



JUSTIFICATION FOR SOLE SOURCE CERTIFICATION

Sole Source Purchases are defined clearly, based upon a legitimate need, and are limited to a single supplier. Sole source purchases are normally not allowed except when based upon strong technological grounds such as operational compatibility with existing equipment and related parts or upon a clearly unique and/or cost effective feature requirement. The use of sole source purchases must be justified and shall be limited only to those specific instances in which compatibility or technical performance needs are being satisfied.

Sole Source Services are defined as a service provider providing technical expertise of such a unique nature that the service provider is clearly and justifiably the only practicable source available to provide the service. The justification shall be based on the uniqueness of the service, sole availability at the location required, or warranty or defect correction service obligations of the service provider.

This form must be filled out for the request to purchase any good or non-professional service that requires a competitive procurement process (informal quotes (\$1001-\$10,000), formal quotes (\$10,001 - \$19,999.99), or formal bid (\$20,000 or more) as defined in the LFUCG's Purchasing Manual. This form must be completed in its entirety and attached to the purchase requisition.

Note: Sole Source Purchase requests for goods exceeding \$20,000 will require approval by the Urban County Council by submitting an Administrative Review Form. A copy of this form must be signed off by Central Purchasing and attached to the Administrative Review Form.

Requesting Division

Name Rodney E. Chervus Division/Dept Water Quality

Phone (859) 425.2408 Email rchervus@lexingtonky.gov

Type of Purchase: Goods/Materials/Equipment Services

Cost: \$ 160,105.10 (Equipment/Delivery) \$13,448.00 (est. labor)

Sole Source Request for the Purchase of:

One (1) Flygt Submersible Solids Handling Pump for Installation at LFUCG's Lower Cane Run Pump Station.

One Time Purchase

To Establish Sole Source Provider Contract

(Subject to annual review and approval by Central Purchasing and/or Urban County Council)

Vendor Information

Business Name Xylem Water Solutions. USA, Inc.

Contact Name Byran Thomas

Address 1615 State Route 131, Milford, Ohio 45150

Phone (513) 831-7867 Email Byran.thomas@xylem.com

STATEMENT OF NEED: (Add additional pages as needed)



JUSTIFICATION FOR SOLE SOURCE CERTIFICATION

My division/department's recommendation for sole source is based upon an objective review of the product/service required and appears to be in the best interest of the LFUCG. I know of no conflict of interest on my part, and I have no personal involvement in any way with this request. No gratuities, favors, or compromising actions have taken place. Neither has my personal familiarity with particular brands, types of equipment, materials, persons or firms been a deciding influence on my request to sole source this purchase when there are other known suppliers to exist.

1. Describe the product or service and list the necessary features this product provides that are not available from any other option.

The product requested for purchase via sole source certification is the: Flygt submersible Pump Model CP3351. New pump with same capacity as current unit. Freight to site, removal of existing pump, installation of new pump, start-up, and testing. Requested product will replace an existing (identical unit) pump that has failed after Twenty-five (25) years of extended service.

2. Below are eligible reasons for sole source. Check one and describe.

- Licensed or patented product or service. No other vendor provides this. Warranty or defect correction service obligations to the consultant. Describe why it is mandatory to use this licensed or patented product or service.
- Existing LFUCG equipment, inventory, custom-built information system, custom-built data inventory system, or similar-products-or-programs. Describe. If product is off-the-shelf, list efforts to find other-vendors (i.e. web site search, contacting the manufacturer to see if other dealers are available to service this region, etc.)
- Uniqueness of the service. Describe.
- The LFUCG has established a standard for this manufacturer, supplier, or provider and there is only one vendor. **Attach documentation from manufacturer** to confirm that only one dealer provides the product.



JUSTIFICATION FOR SOLE SOURCE CERTIFICATION

Question #2 continued

- Factory-authorized warranty service available only from this single dealer. Sole availability at the location required. Describe.

- Used item with bargain price (describe what a new item would cost). Describe.

- Other – The above reasons are the most common and established causes for an eligible sole source. If you have a different reason, please describe:

3. Describe efforts to find other vendors or consultants (i.e. phone, inquires, web site search, contacting the manufacturer to see if other dealers are available to service region, etc.).

The original equipment manufacturer, Xylem, was contacted to identify local/regional factory authorized equipment/service providers. Xylem has provided a sole source letter identifying that Xylem Water Solutions USA, Inc. is the exclusive provider of Xylem Inc. (Flygt brand) Pump Products for the Kentucky municipal market, copy attached.

4. How was the price offered determined to be fair and reasonable?

(Explain what the basis was for comparison and include cost analyses as applicable.)

Price and condition(s) offered were determined to be fair and reasonable considering the indicated purchase price is approximately \$160,105.10 including freight. Labor costs for removal of existing pump, installation of new pump, start up and testing services is approximately \$13,448.00.

5. Describe any cost savings realized or costs avoided by acquiring the goods/services from this supplier.

Budget cost for a similar pump from another supplier was \$155,000.00.

A different manufacturers pump may have required modifications to existing pump supports and piping in order to accommodate a different pump configuration. A different manufacturers pump configurations may have modified suction and discharge piping effecting hydraulic performance, therefore reducing required design capacity of the pump station. The Lower Cane Run Pump Station consists of four (4) Flygt pumps, this pump is one of two (2) larger pumps. It is standard practice to have all pumps at a single pump station be of the same manufacturer. This is to insure standardization of parts and operation and maintenance procedures.



Xylem Water Solutions USA, Inc.
Flygt Products

November 20, 2019

1615 State Route 131
Milford, Ohio 45150
Tel 513/831-7867
Fax 513/831-7868

LEXINGTON FAYETTE URBAN
200 E MAIN ST
LEXINGTON KY 40507

Quote # 2019-CIN-0642
Re: Lower Cane Run

Xylem Water Solutions USA, Inc. is pleased to provide a quote for the following Flygt equipment.

3351

Qty	Part Number	Description
1	00335191500000	Flygt CP 3351, 63-850 , 670 mm Intended for semi permanent wet installation, guiding claw included other installation components to be ordered individually Cast iron impeller Coating: Duasolid 50, Oxyrane ester Drive Unit: 915 8 pole, 430 hp, 460 V, Approval: FM Ex Cooling jacket for direct media cooling Insulated support bearing Cables Power: 2 x 75ft SUBCAB screened S3x120 + 3x70/3 + 2S(2x0.5) Cable Grip included. Pilot: 75ft SUBCAB ctrl screened S 24x1.5 Cable Grip included. Material: Shaft: AISI 431 Stainless steel Supervision FLS, leakage detector, in junction box FLS, leakage detector, in stator housing PT-100 in one stator winding PT-100 in lower bearing Pump memory VIS 10, vibration sensor
1	40-50 11 42	BASE UNIT/PANEL ASSEMBLY MAS
1	14-69 95 16	TEST FAL 2.2 PLOTTED 3001-7000 FAL 15-900006
1	83 05 90	KIT,O-RING 9X5 C
1	83 05 73	KIT,O-RING C3351
1	379 71 01	RING,WEAR STATIONARY STEEL/NBR
1	556 60 02	SEAL,MECHANICAL WCCR/WCCR

3351 Price USD \$ 156,456.55

Installation

Qty	Part Number	Description
72	14-69 00 07A	LABOR,MOBILE FLYGT,NOTAX Z4-TP MODELS: 3000,7000,8000



Qty	Part Number	Description
1	TBD	Crane Truck Delivery

Installation Price USD \$ 13,448.00

Total Project Price \$ 169,904.55

Freight Charge \$ 3,648.55

Total Project Price \$ 173,553.10

Terms & Conditions

This order is subject to the Standard Terms and Conditions of Sale – Xylem Americas effective on the date the order is accepted which terms are available at <http://www.xylem.com/en-us/Pages/terms-conditions-of-sale.aspx> and incorporated herein by reference and made a part of the agreement between the parties.

Purchase Orders: Please make purchase orders out to: Xylem Water Solutions USA, Inc.

Freight Terms: 3 DAP - Delivered At Place 08 - Jobsite (per IncoTerms 2010)

See Freight Payment (Delivery Terms) below.

Taxes: State, local and other applicable taxes are not included in this quotation.

Back Charges: Buyer shall not make purchases nor shall Buyer incur any labor that would result in a back charge to Seller without prior written consent of an authorized employee of Seller.

Shortages: Xylem will not be responsible for apparent shipment shortages or damages incurred in shipment that are not reported within two weeks from delivery to the jobsite. Damages should be noted on the receiving slip and the truck driver advised of the damages. Please contact our office as soon as possible to report damages or shortages so that replacement items can be shipped and the appropriate claims made.

Taxes: State, local and other applicable taxes are not included in this quotation.

Terms of Delivery: Prepaid

Validity: This Quote is valid for thirty (30) days.

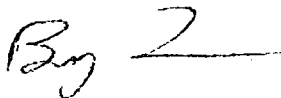
Terms of Payment: 100% N30 after invoice date.

Xylem's payment shall not be dependent upon Purchaser being paid by any third party unless Owner denies payment due to reasons solely attributable to items related to the equipment being provided by FLYGT.

Schedule: Delivery lead times are XX weeks after receipt of submittal approval and order acceptance.

Thank you for the opportunity to provide this quotation. Please contact us if there are any questions.

Sincerely,






Xylem Water Solutions USA, Inc.
Flygt Products

Customer Acceptance

This order is subject to the Standard Terms and Conditions of Sale – Xylem Americas effective on the date the order is accepted which terms are available at <http://www.xylem.com/en-us/Pages/terms-conditions-of-sale.aspx> and incorporated herein by reference and made a part of the agreement between the parties.

A signed copy of this Quote is acceptable as a binding contract.

Purchase Orders: Please make purchase orders out to: Xylem Water Solutions USA, Inc.

Quote #: 2019-CIN-0642
Customer Name: LEXINGTON FAYETTE URBAN
Job Name:
Total Amount: \$ 169,904.55
(excluding freight)

Signature: Linda Gorton

Name: Linda Gorton
(PLEASE PRINT)

Company/Utility: Lexington Fayette Urban
County Government
Address: 200 East Main Street
Lexington, KY

PO: _____
Date: 1/27/2020
Phone: (859) 258-3242 (Clerk)
Email: _____
Fax: _____



Bryan Thomas
Sales Representative

Cell: 513-310-4935
bryan.thomas@xyleminc.com





Bryan Thomas
Sales Representative

Xylem Inc.
1615 State Route 131
Milford, Oh 45150
Tel 513 831 7867
Fax 513 831 7868
Bryan.thomas@xyleminc.com

2019 Sole Source Letter

October 22, 2019

LFUCG

Attn: Dallas Taylor
PS Supervisor

Subject: Xylem Water Solutions USA, Inc.
Sole Source Letter

Dear Mr. Taylor:

This letter is to inform you that the Xylem Water Solutions USA, Inc. Cincinnati Branch is the exclusive provider and OEM (original equipment manufacturer) sole source of Xylem Inc. (Flygt brand, AC (Allis Chalmers) brand and Xylem, Inc. (Gould's brand) Pump Products, and Parts including Xylem, Inc. MJK brand and Xylem, Inc. Multitrode brand for Kentucky municipal market. We sell and service all Xylem, Inc. Flygt and A/C and Gould's brand equipment.

Your contact for routine inquiries is Bryan Thomas at (513) 310-4935, or you may contact our office inside sales and service staff for anything you need.

If I can be of any further assistance to you, please let me know.

Sincerely,

Bryan Thomas

Bryan Thomas

Rodney Chervus

From: Dallas Taylor
Sent: Wednesday, November 20, 2019 5:03 PM
To: Rodney Chervus
Subject: FW: RFP Documents for Purchase of Replacement Pump LCR Pump Station
Attachments: Quote Spec Doc with Appendix final - 11-1-19-Flygt Response (3).pdf; Lower Cane Run Bid.pdf

For your review

From: Thomas, Bryan - Xylem <bryan.thomas@xylem.com>
Sent: Wednesday, November 20, 2019 4:36 PM
To: Dallas Taylor <dtaylor@lexingtonky.gov>
Subject: FW: RFP Documents for Purchase of Replacement Pump LCR Pump Station

[EXTERNAL] Use caution before clicking links and/or opening attachments.

Hi Dallas,

Please see attached and my comments below and attached bid. Let me know if you need anything else

- 5.j Our Corrosion resistance tungsten carbide faces should supersede this sealing requirement described in this paragraph.
- 5.k Yes this paragraph require us to supply a FM approved pump.
- 5.l Flygt pump design is such that large solids cannot enter the cooling circuit.
- 5.n Yes they want shielded cable (75ft).

Execution:

- d. We recommend customer purchase factory witnessed or non-witnessed performance test. Input power, flow rate and head is difficult to measure in the field. (included in the bid)
- e. Drawdown test on such a large station is not easy to do. Again we recommend customer purchase factory performance test where everything can be measured with calibrated instruments and in a controlled environment.
- f. It is absolutely not possible to measure head or pressure in the field with a test tolerance of +/-0.01ft.

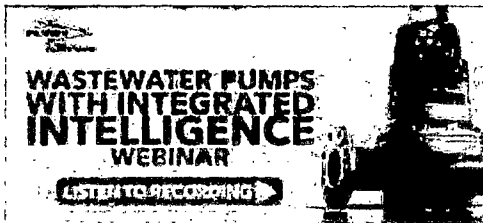
4 We are providing exact same hydraulic unit model with exact same mounting dimension. No need for any piping change. Our pump will just bolt on to the existing baseplate and elbow. We believe no permits will be required to do so as we will be doing this in house.

Permits and Codes:

Flygt pump will not be able to provide the permit, license, compliance certification or codes. Pump is manufactured to applicable codes and compliances.

Thank you

Bryan Thomas
Direct Sales Representative – Flygt
1615 State Route 131
Milford, OH 45150
Cell: 513-310-4935
Fax: 513-831-7868
Bryan.Thomas@Xyleminc.com



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Formal Quote Specifications
Dated November 11, 2019

**Solids Handling Submersible Sewage Pump Replacement Pump Number 1
for
Lower Cane Run Pump Station**

GENERAL

1. The successful Bidder shall replace the existing Vertical Dry Pit Sewage Pump Number 1 as specified within, for use in the Lower Cane Run Pump Station, which is owned and operated by the Lexington Fayette Urban County Government's Division of Water Quality.
2. A copy of this specification with each paragraph check marked to show specification compliance or marked to show deviations shall be provided to LFUCG. All exceptions must be clearly noted and detailed. The LFUCG reserves the right to disallow any bid due to exceptions.
3. It is recommended that each potential Bidder schedule a site visit to the Lower Cane Run Pump station to view and/or evaluate current installed equipment and identify work locations and/or conditions that may or may not have impact on bid submittal.
4. Included with Bid documents are original submittals, Shop Drawings, Certified Pump Curves, and Pump Test Results for the existing ITT Flygt Corporation, Type CT3351, 18X14, Submersible Solids Handling Pump, refer to Appendix A.

SCOPE OF SUPPLY AND INSTALLATION

1. Provide/supply new pump, appurtenances, factory pump and motor test records, remove existing pump, disconnect existing electrical power and control/instrumentation wiring, modify existing support/anchors and piping/fittings to accommodate installation of new pump, install new pump piping/fittings and appurtenances, reconnect existing electrical power and control/instrumentation wiring, adjustments and start-up, and perform pump field and acceptance testing for Vertical Dry Pit Sewage Pump Number 1, as specified.
2. The pump installer shall warranty installation of pump, piping, control wiring for a minimum period of 12 months from date of completed installation.
3. The Bidder shall coordinate delivery schedules for the pump/appurtenances, and mobilization for installation of pump/appurtenances with Pump Station Maintenance Supervisor Dallas Taylor at 859.425.2431 or dtaylor@lexingtonky.gov within two (2) weeks of delivery of the pump to the site and/or beginning mobilization for installation.

GENERAL REQUIREMENTS

1. Submersible Wastewater Solids Handling Pump must include:
 - a. Pump shall be centrifugal, non-clog submersible in design capable of running continuously in a permanent dry pit condition handling raw, unscreened sewage with significant solids.
 - b. The pumps shall meet the minimum requirements as to head, capacity, rpm, horsepower and efficiency as stated on the Pump Schedule in this section.
 - c. "T" Stand, the pump mounts in the vertical centrifugal dry pit configuration.

Specification Compliant: YES NO

2. The motor cooling system, plus design of the mechanized seals, shall enable the unit to operate at any load or completely dry, indefinitely, without damage. In addition, the motor cooling system shall allow the pump to be operated down to 30 percent of the nameplate speed without undue effects from heat generation.

Specification Compliant: YES NO

3. Pumps shall have a three – year non-prorated warranty which covers defects in materials and workmanship. This warranty covers parts, labor, and freight. A prorated warranty or a warranty of less than three years shall not be acceptable.

Specification Compliant: YES NO

4. Pumps shall be as manufactured by Flyght Corporation, KSB Inc., or approved equivalent.

Specification Compliant: YES NO

5. Pump Construction:

- a. Major pump components shall be of ASTM A48 Class 30B cast iron.
- b. All mating surfaces where watertight sealing is required shall be machined and fitted with nitrile rubber O-rings.
- c. Fasteners of brass and carbon steel are not acceptable.
- d. All external surfaces, other than stainless steel, shall be protected with a chloric rubber paint finish, factory applied epoxy finish, or approved equal.
- e. Pump shaft shall be ASTM A576 Gr 1045 carbon steel for maximum motor efficiency and minimum shaft deflection.

- f. The pump shaft shall be protected by an ASTM A 276 Type 420 shaft sleeve. The use of "bellows seals" shall not constitute in itself a sufficient means of isolating the pump shaft from the pumped media. If the shaft is not protected by a stainless steel shaft sleeve, the shaft shall be of at minimum AISI Type 420 or 431 stainless steel.
- g. The pump/motor shaft shall rotate on at minimum, two grease lubricated and adequately sized bearings with a B10 bearing life at a minimum 40,000 hours. Pump bearings shall be able to be regreased periodically externally to the pump, in accordance with the bearing manufacturer's recommendations or use of permanently greased bearings. To insure long pump/motor life, the motor manufacturer shall also submit certification that the pumps first critical speed exceed the motor design synchronous speed by at minimum, 120 percent.
- h. The pump casing shall be a single piece, non-concentric in design, having smooth passages. To insure maximum pump life and continuing high efficiencies, both the pump casing and impeller shall be supplied with sewage pump standard, replaceable, hard metal wearing-rings or impeller and insert rings shall be hardened to handle grit. Soft metals (bronze, 304 SS) or like materials with Brinell hardness ratings less than 220; or elastomers; are not compatible with the grit contaminate of sewage and therefore shall not be acceptable.
- i. The impeller shall be of ASTM A 48 cast iron and be statically and dynamically balanced. The impeller shall be of closed, non-clog solids handling design capable of handling at a minimum a three (3) inch spherical solid. The impeller shall be of sliding fit and secured to the pump shaft by an impeller key.
- j. Each pump shall be equipped with two (2) tandem mechanical seals, and two (2) rotary shaft seals operating independently. The upper mechanical seals shall operate in a pressure compensating oil chamber containing an ecologically safe, paraffin based oil and consist of a stationary ring of stainless steel or hard metal and a rotating ring of carbon. The lower mechanical seal shall be of bellows type over a shaft protecting sleeve of ASTM A 276 Type 420 stainless steel, and consist of two (2) rings both of tungsten or silicon carbide.
- k. The pump shall have a monitoring system to signal in case of seal leakage. The monitoring system shall consist of a stainless float operating in a separate seal leakage collection chamber, or the pumps shall utilize the resistance type sensor for moisture detection. Through the use of rotary shaft seals, no leakage past the upper mechanical seal shall be allowed to penetrate into the lower bearing assembly, but shall be directed and collected into a separate seal leakage chamber where leakage rates can be monitored and excesses drained. Pumps not incorporating features that eliminate seal leakages into the lower bearing upon upper mechanical seal failure are not acceptable.
The pump motor shall be squirrel cage, induction in design, housed in a completely watertight air-filled chamber and be suitable for Class I, Division I, Group C & D locations. The motor shall allow fifteen (15) starts per hour, and be protected from overheating by the use of two (2) completely independent sets of thermal sensors to monitor motor temperatures. One set being a positive backup in case of first set failure. These shall be used in conjunction with, and supplemental to, external motor overload protection and wired into the control panel. The motor shall be protected with a moisture resistant Class F insulation capable of resisting a temperature of 155 Degrees Celsius or Class H insulation for VFD systems.

- l. To insure the motor operates adequately, even during reduced speed operations, the motor shall be sized so that it is cooled by the use of cooling fins. If cooling systems are utilized, requiring cooling jackets circulating pumpage, both the pump and the cooling system shall be non-clog by virtue of both being able to pass significant solids.
- m. To insure maximum motor protection even in the event of an accident, the cable entry design shall insure that no entry of moisture internal to the pump or terminal board is possible even if the cable is damaged or severed below water level. Cable entry designs dealing only externally around the cable are not acceptable. Each cable lead shall be tripped to bare metal and solder bathed, then the entire cable end embedded in a non-shrinking epoxy resin. The double grommet arrangement for cable entry system is acceptable.
- n. The submersible pump cable shall be designed specifically for use with submersible pumps and shall be type SUBCAB (Submersible Cable). The cable shall be shielded, multi-conductor type with a chloroprene outer jacket and the tinned copper conductors insulated with ethylene-propylene rubber. The conductors shall be arranged in twisted pairs. The cable shall be rated for 600 Volts and 90°C (194°F) with a 40°C (104°F) ambient temperature and shall be approved by Factory Mutual (FM). The cable length shall be a minimum seventy-five (75) feet long or be adequate to reach the junction box without the need for splices.
- o. All stators shall incorporate thermal switches, in series, to monitor the temperature of each phase winding. Should high temperature occur the thermal switches shall open, stop the motor, and activate an alarm.
- p. A lower bearing temperatures sensor shall be provided. The sensor shall directly contact the outer race of the thrust bearing providing for accurate temperature monitoring.
- q. A leakage sensor shall be provided to detect water in the stator chamber. The Float Leakage Sensor (FLS), a small float switch, shall be used to detect the presence of water in the stator chamber. When activated, the FLS will stop the motor and activate an alarm. Use of voltage sensitive solid state sensors shall not be allowed.
- r. The thermal switches, FLS and the lower bearing temperature monitor shall be connected to a Control and Status (MAS) monitoring unit.

Specification Compliant: YES NO

6. Monitoring and Status Module (MAS) must include:

- a. Furnish and install a Control and Status (MAS) module to monitor the temperature and leakage detectors installed in each pump. The MAS unit shall be capable of monitoring various types of detectors including the float switch type for sensing water in the stator housing or the terminal board, the thermal switches embedded in the stator and coils, and a Pt-100 temperature sensor (100 ohm RTD, resistance temperature device). The MAS module shall be capable of monitoring up to four sensor channels independently, each on a separate two wire circuit. The four sensor channels shall function as follows: Channel A or B shall be used to detect a leakage condition using a float switch type sensor. Channel C shall be used to monitor the stator thermal switches. Channel D shall be used to monitor the

temperature of the lower (main bearing with a Pt 100) sensor. The MAS unit shall provide six separate output channels. Five of the outputs shall be solid state relay (diode/transistor) outputs, one for each input and one general alarm output. The sixth output shall be an interlocking (GO) relay dry contact which mirrors the function of the general alarm output. The A, B, C and output channels shall each change state independently upon occurrence of an abnormal condition detected by their respective sensors. The alarm output and the interlocking (GO) relay dry contact shall change state upon occurrence of any abnormal condition detected by any one or more of the channel A, B, C or D sensors. The outputs shall be utilized to communicate an abnormal condition to other control components in the pump control panel. In the case of an over temperature detected by the stator thermal switches of the Pt-100 bearing sensor, and in keeping with manufactures warranty policy, the pump shall be tripped off line. The MAS unit shall be powered by a 124 VAC supply and all of its solid state relay output circuits shall be powered by the same 24 VAC supply to prevent damage to the unit. The MAS unit shall contain screw terminals for making wiring connections and be suitable for mounting on a DIN rail or directly on the control panel back plate. Detailed technical data and technical wiring connections shall be found in the MAS Manual. The MAS unit shall be designed to be mounted in each VFD or Motor Starter Panel.

Specification Compliant: YES NO

EXECUTION

1. Pump Field Acceptance Tests must include:

- a. Following installation of the pumping equipment, and after inspection, testing and adjustment have been completed by the manufacturer's representative, the pump shall be given a running test in the presence of the Engineer. This test is to demonstrate the pumps ability to operate without vibration or over-heating, and to deliver its rated capacity under the specified conditions.

Specification Compliant: YES NO

- b. All adjustments necessary to place the equipment in satisfactory working order shall be made prior to the time of field acceptance tests.

Specification Compliant: YES NO

- c. During the field acceptance tests, observations shall be made of head, capacity, and motor input. All defects or defective equipment revealed by, or noted during, the tests and shall be corrected, or replaced, promptly at the expense of the Supplier/Installer, and if the Engineer deems it necessary, the tests shall be repeated until results acceptable to the Engineer are obtained. The Supplier/Installer shall furnish all labor necessary for conducting the tests.

Specification Compliant: YES NO

d. The field acceptance tests shall include measuring or determining the following items:

- i. Power input
- ii. Flow rate
- iii. Static head on the pump
- iv. Total head on the pump
- v. Correct pump rotation
- vi. Proper seating of all discharge connections

Specification Compliant: YES NO

e. Draw down test using the Pump Stations Wet Well will be performed. The existing Pump Station flow meter may not be used to determine the accuracy of the pump flow rate.

Specification Compliant: YES NO

f. The Supplier/Installer shall submit a pump field test form to the Engineer for approval prior to any field tests being conducted. The form shall provide all field measurements for the pump rate to be made within +0.01 feet. Readings on all instruments shall be made at two (2) minute intervals for the length of the test. The readings shall be averaged to calculate the power draw of the motor, the actual flow pumped, and the static and total dynamic head on the pumps.

Specification Compliant: YES NO

g. In the event the Supplier/Installer is unable to demonstrate to the satisfaction of the Engineer that the unit will satisfactorily perform the service required and that the pump will operate free from vibration and over-heating, the pumping units may be rejected. The Supplier/Installer shall then remove and replace the equipment at his own expense.

Specification Compliant: YES NO

SPARE PARTS

1. Provide one complete set of gaskets, wear rings, and mechanical seals for the pump to the Engineer.

Specification Compliant: YES NO

PUMP SCHEDULE

Capacity:	7,500 GPM/140 TDH
Maximum Motor Speed:	895 RPM
Motor Horse Power:	455 HP
Hydraulic Efficiency:	80 %
Type:	Submersible Centrifugal (Vertical Dry Pit)

SUBMITTALS

The Supplier shall submit the follow:

- 1. Detailed shop drawings for all equipment.

Specification Compliant: YES NO

- 2. Submission of certified shop and erection drawings and data regarding pump and motor characteristics and performance. The data shall include performance curves based on actual shop tests of pumping units which show that the units meet the specified requirements for head, capacity, efficiency, and horsepower for the capacities specified. Expect as hereinafter specified certified tests of mechanically duplicate units will be acceptable. Curves shall be submitted on 8-1/2-inch by 11-inch sheets. Serial numbers shall be listed on the curve sheet. Shop drawings for accessory equipment, piping and fittings shall also be submitted. Shop drawings for electrical equipment and systems furnished herein shall be provided as specified:

- a. Foundations, installation, grouting
- b. Services of the manufacturer's representative
- c. Operating and maintenance instructions and parts lists
- d. Lubricants
- e. Special tools
- f. Bolts, anchor bolts and nuts
- g. Electric motors
- h. Voltage rating of motors
- i. Equipment drive guards
- j. Nameplates
- k. Capacitors for motors

Specification Compliant: YES NO

- 3. Shop Drawings, descriptive literature and schedules on:

- a. Accessory equipment
- b. General specialties
- c. Water supply specialties
- d. Drainage specialties
- e. Insulation
- f. Valves
- g. Controls
- h. Instrumentation
- i. Piping
- j. Electrical

Specification Compliant: YES NO

- 4. Detailed Piping Drawings indicating modifications to existing piping to accommodate new pump.

Specification Compliant: YES NO

PERMITS AND CODES

1. The Bidder shall be responsible for obtaining all jurisdictional required permits for work of this type in Fayette County, Kentucky.

Specification Compliant: YES NO

2. The Bidder must be a licensed Mechanical Contractor in this jurisdiction.

Specification Compliant: YES NO

3. The Bidder shall ensure all work activities are performed in compliance with applicable OSHA and/or LFUCG Safety Policies and/or guidelines.

Specification Compliant: YES NO

4. The Bidder shall be responsible for complying with all codes mandated at the local, state, or federal level.

Specification Compliant: YES NO

PROPOSAL

Pump and accessories: \$160,105.10 (includes Freight)

Installation: \$13,448.00

DELIVERY AND INSTALLATION SCHEDULE

Pump and accessories: Weeks: 18 Weeks per ARO Including Submittals

Installation: Weeks: 3 Days

APPENDIX A

SHOP DRAWING REVIEW
 REVIEW IS FOR GENERAL COMPLIANCE
 WITH CONTRACT DOCUMENTS.
 NO RESPONSIBILITY IS ASSUMED FOR
 ACCURACY, COMPLETENESS OR
 CORRECTNESS OF DIMENSIONS OR DETAILS.

THE HENRY P. THOMPSON COMPANY
 4567 Knopp Avenue
 Louisville, Kentucky 40213
 (502) 363-0577

NO EXCEPTIONS TAKEN	
MAKE CORRECTIONS NOTED	<input checked="" type="checkbox"/>
AMEND & RESUBMIT	
REJECTED-SEE REMARKS	

Material and Equipment Furnished and Installed
 under this Contract must meet the specifications,
 unless modified by written change order.

PARROTT, ELY AND HURT
 CONSULTING ENGINEERS, INC.

DATE: 7-7-93
 Date: 7/23/93 By: *Michael Davis*

FLYGT SUBMITTAL

BY: Virginia O'Connor

You must return two (2) copies of the approved submittals to
 The Henry P. Thompson Company before shipment can be made.

*see attachment
 for review
 comments*

JOB: Coldstream/Lower Cane Run ENGINEER: Parrott Ely & Hurt

CONTRACTOR: Judy Construction Co.

EQUIPMENT- Section 11311 - Sewage Pumps

- QUANTITY: Two (2)
- SIZE: 14" x 18"
- * MODEL: CT3351
- * HP: 455
- * VOLTAGE: 460
- PHASE: 3
- IMPELLER: 850
- DESIGN POINT: 7500 GPM @ 140' TDH
 12000 GPM @ 95' TDH
- POWER CABLE: 50 FT/Pump
- LIFTING CABLE: N/A

*Eng: Please Verify **

NOTE: Please check electrical characteristics. Flygt Corp. cannot
 accept responsibility for incorrect voltage, cycles, or phase selection.
 Verify electrical cable length. HPT/Flygt cannot accept responsibility
 for cable length verification.

JUDY CONSTRUCTION CO.
 PO Box 457
 Cynthia, KY 40301

Spare Parts:

- 1 - Impeller
- 2 - Seals (Upper and Lower)
- 3 - Bearings (Upper and Lower)
- 1 - Rotor/Shaft Unit
- 1 - O-ring Kit
- 1 - Impeller Puller

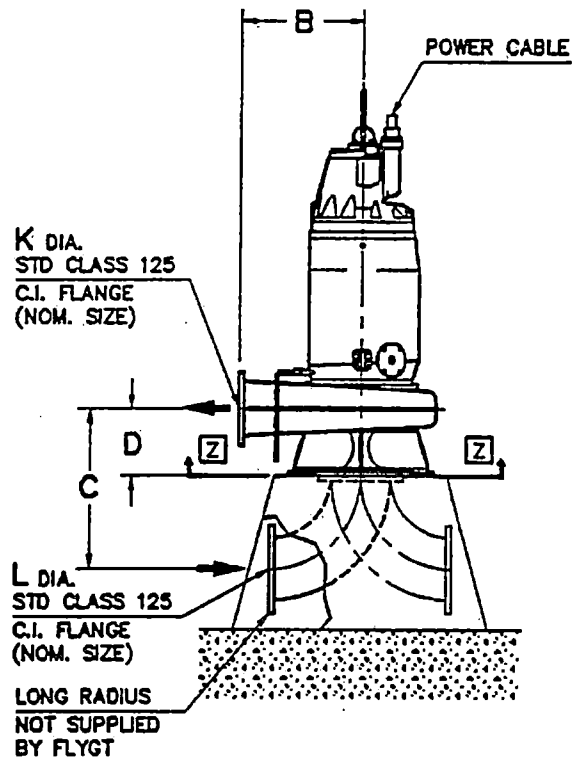
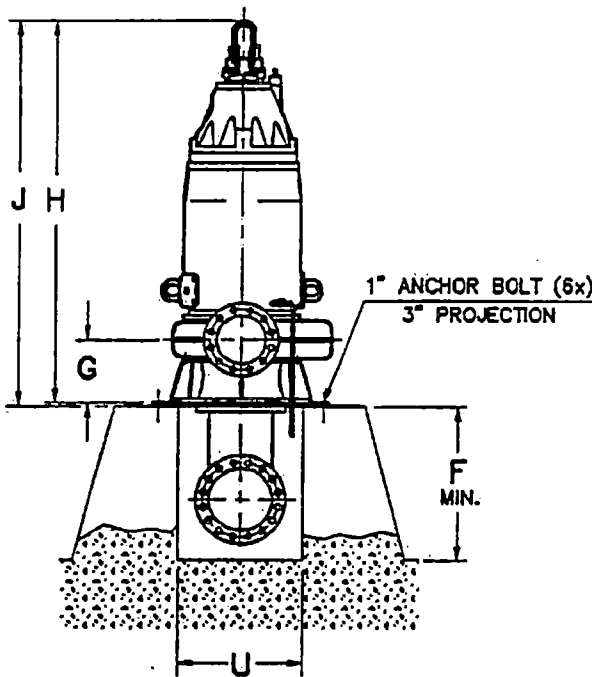
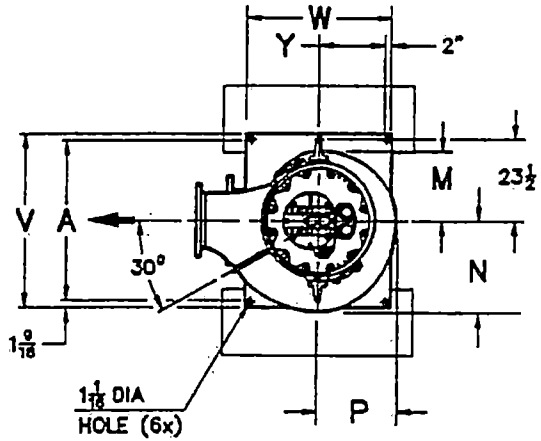
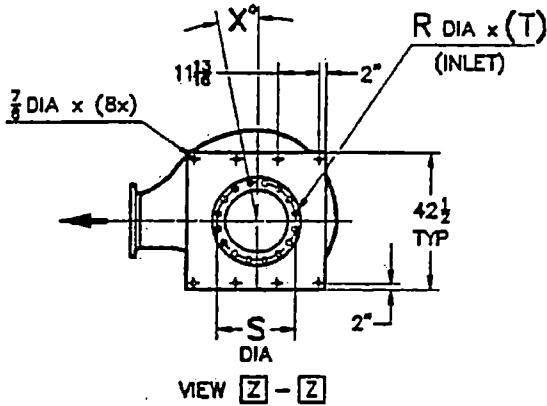
"Certification Statement: By this submittal, I hereby represent
 that I have determined and verified all field measure-
 ments, field conditions, criteria, and dimensions,
 catalog numbers, and specifications. I have checked and
 coordinated all drawings and specifications, I have reviewed shop
 drawings and all contract requirements."

Date: *July 9, 1993*
 By: *ED*

SECTION	PAGE
4	2
ISSUED	12/91

CT-3351

Outline Dimensions



NOTE

PUMP CAN BE ROTATED ABOUT ITS VERTICAL CENTER LINE TO (2) POSITIONS RELATIVE TO THE INLET ELBOW. INCREMENTS ARE 180°.

NOM. SIZE DIA. (K x L)	DRIVE UNIT	MOTOR	WEIGHT (LBS.)	
			TOTAL	W/STAND
14" x 18"	905	68-46-XX	9,900	
14" x 18"	905	68-56-XX	10,400	
14" x 18"	935	66-66-XX	11,500	
14" x 18"	935	66-78-XX	11,900	

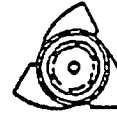
ALL DIMENSIONS IN INCHES

NOM. SIZE DIA. (K x L)	DRIVE UNIT	DIMENSIONAL CHART																				
		A	B	C	D	F	G	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y
14" x 18"	905	46	35	40	19	44	18	109	110	14	18	19	25	22	1	22	16	39	49	42	11	19
14" x 18"	935	40	35	40	19	44	18	117	118	14	18	19	25	22	1	22	16	39	49	42	11	19

C-3351

IMPELLER PERFORMANCE CURVES

WASTEWATER



SECTION	PAGE
3	2
SUPERSEDES	ISSUED
2/88	12/91

IMPELLER CODE
850
3 VANE IMPELLER

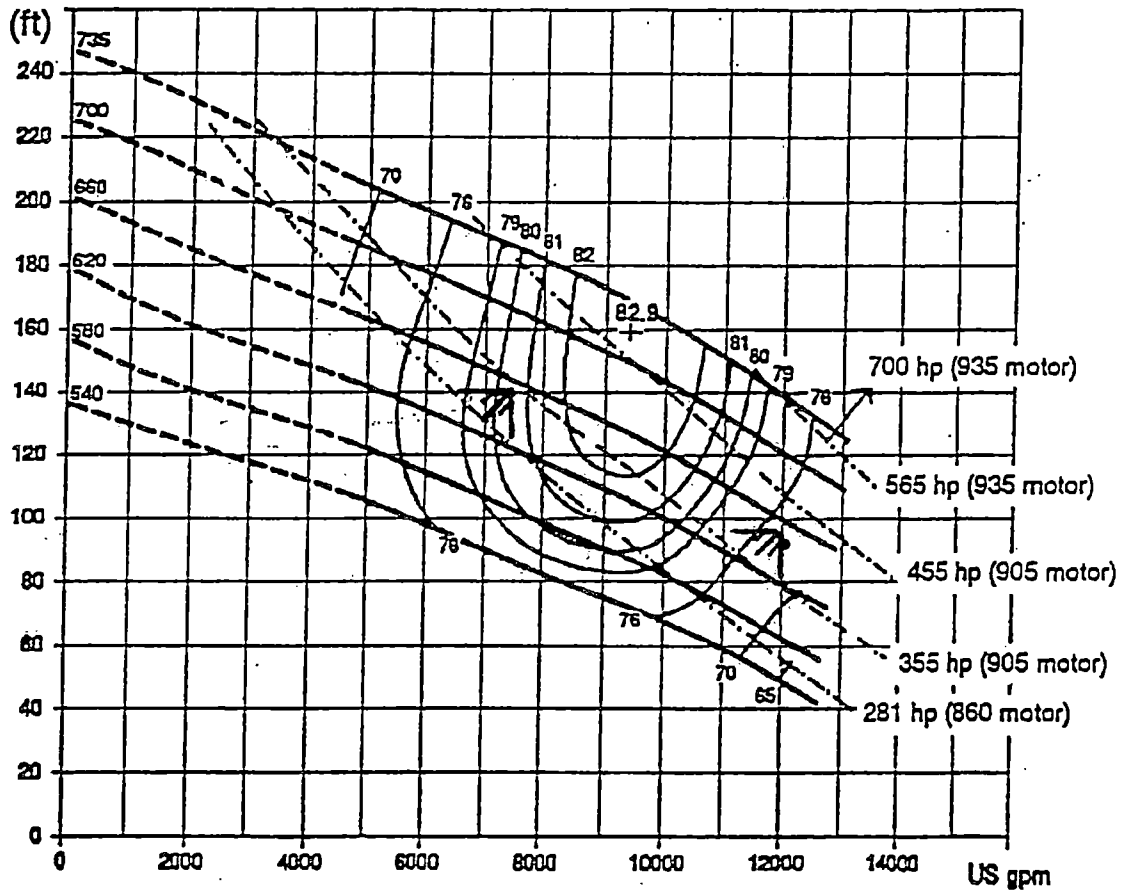
CAUTION:

DO NOT SELECT A DUTY POINT ON THE DASHED PORTION OF A PERFORMANCE CURVE. INTERMITTENT OPERATION (SHORT PERIODS) IS ACCEPTABLE HOWEVER.

FOR AN INDIVIDUAL PERFORMANCE GUARANTEE CURVE, CONTACT YOUR LOCAL ITT FLYGT REPRESENTATIVE.

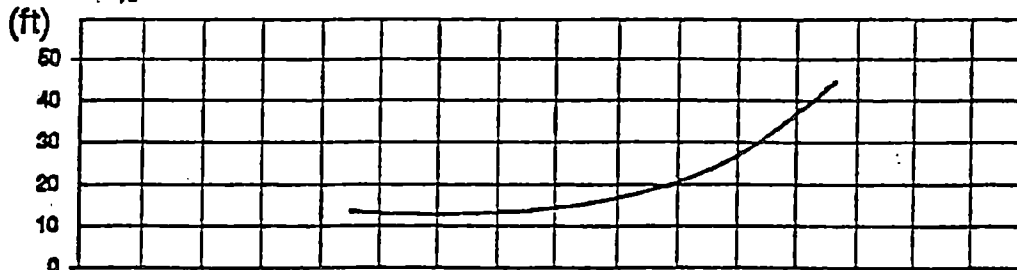
(-) HYDRAULIC END EFFICIENCY (%) AND (- -) POWER LIMITS

HEAD



FLOW

NPSH_{re}



C-3351

SECTION	MODEL
6	3351
SUPERSEDES	ISSUED
	12/91

Electrical Data

MOTOR DATA

RATED OUTPUT POWER HP (KW)	MOTOR DRIVE UNIT	Ø	VOLTS NOM.	FULL LOAD AMPS	LOCKED ROTOR AMPS	LOCKED ROTOR KYA	LOCKED ROTOR CODE LETTER KYA/HP	RATED INPUT POWER KW	POLES/RPM
281 (210)	860	3	460 575	350.0 280.0	2865 2292	2157 1726	G	226	8/890
355 (265)	905	3	460 575	415.0 332.0	2545 2036	2028	G	277	8/895
455 (339)	905	3	460 575	525.0 428.0	3080 2454	2454	F	354	8/895
525 (391)	905	3	575	475	2670	2659	F	410	6/1195

Pump Motor HP	EFFICIENCY			POWER FACTOR		
	100% LOAD	75% LOAD	50% LOAD	100% LOAD	75% LOAD	50% LOAD
281	93.0	93.0	91.5	0.81	0.76	0.66
355	95.5	95.5	95.0	0.84	0.80	0.71
455	95.5	96.0	95.5	0.84	0.81	0.73
525	95.0	95.0	94.5	0.86	0.84	0.76

CABLE DATA

HP	VOLTS	MAX. LENGTH FT.	CABLE SIZE	NOMINAL DIA.	CONDUCTORS (IN ONE CABLE)
281	460 575	460 720	(2) #4 G 70	47mm (1.85")	(3) 70 (PWR) (1) 70 (GND)
355	575	845			
355	460	760	(2) #4 G 95	56mm (2.2")	(3) 95 (PWR) (1) 95 (GND)
455	575	880			
455	460	720	(2) #4 G 120	58mm (2.3")	(3) 120 (PWR) (1) 120 (GND)
525	575	970			
281,355,455,525	Pilot Cable		(1) #7 G 1.5	16mm (0.63")	(6) 1.5 (CTRL) (1) 1.5 (GND)

ITT A-C Pump

A Unit of ITT Corporation

ACTUAL PUMP TEST RESULTS (DASP - Version 2.17)

ORDER INFORMATION

Order: 7-5211-74813-02-13
Customer: ITT FLYGT CORP.
Curve: B74813-02-13-2
Test Date: Feb 03, 1994

PUMP SPECIFICATIONS

Size and Type: 18X14, CT3351
Impeller: 26.400 in.
Spec Grav.: 1.000, Visc. 32.0 SSU

RATING

7500 GPM, 147 Feet, 895 RPM

TEST SETUP

Type: Performance test
Location: Large test rig #1
Suction Pipe Diameter: 18.00 in.
Discharge Pipe Diameter: 14.00 in.
Suction Gage Elevation: -1.60 ft.
Discharge Gage Elevation: 0.00 ft.
Gear Box Ratio: Not Used
Wattmeter Constant: 1000
Ammeter Constant: 100

DRIVER INFORMATION

Type: Job Motor
Rated HP: 455.0, Full Load HP: 455.0
Motor Efficiencies:
1/8 Load: 87.7% 1/2 Load: 95.5%
1/4 Load: 93.3% 3/4 Load: 96.0%
3/8 Load: 94.7% Full Load: 95.5%
(Based on Rated HP)
VFD: Not used

TRANSDUCERS

Flowmeter: I-002, 14"
Voltmeter: I-203
Ammeter: I-205
Wattmeter: I-206
Tachometer: I-365
Torquemeter: Not used
Abs. Pressure: I-359
Diff. Pressure: I-357
Atm. Pressure: I-363

RAW TEST DATA (S.G.=1, Viscosity=32 SSU)

Flow Rate (GPM)	Suct. Head (Ft)	Diff. Head (Ft)	Vel. Head (Ft)	Total Head (Ft)	Power Input (watts)	Total Power (BHP)	Pump Eff. (%)	Shaft Speed (RPM)	NPSH Req'd (Ft)	NPSH Avail. (Ft)	Test Time (hh:mm)
61	41.4	203.5	0.00	203.5	149	189.26	1.6	895		38.9	09:07
2437	42.0	185.8	0.33	186.2	188	240.58	47.6	895		39.7	09:08
4889	40.9	168.8	1.33	170.1	228	292.57	71.8	895		39.1	09:10
7323	39.0	148.7	2.98	151.7	270	347.92	80.6	895		38.2	09:11
7522	38.8	147.1	3.14	150.3	274	352.30	81.0	895		38.1	09:11
9737	36.1	124.9	5.26	130.2	303	389.68	82.2	895		36.6	09:12
11722	33.4	99.4	7.63	107.0	326	418.93	75.6	895		35.2	09:13
11953	33.0	93.5	7.93	101.5	330	423.67	72.3	895		35.1	09:14

TEST DATA WITH NO CORRECTIONS

Flow Rate (GPM)	Suct. Head (Ft)	Diff. Head (Ft)	Vel. Head (Ft)	Total Head (Ft)	Power Input (watts)	Total Power (BHP)	Pump Eff. (%)	Shaft Speed (RPM)	NPSH Req'd (Ft)	NPSH Avail. (Ft)	Test Time (hh:mm)
61				203.5		189.26	1.6			38.9	09:07
2437				186.2		240.58	47.6			39.7	09:08
4889				170.1		292.57	71.8			39.1	09:10
7323				151.7		347.92	80.6			38.2	09:11
7522				150.3		352.30	81.0			38.1	09:11
9737				130.2		389.68	82.2			36.6	09:12
11722				107.0		418.93	75.6			35.2	09:13
11953				101.5		423.67	72.3			35.1	09:14

ITT A-C Pump

A unit of ITT Corporation

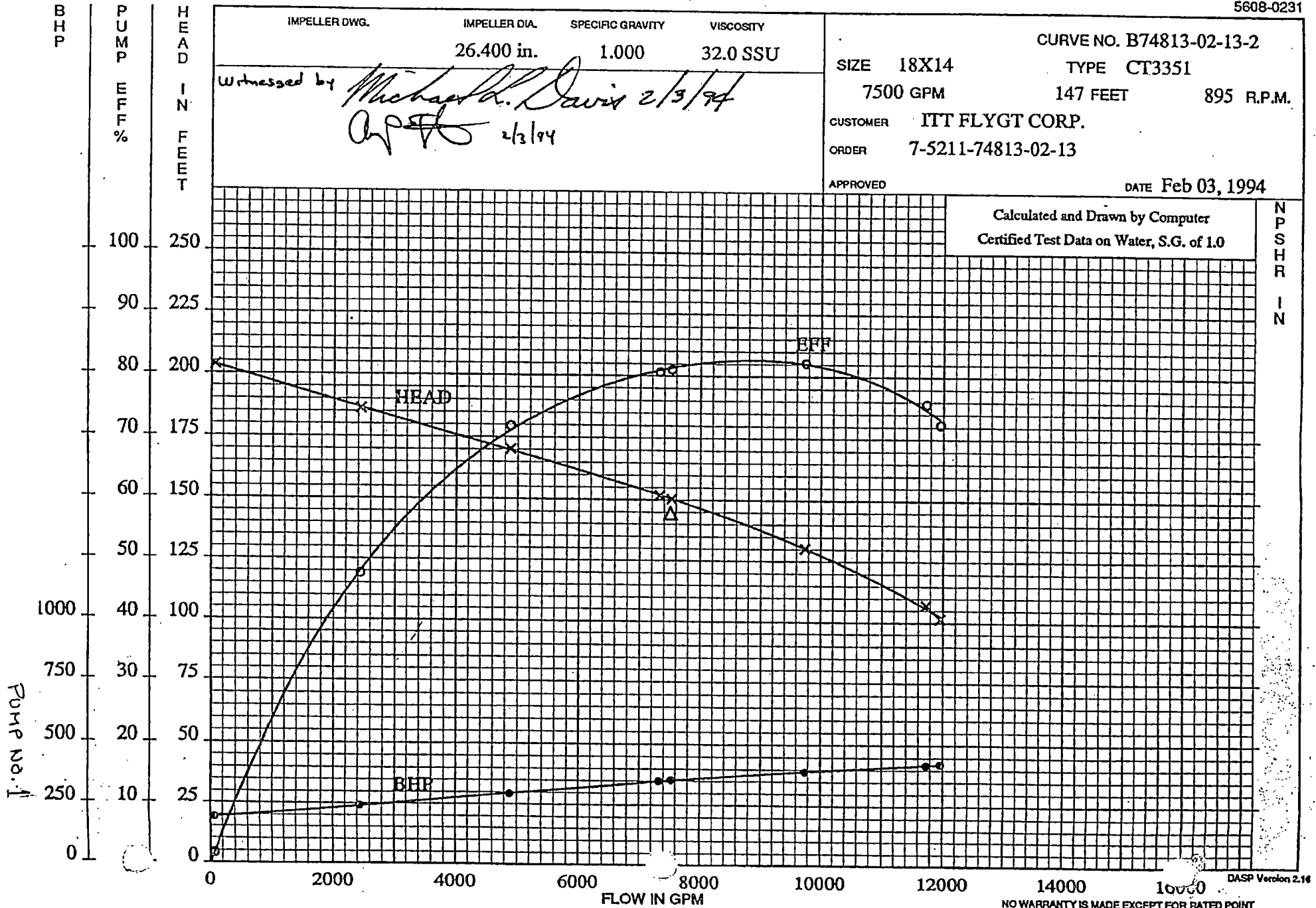
5608-0231

DTP-F3

IMPELLER DWG.	IMPELLER DIA.	SPECIFIC GRAVITY	VISCOSITY	SIZE	CURVE NO. B74813-02-13-2
	26.400 in.	1.000	32.0 SSU	18X14	TYPE CT3351
Witnessed by <i>Michael D. Davis 2/3/94</i> <i>[Signature]</i> 2/3/94				7500 GPM	147 FEET 895 R.P.M.
				CUSTOMER	ITT FLYGT CORP.
				ORDER	7-5211-74813-02-13
				APPROVED	DATE Feb 03, 1994

Calculated and Drawn by Computer
Certified Test Data on Water, S.G. of 1.0

N
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S
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LaDonna Roberts

From: Michael Cravens
Sent: Thursday, December 12, 2019 2:42 PM
To: Commissioner EQ PW Exec Asst
Cc: Nancy Albright; LaDonna Roberts
Subject: RE: Law Review: Sole Source Replacement Pump #1 Lower Cane Run Pump Station

I have reviewed this request for a resolution authorizing the Division of Water Quality, on behalf of the Urban County Government, to purchase a Flygt Products replacement pump for the Lower Cane Run pump station, from Xylem Water Solutions USA, Inc., a sole source provider, at a cost not to exceed \$173,553.10.

No legal issues. OK to bluesheet.

Michael Cravens
Attorney Senior
Department of Law

859.258.3500
MCravens@lexingtonky.gov
lexingtonky.gov



NOTICE OF CONFIDENTIALITY

This message is intended only for the use of the individual or entity to which it is addressed and may contain confidential information that is legally privileged and exempt from disclosure under applicable law, including but not limited to, Kentucky Rule of Evidence 503. Any legal opinion provided in this electronic mail transmission is provided in the course of my legal representation of the Lexington-Fayette Urban County Government and should not be disseminated to the public. If the reader of this message is not the intended recipient, you are notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, delete it from your system without copying or forwarding it, and notify the sender of the error by replying via e-mail or by calling the Department of Law at (859) 258-3500, so that our address record can be corrected. Thank you.

From: Commissioner EQ PW Exec Asst <commeqpwea@lexingtonky.gov>
Sent: Thursday, December 12, 2019 10:24 AM
To: Susan Speckert <sspeckert@lexingtonky.gov>; Michael Cravens <mcravens@lexingtonky.gov>
Cc: Nancy Albright <nalbright@lexingtonky.gov>; LaDonna Roberts <lroberts@lexingtonky.gov>
Subject: FW: Law Review: Sole Source Replacement Pump #1 Lower Cane Run Pump Station

Susan, please assign for review by Law prior to input in Legistar.

Thank you,

Sandra Sue Burke
Executive Assistant to Nancy Albright
Commissioner, Department of Environmental Quality & Public Works

859.258.3401 office
859.684.3493 cell
lexingtonky.gov



From: LaDonna Roberts
Sent: Wednesday, December 11, 2019 4:27 PM
To: Commissioner EQ PW Exec Asst <commeqpw@lexingtonky.gov>
Cc: Nancy Albright <nalbright@lexingtonky.gov>
Subject: Law Review: Sole Source Replacement Pump #1 Lower Cane Run Pump Station

Sandy,

Please send the attached documents to law for review.

Thank you,

LaDonna Roberts
Administrative Specialist
Division of Water Quality

859.258.3362 office
lexingtonky.gov



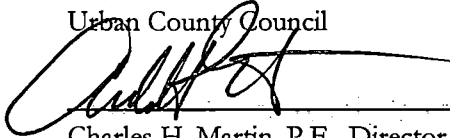
MAYOR LINDA GORTON



LEXINGTON

CHARLES H. MARTIN, P.E.
DIRECTOR
WATER QUALITY

To: Mayor Linda Gorton
Urban County Council

From: 
Charles H. Martin, P.E., Director
Division of Water Quality

Date: December 5, 2019

Subject: Sole Source Replacement – Pump #1 at the Lower Cane Run Pump Station

Request

The purpose of this memorandum is to request approval for the sole source purchase of a replacement pump at the Lower Cane Run (LCR) pump station. Xylem Water Solutions USA, Inc. is the sole source provider for Flygt brand pump products in the Lexington municipal market.

Purpose of Request

The LCR pump station is equipped with four existing Flygt pumps. Recently pump #1 failed. That pump has been in service for twenty-five (25) years and after consultation with the manufacturer's representative, it was determined that replacement was more cost effective than repair. More specifically, the cost of repairing the pump would be at least fifty (50) percent of the cost of a new pump and would not include a warranty. A new pump has been offered at a reduced rate which will include a five (5) year warranty.

Replacing the current pump with one from another manufacturer would require modifications to existing pump supports and piping. These modifications would not only increase project costs but also impact hydraulic performance of the station, potentially reducing the design capacity of the pump station.

Project Cost in FY20 and in Future Budget Years

The quoted cost of the new pump is \$173,553.10. Future maintenance costs are part of the division's annual operating budget.

Are Funds Budgeted - Yes

4003 303408 3466 92811 Bud Ref: 2014 LCRWWSTNK_2014 CONSENT_DE

Director/Commissioner: Martin/Albright

