



## COMMUNITY DEVELOPMENT DEPARTMENT

**To:** La Center 2023 Pipe and Actuator Valve Installation Project Bidders

**Project:** 2023 Pipe and Actuator Valve Installation Project

**Date:** September 13<sup>th</sup>, 2023

**Item:** Addendum #2

### Addendum #2

The following are the added items for the addendum that shall be included with the bid documents:

- The concrete lid for the vault shall be supplied by Columbia Precast or an approved equal.
- The contractor shall obtain an Electrical L&I permit for the connection of the new actuator valve to the electrical supply and the cost shall be included in the bid cost to install the actuator valve.
- Aggregate base will be required around the trench zone of the 6" schedule 80 PVC pipe drain pipe from the vault. Native backfill can be used for the backfill above the trench zone to the existing surface.
- Attached are specifications for the transmitter that was installed with the actuator valve. The transmitter may need to be replaced if it is not operational when tested for this project. The cost of this transmitter will be done by change order if it is determined to be non-functional.
- The actuator valve, and existing force main connected to the valve, does not currently have any sewage flow through the system. There could be some groundwater that is periodically flowing through the system. The city will be able to turn of the pump station supplying this force, temporarily while the valve is being installed.
- No right of way permit will be required for this project. The contractor will submit insurance for this contractor and city from liability during this project.

Sincerely,

A handwritten signature in cursive script that reads "Anthony Cooper".

Anthony Cooper, PE  
City of La Center

City Engineer

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## **Addendum 2**

### **2.19 LEVEL TRANSDUCER/TRANSMITTERS – SUBMERSIBLE PRESSURE TYPE**

A. Level Transducer/Transmitters shall be provided where indicated, specified, or required to meet the functional requirements of the System, as specified. Level shall be sensed and transmitted by a submersible type pressure transmitter.

B. Level Transducer/Transmitters shall meet the following minimum specifications, unless otherwise noted.

1. Solid-state head-sensing type, suitable for continued submergence and operation.
  2. Type 316 stainless steel housing.
  3. Heavy-duty, limp, foul free exposed diaphragm of molded Teflon bonded to a synthetic rubber back/seal. Metallic diaphragms are not acceptable.
  4. Ceramic internal diaphragm and ceramic substrate to vary the capacitance of an electrical field created between the two surfaces. LVDTs, resistive elements, and pneumatic elements are not acceptable.
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5. Laser-trimmed temperature compensation, high quality components, and construction to provide a precise, reliable, stable output signal directly proportional to the sensed pressure over a factory-calibrated range.
  6. High over-pressure protection designed to withstand intermittent over-pressure events five times the full scale range being sensed. Metallic diaphragms are not acceptable.
  7. Easily accessible, non-interactive offset and span adjustments.
  8. Barometric pressure compensation.
  9. 16-40 VDC loop powered.
  10. Signal shall change in direct linear proportion to changes in measured level.
  11. Combined non-linearity, hysteresis, and repeatability accuracy of 0.3% of full scale.
  12. Operating temperature range of +32°F to +158°F (0°C to +70°C). Temperature

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effects shall be 0.5% of span over a +32°F to +122°F (0°C to +50°C) range or less.

13. Capable of withstanding a 600 Volt spike in accordance with ENV 50142 without damage.

14. Factory calibrated range appropriate for liquid column to be measured.

C. Mounting Methods: the sensor shall be secured in place by a cable suspension mounting kit, consisting of a 2 foot long (minimum) 1 inch NPT type 316 stainless steel pipe with coupling, bolt, cable clamps, and hardware along with the required length of 1/8 inch diameter 7 x 19 stainless steel cable, unless otherwise noted.

D. Units shall be calibrated for a range of 0-20 ft of water.

E. Approved manufacturers include:

1. Measurement Specialties, KPSI 750.
2. Similar units by other manufacturers may be considered for use on this project based on comparison to the listed products. Approval of substitutions is solely at the discretion of the Engineer.

The following shall be added to section 26 09 00 of the specifications:

Pump station shall monitor level via the submersible level transmitter as shown on the drawings and specified in section 26 09 00-2.19 of the specifications

Add the following section to 26 09 00 of the specifications:

2.20 Gauge Pressure Transmitter (Actuator Valve Vault)

A. Gauge Pressure Transmitters shall be provided where indicated, specified, or required to meet the functional requirements of the System, as specified.

B. Gauge Pressure Transmitters shall meet the following minimum specifications, unless otherwise noted.

1. Type 316 stainless steel housing
2. Accuracy of  $\pm 0.25\%$  of full scale, or better.

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3. Stability of  $\leq \pm 0.2\%$  of full scale for 1 year, non-accumulating.

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4. Response time of  $\leq 1$ ms between 10% and 90% full scale.
  5. Durability of  $> 100,000,000$  full scale cycles.
  6. Process connection of  $\frac{1}{2}$ -inch NPT male.
  7. Shock resistance to 1,000 g's according to IEC 60068-2-27.
  8. Vibration resistance to 20 g's according to IEC 60068-2-6.
  9. Electrical protection of reverse polarity, over-voltage, and short-circuit
  10. Proof pressure shall be at least 3 times full scale for ranges up through 0 200 psi. Burst pressure shall be at least 3.8 times full scale for ranges up through 0 200 psi.
- C. Output signal shall be 4-20 mA, 2-wire (loop powered). Power requirements shall be 10 30 VDC. Signal shall change in direct linear proportion to changes in measured pressure. Signal shall be calibrated over a range from 0 100 psig.
- D. Manufacturers shall be Noshok 621/622 series, or approved.