

E.J. Breaux Contractors, Inc.
3153 Hwy 70 S
Pierre Part, LA 70339

PROPOSAL

To: Healthy School Food Collaborative
58911 Hwy 11
Slidell LA 70458

(985) 252-6183
Fax: (985) 252-3999
Proposal Date: 4/28/2022
Proposal No: 1440
Customer Phone: (985) 653-0000
david.curtis@curtislab.com
Care of: James Graham

Proposal Type: Installation

Proposed Items and Descriptions	Qty	Unit Price	Sub-Total	Taxed	Tax Amount	Line Total
F&I 1k gpd Extended Aeration System with Trash	1	\$17,600.00	\$17,600.00	<input type="checkbox"/>	\$0.00	\$17,500.00
Trap & Chlorine Contact Chamber (230w/1ph)	0	\$0.00	\$0.00	<input type="checkbox"/>	\$0.00	\$0.00
F & I Spray Irrigation System For Discharge	1	\$3,750.00	\$3,750.00	<input type="checkbox"/>	\$0.00	\$3,750.00

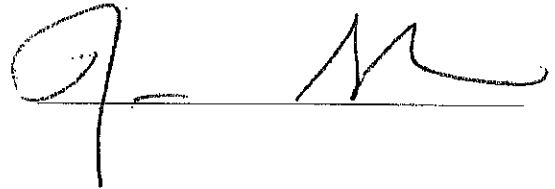
Total Tax % and Amount: 0.000% \$0.00

Reference No:

Proposal Total: \$21,250.00

This Proposal is good for 30 days.

County / Parish: St. Tammany
Entered By: René Landry



EJB Commercial Systems
115 Leonie Street, Pierre Part, LA 70339
Phone: 985-252-6183/985-252-6086
Mobile Phone: (985) 513-0440
FAX: 985-252-3999

Concrete Sewage Treatment Systems

General

The wastewater treatment plant shall be an EJ Breaux Commercial Systems, model EJBC .75C prefabricated concrete package plant as manufactured by EJ Breaux Commercial Systems, Pierre Part, Louisiana. The wastewater treatment system shall be of the activated sludge type specifically known as "extended aeration" designed for treating a total of 750 gallons per day of 210 PPM-BOD₅; maximum, domestic sewage based on composite sewage samples of the average daily flow. The complete system shall include all necessary equipment for the efficient plant operation.

The system shall be factory assembled so as far as possible, with all piping and controls.

Influent Characteristics

The system shall be capable of treating 750 gallons per day of raw domestic sewage, having a maximum organic strength of 210 PPM (BOD₅), and 210 PPM suspended solid. No substance shall be introduced in quantities, which are toxic to biological organisms. The plant shall be designed to handle average daily flow rates not to exceed 250% of the design flow.

Tank Construction

All tank vessels shall be fabricated with 4,000 psi concrete with rebar & 6" wire mesh. All walls shall be continuous and water-tight and shall be supported by a structural reinforcing member where required.

All tank piping shall be schedule 40 galvanized steel and \ or PVC.

Influent Connection

The influent connection shall be one 4-inch FNPT collar.

Aeration Chamber

There shall be an aeration chamber to work in conjunction with the clarifier chamber. The aeration chamber shall conform to the following specification: The aeration shall be of sufficient capacity to provide a minimum of 24 hours retention of the average daily flow, and/or a minimum of 1.98 cubic feet per pound of BOD₅ of applied loading. The vessel shall be so shaped on each side to prevent sludge accumulation, to enhance rotation of the vessel contents, and to prevent scum and froth accumulation.

To ensure maximum retention and eliminate short circuiting of raw sewage particle, the aeration chamber shall be constructed with air diffusers placed longitudinally along one side of the chamber so as to, in conjunction with the flow control baffles, enhance the spiral rotation of the chamber content. To ensure adequate circulation velocity the proportion of chamber width to depth, in the direction of rotation of the chamber content, shall not exceed 1.33 to 1. The velocity of rotation shall be sufficient to scour the bottom and prevent sludge filleting as well as to prevent the escape to the surface of minuscule air diffusion bubbles and so causing their entrapment to provide maximum oxygenation efficiency. An air distribution manifold shall be installed longitudinally on one side of the tank with diffuser drop assemblies connected there to. Each diffuser drop assembly shall be equipped with an air regulating and/or shutoff valve, a disconnecting union and a diffuser bar with air diffuser nozzles minimum air velocity shall be maintained to ensure efficient velocity of self-cleaning. The diffusers shall be parallel to, and near the base of the vessel side wall, and at an elevation which will provide the optimum diffusion and mixing of the vessel content. The oxygen transfer capacity detailed in the aeration chamber will be designed to meet treatment requirements of the design sewage load.

Clarifier Chamber

There shall be a clarifier chamber to work in conjunction with the aeration chamber of that system. The clarifier shall conform to the following specification: The clarifier chamber shall be of such as to provide a minimum of four hours retention, based upon the same design flow rate governing the aeration chamber, but including adjustment of such rate to compensate for run-off period, and shall have proper baffling to prevent short circuiting and to provide maximum uniform solids settling areas.

The bottom of the chamber wall shall be formed into an inverted pyramidal hopper or hoppers. The flat bottom area of each hopper shall not exceed one square foot. The slope of the hopper walls shall not be less than 1.7 vertical to 1.0 horizontal. Settled sludge shall be returned from the clarifier sludge hopper to the aeration chamber by the positive sludge return system, consisting of 1 air-lift pumps. The clarifier effluent shall pass over the edge of the baffled adjustable trough and then out of the chamber.

Outlet Connection

The plant discharge connection shall be one 4-inch FNPT collar.

Air Supply Blower Motor Units

A total of one regenerative blower motor unit shall be supplied, capable of providing a minimum of 2,100 cubic feet of air per pound of BOD₅ delivered, and/or a minimum of 3 CFM per lineal foot of aeration tank length to meet the air requirement of the total system. The blower shall be capable of delivering 48 CFM when operating at 2.4 PSI. The blower shall be manufactured by Republic Manufacturing, or an approved equal. The Model number of the blower is HRC201 It will run on 230 volts ac single-Phase electrical supply. The blower discharge shall be fitted with a check valve when required, and a flexible rubber discharge coupling. Each blower shall be enclosed with a weatherproof enclosure. The hood is designed for easy access to service the unit. It shall be equipped with a lifting handle and locking devise. All enclosure surfaces shall be properly prepared in a neat manner to obtain a smooth, clean and dry surface. To help reduce blower vibration and noise the blower motor enclosure shall be mounted on vibration dampers. For purpose of the blower performance and/or diffuser condition, a pressure relief valve and pressure gauge shall be mounted in the air manifold.

Air Blower Motor – Compressor Package Mounting

The air blower – compressor package will be ground mounted next to the plant to minimize noise, improve plant maintenance, and improve personnel safety.

Electrical Control Center

An electrical control panel shall be installed within a weatherproof enclosure and shall be provided for mounting as indicated on the plans. The enclosure shall be equal to NEMA type 3-R. The electrical controls shall consist of magnetic starters, program timers, and switches necessary to control all electrical devices automatically and manually and/or motors in the sewage treatment system. The blower motor shall be controlled by selector switches and magnetic starters in conjunction with the program timer. The program timers shall have the capability to operate the treatment system when required and as determined by the variations in the daily flow rate. All electrical equipment and circuitry shall be protected by properly sized circuit breakers or fuses. All duplex or standby equipment shall be designed so that it may be operated by devices within the control system. All wire and conduit required between the control panel and the electrical power service shall be furnished and installed by the purchaser. Wiring and conduit between the control panel and plant equipment shall be furnished by the manufacturer of the wastewater treatment plant. The panel may be detached for shipping. The main power supply to be furnished by the customer shall be 230 volts ac, single phase, at 60 cycles.

Chlorinator

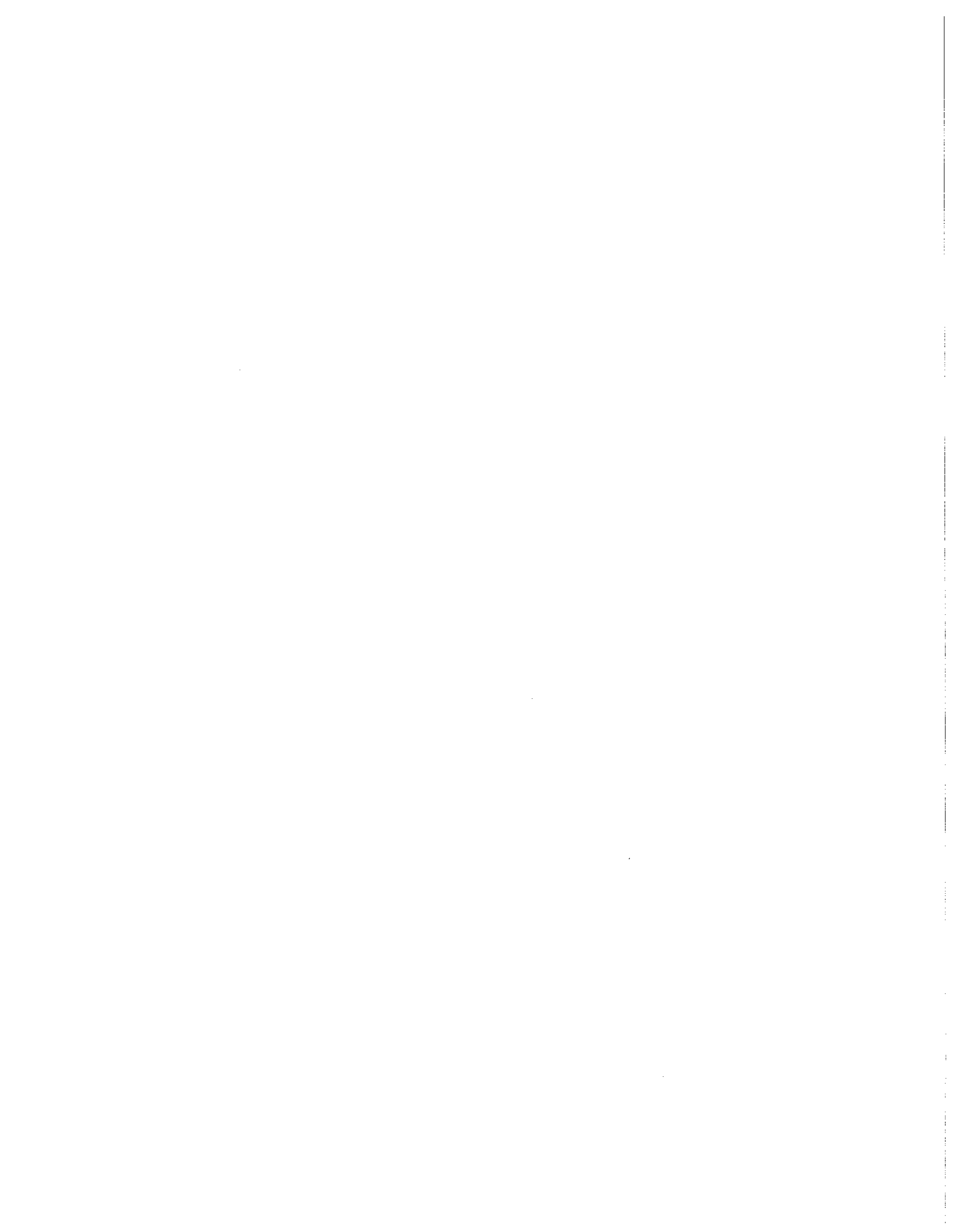
A chlorine chamber, when required, shall be furnished with a baffled chamber, constructed integrally with the clarifier designed to provide disinfection of the secondary effluent. The tank shall be sized for a capacity of 110 gallons. Baffles shall be provided to eliminate short circuiting and shall be designed to keep floating material from leaving the chamber. Sufficient flow baffles will be supplied to assure proper mixing of the chlorine solution with the plant effluent. The chlorination equipment shall consist of a Norweco chlorinator model It-2000. The chlorinator shall have the capacity of disinfecting the effluent from the treatment system.

Sludge Re-circulation System

There shall be installed within the clarifier chamber(s) a positive sludge return system, consisting of 1, 2 inch diameter airline sludge return assembly(s) meeting the following specifications: The airlift system shall have the re-circulation capacity ranging from 0% to 150% of the design flow. The airline supplying air to the system shall be equipped with a valve to vary the return capacity of the system. The airlift system shall be firmly supported and shall be equipped with a clean out plug to allow cleaning and maintenance.

Scum Re-circulation System

There shall be installed within the clarifier chamber a positive scum and skimming re-circulation system consisting of 1 airlifting skimming device(s) meeting the following specifications: The skimming device shall be of the positive airlift type, located in a position to skim and return floating material to the aeration chamber. The air line supplying air to the skimming device shall be equipped with a valve which will enable adjustment of the return flow rate. There should be an adjustable skimmer head for exact positioning of the skimmer head at water level.

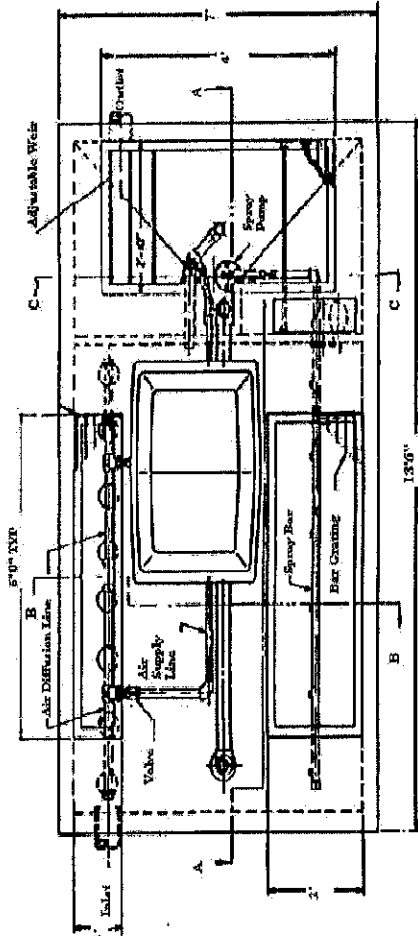
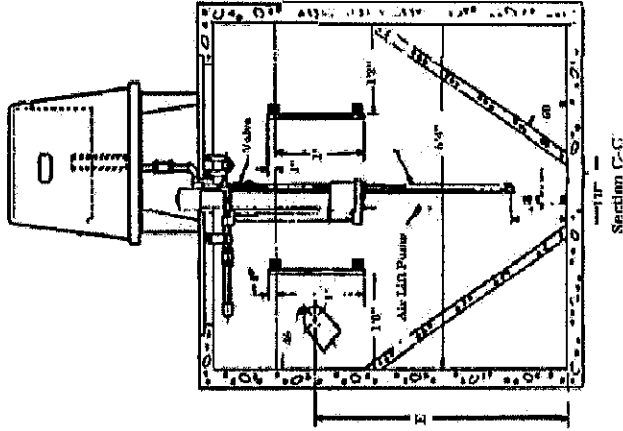
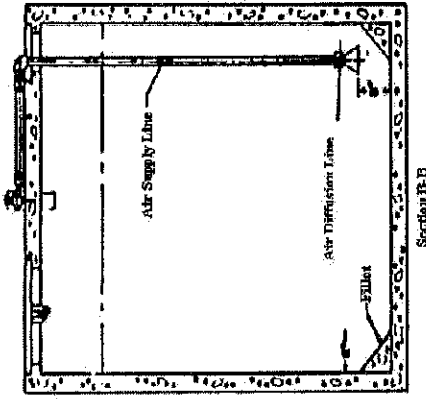


DESIGN DATA:

DESIGN VOL.: 750 GPD
 BIOLOGICAL LOADING:
 1.24 LBS AT 200PPM
 BLOWER MAKE: REPUBLIC
 MODEL: HRC201
 RPM: 3400 HP: 2.4
 CFM: 48 PSI: 2.4
 AERATION ZONE:
 VOL.: 750 DETENTION 24 HRS
 CLARIFIER: VOL. 300
 DETENTION 4HRS
 RISE RATE: 24GPD/SF
 WEIR RATE: 200GPD/SF
 CHLORINE TANK:
 MAKE: TABLET FEEDER
 MODEL: LF100
 VOL.: 30GAL
 DETENTION AT AVG. FLOW 30MIN
 AIR DROP LINES: 8
 TOTAL DIFFUSERS: 4
 INLET AND OUTLET LINE SIZES: 4"

Model Number: EJ/BC.75
 Plant Size: A 68"
 B 60"
 C 21.11"
 D 38.89"
 E 11"

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Note: To minimize fall thru plant,
 locate inlet divert 5" above flow
 line.

