

## Contract Change Order # 2

Project Name: <u>LLWWTP UV Disinfection Improvements</u>	Project Number: <u>S. 1905</u>
Project Location: <u>Lynn Lane Wastewater Treatment Plant</u>	Date of Application: <u>Monday, June 10, 2024</u>
Contractor: <u>Crossland Heavy Contractors</u>	Submitted By: <u>Kassidy Lemons</u>

### Summary of Change in Scope of Work

The following scope of work consisting of work location, work description, established quantities, and timeline for completion has been reviewed and agreed upon by the contractor, the origin funding department, and the Engineering and Construction Department.

#### Change of Work Items Included in this Change Order:

- 1) During the shop drawing and procurement of the pre-manufactured metal building for the new UV Disinfection structure, it was determined that the specified metal roofing was not readily available for procurement. Thus it was determined that a thinner gauge metal paneling for the roofing material, that was available for procurement, was designed to meet the project design requirements and met fabrication timelines. With this reduction in material gauge, a credit in procurement costs shall be issued to the project as noted within the associated project deduction proposal.
- 2) During the final implementation of the new UV Disinfection project, the existing Indian Springs Country Club owned irrigation pump, was relocated to its new location within the effluent channel. During this installation, it was found that the existing pump configuration would not work as planned and constructed in the new effluent channel. City Staff, the Engineer of Record, and the Country Club all reviewed the situation and determined that due to the age and condition of the existing pump, a new vertical turbine pump shall be installed.

Thus as noted within the associated Proposal #11, the contractor shall remove the existing Indian Springs Irrigation Pump, evaluate the existing pump conditions and propose a suitable replacement pump, and install the new vertical turbine pump in the newly constructed effluent structure. The contractor shall include within the proposal, all applicable costs for material, labor, sub-contracting, and startup for the new pump.

- 3) With the project nearing completion and the system now into the performance testing phase, City staff along with the design engineer of record have determined no current need nor forecasting a future need for the Line Item #5 - Contingency Allowance 2 for additional independent testing. As such, the contractor shall, through this change order, underrun the Line Item #5 of the contract.

#### Change in Contractual Project Time:

- 2) Within Change Order #1, the contact time was amended to September 31, 2024; the procurement of the new pump is expected to be 3-4 weeks and thus no further time extension is needed at this time.

Plan Sheets or Additional Documents Attached: ☒ Yes ☐ No ☒ Other: Contractor Proposals

#### Work Order Quantities

Item#	(Spec)	Item Description	Units	Price	Quantity	Total Amount
CO2-1		PEMB Project Credit	LS	\$ (43,150.00)	1	\$ (43,150.00)
CO2-2		New Indian Spring Pump Procure & Install	LS	\$ 62,011.84	1	\$ 62,011.84
CO2-3		Underrun of Line Item #5 - Contingency Allowance	NA	\$ (30,000.00)	1	\$ (30,000.00)
Total Change Cost:						\$ (11,138.16)

**Public Contract  
Application for  
Contractual Changes**

**Engineering and Construction Department**

485 N. Poplar, Broken Arrow, OK. 74012

Fax: 918-259-8453 - Office: 918-259-7000

**Summary of Project Costs**

Total Previous Change Orders:	\$ -	Original Contract Amount:	\$ 5,841,000.00
Current Change Order:	\$ (11,138.16)	Amended Contract Amount:	\$ 5,829,861.84
Total Cost of Change Orders:	\$ (11,138.16)	Percent Change in Contract:	-0.19%
Total Cost Applicable to CBA:	\$ 62,011.84	Percent Change Applicable to CBA:	1.06%

**Change Order Authorization**

Change Order # <u>2</u> in the sum of: \$ <u>(11,138.16)</u> has been reviewed by all parties and is recommended for approval by:		
Contractor Submitting Change Order:		
	Name	Signature
Construction Division Manager:	Nathan Kohl, PE	<i>Nathan Kohl</i>
	Name	Date
		6/11/2024
Director of Engineering & Construction:	Charlie Bright, PE	<i>Charlie Bright</i>
	Name	Signature
		Date
		6/11/2024
Assistant City Manager - Operations:	Kenneth D Schwab, PE	<i>Kenneth Schwab</i>
	Name	Signature
		Date
		6/12/2024
City Manager:	Michael Spurgeon	
	Name	Signature
		Date

**This Change is Executed Through:**

- ☐ This change to the contract documents is authorized by the City Manager's authority in accordance with the applicable state statutes and COBA Code of Ordinances.
- or
- ☒ This change to the contract documents was approved at the City Council/BAMA meeting held on : Monday, June 17, 2024

**LLWWTP UV Disinfection Improvements -  
22O01SP**

**22O01SP**

13874 S. 177th E. Ave.  
Broken Arrow, OK 74011

**Date:** 11/16/2022  
**To:** Vanguard Builders, Inc  
22201 E. 71st  
Broken Arrow, Oklahoma 74014

**Contract Date:** 2/16/2022  
**Contract Number:** 02B Vanguard Builders, Inc  
**Change Order Number:** 02B-01

**The Contract is hereby revised by the following items:**

Deduction for Changing material

Item Number	Description	Amount
01	Product Changes	\$(43,153.00)

**Notes**

Changing from 22GA 3-coat Kyner finish to 24GA 2-Coat finish.

The original Contract Value was..... \$176,442.00  
Sum of changes by prior Change Orders..... \$0.00  
The Contract Value prior to this Change Order was..... \$176,442.00  
The Contract Value will be changed by this Change Order in the amount of..... \$(43,153.00)  
The new Contract Value including this Change Order will be..... \$133,289.00

Crossland Heavy Contractors, Inc.  
CONTRACTOR  
501 S. East Ave  
Columbus, KS 66725  
Address

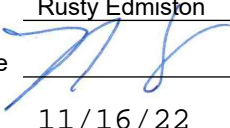
By Jason Smith

Signature \_\_\_\_\_

Date \_\_\_\_\_

Vanguard Builders, Inc  
SUBCONTRACTOR/VENDOR  
22201 E. 71st  
Broken Arrow, OK 74014  
Address

By Rusty Edmiston

Signature  \_\_\_\_\_

Date 11/16/22

**COST BREAKDOWN FOR SUPPORT OF ALLOWANCE AUTHORIZATION**

**Reference Document:**

**Contract No.:** LLWWTP Disinfection Improvements

**Date:** 04/05/24

**Project No.:** 22001SP

**Contractor:** Crossland Heavy Contractors

**Description of Work:** Indian Springs Pump - New Pump

**Materials:**

Items	Units	Cost	Quantity	Amount
STS	LS	\$200.00	1.00	\$200.00
			Sub-Total	\$200.00
			10% Profit	\$20.00
			Total	\$220.00

**Labor:**

Job Title	Rate/Hr.	Total Hrs.	Amount
Skilled Laborer	\$26.14	24.00	\$627.36
Skilled Operator	\$35.60	10.00	\$356.00
Superintendent	\$90.75	14.00	\$1,270.50
		Sub-Total	\$2,253.86
		15% Profit	\$338.08
		Total	\$2,591.94

**Payroll Additives:**

Item	% of Labor	Amount
Insurance	8.00%	\$180.31
Bond	1.00%	
Social Security	7.65%	\$172.42
Taxes	3.80%	\$85.65
Worker's Compensation	22.00%	\$495.85
Employee Fringe Benefits	20.00%	\$450.77
Total		\$1,385.00

**Equipment:**

Type	Cost/Hr.	Total Hrs.	Amount
Lull	\$147.35	10.00	\$1,473.50
			\$0.00
			\$0.00
			\$0.00
		Total	\$1,473.50

**Sub-Contractor Cost:**

Items	Cost	Quantity	Amount
Automatic Engineering	\$49,719.46	1.00	\$49,719.46
OCE	\$1,500.00	1.00	\$1,500.00
			\$0.00
			\$0.00
			\$0.00
		Sub-Total	\$51,219.46
		10% Profit	\$5,121.95
		Total	\$56,341.41

Contractor Cost	\$56,531.82
Contractor Profit	\$5,480.03
Contractor Total	\$62,011.84

Total Lump Sum Cost for Work Described	\$62,011.84
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If Not Lump Sum, Cost Per Unit	Total Cost	
	Quantity	

Contractor's Signature

Printed Name: Kassidy Lemons

**April 2, 2024****ATTN: Crossland Heavy Contractors***PH:**Email:***Quote: OP-590427***Project:* Indian Springs VT*Subject:* R1 Proposal*Bid Due:*

Cogent is pleased to present the following Scope of Supply:

Item	Description	Qty	Extended Price
A)	Xylem Goulds VIT-FFFM 13CMC, 2 Stage Vertical Turbine Pump – 1050GPM @ 120' TDH <ul style="list-style-type: none"><li>- Fab F fabricated steel head suitable for variable speed use</li><li>- Flanged Column</li><li>- John Crane 5610 Mechanical Seal</li><li>- Carbon Steel sub base</li><li>- 304LSS Strainer</li><li>- 50HP 1800RPM 3~/460V/60Hz Motor</li></ul>	1	\$49,719.46

Providing alternative pump- SIMFLO Vert-Turbine pump. See attached product specs

Subject to Cogent, Inc. Standard Terms &amp; Conditions of Sale. Quote valid for 30 days.

**Submittals:** 4-6 weeks after PO approval**Delivery:** 15-17 weeks after submittal approval**NOTES:** Selections based on information provided; anything not listed above is not included in price. Changes to design point and/or equipment specifications are subject to re-quote. **Taxes not included. Freight is not included.**

Items not included in the above package: Installation labor, anchor bolts, gauges, control panels, seal or packing flush hardware, video equipment/taping, lubricants, special paint or paint preparation, local taxes, noise or vibration testing, wiring, conduits, field startup, hatch, ladder, lifting chain, shackles, floats, additional factory testing or items not listed in the above proposal.

Startup and commissioning service, in addition to any quoted above, is subject to re-quote.

Regards,

**Tim Hunt***Engineered Sales*

PH: 918-998-7021

[THunt@cogentcompanies.com](mailto:THunt@cogentcompanies.com)**Chris Shenk***Inside Engineered Sales*

PH: 303-524-6871

[cshenk@cogentcompanies.com](mailto:cshenk@cogentcompanies.com)

### STANDARD TERMS AND CONDITIONS

Price is FOB factory. Price does not include any freight charges. Price does not include any applicable duties or sales tax, use tax, excise tax, value-added or other similar taxes that may apply to this equipment and/or project. Unless specifically stated, price does not include manual or automatic controls, starters, protective or signal devices, wiring, anchor bolts, gauges, vibration isolation devices, installation, startup or testing.

If the price is included in a proposal, the price is firm for receipt of an order within 30 days of the date shown on the proposal. Any additional terms and conditions included in the proposal are specifically included in these terms and conditions.

Payment is due upon receipt of the invoice. An interest charge of 1-1/2% per month will be added to past due balances. Retainage of any invoiced amount is unacceptable unless specifically agreed to by Company at the time of order, and shall in no case exceed a period of 120 days. If payments are not timely received by Company, and this account is turned over to an attorney for collections, Customer agrees to pay all reasonable costs and attorney fees incurred in collection of the past due amounts.

Payment of "commercial transaction" invoices by credit card will be charged a fee based upon Cogent's average discount rate for credit card transactions for the prior calendar year. This fee will change annually and is currently 2.55%.

All equipment either rented from or through Company is subject to all of the terms and conditions listed on the back of the rental contract. Pricing does not include any overtime running of power equipment.

In no event shall Company's obligations and liabilities under this Agreement include any direct, indirect, punitive, special, incidental or consequential damages or losses that Customer may suffer or incur in connection with this sale, service or rental, including, but not limited to, loss of revenue or profits, damages or losses as a result of Customer's inability to operate, perform its obligations to third persons or injuries to goodwill; nor shall Company's liability extend to damages or losses Customer may suffer or incur as a result of such claims, suits or other proceedings made or instituted against Customer by third parties. Customer remises, releases and discharges Company from any and all liability or damages which might be caused by failure to deliver any equipment within the agreed time by Company.

Customer shall be responsible for determining the good operating condition of all materials and equipment prior to accepting the materials and equipment. NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE UNLESS THE SAME IS SPECIFICALLY SET FORTH IN WRITING AND ACCEPTED IN WRITING BY COMPANY, BUT IN SUCH CASE THE WARRANTY OR GUARANTEE IS LIMITED AS ABOVE PROVIDED. Notwithstanding the foregoing, Company will pass through to the Customer any warranty provided by the manufacturer of any equipment supplied by Company.

Customer covenants and agrees to defend, indemnify and hold Company harmless from any claims, damages or liability arising out of the use, maintenance or delivery of the equipment or materials purchased or rented hereunder. Customer shall further defend, indemnify and hold Company harmless from any and all damages to third persons or to property caused by Customer's use or possession of the equipment or materials, to the fullest extent allowable by law.

In connection with a proposal, if Customer has any further questions or comments regarding the proposal, please feel free to contact Company. If the proposal meets with Customer's approval, please sign, date and mail or fax a copy of the proposal back to Company's office, and the identified equipment will be ordered and/or scheduled for delivery.

This agreement shall be governed by the laws of the state where the Company's branch office is located from which the equipment is rented or purchased. Customer further agrees that venue and jurisdiction shall be appropriate in the county in which Company's branch office is located from which the equipment was rented or purchased. Any provisions hereof which may prove unenforceable under any law shall not affect the validity of any other provision hereof.

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Customer Name Printed

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Company Name Printed

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Customer Signature

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Date

Company: Simflo

Name:

Date: 6/5/2024

**SIMFLO®****Pump:**

Size: SL11H (2 stage)  
Type: VERTTURBINE  
Synch Speed: 1800 rpm  
Curve: SL11H.05.O.4646.1022  
Specific Speeds:  
Dimensions:  
Vertical Turbine:

Speed: 1770 rpm  
Dia: 8.62 in  
Impeller: SL11H  
Ns: 2464  
Nss: 12679  
Suction: 8 in  
Discharge: 6 in  
Bowl Size: 10.9 in  
Max Lateral: 1.44 in  
Thrust K Factor: 7.4 lbf/ft

**Pump Limits:**

Temperature: ---  
Pressure: 489 psi g  
Sphere Size: 0.88 in

Power: 376 hp  
Eye Area: 20.3 in<sup>2</sup>

**Search Criteria:**

Flow: 1050 US gpm  
Head: 120 ft

**Fluid:**

Water  
Density: 62.32 lb/ft<sup>3</sup>  
Viscosity: 0.9946 cP  
NPSHa: ---

Temperature: 68 °F  
Vapor Pressure: 0.3391 psi a  
Atm Pressure: 14.7 psi a

**Motor:**

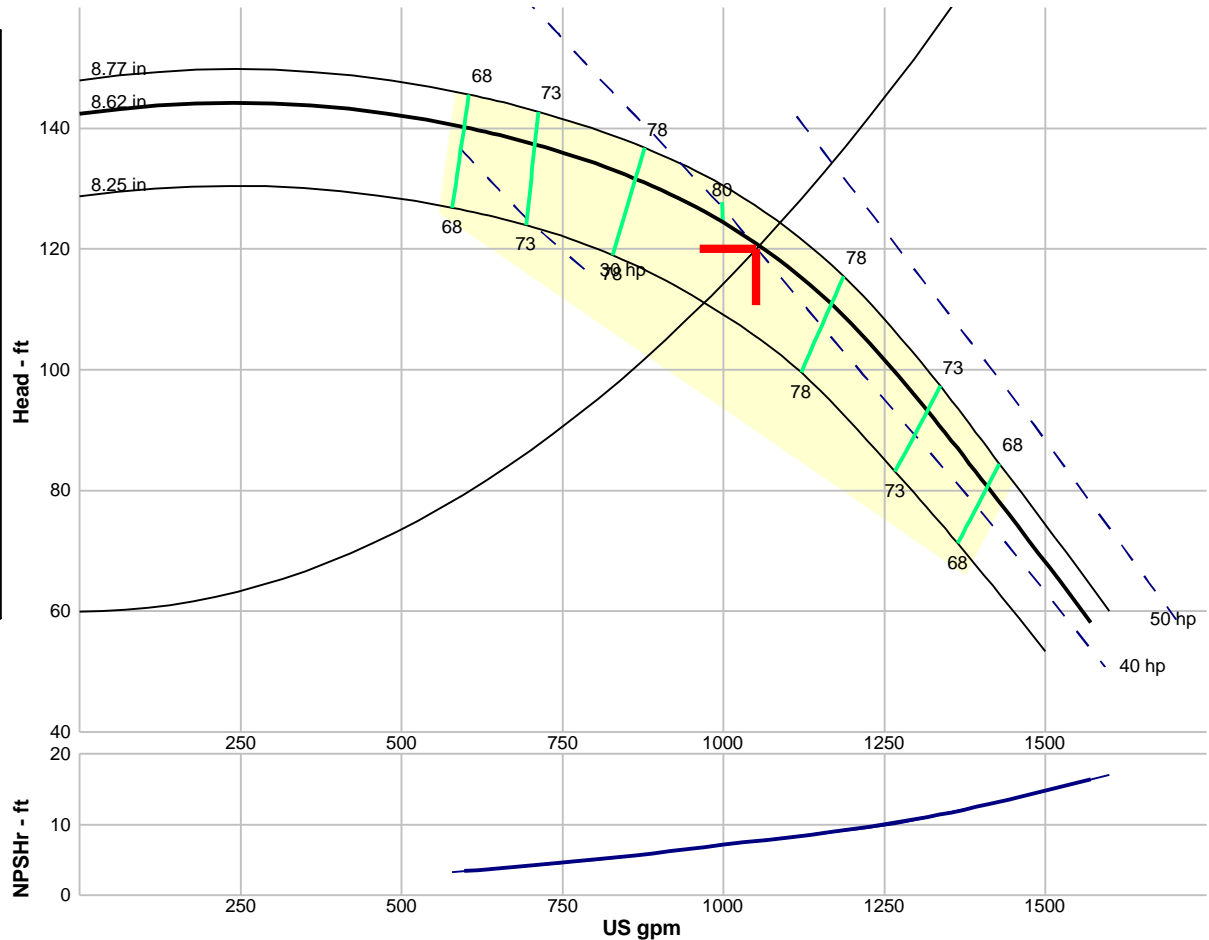
Standard: US  
Enclosure: TYPE 1  
Sizing Criteria: Max Power on Design Curve

Size: 50 hp  
Speed: 1800 rpm  
Frame: ---

---- Duty Point ----	
Flow:	1052 US gpm
Head:	120 ft
Eff:	79.4%
Power:	40 hp
NPSHr:	7.74 ft

---- Design Curve ----	
Shutoff Head:	142 ft
Shutoff dP:	61.6 psi
Min Flow:	---
BEP:	80% @ 998 US gpm
NOL Power:	42.4 hp @ 1316 US gpm

-- Max Curve --	
Max Power:	45 hp @ 1336 US gpm



Nominal performance shall comply to ANSI/HI 14.6 2B/3B acceptance criteria and may be derated for materials of construction and/or specified acceptance grade. Consult factory. [www.simflo.com](http://www.simflo.com) / [pump-flo@simflo.com](mailto:pump-flo@simflo.com)

**Performance Evaluation:**

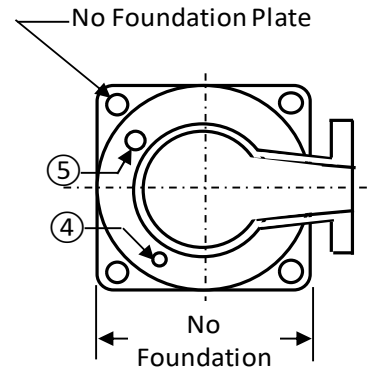
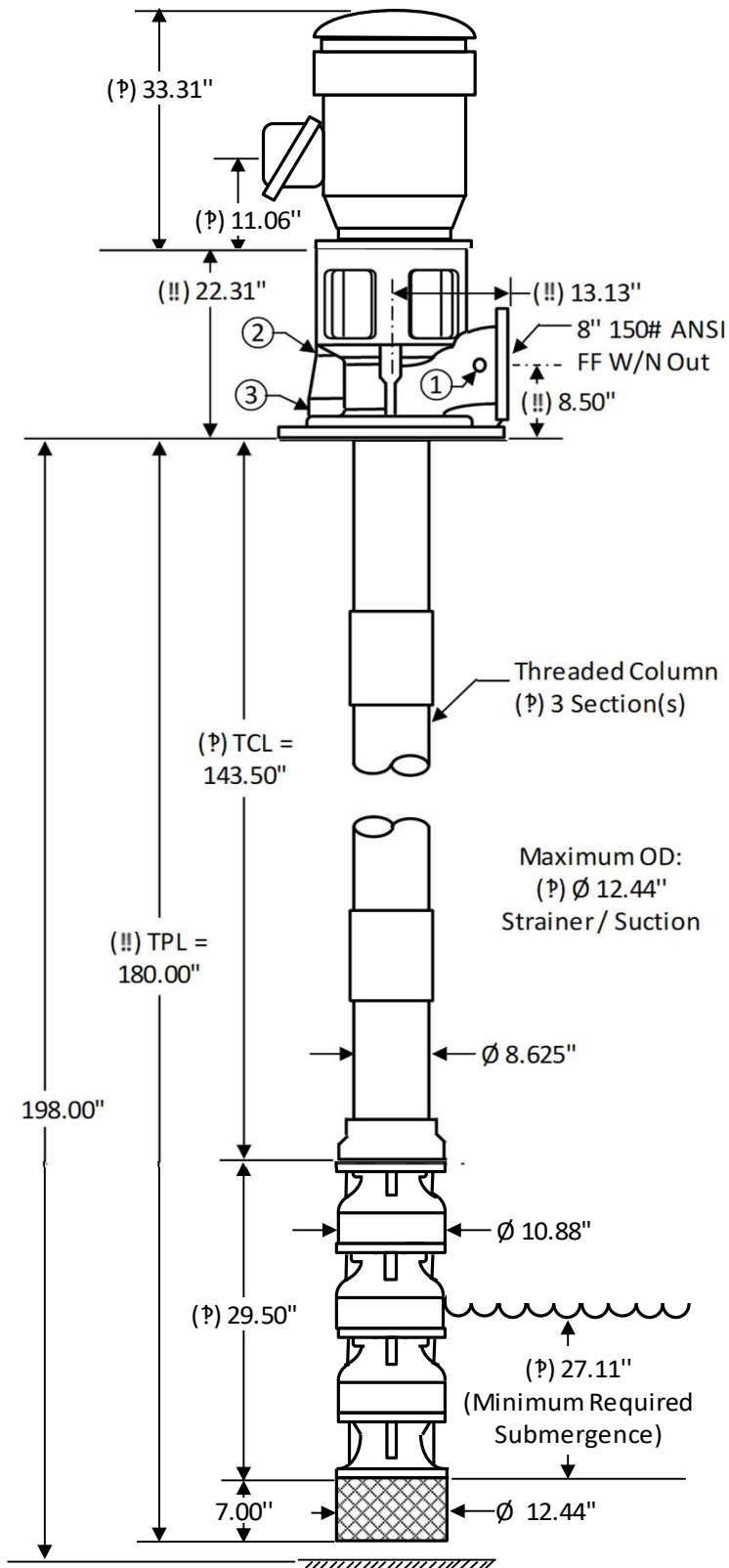
Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1260	1770	99.9	74.9	42.2	10.3
1050	1770	120	79.4	40	7.72
840	1770	133	77.3	36.3	5.48
630	1770	139	69.5	31.8	3.7
420	1770	---	---	---	---

-Date: 2024-06-06

-Quote / Order # : 18098

-Customer: Cogent

-Job Name / Description: Indian  
Springs Irrigation



•Model: SL11H - 2 Stages

•Rated Cond:

1052 gpm @ 120 ft tdh

•Rated Speed: 1770 rpm

•Rated Power: 40 hp

•Column: 8" Threaded

•Line-Shaft: 1-11/16" Threaded

•Discharge Head: 8" Cast

•Seal Style: Packing

•Motor Operation: Constant Speed

•Motor Type: VHS

•Hydraulic Thrust: 741.67 lbf

•Rotating Assy. Wt: 165.76 lbf

•'Standard' Duty Lifting Lugs Gr. A

Shackel Minimum

Ports (As Applicable)

① - 1/4 in. NPT Gauge tap

② - 3/4 in. NPT Drain tap

③ - 3/4 in. NPT Prelube / ARV tap

④ - (1/2, 3/4, 1) in. NPT tap

⑤ - 2 in. NPS tap

(!!) - Specified by Customer

(P) - Subject to Change Pending  
Engineering Review

**NOT Approved for Construction**





## DATA SHEET

-Date: 2024-06-06

-Quote / Order # : 18098

-Customer: Cogent

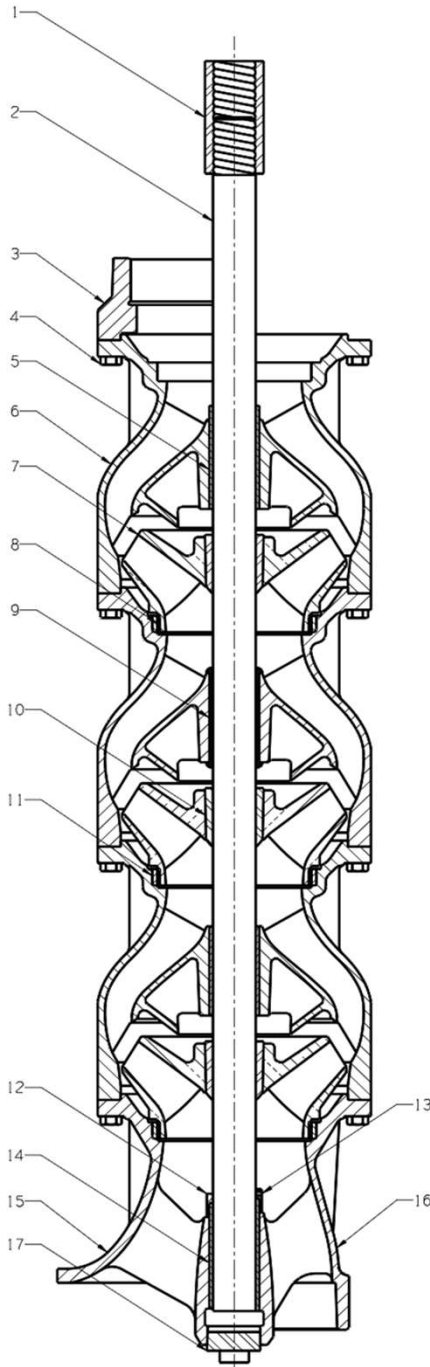
-Job Name / Description: Indian Springs Irrigation

- Model :	SL11H - 2 Stages
- Rated Condition :	1052 gpm @ 120 ft tdh
- Rated Speed :	1770 rpm
- Rated Power :	40 hp
- Bowl Lateral :	1.44 in
- Impeller Setting :	0.125 in
- Total Lateral Adjustment :	0.126 in
- Shut-Off Head :	142 ft tdh (61.55 psig)
- AOR :	Consult Factory
- Capacity @ 3 ft/s :	457.48 gpm
- Flow Velocity :	6.9 ft/s @ Rated Condition (8" Col. w/ 1-11/16" Shaft)
- NPSHr :	7.74 ft @ Rated Condition
- Minimum Submergence :	27.11 in @ Rated Condition
- Hydraulic Friction :	1.733 ft @ Rated Condition
- NPSHa :	34 ft
- Pumping Level :	9 ft
- Discharge Pressure :	47 psig (108.57 ft) @ Rated Condition (+ Inlet Pressure)
- Bowl-Shaft Limit :	379 hp (1-11/16" Threaded 416 SS HT)
- Bowl-Shaft Coupling Limit :	431 hp (1-11/16" Threaded 416 SS HT)
- Line-Shaft Limit :	379 hp (1-11/16" Threaded 416 SS HT)
- Line-Shaft Coupling Limit :	431 hp (1-11/16" Threaded 416 SS HT)
- Mechanical Friction :	0.29 hp
- Total Load :	40.29 hp
- Guaranteed Bowl Efficiency :	79.4 %
- Guaranteed Pump Efficiency :	77.7 %
- Motor Efficiency :	90 %
- Pump + Motor Efficiency :	69.93 %
- Pump Assembly Inertia :	1.48 lbm•ft <sup>2</sup>
- Hydraulic Thrust :	741.67 lbf
- Rotating Assembly Weight :	165.76 lbf
- Total Pump Weight :	1400 lbf
- Motor Weight :	690 lbf

### Notes:

Date : 2024-06-06  
Job/Quote # : 18098  
Customer Name : Cogent

Job Name : Indian Springs Irrigation



Note: bowls are vitreous porcelain enamel or  
fusion bonded epoxy lined

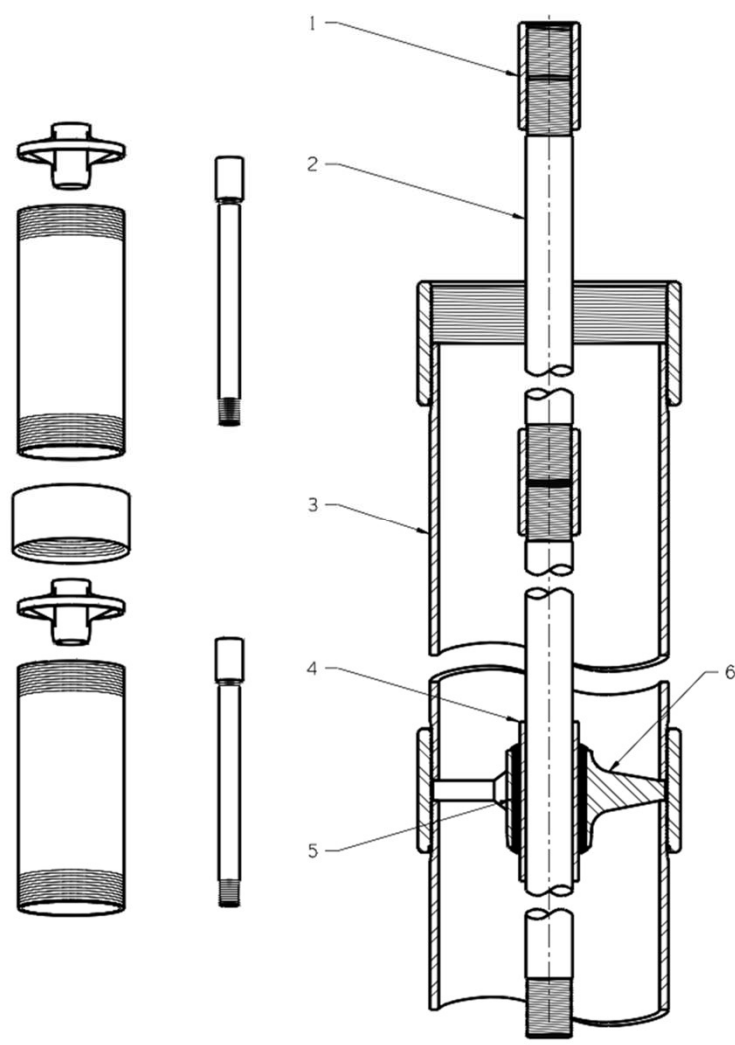
LABEL	PART NAME	MATERIAL
1	BOWL-SHAFT COUPLING	416 HT SS
2	BOWL-SHAFT	416 HT SS
3	DISCHARGE CASE	CL. 30 CAST IRON
4	CAP SCREW	COMMERCIAL 18-8 SS
5	STEADY BEARING	C89835 BRONZE
6	INTERMEDIATE BOWL	CL. 30 CAST IRON
7	IMPELLER	316 SS
8	IMPELLER WEAR RING (OPTIONAL)	NOT APPLICABLE / NOT SPECIFIED
9	INTERMEDIATE BEARING	C89835 BRONZE
10	IMPELLER COLLET	316 SS
11	BOWL WEAR RING (OPTIONAL)	NOT APPLICABLE / NOT SPECIFIED
12	SAND COLLAR	C89835 BRONZE
13	SAND COLLAR SET SCREW	COMMERCIAL SS
14	SUCTION CASE BEARING	C89835 BRONZE
15	SUCTION CASE (BELL)	CL. 30 CAST IRON
16	SUCTION CASE (THREADED)	NOT APPLICABLE / NOT SPECIFIED
17	SUCTION CASE PIPE PLUG	COMMERCIAL CAST IRON
not shown	BOWL O-RING	NOT APPLICABLE / NOT SPECIFIED
not shown	BOLT-ON BASKET STRAINER	304 SS



# Open Lineshaft Threaded Column Assembly

Date : 2024-06-06  
Job/Quote # : 18098  
Customer Name : Cogent

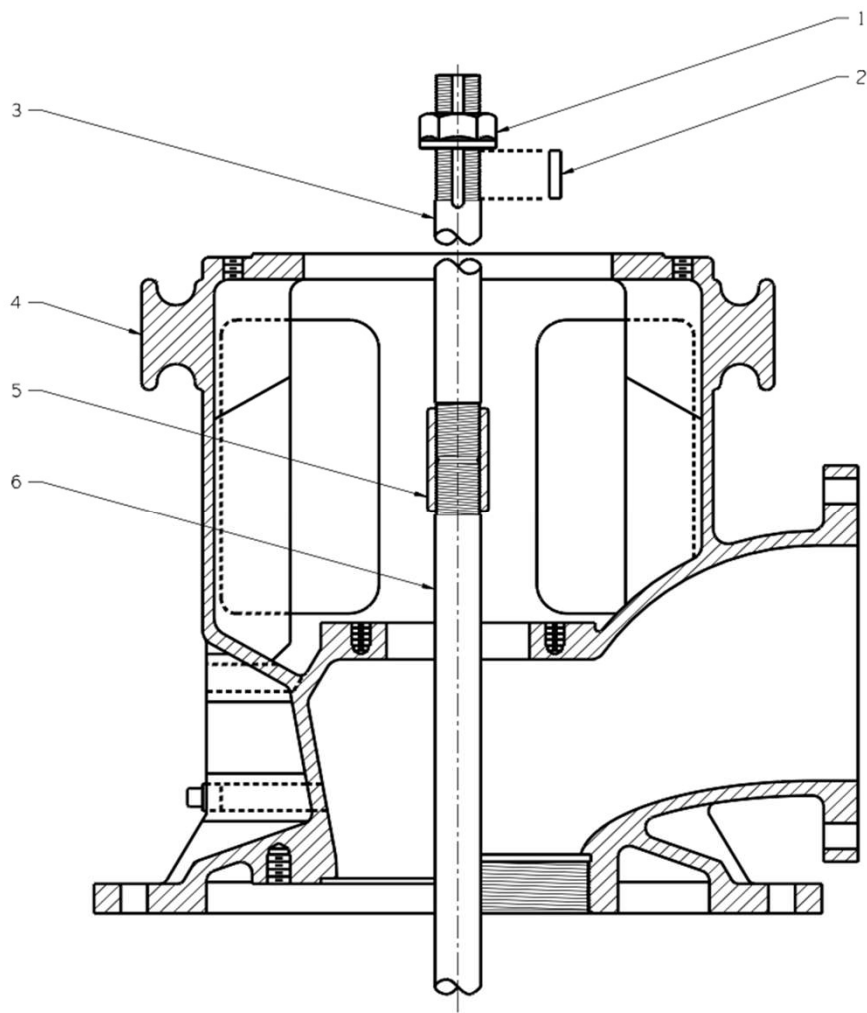
Job Name : Indian Springs  
Irrigation



LABEL	PART NAME	MATERIAL
1	LINE-SHAFT COUPLING	416 HT SS
2	LINE-SHAFT	416 HT SS
3	COLUMN PIPE (THREADED & COUPLED)	GR. B CARBON STEEL
4	SHAFT SLEEVE (OPTIONAL, NOT RECOMMENDED)	NOT APPLICABLE / NOT SPECIFIED
5	LINE-SHAFT BEARING	NITRILE
6	BEARING RETAINER (DROP-IN)	304 SS

Date : 2024-06-06  
Job/Quote # : 18098  
Customer Name : Cogent

Job Name : Indian Springs  
Irrigation



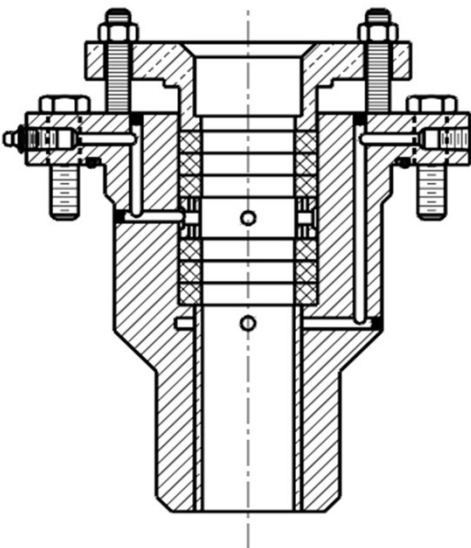
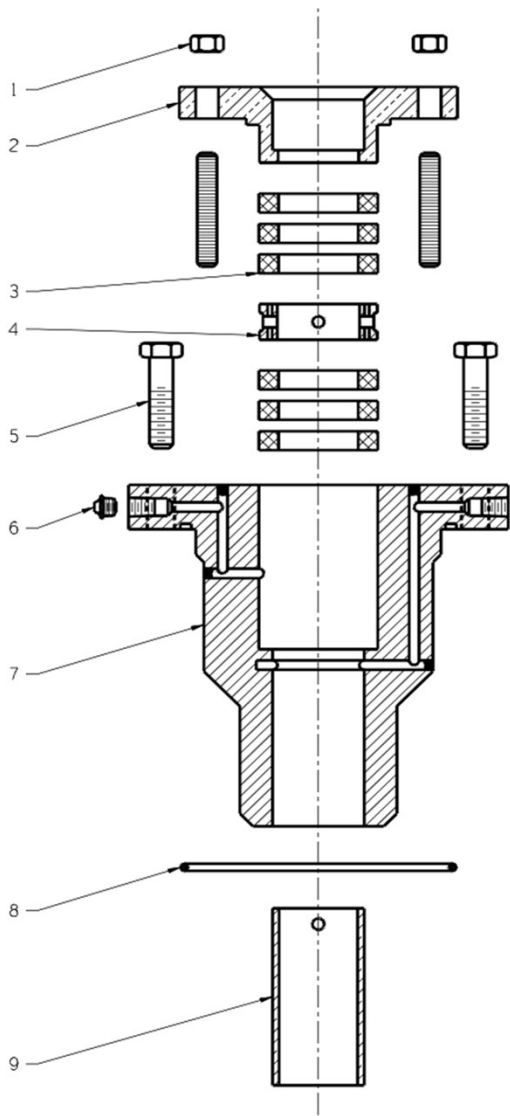
LABEL	PART NAME	MATERIAL
1	HEAD NUT	C89833 BRONZE
2	GIB KEY	C1018 CARBON STEEL KEYSTOCK
3	MOTOR-SHAFT	416 HT SS
4	DISCHARGE HEAD	GR. 65-45-12 DUCTILE IRON
5	HEAD-SHAFT COUPLING (THREADED)	416 HT SS
6	HEAD-SHAFT	416 HT SS
not shown	MOTOR RISER	NOT APPLICABLE / NOT SPECIFIED



# Packing Gland Seal Assembly

Date : 2024-06-06  
Job/Quote # : 18098  
Customer Name : Cogent

Job Name : Indian Springs  
Irrigation



LABEL	PART NAME	MATERIAL
1	STUD AND NUT	COMMERCIAL 18-8 SS
2	PACKING GLAND	C89833 BRONZE
3	PACKING	GRAPHITE IMPREGNATED
4	LANTERN RING	VESCONITE
5	CAP SCREW	COMMERCIAL 18-8 SS
6	PIPE PLUG	COMMERCIAL
7	PACKING HOUSING	CL. 30 CAST IRON



February 23, 2024

BA WWTP Pump Disconnect and Reconnect

Kassidy

To go out to BA WWTP and disconnect/reconnect the flume pump is \$1,200.00. Based on two separate trips. There is \$100 in material in the pricing as contingency.

Sincerely,



Brian Filak  
(O) 918-317-7104  
(C) 918-625-3310  
[bfilak@oce.us.com](mailto:bfilak@oce.us.com)

Per OCE on 04/04/2024: Add an additional \$300.00 for overloads due to the pump size decreasing

Total: \$1,500.00 KL