

# EL PASO WATER UTILITIES PUBLIC SERVICE BOARD

## **ADDENDUM NO. 3 FOR**

# JOHN T. HICKERSON WRF HEADWORKS BARSCREEN REPLACEMENT

BID NO. 40-23

May 19, 2023

In accordance with the Instruction to Bidders of the Contract Documents, the following revision to the Plans and/or Specifications shall become part of the Contract Documents and the Bidders shall acknowledge receipt thereof on their Bid Proposal.

# **EL PASO WATER UTILITIES**

**PARKHILL** 

Mirtha Solis Senior Purchasing Agent\* May 19, 2023

\*The EPWater representative's signature certifies that this Document shall become part of the Contract Documents for the referenced project. The signature is not a representation that the content of this document is technically correct.

Mark O. Sanchez, P.E. Engineer of Record, Parkhill May 19, 2023 Receipt of this Addendum must be acknowledged in writing to El Paso Water Utilities as required by the bid documents.

## **VOLUME 1 – CONTRACT DOCUMENTS**

# BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT

AD-3.01. TABLE OF CONTENTS

A. ADD Section 09 96 35 – Protective Coatings, 4 pages, under DIVISION 09 - FINISHES

## **TECHNICAL SPECIFICATIONS**

AD-3.02 ADD in its entirety SECTION 09 96 35 – PROTECTIVE COATINGS attached to this Addendum. This section addresses removal and replacement of corrosion protection coating for concrete at the headworks.

#### ATTACHMENTS:

Attachment No. 3.01 - SECTION 09 96 35 - PROTECTIVE COATINGS, 4 Pages

Addendum No. 3, pages 1 through 2, shall become part of the Contract and all provisions of the Contract shall apply thereto. The time provided for completion of the Contract has been changed. Bidders shall acknowledge receipt of all Addenda by number in the space provided in the Proposal.

\*\*\*END OF ADDENDUM NO. 3\*\*\*

## **SECTION 09 96 35 -PROTECTIVE COATINGS**

### PART 1 – GENERAL

## 1.1 SUMMARY

- A. The work performed under this section applies to the installation of special protective coatings. The scope of work is for surface preparation, surface repair of defects and blemishes, furnishing and installation of the specified coatings. The work shall also include coordination with other trades and activities.
- B. Existing corrosion protective coatings at the headworks screen channels, grit chambers, and flow diversion structures are to be removed and replaced with new corrosion protective coating as shown on the drawings.
- C. Costs for all work included in this specification shall be paid for by the unit bid item identified in the bid form and described in the measurement and payment section of the specifications.

## 1.2 REFERENCE STANDARDS

- A. SSPC-SP13/NACE 6 Surface Preparation of Concrete
- B. ASTM D4258 Standard Practice for Surface Cleaning Concrete for Coating
- C. ASTM D4259 Standard Practice for Abrading Concrete
- D. ASTM D4263 Standard Test Method for Indicating Moisture in Concrete by Plastic Sheet Method
- E. ASTM D4787 Standard Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates
- F. ASTM D4414 Standard Practice for Measurement of Wet Film by Notch Gages
- G. ASTM D7234 Standard Test Method for Pull-Off Strength of Coatings on Concrete Using Portable Pull-Off Adhesion

#### 1.3 SUBMITTALS

- A. Section 01 33 00 "Submittal Procedures:" Requirements for submittals
- B. Product Data Manufacturer data, engineering properties, mixing, application, material safety data sheets (MSDS).
- C. Manufacturer Instructions: Submit special surface preparation procedures, substrate conditions requiring special attention, and name and contact information for manufacturer technical representative to be directly involved with project.
- D. Field Quality Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- E. Oualifications Statements:
  - 1. Submit Manufacturer's approval of Applicator.
  - 2. Submit a minimum of 3 years of Applicator's documented experience with specified coating.

## 1.4 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 "Execution and Closeout Requirements:" Requirements for Submittals.
- B. Operation and Maintenance Data: Submit information on cleaning, touchup, and repair of coated surfaces.

# 1.5 QUALITY ASSURANCE

- A. Perform Work according to Manufacturers and Engineer's Requirements
- B. The coating Manufacturer shall assign a representative to review acceptance of the work at each stage of completion, i.e., surface preparation, coating application, and Holiday testing. The Manufacturer's representative shall provide written certification that each stage of the work meets the coating manufacturer's requirements.
- C. All work shall comply with local, state, and federal regulations, and health and safety requirements.

# 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 "Product Requirements:" Requirements for transporting, handling, storing, and protecting products.
- B. Store and handle coating material in accordance with Manufacturer's Requirements

## 1.7 WARRANTY

A. Installed coating shall be warrantied by Contractor for 1 year from date of installation acceptance by Manufacturer's Representative and Engineer.

## **PART 2 - PRODUCTS**

## 2.1 APPLICATORS

A. Manufacturer shall approve applicator.

# 2.2 COATINGS

- A. Materials:
  - 1. SAUEREISEN, SEWERGARD NO. 210X applied minimum 120 mils DFT
  - 2. SAUEREISEN, RESTOKERETE FILLER COMPOUND NO. 209 filling concrete voids and minor concrete repair

# PART 3 - EXECUTION

## 3.1 SURFACE PREPARATION

A. Remove existing coating. Mechanical methods should be utilized to remove old coatings, protective coatings, and deteriorated concrete. Abrasive blast concrete to clean and remove all laitance, oil, grease, curing compounds, sealers, hardeners and any other contaminants as required by the Engineer and recommended by the Manufacturer. Abrasive material shall be copper slag 30x60 grit, as manufactured by Minerals Research, Inc. Certification shall be provided that slag does not contain any lead. Water blasting or acid or chemical etching is not acceptable surface preparation methods. Surface voids shall be filled and/or repaired with Restokrete Filler Compound No. 209 or depending on severity as recommended by Manufacturer. The contractor shall prepare the concrete surfaces according to the Manufacturer's requirements. Surface should be profiled to an ICRI CSP 4-6 per ICRI 310.2 (equivalent to SSPC-SP6) and compared against surface profile chips in accordance with ICRI Guideline No. 03732. Contractor shall inspect prepared surface with Manufacturer's representative and Engineer to confirm surface meets Manufacturer's requirements.

- B. Verify dryness by "The Plastic Sheet Test Method" in accordance with ASTM D4263 "Standard Test Method for Indication of Moisture in Concrete."
- C. Concrete surfaces must be free from dust and any other contaminants prior to applying coating.
- D. The Contractor shall notify the Engineer for inspection a minimum of 48 hours in advance of applying coating.
- E. The Manufacturer's representative shall provide field certification that the surface preparation meets the coating Manufacturer's requirements.

## 3.2 APPLICATION

- A. Do not apply coatings to surfaces that are not dry.
- B. Apply coating in conformance with Manufacturer's approved methods of application and temperature requirements.
- C. Apply each coat to uniform appearance.
- D. Apply coating not to exceed manufacturer's maximum thickness per coat, based on Manufacturer's allowable methods of application.
  - 1. Full thickness of coating shall be applied in at least three (3) coatings within the Manufacturer's recoat window.

## E. Cleaning:

- 1. Vacuum surfaces to remove loose particles.
- 2. Use tack cloth to remove dust and particles just prior to applying the next coat.
- F. The Manufacturer's representative shall provide field certification that the coating application meets the coating Manufacturer's requirements.

# 3.3 FIELD QUALITY CONTROL

#### A. Testing:

- 1. Wet Film Thickness testing per ASTM D4414 shall be performed by the Contractor and witnessed by the Engineer to verify minimum coating thickness is provided at locations designated by Engineer.
- 2. After the coating has sufficiently cured, holiday testing shall be conducted by the Contractor and witnessed by the Engineer to verify a continuous pinhole-free lining. The Contractor shall use high-voltage holiday detection equipment. Spark test procedures shall be per ASTM D-4787. Test equipment shall be set at 100 volts per mil of coating DFT, plus the electrical conductivity of the concrete, determined by spark testing a section of bare (uncoated) concrete in the particular area being tested, or as required by the Manufacturer. Detector settings to be verified with Manufacturer. Pinholes detected during spark testing, as well as coated surfaces showing visible defects, e.g., poor adhesion, improperly cured areas and blisters, shall be marked and treated per the Manufacturer's recommendations.
- 3. Adhesion (Pull-Off) testing in accordance with ASTM D7234 shall be conducted by the Contractor and witnessed by Engineer and Manufacturer's representative.
  - 1. Six (6) dolly's (1/2-inch diameter rotary cut and pull) per 250 square foot shall be conducted at locations designated by Engineer and Manufacturer's representative.
  - 2. Any coated area where the pull test shows the coating can be removed with anything less than 250 lbs. of pull shall have the coating completely removed and reapplied.
  - 3. 1/2-inch diameter coating cuts/removals used to perform pull test shall be repaired by sanding and cleaning and applying new coating.

# B. Acceptance

- 1. Repair or recoat areas containing holidays according to coating Manufacturer instructions.
- 2. Retest repaired or recoated areas.
- 3. Manufacturer's representative shall provide field certification that the Holiday testing and subsequent repairs meets the coating Manufacturer's requirements.

**END OF SECTION**