State of New Mexico
General Services Department
Purchasing Division

Price Agreement Amendment

Awarded Vendor:
0000018187
Smith & Loveless, Inc.
14040 Santa Fe Trail Dr.
Lenexa, KS 66215
Email: atabb@smithandloveless.com
Telephone No. (913) 888-5201

Number**: 80-516-18-05494**

Amendment No.**: Three**

Term**: April 5, 2018 – April 4, 2022**

Ship To:
New Mexico Department of Game and Fish
Los Ojos Fish Hatchery
29 Hatchery Rd.
Los Ojos, NM 87551

Invoice:
New Mexico Department of Game and Fish
Fisheries Management Division
1 Wildlife Way
Santa Fe, NM 87507

For questions regarding this contract please contact:
Raymond Gunter (505) 476-8079

Procurement Specialist**: Mark Lujan**

Telephone No**.: (505) 827-0564**

Email: **Mark.Lujan@state.nm.us**

Title**: Wet Well Mounted Pump Station with Three Non-Clog**

This amendment is to be attached to the respective Price Agreement and become a part thereof.

In accordance with Price Agreement provisions, and by mutual agreement of all parties, this Price Agreement is extended from April 5, 2021 to April 4, 2022 at the same price, terms and conditions.

Except as modified by this amendment, the provisions of the Price Agreement shall remain in full force and effect.

Accepted for the State of New Mexico

Valerie Paulk

Date: 2/19/2021

Mark Hayden, New Mexico State Purchasing Agent

x **This Amendment was signed on behalf of the State Purchasing Agent**

MS

GSD/PD (Rev. 04/19)

State of New Mexico
General Services Department
Purchasing Division

Price Agreement Amendment

Awarded Vendor
0000018187
Smith & Loveless, Inc.
14040 Santa Fe Trail Dr.
Lenexa, KS 66215
Email: atabb@smithandloveless.com
Telephone No. (913) 888-5201

Price Agreement Number: **80-516-18-05494**

Price Agreement Amendment No.: **Two**

Term: **April 5, 2018 – April 4, 2021**

Ship To:
New Mexico Department of Game and Fish
Los Ojos Fish Hatchery
29 Hatchery Rd.
Los Ojos, NM 87551

Invoice:
New Mexico Department of Game and Fish
Fisheries Management Division
1 Wildlife Way
Santa Fe, NM 87507

For questions regarding this Price Agreement please contact:
Raymond Gunter (505) 476-8079

Procurement Specialist: **Mark Lujan**

Telephone No.: **(505) 827-0564**

Email: **Mark.Lujan@state.nm.us**

Title: **Wet Well Mounted Pump Station with Three Non-Clog Pumps**

This Price Agreement Amendment is to be attached to the respective Price Agreement and become a part thereof.

In accordance with Price Agreement provisions, and by mutual agreement of all parties, this Price Agreement is extended from April 5, 2020 to April 4, 2021 at the same price, terms and conditions.

This amendment is also issued to reflect the following effective immediately:

Update vendor information

From: 0000129118	**To: 0000018187**
Smith & Loveless, Inc.	**Smith & Loveless, Inc.**

Except as modified by this amendment, the provisions of the Price Agreement shall remain in full force and effect.

Accepted for the State of New Mexico

Mark Hayden, New Mexico State Purchasing Agent

Date: 03/04/20

GSD/PD (Rev. 01/11)

State of New Mexico
General Services Department
Purchasing Division

Price Agreement Amendment

Awarded Vendor **0000129118** **Smith & Loveless, Inc.** **14040 Santa Fe Trail Dr.** **Lenexa, KS 66215** **Telephone No. (913) 888-5201**

Price Agreement Number: **80-516-18-05494**

Price Agreement Amendment No.: **One**

Term: **April 5, 2018 – April 4, 2020**

Ship To: **New Mexico Dept. Game and Fish** **Los Ojos Fish Hatchery** **29 Hatchery Rd** **Los Ojos, NM 87551**
Invoice: **New Mexico Dept. Game and Fish** **Fisheries Management Division** **1 Wildlife Way** **Santa Fe, NM 87507**
For questions regarding this Price Agreement please contact: **Raymond Gunter (505) 476-8079**

Procurement Specialist: Mark Lujan

Telephone No.: (505) 827-0564

Email: Mark.Lujan@state.nm.us

Title: **Wet Well Mounted Pump Station with Three Non-Clog Pumps**

This Price Agreement Amendment is to be attached to the respective Price Agreement and become a part thereof.

In accordance with Price Agreement provisions, and by mutual agreement of all parties, this Price Agreement is extended from April 5, 2019 to April 4, 2020 at the same price, terms and conditions.

Except as modified by this amendment; the provisions of the Price Agreement shall remain in full force and effect.

Accepted for the State of New Mexico

Acting Director, State Purchasing Division

Date: 03/06/19

ML

State of New Mexico
General Services Department

Price Agreement

Awarded Vendor
Smith & Loveless, Inc.
14040 Santa Fe Trail Dr
Lenexa, KS 66215

Telephone No. (913) 888-5201

Price Agreement Number: **80-516-18-05494**

Payment Terms: **Net 30**

F.O.B.: **Destination**

Delivery: **As Requested**

Ship To:
New Mexico Dept. Game and Fish
Los Ojos Fish Hatchery
29 Hatchery Rd
Los Ojos, NM 87551

Invoice:
New Mexico Dept. Game and Fish
Fisheries Management Division
1 Wildlife Way
Santa Fe, NM 87507

For questions regarding this contract please contact:
Raymond Gunter (505) 476-8079

Procurement Specialist: **Mark Lujan**

Telephone No.: (505) 827-0564

Title: **Wet Well Mounted Pump Station with Three Non-Clog Pumps**

Term: **April 5, 2018 - April 4, 2019**

This Price Agreement is made subject to the "terms and conditions" shown on the reverse side of this page, and as indicated in this Price Agreement.

Accepted for the State of New Mexico

New Mexico State Purchasing Agent

Date: 04/05/2018

Terms and Conditions

(Unless otherwise specified)

1. **General:** When the State Purchasing Agent or his/her designee issues a purchase document in response to the Vendor's bid, a binding contract is created.

2. **Variation in Quantity:** No variation in the quantity of any item called for by this order will be accepted unless such variation has been caused by conditions of loading, shipping, packing or allowances in manufacturing process and then only to the extent, if any, specified in this order.

3. **Assignment:**

a. Neither the order, nor any interest therein, nor any claim thereunder, shall be assigned or transferred by the Vendor, except as set forth in Subparagraph 3b or as expressly authorized in writing by the State Purchasing Agent or his/her designee. No such assignment or transfer shall relieve the Vendor from the obligations and liabilities under this order.

b. Vendor agrees that any and all claims for overcharge resulting from antitrust violations which are borne by the State as to goods, services, and materials purchased in connection with this bid are hereby assigned to the State.

4. **State Furnished Property:** State furnished property shall be returned to the State upon request in the same condition as received except for ordinary wear, tear and modifications ordered hereunder.

5. **Discounts:** Prompt payment discounts will not be considered in computing the low bid. Discounts for payment within twenty (20) days will be considered after the award of the contract. Discounted time will be computed from the date of receipt of the merchandise invoice, whichever is later.

6. **Inspection:** Final inspection and acceptance will be made at the destination. Supplies rejected at the destination for nonconformance with specifications shall be removed at the Vendor's risk and expense, promptly after notice of rejection.

7. **Inspection of Plant:** The State Purchasing Agent or his/her designee may inspect, at any reasonable time, the part of the Contractor's, or any subcontractor's plant or place of business, which is related to the performance of this contract.

8. **Commercial Warranty:** The Vendor agrees that the supplies or services furnished under this order shall be covered by the most favorable commercial warranties the Vendor gives for such to any customer for such supplies or services. The rights and remedies provided herein shall extend to the State and are in addition to and do not limit any rights afforded to the State by any other clause of this order. **Vendor agrees not to disclaim warranties of fitness for a particular purpose of merchantability.**

9. **Taxes:** The unit price shall exclude all state taxes.

10. **Packing, Shipping and Invoicing:**

a. The State's purchasing document number and the Vendor's name, user's name and location shall be shown on each packing and delivery ticket, package, bill of lading and other correspondence in connection with the shipments. The user's count will be accepted by the Vendor as final and conclusive on all shipments not accompanied by a packing ticket.

b. The Vendor's invoice shall be submitted duly certified and shall contain the following information: order number, description of supplies or services, quantities, unit price and extended totals. Separate invoices shall be rendered for each and every complete shipment.

c. Invoices must be submitted to the using agency and NOT the State Purchasing Agent.

11. **Default:** The State reserves the right to cancel all or any part of this order without cost to the State, if the Vendor fails to meet the provisions of this order and, except as otherwise provided herein, to hold the Vendor liable for any excess cost occasioned by the State due to the Vendor's default. The Vendor shall not be liable for any excess costs if failure to perform the order arises out of causes beyond the control and without the fault or negligence of the Vendor, such causes include but are not restricted to, acts of God or the public enemy, acts of the State or Federal Government,

fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather and defaults of subcontractors due to any of the above, unless the State shall determine that the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Vendor to meet the required delivery scheduled. The rights of the State provided in this paragraph shall not be exclusive and are in addition to any other rights now being provided by law or under this order.

12. **Non-Collusion:** In signing this bid the Vendor certifies he/she has not, either directly or indirectly, entered into action in restraint of free competitive bidding in connection with this offer submitted to the State Purchasing Agent or his/her designee.

13. **Nondiscrimination:** Vendor doing business with the State of New Mexico must be in compliance with the Federal Civil Rights Act of 1964 and Title VII of the Act (Rev. 1979) and the Americans with Disabilities Act of 1990 (Public Law 101-336).

14. **The Procurement Code:** Sections 13-1-28 through 13-1-199 NMSA 1978, imposes civil and criminal penalties for its violation. In addition the New Mexico criminal statutes impose felony penalties for bribes, gratuities and kickbacks.

15. **Items:** All bid items are to be NEW and of most current production, unless otherwise specified.

16. **Payment for Purchases:** Except as otherwise agreed to: late payment charges may be assessed against the user state agency in the amount and under the conditions set forth in Section 13-1-158 NMSA 1978.

17. **Workers' Compensation:** The Contractor agrees to comply with state laws and rules pertaining to Workers' Compensation benefits for its employees. If the Contractor fails to comply with Workers' Compensation Act and applicable rules when required to do so, this Agreement may be terminated by the contracting agency.

18. **Submission of Bid:** Bids must be submitted in a sealed envelope with the bid number and opening date clearly indicated on the bottom left hand side of the front of the envelope. Failure to label bid envelope will necessitate the premature opening of the bid in order to identify the bid number.

19. **Contractor Personnel**: Personnel proposed in the Contractor's written bid to the Procuring Agency are considered material to any work performed under this Price Agreement. Once a Purchase Order or contract has been executed, no changes of personnel will be made by the Contractor without prior written consent of the Procuring Agency. Replacement of any Contractor personnel, if approved, shall be with personnel of equal ability, experience, and qualifications. The Contractor will be responsible for any expenses incurred in familiarizing the replacement personnel to insure their being productive to the project immediately upon receiving assignments. Approval of replacement personnel shall not be unreasonably withheld. The Procuring Agency shall retain the right to request the removal of any of the Contractor's personnel at any time.

20. **Subcontracting:** The Contractor shall not subcontract any portion of the Price Agreement without the prior written approval of the Procuring Agency. No such subcontracting shall relieve the Contractor from its obligations and liabilities under this Price Agreement, nor shall any subcontracting obligate payment from the Agency.

21. **Records and Audit:** The Contractor shall maintain detailed time and expenditure records that indicate the date, time, nature, and cost of services rendered during this Price Agreement's term and effect, and retain them for a period of three (3) years from the date of final payment under this Price Agreement. The records shall be subject to inspection by the Agency, State Purchasing Division, Department of Finance and Administration, and for Information Technology contracts, State Chief Information Officer. The Agency shall have the right to audit billings, both before and after payment. Payment for services under this Price Agreement shall not foreclose the right of the Agency to recover excessive or illegal payments.

22. **Subcontracts:** The foregoing requirements for Contractor Personnel, Subcontracting, and Audit shall be inserted into all subcontracts from the prime contractor to the subcontractor.

New Mexico Employees Health Coverage

A. If Contractor has, or grows to, six (6) or more employees who work, or who are expected to work, an average of at least 20 hours per week over a six (6) month period during the term of the contract, Contractor certifies, by signing this agreement, to have in place, and agrees to maintain for the term of the contract, health insurance for its New Mexico Employees and offer that health insurance to its New Mexico Employees if the expected annual value in the aggregate of any and all contracts between Contractor and the State exceeds $250,000 dollars.

B. Contractor agrees to maintain a record of the number of its New Mexico Employees who have (a) accepted health insurance; (b) declined health insurance due to other health insurance coverage already in place; or (c) declined health insurance for other reasons. These records are subject to review and audit by a representative of the state.

C. Contractor agrees to advise all of its New Mexico Employees of the availability of State publicly financed health care coverage programs by providing each of its New Mexico Employees with, as a minimum, the following web site link to additional information: http://www.insurenewmexico.state.nm.us/.

D. For purposes of this Paragraph, the following terms have the following meanings:

(1) "New Mexico Employee" means any resident of the State of New Mexico employed by Contractor who performs the majority of the employee's work for Contractor within the State of New Mexico, regardless of the location of Contractor's office or offices; and

(2) "offer" means to make available, without unreasonable restriction, enrollment in one or more health coverage plans and to actively seek and encourage participation in order to achieve the goals of Executive Order 2007-049. This could include State publicly financed public health coverage programs such as *Insure New Mexico!*

New Mexico Pay Equity Initiative

Contractor agrees, if it has ten (10) or more New Mexico employees OR eight (8) or more employees in the same job classification, at any time during the term of this contract, to complete and submit the PE10-249 form on the annual anniversary of the initial report submittal for contracts up to one (1) year in duration. If contractor has (250) or more employees, contractor must complete and submit the PE250 form on the annual anniversary of the initial report submittal for contracts that are up to one (1) year in duration. For contracts that extend beyond one (1) calendar year, or are extended beyond one (1) calendar year, contractor also agrees to complete and submit the PE10-249 or PE250 form, whichever is applicable, within thirty (30) days of the annual contract anniversary date of the initial submittal date or, if more than 180 days has elapsed since submittal of the last report, at the completion of the contract, whichever comes first. Should contractor not meet the size requirement for reporting at contract award but subsequently grows such that they meet or exceed the size requirement for reporting, contractor agrees to provide the required report within ninety (90) days of meeting or exceeding the size requirement. That submittal date shall serve as the basis for submittals required thereafter.

Contractor also agrees to levy this requirement on any subcontractor(s) performing more than 10% of the dollar value of this contract if said subcontractor(s) meets, or grows to meet, the stated employee size thresholds during the term of the contract. Contractor further agrees that, should one or more subcontractor not meet the size requirement for reporting at contract award but subsequently grows such that they meet or exceed the size requirement for reporting, contractor will submit the required report, for each such subcontractor, within ninety (90) days of that subcontractor meeting or exceeding the size requirement. Subsequent report submittals, on behalf of each such subcontractor, shall be due on the annual anniversary of the initial report submittal. Contractor shall submit the required form(s) to the State Purchasing Division of the General Services Department, and other departments as may be determined, on behalf of the applicable subcontractor(s) in accordance with the schedule contained in this paragraph. Contractor acknowledges that this subcontractor requirement applies even though contractor itself may not meet the size requirement for reporting and be required to report it self.

Two (2) copies of the Pay Equity Worksheet shall be submitted prior to Award by the prospective Awarded Vendor.

The PE10-249 and PE250 worksheet is available at the following website:
http://www.generalservices.state.nm.us/statepurchasing/Pay_Equity.aspx

Department Price Agreement

Article I – Statement of Work
Under the terms and conditions of this Price Agreement, the using agency may issue orders for items and/or services described herein.

The terms and conditions of this Price Agreement shall form a part of each order issued hereunder.

The items and/or services to be ordered shall be listed under Article IX – Price Schedule. All orders issued hereunder will bear both an order number and this Price Agreement number. It is understood that no guarantee or warranty is made or implied by either the New Mexico State Purchasing Agent or the user that any order for any definite quantity will be issued under this Price Agreement. The Contractor is required to accept the order and furnish the items and/or services in accordance with the articles contained hereunder for the quantity of each order issued.

Article II –Term
The term of this Price Agreement for issuance of orders shall be as indicated in specifications.

Article III –Specifications
Items and/or services furnished hereunder shall conform to the requirements of specifications and/or drawings applicable to items listed under Article IX - Price Schedule. Orders issued against this schedule will show the applicable price agreement item(s), number(s), and price(s); however they may not describe the item(s) fully.

Article IV – Shipping and Billing Instructions
Contractor shall ship in accordance with the instructions of this form. Shipment shall be made only against specific orders which the user may place with the contractor during the term indicated in Article II – Term. The Contractor shall enclose a packing list with each shipment listing the order number, price agreement number and the commercial parts number (if any) for each item. Delivery shall be made as indicated on page 1. If vendor is unable to meet stated delivery the State Purchasing Agent must be notified.

Article V - Termination
The Agency may terminate this Agreement for convenience or cause. The Contractor may only terminate this Agreement based upon the Agency's uncured, material breach of this Agreement. Contractor shall give Agency written notice of termination at least thirty (30) days prior to the intended date of termination, which notice shall (i) identify all the Agency's material breaches of this Agreement upon which the termination is based and (ii) state what the Agency must do to cure such material breaches. Contractor's notice of termination shall only be effective (i) if the Agency does not cure all material breaches within the thirty (30) day notice period or (ii) in the case of material breaches that cannot be cured within thirty (30) days, the Agency does not, within the thirty (30) day notice period, notify the Contractor of its intent to cure and begin with due diligence to cure the material breach. Termination of this Contract, however, shall not affect any outstanding orders. This provision is not exclusive and shall not waive other rights and remedies afforded either party in the event of breach of contract or default. In such instances the contract may be cancelled effective immediately.

Article VI – Amendment
This Price Agreement may be amended by mutual agreement of the New Mexico State Purchasing Agent or his/her designee and the Contractor upon written notice by either party to the other. An amendment to this Price Agreement shall not affect any outstanding orders issued prior to the effective date of the amendment as mutually agreed upon, and as published by the New Mexico State Purchasing Agent or his/her designee. Amendments affecting price adjustments and/or the extension of a price agreement expiration date are not allowed unless specifically provided for in the bid and price agreement specifications.

Article VII – Issuance or Orders
Only written signed orders are valid under this Price Agreement.

Article VIII – Packing (if applicable)
Packing shall be in conformance with standard commercial practices.

Article IX – Price Schedule
Prices as listed in the price schedule hereto attached are firm.

Awarded Vendors:

(AA)0000018187
Smith & Loveless, Inc.
14040 Santa Fe Trail Dr
Lenexa, KS 66215
913-888-5201

Specifications:

Establish a Price Agreement for Wet Well Mounted Pump Station with Three Non-Clog Pump at New Mexico Department of Game and Fish (NMDGF).

The term of this Price Agreement shall be for one (1) year from the date of award with the option to extend for a period of three (3) additional years, on a year-by-year basis, by mutual agreement of all parties and approval of the State of New Mexico Purchasing Director at the same price, terms and conditions. This Price Agreement shall not exceed four (4) years.

PART 1 – GENERAL

1.1 SCOPE

The contractor shall furnish and install factory-built, automatic pumping stations as described herein and as manufactured by a U.S. based pump manufacturer. Each station shall be complete with all needed equipment factory installed on a welded steel baseplate with fiberglass cover.

The principal items of equipment in each station shall include three vertical, close-coupled, motor driven, vacuum primed, non-clog sewage pumps; valves; internal piping; central control panel with circuit breakers, motor starters and automatic pumping level controls; heater, ventilating blower, priming pumps and appurtenances, and all internal wiring.

1.2 OPERATING CONDITIONS

Each station shall be equipped with pumps capable of delivering the following flows of raw water or wastewater against the total dynamic heads indicated and at the efficiencies specified.

# Pumps operating	Flow (GPM)	TDH (FT.)	EFF.	Motor Size (H.P)	Max Motor Speed (RPM)	Max Static Suction Lift
1	540	20	65	5	1170	12
2	1000	21	66	5	1170	12

Note: Due to energy conservation requirements, the minimum efficiencies shall be enforced.

1.3. GUARANTEE

1. The manufacturer of the station shall warrant for one (1) year from date of start-up, not to exceed eighteen (18) months from date of shipment, that the structure and all equipment he provides will be free from defects in material and workmanship. Warranties and guarantees of the suppliers of various components in lieu of a single source responsibility by the Manufacturer will not be accepted. The Manufacturer shall assume prime responsibility for the warranty of the station and all components.

   In the event a component fails to perform as specified or is proven defective in service during the warranty period, the manufacturer shall repair or replace, at his discretion, such defective part. He shall further provide, without cost, such labor as may be required to replace, repair or modify major components such as the steel structure, main pumps, main pump motors and main piping manifold. After start-up service has been performed, the labor to replace accessory items, such as the blower, priming pumps, alternator, etc., shall be the responsibility of others.

The repair or replacement of those items normally consumed in service, such as seals, grease, light bulbs, etc., shall be considered as part of routine maintenance and upkeep.

2. It is not intended that the Manufacturer assume responsibility for contingent liabilities or consequential damages of any nature resulting from defects in design, material, workmanship or delays in delivery, replacement or otherwise.

3. The motor, motor adapter, volute, impeller, frontheads, fiberglass enclosure and steel base shall be covered by a 10-year pro-rated warranty. The fiberglass enclosure shall be warranted against failure of the fiberglass components. The steel base shall be warranted against structural failure and perforation due to corrosion. The mechanical seal shall be covered by a 5-year pro-rated warranty. The pro-rated warranties shall be computed on a monthly basis starting at shipment, and shall cover replacement parts only.

4. The repair or replacement of those items normally consumed in service, such as grease, light bulbs, etc., shall be considered as part of routine maintenance and upkeep. The manufacturer shall provide a warranty certificate covering specific details.

1.4 PRODUCT LIABILITY INSURANCE

The pump station manufacturer shall furnish product and comprehensive liability insurance from an insurance company with a rating of A+ (superior) IV, according to the Best's Key Reporting Guide, in an amount equal to $5,000,000.00. The policy shall also include SUDDEN AND ACCIDENTAL POLLUTION COVERAGE. The insurance certificate must be submitted upon request by the Engineer.

1.5 SUBMITTALS

The pump station manufacturer shall provide a complete set of submittal drawings, details and product specifications for review and approval by the NMGF before fabrication begins.

PART 2 – PRODUCTS

2.1 PUMP STATION CONSTRUCTION

A. The contractor/manufacturer shall fabricate and deliver one factory-built, automatic pumping station as manufactured by a U.S. based pump manufacturer. The station shall be complete with all needed equipment, factory-installed on a welded steel base with hinged fiberglass enclosure.

The principal items of equipment shall include three vertical, close-coupled, motor driven, vacuum primed, non-clog pumps; valves; internal piping; central three-phase power and control panel with circuit breakers, motor circuit protectors, motor starters, PLC automatic digital pumping level controls, color touch screen HMI and auxiliaries; submersible level transducer; 120V and 24V control power transformers; heater; ventilating blower; priming pumps with pump prime detection system and appurtenances; and all internal wiring.

B. EPOXY COATED CARBON STEEL BASEPLATE
The supporting floor plate shall be minimum ½" (13 mm) thick carbon steel with reinforcing, as required, to prevent deflection and ensure an absolutely rigid support. Steel plate shall meet or exceed ASTM A-36 specifications.

The stainless steel surfaces shall be glass bead blast cleaned to remove surface contamination and provide a uniform finish, after which the baseplate shall undergo an electrochemical passivation process to remove any free iron contamination from the stainless steel surface. This process shall also add a transparent oxide film to protect the surface from future contamination.

C. The pump station shall be enclosed by a hinged fiberglass cover made of molded reinforced orthophthalic polyester resins with a minimum of 30% glass fibers with a minimum average length of 1-1/4" (32mm). The outside of the enclosure shall be coated with a polyester protective in-mold coating for superior resistance to weathering, ultraviolet radiation, yellowing and chalking. The completed fiberglass enclosure shall be resistant to mold, mildew, fungus and corrosive liquids and gasses normally found in pump station environments. The dimensions of the enclosure shown on the drawings shall be considered a minimum, for internal component clearances and accessibility, and nothing smaller

will be acceptable. The cover shall have a suitable drip-lip around the edge and shall be provided with a hasp and staple connection to the floor plate to allow the pump chamber to be locked with a padlock.

The cover shall be attached with a multi segment stainless steel hinge, constructed of 7 gauge (4.6 mm) (minimum) type 304 stainless steel with a 3/8" (9.5 mm) diameter stainless steel pin and supporting at least 75% of the width of one end. Stainless steel bolts with tamperproof heads and a full width 3/8" (9.5 mm) thick anodized aluminum backing plate shall anchor the hinge to the fiberglass cover.

D. Dual high-pressure gas struts shall be provided to counteract the dead weight of the cover assembly and limit the maximum lifting force required for opening to less than 20 pounds (9 kg). The cover shall be self-latching upon opening, with a manually operated release for closing. Duplex heavy gauge safety chains shall be provided to prevent over-extension. All hardware and components of the cover assembly that are exposed to the weather shall be constructed of corrosion-resistant materials. Heavy extruded aluminum, adjustable ventilating louvers shall be provided on each end of the fiberglass cover, which are capable of being closed during cold weather operation.

E. A two-piece manway cover of 1/4" (6.3 mm) aluminum treadplate, with stainless steel piano hinges and hardware, located exterior to the fiberglass pump chamber shall be provided, complete with padlocking provisions. A two-piece manway shall be required to facilitate visual checking of the float switch settings. The manway shall be an integral part of the station and provide access to the wet well. The minimum open area of the manway access into the wet well shall be at least 4.2 square feet (0.39 m^2).

F. The manway cover shall have a three-color 7" x 10" (178 mm x 254 mm) (minimum) corrosion-resistant sign permanently affixed to it, reading "DANGER - Before Entering, Test For Explosive Atmosphere. Test For Oxygen Deficiency. Supply Fresh Air To Work Area".

G. The aluminum manway cover sections shall be secured with tamperproof fasteners to prevent unauthorized removal.

H. To allow on-site maintenance of the pumps, a stanchion with lifting arm shall be provided to lift each pump. The lifting arm shall have a hook over the center of the motor to support a hoist (provided by others) for removal of the motors, impellers and pumps from the station.

I. The pump casings and discharge piping shall be mounted in relation to the floor plate as detailed in the construction drawings. The suction and discharge connections, where they pass through the floor shall be sealed by gaskets, rather than being welded, to allow adjustment and replacement.

2.2 WELDING

All steel structural members shall be joined by electric arc welding with welds of adequate section for the joint involved.

2.3 PROTECTION AGAINST CORROSION

All structural steel surfaces shall be factory blasted with steel grit, in an environmentally controlled booth, to remove rust, mill scale, weld slag, etc. All weld spatter and surface roughness shall be removed by grinding. Surface preparation shall comply with SSPC-SP6 specifications. Sandblasting is specifically prohibited.

Immediately following cleaning, a factory applied abrasion and corrosion coating shall be applied.

Stainless steel, aluminum and other corrosion-resistant surfaces shall not be coated. Carbon steel surfaces not otherwise protected shall be coated with a suitable non-hardening rust preventative compound. Auxiliary components such as the electrical enclosure, ventilating blower and vacuum pumps shall be furnished with the original manufacturer's coating.

2.3.1 MAIN PUMPS

A. The three pumps shall be (4") vertical, centrifugal non-clog type of heavy cast-iron construction, especially designed for the use of mechanical seals and vacuum priming. In order to minimize seal wear caused by linear movement of the shaft, the shaft bearing nearest the pump impeller shall be locked in place so that endplay is limited to the clearance within the bearing. To minimize seal wear resulting from shaft deflection caused by the radial thrust of the pump, the shaft from the top of the impeller to the lower bearing supporting the impeller shall have a minimum diameter of 1-7/8". The dimension from the lowest bearing to the top of the impeller shall not exceed 6" (152 mm). The motor shaft shall be directly connected to the impeller without the use of drive belts or couplings, which require alignment and maintenance, and which increase power consumption due to their inherent energy losses.

   The oversized shaft incorporating oversized bearings and heavier bearing frame construction provides for extended mechanical seal, bearing and overall pump/motor life. Since the larger shaft with the specified minimum overhang is the key to heavier, more rigid construction throughout, no deviation from the specified shaft diameter or tolerances will be allowed.

   The bearing nearest the impeller shall be designed for the combined thrust and radial load. The upper bearing shall be free to move in a linear direction with the thermal expansion of the shaft and shall carry only radial loads.

   The shaft shall be solid stainless steel through the mechanical seal to eliminate corrosion and abrasive rust particles. Removable shaft sleeves will not be acceptable if the shaft under the sleeve does not meet the specified minimum diameter.

B. The pump shall have an integral adapter providing a large water reservoir above the impeller to provide for positive exclusion of air from the impeller. The seal shall be inside this area to assure lubrication. Pumps which do not use hollow priming adapters for positive lubrication of the seal will not be acceptable. Self-priming pumps are specifically unacceptable due to the need for suction check valves, air vent piping and the possibility of overheating and damaging the pump or producing steam or high temperatures in the pump, which may be a hazard to the operator, when the pump is run dry. The pump controls must be set so that the main pumps cannot be turned on unless they are filled with liquid, and the pump is completely primed.

C. The pump shall be constructed so as to permit priming from the lower pressure area behind the impeller. Priming from high- pressure connections, which tends to cause solids to enter and clog the priming system, will not be acceptable. The priming bowl shall be transparent, enabling the operator to monitor the priming level.

D. The pump shall be arranged so that the rotating element can easily be removed from the casing without disconnecting the electrical wiring or disassembling the motor, impeller, backhead or seal, so that any foreign object may be removed from the pump or suction line. Enclosed impellers must be used to avoid the necessity of wear plates and the associated costs of replacement and maintenance of wear plate clearances with semi-open impellers.

E. The pump shaft shall be sealed against leakage by a single mechanical seal constructed so as to be automatically drained and primed each time the pump is drained and primed. Water, which lubricates the mechanical seal, shall be automatically drained from around the seal if the pump loses prime in order to allow both the pump and the seal to be drained, thereby preventing freezing and breakage of the seal during power outages in sub-freezing temperatures.

F. The seal shall be of carbon and ceramic materials with the mating surfaces lapped to a flatness tolerance of one light band. The rotating ceramic shall be held in mating position with the stationary carbon by a stainless steel spring. The entire seal assembly shall be held in place by a bronze seal housing to prevent excessive heat buildup. Use of cast-iron or other ferrous material for the seal housing which will rust and damage the seal, shortening its life, will not be acceptable.

G. The pump volute shall be furnished with mounting lugs and bolted to the station floor plate, forming a gas-tight seal.

NON-CLOG TWO-PORT IMPELLER 4" PUMP

The pump impeller shall be of the enclosed two-port type made of close-grained cast-iron and shall be balanced. The eye of the impeller as well as the ports shall be large enough to permit the passage of a sphere 3" (76 mm) in diameter in accordance with nationally recognized codes. The impeller shall be keyed with a stainless steel key and secured to the motor shaft by a stainless steel capscrew equipped with a Nylock or other suitable self-locking device. The impeller shall not be screwed or pinned to the motor pump shaft and shall be readily removable without the use of special tools. To prevent the buildup of stringy materials, grit and other foreign particles around the pump shaft, all impellers less than full diameter shall be trimmed inside the impeller shrouds. The shrouds shall remain full diameter so that close minimum clearance from shrouds to volute is maintained. Both the end of the shaft and the bore of the impeller shall be tapered to permit easy removal of the impeller from the shaft.

2.5 MOTORS

A. The pump motors shall be vertical, solid shaft, NEMA P-base, squirrel-cage induction type, suitable for 3 Phase, 60 Cycle, 230/460 Volt electric current. They shall have Class F insulation suitable for temperatures up to 105 degrees C. Insulation temperature shall, however, be maintained below 80 degrees C. The motors shall have normal starting torque and low starting current, as specified by NEMA Design B characteristics. They shall be open drip-proof design with forced air circulation by integral fan. Openings for ventilation shall be uniformly spaced around the motor frame. Leads shall be terminated in a cast connection box and shall be clearly identified.

B. The motors shall have a 1.15 service factor. The service factor shall be reserved for the Owner's protection. The motors shall not be overloaded beyond their nameplate rating, at the design conditions, nor at any head in the operating range specified under Operating Conditions.

C. The motor pump shaft shall be centered, in relation to motor base, within 0.005". The shaft run-out shall not exceed 0.003". The motor shaft shall equal or exceed the diameter specified under Main Pumps, at all points from immediately below the top bearing to the top of the impeller hub. A bearing cap shall be provided to hold the bottom motor bearing in a fixed position. Bearing housings shall be provided with fittings for lubrication as well as purging old lubricant.

D. The motor shall be fitted with heavy lifting eyes, each capable of supporting the entire weight of the pump and motor rotating assembly.

PREMIUM EFFICIENCY MOTORS

The pump motors shall be Premium Efficiency type, per NEMA MG-1 table 12-12, Inverter Ready per NEMA Part 31.4.4.2, with cast-iron frames, and be UL Recognized and CSA Approved. The motor windings shall be 200 C Inverter Spike-Resistant magnet wire and the rotors shall have an epoxy coating for corrosion protection.

SINGLE-PHASE 120-VOLT POWER TRANSFORMER PACKAGE

Suction Pipe Size	Aux. Heater	Min. Transformer Size
8"	Yes	7.5 KVA 208/230/460v

2.6 CONTROLS

A. The control equipment shall be mounted in a NEMA Type 4 steel enclosure with two hinged, lockable doors and a steel barrier partition down the middle. One side of the divider shall house the three-phase circuits (motor starters and circuit protectors, etc.), and the other shall house the single-phase control circuits and low voltage components. The microprocessor and low voltage controls shall be accessible without exposing the three-phase high voltage supply, and the pump station controller shall be operable without opening the enclosure door. The control panel shall be supported on adjustable, extruded aluminum mounting legs, secured to the station baseplate. The slotted legs shall also serve as mounting points for auxiliary items, such as the vacuum priming subassembly.

B. All components within the control panel shall be UL listed or recognized, and the complete station control panel itself shall be labeled as a UL 508A General Use Industrial Control Panel. The electrical equipment in the panel shall be protected by a surge protective device.

C. To facilitate wire tracing and servicing, the control wiring shall be run in enclosed wireways, with removable covers, rather than tied up in bundles.

D. Control relays up to 6-amp capacity shall be the modular, plug-in type, with integral LED indicating lights to show activation. Larger control relays and vacuum pump contactors shall be enclosed to be "finger safe".

E. A duplex GFI protected convenience outlet shall be provided in the station for operation of 120-volt AC devices.

F. Thermal magnetic air circuit breakers shall be provided for branch disconnect service and short-circuit protection of all auxiliary circuits, and motor circuit protectors with lockout capability shall be provided for each pump motor. Only instantaneous trip magnetic type motor circuit protectors, matched to the motor inrush current, shall be used for the motor circuits, for added protection from low-level faults. Thermal magnetic circuit breakers will not be allowed for pump motor service.

G. Solid-state reduced voltage starters with 24-volt coils and solid-state overload protection for each phase shall be provided for each pump motor to give positive protection against phase unbalance, thermal overload, phase loss and ground fault. To provide the fastest trip speed and for ground fault protection, only solid-state overload protection will be used, and motor starters using heater coils will not be acceptable. Each single-phase auxiliary motor shall be equipped with an over-current protection device in addition to the branch circuit breaker, or shall be impedance protected. All switches shall be labeled and a coded wiring diagram shall be provided.

H. Individual NEMA 4 oil-tight Hand-Off-Automatic selector switches shall be provided for each pump. The switches shall be 3-position rotary-type with spring return on the Hand position, and mounted on the top of the station control panel for easy access from either side.

I. To control the operation of the pumps with variations of liquid level in the wet well, and monitor the station control, environmental and alarm functions, a specially preprogrammed, dedicated PLC-based control system shall be provided. The controller shall interface with the wet well level transducer, panel display unit, motor starters, environmental system, accessories and alarm functions through isolated digital and analog input and output ports as required. The digital controls shall operate on 24 volts or less, to eliminate shock hazard. The 24-volt power supply shall be overload protected to be "crowbar safe" and will return to operation when a short is removed. Program integrity shall be maintained by battery-backed RAM.

J. A NEMA 4 rated display unit shall be mounted through the front of the panel to provide operator input to and visual output from the PLC controller. This interface shall be a 7"(17 mm) wide screen graphic interface with DSTN 65K-color Liquid Crystal Display with backlighting and resistive-type touch screen, for data input and programming. The display shall have a "sleep" feature to prolong screen life. A minimum of 11 (eleven) menu screens shall be available for display and management of pump and station control functions including, but not limited to:

Standard Features:
Graphical pump running indication
General alarm indication
Individual alarm indicators for each alarm function (with time and date)
Lead pump indication
Alarm silencing
Digital indication of air temperature
Digital and graphical indication of wet well level
Digital indication of elapsed run time for each pump
Digital indication of elapsed run time for parallel pump operation
Digital indication of level control and alarm settings
Date & time indication with set time functionality
Heater/blower running indication
Alarm logging, coded for "time active" or "return time" time cleared for the last 500 events by date and time

"Help" screens
Wet well simulation
Prime mode selection

Field Programming Functions:
Select English or Spanish language display mode
Reset wet well On, Off and alarm levels or return to default settings
Reset heater or vent fan thermostat set points or return to default settings
Select sequenced or timed pump alternation and select alternation time interval
Select any pump to remain as lead pump
Silence audible alarm
Reset running time meters
Set date/time
Wet well level simulation from touch screen, overriding submersible pressure transducer signal
Prime mode selection

K. The control system shall be designed to allow alternation of the pumps by either a time clock or alternation at the end of each pumping cycle. Selection of the alternation method and setting of the interval for timed alternation shall be easily done without opening the panel. The panel display shall indicate which pump is currently the lead pump.

L. The panel display shall be capable of indicating the total running time, in hours and tenths of an hour, of each pump individually, as well as the total time that both pumps have been running in parallel. Provision shall be made so that it is possible to reset the timers to zero, if necessary.

M. A resistance temperature device (RTD) shall be provided to monitor the ambient temperature in the pump station, and to control the operation of the ventilation blower and the 500-watt station heater. The RTD shall also provide a continuous signal of the panel ambient temperature, and the temperature shall be indicated on the panel display unit in degrees Fahrenheit.

N. The liquid level in the wet well shall be monitored by a submersible hydrostatic pressure transducer with stainless steel sensor diaphragm, providing a 4-20 mA signal to the pump control unit. The body of the transducer shall be made of 316 stainless steel. The transducer shall have dual arrestor technology for lightning and surge protection. The pressure transducer shall have a permanent hermetically sealed connection to a polyurethane cable, which shall support the transducer 12" (300 mm) from the bottom of the wet well, and shall pass through a cord grip seal in the station base. The pressure transducer unit shall be rated for wastewater or potable water service.

O. The digital pump controller shall take the signal from the level transducer and provide a continuous readout of the wet well level in feet and tenths of a foot, through the panel display unit. It shall also be the means of setting the pump on and off points and alarm levels. As a minimum, the controller shall be capable of digitally setting "On" levels for lead and lag pumps, an "Off" level, and alarm levels. Provisions shall be made for the pumps to operate in parallel should the level in the wet well continue to rise above the starting level for the low-level pump. A high water alarm setting shall also be provided for remote or local alarm indication.

P. Four (4) displacement switches shall be provided to automatically operate the pump in back-up mode, in case of failure of the digital control system or the submersible level transducer. The back-up system shall be entirely independent of the digital system. A 30' (9 m) color-coded cord shall be provided with each switch. The cord shall have a corrosion-resistant vinyl jacket and be multi-stranded in order to prevent fatigue. The displacement switch cords and the cable for the submersible pressure transducer shall enter the wet well through cord grip seals mounted to a removable, gasketed floor plate. The floor plate shall allow the displacement switches and transducer to be adjusted or removed and replaced without having to enter or reach into the wet well.

Q. PUMP FAILURE TO PRIME OR FAILURE TO PUMP ALARM (CHECK VALVE SWITCH TYPE)
To sense failure to deliver normal flow for any reason, including failure to prime, each pump shall be provided with a sealed sensor switch mounted in a protective ABS enclosure. The enclosure shall be mounted with an adjustable universal mounting bracket to the external arm of each discharge check valve. The mounting bracket shall allow the adjustment of the sensor switch with a single locking pivot adjustment. A red LED indicating light shall be provided on each switch unit to facilitate accurate setting of the switch for proper operation. The sensor switch shall monitor the movement of the check valve arm and thereby detect failure of the pump to deliver normal operating flow when called on to run. An auxiliary time delay relay shall be provided to prevent an alarm signal during the pump priming and startup period.

2.7 VACUUM PRIMING SYSTEM

A. A separate and independent priming system shall be furnished for each pump, providing complete standby operation. Each priming system shall include a separate vacuum pump. Vacuum pumps shall have corrosion resistant internal components. The vacuum priming system shall be complete with vacuum control solenoid valves, vapor filters, prime level sensing probes, float operated check valves to protect the vacuum pumps, and all necessary shut-off valves. The float operated check valves shall have a transparent body for visual inspection of the liquid level and shall be automatically drained when the vacuum pump shuts off.

B. Liquid level in the pump-priming chamber shall be monitored by a resonant frequency liquid level probe. The probe shall be equipped with piezoelectric drive and sensitive circuit to detect frequency shifts when the probe is covered with liquid. The probe shall be completely sealed and have a 316L stainless steel housing for corrosion resistance. It shall be provided with a wiring connector molded of PolyPhenylSulfone, an amorphous high performance thermoplastic for impact and chemical resistance. It shall have a plug-in connector to facilitate easy removal.

C. The liquid level probe shall be provided with light emitting diodes. This diagnostic tool shall indicate connectivity, prime status or a fault condition. Systems utilizing an electrode, mechanical means such as a float, or that require any type of electrical or moving parts inside the priming chamber, which may accumulate debris, short out, bind or fail will not be acceptable.

D. The priming system shall automatically provide positive lubrication of the mechanical seal each time a main pump is primed. To prevent excessive stoppage due to grease accumulation, no passageway in the priming system through which the pumped liquid must pass shall be smaller than the equivalent of a 2-1/2" opening.

2.8 ENVIRONMENTAL EQUIPMENT

A ventilating blower shall be provided, capable of delivering 250 CFM at 0.1" static water pressure shall be provided in order to remove the heat generated by continuous motor operation. The ventilating blower shall be turned on and off automatically by a preset thermostat. A louvered opening shall cover the discharge. An electric heater controlled by a present thermostat shall be furnished. The heater shall be rigidly mounted in the station to prevent removal.

A 7.5 KVA insulating-type transformer shall be provided to supply power for lights, controls and auxiliary devices. The transformer shall have 240/480 volt primary, 120/240 volt secondary, Class F insulation, with temperature rise not to exceed 115oC above 40oC ambient. The core and coil assembly shall be given a double dip and bake. The coil shall be protected by a metal housing to prevent damage. The transformer shall be protected by a separate circuit breaker on the supply side.

2.9 MAIN PIPING

A. The pump suction connections shall be drilled and tapped for a 125-pound American Standard flange for easy attachment of the suction risers. The discharge line from each pump shall be fitted with a clapper-type check valve and eccentric plug valve. Size, location and quantity of check valves and plug valves shall be as shown on the construction drawing.

The check valve shall be of the spring-loaded type with external lever arm and an easily replaced resilient seat for added assurance against vacuum leaks. Check valves shall have stainless steel shaft with replaceable bronze shaft bushings. Ball-type check valves are specifically unacceptable for this application. An operating wrench shall be provided for the plug valves. All station piping and fittings shall be capable of passing a 3" (76 mm) spherical solid.

B. Protrusions through the station floor shall be sealed where necessary to effect sealing between the equipment chamber and the wet well. The suction and discharge connections, where they pass through the floor, shall be sealed by gaskets in order to prevent corrosive, noxious fumes from entering the station. Welded joints that do not allow adjustment or replacement will not be considered for this application. The pump station manufacturer shall extend the suction and discharge connections below the floor at the factory so that field connections can be made without disturbing the gas-tight seals. Once the station is installed, however, it shall be possible to remove the entire 4" (100 mm) suction pipes through the station floor without having to enter the wet well to unbolt them.

C. The manufacturer of the pump station shall provide a compression-type sleeve coupling for installation on the common discharge pipe. A minimum of two anchoring points shall be provided on the bottom of the station baseplate for attachment of coupling joint restraints, which shall be provided by the installing contractor.

D. PROTECTED LIQUID FILLED COMPOUND PRESSURE GAUGES

A four-inch (4") (100 mm)Bourdon tube-type compound vacuum/pressure gauge with 3-1/2" (89 mm) dial, fitted with a brass stop valve and a manual air relief valve shall be provided for each pump. The gauges shall be mounted apart from the pumps, on a bracket attached to the control panel support structure, and connected to the pump discharge taps by flexible tubing to minimize vibration. The range of each gauge shall be selected to place the normal operating discharge pressure reading in the middle one-third of the scale and the gauge shall also be capable of measuring up to 30" HG (1.0 bar) of vacuum. The dial shall be white with black markings and the gauge itself shall have an accuracy of 1% of scale. The gauge shall be American made, with a Zytel Nylon case with 1/2" (13 mm) blow-out plug, stainless steel bezel, acrylic lens and phosphorus bronze tube with brass socket. Each compound gauge shall be filled with a viscous fluid to dampen vibration and pulsation effects on the needle reading. Temperature compensation shall be provided by an internal compensating diaphragm. Gauges shall be protected from the service fluid by a Buna-N elastomer "boot" diaphragm within the stem, and the Bourdon tube and the space between the Bourdon tube and the internal isolating diaphragm shall be filled with low temperature instrument oil, completely isolating the gauge components from the fluid being measured.

2.10 SPARE PARTS

A. A complete replacement pump shaft seal assembly shall be furnished with each pump station. The spare seal shall be packed in a suitable container and shall include complete installation instructions. A spare volute gasket and seal gasket shall be provided.

B. An instructional video presentation on the pump mechanical seal system in DVD format shall be included. The DVD shall contain a presentation on the following subjects: purpose and location of the mechanical seal, signs of a defective mechanical seal, how to remove the mechanical seal, troubleshooting seal failure causes, seal components, required tools, how to reinstall the seal and how to place the pump back into service. The video shall include footage of an actual seal replacement.

2.11 PUMP STATION ACCESSORIES

Pump overload trip alarm from starter overload trip
Time delay to prevent simultaneous pump starts
Phase failure/reversal monitor with pump motor shutdown on fault
Control power failure alarm
Digital flow rate indication panel display, based on cycle times and wet well levels

For cold weather operation, the station shall be provided with a 1300/1500 watt, dual range auxiliary heater with automatic circulating fan, thermostat control and an On/Off switch. The auxiliary heater shall be plugged into the station's duplex receptacle. In addition, the fiberglass cover shall have a minimum of 1" thick urethane insulation, protected by fiberglass, with an "R" value of 7 or more. Also, the priming system shall be interlocked with the station temperature sensor so that, should the station ambient temperature fall below a pre-set minimum, solenoid valves shall open the priming system to atmospheric pressure, when the pumps are not running, allowing the liquid in the pumps and piping to drain back into the wet well, preventing freezing.

PHASE MONITOR

A relay with double pole, double throw contacts shall be provided to monitor and protect against phase loss (single-phasing), under voltage (brownouts) and phase reversal (improper sequence). It shall automatically reset when three-phase service returns to normal.

120V ALARM LIGHT

A vapor-proof light fixture with 50-watt lamp for outdoor pole mounting shall be provided with a red globe and guard.

MAIN DISCONNECT SWITCH

A main disconnect switch shall be provided to disconnect the three-phase power to the pump station. The switch shall be operable without opening the panel, and shall be interlocked with the panel door. It shall be capable of being padlocked in the "Off" position.

TIME DELAY

The microprocessor-based digital control system shall provide for a time delay to prevent simultaneously starting the pump motors after power failure.

NON-MERCURY FLOAT SWITCHES

The level control float switches shall be of the mercury free design, operated by a rolling steel ball traveling back and forth within a switch tube, to actuate a snap action switch, all mounted in a sealed plastic float housing, supported by a watertight cord. An integral weight shall cause inversion on submergence.

SOLID-STATE STARTERS

UL listed, solid-state reduced voltage starters shall be supplied. The starters shall be capable of a soft start and soft stop. The starters shall have built in overload protection as well as built in bypass contactors. One set of Form C auxiliary contacts shall be supplied on the starter. The starters shall be powered by 24V DC and shall have a built-in Digital Signal Processor utilizing a low impedance run circuit. The starters shall be easily programmable by using a standard screwdriver.

TIME DELAY

The pump control system shall provide for a time delay to prevent simultaneously starting the pump motors after power failure.

SHADE HOOD

An aluminum hood to shade the HMI display from direct sunlight shall be mounted on the face of the control panel. The metal shade shall cover the entire display, shield the top and sides of the display, and shall be hinged to fold over the display and stow against the front of the panel.

AUXILIARY STATION HEATER

A 1300/1500 watt, dual range, electric heater with automatic circulating fan, thermostat control and an On/Off switch is to be provided. The heater is to be operated by connection to the station convenience receptacle.

INSULATED HOOD

The fiberglass cover shall have a minimum of 1" thick urethane insulation, protected by fiberglass, with an "R" value of 7 or more.

PART 3 – OPERATION

3.1 DELIVERY AND OPERATING INSTRUCTIONS

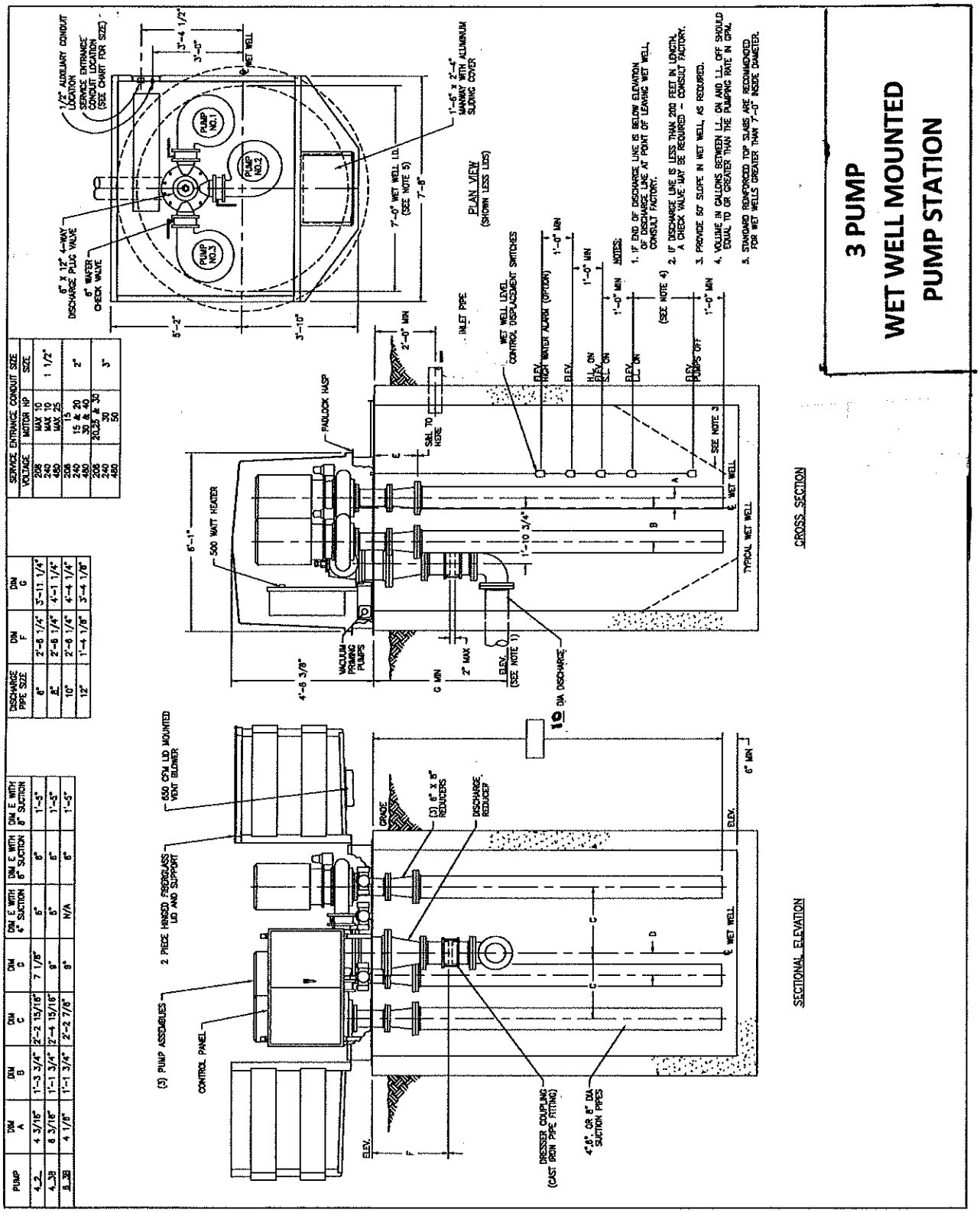
A. The fully fabricated pump station shall be delivered to the New Mexico Department of Game & Fish at the following address no later than June 15, 2018:

Los Ojos Fish Hatchery
29 Hatchery Rd
Los Ojos, NM 87551

B. The concrete manhole wet well and associated piping will be constructed by others. The installation of the fully fabricated pump station will be by others.

C. Four (4) operation and maintenance manuals shall be furnished with each pump station which will include parts lists of components and complete service procedures, and a troubleshooting guide.

D. The pump station manufacturer shall provide complete start-up services. The pump station manufacturer representative or factory service technician will inspect the completed installation to determine if the installed equipment meets the purpose and intent of the specifications. Tests shall demonstrate that all equipment is electrically, mechanically, structurally and otherwise acceptable; the station installation is safe and in optimum working condition; and conforms to the specified operating conditions. The start-up technician shall instruct the Owner's personnel in the proper operation and maintenance procedures.



PUMP	DIM A	DIM B	DIM C	DIM G	DIM E WITH 4" SUCTION	DIM E WITH 6" SUCTION	DIM E WITH 8" SUCTION
4_2_	4 3/16"	1'-3 3/4"	2'-2 15/16"	7 1/8"	6"	6"	1'-5"
4_3_	6 3/16"	1'-1 3/4"	2'-4 15/16"	8"	8"	8"	1'-5"
8_3_	4 1/8"	1'-1 3/4"	2'-2 7/8"	8"	N/A	8"	1'-5"

DISCHARGE PIPE SIZE	DIM F	DIM G
6"	2'-6 1/4"	3'-11 1/4"
8"	2'-6 1/4"	4'-1 1/4"
10"	2'-6 1/4"	4'-4 1/4"
12"	1'-4 1/8"	3'-4 1/8"

SERVICE ENTRANCE CONDUIT SIZE		
VOLTAGE	MOTOR HP	SIZE
208	MAX 10	1 1/2"
240	MAX 10	
480	MAX 25	
208	15 & 20	2"
240	25 & 30	
480	30 & 40	
208	20,25 & 30	3"
240	30	
480	50	

State of New Mexico
General Services Department
Purchasing Division
Price Agreement #: 80-516-18-05494

Item	Approx. Qty.	Unit	Article and Description	Unit Price
001	1	Ea.	Wet Well Mounted Pump Station with Three Non-Clog Pumps	**(AA) $13,5713.00**
002	1	Hr.	Hourly Rate for Well Services	**Not Included**
003		Mile	Mileage Rate	**Not Included**
004		%	Percent Discount off of list price for parts and other equipment	**None**

4 Items Awarded