

SECTION 01 11 00

SUMMARY OF WORK

07/07

PART 1 GENERAL

1.1 SUMMARY

Section Includes: Identification and summary description of the Project, the Work, location, activities by others and coordination..

1.2 THE WORK

- a. The Work consists of the construction, erection, supply, installation, start-up, testing, commissioning, and handing over in full working order of the Perris Desalination Facility II, including but not limited to the following:

1. Raw Water Metering and Control Valve system including all associated pipes, valves, instruments, equipment and appurtenances.
2. Iron and Manganese Removal System including all associated pipes, valves, instruments, pressure filter units, tanks, electrical and control panels, compressor, pumps, equipment and appurtenances.
3. Reverse Osmosis (RO) System including:
 - (a) Cartridge filters.
 - (b) High Pressure RO Feed pumps.
 - (c) RO skids.
 - (d) Interstage hydraulic turbocharger per skid.
 - (e) CIP (Clean-in-place) system including tank, pump and cartridge filter.
 - (f) Flush system including storage tank and pump.
 - (g) Decarbonation system including decarbonator tower and blower.
 - (h) Online sampling system including sample pumps, analyzers, and panels.
 - (i) Pipes, valves, instruments, electrical and control panels, equipment and appurtenances
4. Chemical Storage and Feed Systems including all associated pipes, valves, instruments, electrical and control panels, tanks, pumps, equipment and appurtenances. The chemical storage and feed area will house the following chemicals:
 - (a) Sodium Hypochlorite
 - (b) Sodium Bisulfite

- (c) Threshold Inhibitor
 - (d) Sulfuric Acid
 - (e) Citric Acid
 - (f) Sodium Hydroxide
 - (g) Corrosion Inhibitor
 - (h) Aqueous Ammonia
 - (i) Hydrofluosilicic Acid
5. On-site Sodium Hypochlorite Generation System including all associated pipes, valves, instruments, electrical and control panels, salt storage tank, vessels, equipment and appurtenances.
6. CMU block building to house the Administration area, the RO process area and the Chemical Storage and Feed Systems area.
7. Below grade concrete clearwell structure.
8. Finished Water Pump Station including all associated pipes, valves, instruments, electrical and control panels, pumps, equipment and appurtenances.
9. CMU block building to house the Finished Water Pump Station and associated electrical equipment.
10. Concentrate Pump Station including all associated pipes, valves, instruments, electrical and control panels, pumps, equipment and appurtenances.
11. Construction of an infiltration pond to provide a drainage basin for site stormwater and storage for purged water.
12. Purged water pipeline from process area to infiltration pond.
13. Chain-link fence around the infiltration pond (except the south side) with access gates.
14. Eight-foot-high CMU block wall on the South and West sides of the site with two access gates and wingwalls adjacent to the gate ramps.
15. Civil and yard piping work including grading, AC pavement, curbs and gutters, and below grade process pipes.
16. All associated Electrical and Instrumentation system including but not limited to:
- (a) Conduits, cables from/to equipment, panels, and electrical room
 - (b) Electrical panels
 - (c) Variable frequency drives for pumps
 - (d) Fire Alarm System

17. Communication and Control System integration including but not limited to:

(a) A SCADA system consisting of PLCs connected through a communications system to computer workstations with HMIs interferences. The SCADA system must be able to communicate with the existing EMWD system and the fiber optic system for the SCADA system must be coordinated with the PVRWRF expansion project.

(b) A telephone system and a computer LAN

18. Coordinate with Owner's security system provider - Systems Solutions Company, Inc. (SSC), Shari Jacobs, 951-808-6002. Contractor shall be responsible for installing the security conduits and boxes per the Drawings and SSC requirements.

19. All other associated work as indicated in the Specifications and on the Drawings.

a. Except as Specifically Noted Otherwise, Contractor shall provide and Pay For:

1. Insurance and bonds.
2. Labor, materials, and equipment.
3. Tools, equipment, and machinery required for construction and erection.
4. Utilities required for construction.
5. Temporary facilities including sheeting and shoring.
6. Traffic control and dust control measures.
7. Other facilities and services necessary for proper execution and completion of the Work.

b. The Owner will provide application software programming of the PLC-200 and the HMIs at the Perris Desalination Facility II. Contractor shall provide hardware as specified and as required to support Owner with completion of application software installation and testing. Contractor shall provide labor as required to support Owner with completion of application software installation and testing.

c. Owner will be responsible for completion of application software implementing process control automation and monitoring of equipment and instrumentation during functional and performance testing. Contractor shall coordinate with Owner on all aspects of software installation and testing, as required in the contract documents.

d. Contractor will be responsible for the completion of equipment installation implementing manual and process control automatic and monitoring of equipment and instrumentation during functional and performance testing.

e. Secure and pay for all permits including, but not limited to, OSHA excavation permits, AQMD permits, California Environmental Quality Act

permits, City of Perris permits, Fire Department permits, County conservation permits, Department of Transportation permits, government fees and licenses.

f. Comply with codes, ordinances, regulations, orders, and other legal requirements of public authorities having bearing on the performance of the Work.

1.3 LOCATION OF PROJECT

The Work is located on the Northeast side of the intersection of (future) Hull Road and Watson Road, west of the Perris Regional Valley Water Reclamation Facility (PVWRF), in the City of Perris, California.

1.4 ACTIVITIES BY OTHERS

a. District, utilities, and others may perform activities within Project area while the Work is in progress.

1. Schedule the Work with DISTRICT, utilities, and others to minimize mutual interference.

b. Cooperate with others to minimize interference and delays.

2. When cooperation fails, submit recommendations and perform Work in coordination with work of others as directed.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

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