

**ADDENDUM NO. 1**

**ORANGETHORPE AVENUE REHABILITATION PROJECT  
CITY PROJECT NO. ST-353**

**MAY 18, 2020**

**TO ALL MANDATORY PRE-BID MEETING ATTENDEES:**

Clarifications/Questions from Contractors.

The following addresses questions and offers clarifications for the project referenced above received by the City from Contractors and the information below will be incorporated into the project per this Addendum.

**1. BID DATE CHANGE**

The City of La Palma changes the bid date noted in the Notice Inviting Bids of Wednesday, May 20, 2020 to Wednesday June 10, 2020.

**2. BID PROCEDURE CLARIFICATION:**

**THE FOLLOWING REPLACES THE DIRECTIONS PROVIDED IN THE NOTICE INVITING BIDS FOR THE DELIVERY OF SEALED PROPOSALS;**

The City will receive sealed proposals at the office of City Engineers, Community Services Building, **7821 Walker Street**, La Palma, California, **until 2:00 PM on Wednesday, June 10, 2020** for the furnishing of all labor, materials and equipment for **Orangethorpe Avenue Rehabilitation Project, City Project No. ST-358.**

**The sealed envelopes/proposals shall be deposited into the box labeled "Public Works" at the front door of the Community Services Department. Staff will then pick up and date stamp the envelopes/proposals. After 2:00 PM, no further proposals will be accepted, staff will collect all proposals and will direct attending contractors to an area to publicly open the bids and provide the results.**

**3. CITY HALL EXTERIOR CONCRETE REPAIRS:**

The City requests the contractors to inspect, clean, prepare and repair the exterior concrete sidewalks and the pre-cast concrete panels utilizing specialized methods and specifications attached. Contractors are required to download the City Hall repair plan and photo identification of repair areas from the City's website.

There will be two bid items for the City Hall Repairs:

- A. Sidewalk Repairs – Lump Sum
- B. Handrail Repairs – Lump Sum

A revised bid sheet will be provided at a later date. With the Contractor's acknowledgement of receipt of Addendum No. 1 with the bid submittal, the Contractor has inspected the site and fully understands the limits of and magnitude of the work.

Please sign below and attach this "ACKNOWLEDGMENT OF RECEIPT", Addendum No. 1 with the Bid submittal documents. Failure to submit the signed Addendum No. 1 Acknowledgement will render the contractor's bid as non-responsive. Thank you for your cooperation.

Sincerely,



Douglas Benash, P.E  
City Engineer

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ACKNOWLEDGMENT OF RECEIPT: Addendum No. 1

\_\_\_\_\_

Company Name

\_\_\_\_\_

Date

By \_\_\_\_\_

Signature

Attachment: City Hall Concrete Repair Specifications

roughened as specified herein. Where non-shrink grout or repair mortar is used, any additional surface preparation steps recommended by the manufacturer shall be performed.

- B. Where repair concrete or cement grout is used, and a bonding agent is not required, or where the repair mortar or non-shrink grout manufacturer recommends a wet or saturated surface, water shall be delivered to the surface continuously for a minimum of four hours.
- C. Where the repair material manufacturer recommends the use of an epoxy-bonding agent, the recommendations of both the repair material and bonding agent manufacturers shall be followed.
- D. Care shall be taken to fully consolidate the repair material, completely filling all portions of the area to be filled.
- E. The repair surface shall be brought into alignment with the adjacent existing surfaces to provide a uniform, even surface. The repair surface shall match adjacent existing surfaces in texture and shall receive any coatings or surface treatments which had been provided for the existing surface.
- F. Curing:
  - 1. Curing of repair mortar and non-shrink grout shall be according to the manufacturer's recommendations except that the minimum cure period shall be three days.

### 3.3 FIELD QUALITY CONTROL

- A. General Conditions, Section F Quality Assurance and Quality Control: Field inspecting and testing.
- B. OWNER will employ a testing laboratory to perform field quality control testing. CONTRACTOR shall make standard compression tests and specimens required as specified below. CONTRACTOR shall also provide all labor, material and equipment required including rods, molds, thermometer, curing in a heated storage box, and all other incidentals required. Furnish all necessary storage, curing, and transportation required by the testing.
- C. Field tests of cement based grouts and repair mortar:
  - 1. Compression test specimens will be taken during construction from the first placement of each type of mortar or grout, to ensure continued compliance with these specifications. The specimens will be made by the CONTRACTOR.
  - 2. Compression tests and fabrication of specimens for repair mortar and nonshrink grout will be performed as specified in ASTM C 109. A set of three specimens will be made for each test. Tests shall be made at 7 days, 28 days, and additional time periods as appropriate.
  - 3. All material, already placed, which fails to meet the requirements of these specifications, is subject to removal and replacement at the cost of CONTRACTOR.
  - 4. The cost of all laboratory tests on mortar and grout will be borne by the OWNER, however CONTRACTOR shall obtain specimens for testing. The cost of any additional tests and investigation on Work performed which does not conform to the requirements of the specifications will be the CONTRACTOR's responsibility. Supply all materials necessary for fabricating the test specimens.

**END OF SECTION**

- b. Use grinder to create vertical edge around spalling area at least 1/8-inch deep (for minor spalling area only)
  - c. Prime repair area and any exposed rebar with epoxy primer (Sika Armatec 100 Epocem or approved equal)
  - d. Apply two-component polymer-modified cementitious non-sag mortar (Sikatop-123 Plus or approved equal)
3. Repair procedure for typical exposed rebar repair
- a. Remove loose concrete and debris until sound concrete is reached.
  - b. Remove additional concrete as applicable until a clear space of minimum 3/4-inch is created behind the bar.
  - c. Clean rebar with wire brush or equal. If rebar has lost more than 25% of its diameter due to corrosion, rebar shall be cut and removed.
  - d. If rebar is to be replaced, the replacement rebar shall be the same diameter and join to the remaining existing rebar using rebar couplers with approved ICC-ESR.
  - e. Prime repair area and any exposed rebar with epoxy primer (Sika Armatec 100 Epocem or approved equal)
  - f. Apply two-component polymer-modified cementitious non-sag mortar (Sikatop-123 Plus or approved equal)

## 2.3 DIGESTER INTERIOR CRACKS AND SURFACE SPALLING

- A. Primary Interior Repair Recommendations:
1. Abrasive blast the entire interior concrete ceiling and walls area removing all loose material and achieving a profile of ICRI CSP5 or better finish. Reference SSPC SP13 Preparation of Concrete. Wet sand blast inside of top of trough and top 15 feet from the top of the inside digester wall. Route out any cracks 1/16-inch wide or greater.
  2. Break off projecting parts of concrete or aggregate and remove all loose concrete and debris.
  3. Route crack with a grinder to the full depth of the crack and provide an even surface on the bottom and sides of newly routed crack.
  4. Prime repair area with Tnemec Series 201 EpoxoPrime.
  5. Apply Tnemec Series 206SC Chembloc MCK (Mortar Containment Kit) to fill the crack.
  6. Embed Tnemec Series 211-0216 Fiberglass Tape into the wet 206SC Chembloc MCK.
  7. Saturate the Series 211-0216 with Tnemec Series 206SC Chembloc MCK.
  8. Apply Tnemec Series 434 Perma-Shield H2S at a nominal 1/8-inch (125 mils) DFT plus Tnemec Series 435 Perma-Glaze at 15 mils to 20 mils DFT topcoat.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions under which repair Work is to be installed, and notify OWNER, in writing, of conditions detrimental to proper and timely completion of Work. Do not proceed with Work until unsatisfactory conditions have been corrected in a manner acceptable to OWNER.

### 3.2 PREPARATION

- A. The entire area to be repaired shall have all laitance, foreign material, and unsound concrete removed by chipping, abrasive blasting or hydroblasting. The surface shall be further

## 1.5 QUALITY ASSURANCE

- A. Qualifications:
1. Provide the services of a qualified specialty subcontractor to perform the work that has been engaged in the repair and rehabilitation of reinforced concrete structures for a minimum of five years.
- B. CONTRACTOR shall contact ENGINEER for inspection and approval at the following stages for the removal, salvage and storage work, concrete rehabilitation preparation work, foam removal, coating application, mechanical and component installation, prior to continuing:
1. Prior to beginning.
  2. At less than 10 percent completion.
  3. At 50 percent completion.
  4. At 100% completion.

## PART 2 PRODUCTS

### 2.1 REPAIR MORTAR

- A. Repair mortar shall be a prepackaged cement based product specifically formulated for the repair of concrete surface defects. The repair mortar shall be a two component polymer-modified, portland cement, fast setting, trowel-grade mortar. The repair mortar shall be enhanced with a penetrating corrosion inhibitor and shall have the following properties:

<u>Physical Property</u>	<u>Value</u>	<u>ASTM Standard</u>
Compressive Strength (minimum)		C109
at 1 day	2000 psi	
at 28 days	6000 psi	
Bond Strength (minimum)		C882*
at 28 days	1800 psi	

\* Modified for use with repair mortars.

- B. Where the least dimension of the placement in width or thickness, exceeds 4-inches, the repair mortar shall be extended by addition of aggregate as recommended by the manufacturer.
- C. Product and Manufacturer:
1. Tnemec Series 218 MortarClad at 1/16-inch minimum, then Tnemec Perma-Shield H2S Series 434 at 1/8-inch to 1/4-inch, then Tenemec Perma-Glaze Series 435 at 15 mils DFT.

### 2.2 DIGESTER EXTERIOR LARGE CRACKS AND SURFACE SPALLING

- A. Primary Repair Procedure for all exterior cracks and spalling:
1. Repair procedure for typical exterior cracks.
    - a. Chase crack with "V" shaped blade as required and prepare substrate.
    - b. Install polyurethane non-sag elastomeric sealant with backer rod (Sika 1A or approved equal).
    - c. Tool as required to properly fill crack.
  2. Repair procedure for typical exterior spalling.
    - a. Remove all loose concrete and debris until sound concrete is reached

## SECTION 03 93 00

### CONCRETE REPAIR AND REHABILITATION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Requirements to repair the concrete at the locations of the existing structure as specified and as shown on the Drawings.

##### 1.2 REFERENCES

- A. Reference Standards:
  - 1. General Conditions, Section B – Preliminary Matters, Part 4.0 "Contract Documents", A- Interpretation of the Contract Documents: Requirements for references.
  - 2. ASTM International:
    - a. ASTM C109 - Test Method for Compressive Strength of Hydraulic Cement Mortars.
    - b. ASTM C157 - Test Method for Length Change of Hardened Cement Mortar and Concrete.
    - c. ASTM C882 - Test Method for Bond Strength of Epoxy-Resin Systems Used with Concrete.
    - d. ASTM D903 - Test Method for Peel or Stripping Strength of Adhesive Bonds.
    - e. ASTM G109 - Test Method for Determining the Effects of Chemical Admixtures on the Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments.

##### 1.3 COORDINATION

- A. General Conditions, Section D – Contractor Responsibilities, Part 3.0 "Coordination of Work": Requirements for coordination.
- B. Provide advanced notice of at least five (5) working days to the ENGINEER for any inspections for progress or approval.

##### 1.4 SUBMITTALS

- A. General Conditions, Section J – Shop Drawing Submittal: Requirements for submittals.
- B. Manufacturer's product information and recommended placement procedures for all repair materials.
- C. Experience and qualification information for specialty subcontractor performing the repair work.

# CITY OF LA PALMA

**SLUDGE FEED PIPE CLAMP**  
NOT TO SCALE

**SLUDGE RECIRCULATION PIPE PIPE STRAP**  
NOT TO SCALE

**PIPE SUPPORT**  
NOT TO SCALE

**SUPERNATANT PIPE PIPE CLAMP**  
NOT TO SCALE

**CONCRETE REHABILITATION**  
NOT TO SCALE

**TYPICAL VERTICAL NON-STRUCTURAL CONCRETE CRACK REPAIR**

**TYPICAL EXPOSED REBAR REPAIR**

**TYPICAL CONCRETE SPALLING REPAIR**

**CONCRETE REHABILITATION QUANTITIES**

TYPE	ESTIMATED QUANTITIES (SEE NOTE NO. 2)
NON-STRUCTURAL VERTICAL CONCRETE CRACK	300 SQ FT
EXPOSED REBAR	5 TONS
CONCRETE SPALLING	330 SQ YD

**CONCRETE REHABILITATION**  
NOT TO SCALE

**SCAFFOLDING ANCHOR BOLT REPAIR**  
NOT TO SCALE

**CONFORMED DRAWINGS**

**STRUCTURAL DETAILS**

# ST. 353 ORANGETHORPE ROAD CITY HALL CONCRETE REPAIRS

5/18/2020 DBENAST

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