

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
NOTICE OF INTENT
INDIVIDUAL TREATMENT FACILITIES
NPDES GENERAL PERMIT ARG550000**

Application Type: New ☒ Renewal ☐ (Permit # ARG55 _____)

I. PERMITTEE/OPERATOR INFORMATION

Permittee (Legal Name): Sherri Conrad or Gwen Walker Operator Type: _____
Permittee Mailing Address: 612 South School Avenue ☐ State ☐ Partnership
Permittee City: Murfreesboro ☐ Federal ☐ Corporation*
Permittee State: AR Zip: 71958 ☒ Sole Proprietorship/Private
Permittee Telephone Number: 870-455-5122 *State of Incorporation: _____
Permittee Fax Number: _____ The legal name of the Permittee must be
Permittee E-mail Address: Caleb@underconstructioncc.com identical to the name listed with the
Arkansas Secretary of State.

II. INVOICE MAILING INFORMATION (Home owners are exempt.)

I nvoiceContact Person: N/A City: _____
Invoice Mailing Company: _____ State: _____ Zip: _____
I nvoiceMailing Address: _____ Telephone: _____

III. FACILITY INFORMATION

Facility Name: Individual Residence Facility Contact Person: Sherri Conrad
Facility Address: 106 Hendrix Rd Telephone Number: 870-584-6460
Facility County: Sevier Facility City, State & Zip: Locksburg, AR 71846
Facility Latitude: 33 Deg 57 Min 30Sec Facility Longitude: 94 Deg 05 Min 20Sec
Datum
Accuracy: _____ Method: _____ Scale: _____ Description: _____

IV. DISCHARGE INFORMATION

Outfall Number: 001 Flow: 270 gpd (Gallons per Day)
Stream Segment: 1 C Hydrologic Basin Code: 1140100
Outfall Latitude: 33 Deg 57 Min 29Sec Outfall Longitude: 94 Deg 05 Min 21Sec
Datum
Accuracy: _____ Method: _____ Scale: _____ Description: _____
Type of Treatment: Clearstream 500
Receiving Stream: Red River

V. FACILITY PERMIT INFORMATION

NPDES Individual Permit Number (If Applicable): AR00
NPDES General Permit Number (If Applicable): ARG
State Construction Permit Number: _____
NPDES General Construction Stormwater Permit Number (If Applicable): ARR15

WATER DIVISION
5301 NORTHSORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118
PHONE 501-682-0623 / FAX 501-682-0880
www.adeq.state.ar.us

VI. OTHER INFORMATION:

Operator Name: Donald Crittenden
Operator License Number: 004930 License Class: IV




Consultant Contact Name: Donald Crittenden
Consultant Email Address: _____
Consultant Address: Shirley Ln City: Texarkana State: TX Zip: 75501
Consultant Phone Number: 903-277-6813 Consultant Fax Number: _____


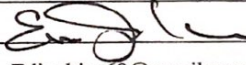
Has this treatment system been approved by AHD? Yes ☒ No ☐

Disclosure Statements:

Arkansas Code Annotated Section 8-1-106 requires that all applicants for the issuance or transfer of any permit, license, certification or operational authority issued by the Arkansas Department of Environmental Quality (ADEQ) file a disclosure statement with their applications. The filing of a disclosure statement is mandatory. No application can be considered complete without one. You must submit a new disclosure statement even if you have one on file with the Department. The form may be obtained from ADEQ web site at: http://www.adeq.state.ar.us/disclosure_stmt.pdf.

VII. CERTIFICATION OF OPERATOR

 (Initial) "I certify that, if this facility is a corporation, it is registered with the Secretary of the State of Arkansas."
 (Initial) "I certify that the cognizant official designated in this Application is qualified to act as a duly authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, I understand that the Department will accept reports signed only by the Applicant."
 (Initial) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Responsible Official Printed Name: Sherri Conrad Title: Owner
Responsible Official Signature:  Date: 02/04/2021
Responsible Official Email: Caleb@underconstructioncc.com
Cognizant Official Printed Name: Eric Jenkins Title: Designated Representative
Cognizant Official Signature:  Telephone: 870-356-8133
Cognizant Official Email: Edjenkins69@gmail.com

X. PERMIT REQUIREMENT VERIFICATION

Please check the following to verify completion of permit requirements.

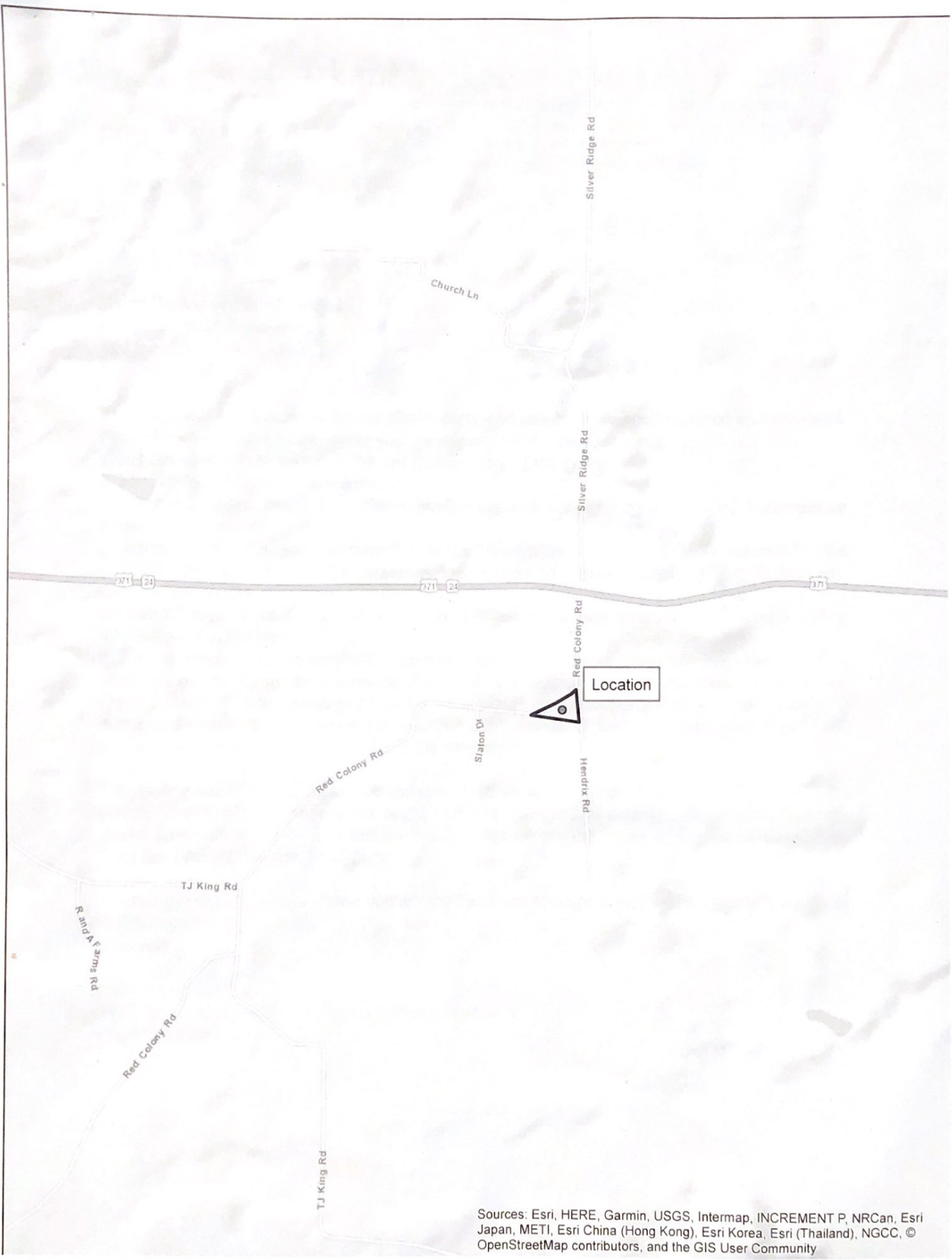
	Yes	No	* If No is answered for any of the questions, then a permit can not be issued!
Submittal of Complete NOI?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Submittal of Required Permit Fee?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Check Number: _____
Submittal of AHD Form EHP-19?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Submittal of Site Map?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

WATER DIVISION
5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118
PHONE 501-682-0623 / FAX 501-682-0880
www.adeq.state.ar.us

Submittal of Disclosure ☐ X
Statement?

WATER DIVISION
5301 NORTSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118
PHONE 501-682-0623 / FAX 501-682-0880
www.adeq.state.ar.us





Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000

Governor Asa Hutchinson

José R. Romero, MD, Secretary of Health

January 27, 2021

Gwen Waiker or Sherri Conrad
612 South School Avenue
Murfreesboro, AR 71958
Permit# 23953195

The plans and specifications for the above captioned project have been received and reviewed. Please be advised that as the owner you are responsible for the following:

1. All costs relating to the operation and maintenance of the system.
2. Meeting all effluent requirements.
3. Financial responsibility for effluent monitoring and sampling by a Certified Maintenance Person.
4. Filing for the National Pollutant Discharge Elimination System (NPDES) General Permit (ARG550000) permit with the Arkansas Department of Environmental Quality before any construction begins.
5. Any changes from the specified design will require a new maintenance contract and a resubmission of the permit.
6. This approval is for an on-site retention scheme for all effluent generated from the specified residence on the permit on 4 acres on 106 Hendrix Road near Lockesburg, Arkansas in Sevier County. Any off-site discharge or further subdivision of the property may void this approval. Additional measures to ensure on-site retention of all sewage effluent generated may be required at a later date should the discharge leave the property.

This system must be installed to meet the specifications for the design attached to the construction permit, and installation should not begin until the installer has reviewed these specifications. Health Department approval of this project does not release the owner of any liability resulting from the discharge of sewage effluent.

If you have any questions, please contact the local environmental health specialist at your local health department.

Sincerely

Robbie Crocker
SWR Senior Environmental Onsite Program Specialist
870 403 1329 (cell)



Arkansas Department of Health
Environmental Health Protection

Receipt Number

239 531 95

Individual Onsite Wastewater System Permit Application

Permit Type ☒ New Installation
☐ Alteration / Repair

DR Environmental ID #

7 6 0 1 0 2 6 8 1 7

Fee Schedule for Structures

Structures 1500 sq ft or less	\$ 30.00	<input checked="" type="checkbox"/>
Structures more than 1500 sq ft and up to 2000 sq ft	\$ 45.00	<input type="checkbox"/>
Structures more than 2000 sq ft and up to 3000 sq ft	\$ 90.00	<input type="checkbox"/>
Structures more than 3000 sq ft and up to 4000 sq ft	\$120.00	<input type="checkbox"/>
Structures more than 4000 sq ft	\$150.00	<input type="checkbox"/>
Alteration and Repair	\$ 30.00	<input type="checkbox"/>

Part 1 Application

Treatment Type (check one)

Disposal Method (check one)

- ☐ STD = Standard Septic Tank ☒ ATU = Aerobic Treatment Plant ☐ STD = Standard Absorption Field ☐ LPD = Low Pressure Distribution
☐ ISF = Intermittent Sand Filter ☐ RSF = Re-circulating Sand Filter ☒ SUR = Surface Discharge ☐ HLD = Holding Tank
☐ PMF = Proprietary Media Filter ☐ RGF = Re-circulating Gravel Filter ☐ CPF = Capping Fill ☐ SRL = Serial Distribution
☐ OTH = Other (Describe) ☐ HLD = Holding Tank ☐ OTH = Other ☐ DRP = Drip Irrigation

1. Owner's/Applicant's Name
Gwen Walker or Sherri Conrad

2. Phone Number
870-455-5122

3. Mailing Address
612 South School Ave, Murfreesboro, AR 71958

4. County
Sevier

5. Address of Proposed System (If a 911 address is not available, attach detailed directions or map)
106 Hendrix Rd, Locksburg, AR. At the junction of Hendrix and Red Colony Rd

6. Subdivision Name
N/A

7. Approval Date
N/A

8. Date Recorded
N/A

9. Lot Number
N/A

10. Lot Dimensions
approx 450'x750'x875'

11. Total Area (Acres)
4

12. # Bedrooms # People
1

13. Daily Flow (GPD)
150

14. Brief Legal Description of Property (Attach a separate sheet of paper, if necessary)
All of the SE1/4 SE1/4 of Sec 21, T9S-R29W

15. Water Supply (Specify supplier, if Public Water)
Locksburg

16. GPS Coordinates
33 57'30"N 94 05'21"W

17. Loading Rates (gpd/ft²)

18. System Specifications

Primary Area	.16	a. Size of Septic Tank	1000	gal	f. Trench Depth	N/A	inches
Secondary Area	.16	b. Size of Dose Tank	300	gal	g. Trench Spacing	N/A	feet
Percolation Test	(min/in)	c. Absorption Area	N/A	ft ²	h. Trench Media (List Below)		i. Trench Width
Primary Area Avg	N/A	d. Number of Field Lines	N/A		Surface Discharge		in
Secondary Area	N/A	e. Length of Field Lines	N/A	ft			in

TO THE OWNER

The permit for construction may be deemed invalid by the local Environmental Health Specialist before the start of construction, if the site and/or soil conditions have changed after approval of this permit, or if the information within this permit is inaccurate or has been found to be misrepresented. Approval for operation does not constitute a guarantee that the system will function properly. The approval states that the system was designed and installed according to the Arkansas Department of Health, Rules and Regulations Pertaining to Onsite Wastewater Systems, unless there are exceptions or deviations noted in the comments. A Permit for Construction is valid for one (1) year from the date of approval. The authorized agent must revalidate a permit more than one (1) year old prior to the start of any construction.

19. Utilization Verification

I hereby attest that item 12, the number of bedrooms (number of persons for commercial) and square footage of the structure that will utilize the designed individual onsite wastewater system in this permit application, is accurate. I have reviewed the permit application and understand the layout, installation, maintenance, operation and expense(s) that may be associated with this system.

Owner/Applicant Signature

Date

20. I certify that I have conducted the above tests and that the above listed information is in accordance with the latest requirements of the Arkansas Department of Health Rules and Regulations Pertaining to Onsite Wastewater Systems.

Designated Representative Signature

Designated Rep

Soil Certified ☒ Yes ☐ No

Title

Eric Jenkins

11/01/2020

870-356-8133

Print Name

Date

Phone Number

21. Approval of Health Authority

The information and specifications in the application has been reviewed and found to meet the requirements of the Arkansas Department of Health Rules and Regulations Pertaining To Onsite Wastewater Systems. A PERMIT FOR CONSTRUCTION is hereby issued.

Environmental Specialist Signature

EHS Number

Date

Individual Onsite Wastewater System Permit Application

Receipt Number

Continue Part 1

22. Soil Criteria (Primary Area)				Indicate the depth to items a-f, if observed in the soil (designate in inches)			
a. Bedrock	b. BSWT	c. MSWT	d. LSWT	e. Adj. MSWT	f. Adj. LSWT	g. H.C./Depth	h. Loading Rate (gpd/ft ²)
48	12	20	32	17	24	M	.16
23. Soil Criteria (Secondary Area)				Indicate the depth to items a-f, if observed in the soil (designate inches)			
a. Bedrock	b. BSWT	c. MSWT	d. LSWT	e. Adj. MSWT	f. Adj. LSWT	g. H.C./Depth	h. Loading Rate (gpd/ft ²)
48	12	20	32	17	24	M	.16
24. Seasonal Water Table (SWT) Classes Detail							
Primary Area			List Redoximorphic Features and/or Clay Content Restrictions				
Brief	12	in	Ch 3 mottles				
Moderate	20	in	Ch 2 mottles				
Long	32	in	>50% Ch 2 mottles				
Secondary Area			List Redoximorphic Features and/or Clay Content Restrictions				
Brief	12	in	Ch 3 mottles				
Moderate	20	in	Ch 2 mottles				
Long	32	in	>50% Ch 2 mottles				
Comments							
Clearstream 500 ATU with surface discharge							

Part 2 Installation Inspection

Septic tank manufacturer	Pump information
Septic tank material	Trench media and width
Dose tank manufacturer	Depth of interceptor drain
Dose tank material	Depth of settled fill
Name of Installer	License Number
Installation Inspected by <input type="checkbox"/> Environmental Health Specialist <input type="checkbox"/> Designated Representative (check one or installer signs System Installation Verification below)	
Signature	EHS / License Number Date
System Installation Verification I have installed this system as designed and in compliance with all Rules and Regulations Pertaining to Onsite Wastewater Systems.	
Installer Signature	License Number Date

Part 3 Permit for Operation

The information contained in Part 1 and 2 of this form has been reviewed and found to meet the requirements of the Arkansas Department of Health. THE PERMIT FOR OPERATION of this system is hereby issued.		
Environmental Health Specialist	Signature	EHS Number Date
Comments		
Site Revalidation conducted by <input type="checkbox"/> Environmental Health Specialist <input type="checkbox"/> Designated Representative (check one)		
Signature	EHS / License Number	Date

* Optional System Utilization Verification Form



Arkansas Department of Health
Environmental Health Protection

Receipt Number

Individual Onsite Wastewater System Permit Application

Permit Type

- ☐ New Installation
☐ Alteration / Repair

DR Environmental ID #

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☐ Homeowner

☐ Builder/Developer

Fee Schedule for Structures

Fee Schedule for Structures	✓
Structures 1500 sq ft or less	<input type="checkbox"/>
\$ 30.00	
Structures more than 1500 sq ft and up to 2000 sq ft	<input type="checkbox"/>
\$ 45.00	
Structures more than 2000 sq ft and up to 3000 sq ft	<input type="checkbox"/>
\$ 90.00	
Structures more than 3000 sq ft and up to 4000 sq ft	<input type="checkbox"/>
\$ 120.00	
Structures more than 4000 sq ft	<input type="checkbox"/>
\$ 150.00	
Alteration and Repair	<input type="checkbox"/>
\$ 30.00	

TO THE PROPERTY OWNER

Onsite Wastewater System Utilization Verification

Property location: _____
(Address of Proposed System, City, State, Zip)

I hereby attest there are ____ bedrooms (____ number of persons for commercial) and the square footage of the structure that will utilize the designed onsite wastewater system in this permit application is accurate. I have reviewed the permit application and understand the layout, installation, maintenance, operation and expense(s) that may be associated with this system.

As Developer/Builder, I hereby attest that the above information is correct and prior to the sale of the property, I will convey, to the buyer, all information associated with this system.

Owner/Applicant Signature Justin Calhoun

Date _____

This document must be submitted with the permit application, if the Owner/Applicant Signature Section (number 19 on the EHP-19) is not signed.

2020R002030

CORPORATION WD
RECORDED AND CERTIFIED ON
07/23/2020 09:00 AM

Pages: 3

KATHY SMITH - CIRCUIT CLERK
SEVIER COUNTY, ARKANSAS

Prepared under the supervision and direction of:
Steel and Gunter, Attorneys at Law
219 North Main St.
Nashville, AR 71852
File Number: 20-246

CORPORATE WARRANTY DEED

STATE OF ARKANSAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF SEVIER

THAT F & K Properties, LLC, a corporation organized under the laws of Arkansas, GRANTOR, by its below designated officer, duly authorized by proper resolution of its Board of Directors, for the consideration of Ten Dollars (\$10.00) and other good and valuable consideration, cash in hand paid by Gwen Walker and Sherri Conrad, GRANTEES, the receipt of which is hereby acknowledged, does grant, bargain, sell and convey unto the said GRANTEES and unto their heirs and assigns forever, the following lands located in Sevier County, Arkansas, to wit:

All of the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 21, Township 9 South, Range 29 West, Sevier County, Arkansas, Lying South of County Road NO. 25, Containing Approximately 4 Acres, More Or Less.

Subject to any valid right of ways and/or easements. Subject to all reservation or conveyances, if any, in oil, gas and other minerals of every kind and character, particularly, any and all reservations and/or conveyances.

TO HAVE AND TO HOLD the same unto the said GRANTEES, and unto their heirs and assigns forever, with all appurtenances thereunto belonging.

And Grantor herein, hereby covenants with the said GRANTEES that it will forever warrant and defend the title to the said lands against all claims whatsoever.

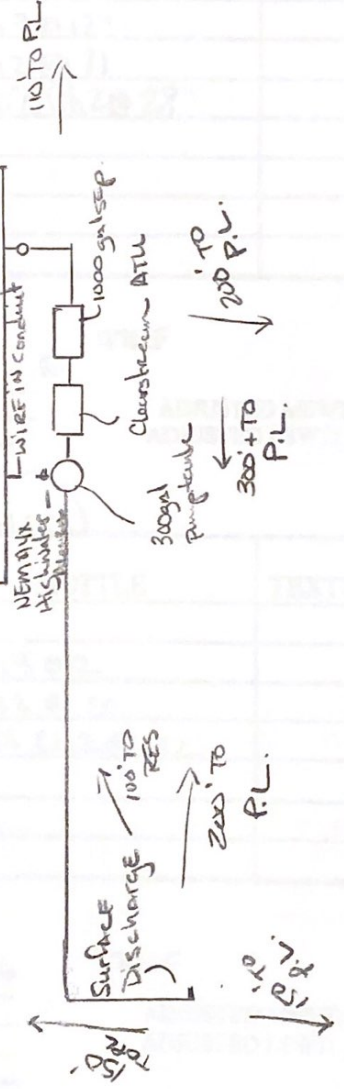


RED Colony Rd

SEWER CO. WATER

Delivery

1 Bdem
Res



Scale: 1"=30'

Site Evaluation Form

Applicant: Walker Permit Application #: _____

Evaluator: _____ Date: _____

PIT # OR LOCATION: 1 (Sec)

DEPTH (INCHES)	MATRIX	Color MOTTLE	TEXTURE	STRUCTURE
0-8	5.424/6	Ch3@12"		
8-48	7.5425/6	Ch2@21"		
		>50% Ch2@28"		

DEPTH TO SEASONAL WATER TABLE

BRIEF DURATION: 12 .16 470LF
 MODERATE DURATION: 21
 LONG DURATION: 28
 DEPTH TO BEDROCK: _____

ADJUSTED MSWT: 18 .24-
 ADJUSTED LSWT: 23 .26
 .23-
 .25

PIT # OR LOCATION: 2 (Prim)

DEPTH (INCHES)	MATRIX	Color MOTTLE	TEXTURE	STRUCTURE
0-7	5.424/6			
7-48	7.5425/6	Ch3@12"		
		Ch2@20"		
		>50% Ch2@32"		

DEPTH TO SEASONAL WATER TABLE

BRIEF DURATION: 12 .16 470LF
 MODERATE DURATION: 20
 LONG DURATION: 32
 DEPTH TO BEDROCK: _____

ADJUSTED MSWT: 17 .21
 ADJUSTED LSWT: 24 .25-
 .28

Additional notes: _____



Arkansas Department of Health

4815 West Markham, Slot 46
Little Rock, Arkansas 72205-3867

MEMORANDUM OF AGREEMENT

SUBJECT: ONSITE WASTEWATER SYSTEM APPLICATION

This is an agreement that the onsite wastewater system installed on this property has been permitted under authority of Act 402 of 1977 and by the Arkansas Department of Health with the understanding that the following provisions are met:

1. Onsite Wastewater Systems requiring a Monitoring Contract with a Certified Monitoring Personnel are Holding Tanks, Experimental Systems (i.e. Reduced Absorption Areas, *ABGs), and Drip Dispersal Systems. *Aerobic Biological Generators – Commercial applications only, residential applications must follow manufacturers' service contract requirements.
2. The property owner assumes all responsibility for the proper operation of the onsite wastewater system.
3. The property owner must maintain a monitoring contract with a licensed Certified Monitoring Personnel for the life of the system and retain Onsite Wastewater System Assessments (EHP-71), on file, for at least five (5) years.
4. The Arkansas Department of Health has no responsibility in the operation and maintenance of such systems.
5. That the Arkansas Department of Health may monitor the system as to its operation capabilities.
6. That the Arkansas Department of Health is granted permission to make such inspections as deemed necessary.
7. Subsurface systems with flows ≥ 3000 gpd and all surface discharging systems require the owner to file an additional permit application with the Arkansas Department of Environmental Quality (ADEQ).
8. **That, on the sale of the property, the owner of the property must disclose to the perspective buyer notice of this agreement and any permit requirements. The buyer is to sign memoranda, contracts or permit name change forms and submit these documents to the appropriate regulatory agency.**

SIGNED: _____

(Property Owner)

SIGNED: _____

(Health Department)

DATE: _____

12-28-20

DATE: _____

1-27-2021

Fischer Construction
PO BOX 558
212 Redwater Blvd E
Redwater, TX 75573
903-280-4974
Charlesfischer1@aol.com
Maintenance Contract

Property Owner: Sherri Conrad or Gwen Walker
Name: Sherri Conrad or Gwen Walker
Address: 106 Hendrix Rd
City, State and Zip: Locksburg, AR
Contact number:

Date: Jan 6, 2020

Installed by: Charles Fischer
Contract Start Date: _____
Contract End Date: _____

- I. An Inspection/Service Call every 6 months which includes inspection, adjustment and servicing of the mechanical and electrical component parts as necessary to ensure proper function.
- II. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and an examination for odors.
- III. If required, a sample shall be pulled from the aeration tank every 6 months to determine if there is an excess of solids in the treatment plant. If the test results determine a need for solids removal. The owner will bear all cost and responsibility for doing so.
- IV. If any improper operation is observed which cannot be corrected at the time, the user shall be notified immediately of the condition and the estimated date of correction along with any additional cost.
- V. If required, a chlorine residual test will be taken each visit. (BOD and TSS annually on commercial only.) If a grab test is required, the owner will be responsible for the cost of the grab test.

The owner is responsible for keeping chlorine (calcium Hypochlorite properly labeled for wastewater disinfection) in the chlorinator as well as the cost of the chlorine. Additional service, as ordered including replacement components, laboratory test work, and pumping of the unit or pre-tank will be done upon written or verbal authority from the owner and at an additional charge. (I can supply & install chlorine tablets or liquid bleach upon each inspection at the owner's expense if requested. Cost is \$2.00 a tablet and liquid bleach cost varies).

Charles Fischer, who has been certified by the state, will be responsible for fulfilling the requirements of the maintenance contract, as well as responding to any complaints and/or addressing any concerns by the owner of the system. Concerns and/or complaints will be addressed and we will visit the site within 48 hours of the initial contact. **All calls for unscheduled client request will be subject to a \$95.00 service call charge for Monday thru Friday, \$125.00 for weekend and holidays. Payment is due at time of service.** All equipment, parts, labor and supplies for repairs will be at the owner's expense.

Upon expiration of this service policy, Charles Fischer will offer a continuing service policy to meet your needs.

THIS POLICY DOES NOT INCLUDE PUMPING SLUDGE FROM THE UNIT WHEN NECESSARY

Accepted by _____ Date _____
Accepted by Charles Fischer Date _____
Charles Fischer



CLEARSTREAM
WASTEWATER SYSTEMS, INC.

OWNERS MANUAL

4" SUBMERSIBLE PUMP

Series P20 – Two Wire, ½ HP, 115 Volt, 60Hz

Series P30 – Two Wire, 1 HP, 230 Volt, 60Hz

Installation * Operation

LIMITED WARRANTY

Clearstream warrants to the original consumer of the products listed below, that they will be free from defects in material and workmanship for the Warranty Period from the date of installation as noted.

Product	Warranty Period
4" Submersible Pump	2 Year

Our warranty will not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance

Buyers only remedy and Clearstream's only duty is to repair or replace defective products (at Clearstream's choice). Buyer agrees to pay all labor and shipping associated with this warranty and to request warranty service through the installing dealer as soon as a problem is discovered. If warranty service is requested after the Warranty Period has ended, it will not be honored.

CLEARSTREAM SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE WARRANTY PERIOD PROVIDED HEREIN.

Certain states do not permit the exclusion of incidental or consequential damages or the placing of limitations on the duration of an implied warranty, therefore, the limitations or exclusions herein may not apply. This warranty sets forth specific legal rights and obligations, however, additional rights may exist, which may vary from state to state.

Supersedes all previous publications.

Clearstream, P.O. Box 7568, Beaumont, TX 77726

CLEARSTREAM

P.O. Box 7568, Beaumont, TX 77726

Start pump. *Slowly* open valve until the desired flow rate is reached. Final setting *must* be within pump's recommended operating range.

OPERATION

1. The pump must be submerged at all times during normal operation. Do not run pump dry.

2. Make sure that the float switches are set so that the pump stops before the pump runs dry or breaks suction. If necessary, adjust float switches to achieve this.
3. The motor bearings are lubricated internally. No maintenance is required or possible on the pump or the motor.

**Table 1: Recommended Fusing Data
60 Hz/1 Phase 2-Wire Cable**

HP	Volts/Hz/ Phase	Motor Winding Resistance Ohms	Max Load Amps	Locked Rotor Amps	Fuse Size Standard Dual Element
1/2	115/60/1	1.0-1.3	7.8	21	20/15
1	230/60/1	2.2-2.7	9.8	48.7	25/12

**Table 2: Power Supply Wire (Cable) Length in Feet
1 Phase, 2 Wire Cable, 60 Hz (Copper Wire Size – Service to motor)**

Volts	HP	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG	3 AWG	2 AWG	1 AWG	0 AWG
115	1/2	100	160	250	390	620	960	1190	1460	1780	2160
230	1	250	400	630	940	1540	2380	2960	3610	4410	5360

1. Maximum wire lengths shown maintain motor voltage at 95% of service entrance voltage, running at maximum nameplate amperes. If service entrance voltage will be at least motor nameplate voltage under normal load conditions, 50% additional length is permissible for all sizes.
2. Sizes given are for copper wire. For aluminum wire go two sizes larger (i.e., if #12 copper wire, use #10 aluminum wire).

Motor Insulation Resistance Readings

Normal Ohm/Megohm readings for all motors, between all leads and ground. Set ohmmeter to 100K scale.

Condition of Motor and Leads	Ohm Value	Megohm Value
New Motor, without power cable	20,000,000	20.0
Used motor, which can be reinstalled in tank	10,000,000	10.0
Motor in Tank – Readings are Power Cable plus Motor		
New Motor	2,000,000 (or more)	2.0
Motor in reasonably good condition	500,000 to 2,000,000	0.5-2.0
Motor which may be damaged or have damaged power cable	20,000 to 500,000	0.02-0.5
<i>Do not pull motor for these reasons</i>		
Motor definitely damaged or with damaged power cable	10,000 to 20,000	0.01-0.02
<i>Pull motor and repair</i>		
Failed motor or power cable-Pull motor and repair	Less than 10,000	0-0.1

Important Electrical Grounding Information



Hazardous voltage. Can shock, burn, or kill. To reduce the risk of electrical

shock during pump operation, ground and bond the pump and motor as follows:

- A. To reduce risk of electrical shock from metal parts of the assembly other than the pump, bond together all metal parts accessible at the tank top (including metal discharge pipe, metal tank top, and the like). Use a metal bonding conductor at least as large as the power cable conductors running down the wall to the pump's motor.

- B. Clamp or weld (or both if necessary) this bonding conductor to the grounding conductor to the equipment-grounding terminal, the grounding conductor on the pump housing, or an equipment grounding lead. The equipment-grounding lead, when provided will be the conductor having green insulation; it may also have one or more yellow stripes.

- C. Ground the pump, motor and any metallic conduit that carries power cable conductors. Ground these back to the service by connecting a copper conductor from the pump, motor, and conduit to the grounding screw provided within the supply-connection box wiring compartment. This conductor must be at least as large as the circuit conductors supplying the pump.

SAVE THESE INSTRUCTIONS

SHOW THESE INSTRUCTIONS

When you use this chart, you must know the total head in feet or meters. The chart shows the relationship between total head and flow rate. The flow rate is measured in gallons per minute or liters per minute. The total head is measured in feet or meters. The chart is used to find the flow rate for a given total head.

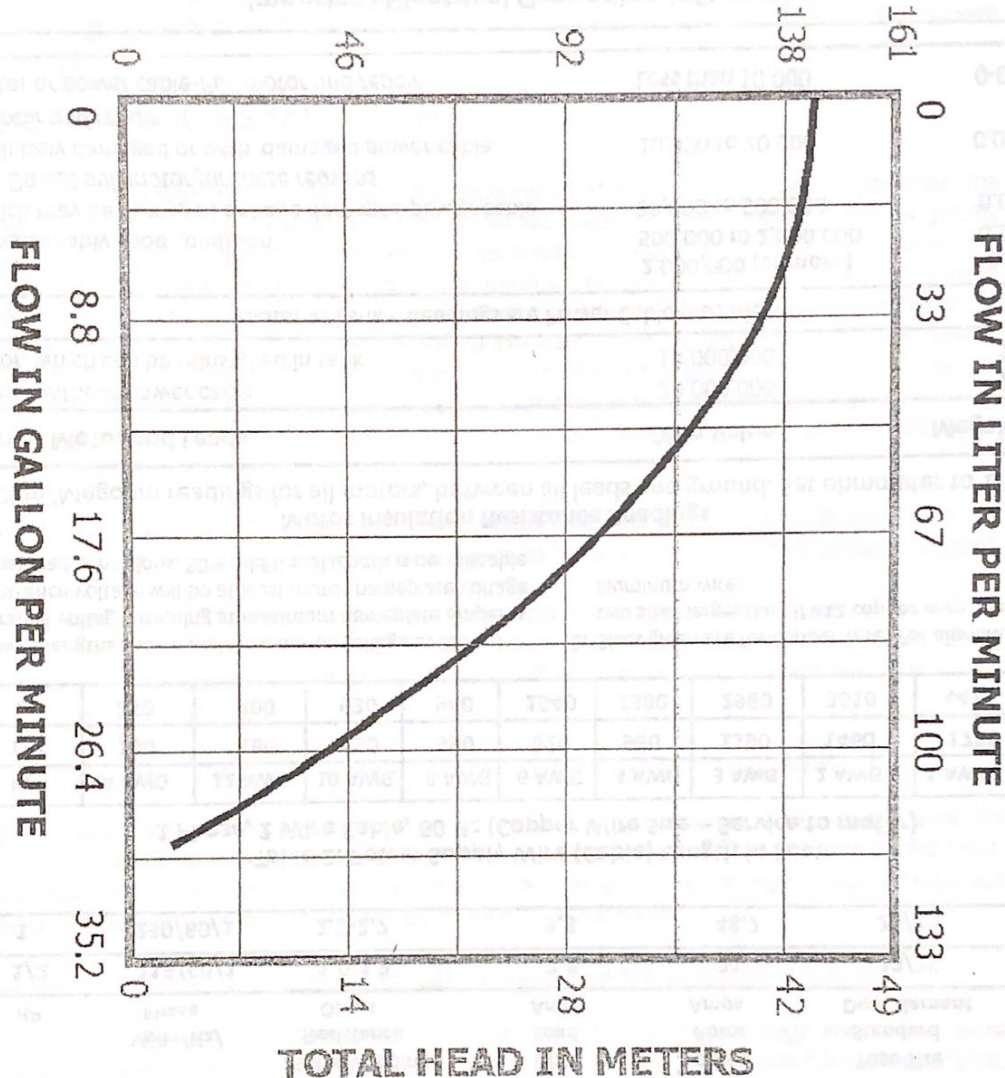
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TOTAL HEAD IN FEET



CLEARSTREAM INSTALLATION INSTRUCTIONS

Before installation of the Clearstream Treatment Tank, first install a pretreatment tank (septic tank) with a volume of not less than 50% of the gallon per day rating of the Clearstream Unit. Pretreatment tanks shall comply with minimum sizing specifications outlined in the Clearstream specifications section.

CLEARSTREAM TANK INSTALLATION

1. Prepare an excavation having minimum dimensions of at least one (1) foot larger than the dimensions of the tank. Make sure the depth of the excavation is deep enough to allow gravity flow to the inlet of the system and that the excavation bottom is level. Never install the Clearstream tank deeper than a depth that will require more than a maximum of 18 inches of riser depth. The access cover shall always be above final grade after tank installation. In applications where more than the maximum 18 inches of riser is required, install a lift pump upstream of the Clearstream tank in order to pump the pretreatment tank effluent to the Clearstream tank at normal grade. In these special applications where a lift pump is required, contact Clearstream for more details as to pump size, maximum dosages and maximum flow rates.
2. Set the Clearstream tank in a prepared excavation that has a solid, level bottom that will eliminate tank settling. The excavation bottom should have no rocks or sharp objects present.
3. When lowering the concrete tank into the prepared excavation use a spreader bar. Only spreader bars and other lifting devices, that have been designed and tested for lifting Clearstream concrete tanks, should be used. Never lift concrete Clearstream tanks unless they are empty of all liquids.
4. Make sure the inlet 4" Sch. 40 PVC pipe is aligned properly to incoming sewage line.
5. For the Clearstream Unit to function properly, the tank must be level. To properly level the tank, lay a three (3) foot level across the tank in several directions. Shift the tank in the hole, as necessary, to make the tank level in all directions. The tank may be slightly out of level, but it should not be out of level enough to cause tank malfunctions.
6. Fill the tank with water, checking periodically to make sure the tank remains level.
7. Connect the 4" Sch. 40 PVC Clearstream inlet pipe to the incoming sewage line. Make sure the incoming sewage pipe is level with or higher than the inlet pipe to the Clearstream Unit. The Clearstream Unit should only be connected to a plumbing system from a wastewater source which has been properly trapped and vented in compliance with State and Local plumbing codes.
8. Back fill the excavation in layers with back fill material that will settle properly around the tank. Tamp the back fill material as each layer is placed around the tank. If necessary, use water to help settle the soil around the tank. Special care should be taken to either tamp soil under where inlet and outlet pipes are bridging the excavation or use some other method of supporting pipes across the excavation. Do not back fill with heavy clay or large rocks.

9. Before completing the back fill, be sure the electrical conduit from the tank to the Control Panel has been laid underground.
10. For below normal grade installations a Clearstream 20 inch diameter riser may be used. In no case shall more than 18 inches of additional riser depth be used on a Clearstream Unit to bring the access covers above final grade. All risers must be sealed with silicone to prevent ground water intrusion before back fill is completed.
11. Before leaving excavation site, be sure to securely fasten the Clearstream access covers in place with the tamper resistant bolt(s). Tighten bolts firmly to keep unauthorized personnel from gaining access to the inside of tank.

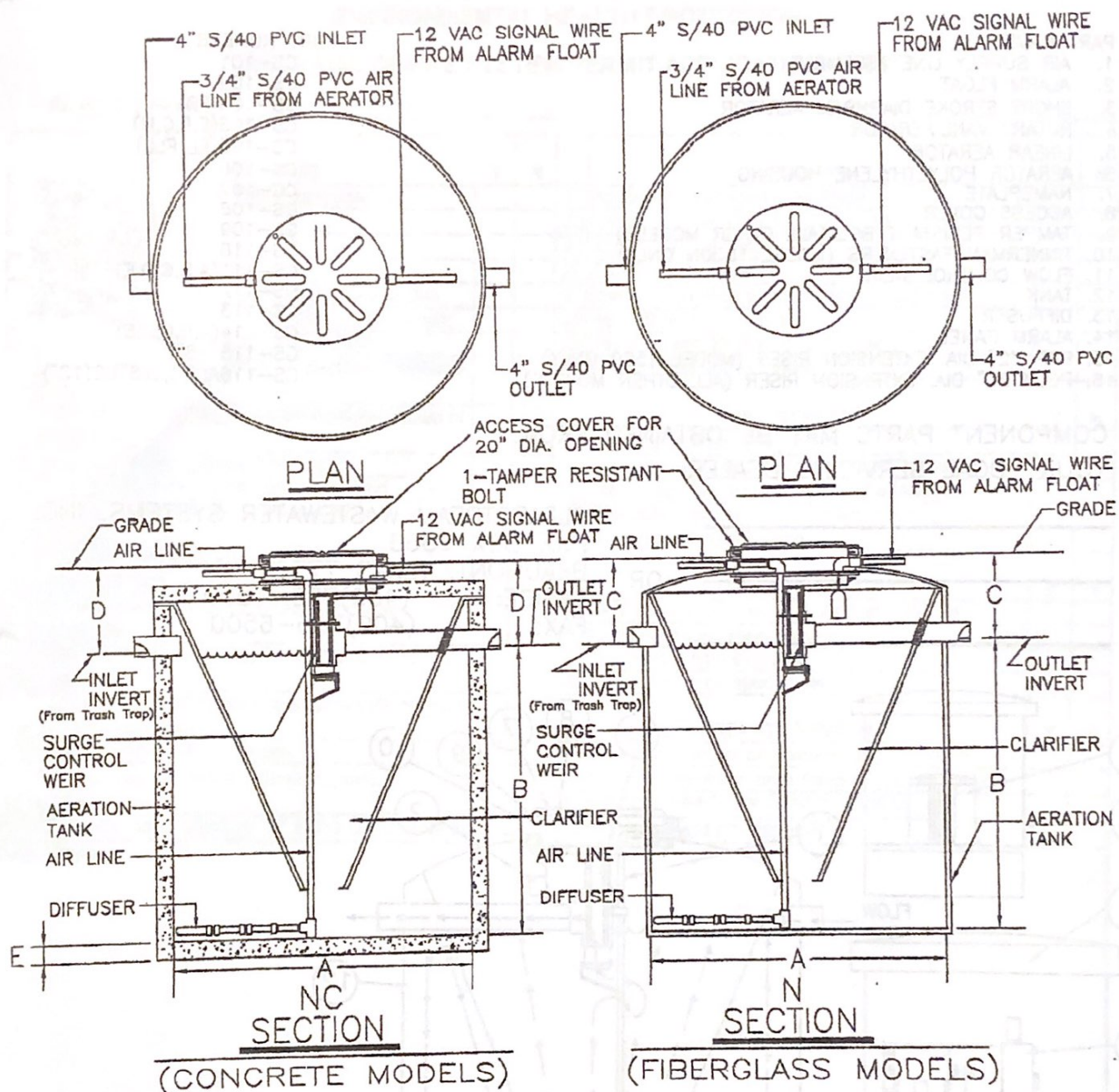
CLEARSTREAM AERATOR AND CONTROL PANEL INSTALLATION

1. Mount one of the Clearstream Control Panel Model series CS-114 in a location that can be easily noticed by the occupants.
2. Wire 115 Volt, 60Hz power from an electrical disconnect to Clearstream Control Panel. Wire from Control Panel to Clearstream Tank electrical junction box through conduit. Use wiring diagram provided for each version of the Clearstream Control Panel Model series. All electrical wiring should be installed by a qualified person in compliance with applicable section of the National Electrical Code or other more stringent local codes.
3. Install Aerator Model CS-103 as close as practical to the tank, but in no case greater than one hundred (100) feet away (50' on 1500 G.P.D. unit). Run 3/4" Sch. 40 PVC air line from aerator connector to air line connection at Clearstream tank. Be careful to back fill underground air line in manner which will not cause air line to leak. Aerator must be installed in a location that is dry, non-dusty, and highly ventilated.
4. Turn power on at electrical disconnect and check for proper system operation.

COMPLIANCE WITH LAWS

The Clearstream Unit must never be installed without first obtaining all permits and approval from the local regulatory body. In areas that do not have local control over environmental activities, all applicable State and Federal environmental codes must be adhered to as well. Only properly licensed and trained individuals should install Clearstream equipment.

DESIGN DRAWINGS



MODEL	A	B	C	D	E
500NS/NC	5'-6"	4'-7"	1'-5 1/2"	1'-5 3/4"	3"
500N/NC	5'-3"	5'-3"	1'-7 1/2"	1'-5 3/4"	3"
600N/NC	6'-4"	4'-7"	1'-5 1/2"	1'-5 3/4"	3"
750N/NC	6'-4"	5'-5"	1'-7 1/2"	1'-5 3/4"	3"
800N	6'-4"	5'-7"	1'-5 1/2"	1'-5 3/4"	3"
1000N	6'-4"	7'-3"	1'-5 3/4"	1'-5 3/4"	3"
1500N	8'-0"	6'-10"	2'-0"	1'-7 3/4"	4"

U.S. Patent Numbers

5,221,470

5,770,081

5,785,854

ALL MODELS NOT AVAILABLE
AT ALL LOCATIONS

DIMENSION E FOR CONCRETE
MODELS ONLY

PARTS LIST AND FLOW DIAGRAM

PART NAME

1. AIR SUPPLY LINE ASSEMBLY
2. ALARM FLOAT
3. SHORT STROKE DIAPHRAM AERATOR
4. ROTARY VANE AERATOR
5. LINEAR AERATOR
6. AERATOR POLYETHYLENE HOUSING
7. NAMEPLATE
8. ACCESS COVER
9. TAMPER RESISTANT BOLT(ALL OTHER MODELS)
10. TINNERMAN FASTENERS (MODEL 1500N ONLY)
11. FLOW CONTROL WEIR
12. TANK
13. DIFFUSER
14. ALARM PANEL
15. FRP 32" DIA. EXTENSION RISER (MODEL 1500 ONLY)
16. POLY 20" DIA. EXTENSION RISER (ALL OTHER MODELS)

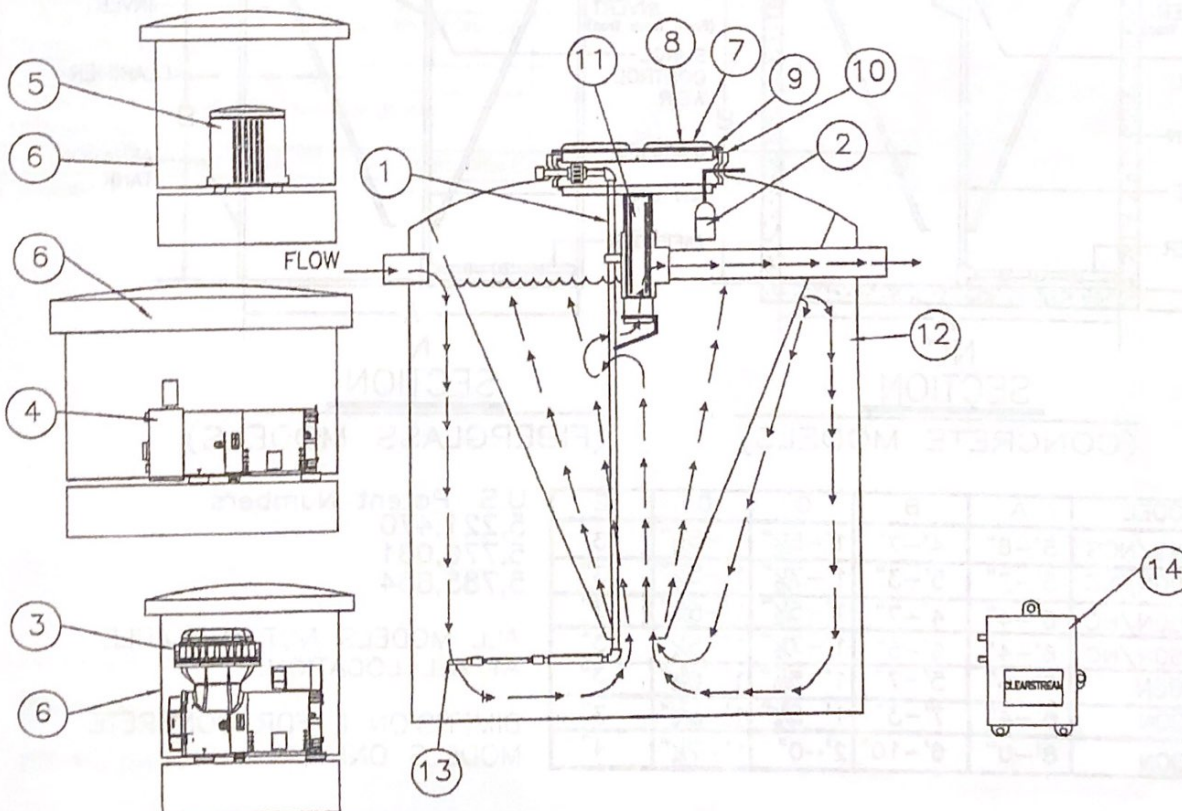
PART NUMBER

- CS-101
- CS-102
- CS-103(FD)
- CS-103(E,F,G,H)
- CS-103(EL,FLL)
- CS-106
- CS-107
- CS-108
- CS-109
- CS-110
- CS-111(A,B,C,D,E)
- CS-112
- CS-113
- CS-114(A,B,C,D,E)
- CS-115 (6")
- CS-116A(2"),B(6"),C(12")

COMPONENT PARTS MAY BE OBTAINED FROM:
YOUR LOCAL SERVICING DEALER:

OR

CLEARSTREAM WASTEWATER SYSTEMS, INC.
P.O. BOX 7568
BEAUMONT, TEXAS 77726
OFFICE: (409)755-1500
FAX: (409)755-6500



**ARKANSAS DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH PROTECTION**

INDIVIDUAL ONSITE SYSTEM PERMIT APPLICATION AUDIT

Applicant's Name _____

Permit # _____

PLAT DRAWING		Y	N	EHP-19		Y	N
1	Scale 1:20 or 1:30 indicated and used			19	Application submitted in triplicate		
2	North indicated			20	Items 1-15 filled in adequately and accurately		
3	Benchmark indicated			21	Vicinity Map provided		
4	Slope Indicated			22	Directions provided		
5	Property lines defined and dimensions shown			23	Items 17-19 filled in adequately (if applicable)		
6	Distance to two opposing property lines shown			24	Item 20 filled in accurately		
7	Structures and their dimensions shown			25	Items 21 and 23 signed and dated		
8	Setbacks indicated (utilities, geographic features, etc.)			EHP-6 attached and completed			
9	Driveway and parking area dimensions shown (if applicable)			PUMP SYSTEMS		Y	N
10	Ground elevation shots indicated			26	All pump calculations provided		
11	Flow-line elevation shots calculated and shown			27	Pump selected has a pump curve attached		
12	Location, elevation, and distance of well shown (100 ft)			28	Alarm selected has a spec sheet attached		
13	Location, elevation, and distance of surrounding property's wells shown (100 ft)			29	Distribution device (spider valve, hydrosplitter, etc.) spec sheet attached		
14	Primary absorption area located and sized accurately			OMP SYSTEMS		Y	N
15	Alternate absorption area located and sized accurately			30	OPM contract signed by a certified provider		
16	Location of soil pits/perc holes shown for primary and alternate area			31	Aerobic unit spec sheet attached		
17	Clean out and stub out shown			32	Disinfection type indicated		
18	Unusual site conditions indicated (pond, sinkholes, etc.)			33	Disinfection type spec sheet provided		
NOTE: Justify items checked "N" in the Comments Section.				PRE-SITE REVIEW		Y	N
				34	All system components staked and identified		
				35	Primary area lateral lines flagged and on contour		
				36	Alternate area flagged and on contour		
				37	Perc holes/test pits flagged		
Comments:							

EHS Name: _____

Assessor Name: _____

EHP-19a (7/09)

Date: _____

Conrad/Walker residence

Write a description for your map.

Legend

- Feature 1
- Property line

