



SOLE SOURCE CONTRACT SPECIFICATION – CONTROLLER AND RADIO UPGRADES AT WATER PUMP STATIONS AND SEWER LIFT STATIONS CONTRACT NO. C02052




Board of Public Utilities
December 3, 2020

Tracy Duenas, Supervising Engineer



OUR FUTURE IN EVERY DRÖP

BACKGROUND

- Existing Supervisory Control and Data Acquisition (SCADA) and radio telemetry
 - City's Wide Area Network
 - 
 - Utilities Field Operation (UFO) - Primary system
 - Pump Station 4 (PS4) - Backup system
 - 
 - Reservoir R7 and R17 - repeater sites
 - 
 - 20 water pump stations
 - 23 water reservoirs
 - 3 water wells
 - 1 water well treatment plant
 - 17 sewer lift stations

BACKGROUND

- 2019 Kennedy Jenks Predesign Report assessment
 - SCADA
 - Existing solid-state equipment
 - Manufactured in the 1980's/1990's
 - Different manufacturers
 - Non-uniform hardware and software
 - Replacement parts obsolete



BACKGROUND

- 2019 Kennedy Jenks Predesign Report assessment
 - Radio Telemetry system
 - Discontinued manufacturer support
 - Replacement parts obsolete



- Increase in O&M impacts
- Increase in communications errors

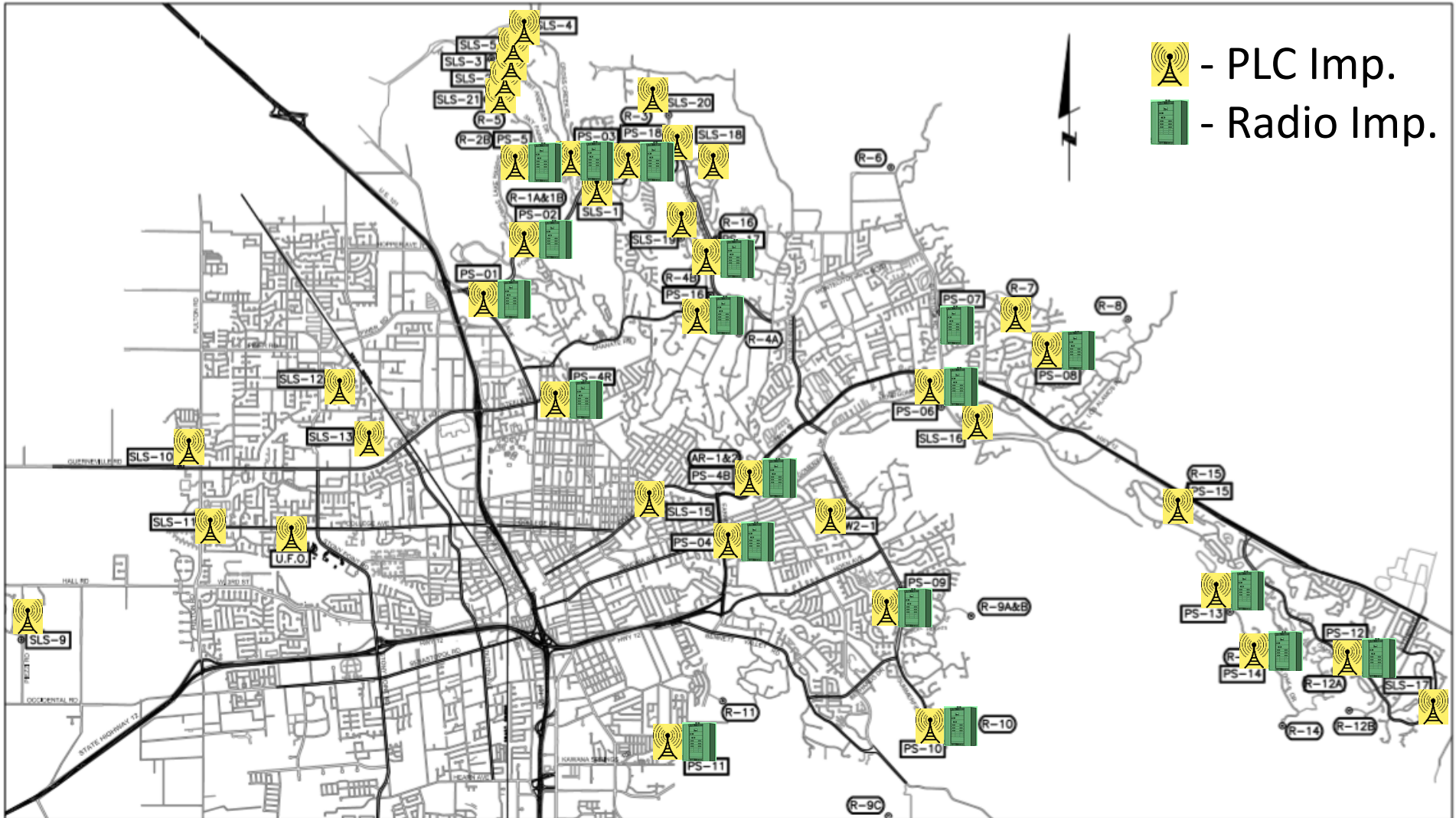
BACKGROUND

- Contract No. C02052 proposes:
 - Programmable logic controller (PLC) upgrades
 - 19 water pump stations
 - Radio telemetry replacement
 - UFO
 - 1 water well
 - 1 water pump station
 - 2 water reservoirs
 - 17 sewer lift stations



BACKGROUND

- Contract No. C02052 project limits:



BACKGROUND

- Contract No. C02052 proposes:
 - PLC upgrades
 - PLC Unit –
Tesco L3000 PLC System
 - Secure Control and Communication Processor –
Tesco Model L3000e
 - Universal Input / Output modules –
Tesco L3000 Model HDIO
 - Power Supply Unit –
Tesco Model L3000 PSU
 - Radio telemetry replacement
 - Frequency Transceiver –
Schneider Electric Trio QR-150 and QB-150

ANALYSIS

- Governing Exceptions:

- CA Public Contract Code Section 3400 (b):

(b) No agency of the state, nor any political subdivision, municipal corporation, or district, nor any public officer or person charged with the letting of contracts for the construction, alteration, or repair of public works, shall draft or cause to be drafted specifications for bids, in connection with the construction, alteration, or repair of public works, (1) in a manner that limits the bidding, directly or indirectly, to any one specific concern, or (2) calling for a designated material, product, thing, or service by specific brand or trade name unless the specification is followed by the words “or equal” so that bidders may furnish any equal material, product, thing, or service. In

ANALYSIS

- Governing Exceptions:

- CA Public Contract Code Section 3400 (c)(2):

(c) Subdivision (b) is not applicable if the awarding authority, or its designee, makes a finding that is described in the invitation for bids or request for proposals that a particular material, product, thing, or service is designated by specific brand or trade name for any of the following purposes:

(1) In order that a field test or experiment may be made to determine the product's suitability for future use.

(2) In order to match other products in use on a particular public improvement either completed or in the course of completion.

(3) In order to obtain a necessary item that is only available from one source.

(4) (A) In order to respond to an emergency declared by a local agency, but only if the declaration is approved by a four-fifths vote of the governing board of the local agency issuing the invitation for bid or request for proposals.

ANALYSIS

- Basis of Exception
 - Match equipment currently in use with SR Water
 - Maintain reliability, uniformity and knowledge
 - Minimize equipment downtime
 - Consistency of Standard Operating Procedures
 - Availability/storage of spare parts

RECOMMENDATION

- It is recommended by the Transportation and Public Works Department and the Water Department that the Board of Public Utilities, by resolution, approve the sole source contract specifications for Tesco Controls, Inc. programmable logic controllers and Schneider Electric radio telemetry system for the Controller and Radio Upgrades at Water Pump Stations and Sewer Lift Stations, Contract No. C02052.