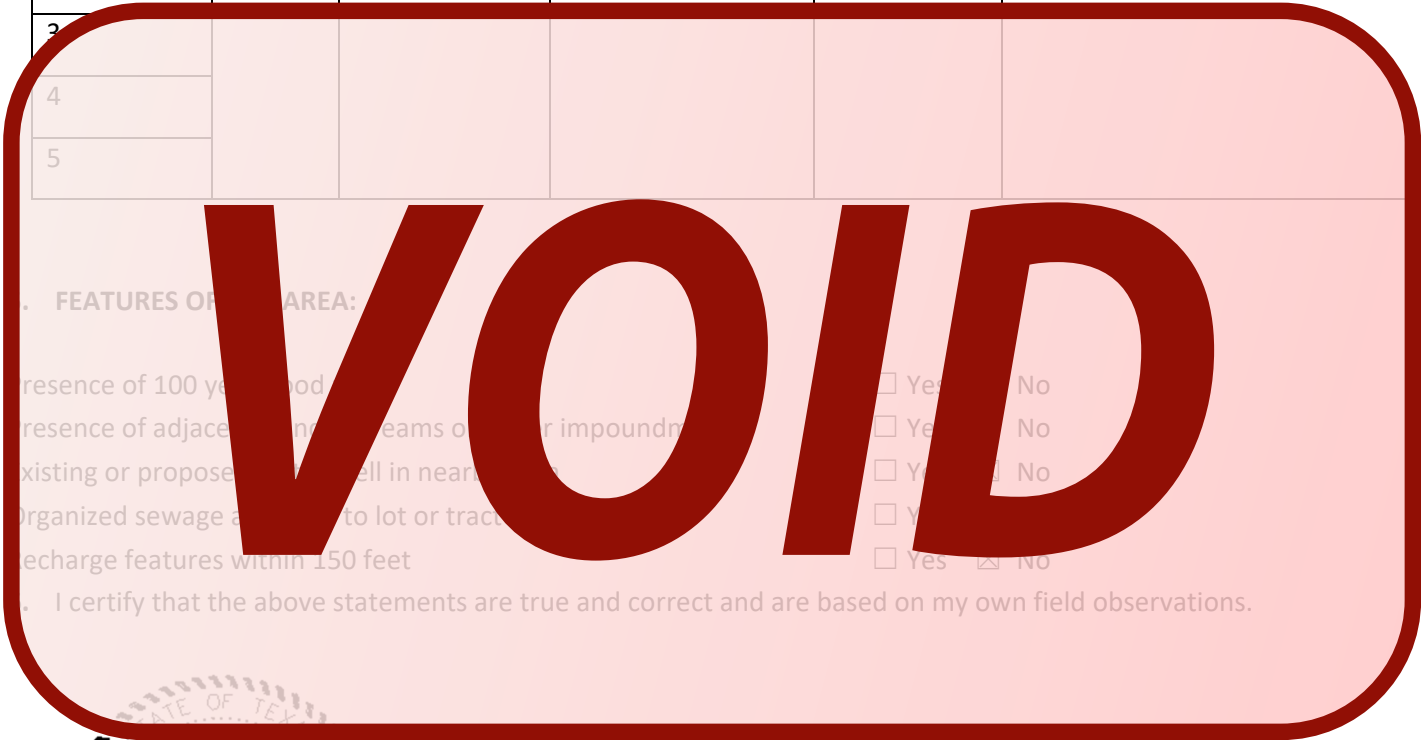
For surface disposal, the surface horizon must be evaluated.

VOID

Soil Profile Hole Number:	Gravel Analysis	Drainage (Mott)	Restrictions	Observations
0	N/A	Yes	Yes	Red limestone @ surface
1				
2				
3				
4				
5				

**ON-SITE SEWAGE FACILITY (OSSF)
SITE EVALUATION FORM**

Soil Profile Hole Number: 2					
Depth (ft.)	Textural Class	Gravel Analysis	Drainage (Mottles/Water Table)	Restrictive Horizon	Observations
0	III	N/A	No	Yes	Fractured limestone @ surface
1					
2					
3					
4					
5					



FEATURES OF AREA:

- presence of 100 year flood Yes No
- presence of adjacent streams or impoundment Yes No
- existing or proposed well in nearby Yes No
- organized sewage disposal to lot or tract Yes No
- recharge features within 150 feet Yes No

I certify that the above statements are true and correct and are based on my own field observations.



J. J. Haag, P.E.

09/11/2024

Haag Engineering Consultants, LLC
Firm: F-5789

ON-SITE SEWAGE FACILITY APPLICATION

Date 09/03/2024

Permit Number 117904

1. APPLICANT / AGENT INFORMATION

Owner Name Kenneth Murchison and Jonna Murchison
Mailing Address 1521 Parton Road
City, State, Zip Canyon Lake, Tx. 78133
Phone # 512-468-3030
Email jonna847@gmail.com

Agent Name John J. Haag, P.E.
Agent Address 15831 Secret Trails
City, State, Zip San Antonio, Tx. 78247
Phone # 210-705-4268
Email jhaag@satx.rr.com

2. LOCATION

Submission Name The Point at Rancho del Lago Unit 1 Lot 31 Block 9m
Survey Name / Abstract Number _____ Acreage 4.02 .58 km
Address 116 Raven Court City Canyon Lake State Tx. Zip 78133

3. TYPE OF DEVELOPMENT

Single Family Residential
Type of Construction (House, Mobile Home, etc.) House
Number of Bedrooms 2
Indicate Sq Ft of Living Area 2600 2N
 Non-Single Family Residential
(Planning materials, adequate land, etc. required and need to be provided 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 _____
Miscellaneous _____

VOID

Estimated Cost of Construction: \$ 325000 (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

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.

Kenneth Murchison Jonna Murchison 9/3/24
Signature of Owner Date

RECEIVED
By Brandon Olvera at 3:56 pm, Oct 08, 2024
ON SITE SEWAGE FACILITY APPLICATION

Planning Materials & Site Evaluation as Required Completed By John J. Haag, P.E.

System Description Aerobic drip disposal

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

Tank Size(s) (Gallons) 600 gpd Absorption/Application Area (Sq Ft) 1500 min.

Gallons Per Day (As Per TCEQ Table III) 300

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

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

(If yes, the

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

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

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

If there is no existing WPAP, does the proposed development 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 WPAP has been approved by the appropriate regional office.)

Is the property located in the Edwards Contributing Zone? Yes No

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

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

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


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

Is this property... Yes No

If yes, indicate the city: _____

By signing this application, I certify that:

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



Signature of Designer

10/02/24

Date

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
FOR:
LOT 31, RAVEN COURT
THE POINT AT RANCHO DEL LAGO, PHASE 1**

SITE DESCRIPTION:

Located at Lot 31 in The Point, Rancho del Lago, Phase 1 subdivision, the proposed system will serve at 2-bedroom, 2,606 s.f. residence situated with soils per the Site 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 or 4 inch SCH-40 pipe discharges from the residence into a NuWater B-550 (600 gpd) aerobic treatment

contains a 0.5 HP Franklin C1-Series-20XC1-05P4-2W115 submersible well pump. The well pump is activated by a time controller allowing the distribution ten times per day with a 7-minute run time with the float setting at min. 300 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self-flushing 100 micron Arkal Disk filter then through a 1" SCH-40 manifold to a minimum 1200 sf drip tubing field with Netifim Bioline drip lines approximately two feet apart with 0.61 gph emitters every two feet per the attached schematic. A pressure regulator model PMR35MF 35psi installed on the pump tank will maintain pressure in the SCH-40 return line is installed to continuously flush the system. A backflow valve prevents backflow into the disk filter are flushed each cycle into the pump tank. Agricultural Products, Inc. model #VBK-1000/C vacuum breakers installed on the highest riser on each manifold will prevent siphoning of effluent to higher to lower parts of the field. The field shall be scarified and tilled up to a minimum of 12" of Type II or III soil, both heavy bedrock or type IV soils. The drip tubing shall be laid and covered with a minimum of 2" of Type II or Type III soil (NOT SAND). The field shall be vegetated with Bermuda seeded erosion control mat or grass seed with grass for topsoil. The tank shall have risers 2-inches minimum above finished grade. The riser shall be capped with a 65# or have a padlock or cap to be removed with a key. The risers shall be secured with the minimum of 30 TAC 285 effective July 6, 2023. A secondary plug, cap or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed.

DESIGN SPECIFICATIONS:

- Daily flow = Q=300 gpd
- Pretreatment tank size: 555 gal
- Plant size: NuWater B-550; 600 gpd (TCEQ approved)
- Pump tank size: 768 gal
- Min. Reserve capacity after high level: 100 gal (1/3 day req'd)
- Application rate: Ra=0.2 gal/sf
- Total absorption area: Q/Ra = min. 1500 sf (1,800 sf actual)
- Total linear feet of drip tubing: 900' Netifim Bioline drip tubing 0.61 gph
- Pump requirement: 0.5 HP Franklin C1-Series-20XC1-05P4-2W115

Calculation Outputs

Total System Information

Application Area Required (square feet)	1,800
Total Amount of Bioline® Required (feet)	900
Total Number of Emitters in the Dripfield	450

Zone Information

Number of Zones	1
Amount of Bioline® Per Zone (feet)	900
Number of Emitters Per Zone	450
Minimum Number of Laterals Per Zone	2
Maximum Number of Laterals Per Zone	10
Number of Laterals That Will be Used	3
Maximum Length of Bioline® Laterals Based on Inlet Pressure	391
Flow Rate Per Zone (GPM)	4.6
Holding Capacity of Dripperline Per Zone (Gallons)	12.0

Holding Capacity of Piping

Holding Capacity (Gallons) of Supply Line & Supply & Flush Manifolds	7.6
Holding Capacity (Gallons per Zone) of Bioline	12.0
Holding Capacity (Gallons) of Supply Line, Manifolds and Dripperline	19.6

Head Loss, Friction & Flowing Capacity

Friction Loss in 100' (psi) Supply	2.1
Flow Velocity (fps)	3.5
Friction Loss in Supply & Supply Manifolds (psi)	3.6
Head Loss in Supply & Supply Manifolds (Feet of Head)	8.4
Additional Pressure Required from Main and Return to Tank (psi)	2.2
Static Pressure Head for Return and Flowing to Tank (Feet of Head)	5.1
Total Dynamic Head (Feet of Head)	79.3

Dosing Intervals

Total System Runtime Per Day (Minutes)	66
Total Runtime Per Zone Per Day (Minutes)	66
Total System Dosing Events Per Day	10
Runtime For Each Dose (Minutes)	7
Off Time Between Doses in the Same Zone (Hours to nearest 0.1)	2.3

Miscellaneous Information

Dosing Volume Per Emitter Per Dose (gallons)	0.07
Inches Per Week of Dosing	1.87
Volume of a Single Dose (gallons)	32.0

Pump Selection

Pump Flow Rating (GPM)	9.4
TDH (Total Dynamic Head in Feet of Head)	79.3
Pump Manufacturer	Franklin
Pump Model	20XC1-05P4-2W115

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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 265, Subchapter D, and Chapter 40 Texas Commission on Environmental Quality (last revised 2013).

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09/11/2024

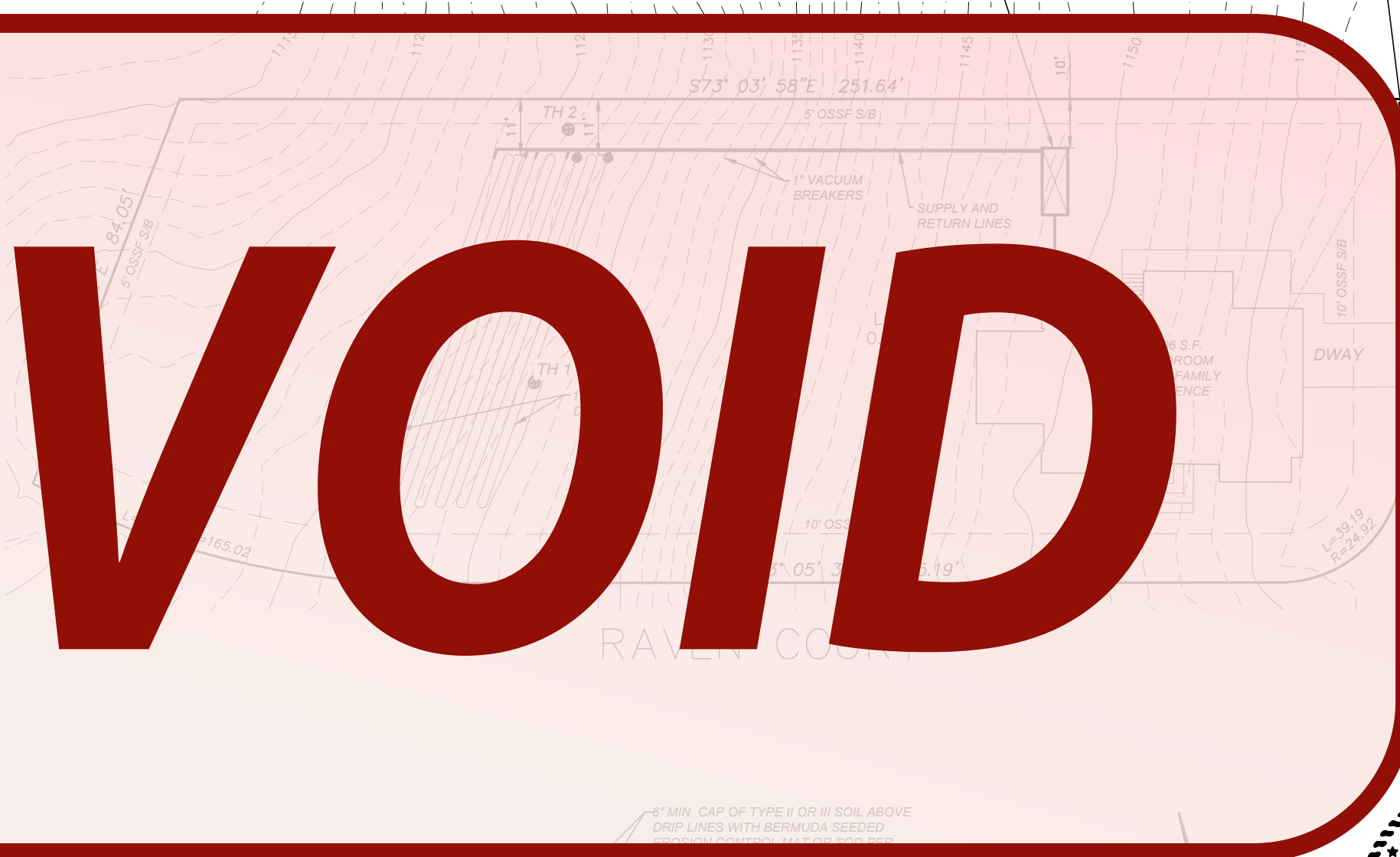
Haag Engineering Consultants, LLC
Firm No.: F-5786

GENERAL NOTES:

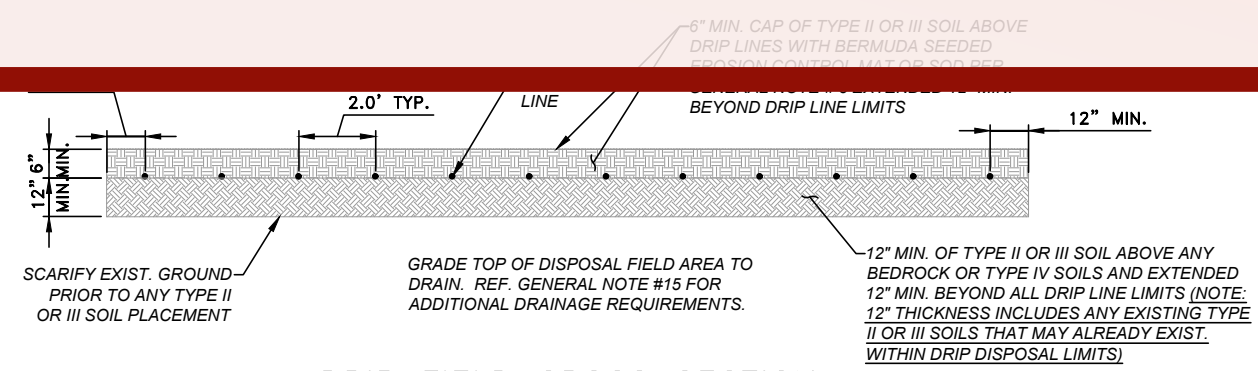
- NO VEHICULAR TRAFFIC IS ALLOWED ON ANY PORTION OF THE DISPOSAL SYSTEM, UNLESS THE DESIGN SPECIFIES OTHERWISE.
- PIPE ALIGNMENT TO THE DISPOSAL BEDS MAY BE ALTERED AS REQUIRED. ANY CHANGE FROM THE PLANS MUST BE APPROVED BY THE ENGINEER AND THE APPROPRIATE GOVERNMENTAL AGENCY(IES).
- CONTRACTOR SHALL PROTECT TREES WHICH ARE NOT IN THE EXCAVATED CONSTRUCTION AREAS. CONTRACTOR SHALL MINIMIZE ROOT DAMAGE AND REASONABLY ADHERE TO THE DESIGN.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING A MINIMUM OF 1/4" PER FOOT OF FALL FROM THE BUILDING TO THE SEPTIC TANK.
- NOT AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED OVER THE DISPOSAL AREAS. ANY WATERING IN THESE AREAS SHALL BE DONE BY HAND AND ONLY WHEN REQUIRED TO MAINTAIN GRASS COVER.
- ALL CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE APPROPRIATE AUTHORITY - TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AND ANY APPLICABLE LOCAL BUILDING AND SAFETY CODES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE CONSTRUCTION OF THIS SYSTEM.
- THE DRIP FIELD SHALL BE VEGETATED WITH EITHER BERMUDA SEEDING OR EROSION CONTROL MAT, ST. AUGUSTINE OR BERMUDA SEEDING. FIELDS MUST BE MOWED AT REGULAR INTERVALS. FAILURE TO PROPERLY MAINTAIN VEGETATIVE COVER MAY RESULT IN SYSTEM FAILURE AND SHALL BE THE RESPONSIBILITY OF THE OWNER.
- ALL PIPES SHALL BE SCHEDULE 40 PVC OR APPROVED EQUIVALENT, UNLESS NOTED OTHERWISE. ALL JOINTS SHALL BE CLEANED WITH THE APPROPRIATE SOLVENT AND GLUED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- ALL POTABLE WATER LINES SHALL BE A MINIMUM OF 10 FEET FROM ANY DISPOSAL SYSTEM OR SEWERAGE PIPE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF WATER LINES LESS THAN 10 FEET FROM THE DISPOSAL AREA.
- HIGH WATER ALARM SHALL BE LOCATED IN A NOTICEABLE LOCATION. THE ALARM SHALL BE A VISUAL AND AUDIBLE ALARM AND WIRE ON A SEPARATE CIRCUIT FROM THE PUMPS. ALL EXTERIOR CONTROLS AND CONNECTIONS SHALL BE ENCLOSED IN A WEATHER-PROOF HOUSING. ELECTRICAL INSTALLATION SHALL COMPLY WITH ALL LOCAL ELECTRICAL AND BUILDING CODES.
- NO EXCAVATION IS PERMITTED NEAR THE DISPOSAL AREAS THAT WILL RESULT IN THE NONCOMPLIANCE OF APPLICABLE SETBACKS STATUTES IN THE RULES AND REGULATIONS OF THE APPROPRIATE AUTHORITY.
- ONLY GOOD QUALITY SANDY LOAM SHALL BE APPLIED OVER THE DISPOSAL FIELDS. CLAY LOAM IS UNACCEPTABLE AND WILL CAUSE SYSTEM FAILURE. SANDY LOAM SHALL BE DEFINED AS SHOWN IN TABLE VI (USDA SOIL TEXTURAL CLASSIFICATIONS) OF THE RULES AND REGULATIONS OF THE TCEQ. THE INSTALLER IS RESPONSIBLE FOR VERIFYING THE QUALITY OF EACH LOAD OF LOAM PLACED ON THE SYSTEM.
- STORM WATER (RAINFALL RUNOFF) SHOULD NOT BE ALLOWED TO FLOW OVER THE DISPOSAL FIELDS OR THE TANKS. DIVERSION BERMS, WALES AND/OR RAIN GUTTERS SHOULD BE INSTALLED AS NECESSARY TO PREVENT SUCH RUNOFF.
- THE CONTRACTOR IS RESPONSIBLE FOR STAKING AND VERIFYING THE GRADES PRIOR TO EXCAVATION. ANY DISCREPANCIES OF MORE THAN 6 INCHES SHALL BE REPORTED TO THE ENGINEER PRIOR TO EXCAVATION. THE CONTRACTOR SHALL NOT DEVIATE FROM THESE PLANS WITHOUT THE WRITTEN CONSENT OF THE APPROPRIATE AUTHORITY AND THE ENGINEER.
- THIS DISPOSAL SYSTEM HAS BEEN DESIGNED TO OPERATE PROPERLY AT SPECIFICATIONS NOTED IN THESE PLANS. ALTERATIONS TO THE SYSTEM BY THE OWNER, INCLUDING BUT NOT LIMITED TO LANDSCAPING, IRRIGATION, BUILDING AND/OR WATER USAGE, MAY CAUSE PREMATURE FAILURE AND SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PLUMBING FIXTURES ARE CONNECTED TO THE DESIGNATED SEPTIC TANK(S). LOW FLOW TOILETS (1.6 GAL), SHOWERHEADS AND FAUCETS SHALL BE USED IN THE STRUCTURES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR JOBSITE SAFETY AND PROTECTION OF THE PUBLIC FROM INJURY DURING CONSTRUCTION. THE OWNER SHALL BE RESPONSIBLE FOR THE PREVENTION OF PERSONAL INJURY TO ANYONE ON OR NEAR THE DISPOSAL SYSTEM.
- CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT TANKS HAVE ADEQUATE STRENGTH AND INTEGRITY TO PERFORM SATISFACTORY AS SHOWN ON THESE PLANS.
- THE WASTEWATER FLOW TO THE SEPTIC SYSTEM SHALL NOT EXCEED THE DESIGN FLOW SHOWN ON THIS PLAN.

ASSUMED LOCATION OF WATER METER AND WATER SERVICE LINE ALIGNMENT FROM METER TO HOUSE. NOTE: WATER SERVICE LINE SHALL BE SLEEVED WITH SCH. 40 PVC WHEREVER IT IS 10' OR CLOSER TO PROPOSED OSSF DISPOSAL AREA LIMITS AND/OR ANY SYSTEM COMPONENT(S), EXCEEDS TAC 30 CHAPTER 290.44(e).

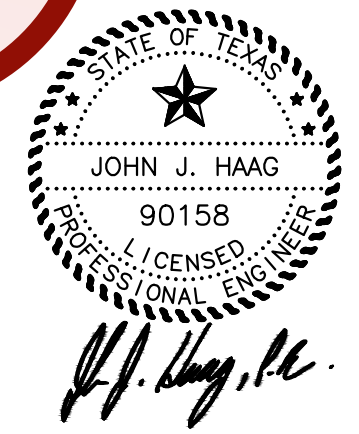
NUWATER B-550 AEROBIC TREATMENT PLANT WITH FRANKLIN C1-SERIES-20XC1-05P4-2W115 PUMP.



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D RIP FIELD CROSS SECTION
SCALE: 1"=5'



1" = 30'

ADD'L. NOTES:

- DESIGN DAILY WASTEWATER FLOW = 300 GPD (WATER SAVING DEVICES WERE ASSUMED FOR SEPTIC SYSTEM DESIGN).
- TOPOGRAPHIC DATA SOURCE: SURVEYOR LIDAR DATA
- THE OSSF INSTALLER SHALL FIELD VERIFY ALL PROPERTY LINE LOCATIONS THAT THIS DESIGN REFERENCES PRIOR TO ANY OSSF INSTALLATIONS.
- ALL RISERS SHALL MEET THE MINIMUM REQUIREMENTS OF 30 TAC 285 EFFECTIVE 07/06/2023.

NOTE: OSSF IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE OR FEMA 100 YEAR FLOODPLAIN. SITE EVALUATION BY JOHN J. HAAG, P.E. ON ???

DRAWN BY: JJH
CHECKED BY: JJH
DATE: 09/11/24
JOB NO. MURCH24001

SHEET 1 OF 1

OSSF LAYOUT
LOT 31, RAVEN COURT
THE POINT AT RANCHO DEL LAGO, PHASE 1
CANYON LAKE, TEXAS

HAAG ENGINEERING CONSULTANTS

15831 SECRET TRAILS
SAN ANTONIO, TEXAS 78247
FIRM: F-5789

TEL: (210) 705-4268

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Assembly Details

OSSF



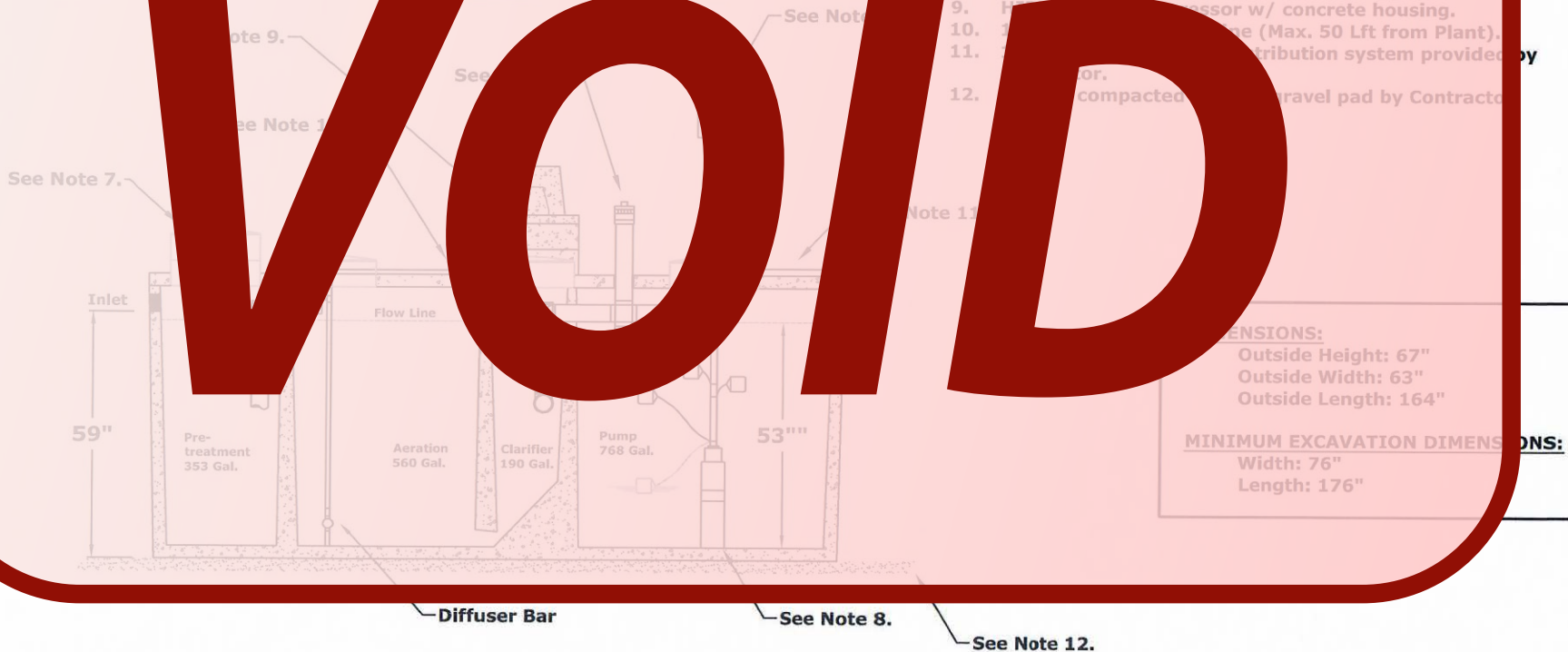
John J. Haag, P.E.
03/22/2021

GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Maximum burial depth is 30" from slab top to grade.
3. Weight = 14,900 lbs.
4. Treatment capacity is 600 GPD. Pump compartment set-up for a 360 GPD Flow Rate (4 bedroom, < 4,000 sq/ft living area). Please specify for additional set-up requirements.
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. High head effluent pump motor w/ concrete housing.
10. 3" discharge pipe (Max. 50 Lft from Plant).
11. Distribution system provided by contractor.
12. 2" compacted gravel pad by Contractor.

Pump flow settings for 300 gpd design flow and min. 100 gal reserve:
 Pump position: 12 inches above tank bottom (166.90 gal)
 Pump position: 33 inches above tank bottom (468.21 gal)
 Alarm position: 39 inches above tank bottom (556.48 gal)
 209 gal reserve capacity at approx. 53 inches above tank bottom

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

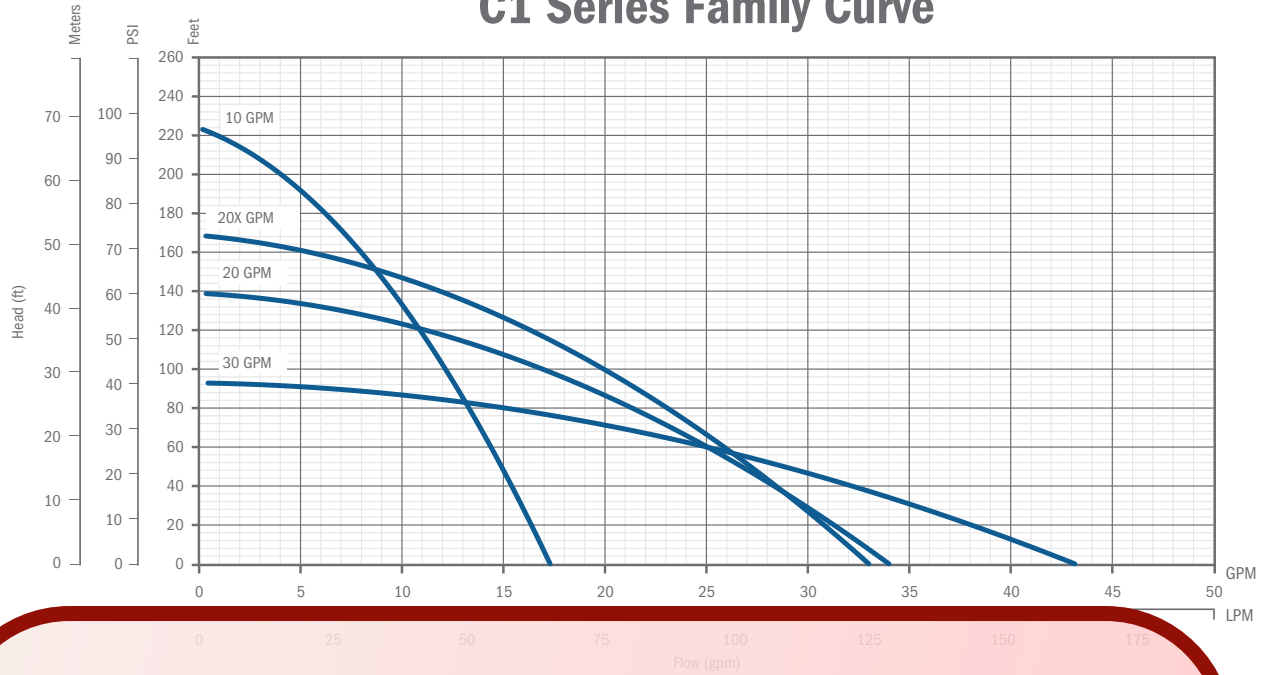


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Designed for use in gray water / filtered effluent service applications, the C1 Series cistern pump provides high performance and long life in less than ideal water conditions. The C1 Series pump is able to pass solids up to 1/8" without having a negative effect on the internal hydraulic components.

The pump's unique bottom suction design allows for maximum fluid drawdown without compromising durability or overall life, and it does not require the use of a flow induction sleeve. Intended specifically for use in a cistern or tank, C1 Series pumps are suitable for use in agricultural, residential, and commercial installations.

C1 Series Family Curve



FEATURES

- Applied with a removable case for secure, portable motor
- Bottom suction design
- Robust thermoplastic discharge head design resists break during installation and operation
- Single shell housing design houses a single unit which is cool and quiet
- Hydraulic components molded from high quality engineering thermoplastics
- Optimized hydraulic design for increased performance and decreased noise
- All metal components are made of upgrade stainless steel
- Available with a high quality 115 V or 230 V, 1/2 hp motor
- Liquid flows of 10, 20, and 30 gpm, with a max shut-off pressure of over 100 psi
- Low duty 600 V 10 foot SJ00W jacketed lead

APPLICATIONS

- Groundwater extraction
- Effluent service
- Flood alleviation projects
- Sewer and other foul water pond applications
- Agriculture and livestock pumping

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ORDERING INFORMATION

C1 Series Pumps							
GPM	HP	Volts	Stage	Model No.	Order No.	Length (in)	Weight (lbs)
10	1/2	115	7	10C1-05P4-2W115	90301005	26	17
		230	7	10C1-05P4-2W230	90301010	26	17
20		115	5	20C1-05P4-2W115	90302005	25	16
		230	5	20C1-05P4-2W230	90302010	25	16
20X		115	6	20XC1-05P4-2W115	90302015	26	17
		230	6	20XC1-05P4-2W230	90302020	26	17
30		115	4	30C1-05P4-2W115	90303005	25	16
		230	4	30C1-05P4-2W230	90303010	25	16

Note: All units have 10 foot long SJ00W leads.

Independence Title/GF#2473024WIM/ALI

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: July 18th, 2024

Grantor: Home Evolution, LLC, a Texas limited liability company

Grantor's Mailing Address (including county):

1111 Lion King
San Antonio, Texas 78251
Bexar County

Grantee: Kenneth Murchison and Jonna Murchison, a married couple

Grantee's Mailing Address (including County):

1521 Parton Road
Canyon Lake, Texas 78133
Comal County

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

Property (including any improvements):

Lot 31, THE POINT AT RANCHO DEL LAGO, PHASE ONE, situated in the Comal County, Texas, according to the map or plat thereof, recorded in Volume 7, Pages 123-126, 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.

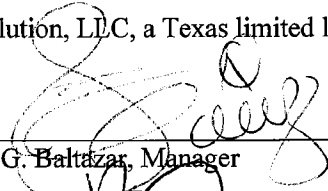
Grantor, for the consideration, receipt of which is acknowledged, and subject to the reservations from and exceptions to conveyance and warranty, grants, sells and conveys to Grantee the property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold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

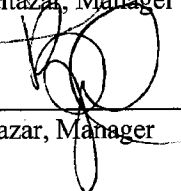
assigns forever. Grantor binds Grantor and Grantor's heirs, executors, administrators and successors are hereby bound to warrant and forever defend all and singular the property to Grantee and Grantee's heirs, executors, administrators, successors and assigns against every person whomsoever lawfully 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.

Home Evolution, LLC, a Texas limited liability company

By: 
Maria G. Baltazar, Manager

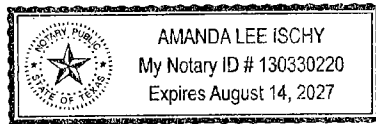
By: 
Miguel Baltazar, Manager

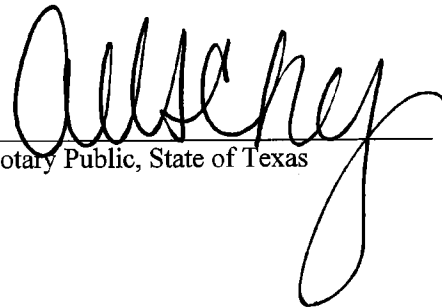
ACKNOWLEDGMENT

THE STATE OF TEXAS

COUNTY OF HAYS

This instrument was acknowledged before me on this 18TH day of July 2024, by Maria G. Baltazar and Miguel Baltazar, Managers of Home Evolution, LLC, a Texas limited liability company, on its behalf.




Notary Public, State of Texas

PREPARED IN THE OFFICE OF
STEVENS & MALONE, PLLC
P. O. Box 727
Wimberley, Texas 78676

**Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
07/24/2024 11:32:13 AM
CHRISTY 2 Pages(s)
202406022033**



Bobbie Koepf