



**CITY OF COALINGA**  
*The Sunny Side of the Valley*

City of Coalinga  
Fresno County, California

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## Contract Documents & Specifications

for:

## Ramsey Park Project

### PW 25-001

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Prepared By:



**Tri City Engineering**

4630 W. Jennifer Ave, Suite 101

Fresno, CA 93722-6415

[www.tricityengineering.com](http://www.tricityengineering.com)



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Bid Opening: March 24, 2026, 2:00 P.M. (DST)

Addendum No.: \_\_\_\_\_

Rev: 5-Mar-26

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## **DIVISION 0 – DOCUMENTATION**

### **SECTION 00010 - NOTICE TO CONTRACTORS**

**NOTICE IS HEREBY GIVEN** that the City of Coalinga, California will receive sealed bids at the City Engineer's Office (Tri City Engineering, Inc.) 4630 W. Jennifer Ave, Suite 101, Fresno, CA 93722, (559) 447-9075, Fax (559) 447-9074 on or before 2:00 P.M. (P.S.T.) March 24, 2026, for:

#### **Ramsey Park Project PW 25-001**

The primary scope of work, is to construct a new 0.34-acre public park, to be called Ramsey Park, on the undeveloped lot located at 405 5th street, Coalinga, CA. Off-site improvements include, but are not limited to, reconstruction of the existing concrete sidewalk, drive approach, curb, gutter and one ADA parking stall with an ADA curb ramp. Park amenities include a new splash pad, shade structure, restrooms, a shower, drinking fountains, trash receptacles, seat walls, benches, picnic bench, and permanent park signages. On-site improvements also include sidewalk, rock chip grass areas, trees, new utilities including storm drainage improvements.

Prime Contractor to construct overall park site and amenities, including off-site improvements, shade structure and foundation. Prime Contractor shall prepare modular restroom subgrade and subbase, connect pre-installed utilities to restroom and shower, coordinate prefabricated modular restroom delivery, install modular pieces as one building and installation of all loose equipment and utilities inside other than the splash pad pool equipment, restroom base coving, and epoxy floor finish. Prime Contractor to furnish and install on-site electrical service from main distribution panel to two 200 amp, 240V single phase electrical panel.

City of Coalinga public works to construct off-site public utility improvements including water service connection to main, and sewer service connection to main and stub for Prime Contractor to finish service lines. City to also remove and install all trenching materials and pavement from proposed chip rock to existing alley pavement.

The restroom vendor shall design, furnish, and construct all material, labor, tools and expendable equipment for the construction of the prefabricated modular restroom facility, and delivery placement of said facility to the line and grade specified on the plans including drinking fountains but not including the outdoor shower. The restroom utility/mechanical/storage room shall be completed and constructed and turnkey for the splash pad pump system. Restroom vendor shall coordinate with the general Contractor, city engineer, and splash pad vendor for all utility connection features and details of the site.

The splash pad vendor shall design, furnish, and construct all material, labor, tools and expendable equipment for the construction of an automated, interactive, standalone, and functioning recirculation splash pad system including splash pad grading to subbase, water features, all underground and above ground utilities, pump system installation inside the restroom's utility room. The splash pad shall also incorporate a decorative seat wall and sidewalk along the perimeter of the splash pad. Sidewalks leading to the splash pad shall be constructed by the general Contractor. Splash pad vendor shall coordinate with the general Contractor, city engineer, and restroom vendor for all utility connection features and details of the site.

All base bid work shall be completed within forty-eight (48) working days from the date of the Notice to Proceed (NTP).

There will be a Mandatory Pre-Bid Meeting on, March 10, 2026 at 10:00 A.M. (P.S.T.) No one will be admitted after 10:05 A.M. All interested Bidders are directed to meet on-site at 405 N. 5<sup>th</sup>/Coalinga Plaza Street, Coalinga, CA 93210.

Project plans and specifications may be examined at Tri City Engineering, Inc.'s Office, the Fresno Builder's

Exchange and Coalinga City Hall, 155 W. Durian Ave., Coalinga, CA 93210.

**Only those who have purchased Plans and Specifications from the office of the Engineer will be considered eligible Prime Bidders.**

Copies may be obtained at the Tri City Engineering, Inc. office for a non-refundable fee of Ten Dollars (\$10.00) for a USB Flash Drive or, Fifty Dollars (\$50.00) for a printed set with payment in the form of a check made payable to Tri City Engineering, Inc. Call (559) 447-9075 for an appointment.

Each bid shall be accompanied by Bid Security, cash, a cashier's or certified check payable to the City of Coalinga, or bid bond issued by a corporate surety, for an amount not less than ten percent (10%) of the aggregate of the bid, as a guarantee that the Bidder will enter into the proposed Contract if the same is awarded to the Bidder. Such guarantee will be forfeited should the Bidder to whom the Contract is awarded fail to enter into the Contract.

A Performance Bond in the amount equal to one hundred percent (100%) of the Contract amount and a Labor and Materials Bond in the amount equal to one hundred percent (100%) of the Contract amount will be required by the City from the Bidder to whom the Contract is awarded. Said bonds shall be issued by a surety company who is an admitted surety insurer authorized by the California Department of Insurance to transact business in this state, and acceptable to the City of Coalinga. Bidders are cautioned that representations made by surety companies will be verified with the California Department of Insurance. Pursuant to Public Contract Code Section 22300, substitution of securities for any monies withheld by the City of Coalinga to ensure performance under the Contract shall be permitted.

The successful Bidder must possess or obtain a valid **California Class "B"** Contractor's license prior to the scheduled award date of this Contract. Award consideration will take place at the earliest available Council meeting or as the City Manager has been authorized to award and execute the Contract. All representations made on the proposal are made under penalty of perjury.

Bidders must review and adhere to the Project Specifications, Plans, Addenda and execute, sign, and seal Bids for a Formal Bid to be evaluated and deemed responsive. The Apparent Low Bidder shall be announced during the Bid Opening and Successful Bidder announced following the City Council Meeting.

The City reserves the right, in its sole discretion, to reject any and all bids for any reason whatsoever, to waive minor irregularities in such bids, to determine the lowest responsible bidder, and to accept any bid. The City reserves the right, in its sole discretion, to disqualify bids, proposals, and/or affiliates as referred in the Ordinance Related to Disqualification of Contractors for Public Works Projects.

Pursuant to Section 1770, et. Seq., of the California Labor Code, the successful Bidder shall not pay less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. These wage rates are available from the California Department of Industrial Relations' Internet website at <http://www.dir.ca.gov/DLSR/PWD>. A copy of the mentioned wage rates shall be posted by the Contractor at the job site where it will be available to any interested party.

Pursuant to Section 1725.5 of the California Labor Code, no Contractor or Subcontractor may be awarded a Contract for public work on a public works project unless registered with the Department of Industrial Relations at the time the Contract is awarded.

Pursuant to Labor Code section 1771.1, no Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations. Furthermore, no Contractor or Subcontractor may be awarded a Contract on a public works project (awarded on or after April 1, 2015), unless registered with the Department of Industrial Relations.

Pursuant to Labor Code section 1771.4, all Bidders are hereby notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Direct all questions for clarification of this Notice to Bidders to the Engineer in writing via Fax (559) 447-9074 or Email [info@tricityengineering.com](mailto:info@tricityengineering.com). All questions must be received on or prior to 12:00 P.M. (P.S.T.), March 19, 2026.

**END OF SECTION**

## SECTION 00015 - LIST OF DRAWINGS

### GENERAL SHEET INDEX:

Project Name: Ramsey Park Project

Project Plan No.: 3101

Local Project No.: PW 25-001

### SHEET NO. TITLE:

#### **BASE BID: RAMSEY PARK PROJECT**

T-1	TITLE SHEET
GN-1	GENERAL NOTES AND DETAILS SHEET
D-1	DETAILS SHEET 1
D-2	DETAILS SHEET 2
D-3	DETAILS SHEET 3
D-4	DETAILS SHEET 4
D-5	DETAILS SHEET 5
DM-1	TOPOGRAPHIC & DEMOLITION SHEET
C-1	OVERALL SITE PLAN
C-2	SITE IMPROVEMENT PLAN
C-3	DIMENSION SITE PLAN
GR-1	GRADING PLAN
ST-1	STRIPING, SIGNAGE, AND MARKINGS PLAN
U-1	UTILITIES PLAN
IR-1	IRRIGATION PLAN
IR-2	IRRIGATION PLAN
PL-1	PLANTING PLAN
E-1	ELECTRICAL PLAN
ESCP	EROSION & SEDIMENT CONTROL PLAN

#### **RCP - SHELTER SHADE STRUCTURE PLANS**

1	ROOF PLAN
2	FOUNDATION PLAN
3	SITE LAYOUT PLAN
4	DETAIL 1
5	DETAIL 2
6	DETAIL 3

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## **CALIFORNIA COMMERCIAL POOLS – SPLASH PAD PLANS**

CO-1	COVER SHEET/SITE LOCATION/SHEET INDEX
CO-2	GENERAL NOTES
SP-1	SITE LAYOUT PLAN
SP-2	SPLASH PAD LAYOUT PLAN
SP-3	SPLASH PAD FEATURE DIMENSIONAL LAYOUT PLAN
SP-4	SPLASH PAD FEATURE PIPING PLAN
SP-5	SPLASH PAD SECTIONS
SP-6	SPLASH PAD DETAILS
SP-7	SPLASH PAD DETAILS
SP-8	SPLASH PAD DETAILS
SP-9	MECHANICAL ROOM LAYOUT PLAN
SP-10	MECHANICAL ROOM DETAILS

## **GREEN FLUSH RESTROOM - PRE-FAB MODULAR RESTROOM PLANS**

A0.0	COVER SHEET
A0.1	SPECIFICATIONS
A0.2	SPECIFICATIONS CONT.
A1.0	EXTERIOR ELEVATIONS
A2.1	FLOOR PLANS
A2.2	PRODUCTION FLOOR PLAN
A2.3	ANCHOR BOLT PLAN
A3.1	REFLECTED CEILING PLAN
A5.1	INTERIOR ELEVATIONS
E2.1	ELECTRICAL PLAN
E4.1	ELECTRICAL SCHEDULES
M2.1	MECHANICAL PLAN
P2.1	DWV SCHEMATIC
P3.1	SUPPLY SCHEMATIC
S1.1	CROSS SECTION
S2.0	STEEL FABRICATION DETAILS
S2.1	STEEL FRAME PLAN
S2.2	REBAR PLAN
S5.1	ROOF FRAMING PLAN
S5.2	STEEL ROOF DETAILS

## **END OF SECTION**

## ***SECTION 00020 - PLANS AND SPECIFICATIONS***

The work embraced herein shall be done in accordance with the Standard Specifications dated 2025 and the City Standards dated December 2006, insofar as the same may apply and these special provisions.

In case of conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of the conflicting portions.

Amendments to the Standard Specifications set forth in these special provisions shall be considered as part of the Standard Specifications for the purposes set forth in Paragraph 5-1.04, "Coordination and Interpretation of Plans, Standard Specifications and Special Provisions," of the Standard Specifications. Whenever either the term "Standard Specifications is amended" or the term "Standard Specifications are amended" is used in the special provisions, the indented text or table following the term shall be considered an amendment to the Standard Specifications. In case of conflict between such amendments and the Standard Specifications, the amendments shall take precedence over and be used in lieu of the conflicting portions.

**END OF SECTION**

# SECTION 00050 - BID PACKET CHECKLIST

## BID CHECKLIST – COVER PAGE

Project Name: Ramsey Park Project  
Project No.: PW 25-001

Owner's Name: City of Coalinga  
City Engineer's Name: Tri City Engineering, Inc.

### **REQUIRED CHECKLIST (INCLUSIVE OF ALL ITEMS A-D):**

Bidders shall complete and submit one Bid Packet of all documents listed below for bids to be considered responsive. Documents required on the checklist but not included may render your Bid non-responsive and ineligible for award. Bids received by the City Engineer by the scheduled Bid Opening time will be opened and publicly read but are subject to verification during the evaluation process that all the required documents have been submitted.

- A.  **BID CHECKLIST – COVER PAGE (Section 00050)**
- B.  **BID SECURITY** in the form of:
  - [ ] Certified Check
  - [ ] Bidder's Bond
  - [ ] Cashier's Check
- C.  **BID PROPOSAL (Section 00410)**
  - 1.  BID PROPOSAL SUMMARY PAGE
  - 2.  BIDDER'S INFORMATION
  - 3.  ITEMIZED BID PROPOSAL
  - 4.  LIST OF SUBCONTRACTORS
  - 5.  LIST OF REFERENCES
  - 6.  GUARANTEE
  - 7.  INSURANCE CERTIFICATION
  - 8.  NONCOLLUSION AFFIDAVIT
  - 9.  PUBLIC CONTRACT CODE
  - 10.  EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION
  - 11.  LABOR CERTIFICATION
  - 12.  DEBARMENT AND SUSPENSION CERTIFICATION
  - 13.  DISCLOSURE OF LOBBYING ACTIVITIES
- D. **ADDENDA** - All Addenda issued,  
Addenda No. \_\_\_ to \_\_\_. (Enter numbers)

SUBMITTED BY:

Name of Company \_\_\_\_\_

Contact Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

**END OF SECTION**

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## ***SECTION 00060 - DEFINITIONS AND TERMS***

Terms below shall have the same meanings indicated in the Bidders Instructions, General Conditions and Supplementary Conditions, Ordinance Related to Disqualification of Contractors for Public Works Projects; additional terms may be called out. All terms apply throughout the entire Specifications which are applicable to both the singular and plural thereof:

**Addenda (Addendum)** – Written information adding to, clarifying and/or modifying the Contract Documents after publication.

**Apparent Low Bidder** – The Bidder with the lowest, responsive bid.

**Bid** – An offer by the Bidder for the work. Bid Packets are submitted in a sealed package of signed and executed Bid Documents as specified in Sections 00050 and 00200.

**Bid Amount** – Monetary sum identified by the Bidder.

**Bid Documents** – Contract Document Forms required to complete for a formal bid; as listed in Section 00050.

**Bid Security** – The cash, certified check, cashier's check, or bid bond accompanying the Bid submitted by the Bidder as a guaranty that the Bidder will enter into a Contract with the City for the construction of the work, if awarded to that Bidder.

**Bidder** – The individual or entity who submits a Bid.

**Bidder's Guaranty** – See Guarantee Form and Bid Security.

**Business Days** – Monday through Friday, from 8:00 a.m. to 5:00 p.m., excluding City observed holidays and City closure days and times.

**Calendar Days** – All days in a month excluding federally observed holidays.

**City** – City of Coalinga.

**Contract Document** – Documents and Forms prepared for the work and packaged as Project Specifications; defined in State Standard Specifications and EJCDC C-700 Article 1 including issued Addenda.

**Department of Public Works** – Department of Public Works of the City of Coalinga.

**Design Engineer** – Tri City Engineering, Inc., also known as the City Representative.

**Issuing Office** – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

**Project Title** – Ramsey Park Project.

**Proposal** – See Bid.

**Proposal Form** – See Bid Documents.

**City Standards Plans** – City of Coalinga Standards 2006.

**State Standards** – State of California Department of Transportation Standard Specifications, 2025. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the City or its corresponding agency, office or officer acting under this Contract.

**State Standard Plans** – The Standard Plans of the State of California, Department of Transportation.

**Successful Bidder** – Individual or entity whom submitted the lowest responsive Bid and all required Bid Documents to whom the Owner (on the basis of the Owner's evaluations as hereinafter provided) makes an award.

**Superintendent** – The executive representative of the Contractor present on the project at all times during progress, authorized to receive and fulfill instructions from the Public Works Department.

**Working Days** – Monday through Friday from 7am to 6pm local time, and excludes weekends and public holidays. Utilize Caltrans 5-Day Construction Workday Calendar.

**END OF SECTION**

# **SECTION 00200 - INSTRUCTIONS TO BIDDERS**

## **INVITATION**

### **BID SUBMISSION**

- A. Bids signed and under seal, executed, and dated will be received at the Issuing Office of the Design Engineer, Tri City Engineering, Inc. at 4630 W. Jennifer Ave, Suite 101, Fresno, CA 93722 until 2:00 P.M. (P.S.T.) on March 24, 2026.
- B. Bids submitted after the above time shall be returned to the Bidder unopened.
- C. Bids will be opened publicly immediately after the time of receipt of bids.
- D. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

## **INTENT**

The intent of this Bid request is to obtain an offer to perform work to complete the Ramsey Park Project for a Stipulated Sum Contract, in accordance with the Contract Documents.

### **WORK IDENTIFIED IN THE CONTRACT DOCUMENTS:**

The primary scope of work, is to construct a new 0.34-acre public park, to be called Ramsey Park, on the undeveloped lot located at 405 5th street, Coalinga, CA. Off-site improvements include, but are not limited to, reconstruction of the existing concrete sidewalk, drive approach, curb, gutter and one ADA parking stall with an ADA curb ramp. Park amenities include a new splash pad, shade structure, restrooms, a shower, drinking fountains, trash receptacles, seat walls, benches, picnic bench, and permanent park signages. On-site improvements also include sidewalk, rock chip grass areas, trees, new utilities including storm drainage improvements.

Prime Contractor to construct overall park site and amenities, including off-site improvements, shade structure and foundation. Prime Contractor shall prepare modular restroom subgrade and subbase, connect pre-installed utilities to restroom and shower, coordinate prefabricated modular restroom delivery, install modular pieces as one building and installation of all loose equipment and utilities inside other than the splash pad pool equipment, restroom base coving, and epoxy floor finish. Prime Contractor to furnish and install on-site electrical service from main distribution panel to two 200 amp, 240V single phase electrical panel.

City of Coalinga public works to construct off-site public utility improvements including water service connection to main, and sewer service connection to main and stub for Prime Contractor to finish service lines. City to also remove and install all trenching materials and pavement from proposed chip rock to existing alley pavement.

The restroom vendor shall design, furnish, and construct all material, labor, tools and expendable equipment for the construction of the prefabricated modular restroom facility, and delivery placement of said facility to the line and grade specified on the plans including drinking fountains but not including the outdoor shower. The restroom utility/mechanical/storage room shall be completed and constructed and turnkey for the splash pad pump system. Restroom vendor shall coordinate with the general Contractor, city engineer, and splash pad vendor for all utility connection features and details of the site.

The splash pad vendor shall design, furnish, and construct all material, labor, tools and expendable equipment for the construction of an automated, interactive, standalone, and functioning recirculation splash pad system including splash pad grading to subbase, water features, all underground and above ground utilities, pump system installation inside the restroom's utility room. The splash pad shall also incorporate a decorative seat wall and sidewalk along the perimeter of the splash pad. Sidewalks leading to the splash pad shall be constructed by the general Contractor. Splash pad vendor shall coordinate with the general Contractor, city engineer, and restroom vendor for all utility connection features and details of the site.

## CONTRACT TIME

Perform the base bid work in forty-eight (48) working days.

## CONSTRUCTION SCHEDULE (D.S.T.)

Mandatory Pre-Bid Meeting:	March 10, 2026	10:00 A.M. On-site, Coalinga CA
Questions/Clarifications Due:	March 19, 2026	12:00 P.M.
<b>Bid Opening:</b>	<b>March 24, 2026</b>	<b>2:00 P.M. at Tri City Engineering, Inc.</b>
Bid Award:	April 02, 2026	
Pre-Construction Meeting:	April 14, 2026	2:00 P.M. at Tri City Engineering, Inc.
Construction Start:	April 20, 2026	
Construction End:	June 25, 2026	

Construction Schedule with no foreseeable changes.

## LIQUIDATED DAMAGES

Liquidated Damages will be assessed at **\$1000.00 per day** for every calendar day beyond the end of Contract.

## BID DOCUMENTS AND CONTRACT DOCUMENTS

### DEFINITIONS

- A. Terms below shall have the same meanings indicated in Section 00060 – Definitions and Terms; additional terms may be called out in these sections. All terms apply throughout the entire Specifications which are applicable to both the singular and plural thereof:
1. Prime Bidder: The individual or entity who purchases Plans and Specifications from the Office of the Engineer and submits a Formal Bid directly to Issuing Office.
  2. Issuing Office: The office from which the Bid Documents are to be issued, submitted to, and where the bidding procedures are to be administered.
  3. Bid Documents: See Section 00060, Required Contract Document Forms to execute as instructed and package together with the remaining required Bid items.
  4. Addendum (pl. Addenda): Written information adding to, clarifying and/or modifying the Contract Documents after publication. Addenda may replace and/or add Contract and Bid Documents; Bidders shall adhere to all instructions.
  5. Bidding: Act of submitting an offer/proposal under seal.
  6. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.
  7. Evaluation: Formal review of all the formal Bids to verify if responsive or non-responsive. Completed after the Bid Opening by and in privacy of the City Engineer.

## CONTRACT DOCUMENTS IDENTIFICATION

The Contract Documents are identified for the project Ramsey Park Project, Project Number PW 25-001, as prepared by Tri City Engineering, Inc., located at 4630 W. JENNIFER AVE. SUITE 101, FRESNO, CA 93722-6415 and identified in the Table of Contents. Specific Contract Documents are required to execute and submit as Bid Documents for all formal Bids and are identified in Section 00050 – Bid Packet.

## AVAILABILITY

- A. Contract Documents may only be purchased at Tri City Engineering, Inc., 4630 W. Jennifer Ave, Suite 101, Fresno, CA 93722.
- B. Interested Bidders may purchase a USB Flash Drive of the Contract drawings and specifications for Ten Dollars (\$10.00) or Fifty Dollars (\$50.00) for a printed set. Payment is non-reimbursable and shall be made in the form of cash or a check made payable to Tri City Engineering, Inc. Call (559) 447-9075 for an appointment.
1. **Only those who have purchased Plans and Specifications from the office of the Engineer will be**

**considered eligible Prime Bidders and inserted on the Plan Holders List.**

- C. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

## **DOCUMENT EXAMINATION**

- A. Bid Documents may be viewed at Tri City Engineering, Inc., 4630 W. JENNIFER AVE, SUITE 101, FRESNO, CA 93722.
- B. Bid Documents are on display at the office of the Fresno Builders Exchange, 1244 N. Mariposa Street, Fresno, CA 93703.
- C. Upon receipt of Bid Documents verify that documents are complete. Notify the City Engineer should the documents be incomplete.
- D. Immediately notify the City Engineer at (559) 447-9075 upon finding discrepancies or omissions in the Bid Documents.
- E. Complete sets of Bidding Documents must be used in preparing Bids; neither City nor Tri City Engineering, Inc., assumes any responsibility for errors or misinterpretation resulting from the use of incomplete sets of Bidding Documents.

## **INQUIRIES/ADDENDA**

- A. Direct questions to Tri City Engineering, Inc., [info@tricityengineering.com](mailto:info@tricityengineering.com) or (559) 447-9075.
- B. Clarifications requested by Bidders must be in writing and must be received no less than **4 days** before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to Plan Holders.
- C. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount.
- D. Verbal answers are not binding on any party.

## **PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS**

- A. Where the Bid Documents stipulate a particular product, substitutions will be considered up to 10 days before receipt of bids.
- B. When a request to substitute a product is made, the Owner's Representative may approve the substitution and will issue an Addendum to Plan Holders.
- C. The submission shall provide sufficient information to determine acceptability of such products.
- D. Provide complete information on required revisions to other work to accommodate each proposed substitution.
- E. Provide products as specified unless substitutions are submitted in this manner and accepted.

## **SITE ASSESSMENT & EXAMINATION**

Assess & examine the site before submitting a bid. Pre-bid meeting attendance is required to bid.

## **PRE-BID MEETING**

There will be a Mandatory Pre-Bid Meeting on March 10, 2026, at 10:00 A.M.. No one will be admitted after 10:05 A.M. All interested Bidders are directed to meet on-site near 405 N. 5<sup>th</sup>/Coalinga Plaza Street, Coalinga, CA 93210.

## **QUALIFICATIONS**

### **EVIDENCE OF QUALIFICATIONS**

To demonstrate qualification for performing the work of this Contract, Bidders may be requested to submit written evidence of financial position, previous experience, and current commitments, license to perform work in the State and City. A Bidder may be deemed not responsible because of past unsatisfactory performance, as evidenced by failure to meet the qualification requirements per the Ordinance Related to Disqualification of Contractors for Public Works Projects, or because of state or federal suspension/debarment action. Provide references from at least three

(3) other clients of similar scope that have been installed by your company in the last five (5) years. Include name of project, description of project, year completed, and project contact name, phone, and email address.

## **SUBCONTRACTORS/SUPPLIERS/OTHERS**

City reserves the right to reject a proposed Subcontractor for reasonable cause. Refer to EJCDC C-700 Article 6.06 of General Conditions and the Ordinance Related to Disqualification of Contractors for Public Works Projects.

## **BRAND NAMES**

“Trade Names and Alternatives” – Wherever an article, or any class of materials, is specified by the trade name or by the name of any particular patentee, manufacturer or dealer, or by reference to the catalog of any such manufacturer or dealer, it shall be taken as intending to mean and specify the article of material described or any other equal thereto in quality, finish and durability, and equally as serviceable for the purpose for which it is or they are intended. It is not the intent of these plans and specifications to exclude or omit the products of any responsible manufacturer, if such products are equal in every respect to those mentioned herein.

## **STATE OF CALIFORNIA WAGE REQUIREMENTS**

Notice is hereby given that, pursuant to 1773 of the Labor code of the State of California, the Owner has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holidays and overtime work for each craft, classification, or type of worker required to execute the Contract. A copy of said prevailing rate of per diem wages is on file in the principal office of the Owner, to which reference is hereby made for further particulars. These wages are set forth in the General Prevailing Wage Rates for this project, available from the California Department of Industrial Relations’ Internet Web Site at: <http://www.dir.ca.gov>.

- A. Statutory Penalty for Failure to Pay Minimum Wages
  - 1. In accordance with 1775 of the California Labor Code, the Contractor shall as a penalty to the State of political subdivision on whose behalf a Contract is made or awarded, forfeit Eighty Dollars (\$80.00) for each worker employed in the execution of the Contract by the Contractor or by any Subcontractor for each calendar day during which said worker is required or permitted to work more than eight hours in any one calendar day and forty hours in any one calendar week in violation of 1820-1815 of the California Labor Code.
- B. Worker's Compensation Notice
  - 1. As required by 1860 of the California Labor code and in accordance with the provisions of 3700 of the Labor Code, every Contractor will be required to secure the payment of worker's compensation to its employees.
- C. Worker's Compensation Certification by Contractor
  - 1. In accordance with 1861 of the California Labor Code, the Contractor shall furnish the Owner a notarized statement as follows: "I am aware of the provisions of 3700 of the Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract."
- D. Apprenticeship Requirements
  - 1. Contractor agrees to comply with 1777.5, 1777.6 and 1777.7 of the California Labor Code relating to the employment of apprentices. The responsibility for compliance with these provisions is fixed with the Prime Contractor for all apprenticeship occupations. Under these sections of the law, Contractors and Subcontractors must employ apprentices in apprenticeship occupations, where journeymen in the craft are employed on the public work, in a ratio of not less than one apprentice hour for each five journeymen hours (unless an exemption is granted in accordance with 1777.5) and Contractors and Subcontractors shall not discriminate among otherwise qualified employees as indentured apprentices on any public work solely on the ground of race, religious creed, color, national origin, ancestry, sex, or age, except as provided in 3077 of the Labor Code. Only apprentices, as defined in 3077, which provides that an apprentice must be at least 16 years of age, who are in training under apprenticeship standards and who

have signed written apprentice agreements will be employed on public works in apprenticeship occupations.

E. Payroll Records

1. Contractor shall keep accurate payroll records on forms provided by the Division of Labor Standards Enforcement, or alternatively, the Contractor shall keep accurate payroll records containing the same information. Said information shall include, but not be limited to, a record of the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and actual per diem wages paid to each journeyman, apprentice, or worker employed by the Contractor. Such record shall be made available for inspection at all reasonable hours, and a copy shall be made available to employee or the Contractors authorized representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards in compliance with California Labor Code, Section 1776. Upon written notice from the Owner or the Division of Labor Standards Enforcement, the Contractor shall, within ten (10) days, file with the Owner a certified copy of the payroll records. The Contractor shall cause an identical clause to be included in every Subcontract for the work.

## **SUBCONTRACTOR LISTING LAW REQUIREMENTS**

- A. In accordance with Section 4104 of the California Public Contract Code, each Bidder, in the Bid, shall set forth the name and the location of the place of business of each Subcontractor who will perform work or labor or render service to the Prime Contractor in or about the construction of the work or improvement, or a Subcontractor licensed by the State of California who, under Subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and Specifications, in an amount in excess of one-half of one percent of the Prime Contractor's total bid.
- B. In accordance with Section 4107 of the California Public Contract Code, no Contractor whose Bid is accepted shall without consent of the Owner either:
  1. Substitute a person as a Subcontractor in place of the Subcontractor listed in the original Bid; or
  2. Permit a Subcontract to be voluntarily assigned or transferred, or allow it to be performed by anyone other than the original Subcontractor identified in the Bid; or sublet or subconsult any portion of the Work in excess of one-half of one percent of the Prime Contractor's total Bid as to which the original Bid did not designate a Subcontractor.
- C. Penalties for failure to comply with the foregoing sections of the California Public Contract Code are set forth in Sections 4106, 4110 and 4111 of the Public Contract Code. A Prime Contractor violating this law shall be deemed in breach of the Contract, and the awarding authority may, in its own discretion, (1) cancel the Contract or (2) assess the Prime Contractor a penalty in an amount of not more than (10%) percent of the amount of the Subcontract involved. Such penalty shall be deposited in the fund from which the Prime Contract was awarded. In any proceedings under this section the Prime Contractor shall be entitled to a public hearing and to five (5) days' notice of the time and place thereof.

## **BID/PROPOSAL PACKET BID PACKET REQUIREMENTS**

- A. Formal Bid Packets consists of required Bid Documents as described in Section 00050.
- B. Bid Packets should be filled out, executed, and submitted in accordance with the instructions per this specification.
- C. The Itemized Bid Proposal for this project includes both work listed as Lump Sum and work listed as unit price. Bids shall be submitted as follows:
  1. Lump Sum
    - i) Bidders shall submit a Bid on a Lump Sum basis as set forth in the Itemized Bid Proposal.
  2. Unit Price
    - i) Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Itemized Bid Proposal.

- ii) Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

## **BONDING REQUIREMENTS**

- A. Bid Bond of 10% of bid amount.
- B. Performance Bond 100% of Contract amount.
- C. Labor and Materials Bond 100% of Contract amount.

## **SECURITY DEPOSIT**

- A. Bids shall be accompanied by a security deposit as follows:
  - 1. Bid Security of a sum no less than (10%) percent of the Bid Amount.
- B. Endorse the Bid Security in the name of the Owner as obligee, signed and sealed by the principal (Contractor) and surety.
- C. The security deposit will be returned after delivery to the City of the required Performance and Payment Bond(s) by the accepted Bidder.
- D. Include the cost of bid security in the Bid Amount.
- E. If no Contract is awarded, all security deposits will be returned.

## **BIDDERS SIGNATURE**

- A. The Bid Documents shall be signed by the Bidder, as follows:
  - 1. Sole Proprietorship: Signature of Sole Proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
  - 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
  - 3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.
  - 4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.
- B. In 1999, California enacted the California Uniform Electronic Transactions Act (CUETA) in Civil Code 1633.1 to give electronic signatures the same legal authority as "wet" signatures on Contracts.
  - 1. An electronic signature is defined as an electronic sound, symbol or process that is attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record.
  - 2. By Signing electronically, all signatory parties of the Contract agree to the use of electronic signatures to execute the Contract.

## **BID SUBMISSION PROCEDURE**

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit one copy of the executed Bid Packet in a sealed envelope, clearly identified with Bidder's name, Project name and City's name on the outside.
  - 1. Improperly identified submission, late submission or unsealed envelope may be cause not to open the Bid envelope and declare the bid invalid, informal or non-responsive.
  - 2. Oral, fax or email modifications to bids after Bid Opening time prescribed will not be considered.
- C. By submitting Bid Packet, the Bidder certifies that Bidder has visited the project site, is aware of existing conditions which affect the work, and has reviewed the Contract Documents, including the all Addenda.

## **PUBLIC BID OPENING PROCEDURE**

- A. The Bid Opening shall take place at the Issuing Office on the date and time prescribed.
- B. Bid Packets shall be collected and remained sealed until after the Bid Opening Start time.
- C. This project will have a Public Bid Opening; Bidders may be present.
- D. The City Engineer shall open sealed Bid Packets and read aloud the Bidders Name and Bid Amount.
- E. After all bid packets have been opened and read, the apparent low Bidder shall be announced and the Bid Opening shall be closed.
- F. After the Bid Opening closes, the evaluation to verify each bid packet in privacy of the City Engineer shall take place and a staff report (summary of the bid opening) shall be prepared and issued to the City Council for final award.
- G. An abstract summary of submitted bids will be made available to all Bidders twenty-four (24) hours following bid closing.

## **BID INELIGIBILITY/NON-RESPONSIVE**

- A. Bids Packets that are unsigned, improperly signed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, will at the discretion of the City, be declared unacceptable or non-responsive.
- B. Bid Documents, Appendices, Addenda and enclosures which are improperly prepared, will at the discretion of the City, be declared unacceptable or non-responsive.
- C. Failure to provide bid security or acknowledge addenda, will at the discretion of the City, be declared unacceptable or non-responsive.
- D. The Owner reserves the right to modify the Contract Documents and rebid the project, if necessary.
- E. The City reserves the right, in its sole discretion, to disqualify bids, proposals, and/or affiliates as referred in the Ordinance Related to Disqualification of Contractors for Public Works Projects.

## **PERFORMANCE ASSURANCE**

Accepted Bidder: Provide a Performance and Payment bond as described in Document 00800 - Supplementary Conditions.

## **INSURANCE**

Upon award of Contract, Contractor will be obligated to file certificates of insurance evidencing coverage as specified in the bid documents and in a form acceptable to the City.

## **SELECTION AND AWARD OF ALTERNATIVES**

The lowest responsible bid price shall be determined by the Total Base Bid.

If there are alternatives, the lowest bid price shall be determined by adding the total of all bid items and the price of all alternatives. This does not preclude the City Council of the City of Coalinga from selecting any combination of alternates after the lowest responsible Bidder has been determined.

Bids will be compared in the following strict order:

**Total Base Bid = Base Bid**

## **BID PROTEST PROCEDURES**

**The lack of prompt procedure to resolve disputes regarding the bidding process would impair the City's ability to carry out its purpose of Contracting this project in a timely manner. Therefore, to the maximum extent authorized by law and notwithstanding any other procedures specified in these Contract Documents,**

**all disputes and/or protests regarding the bidding process shall be subject to the following procedure. In submitting a Bid to the City for this project, the Bidder agrees to comply with and to be bound by this procedure.**

- A. Any bid protest must be submitted in writing to the City before 5:00 p.m. on the fifth working day following bid opening.
- B. The bid protest must contain a complete statement of the basis for the protest and all supporting documentation. A nonrefundable fee of seven hundred fifty dollars (\$750) made payable to the City of Coalinga shall accompany the protest documents and will be used by the Owner to recover costs in evaluating the bid protest. A bid protest submitted without the requisite fee will be considered incomplete and will not be considered by the Owner.
- C. The party filing the protest must have actually submitted a bid for the work. A Subcontractor of a party submitting a bid for the work may not submit a bid protest.
- D. A party may not rely on the bid protest submitted by another Bidder but must timely pursue its own protest.
- E. The protest must refer to the specific portion of the Contract Documents which forms the basis for the protest.
- F. The protest must include the name, address, and telephone number of the person representing the protesting party.
- G. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other Bidders, and the bid protest must contain proof of service of the bid protest on the other Bidders.
- H. The protested Bidder shall have up to five (5) working days after the filing of a bid protest to submit a written response. The responding Bidder shall transmit the response to the protesting Bidder concurrent with the delivery to the Owner.
- I. The procedure and time limits set forth in this paragraph are mandatory and are the Bidder's sole and exclusive remedy in the event of the bid protest. The Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.
- J. The Owner will evaluate all proper bid protest before the award of the Contract to the lowest responsive and responsible Bidder

## **OFFER ACCEPTANCE/REJECTION**

### **DURATION OF OFFER**

Bids shall remain open to acceptance and shall be irrevocable for a period of Thirty (30) days after the bid closing date.

### **ACCEPTANCE OF OFFER**

- A. City reserves the right to accept or reject any or all offers.
  - 1. Owner reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsive.
  - 2. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids.
  - 3. Owner reserves the right to waive all informalities not involving price, time, or changes in Work and to negotiate Contract terms with the Successful Bidder.
  - 4. More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
  - 5. The Owner reserves the right to modify the Contract Documents and rebid the project, if necessary, to meet Owner's budgetary requirements.
  - 6. The City reserves the right, in its sole discretion, to disqualify bids, proposals, and/or affiliates as referred in the Ordinance Related to Disqualification of Contractors for Public Works Projects.

- B. After acceptance by The City, The Owner's Representative will issue to the Successful Bidder, a written letter of Notice of Recommendation to Award.

### **TIE BREAKER**

In the event a tiebreaker is needed to establish the lowest responsive and responsible Bidder, the City shall, unless otherwise agreed upon by all participating parties, utilize a coin toss as a tiebreaker to be administered by a third party chosen by mutual consent of the participants. Such coin toss shall take place within Seven (7) working days from the date of bid opening. If the City determines that a tiebreaker is necessary, each applicable Bidder agrees to participate or to indemnify the City in any litigation resulting from the utilization of the tiebreaker. If a Bidder refuses to timely participate, the City shall conduct the coin toss in a manner determined by the City to be fair to all and the results of such coin toss shall be final.

### **END OF SECTION**

## SECTION 00360 - PERMITS INFORMATION

### PERMITS

#### GENERAL INFORMATION

- A. This section provides information required to obtain permits necessary for construction of the project. Contractor shall obtain and pay for all construction permits and licenses.
- B. The Contractor shall be bound by the permit, as it applies, during his work. The cost of all Contractor obligations under the permit shall be borne by the Contractor at no expense to the Owner.
- C. CONTRACTOR shall submit permit applications with such promptness as to provide adequate time for review and cause no delay to the project schedule.

#### CITY

- A. Permit(s): *More information can be found under the City of Coalinga, Community Development Department, <https://www.coalinga.com/152/Community-Development>*
  - 1. Contractor will be required to complete a City of Coalinga Construction Meter Application from the City for the work under this project.
- B. Business License:
  - 1. Contractor and all Subcontractors performing work under this project shall be required to secure and maintain a current City Business License during work on any part of the project.
  - 2. Contact the following for information regarding obtaining a City Business License;

City of Coalinga  
Finance Department  
155 W. Durian Ave  
Coalinga, CA 93210  
(559) 935-1533

#### STATE WATER RESOURCES CONTROL BOARD (SWRCB)

##### IF PROJECT IS UNDER 1 ACRE & R-VALUE IS UNDER 5:

- A. Total Disturbed Soil Area (DSA) is approximately 0.42 acres and the R-Value is 0.674; therefore, the project is not applicable to SWRCB general construction permit requirements.
- B. If construction scheduled is adjusted outside the range on the R-Value construction schedule, Contractor shall check if a permit applies and if necessary, provide all permit requirements and/or a SWPPP, and apply for a permit. If a permit is required, the Contractor shall be bound by the permit, as it applies, during his work. The cost of all Contractor obligations under the permit shall be borne by the Contractor at no expense to the Owner.

### END OF SECTION

**SECTION 00410 - BID PROPOSAL**

**BID PROPOSAL SUMMARY PAGE**

Project Name: Ramsey Park Project  
Plan No.: 3101  
Project No.: PW 25-001  
Owner's Name: City of Coalinga  
City Engineer's Name: Tri City Engineering, Inc.

Total Bid Items (see Itemized Bid Proposal) \$ \_\_\_\_\_

Total amount of bid is \_\_\_\_\_

\_\_\_\_\_ dollars and \_\_\_\_\_ cents.

IN CASE OF DISCREPANCY BETWEEN THE PRICES WRITTEN IN WORDS AND THOSE WRITTEN IN FIGURES, THE PRICES WRITTEN IN WORDS SHALL GOVERN. The city reserves the right to waive any informalities or minor irregularities in the bids. In case the unit price in words is incorrectly written as the bid price for quantity-based item, and the price in words matches exactly the numerical bid price, it will be considered that the unit price in figures is given in good faith. Only in such cases, the unit price in figures will be used.

CONTRACTOR SHALL BID ON ALL OF THE ITEMS. THE OWNER RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS.

ADDENDA - This proposal is submitted with respect to the changes to the Contract included in addendum number/s

\_\_\_\_\_

WARNING: If an addendum or addenda have been issued by the administering agency and not noted above as being received by the Bidder, this proposal may be rejected.

A certified or cashier's check made payable to the City or a Bid Bond in favor of said City for

\_\_\_\_\_

\_\_\_\_\_ (\$ \_\_\_\_\_),

which amount is not less than ten percent (10%) of the total amount of this proposal, is attached hereto and is given as a guarantee that the undersigned will execute an agreement and furnish the required bonds if awarded the Contract and in case of failure to do so within ten days from notice of award the same will be forfeited to the City.

\_\_\_\_\_

By signing below, the signee name below is authorized to do so for the listed company, as listed on the Bidders Information section and by electronically signing below, the business named below expressly agrees to execute this Contract electronically and each signature signifies as a legally bound e-signature per the U.S. Electronic Signature and Records Association Act and Uniform Electronic Transitions Act.

By signing below, I certify all of the above figures have been carefully checked and understands that the City shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

By signing below, I certify I have visited the project site, aware of existing conditions which affect the work, and reviewed the Contract Documents, including all Addenda.

By signing below, I certify under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the Bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code).

By signing below, I certify under penalty of perjury under the laws of the State of California and the United States of America, that Non-Collusion Declaration of Contractor; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Business Name: \_\_\_\_\_

CA License Number: \_\_\_\_\_

DIR Number: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date \_\_\_\_\_

## BIDDER'S INFORMATION

The undersigned certifies that he has a valid license as Contractor in the State of California, for Class \_\_\_\_\_, the number of which is \_\_\_\_\_ and the expiration date of which is \_\_\_\_\_. The representations made herein are made under penalty of perjury.

1. Bidding Firm	2. Type of Business <input type="checkbox"/> Corporation <input type="checkbox"/> Jt. Venture <input type="checkbox"/> Partnership  <input type="checkbox"/> Individual DBA _____			
3. Business Address	4. Telephone Number  (    )			
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center; border: none;">City</td> <td style="width: 33%; text-align: center; border: none;">State</td> <td style="width: 33%; text-align: center; border: none;">Zip Code</td> </tr> </table>	City	State	Zip Code	5. Fax Number  (    )
City	State	Zip Code		
6. E-mail Address	8. Signature of Authorized Person			
7. Name of Authorized Person				

**(PLEASE SEE THE FOLLOWING INSTRUCTION REGARDING SIGNATURE)**

- (1) If Bidder is an individual, enter name here in style used in business; if a joint venture, exact names of entities joining in the venture; if a partnership, the correct trade style of the partnership; if a corporation, the exact name of the corporation under which it is incorporated.
- (2) If Bidder is other than an individual, identify here its character, i.e. corporation (including state of corporation), joint venture, partnership, etc. If Bidder is an individual operating under a trade name, state "Individual DBA (trade name in full)".
- (3) State on this line the address to which all communications and notices regarding the Bid Proposal and any Contract awarded thereunder are to be addressed.
- (4) State on this line the phone numbers to which all general communications will be directed.
- (5) State on this line the fax numbers to which all general communications will be directed.
- (6) State on this line the E-mail address to which all electronic communications and notices are to be addressed.
- (7) If the Bidder is a joint venture, signature must be by one of the joint ventures, and if one or both of the joint ventures is a partnership or a corporation each participating partnership must sign by a general partner, and each corporation by an authorized officer or employee; if a partnership, by a general partner; if a corporation, by an authorized officer or employee. The title of the person signing must appear after his signature. Where Bidder is a partnership or a corporation, the names of all other general partners, or the names of the president and secretary of the corporation and their business addresses must be shown below:


**NOTE:** All signatures must be signed and title printed or typewritten above. All addresses must be complete with street number, city and state information.

# ITEMIZED BID PROPOSAL

PW 25-001

All of the Proposal items below shall include all labor, materials, tools, equipment, and incidental costs for each item complete, or complete-in-place, per Plans and Specifications.

Item No.	Description	Unit	Qty.	Unit Price	Extension
<b>BASE BID: Ramsey Park Project</b>					
1	MOBILIZATION / GENERAL REQUIREMENTS	LS	1	\$	\$
2	WORKER SAFETY	LS	1	\$	\$
3	TRAFFIC CONTROL	LS	1	\$	\$
4	EROSION, SEDIMENT AND DUST CONTROL PLAN	LS	1	\$	\$
5	CONSTRUCTION SURVEYING	LS	1	\$	\$
6	ON-SITE SUBGRADE EXCAVATION, COMPACTION, AND GRADING	CY	207	\$	\$
7	RESTROOM INSTALLATION, FLOORING & FURNISHINGS	LS	1	\$	\$
8	SITE & BUILDING ELECTRICAL INSTALLATION	LS	1	\$	\$
9	SHADE STRUCTURE CONCRETE SLAB	SF	1970	\$	\$
10	SHADE STRUCTURE CONCRETE COLUMN	EA	10	\$	\$
11	ON-SITE 4" CONCRETE SIDEWALK	SF	3844	\$	\$
12	ON-SITE AGGREGATE BASE CLASS II	TON	85	\$	\$
13	FONROCHE SOLAR LIGHT FOUNDATION AND INSTALLATION	EA	2	\$	\$
14	TRASH RECEPTACLE INSTALLATION	EA	2	\$	\$
15	8' STEEL PICNIC TABLE INSTALLATION	EA	1	\$	\$
16	GARDEN BENCH INSTALLATION	EA	2	\$	\$
17	6' STEEL CAST BENCH INSTALLATION	EA	2	\$	\$
18	PERMANENT SIGN INSTALLATION	LS	1	\$	\$
19	ROCK CHIP INSTALLATION	CY	28	\$	\$
20	ROLLED TIFTUF BERMUDA SOD AND INSTALLATION	SF	5542	\$	\$
21	TURF SPRINKLERS	EA	79	\$	\$
22	24-INCH BOX TREES INSTALLATION	EA	4	\$	\$
23	TREE WATERING SYSTEM WITH BUBBLER	EA	4	\$	\$
24	IRRIGATION SERVICE, VALVE ASSEMBLIES,	EA	2	\$	\$

	AND CONTROLLER WITH CAGE				
25	1 1/2" SCH. 40 PVC IRRIGATION LINE	LF	465	\$	\$
26	1" SCH. 40 PVC IRRIGATION LINE	LF	340	\$	\$
27	3/4" SCH. 40 PVC IRRIGATION LINE	LF	683	\$	\$
28	1/2" SCH. 40 PVC IRRIGATION LINE	LF	275	\$	\$
29	ROUGH SEWER & WATER PLUMBING	LS	1	\$	\$
30	PURCHASE AND INSTALL FLOOR DRAINS	EA	5	\$	\$
31	STORM DRAIN INLETS	EA	2	\$	\$
32	SHADE STRUCTURE INSTALLATION	LS	1	\$	\$
33	OFF-SITE EXCAVATION, GRADING, & COMPACTING	CY	90	\$	\$
34	OFF-SITE AC PAVEMENT AND CONCRETE REMOVAL AND DISPOSAL	CY	54	\$	\$
35	OFF-SITE HOT MIX ASPHALT TYPE A (HMA-A)	TON	7	\$	\$
36	OFF-SITE AGGREGATE BASE CLASS II	TON	21	\$	\$
37	OFF-SITE 6" CURB & GUTTER	LF	100	\$	\$
38	OFF-SITE 4" THICK CONCRETE SIDEWALK	SF	2360	\$	\$
39	OFF-SITE CONCRETE CURB RAMP	SF	117	\$	\$
40	OFF-SITE CONCRETE DRIVEWAY APPROACH	SF	212	\$	\$
41	ADA DETECTABLE WARNING TILE (3'X4')	EA	4	\$	\$
42	TRAFFIC MARKINGS, STRIPING, & SIGNAGE	LS	1	\$	\$
43	UTILITY DEMO & IMPROVEMENTS	LS	1	\$	\$
44	ADJUST UTILITY LID	EA	2	\$	\$
45	SIDEWALK STORM UNDERDRAIN	LS	1	\$	\$
46	ADA SIGN WITH POST AND CONCRETE FOOTING	EA	1	\$	\$
<b>BASE BID SUBTOTAL \$ _____</b>					

**TOTAL BASE BID \$ \_\_\_\_\_**

**Total Base Bid in words:** \_\_\_\_\_

NOTE: IN CASE OF DISCREPANCY BETWEEN WORDS AND FIGURES, THE WORDS SHALL PREVAIL

\_\_\_\_\_  
(Print Name of Authorized Person)

---

Signature of Authorized Person

---

Date

## LIST OF SUBCONTRACTORS

The undersigned certifies that he has used the sub-bids of the following listed Subcontractors in making up his bid, and that the duly licensed Subcontractors listed will be used for the work for which they bid, subject to the approval of the City Engineer, and in accordance with the applicable provisions of these Specifications and Plans.

ITEM #	SUBCONTRACTOR	ADDRESS & TELEPHONE NO.	STATE LICENSE NO.

\_\_\_\_\_

Date

\_\_\_\_\_

Bidder's Name

## LIST OF REFERENCES

The Proposer shall provide below at least three (3) separate project references with similar size and design and services as specified herein for a previous five (5) year period from the issuance of this document.

Reference #1	
Client	
Contact Name Phone Number Email	
Project Name	
Description and Year Completed	

Reference #2	
Client	
Contact Name Phone Number Email	
Project Name	
Description and Year Completed	

Reference #3	
Client	
Contact Name Phone Number Email	
Project Name	
Description and Year Completed	

# GUARANTEE

## The undersigned guarantees to the Owner

That the construction and installation of work for:

Project: \_\_\_\_\_

Contract: \_\_\_\_\_

Should any of the materials or equipment prove defective or should the work as a whole prove defective, due to faulty workmanship, material furnished or methods of installation, or should the work of any part thereof fail to operate properly as originally intended and in accordance with the Plans and Specifications, due to any of the above causes, all within twelve (12) months after the date on which the Contract is accepted by the Owner, the undersigned agrees to reimburse the Owner, upon demand, for its expense incurred in restoring said work to the condition contemplated in said project, including the cost of any such equipment or materials replaced and the cost of removing and replacing any other work necessary to make such replacement or repairs, or, upon demand by the Owner, to replace any such material and to repair said work completely without cost to the Owner, so that said work will function successfully as originally contemplated.

In the event the Owner elects to have said work performed by the undersigned, the Owner undersigned agrees that the repairs shall be furnished and installed within a reasonable time after the receipt of the demand from the Owner. If the undersigned shall fail or refuse to comply with his obligations under this guaranty, the Owner shall be entitled to all costs and expenses, including attorney's fees, reasonably incurred by reason of said failure or refusal.

### Contractor:

Business Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date \_\_\_\_\_

# INSURANCE CERTIFICATION

By signing below, I hereby certify that \_\_\_\_\_  
(Insert company name)

is currently insured by an insurance company that is an "Authorized" carrier by the Insurance Commissioner of the California State Department of Insurance to transact the business of insurance in the State of California and shall be written by insurers with a current A.M. Best Rating of "A-" or better, and a financial size of "VII" or greater. Said insurance will expire on \_\_\_\_\_.

I further hereby certify that, as the signer of this Bid Proposal, I have read and understand the City's insurance requirements as described in the Section entitled "Certificate of Insurance" within these Specifications and that proof of insurance shall be required before the Public Works Services Contract is recommended for award. Such proof shall be provided on an ISO Accord 25(s) form and an endorsement naming the City of Coalinga as additionally insured is on the ISO CG 20 10 11 85 form or any other comparable endorsement, which does not further limit coverage, and which may be approved and accepted by the City.

\_\_\_\_\_  
(Print name)

Signature of Bidder: \_\_\_\_\_

\_\_\_\_\_  
(Date)

# NON-COLLUSION DECLARATION OF CONTRACTOR

State of \_\_\_\_\_,

County of \_\_\_\_\_, ss

\_\_\_\_\_, being first duly sworn, deposes and says that:

I am the (Owner, partner, officer, representative, or agent) \_\_\_\_\_ of \_\_\_\_\_  
\_\_\_\_\_ the party making the foregoing Bid:

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from Bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted its Bid price or any breakdown thereof, or the contents thereof or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_ [date], at \_\_\_\_\_ [city], \_\_\_\_\_ [state].

Signature: \_\_\_\_\_

\_\_\_\_\_  
Title

# PUBLIC CONTRACT CODE

## Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes \_\_\_\_\_ No \_\_\_\_\_

If the answer is yes, explain the circumstances in the following space.

## Public Contract Code Section 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The Bidder must place a checkmark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

---

Signature

## Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the Bidder hereby declares under penalty of perjury under the laws of the State of California that the Bidder has \_\_\_\_, has not \_\_\_\_been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works Contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "Bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The Bidder must place a checkmark after "has" or "has not" in one of the blank spaces provided. The above Statements and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

---

Signature

## EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The Bidder \_\_\_\_\_, proposed Subcontractor \_\_\_\_\_, hereby certifies that he has \_\_\_\_\_, has not \_\_\_\_\_, participated in a previous Contract or Subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government Contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

**Note:** The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)) and must be submitted by Bidders and proposed Subcontractors only in connection with Contracts and Subcontracts which are subject to the equal opportunity clause. Contracts and Subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only Contracts or Subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed Prime Contractors and Subcontractors who have participated in a previous Contract or Subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of Contracts and Subcontracts unless such Contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

# LABOR CERTIFICATION

[LABOR CODE SECTION 1861]

STATE OF CALIFORNIA        )

COUNTY OF FRESNO         )

I, the undersigned, do hereby certify:

That I am aware of the provision of Section 3700 of the Labor Code of the State of California, which requires that every employer to be insured against liability for Workers Compensation or to undertake self-insurance in accordance with the provisions of that section, and I will comply with such provision before commencing the performance of the work of this Contract.

Executed at

\_\_\_\_\_

On \_\_\_\_\_,

I certify under penalty of perjury that the foregoing is true and correct.

\_\_\_\_\_  
Contractor-Employer

# DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The Bidder, under penalty of perjury, certifies that, except as noted below, neither the Bidder nor any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award but will be considered in determining Bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

---

Signature

# NONLOBBYING CERTIFICATION

The prospective participant certifies, by signing and submitting this bid or proposal, that, to the best of the prospective participant's knowledge and belief:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal Contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal Contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting a bid or proposal that the prospective participant shall require that the language of this certification be included in all lower tier Subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

If (1) NO Federal appropriated funds have been paid or will be paid, sign below.

If (2) ANY funds other than Federal appropriated funds have been paid or will be paid, complete the Lobbying Certification.

Business Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date \_\_\_\_\_

## **INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES**

This disclosure form shall be completed by the reporting entity, whether Subawardee or Prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the Subawardee, e.g., the first Subawardee of the prime is the first tier. Subawards include but are not limited to Subcontracts, subgrants and Contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the Contract grant. or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influenced the covered Federal action.  
(b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box. Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box. Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print the official's name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

# LOBBYING CERTIFICATION

## DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

<b>1. Type of Federal Action:</b> <input type="checkbox"/> a. Contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. Report Type:</b> <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change  <b>For Material Change Only:</b> Year _____ quarter _____  Date of last report _____
<b>4. Name and Address of Reporting Entity:</b> <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known:  <b>Congressional District, if known:</b>	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>   <b>Congressional District, if known:</b>	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>   <b>CDFA Number, if applicable:</b> _____	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b>	
<b>10. a. Name and Address of Lobbying Registrant</b> (If individual, last name, first name, MI):   <div style="text-align: right; font-size: small;">(attach Continuation Sheet(s) if necessary)</div>	<b>b. Individuals Performing Services</b> (including address if different from No. 10a)   (Last name, first name, MI):	
<b>11. Amount of Payment (check all that apply):</b>  \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	<b>13. Type of Payment (check all that apply):</b>  <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission	

<b>12. Form of Payment (check all that apply):</b>  <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____  value _____	<input type="checkbox"/> d. contingent fee <input type="checkbox"/> b. deferred <input type="checkbox"/> f. other, specify _____
---	--

**14. Brief Description of Services Performed or to be performed and Dates(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:**

(attach Continuation Sheet(s) if necessary)

**15. Continuation Sheet(s) attached:**     Yes     No

<b>16.</b> Information requested through this form is authorized by title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____  Print Name: _____  Title: _____  Telephone No.: _____ Date: _____
---	---

**Federal Use Only:**

**END OF SECTION**

## SECTION 00420 - BID ITEM DESCRIPTION

### GENERAL

#### CHANGES IN BID QUANTITIES

City reserves the right to increase or decrease the quantity of any bid item or portion of the work by as much as twenty-five percent (25%) of the original bid quantity, as may be deemed necessary by the Public Works Director of the City to complete this Contract.

At time of Award of the Contract, additive and/or deductive items will be implemented as necessary in order to keep construction costs within City's budgeted amount. City reserves the right to add or delete additive or deductive items by Change Order after Award of the Contract in response to changes in Contract Amount or available funds.

#### MEASUREMENT

All work completed under this Contract, other than work included under a Lump Sum bid price, shall be measured by the Public Works Director of the City according to the United States Standard Measures. A Lump Sum price shall be paid on all Lump Sum items and this price shall include all work under said item. No extra payment shall be made for parts of Lump Sum items, although a method for measuring certain quantities included in said Lump Sum items may be provided in the explanation of bid items, as follows, or the specification sections governing the Lump Sum item.

#### EXPLANATION OF BID ITEMS

The unit price bid per unit measure of work shall include all costs of labor, equipment, and materials necessary for furnishing and constructing or installing complete, in place and in operation.

The bid items shall be constructed and/or installed per these Specifications and Plans, and the following Standard Plans and Specifications, most current edition at the time of bid submittal:

The Standard Plans and Specifications of the City.

The Standard Plans and Specifications of the State of California Department of Transportation (Caltrans).

Bid items will be described in the following format:

- a. Bid quantity description.
- b. Bid item inclusion description.
- c. Additional payment description.
- d. Payment method.

### **BASE BID ITEMS – Ramsey Park Project**

**Refer to Section 00410 BID PROPOSAL, for Bid Quantity Estimates.**

#### **1. MOBILIZATION/GENERAL REQUIREMENTS**

- a. This item shall be bid at a Lump Sum price for Mobilization and General Requirements necessary to complete the work per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all Contract documents, bonds per proposal, insurances, temporary facilities, security, moving of equipment to/from the project site, permit fees, any Caltrans fees, and obtaining any required Encroachment Permits.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be prorated over the life of the project based on the percentage of this construction item completed.

## **2. WORKER SAFETY**

- a. This item shall be bid at a Lump Sum price for Worker Safety necessary to complete the Work per these Specifications and Plans.
- b. This item shall include the cost to conform to these Specifications, all Local, State, and Federal safety requirements, the design and preparation of an approved Shoring and Trenching Plan (if required), sheeting, shoring and bracing for excavation, and other worker provisions for worker safety during the course of the work.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be prorated over the life of the project based on the percentage of this construction item completed

## **3. TRAFFIC CONTROL**

- a. This item shall be bid at a Lump Sum price for Traffic Control necessary to complete the Work per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans:
  - i. Conform to these Specifications and the State of California, "Manual of traffic controls, Warning Signs, Lights, and Devices for use in Performance of Work Upon Highways", dated 1988, along with all amendments.
  - ii. Traffic control shall conform to the provisions in Section 10, entitled "Traffic and Dust Control", of the State Standard Specifications.
  - iii. Removal of any existing traffic markings and/or signing that conflicts with detour channelization; the placement and removal of any temporary traffic barricading, signing, and striping, required by detour channelization; the installation of traffic striping and replacement of traffic signing to their original position.
  - iv. Supplying a traffic control plan at the time of the preconstruction meeting and securing approval prior to issuance of the notice to proceed. This plan shall show all proposed traffic control to be used during each segment of construction, including construction signing, barricading, and proposed detours.
  - v. Notification of the Traffic, Fire, Police, Transportation, Sanitation and Postal Departments at least forty-eight hours (48) in advance of any street closure.
  - vi. Maintain traffic control about and around the site of the work, including any haul roads to or from the site, by whatever means are necessary, so as to cause the least possible dust nuisance to the public. Traffic control must be adequately maintained by constant attention at all times, including times when construction is not occurring.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be prorated over the life of the project based on the percentage of this construction item completed.

## **4. EROSION, SEDIMENT AND DUST CONTROL PLAN**

- a. This item shall be bid at a Lump Sum price for Erosion, Sediment, and Dust Control necessary to complete the work per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. Erosion control shall conform to the provisions in Section 21, entitled "Erosion Control", of the State Standard Specifications and Division 31 – Section 312500: Erosion and Sedimentation Controls, of these

- Contract Documents/Specifications. No separate payment will be made for any water used for erosion control.
- ii. Dust control shall conform to the provisions in Section 10, entitled "Traffic and Dust Control", of the State Standard Specifications. No separate payment will be made for any water used for dust control.
  - iii. Maintain erosion, sediment and dust control about the site of the work and laydown yard, including any haul roads to or from the site, by whatever means are necessary, such as watering or sweeping, so as to cause the least possible dust nuisance to the public and pollution to the storm drain system and water bodies. Erosion, sediment and dust control must be adequately maintained by constant attention at all times, including times when construction is not occurring.
  - iv. All effort shall be made to protect the existing storm drain system from contamination and runoff.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
  - d. Payment for this item shall be prorated over the life of the project based on the percentage of this construction item completed

## **5. CONSTRUCTION SURVEYING**

- a. This item shall be bid at a Lump Sum price for Construction Surveying per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. Construction staking will be provided by a Civil Engineer registered prior to January 1, 1982 or Land Surveyor, hired by the Contractor to establish the lines and grades required for the completion of the work specified on the plans.
  - ii. The engineer/surveyor shall submit staking notes (Cut Sheets) to the Inspector within twenty-four (24) hours of performing staking.
  - iii. Contractor shall submit copy of staking requests to the Owner's Representative twenty-four (24) hours prior to performing staking.
  - iv. Staking notes (Cut Sheets) stationing shall conform with project plan stationing for ease in reviewing.
  - v. All stakes shall be set on an offset that will be clear of the excavation of the intended facility.
  - vi. Contractor shall be responsible for preserving construction survey stakes and marks for the duration of their usefulness and shall be fully responsible for the cost of any placement or loss during construction.
  - vii. At the conclusion of the project, the Contractor's surveyor shall provide a certificate stating that the improvements are installed at the lines and grades indicated on the approved "AS-BUILT" construction plans.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be prorated over the life of the project based on the percentage of this construction item completed.

## **6. ON-SITE SUBGRADE EXCAVATION, COMPACTION, AND GRADING**

- a. This item shall be bid at a per Cubic Yard price for Subgrade Excavation, Compaction and Grading completed per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, all grading and earthwork preparation required to complete this work, to the grade and line shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans and as specified below:
  - i. Clearing, Grubbing, Excavation, Grading, Compacting, Backfilling and Hauling as shown on these

#### Specifications and Plans.

- (1) This includes removal of existing vegetative material, native subgrade material, and other similar items, and disposal of items to an approved site, including transportation.
  - (2) This includes spreading and compacting material immediately following the excavation operation and grading material to the slope as shown on the plan cross sections to provide a stable surface for improvements.
- ii. Excess material shall be stockpiled on site in designated areas. Stockpile excavated material to be re-used in areas as necessary on site in accordance with Section 02310 and 02315.
  - iii. Excess debris shall become the property of the Contractor and shall be removed and disposed of in a legal manner off of the Owner's property. Location of dump and length of haul shall be the Contractor's responsibility.
  - iv. The quantity shown for this item shall be considered as approximate and is indicated for bid comparison only, and no guarantee is made or implied that the quantities as shown will not be reduced or increased or deleted as may be required by the Engineer.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
  - d. Payment for this item shall be made on a per Cubic Yard basis as completed during this project.

## **7. RESTROOM INSTALLATION, FLOORING, & FURNISHINGS**

- a. This item shall be bid at a Lump Sum price for installing restroom modular pieces and loose shipped items provided by Green Flush Restrooms, and providing and installing restroom flooring and furnishings, per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, utilities coordination, permits (if required), and incidentals necessary to complete the work as described, to the line, grade, elevations, finishes, and details shown on the Plans, in accordance with the appropriate Detail Drawings, these Specifications and Plans, and as specified below:
  - i. Installation of restroom modular pieces, including, but not limited to, delivered items that are shipped loose or partially installed, securing structural components like walls, partitions, doors, fixtures, electrical connections, ventilation, and all appurtenances necessary for a complete and functional restroom per Green Flush Restroom Installation Instructions.
  - ii. Contractor to fill in floor drains and splash pad equipment floor openings with native soil, aggregate base (AB) and concrete per depth as specified on Plans.
    - a. Steel grate floor openings shall not be filled in and left open.
  - iii. Furnishing and installation of all flooring materials as shown on the Plans, including, but not limited to, all materials for floor openings, concrete coving, epoxy finishing and all appurtenances necessary for a complete and functional restroom.
    - a. Verify floor drains and plumbing connections are suitable and completed prior to finish floor installation covered under bid item 30.
    - b. Verify all items to the proper line, grade, and elevation to match the proposed finished floor.
  - iv. Coordination with applicable building codes, accessibility requirements (ADA), inspections, testing, approvals, other trades, and verification of locations prior to installation, as necessary for acceptance of the completed Work.
  - v. The quantity and scope shown for this item shall be considered approximate and is indicated for bid comparison purposes only, and no guarantee is made or implied that the scope or quantities shown will not be reduced, increased, or modified as required.
- c. No additional or separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore shall be included in this item's price. Full compensation for this item, as described in these Specifications and Plans, shall be considered as included in the Contract price paid for

this bid item, and no additional compensation will be allowed.

- d. Payment for this item shall be made on a Lump Sum basis upon satisfactory completion and acceptance of the work.

## **8. SITE & BUILDING ELECTRICAL INSTALLATION**

- a. This item shall be bid on a Lump Sum basis for furnishing and installing complete site and building electrical systems in accordance with these Specifications, the Plans, and all applicable codes, standards, and authority having jurisdiction requirements.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing all electrical components, conduits, conductors, raceways, boxes, panels, devices, fixtures, grounding systems, trenching, backfilling, restoration, transportation, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Furnishing and installing all underground and aboveground site electrical systems, including transformers, conduits, conductors, pull boxes, handholes, grounding, and connections to utility service points as shown on the Plans or as directed.
  - ii. Furnishing and installing building electrical systems, including service equipment, panels, feeders, branch circuits, raceways, wiring, grounding and bonding, and all associated appurtenances.
  - iii. Installing any loose lighting systems from Green Flush Restrooms, including interior and exterior luminaires, controls, switches, and required supports.
  - iv. Installing any loose power outlets, devices, disconnects, and equipment connections from Green Flush Restrooms and as shown on the Plans.
  - v. Coordination with other trades and verification of routing, clearances, and locations prior to installation and concealment.
  - vi. Testing, labeling, and commissioning of electrical systems as required by applicable codes, these Specifications, and the authority having jurisdiction.
- c. Any repairs, corrections, replacements, or retesting required due to failed tests, improper installation, damage, or deficiencies attributable to the Contractor's work shall be performed at no additional cost to the Owner. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made as a Lump Sum upon completion of installation, testing, and acceptance by the Owner and applicable inspecting authorities

## **9. SHADE STRUCTURE CONCRETE SLAB**

- a. This item shall be paid at a per Square Foot price for constructing new Shade Structure Concrete Slab per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all labor, equipment, furnishing and installing all materials, and incidentals, required to complete this work as described:
  - i. Concrete slab to be 4" thick. Reinforce slab with 6X6-W1.4XW1.4 welded wire fabric at mid-depth. Lap splices 8". Alt.: Fiber mesh admixture (min. 1.5 lb/c.y., fibrillated polypropylene).
  - ii. Edge of slab to be thickened to min. 8" deep x 8" wide reinforced with 2 - #4 continuous rebars. Lap splices min. 24".
  - iii. In locations subject to frost, install isolation joint, max. 1/8" wide, around column piers using diamond or circular layout. Wire mesh shall be interrupted at isolation joints.
  - iv. Install crack control joints (3/16" wide x 1" deep) at 8' to 12' on center (O.C.)
  - v. Concrete slab shall be sloped for drainage from center to edge and away from columns. Surface is to be lightly broomed or have a wood troweled finish.
  - vi. All concrete reinforcing steel to be grade 60, deformed bars.
  - vii. F'c of concrete to be 3000 psi @ 28 days (Concrete strength used for design (f'c) = 2,500 psi @ 28 days).

- viii. All concrete work to be in accordance with latest ACI code.
- ix. Assumed allowable soil bearing pressures: 1500 psf vertical bearing, 100 pcf passive lateral bearing. It is the Owner's responsibility to verify that the allowable soil bearing values at the site meet or exceed these assumed values. If the actual values are lower than the assumed values, the foundations must be redesigned (N.I.C.).
- c. No additional separate payment will be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specifications and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Square Foot basis as completed during this project.

## **10. SHADE STRUCTURE CONCRETE COLUMN**

- a. This item shall be bid on a per Each basis for furnishing and constructing individual concrete columns for shade structures in accordance with these Specifications, the Plans, and applicable codes and standards.
- b. This item shall include all costs necessary to perform the work, including, but not limited to, all labor, supervision, equipment, materials, furnishing and installing reinforcing steel, anchor bolts, embedment, formwork, concrete, curing, finishing, excavation, backfilling, disposal of excess materials, transportation, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Layout and verification of column location, dimensions, and elevations as shown on the Plans.
  - ii. Excavation for column footing and foundation, including shoring and dewatering as required.
  - iii. Furnishing and installing reinforcing steel, anchor bolts, plates, sleeves, and all embedded items required for shade structure attachment.
  - iv. Furnishing, placing, finishing, curing, and protecting concrete in accordance with these Specifications.
  - v. Leveling nuts have been shown under column base plate. Adjust leveling nuts as required to ensure all column bases are at the same elevation. Fill void between column base plate and top of foundation with non-shrink grout.
  - vi. Grout shall be non-shrink, non-metallic, factory pre-mixed grout in accordance with ASTM C1107 with f'c of not less than 9,000 psi.
  - vii. Reinforcement shall be securely held in place while placing concrete. If required, additional bars, stirrups or chairs shall be provided to furnish support for bars.
  - viii. Setting columns plumb and true to line and grade and preparing surfaces for installation of the shade structure.
  - ix. Coordination with the shade structure manufacturer and other trades to ensure proper alignment and compatibility.
- c. Any corrections, repairs, or replacements required due to improper installation, dimensional inaccuracies, or deficiencies attributable to the Contractor's work shall be performed at no additional cost to the Owner.
- d. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
- e. Payment for this item shall be made on a per each basis for Each shade structure concrete column installed, completed, and accepted by the Engineer.

## **11. ON-SITE 4" CONCRETE SIDEWALK**

- a. This item shall be bid at a per Square Foot price for constructing new on-site 4" concrete sidewalk, per these Special Provisions and Plans.
- b. This item shall include the costs of all labor, equipment, furnishing and installing all materials, and incidentals, required to complete this work as described:
  - i. construction of new concrete sidewalk, according to the appropriate Standard Concrete Sidewalk Construction Drawing, to the grade and line specified, and these Special Provisions and Plans.

- ii. Compacted sand required per the City Standard Drawing shall be included in this bid item.
- c. No additional separate payment will be made for this item and all compensation therefore is to be included in this item's unit price. Full compensation for this item, as described in these Special Provisions and Plans, shall be considered as included in the Contract price paid per unit and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Square Foot basis as completed during this project.

## 12. ON-SITE AGGREGATE BASE CLASS II

- a. This item shall be bid at a per Ton price for providing and placing On-Site Aggregate Base Class II per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described, to the line, grade, and compaction shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans, and as specified below:
  - i. Placement of 3/4" Aggregate Base, to depth, width, and compaction as noted on the Plans.
    - a. 8" thick 95% Relative Compaction (R.C.) aggregate base underneath Shade Structure concrete slab area and Pre-Fab modular restroom pad area, per the appropriate City Standard and RCP Shelter Plans.
  - ii. The quantity shown for this item shall be considered as approximate and is indicated for bid comparison only and no guarantee is made or implied that the quantities as shown will not be reduced or increased or deleted as may be required.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Ton basis as completed during this project.

## 13. FONROCHE SOLAR LIGHT FOUNDATION AND INSTALLATION

- a. This item shall be bid at a per Each occurrence price for furnishing and installing Fonroche Solar Light Foundation per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described, according to the appropriate Detail Drawing, these Specifications and Plans and as specified below:
  - i. Install Fonroche Solar Street Light per Detail on the Plans and per instructions provided by Fonroche Lighting America.
    - (1) Pre-purchased Fonroche Lighting America solar lights T54-CK16B-4K-T4. See Appendix C for manufacture details.
    - (2) Contractor shall pick up the solar lights from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the City to confirm approved hours of availability and access to yard.
  - ii. Concrete Foundation per the appropriate Detail on the Plans.
    - (1) All debris and excess earth materials from drilling shall become the property of the Contractor and shall be removed and disposed of in a legal manner off of the Owner's property. Location of dump and length of haul shall be the Contractor's responsibility.
    - (2) Excess material shall be stockpiled on site in designated areas. Stockpile excavated material to be re-used in areas as necessary on site in accordance with Section 02310 and 02315.
    - (3) 3000 psi concrete foundation with #4 hoops at 6" O.C. and #5 vertical bars at 1.5' O.C.
  - iii. All systems, at project completion and before final acceptance, shall be demonstrated to have a complete and working functional operation.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the

Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.

- d. Payment for this item shall be made on a per Each occurrence basis as completed during this project.

#### **14. TRASH RECEPTACLE INSTALLATION**

- a. This item shall be bid at a per Each price for installing Trash Receptacle per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described according to the appropriate Detail and these Specifications and Plans.
  - i. Install Trash Receptacle units per project specifications, including lids, liners, labeling, and hardware.
    - (2) Pre-purchased DuMor, Inc. 158-32SH-FTO black trash receptacle. See Appendix C for manufacture details.
    - (3) Contractor shall pick up trash receptacle from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the city to confirm approved hours of availability and access to yard.
  - ii. Site preparation, including any excavation or base preparation required.
  - iii. Installation of receptacles at the locations shown on the Plans or as directed by the Engineer.
  - iv. Anchoring of units per manufacturer's recommendations and project details.
  - v. Coordination with adjacent site furnishings to ensure accessibility and functionality.
  - vi. Final cleaning, adjustment, and inspection of the installed units.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this Bid Item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Each basis as completed during this project.

#### **15. 8' STEEL PICNIC TABLE INSTALLATION**

- a. This item shall be bid at a per Each price for installing 8' Steel Picnic Table Installation per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described according to the appropriate Detail and these Specifications and Plans.
  - i. Install steel cast bench units as specified, including all components and hardware.
    - (1) Pre-purchased DuMor, Inc. 443-558-1/S-2 black steel cast Picnic table with bench. See Appendix C for manufacture.
    - (2) Contractor shall pick up the picnic table with bench from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the city to confirm approved hours of availability and access to yard.
  - ii. Site preparation, including grading and excavation (if required).
  - iii. Construction of bench foundations or pads, including concrete footings or slab (if specified).
  - iv. Installation of bench units at locations shown on the Plans or as directed by the Engineer.
  - v. Anchoring and securing benches per manufacturer recommendations and project details.
  - vi. Final cleaning, inspection, and protection of installed benches.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Each basis as completed during this project.

#### **16. GARDEN BENCH INSTALLATION**

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- a. This item shall be bid at a per Each price for installing Garden Bench per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described according to the appropriate Detail and these Specifications and Plans.
  - i. Precast concrete bench units as specified, including all components and hardware.
    - (1) Pre-purchased Horned Toad Concrete Garden Bench by Majestic Fountains and More.
    - (2) Contractor shall pick up concrete garden bench from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the city to confirm approved hours of availability and access to yard.
  - ii. Site preparation, including grading and excavation (if required).
  - iii. Construction of bench foundations or pads, including concrete footings or slab (if specified).
  - iv. Installation of bench units at locations shown on the Plans or as directed by the Engineer.
  - v. Anchoring and securing benches per manufacturer recommendations and project details.
  - vi. Final cleaning, inspection, and protection of installed benches.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Each basis as completed during this project.

**17. 6' STEEL CAST BENCH INSTALLATION**

- a. This item shall be bid at a per Each price for furnishing and installing 6' Steel Cast Bench Installation per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described according to the appropriate Detail and these Specifications and Plans.
  - i. Install steel cast bench units as specified, including all components and hardware.
    - (1) Pre-purchased DuMor, Inc. 19 Series 6 linear feet black steel cast bench or approved equal. See Appendix C for manufacture.
    - (2) Contractor shall pick up concrete 6' steel cast bench from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the City to confirm approved hours of availability and access to yard.
  - ii. Site preparation, including grading and excavation (if required)
  - iii. Construction of bench foundations or pads, including concrete footings or slab (if specified)
  - iv. Installation of bench units at locations shown on the Plans or as directed by the Engineer
  - v. Anchoring and securing benches per manufacturer recommendations and project details
  - vi. Final cleaning, inspection, and protection of installed benches
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Each basis as completed during this project.

**18. PERMANENT SIGN INSTALLATION**

- a. This item shall be bid on a per Lump Sum basis for installing permanent signs in accordance with these Specifications, the Plans, and applicable codes, standards, and authority having jurisdiction requirements.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, installing sign panels, posts, foundations, mounting hardware, concrete, excavation, backfilling, disposal of excess materials, transportation, traffic control, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Layout and verification of sign locations, orientation, and elevations as shown on the Plans or as

directed by the Engineer.

- a. All debris and excess earth materials from drilling shall become the property of the Contractor and shall be removed and disposed of in a legal manner off of the Owner's property. Location of dump and length of haul shall be the Contractor's responsibility
- ii. Installing permanent sign assemblies, including posts, frames, supports, fasteners, and sign panels.
- (1) Contractor shall pick up the permanent sign from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the city to confirm approved hours of availability and access to yard.
- iii. Excavation and construction of sign foundations, including furnishing, placing, finishing, curing, and protecting concrete.
- iv. Setting signs plumb, true to line, and at the proper height and offset.
- v. Restoration of disturbed areas to match adjacent conditions.
- c. Any repairs, corrections, or replacements required due to improper installation, damage, or deficiencies attributable to the Contractor's work shall be performed at no additional cost to the Owner. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made on a per Lump Sum basis for each permanent sign installed, completed, and accepted by the Engineer

## **19. ROCK CHIP INSTALLATION**

- a. This item shall be bid on a per Cubic Yard basis for installing rock in accordance with these Specifications, the Plans, and applicable standards.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing rock, base preparation, grading, shaping, watering, compaction, transportation, disposal of excess materials, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Preparation of subgrade, including excavation, grading, and compaction to the required lines and elevations.
  - ii. Install and furnishing, placing, spreading, and grading rock to the specified depth, size, and finish.
  - (1) Contractor shall pick up the rock chip from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the city to confirm approved hours of availability and access to yard.
  - iii. Blending rock edges neatly with adjacent surfaces and features.
  - iv. Restoration of disturbed areas to match adjacent conditions.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made on a per Cubic Yard basis for rock installation completed and accepted by the Engineer.

## **20. ROLLED TIFTUF BERMUDA SOD AND INSTALLATION**

- a. This item shall be bid on a per Square Foot basis for furnishing and installing turf in accordance with these Specifications, the Plans, and applicable standards.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing turf, soil preparation, grading, fertilizing, watering, rolling, trimming, protection, transportation, disposal of excess materials, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Preparation of subgrade and topsoil, including clearing, grading, fine grading, and compaction to required lines and elevations.

- a. Verify suitability of subgrade and remove all organic material and topsoil from slab area, see Bid Item No. 6 above for soil preparation.
  - ii. Furnishing and placing topsoil or soil amendments where required.
  - iii. Furnishing and installing turf (sod or seed, as specified) of the type and quality shown on the Plans.
  - iv. Watering, rolling, and trimming turf to ensure proper establishment.
  - v. Protection and maintenance of turf until final acceptance, including replacement of damaged or failed areas.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made on a per Square Foot basis for turf installation completed and accepted by the Engineer.

## **21. TURF SPRINKLERS**

- a. This item shall be bid on a per Each basis for furnishing and installing turf sprinkler heads and associated appurtenances in accordance with these Specifications, the Plans, and applicable codes and standards.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing sprinkler heads, valves, risers, fittings, piping connections, sleeves, excavation, backfilling, trenching, testing, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Layout and verification of sprinkler locations in accordance with Plans and manufacturer recommendations.
  - ii. Furnishing and installing each sprinkler head, including riser, fittings, and necessary connections to the irrigation system.
  - iii. Excavation, backfill, and compaction to properly install sprinkler heads flush with grade and in correct alignment.
  - iv. Adjusting each sprinkler for proper coverage, direction, and operation as part of system testing.
  - v. Coordination with turf, landscaping, and other site work to avoid conflicts and ensure proper performance.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made on a per Each basis for each turf sprinkler installed, tested, and accepted by the Engineer

## **22. 24-INCH BOX PARK INSTALLATION**

- a. This item shall be Bid at a per Each Occurrence price for installing a 24-inch box Trees per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all labor, equipment, furnishing and installing all materials, and incidentals required to complete this work as described, according to the appropriate Details, these Specifications and Plans and as described below:
  - i. 24" Box Pistacia Chinensis "Keith Davey" (Chinese Pistache) per plans.
    - (1) Including root barrier, tree ties, redwood stakes, crossbar, soil amendments, large gravel, and other appurtenances needed for street tree installation.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Each occurrence basis as completed during this project.

### **23. TREE WATERING SYSTEM WITH BUBBLER**

- a. This item shall be bid at a per Each price for installing Tree Watering System with Bubbler per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all labor, furnishing and installing all materials, transportation, equipment, and incidentals required to complete this work as described, according to the appropriate Details, and these Specifications and Plans.
  - i. Furnishing and installation of bubbler irrigation components, including bubbler heads, risers, PVC piping, fittings, and valve connections
  - ii. Connection to the irrigation or potable water system with all required backflow prevention and pressure regulation devices (as specified)
  - iii. Excavation and trenching for irrigation lines and bubblers
  - iv. Installation of valve boxes, emitters, and filter screens as needed
  - v. Coordination with tree planting and staking to ensure proper placement and coverage
  - vi. Testing and adjustment of the system for proper operation and water flow
  - viii. Restoration of disturbed areas to original condition
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the bid and all compensation therefore is to be included in this item's price. Full compensation for this item, as described in these specifications and plans, shall be considered shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed thereafter.
- d. Payment for this item shall be made on a per Each occurrence basis as completed during this project

### **24. IRRIGATION SERVICE, VALVE ASSEMBLIES, AND CONTROLLER WITH CAGES**

- a. This item shall be Bid at a per Each price for furnishing and installing Irrigation Service, Valve Assemblies, and Controller per these Specifications and Plans.
- b. This item shall include the costs to perform the following, including all labor, equipment, furnishing and installing all materials, and incidentals required to complete this work as described, according to the appropriate Detail and City Standard Drawing, these Specifications and Plans and as described below:
  - i. Connection to existing water service
  - ii. 1" Water Service Assembly per City Std. W-1A, See Sheet D1 of the Plans.
    - (1) To include Radio read system pit lid module per City Std. W-12.
  - iii. 1" Reduced pressure type Backflow Preventer Assembly and Frost Guard Blanket per City Std. W-8, see Sheet DN-4 of the Plans.
  - iv. Landscape Irrigation Backflow and Controller Encloser per City Std. W-20.
  - v. Master irrigation valve assemblies per Detail "D4-C", see sheet DN-4 of the Plans.
  - vi. Irrigation valve assembly, isolation valve, and controller per Detail "D4-B", see sheet DN-4 of the Plans
    - (1) Hunter Node-200 2-station battery operated controller.
  - vii. Irrigation filter per Detail "D4-A", see sheet DN-4 of the Plans.
  - viii. Christy boxes per the applicable details.
  - ix. All trenching and backfill per appropriate City Standard Drawing
  - x. All systems, at project completion and before final acceptance, shall be demonstrated to have a complete and working functional operation.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Each occurrence basis as completed during this project

### **25. 1 1/2" SCH. 40 PVC IRRIGATION LINE**

- a. This item shall be Bid at a Linear Foot price for furnishing and installing 1 1/2" Schedule 40 PVC Irrigation Line per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. 1 1/2" Schedule 40 PVC Pipe.
  - ii. All tees, elbows, and appurtenances necessary to make all connections.
  - iii. All trenching and backfill required for installation of pipe per the appropriate City Standard Drawing.
- c. All systems, at project completion and before final acceptance, shall be demonstrated to have a No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and  
no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Linear Foot occurrence basis as completed during this project

**26. 1" SCH. 40 PVC IRRIGATION LINE**

- a. This item shall be Bid at a Linear Foot price for furnishing and installing 1" Schedule 40 PVC Irrigation Line per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. 1" Schedule 40 PVC Pipe.
  - ii. All tees, elbows, and appurtenances necessary to make all connections.
  - iii. All trenching and backfill required for installation of pipe per the appropriate City Standard Drawing.
- c. All systems, at project completion and before final acceptance, shall be demonstrated to have a No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and  
no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Linear Foot occurrence basis as completed during this project.

**27. 3/4" SCH. 40 PVC IRRIGATION LINE**

- a. This item shall be Bid at a Linear Foot price for furnishing and installing 3/4" Schedule 40 PVC Irrigation Line per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. 3/4" Schedule 40 PVC Pipe.
  - ii. All tees, elbows, and appurtenances necessary to make all connections.
  - iii. All trenching and backfill required for installation of pipe per the appropriate City Standard Drawing.
- c. All systems, at project completion and before final acceptance, shall be demonstrated to have a No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and  
no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Linear Foot occurrence basis as completed during this project

**28. 1/2" SCH. 40 PVC IRRIGATION LINE**

- a. This item shall be Bid at a Linear Foot price for furnishing and installing 1/2" Schedule 40 PVC Irrigation Line per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. 1/2" Schedule 40 PVC Pipe.
  - ii. All tees, elbows, and appurtenances necessary to make all connections.
  - iii. All trenching and backfill required for installation of pipe per the appropriate City Standard Drawing.
- c. All systems, at project completion and before final acceptance, shall be demonstrated to have a No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Linear Foot occurrence basis as completed during this project

## **29. ROUGH SEWER & WATER PLUMBING**

- a. This item shall be bid on a Lump Sum basis for furnishing and installing rough sewer and domestic water plumbing systems in accordance with these Specifications, the Plans, and applicable codes and standards.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing all piping, fittings, valves, supports, sleeves, hangers, transportation, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Furnishing and installing all rough-in sanitary sewer piping, vents, and appurtenances from points of connection to fixture locations, including all required fittings and cleanouts.
  - ii. Furnishing and installing all rough-in domestic water piping, including hot and cold water lines, pressure trap primer and distribution unit, branches, and appurtenances from points of connection to fixture locations.
  - iii. Installation of sleeves, supports, hangers, blocking, and firestopping as required for a complete and code-compliant installation.
  - iv. Coordination with other trades and verification of routing and locations prior to concealment.
  - v. Testing of rough sewer and water piping systems as required by applicable codes and these Specifications prior to concealment.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made as a Lump Sum upon completion of rough-in installation, testing, and acceptance by the Inspector.

## **30. PURCHASE AND INSTALL FLOOR DRAINS**

- a. This item shall be bid on a per Each basis for the purchase and installation of floor drains in accordance with these Specifications and the Plans.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, equipment, furnishing and installing all materials, transportation, and all incidentals required to complete this work as described herein. The work shall include furnishing and installing floor drains at the locations shown on the Plans or as directed by the Engineer, and shall include, but not be limited to, the following:
  - i. Furnishing and installing complete floor drain assemblies, including drain body, grate, frame, trap, and all required fittings.
  - ii. Floor drains and shower drain floor openings to be filled and covered under bid item 7.
  - iii. Connection of floor drains to the existing or new drainage system, including all piping, fittings, adapters, and seals necessary to provide a complete and functional installation.

- iv. Setting floor drains to the proper line, grade, and elevation to match the proposed finished floor.
  - v. Coordination with other trades and verification of locations prior to installation.
  - vi. Testing and ensuring proper operation and drainage upon completion.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
  - d. Payment for this item shall be made on a per Each basis as completed during this project.

### **31. STORM DRAIN INLETS**

- a. This item shall be bid at a per Each price for furnishing and installing Drain Inlets per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, excavation, backfill, transportation, and incidentals required to complete this work as described, to the line, grade, and elevations shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans, and as specified below:
  - i. Furnishing and installation of Drain Inlets, including but not limited to inlet structures, frames and grates, pipes, connectors, concrete, reinforcement, mortar, sealants, and all appurtenances necessary for a complete and functional installation.
  - ii. Excavation, shoring (if required), dewatering, bedding, backfill, and compaction around the Drain Inlets, including restoration of adjacent surfaces as shown on the Plans.
  - iii. Connection of Drain Inlets to existing or proposed storm drain systems, including testing and verification of proper alignment, elevation, and flow.
  - iv. Adjustment of inlet frames and grates to final grade, including any required fine grading, trimming, or concrete collar construction.
  - v. The quantity shown for this item shall be considered approximate and is indicated for bid comparison purposes only, and no guarantee is made or implied that the quantities as shown will not be reduced, increased, or deleted as may be required.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this item's price. Full compensation for this item, as described in these Specifications and Plans, shall be considered as included in the Contract price paid per this bid item, and no additional compensation will be allowed.
- d. Payment for this item shall be made on a per Each basis as completed and accepted during this project

### **32. SHADE STRUCTURE INSTALLATION**

- a. This item shall be bid at a Lump Sum price for installing the shade structure completed per these Specifications and Plans
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, all grading and earthwork preparation required to complete this work, to the grade and line shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans and as specified below:
  - i. Installation of complete Shade Structure(s), including but not limited to structural posts, beams, framing, shade panels, decking, hardware, anchors, fasteners, and all appurtenances necessary for a complete and functional installation. Refer to RCP Shelter plans for more details
    - (1) Contractor shall pick up the shade structure from the City's equipment maintenance yard located at 135 E. Sacramento St. Coalinga, CA 93210. The Contractor shall coordinate with the city to confirm approved hours of availability and access to yard.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.

- d. Payment for this item shall be made as a Lump Sum upon completion of installation and acceptance by the City Engineer.

### **33. OFF-SITE EXCAVATION, GRADING, AND COMPACTING**

- a. This item shall be bid at a per Cubic Yard price for Off-site Excavation, Compaction and Grading completed per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, all grading and earthwork preparation required to complete this work, to the grade and line shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans and as specified below:
  - i. Clearing, Grubbing, Excavation, Grading, Compacting, Backfilling and Haul as shown on these Specifications and Plans.
    - (1) This includes removal of existing vegetative material, native subgrade material, and other similar items, and disposal of items to an approved site, including transportation.
    - (2) This includes spreading and compacting material immediately following the excavation operation and grading material to the slope as shown on the plan cross sections to provide a stable surface for improvements.
  - ii. Excess material shall be stockpiled on site in designated areas. Stockpile excavated material to be re-used in areas as necessary on site in accordance with Section 02310 and 02315.
  - iii. Excess debris shall become the property of the Contractor and shall be removed and disposed of in a legal manner off of the Owner's property. Location of dump and length of haul shall be the Contractor's responsibility.
  - iv. The quantity shown for this item shall be considered as approximate and is indicated for bid comparison only, and no guarantee is made or implied that the quantities as shown will not be reduced or increased or deleted as may be required by the Engineer.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Cubic Yard basis as completed during this project.

### **34. OFF-SITE AC PAVEMENT AND CONCRETE REMOVAL AND DISPOSAL**

- a. This item shall be bid at a per Cubic Yard price for Off-site Concrete/Pavement Removal and Disposal per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, materials, equipment, and incidentals required to complete this work as described, according to these Specifications and Plans and as specified below:
  - i. Saw cutting of existing concrete and asphalt concrete sections.
    - (1) Contractor shall endeavor to protect all saw cut edges from damage. Should the sawed edge become damaged, the Contractor shall re-saw the edge at his expense.
  - ii. Removal of existing concrete sidewalk, concrete curb and gutter, concrete valley gutter, and other similar concrete items, more specifically as shown on the Plans, and disposal of concrete to an approved site, including transportation.
  - iii. Removal and disposal of existing A.C. pavement and aggregate base were shown on the Plans.
  - iv. All work necessary to abandon existing manholes, drainage features, pipes, or miscellaneous structures specifically as shown on the plans.
  - v. Construction activities required to remove and re-establish survey monuments.
    - (1) Survey work required to re-establish survey monuments shall be paid for under bid item 5: Construction Surveying.
  - vi. All debris and excess earth materials shall become the property of the Contractor and shall be

removed and disposed of in a legal manner off of the Owner's property. Location of dump and length of haul shall be the Contractor's responsibility.

- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed, therefore.
- d. Payment for this item shall be made on a per Cubic Yard basis as completed during this project.

### **35. OFF-SITE HOT MIX ASPHALT TYPE A (HMA-A)**

- a. This item shall be bid at a per Ton price for providing and placing Off-site Hot Mix Asphalt Type A (HMA-A) per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described, to the line, grade, and compaction shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans and as specified below:
  - i. Placement of AC plug, to depth and width as noted on the Plans.
  - ii. Placement of AC pavement section, to the depth, width, grade, and compaction as noted on the Plans.
  - iii. The quantity shown for this item shall be considered as approximate and is indicated for bid comparison only and no guarantee is made or implied that the quantities as shown will not be reduced or increased or deleted as may be required.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed, therefore.
- d. Payment for this item shall be made on a per Ton basis as completed during this project.

### **36. OFF-SITE AGGREGATE BASE CLASS II**

- a. This item shall be bid at a per Ton price for providing and placing Off-Site Aggregate Base Class II per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described, to the line, grade, and compaction shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans, and as specified below:
  - iii. Placement of 3/4" Aggregate Base, to depth, width, and compaction as noted on the Plans.
    - a. 8" thick 95% Relative Compaction (R.C.) aggregate base underneath Shade Structure concrete slab area and Pre-Fab modular restroom pad area, per the appropriate City Standard and RCP Shelter Plans.
  - iv. The quantity shown for this item shall be considered as approximate and is indicated for bid comparison only and no guarantee is made or implied that the quantities as shown will not be reduced or increased or deleted as may be required.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Ton basis as completed during this project.

### **37. OFF-SITE 6" CURB AND GUTTER**

- a. This item shall be bid at a per Linear Foot price for constructing Off-site 6" Curb and Gutter per these

Specifications and Plans.

- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described: excavation, subgrade preparation, grading and construction of concrete 6" curb and gutter, to the grade and line specified, according to the appropriate City and State Standard Drawings, these Specifications and Plans, and as specified below:
  - i. Aggregate base required per the City Standard Drawing and Caltrans Standard Drawing will be paid under the Aggregate Base Class II Base Bid item.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed, therefore.
- d. Payment for this item shall be made on a per Linear Foot basis as completed during this project.

### **38. OFF-SITE 4" THICK CONCRETE SIDEWALK**

- a. This item shall be bid at a per Square Foot price for constructing new Off-site 4" Thick Concrete Sidewalk, per these Special Provisions and Plans.
- b. This item shall include the costs of all labor, equipment, furnishing and installing all materials, and incidentals, required to complete this work as described:
  - i. construction of new concrete sidewalk, according to the appropriate Standard Concrete Sidewalk Construction Drawing, to the grade and line specified, and these Special Provisions and Plans.
  - ii. Compacted sand required per the City Standard Drawing shall be included in this bid item.
- c. No additional separate payment will be made for this item and all compensation therefore is to be included in this item's unit price. Full compensation for this item, as described in these Special Provisions and Plans, shall be considered as included in the Contract price paid per unit and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per Square Foot basis as completed during this project.

### **39. OFF-SITE CONCRETE CURB RAMP**

- a. This item shall be Bid at a per Square Foot price for constructing Off-site Concrete Curb Ramp per these Specifications and Plans
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described: excavation, subgrade preparation, grading, sand, and construction of concrete curb ramp, to the grade and line specified, according to the appropriate City and Caltrans Standard Drawings, these Specifications and Plans and as specified below:
  - i. Curb ramp is limited to rectangular ramp portion including truncated domes, and flares not to exceed 9% at curb.
  - ii. Pedestrian Path of Travel shall be in compliance with the Americans with Disabilities Act 2010 Guidelines.
  - iii. Sand required per the City Standard Drawing shall be included in this bid item.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed, therefore.
- d. Payment for this item shall be made on a per Square Foot basis as completed during this project.

### **40. OFF-SITE CONCRETE ALLEY APPROACH**

- a. This item shall be bid at a per Square Foot price for constructing a new Off-site Concrete Alley Approach, per these Specifications and Plans.

- b. This item shall include the costs of all labor, equipment, furnishing and installing all materials, and incidentals, required to complete this work as described: subgrade preparation, grading and construction of new concrete alley approach, according to the appropriate Standard Concrete Alley Approach Construction Drawing, to the grade and line specified, and these Specifications and Plans.
- c. No additional separate payment will be made for this item and all compensation therefor is to be included in this items unit price. Full compensation for this item, as described in these Specifications and Plans, shall be considered as included in the Contract price paid per unit and no additional compensation will be allowed therefor.
- d. Payment for this item shall be made on a per Square Foot basis as completed during this project.

**41. ADA DETECTABLE WARNING TILE (3'X4')**

- a. This item shall be bid on a per Each basis for furnishing and installing ADA detectable warning tiles measuring 3 feet by 4 feet in accordance with these Specifications, the Plans, the Americans with Disabilities Act (ADA) requirements, and applicable codes and standards.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing detectable warning tiles, surface preparation, cutting, setting, anchoring, adhesives or fasteners, finishing, color matching, cleanup, protection, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Layout and verification of tile location, orientation, and limits as shown on the Plans.
  - ii. Surface preparation of existing or new concrete, including saw cutting, grinding, cleaning, and leveling as required.
  - iii. Furnishing and installing Cast-in place ADA-compliant detectable warning tiles with truncated domes, including required anchoring or adhesive systems.
  - iv. Setting tiles flush with adjacent surfaces to meet ADA tolerances for slope, alignment, and finish.
  - v. Protection of installed tiles until final acceptance.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract unit price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made on a per Each basis for each ADA detectable warning tile (3' x 4') installed, completed, and accepted by the Engineer.

**42. TRAFFIC MARKINGS, STRIPING, SIGNAGE**

- a. This item shall be bid at a per Lump Sum price for Traffic Striping, Markings and Signage per these Specifications and Plans. as specified on Striping Plan Sheets
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described, according to the appropriate City Standard Drawing, the most current edition of the Manual of Uniform Traffic Control Devices (MUTCD) California Supplement, these Specifications and Plans, and as specified below:
  - i. Removal of existing striping that interferes with proposed striping.:
  - ii. All proposed striping shall be installed as shown on the plans and in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) California Supplement, most recent edition.
    - (1) Contractor may use City provided stencils for pavement markings.
  - iii. All word and arrow pavement markings shall be installed as shown on the plans and in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) California Supplement, most recent edition.
  - iv. Removal and disposal of existing signs.
  - v. Installation of new signs according to the appropriate City Standard Drawing and Plans.

TYPE	QUANTITY
PARKING SOLID LINE	114 (LF)

(BLUE, COLOR NO. 15090 PER FED. STD. 595B)	
MUTCD R99C-MOD (CA) (17"X22")	1 (EA)
MUTCD R100B (CA) (24"X24")	1 (EA)
DETAIL A (A90A MUTCD 2024)	1 (EA)
NO PARKING (A90A MUTCD 2024)	1 (EA)

- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made as a Lump Sum upon completion of Traffic Markings, Striping, and Signage.

**43. UTILITY DEMO & IMPROVEMENTS**

- a. This item shall be bid at a Lump Sum price for performing utility demolition and improvements per these Specifications and Plans.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, coordination with utility Owners, traffic control, permits, testing, inspection, restoration, transportation, and all incidentals required to complete this work as described, to the line, grade, and elevations shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans, and as specified below:
  - i. Demolition, removal, abandonment, protection, relocation, adjustment, and improvement of existing utilities, including but not limited to gas, water, sewer, storm drain, electrical, communications, and irrigation facilities, as shown on the Plans or encountered within the limits of work.
  - ii. Furnishing and installation of new or replacement utility facilities, including pipes, valves, fittings, manholes, cleanouts, service laterals, vaults, appurtenances, and all associated connections necessary for a complete and functional utility system.
  - iii. Temporary support, protection, and maintenance of existing utilities to remain in service, including temporary bypass systems, shutdown coordination, and sequencing required to minimize service interruptions.
  - iv. Excavation, shoring, trenching, bedding, backfill, compaction, and surface restoration associated with utility demolition and improvements, including pavement, concrete, landscaping, and other affected improvements as shown on the Plans.
  - v. Coordination with governing agencies, utility Owners, and inspectors, including scheduling of inspections, testing, pressure testing, disinfection, and acceptance of completed work.
  - vi. The quantities and locations shown for this item shall be considered approximate and are indicated for bid comparison purposes only, and no guarantee is made or implied that the quantities or scope shown will not be reduced, increased, or modified as required.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore shall be included in this item's price. Full compensation for this item, as described in these Specifications and Plans, shall be considered as included in the Contract price paid for this bid item, and no additional compensation will be allowed.
- d. Payment for this item shall be made on a Lump Sum basis upon satisfactory completion and acceptance of the work.

**44. ADJUST UTILITY LID**

- a. This item shall be Bid at a per Each Occurrence price for Adjustment Existing Utilities per these Specifications and Plans.

- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, transportation, and incidentals required to complete this work as described, locating all items to be adjusted within project limits and accurately referencing their locations for adjustment to finish grade, according to these Specifications and Plans, and as specified below:
  - i. Includes adjustment of utility lid and frame to proposed finish grade. Verify lids to be adjusted with inspector prior to adjustment.
  - ii. Replace any lids or rings broken by Contractor during construction.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this items price. Full compensation for this item, as described in these Specification and Plans, shall be considered as included in the Contract price paid per this bid item and no additional compensation will be allowed therefore.
- d. Payment for this item shall be made on a per each occurrence basis as completed during this project.

#### **45. SIDEWALK STORM UNDERDRAIN**

- a. This item shall be bid on a Lump Sum basis for furnishing and installing a complete sidewalk underdrain system in accordance with these Specifications, the Plans, and applicable codes and standards.
- b. This item shall include all costs necessary to perform the work, including but not limited to all labor, supervision, equipment, materials, furnishing and installing underdrain piping, perforated pipe, fittings, filter fabric, drainage aggregate, cleanouts, outlets, trenching, excavation, shoring, dewatering, backfilling, compaction, restoration of sidewalk and adjacent surfaces, transportation, and all incidentals required to complete the work as described herein. The work shall include, but not be limited to, the following:
  - i. Layout and verification of underdrain alignment, depth, and outlet locations as shown on the Plans.
  - ii. Excavation and trenching beneath sidewalks or proposed sidewalk areas, including protection of adjacent improvements.
  - iii. Furnishing and installing perforated underdrain pipe with required fittings, filter fabric, and drainage aggregate.
  - iv. Connection of underdrain system to approved outlets or drainage structures.
  - v. Backfilling, compaction, and restoration of sidewalks, subgrade, and adjacent surfaces to original or specified conditions.
- c. No additional or separate payment shall be made for this item if actual costs exceed the bid amount. Full compensation for all work described in these Specifications and the Plans shall be considered included in the Contract price for this bid item, and no additional compensation shall be allowed.
- d. Payment for this item shall be made as a Lump Sum upon completion of installation and acceptance by the Engineer.

#### **46. ADA SIGN WITH POST AND CONCRETE FOOTING**

- a. This item shall be bid on a per Each basis for furnishing and installing an ADA-compliant sign(s) with post in accordance with these Specifications, the Plans, and applicable codes and standards.
- b. This item shall include the cost to perform the following, including all labor, equipment, furnishing and installing all materials, excavation, foundations, transportation, and incidentals required to complete this work as described, to the line, grade, and elevations shown on the Plans, according to the appropriate Detail Drawings, these Specifications and Plans, and as specified below:
  - i. Furnishing and installation of ADA-compliant Sign(s), including but not limited to sign panels, posts, mounting hardware, and all appurtenances necessary for a complete and functional installation in accordance with applicable ADA standards and local requirements.
  - ii. Furnishing and installation of sign post(s), including excavation, concrete footing or base, anchorage, plumb alignment, backfill, compaction, and disposal of excess materials.
  - iii. Placement of sign(s) at the locations shown on the Plans or as directed by the Engineer, including verification of required mounting heights, lateral clearances, orientation, and visibility per ADA requirements.

- iv. Restoration of adjacent surfaces disturbed by construction, including pavement, concrete, landscaping, or other finishes as shown on the Plans.
- v. The quantity shown for this item shall be considered approximate and is indicated for bid comparison purposes only, and no guarantee is made or implied that the quantities as shown will not be reduced, increased, or deleted as may be required.
- c. No additional separate payment shall be made for this item should actual costs exceed the amount of the Bid, and all compensation therefore is to be included in this item's price. Full compensation for this item, as described in these Specifications and Plans, shall be considered as included in the Contract price paid per this bid item, and no additional compensation will be allowed.
- d. Payment for this item shall be made on a per each basis as completed and accepted during this project.

## **END OF SECTION**

## SECTION 00481 - NONDISCRIMINATION CLAUSE

### PART 1 LABOR NONDISCRIMINATION

Attention is directed to the following notice that is required by Chapter 5, Title 2, California Administrative Code.

A. Notice of Requirement for Nondiscrimination Program (Government Code, Section 12990)

Your attention is called to the "Nondiscrimination Clause", set forth herein, which is applicable to all nonexempt state Contracts and Subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth herein. The specifications are applicable to all nonexempt state construction Contracts and Subcontracts of \$5,000 or more.

#### Nondiscrimination Clause

- A. During the performance of this Contract, Contractor and its Subcontractors shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, sexual orientation, race, color, religious creed, marital status, denial of family and medical care leave, ancestry, national origin, medical condition (cancer/genetic characteristics), age (40 and above), disability (mental and physical) including HIV and AIDS, denial of pregnancy disability leave or reasonable accommodation. Contractor and Subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and Subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, §12900 et seq.) and the applicable regulations promulgated thereunder (Cal. Code Regs, tit. 2, §7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, §12990 (a)–(f), are incorporated into this Contract by reference and made a part hereof as if set forth in full (Cal. Code Regs, tit. 2, §7285.0 et seq.). Contractor and its Subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- B. This Contractor shall include the Nondiscrimination and Compliance Provisions of this clause in all Subcontracts to perform work under Contract.
- C. Standard California Nondiscrimination Construction Contract Specifications (Government Code, Section 12990) These specifications are applicable to all state Contractors and Subcontractors having a construction Contract or Subcontract of \$5,000 or more.
1. As used in the specifications:
    - a) "Act" means the Fair Employment and Housing Act.
    - b) "Administrator" means Administrator, Office of Compliance Programs, California Department of Fair Employment and Housing, or any person to whom the Administrator delegates authority;
  2. Whenever the Contractor or any Subcontractor Subcontracts a portion of the work, it shall include in each Subcontract of \$5,000 or more the Nondiscrimination Clause in this Contract directly or through incorporation by reference. Any Subcontract for work involving a construction trade shall also include the Standard California Construction Contract Specifications, either directly or through incorporation by reference.
  3. The Contractor shall implement the specific nondiscrimination standards provided in paragraphs 6(a) through (e) of these specifications.
  4. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer members of any group protected by the Act shall excuse the Contractor's obligations under these specifications, Government Code section 12990, or the regulations promulgated pursuant thereto.
  5. In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training,

- subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.
6. The Contractor shall take specific actions to implement its nondiscrimination program. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor must be able to demonstrate fully its efforts under steps a. through e. below:
    - a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and at all facilities at which the Contractor's employees are assigned to work. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligations to maintain such a working environment.
    - b) Provide written notification within seven days to the director of the DFEH when the referral process of the union or unions with which the Contractor has a collective bargaining agreement has impeded the Contractor's efforts to meet its obligations.
    - c) Disseminate the Contractor's Equal Employment Opportunity Policy by providing notice of the policy to unions and training, recruitment and outreach programs and requesting their cooperation in assisting the Contractor to meet its obligations; and by posting the company policy on bulletin boards accessible to all employees at each location where construction work is performed.
    - d) Ensure all personnel making management and employment decisions regarding hiring, assignment, layoff, termination, conditions of work, training, rates of pay or other employment decisions, including all supervisory personnel, superintendents, general foremen, on-site foremen, etc., are aware of the Contractor's equal employment opportunity policy and obligations, and discharge their responsibilities accordingly.
    - e) Ensure that seniority practices, job classifications, work assignments, and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the Equal Employment Opportunity Policy and the Contractor's obligations under these specifications are being carried out.
  7. Contractors are encouraged to participate in voluntary associations that assist in fulfilling their Equal Employment Opportunity obligations. The efforts of a Contractor association, joint Contractor-union, Contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on equal employment opportunity in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's workforce participation, and can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's.
  8. The Contractor is required to provide equal employment opportunity for all persons. Consequently, the Contractor may be in violation of the Fair Employment and Housing Act (Government Code section 12990 et seq.) if a particular group is employed in a substantially disparate manner.
  9. The Contractor shall not use the nondiscrimination standards to discriminate against any person because race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status.
  10. The Contractor shall not enter into any Subcontract with any person or firm decertified from state Contracts pursuant to Government Code section 12990.
  11. The Contractor shall carry out such sanctions and penalties for violation of these specifications and the nondiscrimination clause, including suspension, termination and cancellation of existing Subcontracts as may be imposed or ordered pursuant to Government Code section 12990 and its implementing regulations by the awarding agency. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Government Code section 12990.
  12. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to

the provisions hereof as may be required by OCP and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, status, (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in any easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

NOTE: Authorized Cited: Section 12935 (A) and 12990(D), Government Code. Reference: Section 12990, Government Code.

**During the performance of this Contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees as follows:**

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this Contract.
2. **Non-discrimination:** The Contractor, with regard to the work performed by it during the Contract, will not discriminate on the grounds of race, color, national origin, age, sex, or disability in the selection and retention of Subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the Contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitation for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the Contractor for work to be performed under a Subcontract, including procurements of materials, or leases of equipment, each potential Subcontractor or supplier will be notified by the Contractor of the Contractor’s obligations under this Contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, age, sex, or disability.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor’s noncompliance with the Non-discrimination provisions of this Contract, the Recipient will impose such Contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the Contractor under the Contract until the Contractor complies; and/or
  - b. cancelling, terminating, or suspending a Contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every Subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Contractor will take action with respect to any Subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or threatened with litigation by a Subcontractor, or supplier because of such direction, the Contractor may

request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

**During the performance of this Contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:**

Pertinent Non-Discrimination Authorities:

- A. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- B. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- C. Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), prohibits discrimination on the basis of sex;
- D. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CR Part 27;
- E. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), prohibits discrimination on the basis of age);
- F. Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- G. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and Contractors, whether such programs or activities are Federally funded or not);
- H. Titles II and III of the Americans with Disabilities Act, which prohibit discrimination of the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations 49 C.F.R. parts 37 and 38;
- I. The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- J. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- K. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- L. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

NOTE: The United States Department of Transportation (USDOT) Standard Title VI/Non-Discrimination Assurances DOT Order No. 1050.2A

**END OF SECTION**

## SECTION 00500 - CONSTRUCTION AGREEMENT (SAMPLE)

**THIS AGREEMENT is by and between the City of Coalinga**, hereinafter called Owner and \_\_\_\_\_ hereinafter called Contractor

### ARTICLE 1 - WORK

A. CONTRACTOR shall complete all work as specified or indicated in the Contract Documents. The work is generally described as follows:

Project Name: \_\_\_\_\_  
Project No.: \_\_\_\_\_

### ARTICLE 2 - THE PROJECT

The project for which work under the Contract Documents may be the whole or only a part is generally described as follows: The work under the Contract Documents comprises the entire project.

### ARTICLE 3 – CITY ENGINEER

The project has been designed by:

Tri-City Engineering, Inc.  
4630 W. Jennifer Ave. Suite 101  
Fresno, CA 93722-6415  
Phone: (559) 447-9075  
Fax: (559) 447-9074  
www.TriCityEngineering.com

“City Engineer” shall mean Tri City Engineering, Inc., or their authorized agent acting within the scope of their authority, who shall act as the representative of the City during the term of this Contract, and who are to act as Owner’s representatives, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the work in accordance with the Contract Documents

### ARTICLE 4 - CONTRACT TIMES

Attention is directed to the Provisions in Section 4 ‘Scope of Work’, to Section 8 ‘Prosecution and Progress’ of the State of California 2025 Standard Specifications, also referred to as Standard Specifications, and these Special Provisions below.

- A. Time is of the essence
1. All time limits for milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract documents are of the essence of the Contract.
- B. Days to Achieve Substantial Completion
1. The work will be substantially completed within \_\_\_\_\_ Working Days (Base Bid), \_\_\_\_\_ Working Days (Base Bid), of the date when the Contract times commence to run as provided in Section 8 of the Standard Specifications.
- C. Liquidated Damages
1. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the work is not completed within the time(s) specified in paragraph 4.B above, plus any extensions thereof allowed in accordance with Section 4-1.05 of the Standard Specifications. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding

the actual loss suffered by Owner if the work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as penalty), Contractor shall pay Owner ONE THOUSAND DOLLARS (\$1,000.00) for each day that expires after the time specified in paragraph 4.B for Substantial Completion until the work is substantially complete.

## ARTICLE 5 - CONTRACT PRICE

Attention is directed to the Provisions in Section 9 'Payment', to Section 4 'Scope of Work', to Section 5 'Control of Work' of the State of California 2025 Standard Specifications, also referred to as Standard Specifications, and these Special Provisions below.

A. Owner shall pay Contractor for completion of the work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to the following paragraphs;

1. For all Unit Price work, an amount equal to the sum of the established unit price for each separately identified item of Unit Work times the estimated quantity of that item as indicated in this paragraph.
  - i. Refer to Section 00410 - Bid Proposal, for Individual Unit Prices.
  - ii. Total of all Unit Prices, a Sum of:
    - (a) Amount:

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\$ \_\_\_\_\_ dollars

- iii. As provided in paragraph Section 4-1.05 of the Standard Specifications Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Owner's Representative as provided in Section 5-1.03 of the Standard Specifications.
2. For all Unit Price Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

## ARTICLE 6 - PAYMENT PROCEDURES

Attention is directed to the Provisions in Section 9 'Payment' of the State of California 2025 Standard Specifications, also referred to as Standard Specifications, and these Special Provisions below.

A. Submittal and Processing of Payments

Contractor shall submit Applications for Payment in accordance with Section 9 of the Standard Specifications. Applications for Payment will be processed by Owner's Representative as provided in the General Conditions.

B. Progress Payments; Retainage

1. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the work as provided in the following paragraphs. All such payments will be measured by the schedule of values established in Section 9.1.16B of the Standard Specifications (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
  - i. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner's Representative may determine or Owner may withhold, in accordance with Section 9.1.16E of the Standard Specifications:
    - (a) 95% of work completed (with the balance being retainage).
    - (b) No response payment will be made for any materials on hand which are furnished but not incorporated in the work.
  - ii) Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payment to CONTRACTOR to 95% of the work completed, less such amounts as Owner's Representative shall determine in accordance with the State Standard Specifications.

### C. Final Payment

1. Upon final completion and acceptance of the work in accordance with Section 9-1.17D of the Standard Specifications, Owner shall pay the remainder of the Contract Price as recommended by Owner's Representative as provided in said paragraph.
2. Final payment of 5% will not be paid to Contractor until As-Built Drawings are received by the City Engineer.

## **ARTICLE 7 - INTEREST**

Deleted

## **ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS**

Attention is directed to the Provisions in Section 4 'Scope of Work' of the State of California 2025 Standard Specifications, also referred to as Standard Specifications, and these Special Provisions below.

### A. In order to induce Owner to enter into this Agreement Contractor makes the following representations:

1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
2. Contractor has visited the Project Site and become familiar with and is satisfied as to the general, local, and Project Site conditions that may affect cost, progress, and performance of the work.
3. Contractor is familiar with and is satisfied as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, and performance of the work.
4. Contractor has carefully studied all:
  - i. Reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in Section 4 of the State Standard Specifications, and
  - ii. Reports and drawings of a Hazardous Environmental Condition, if any, at the Project Site which has been identified in the Supplementary Conditions as provided in Section 4 of the State Standard Specifications.
5. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Project Site which may affect cost, progress, or performance of the work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by Contractor, and safety precautions and programs incident thereto.
6. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the work at the Contract Price, within the Contract Times, and in accordance with the terms and conditions of the Contract Documents.
7. Contractor is aware of the general nature of the work to be performed by the Owner and others at the Project Site that relates to the work as indicated in the Contract Documents.
8. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Project Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
9. Contractor has given Owner's Representative written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contractor Documents, and the written resolution thereof by Owner's Representative is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the work.

## **ARTICLE 9 - CONTRACT DOCUMENTS**

Attention is directed to the Provisions in Section 2 'Bidding' of the State of California 2025 Standard Specifications,

also referred to as Standard Specifications, and these Special Provisions below.

**A. Contents**

1. The Contract Documents consist of the following:
  - i. This Agreement (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive);
  - ii. Performance Bond (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive);
  - iii. Payment Bond (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive);
  - iv. The entire Specifications, as listed in the Table of Contents;
  - v. The entire Plan Set Drawings, as listed in Section 00015;
  - vi. Addenda (Numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive);
2. The documents listed in Paragraph 9.A above are attached to this Agreement (expressly noted otherwise above).
3. There no Contract Documents other than those listed above in this Article 9.
4. The Contract Documents may only be amended, modified, or supplemented as provided in Section 2 of the State Standard Specifications.

**ARTICLE 10 - MISCELLANEOUS**

**A. Terms**

1. Terms used in this agreement will have the meanings indicated in the State of California 2025 Standard Specifications, also referred to as Standard Specifications.
2. Assignment of Contract
  - i. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

**B. Successors and Assigns**

1. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

**C. Severability**

1. Any provision or part of the Contract document held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**ARTICLE 11 - WORKER'S COMPENSATION INSURANCE**

“Contractor represents that he has secured the payment of Worker’s Compensation in compliance with the provisions of the Labor Code of the State of California and during the performance of the work contemplated herein will continue so to comply with said provision of said Code. Contractor shall supply the Owner with certificates of insurance, evidencing that Worker’s Compensation Insurance is in effect and providing that the Owner will receive ten days written notice of cancellation. If Contractor self-insures Worker’s Compensations, Certificate of Consent to Self-insure should be provided to the Owner.”

**ARTICLE 12 – TERMINATION CLAUSES**

- A.** If the Contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of
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his creditors, or if a receiver should be appointed on account of his insolvency, or if he or any of his Subcontractors should persistently violate any of the provisions of the Contract, or if he should persistently or repeatedly refuse or should fail; except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to Subcontractors or for material or labor, or persistently disregard laws, ordinances or the instructions of the Owner's Representative, then the Owner may, upon certificate of the Owner's Representative when sufficient cause exists to justify such action, serve written notice upon the Contractor and his Surety of its intention to terminate the Contract, and unless within five days after the serving of such notice, such violations shall cease and satisfactory arrangements for correction thereof be made, the Contract shall, upon the expiration of said five (5) days, cease and terminate.

- B. In the event of any such termination, the Owner shall immediately serve written notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and perform the Contract, provided, however, that if the Surety within the ten (10) days after the serving upon it of notice of termination does not give the Owner written notice of its intention to take over and perform the Contract or does not commence performance thereof within the ten (10) days stated above from the date of the serving of such notice, the Owner may take over the work and prosecute the same to completion by Contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby and in such event the Owner may without liability for so doing, take possession of and utilize in completing the work such materials, appliances, plant and other property belonging to the Contractor as may be on the site of the work and necessary therefore. In such case the Contractor shall not be entitled to receive any further payment until the work is finished.
- C. If the unpaid balance of the Contract price shall exceed the expenses of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner, as herein provided and damage incurred through the Contractor's default, shall be certified by the Owner's Representative.

**IN WITNESS WHEREOF,**

Owner and Contractor have signed this Agreement. All portions of the Contract Documents have been signed, initialed, or identified by Owner and Contractor or identified by Owner's Representative on their behalf.

**This Agreement will be effective on**

\_\_\_\_\_ , \_\_\_\_\_ ,

which is the effective date of the Agreement. This Agreement shall not be effective unless and until concurred in by agency's designated representative.

**OWNER:** City of Coalinga

Signature: \_\_\_\_\_

**CONTRACTOR:**

Business Name: \_\_\_\_\_

Signature:

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**END OF SECTION**

## ***SECTION 00620 - INSURANCE CERTIFICATES***

### **GENERAL SUMMARY**

Insurance requirements for this project are specified in General Conditions and as modified by the Supplementary Conditions. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, the certificates of insurance contained in this section.

### **SECTIONS**

- A. General Liability Special Endorsement
- B. Automobile Liability Special Endorsement
- C. Worker's Compensation and Employers Liability Special Endorsement
- D. Certificate of Insurance to the City.

### **END OF SECTION**

## ***SECTION 00700 - GENERAL CONDITIONS***

### **FORM OF GENERAL CONDITIONS**

State of California Department of Transportation Standard Specifications (CALTRANS), Most Current Edition, are the General Conditions between the Owner and Contractor.

EJCDC No. C-700 Standard General Conditions of the Construction Contract Funding Agency Edition, Most Current Edition, also attached are the General Conditions between the Owner and Contractor.

If any discrepancy exists between the CALTRANS and EJCDC General Conditions, the CALTRANS General Conditions shall take precedence over the EJCDC General Conditions.

### **SUPPLEMENTARY CONDITIONS**

Refer to Document 00800 for amendments to these General Conditions, if any.

**END OF SECTION**

## **SECTION 00800 - SUPPLEMENTARY CONDITIONS**

### **INTENT**

These Supplementary Conditions amend and supplement the General Conditions defined in Document 00700 and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

In case of conflict between the General Conditions and these Supplementary Conditions, the Supplementary Conditions shall take precedence over and be used in lieu of such conflicting portions.

### **MODIFICATIONS TO STATE STANDARD SPECIFICATIONS**

#### **Section 1 Definitions and Terms**

- A. For purpose of this Contract, the following terms or pronouns in place of them, used throughout the Standard Specifications and defined in Section 1, Definition of Terms, of the Standard Specifications, shall be as follows:
1. State: City of Coalinga.
  2. Public Works Building: Coalinga City Hall, 155 W. Durian Ave, Coalinga, CA 93210.
  3. Department of Transportation: The City Council of the City of Coalinga, State of California.
  4. Director: Mayor of the City of Coalinga.
  5. State Highway Engineer: The Director of Public Works (ex officio engineer) of the City of Coalinga.
  6. Chief Engineer: Department of Transportation: The Director of Public Works (ex officio City Engineer) of the City of Coalinga.
  7. Engineer: Engineer shall mean the Director of Public works of the City of Coalinga, his authorized agent acting within the scope of his authority who shall act as the representative of the City during the term of the Contract.
  8. Laboratory: The established laboratory of the Office of System Implementation of the Department of Transportation of the State of California or Laboratories authorized by the Engineer to test materials and work involved in this Contract.
- B. Reference is made to Section 1 of the Standard Specifications for other pertinent definitions.

#### **Section 2 Proposal and Requirements Conditions**

- A. Section 2-1.47 Bid Relief
1. Attention is directed to the Provisions of Public Contract Code Sections 5100 TO 5107, inclusive, concerning relief of Bidders and in particular to the requirements therein, that if the Bidder claims a mistake was made in his bid, the Bidder shall give the department written notice within five (5) days after the opening of the bids of the alleged mistake, specifying in the notice in detail how the mistake occurred.

#### **Section 3 Award and Execution of Contract**

- A. The Bidder's attention is directed to the provisions in Section 3, "Contract Award and Execution", of the Standard Specifications for the requirements and conditions concerning award and execution of the Contract.
1. Section 3-1.04 Contract Award
    - i. The award of Contract, if it be awarded, will be the lowest Responsive Bidder whose proposal complies with all the requirements prescribed.
    - ii. The lack of prompt procedure to resolve disputes regarding the bidding process would impair the Owner's ability to carry out its purpose of Contracting this project in a timely manner. Therefore, to the maximum extent authorized by law and notwithstanding any other procedures specified in these Contract Documents, all disputes and/or protests regarding the bidding process shall be subject to the following procedure. In submitting a bid to the Owner for this project the Bidder agrees to comply

with and to be bound by this procedure.

- (a) Any bid protest must be submitted in writing to the City before 5:00 p.m. on the third working day following bid opening.
- (b) The bid protest must contain a complete statement of the basis for the protest and all supporting documentation. A nonrefundable fee of seven hundred fifty dollars (\$750) made payable to the City of Coalinga shall accompany the protest documents and will be used by the Owner to recover costs in evaluating the bid protest. A bid protest submitted without the requisite fee will be considered incomplete and will not be considered by the Owner.
- (c) The party filing the protest must have actually submitted a bid for the work. A Subcontractor of a party submitting a bid for the work may not submit a bid protest.
- (d) A party may not rely on the bid protest submitted by another Bidder but must timely pursue its own protest.
- (e) The protest must refer to the specific portion of the Contract Documents which forms the basis for the protest.
- (f) The protest must include the name, address, and telephone number of the person representing the protesting party.
- (g) The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other Bidders, and the bid protest must contain proof of service of the bid protest on the other Bidders.
- (h) The protested Bidder shall have up to five (5) working days after the filing of a bid protest to submit a written response. The responding Bidder shall transmit the response to the protesting Bidder concurrent with the delivery to the Owner.
- (i) The procedure and time limits set forth in this paragraph are mandatory and are the Bidder's sole and exclusive remedy in the event of the bid protest. The Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.
- (j) The Owner will evaluate all proper bid protest before the award of the Contract to the lowest responsive and responsible Bidder.

**B. Section 3-1.05 Contract Bonds**

1. Two good and sufficient surety bonds (performance and labor and material) each in the amount of one hundred percent (100%) of the Contract amount shall be required from the Contractor before execution of Contract.

**C. Section 3-1.18 Contract Execution**

1. The Agreement shall be signed by the successful Bidder and returned, together with the Performance and Payment Bonds, within seven (7) calendar days after the Bidder has received notice of the Contract Award. Within the following seven (7) calendar days the Contractor will receive a written notice (Notice to Proceed) fixing the date on which the Contract time will start.

**D. Section 3-1.18 Failure to Execute Contract**

1. If the low Bidder fails to Contract, and fails to provide the Performance and Payment Bonds, with Surety satisfactory to the Owner, within seven (7) calendar days after Award Day, the Owner, at its option, may determine that the Bidder has abandoned the Contract. Consequently, the Bid Security accompanying this Proposal shall operate and the same shall be the property of the Owner.

## **Section 4 Scope of Work**

**A. Section 4-1.05 Changes and Extra Work**

1. Attention is directed to the provisions in Section 4-1.03A of the Standard Specifications and these Special Provisions.

## **Section 5 Control of Work**

**A. Section 5-1.12 Assignment**

1. Attention is directed to Section 5-1.12 of the Standard Specifications and these Special Provisions.

2. The Contractor shall not assign monies due or to become due under the Contract without the written consent of the City Finance Director of the City. Any assignment of monies shall be subject to all proper setoffs in favor of the City and to all deductions provided for in the Contract and particularly all money withheld, whether assigned or not, shall be subject to being used by the City for the completion of the work in the event that the Contractor should be in default therein.
- B. Section 5-1.13 Subcontracting
1. Attention is directed to the provisions in Section 5-1.13 of the Standard Specifications.
- C. Section 5-1-16 Representative
1. The Superintendent shall be present at the site of the work at all times while work is actually in progress on the Contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Owner's Representative shall be made for any emergency work which may be required.
- D. Section 5-1.46 Final Inspection and Contract Acceptance
1. After acceptance of the Contract, the amount, if any, payable for a Contract item of work in excess of the maximum value for progress payment purposes herein above listed for said item, will be included for payment in the first estimate made after acceptance of the Contract.

## **Section 7 Legal Relations and Responsibility To the Public**

- A. Section 7-1.02K(2) Prevailing Wage of the Standard Specifications
1. The general prevailing wage rates determined by the Director of Industrial Relations, for the county or counties in which the work is to be done, are available at the City of Coalinga address. These wage rates are not included in these Contract Documents for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.
- B. Section 7-1.02K(4) Apprentices
1. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeships, San Francisco, California, or from the Division of Apprenticeship Standards, 2550 Mariposa Street, Fresno, California 93721.

## **Section 8 Prosecution and Progress**

- A. Attention is directed to the Provisions in Section 8-1.04 'Start of Job Activities', to Section 8-1.05 'Time', and to Section 8-1.10 'Liquidated Damages' of the Standard Specifications and these Special Provisions.
1. The Contractor shall begin work within fourteen (14) calendar days after receiving Notice to Proceed by the City, and shall diligently prosecute the same to completion before the expiration of:
    - i. Working Days (Base Bid), forty-eight (48) Working Days (Base Bid Only), from the date shown in said Notice to Proceed.
  2. The Contractor shall pay to the City the sum of ONE THOUSAND DOLLARS (\$1,000.00) per day for each and every calendar days delay in finishing the work in excess of the number of working days prescribed above.
  3. The Contractor shall not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the failure of the City or the Owner of the utility to provide for removal or relocation of any existing utility facilities. Prior to the start date a Pre-Construction Conference will be held at the Office of the Public Works Director for the purpose of discussing with the Contractor the scope of work, Contract drawings, specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and the satisfactory completion of the project as required. The Contractor's representative at this conference shall include all major superintendents for the work and may include major Subcontractors.
- B. Section 8-1.02 Progress Schedule
1. Progress schedules will be required for this Contract and shall conform to the provisions of the Standard Specifications.

## **Section 9 Payment**

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- A. Section 9-1.02 Measurement
1. Attention is directed to the provisions in Section 9-1.02 "Measurement", of the Standard Specifications and these Special Provisions.
  2. Said Section 9-1.02 is amended by adding the following between the eighth and ninth paragraphs:
    - i. Whenever load cells are used for weighing materials, the foundation, base, structural member or other support upon which the load cells or their appurtenances depend, shall be rigid and non-yielding.
    - ii. Foundations and bases shall be constructed in accordance with requirements herein for vehicles scales' support.
  3. Within the limits of the project or at the plant site, the Contractor shall provide a vehicle platform scale or sufficient weighing capacity to check full production sized batches from all proportioning scales to be used in producing materials for the project. Such vehicle platform scale shall conform to the provisions in said Section 9-1.02.
  4. Full compensation for furnishing and operating the vehicle platform scale required to check proportioning scales shall be considered to be included in the Contract prices paid for the various Contract items of work requiring the proportioning scales and no separate payment will be made therefore.
- B. Section 9-1.04 Force Account
1. Attention is directed to Section 9-1.04A "General", of the Standard Specifications.
    - i. Five percent (5%) markup can be added to work performed by a Subcontractor.
  2. Attention is directed to Section 9-1.04B "Labor", of the Standard Specifications.
    - i. Fifteen percent (15%) markup can be added to work performed by the Contractors own forces.
- C. Section 9-1.16C Materials on Hand
1. For the purpose of making partial payments, the amount set forth for the Contract items of work hereinafter listed shall be deemed to be the maximum value of said Contract item of work which will be recognized for progress payment purposes.
  2. No partial payment will be made for any materials on hand which are furnished but not incorporated in the work.
- D. Section 9-1.17D Final Payment and Claims
1. The following shall be added to Section 9-1.17D:
    - i. The City of Coalinga, Director of Public Works, will make the final determination of any claims which remain in dispute after completion of the Contract. The Contractor may meet with the Director of Public Works to make a presentation in support of such claims.
- E. Section 9-1.122 Arbitration
- In lieu of the provisions of Section 9-1.122 "Arbitration", of the Standard Specifications, Claims (Demands for Monetary Compensation or Damages) arising under or related to performance of the Contract may be resolved by litigation in a court of competent jurisdiction.

## **Section 12 Temporary Traffic Control**

- A. Traffic Control System
1. The provisions in this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.04 "Public Safety", of the Standard Specifications.
  2. The base material of construction area signs shall not be plywood.
  3. If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said components to its original condition or replace said component and shall restore the component to its original location.
  4. Lane Closures:
    - i. Lane closures on local routes shall be coordinated with City and Engineer and implemented per the approved Traffic Control Plan on Contractor's submittal. There shall be no lane or street closures on state routes.
    - ii. Driveway access to the alley shall be maintained throughout construction. Coordinate driveway

- construction activities with City and Engineer representative.
- iii. When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way shall be removed from the traveled way and shoulder. If the Contractor so elects, said components may be stored at selected central locations, approved by the Owner's Representative.
  - iv. Foot traffic, special deliveries, and trash/recycle pick up shall be accommodated.
5. Street Closures:
- i. No street closures are required for this project.
  - ii. Residences and businesses that can only access their property off of the alley and Cedar Avenue shall be allowed access at all times.
  - iii. Foot traffic, special deliveries, and trash/recycle pick up shall be accommodated.
6. Sidewalk Closures:
- i. Pedestrian traffic control shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.
  - ii. Advanced signing notification of sidewalk closures must be provided to allow reasonable safe route that does not involve crossing the roadway.
  - iii. Pedestrians and bicyclists shall have a safe route to walk or ride and shall be protected throughout the entire traffic control area. Pedestrian routes/detours shall meet all ADA accessibility requirements.
  - iv. Traffic control devices, equipment, and other construction materials and features must not intrude into the usable width of sidewalk, temporary pathway, or other pedestrian facility.
  - v. Signs mounted lower than 7 feet above the temporary pedestrian pathway should not project more than 4 inches into accessible pedestrian facilities.
  - vi. Pedestrians should not be led into conflicts with work site vehicles, equipment, and operations.
  - vii. The City, through its designated employees reserves the right to initiate field changes to assure public safety.
  - viii. All traffic control devices shall be removed from public right-of-way when not in use, unless otherwise permitted.
  - ix. Trenches shall be backfilled or plated during non-working hours and this includes trenches in bike lane and sidewalk. If trench plates are used over open excavation, include "Steel Plates Ahead" warning sign.
  - x. Contractor is fully responsible for the installation, maintenance, and removal of signs upon completion of work.
  - xi. Temporary "NO PARKING" signs shall be posted 48 hours prior to work commencement. These signs shall be no more than 30 feet apart.
  - xii. Access to driveways and transit stops shall be maintained at all times, unless permitted otherwise.
  - xiii. If public transit is being impacted in any way during construction, the Contractor is responsible for informing transit agencies and coordinating with them accordingly.
  - xiv. Any work that disturbs normal traffic signal operations, such as intersection detection shall be coordinated with Public Works, or with Caltrans for signals along state highway, fourteen (14) calendar days prior to beginning construction.
7. The Contract Lump Sum price paid for traffic control system shall include full compensation for furnishing all labor, materials (including signs), tools, equipment, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control system as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Owner's Representative.
8. In lieu of the provisions of Section 12-2.03, the cost of furnishing flagging costs, full compensation for furnishing flagmen shall be considered as included in the Contract Lump Sum price paid for traffic control systems and no separate payment will be made therefore.
9. The adjustment provisions in Section 4-1.05 "Changes and Extra Work", of the Standard Specifications,

shall not apply to the item of traffic control system. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Owner's Representative and will be made on the basis of the cost of the increased or decreased traffic control system required by changes ordered by the Owner's Representative and will be made as provided in Section 9-1.04 "Force Account", of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

10. Traffic control system required by work which is classed as extra work, as provided in Section 4-1.05 of the Standard Specifications, will be paid for as part of said extra work.

**B. Maintaining Traffic**

1. Attention is directed to Sections 7-1.03 "Public Convenience", 7-1.04, Public Safety", and Section 12, "Temporary Traffic Control", of the Standard Specifications and to the section entitled "Public Safety" elsewhere in these Special Provisions. Nothing in these Special Provisions shall be construed as relieving the Contractor from his responsibility as provided in said Section 7-1.04.
2. Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic.
3. Designated legal holidays are: January 1, the third Monday in January, February 12, the third Monday in February, March 31, the last Monday in May, July 4, and the first Monday in September, November 11, Thanksgiving Day and the day after, and December 25. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When November 11 falls on a Saturday, the preceding Friday shall be a designated legal holiday. Any other holiday falling on a Saturday will be observed on that Saturday. Holiday work restrictions also apply to Fridays following Thursday's holidays, Mondays preceding Tuesday holidays and the days preceding and following extended holiday weekends.
4. Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Owner's Representative, public traffic will be better served and the work expedited. Such deviations shall not be adopted until the Owner's Representative has indicated his written approval. All other modifications will be made by Contract change order.

**C. Section 12-3.06 Construction Area Signs**

1. Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions of the Standard Specifications and these Special Provisions.
2. The base material of construction area signs shall not be plywood.

## **Section 15 Existing Facilities**

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Facilities", of the Standard Specifications.

## **Section 17 Watering**

- A. Watering shall conform to the provisions in Section 17, "Watering," of the Standard Specifications and these Special Provisions.
- B. Construction water will be made available in accordance with the current City Construction Water Policy. Application and deposit must be made by Contractor at City Hall.

## **Section 19 Earthwork**

- A. Attention is directed to the provisions in Section 19-5.03 "Relative Compaction (95 Percent)", of the Standard Specifications and these Special Provisions.
  1. Section 19-5.03 Relative Compaction (95 Percent)
    - i. The requirements in the second paragraph of Section 19-5.03 "Relative Compaction (95%)", of the Standard Specifications shall not apply to excavation areas.

## **MODIFICATIONS TO EJCDC C-700**

### **Paragraph-2.03: Amend this article to include the following definition of Contract Time:**

Contract Time is identified in Document 00500 - Agreement.

### **Paragraph-5.01: Modify the bond value requirements of this paragraph as follows:**

- A. 5.01.1.: Provide a 100 percent (100%) Performance Bond on a standard surety bond form.
- B. 5.01.2.: Provide a 100 percent (100%) Payment Bond on a standard surety bond form.

### **Article 10: Add a new Paragraph 10.06 as follows:**

- A. 10.06.: The following fees apply to Changes in the Work:
  - 1. 10.06.1.: 15 percent (15%) overhead and profit on the net cost of own Work;
  - 2. 10.06.2.: 5 percent (5%) on the cost of Work done by any Subcontractor;
  - 3. 10.06.3.: Cumulative mark-up on all tiers of Contractors and Subcontractors shall not exceed twenty percent (20%).
  - 4. 10.06.4.: On Work deleted from the Contract, credit to the Owner shall be the Owner's Representative approved net cost plus 1/2 of the overhead and profit percentage noted above.

## **ADDITIONAL CONDITIONS**

### **Aggregates**

- A. Attention is directed to Sections 25-1.02," Materials," 26-1.02, "Materials," 27-1.02, "Materials," 28-1.02, "Materials," and 39-2.02, "Aggregates," respectively, of the Standard Specifications.
- B. In the above referenced sections of the Standard Specifications, all references to "individual test results" are deemed to mean "Contract compliance", and all references to "moving average" are deemed to mean "operating range".
- C. The provisions in Section 6-3.02 "Statistical Testing", of the Standard Specifications shall not apply.
- D. If the results of either or both the sand equivalent and aggregate grading tests do not meet the requirements specified for "operating range" but meet the "Contract compliance" requirements, placement of the material may be continued for the remainder of that day. However, another day's work may not be started until tests, or other information, indicate to the satisfaction of the Owner's Representative that the next material to be used in the work will comply with the requirements specified for "operating range".
- E. If the results of either or both the aggregate grading and sand equivalent tests do not meet the requirements specified for "Contract compliance", the material which is represented by these tests shall be removed. However, if requested by the Contractor and approved by the Owner's Representative, said material may remain in place and the Contractor shall pay to the City the following amount for all such material left in place:
  - 1. Aggregate Subbase: \$ 11.00 per Cubic Yard
  - 2. Aggregate Base: \$ 17.00 per Cubic Yard
  - 3. Cement Treated Base: \$ 28.00 per Cubic Yard
  - 4. Lean Concrete Base: \$ 10.00 per Cubic Yard
  - 5. Asphalt Concrete: \$ 15.00 per Ton
- F. The department may deduct such amounts from any moneys due, or that may become due, the Contractor under the Contract.
- G. When both the aggregate grading and sand equivalent do not conform to "Contract compliance" requirements, only one adjustment shall apply.
- H. When a subbase or base material is to be measured by the ton, the weight will be converted to volume measurements for the purpose of this section.

### **Order of Work**

- A. When required by the special provisions or plans, the Contractor shall follow the sequence of operations as set forth therein.

- B. Full compensation for conforming to those requirements will be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefore.
- C. Attention is directed to Section 12-4 "Maintaining Traffic" of the Standard Specifications.
- D. At the end of each working day if a difference in excess of 0.20-Foot exists between the elevation of existing pavement and the elevation of any excavation with 8 feet of the traveled way, material shall be placed and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose. However, once the placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 4:1 or flatter to the bottom of the excavation. Full compensation for placing the material on a 4:1 slope, regardless of the number of times it is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the Contract price paid for the materials involved and no additional compensation will be allowed therefore. No payment will be made for material placed in excess of that required for the structural section.
- E. The first order of work shall be to furnish and install the construction area signs as shown on the plans. No other work which interferes with public traffic shall be performed until the signs are in place.
- F. Sequence of construction shall provide for the utilization of all suitable excavated materials in the embankment construction as directed by the Owner's Representative.

### **Cooperation**

- A. Should construction be under way by other forces or by other Contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to those limits, the Contractor shall cooperate with all the other Contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.
- B. When 2 or more Contractors are employed on related or adjacent work, or obtain materials from the same material source, as provided in Section 6-2.04, "Local Materials," each shall conduct their operations in such a manner as not to cause any unnecessary delay or hindrance to the other.
- C. Each Contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by their operations, and for loss caused the other due to unnecessary delays or failure to finish the work within the time specified for completion.

### **Highway Construction Equipment**

- A. Attention is directed to Section 7-1.020 "Vehicle Code" of the Standard Specifications and these Special Provisions. Pursuant to the authority contained in section 591 of the Vehicle Code, the department has determined that, within such areas as are within the limits of the project and are open to public traffic, the Contractor shall comply with all the requirements set forth in divisions 11, 12, 13, 14, and 15 of the Vehicle Code. Attention is directed to the statement in Section 591 that this Section shall not relieve the Contractor or any person from the duty of exercising due care. The Contractor shall take all necessary precautions for safe operation of his equipment and the protection of the public from injury and damage from such equipment.

### **Insurance Requirements (Contractor)**

- A. Bidders' attention is directed to the insurance requirements below. It is highly recommended that Bidders confer with their respective insurance carriers or brokers to determine in advance of bid submission the availability of insurance certificates and endorsements as prescribed and provided herein. If an apparent low Bidder fails to comply strictly with the insurance requirements, that Bidder may be disqualified from award of the Contract.
- B. With respect to any work required to be done under this Contract, the Contractor will indemnify and hold harmless the City, Tri City Engineering, Inc., United States of America, and all other participating public agencies, whether or not said agencies are named herein, who have jurisdiction within the areas in which the work is to be performed, and all offices and employees of the, the Owner, the other participating agencies, against any and all claims, demands, causes of action, damages, (property or property of the participating

agencies), costs or liabilities (including costs, or respect to its employees), in law or in equity of every kind of nature whatsoever, directly or proximately resulting from or caused by the performance of the Contract, whether such performance is by the Contractor, any Subcontractor, or any person directly or indirectly employed by any of them; and the Contractor shall, at its sole risk and expense, defend any and all suits, actions, or other legal proceedings which may be brought or instituted by third persons against the Owner, the participating agencies, their officers and employees on any such claim, demand or cause of action, and the Contractor shall pay and satisfy any judgment or decree which may be rendered against the Owner, the participating agencies, their officers and employees in any such suit, action, or their legal proceedings.

1. This shall exclude the active or sole negligence or willful misconduct of the Owner or Engineer's design and specifications pursuant to California Civil Code 2782.

C. The Contractor shall furnish the Owner with a Certificate of Insurance, indicating insurance coverage with respect to the liability assumed by the Contractor under these provisions, and shall further indicate insurance coverage with minimum limits as shown in either (1) or (2) as follows:

1. General Liability	\$1,000,000	\$2,000,000
(Bodily injury, personal injury & property damage)	Each Occurrence	Aggregate
2. Automobile Liability	\$1,000,000	
(Bodily injury & property damage)	Per accident	
3. Employer's Liability	\$1,000,000	
(Bodily injury or disease)	Per accident	

D. These insurance requirements are considered a material element of any Contract to be made and failure to effect, maintain, renew, or provide proper proof of coverages may be treated as a material breach of any such Contract. The City reserves the right to alter, amend, or otherwise modify these requirements as the City may deem necessary.

E. Contractor shall procure and maintain for the duration of the Contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or Subcontractors. The cost of such insurance shall be included in the Contractor's bid.

F. Contractor's property damage liability insurance shall include coverage for property damage caused by blasting, collapse, structural injuries, or damage to underground utilities. The policy shall not contain the so-called "X" "C" or "U" exclusions.

G. Deductibles and Self-Insurance Retention

1. Any deductible or self-insurance retention must be declared to and approved by The City. At the option of the City, either; the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the City, its officials and employees; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

H. Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverage

- i. The City, its officials, employees and volunteers or Agents are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, leased or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officials, employees and volunteers.
- ii. The Contractor's insurance coverage shall be primary insurance as respects the City, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officials, employees, and volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
- iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officials, employees and volunteers.
- iv. Coverage shall state that the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- v. The Contractor's insurance policy(ies) shall include a provision that the coverage is primary as

- respects the City; shall include no special limitations to coverage provided to additional insured; and, shall be placed with insurer(s) with acceptable Best's rating of A:VII or with approval of the City.
- vi. Local Agency, its agents, officers, employees, and volunteers, and Tri City Engineering, Inc., shall be named as an additional insured on all insurance policies required herein, except Worker's Compensation.
2. Worker's Compensation and Employers Liability Coverage
    - i. The insurer shall agree to waive all rights of subrogation against the City, its officials, employees and volunteers for losses arising from work performed by the Contractor for the City.
  3. All Coverage
    - i. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.
- I. Verification of Coverage
1. Contractor shall furnish the City with Certificates of Insurance and with original endorsements affecting coverage by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Certificates are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.
  2. The policies or certificates thereof shall provide that, 10 calendar days prior to cancellation or material change in the policy, notices of same shall be given to the Risk Manager of the City by certified mail, return receipt requested, for all of the following stated insurance policies.
- J. Subcontractor
1. Contractor shall include all Subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each Subcontractor. All coverage for Subcontractors shall be subject to all of the requirements stated herein.

### **Notice to Business Owners and Residents and No Parking Signs**

Contractor shall install "No Parking" signs in the work areas at least 48 hours prior to work commencing. Also, Contractor shall hand-deliver a written notice in English and Spanish to all business Owners and residents to be affected by any portion of this work at least 48 hours prior to work commencing. This notice shall designate working hours, estimated time of completion and Contractor's phone number for information. A copy of this notice shall be submitted to the Owner's Representative at least 72 hours prior to delivery to residents.

### **Project Funding Signage**

- A. N/A

### **Obstructions**

- B. Attention is directed to Section 15 "Existing Facilities", of the Standard Specifications and these Special Provisions.
- C. The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables either directly buried or in duct or conduit which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Owner's Representative at least 24 hours prior to performing any work in the vicinity of such facilities.
- D. If said facilities are not shown on the Plans in both alignment and elevation, no work shall be performed in the vicinity of said facilities until the Owner, or the Owner's representative, has located the facility by potholing,

probing, or other means that will locate and identify the facility. If, in the opinion of the Owner's Representative, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being located by the Owner or the Owner's representative, the City will compensate the Contractor for such delays to the extent provided in Section 8-1.07 "Delays", of the Standard Specifications.

## Public Safety

- A. In addition to any other measures taken by the Contractor pursuant to the provisions of Section 7-1.09 "Public Safety", of the Standard Specifications, the Contractor shall install temporary railing (Type K) between any lane carrying public traffic and any excavation, obstacle, or storage area when the following conditions exist:
1. Excavations: Any excavation the near edge of which is 12 feet or less from the edge of the lane, except:
    - i. Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry by traffic or the public.
    - ii. Excavations less than one foot deep.
    - iii. Trenches less than one foot wide for irrigation pipe or electrical conduit or excavations less than one foot in diameter.
    - iv. Excavations parallel to the lane for the purpose of pavement widening or reconstruction.
    - v. Excavations in side slopes, where the slope is steeper than 4:1.
    - vi. Excavations protected by existing barrier or railing.
  2. Temporarily Unprotected Permanent Obstacles: Whenever the work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with obstacle prior to installing the protective system; or whenever the Contractor, for his convenience and with permission of the Owner's Representative, removes a portion of an existing protective railing at an obstacle and does not replace such railing complete in place during the same day.
  3. Storage Areas: Whenever material or equipment stored within 12 feet of the lane and such storage is not otherwise prohibited by the specifications, except for installing, maintaining, and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas, the Contractor shall close the adjacent traffic lane unless otherwise provided in the specifications.
  4. Approach Speed of Public Traffic (miles per hour) and resulting work areas:
    - i. Over 45 mph: Within 6 Feet of a traffic lane but not on a traffic lane.
    - ii. 35 to 45 mph: Within 3 Feet of a traffic lane but not on a traffic lane.
  5. When traffic cones or delineators are used to delineate a temporary edge of traffic lane, the line of cones or delineators shall be considered to be the edge of traffic lane. However, the Contractor shall not reduce the width of an existing lane to less than 10 feet without written approval from the Owner's Representative. The lane closure provisions of this section shall not apply if the work area is protected by permanent or temporary railing or barrier.
  6. When work is not in progress on a trench or other excavation that required a lane closure, the traffic cones or portable delineators used for the lane closure shall be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators shall be not more than the spacing used for the lane closure.
  7. Attention is directed to "Manual on Uniform Traffic Controls Devices."

## Testing

Whenever a specified percent relative compaction by California Test No. 216 OR 231 is required, a registered soils Owner's Representative shall be employed and paid for by the City. Any re-inspection and/or retesting of work found not to meet the compaction required shall be paid for by the Contractor.

## RMA GeoScience

1. To schedule your Materials Testing and Special Inspections Dispatching, please call our RMA Dispatch Office at (559) 708-8865, (559) 732-3039, or (800) RMA-4396 ext. 5404 and give our dispatcher a 24-hour to 48-hour notice to dispatch our Inspectors to your site.
2. Please order your native soils, import material (for import acceptance lab testing allow 5-7 days to

process), and aggregate base samples to be picked up from the site to process laboratory curves 48 hrs. prior to any compaction testing activities.

### **Trade Names and Alternatives**

Whenever an article, or any class of materials, is specified by trade name, or by the name of any particular patentee, manufacturer or dealer, or by reference to the catalog of any such manufacturer or dealer, it shall be taken as intending to mean and specify the article or material described or any other equal thereto in quality, finish and durability, and equally as serviceable for the purpose for which it is or they are intended. The intent of the plans and specifications is to specify high grade standard equipment, and is not the intent of these plans and specifications to exclude or omit the products of any responsible manufacturer, if such products are equal in every respect to those mentioned herein.

### **Trench Shoring**

Attention is directed to Section 7-1.02K(6)(b) "Excavation Safety" of the Standard Specifications.

**END OF SECTION**

# **DIVISION 1 – GENERAL REQUIREMENTS**

## **SECTION 01100 - SUMMARY**

### **PART 1 GENERAL:**

Project Name: Ramsey Park Project

Plan No.: 3101

Project No.: PW 25-001

Owner's Name: City of Coalinga

City Engineer's Name: Tri City Engineering, Inc.

The primary scope of work, is to construct a new 0.34-acre public park, to be called Ramsey Park, on the undeveloped lot located at 405 5th street, Coalinga, CA. Off-site improvements include, but are not limited to, reconstruction of the existing concrete sidewalk, drive approach, curb, gutter and one ADA parking stall with an ADA curb ramp. Park amenities include a new splash pad, shade structure, restrooms, a shower, drinking fountains, trash receptacles, seat walls, benches, picnic bench, and permanent park signages. On-site improvements also include sidewalk, rock chip grass areas, trees, new utilities including storm drainage improvements.

Prime Contractor to construct overall park site and amenities, including off-site improvements, shade structure and foundation. Prime Contractor shall prepare modular restroom subgrade and subbase, connect pre-installed utilities to restroom and shower, coordinate prefabricated modular restroom delivery, install modular pieces as one building and installation of all loose equipment and utilities inside other than the splash pad pool equipment, restroom base coving, and epoxy floor finish. Prime Contractor to furnish and install on-site electrical service from main distribution panel to two 200 amp, 240V single phase electrical panel.

City of Coalinga public works to construct off-site public utility improvements including water service connection to main, and sewer service connection to main and stub for Prime Contractor to finish service lines. City to also remove and install all trenching materials and pavement from proposed chip rock to existing alley pavement.

The restroom vendor shall design, furnish, and construct all material, labor, tools and expendable equipment for the construction of the prefabricated modular restroom facility, and delivery placement of said facility to the line and grade specified on the plans including drinking fountains but not including the outdoor shower. The restroom utility/mechanical/storage room shall be completed and constructed and turnkey for the splash pad pump system. Restroom vendor shall coordinate with the general Contractor, city engineer, and splash pad vendor for all utility connection features and details of the site.

The splash pad vendor shall design, furnish, and construct all material, labor, tools and expendable equipment for the construction of an automated, interactive, standalone, and functioning recirculation splash pad system including splash pad grading to subbase, water features, all underground and above ground utilities, pump system installation inside the restroom's utility room. The splash pad shall also incorporate a decorative seat wall and sidewalk along the perimeter of the splash pad. Sidewalks leading to the splash pad shall be constructed by the general Contractor. Splash pad vendor shall coordinate with the general Contractor, city engineer, and restroom vendor for all utility connection features and details of the site.

### **CONTRACT DESCRIPTION:**

Contract Type: A single prime Contract based on a Stipulated Price as described in Section 00500 - Agreement.

### **OWNER OCCUPANCY:**

- A. City Business Owners intend to continue to occupy buildings during the entire construction period.
- B. City intends to occupy the Project upon Substantial Completion.
- C. City intends to occupy a certain portion of the Project prior to the completion date to conduct normal operations.
- D. Cooperate with City to minimize conflict and to facilitate City's operations.
- E. Schedule the work to accommodate City's occupancy.

**CONTRACTOR USE OF SITE AND PREMISES:**

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Arrange use of site and premises to allow:
  - 1. City occupancy.
    - i. Work by Others.
    - ii. Work by City.
    - iii. Use of site and premises by the public. City Business Owner's occupancy and ability to conduct business during business hours.
  - 2. Provide access to and from site as required by law and by the City.
  - 3. Emergency Building Exits During Construction: Keep all exits required by code open during construction period.
  - 4. Existing building spaces may not be used for storage.
  - 5. Time Restrictions:
    - i. Limit conduct of especially noisy exterior work to the hours of 7:00 A.M. – 4:00 P.M.
    - ii. Utility Outages and Shutdown
    - iii. Any work done on water lines that require water shutoff will be conducted between the hours of 9:00 P.M. – 5:00 A.M., Monday (Night) through Saturday (Early Morning).
  - 6. Limit disruption of utility services to hours the building is unoccupied. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days' notice to City and authorities having jurisdiction.
  - 7. Maintain ADA compliant Public Path of Travel where applicable.
  - 8. Staging/Laydown area:
    - i. Contractor shall be responsible for location.
    - ii. Contractor shall obtain written permission for location and area by land Owner.
    - iii. Contractor shall obtain approval of location from City Engineer.
    - iv. Erosion control, sediment control, pollution control and BMPs shall be implemented and maintained within and transportation from the staging area and to the work area.
      - i) Contractor shall inspect all immediate access roads daily and shall remove any sediment or other construction activity related materials that are deposited on the roads by vacuuming or sweeping on a daily basis (when necessary) and prior to any rain event.
      - ii) Water shall be applied to disturbed areas and stockpiles.
    - v. A stabilized construction entrance/exit shall be constructed if existing pavements do not exist. Additional entrances/exits shall be constructed as needed and with permission by land Owner and city engineer.
    - vi. A licensed service shall deliver and maintain portable restrooms. All restrooms shall be located away from the traffic and drainage facilities of level hand-packed or paved surfaces.
    - vii. Contractor shall be responsible for all construction related items stored in laydown area and all items shall be secured and locked from public access after working hours.
    - viii. Contractor shall be responsible for good housekeeping measures and for restoring and/or improving area prior to project.

**WORK SEQUENCE:**

- A. Coordinate construction schedule and operations with all vendor/parties involved.
- B. Construct work in stages during the construction period:
  - Stage 1: Surface and Subsurface Removal

Stage 2: Subsurface improvements

Stage 3: Surface Improvements

- C. Coordinate construction schedule and operations with Caltrans (if applicable).
- D. Coordinate construction schedule and operations with SWRCB (if applicable).
- E. Coordinate construction schedule and operations with the Owner's Representative.
- F. Coordinate construction schedule and operations with Public Works Director of the City.

### **ERRORS AND OMISSIONS:**

- A. The City does not guarantee the accuracy or completeness of any data shown on the Plans relative to the existing locations, sizes, dimensions, depths, and character of pipes, conduits, poles or any other structures or utilities located above ground or underground.
- B. The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Owner's Representative. The Contractor shall also immediately notify the Owner's Representative and the appropriate utility Owner if any utility is disturbed or damaged.

### **CONSTRUCTION BIDDING DOCUMENTS**

- A. The awarded Contractor will receive six (6) sets of (24"x36") construction plan sets, six (6) construction specifications and one (1) USB flash drive with the construction plan set and specifications in PDF version.
- B. Any additional sets will be made available for purchase at a fee of \$50.00 per each complete set of construction plans and specifications.

### **END OF SECTION**

# **SECTION 01200 - PRICE AND PAYMENT PROCEDURES**

## **PART 1 GENERAL**

### **SECTION INCLUDES**

Procedures for preparation and submittal of applications for progress payments.

### **RELATED SECTIONS**

#### **APPLICATIONS FOR PROGRESS PAYMENTS**

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Present required information in typewritten form.
- C. Form: AIA G702 and G703 Continuation (Appendix B)
- D. For each item, provide a column for listing each of the following:
  - 1. Item Number.
  - 2. Description of work.
  - 3. Scheduled Values.
  - 4. Previous Applications.
  - 5. Work in Place under this Application.
  - 6. Authorized Change Orders.
  - 7. Total Completed to Date of Application.
  - 8. Percentage of Completion.
  - 9. Balance to Finish.
  - 10. Retainage (5%).
- E. Execute certification by signature of authorized officer.
- F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- H. Submit three copies of each Application for Payment.
- I. Include the following with the application:
  - 1. Transmittal letter as specified for Submittals in Section 01300.
- J. When the Owner's Representative requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- K. Submit Lien Releases/Waivers for all Subcontractor's and Material Suppliers.

#### **MODIFICATION PROCEDURES**

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or Subcontractors of changes to the work.
- B. The Owner's Representative will advise of minor changes in the work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing supplemental instructions.
- C. Construction Change Directive: the Owner's Representative may issue a document, signed by City, instructing Contractor to proceed with a change in the work, for subsequent inclusion in a Change Order.
  - 1. The document will describe changes in the work, and will designate method of determining any change in Contract Sum or Contract Time.
  - 2. Promptly execute the change in work.
- D. Proposal Request: the Owner's Representative may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 5

days.

- E. Contractor may propose a change by submitting a request for change to the Owner's Representative, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on work by separate or other Contractors. Document any requested substitutions in accordance with Section 01600.
- F. Computation of Change in Contract Amount:
  - 1. For change requested by the Owner's Representative for work falling under a fixed price Contract, the amount will be based on Contractor's price quotation.
  - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by the Owner's Representative.
  - 3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
  - 4. For change ordered by the Owner's Representative without a quotation from Contractor, the amount will be determined by the Owner's Representative based on the Contractor's substantiation of costs as specified for Time and Material work.
- G. Substantiation of Costs: Provide full information required for evaluation.
  - 1. On request, provide following data:
    - i. Quantities of products, labor, and equipment.
    - ii. Taxes, insurance, and bonds.
    - iii. Overhead and profit.
    - iv. Justification for any change in Contract Time.
    - v. Credit for deletions from Contract, similarly documented.
  - 2. Support each claim for additional costs with additional information:
    - i. Origin and date of claim.
    - ii. Dates and times work was performed, and by whom.
    - iii. Time records and wage rates paid.
    - iv. Invoices and receipts for products, equipment, and Subcontracts, similarly documented.
  - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- H. Execution of Change Orders: the Owner's Representative will issue Change Orders for signatures of parties as provided in the Conditions of the Contract on EJCDC C-700 SC 10.03.
- I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- J. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- K. Promptly enter changes in Project Record Documents.

## **APPLICATION FOR FINAL PAYMENT**

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
  - 1. All closeout procedures specified in Section 01780.
  - 2. As-Built Drawings.

## **END OF SECTION**

## **SECTION 01270 - UNIT PRICES**

### **PART 1 GENERAL**

#### **SECTION INCLUDES**

List of unit prices, for use in preparing Bids.

#### **COSTS INCLUDED**

Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals, erection, application or installation of an item of the work, overhead and profit.

#### **UNIT QUANTITIES SPECIFIED**

Quantities indicated in the Bid Form are for bidding and Contract purposes only. Quantities and measurements of actual work will determine the payment amount.

#### **MEASUREMENT OF QUANTITIES**

- A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, final decision will be made by the Owner's Representative of the City of Coalinga; the requirements of the individual specification section govern.
- B. Take all measurements and compute quantities. Measurements and quantities will be verified by the Owner's Representative.
- C. Assist by providing necessary equipment, workers, and survey personnel as required.
- D. Measurement by Volume: Measured by cubic dimension.
- E. Measurement by Area: Measured by square dimension.
- F. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
- G. Stipulated Sum/Price Measurement: Items measured by volume, area, or linear means or combination as appropriate as a completed item or unit of the work.
- H. Perform surveys required to determine quantities.
- I. Contractor's Engineer Responsibilities: Sign surveyor's field notes or keep duplicate field notes, calculate and certify quantities for payment purposes.

#### **PAYMENT**

- A. Payment for work governed by unit prices will be made on the basis of the actual measurements and quantities of work in place and accepted by the Owner's Representative.
- B. Payment will only be made for Items approved by the Owner's Representative.
- C. Payment will not be made for any of the following:
  - 1. Items that are unapproved or items that are different than stated.

#### **DEFECT ASSESSMENT**

- A. The authority of the Owner's Representative to assess the defect and identify payment adjustment is final.
- B. It is the Contractor's responsibility to protect his work from defects, unwanted markings, or graffiti. Defective work will not be accepted by the City and must be replaced at Contractor's expense.

#### **SCHEDULE OF UNIT PRICES**

Refer to Section 00410 - Bid Proposal Form.

### **END OF SECTION**

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## **SECTION 01300 - ADMINISTRATIVE REQUIREMENTS**

### **PART 1 GENERAL**

#### **SECTION INCLUDES**

Preconstruction meeting.

#### **RELATED SECTIONS**

#### **PROJECT COORDINATION**

- A. Project Coordinator: Public Works Director or Owner's Representative.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; field offices and sheds, access, traffic, parking facilities, storage, and project fencing.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports, records, schedules, coordination drawings, recommendations; resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- G. Make the following types of submittals to the Project Coordinator:
  - 1. Requests for interpretation.
  - 2. Requests for substitution.
  - 3. Shop drawings, product data, and samples.
  - 4. Test and inspection reports.
  - 5. Design data.
  - 6. Manufacturer's instructions and field reports.
  - 7. Applications for payment and change order requests.
  - 8. Progress schedules.
  - 9. Coordination drawings.
  - 10. Closeout submittals.
  - 11. Traffic Control Plan / Include ADA Compliant path of travel if applicable. (see page 00800-4, Section 12 Temporary Traffic Control).

### **PART 2 PRODUCTS - NOT USED**

### **PART 3 EXECUTIONS**

#### **PRECONSTRUCTION MEETING**

The Owner's Representative will schedule a meeting after The Notice of Award.

- A. Attendance Required:
  - 1. The Owner's Representative.
  - 2. Public Works Director.
  - 3. Contractor.
  - 4. Special Consultants.
  - 5. Contractor's Superintendent.
  - 6. Major Subcontractors.
- B. Agenda:
  - 1. Execution of City-Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of schedule of values, and progress schedule.
  - 5. Designation of personnel representing the parties to Contract.

6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  7. Project Scheduling.
  8. Coordination of a Geotechnical Engineer.
  9. Site Mobilization Requirements.
  10. Labor Compliance.
  11. Use of premises by City and Contractor
  12. City's requirements.
  13. Construction facilities and controls provided by City.
  14. Temporary utilities provided by City & other utility companies.
  15. Survey and layout.
  16. Security and housekeeping procedures.
  17. Schedules.
  18. Application for payment procedures.
  19. Procedures for testing.
  20. Procedures for maintaining record documents.
  21. Requirements for start-up of equipment.
  22. Execution of City-Contractor Agreement.
  23. Emergency Contacts/Procedures.
- C. Record minutes and distribute copies within two days after meeting to participants, with two copies to Public Works Director of the City, participants, and those affected by decisions made.

### **STREET CLOSURE (FOR ALLEY)**

- A. Intermittent alley closures will be allowed as necessary to construct improvements; however, alleys may not be closed continuously throughout the project as many residents access their properties from the alleys.
- B. Special accommodations shall be made for those residences and businesses that can only access their property
- C. Special accommodations shall be made for City vehicles that have to access surrounding property.
- D. Foot traffic and special deliveries shall be accommodated.

### **TRAFFIC CONTROL**

- i. Supply a Traffic Control Plan at the time of the preconstruction meeting prior to commencing any work. This plan shall show all proposed traffic control to be used during each segment of construction, including construction signing, barricading, and proposed detours.
- ii. Lane, Street, and Sidewalk Closures shall comply with the Temporary Traffic Control Subsection of the Supplementary Conditions of these Standard Specifications.
- iii. A request for street closures will be submitted to the Owner's Representative for approval 10 days prior to the proposed closing date.
- iv. A minimum of 5 days' notice to residents and businesses is required for Street Closures.
- v. Notification of the Traffic, Fire, Police, Transportation, Sanitation and Postal Departments at least forty-eight hours (48) in advance of any street closure.
- vi. All closures impacting state routes shall be approved through the Caltrans Rider Permit.

### **PROGRESS MEETINGS**

- A. Owner's Representative to schedule and administer meetings throughout progress of the work at maximum two-week intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, City, the Owner's Representative, as appropriate to agenda topics for each meeting.
- D. Agenda:
  1. Review minutes of previous meetings.

2. Review of work progress.
  3. Field observations, problems, and decisions.
  4. Identification of problems which impede planned progress.
  5. Review of submittals schedule and status of submittals.
  6. Review of off-site fabrication and delivery schedules.
  7. Maintenance of progress schedule.
  8. Corrective measures to regain projected schedules.
  9. Planned progress during succeeding work period.
  10. Coordination of projected progress.
  11. Maintenance of quality and work standards.
  12. Effect of proposed changes on progress schedule and coordination.
  13. Other business relating to work.
  14. Review RFI's.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Public Works Director of the City, City, participants, and those affected by decisions made.

## **CONSTRUCTION PROGRESS SCHEDULE**

- A. At Pre-Construction meeting submit schedule.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 calendar days.
- C. Within 20 calendar days after review of preliminary schedule, submit draft of proposed complete schedule for review.

## **COORDINATION DRAWINGS**

- A. Provide information required by Project Coordinator for preparation of coordination drawings.
- B. Review drawings prior to submission to the Owner's Representative.

## **SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for compliance:
  1. Product data.
  2. Shop drawings.
  3. Samples for selection.
  4. Samples for verification.
- B. Submit to the Owner's Representative for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01780 - CLOSEOUT SUBMITTALS.

## **SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit them for information:
  1. Design data.
  2. Certificates.
  3. Test reports.
  4. Inspection reports.
  5. Manufacturer's instructions.
  6. Manufacturer's field reports.
  7. Other types indicated.
  8. Mock-up's.
- B. Submit for the Owner's Representative knowledge. No action will be taken.

## **SUBMITTALS FOR PROJECT CLOSEOUT**

- A. When the following are specified in individual sections, submit them at project closeout:
  - 1. Project record documents.
  - 2. Operation and maintenance data.
  - 3. Warranties.
  - 4. Bonds.
  - 5. Other types as indicated.
  - 6. Training.
  - 7. Maintenance Schedules.
- B. Submit for City's benefit during and after project completion.

## **SUBMITTAL PROCEDURES**

- 1. Transmit each submittal by electronically, mail or in-person delivery. Electronic submittals are encouraged and preferred.
- 2. Sequentially number submittals. Revise submittals with original number and a sequential alphabetic suffix.
- 3. Identify project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- 4. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
- 5. Deliver submittals to the Owner's Representative at business address.
- 6. Schedule submittals to expedite the project, and coordinate submission of related items.
- 7. Submittal: Allow seven (7) calendar days excluding delivery time to and from the Contractor.
- 8. Provide space for Contractor and the Owner's Representative review stamps.
- 9. When revised for resubmission, identify all changes made since previous submission.
- 10. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- 11. Acceptance of submittal should be received prior to placement of work.
- 12. Submittals not requested will not be recognized or processed.

## **NUMBER OF COPIES OF SUBMITTALS**

- A. **Digital Submittals are preferred** but, if necessary, please use the requirements below for physical submittals.
- B. Documents for Review:
  - 1. Small Size Sheets, Not Larger than 8-1/2 x 11 inches: Submit the number of copies which the Contractor requires, plus two copies which will be retained by the Public Works Director of the City.
  - 2. Larger Sheets, Not Larger than 24 x 36 inches: Submit the number of bond reproductions which Contractor requires, plus two copies which will be retained by Public Works Director of the City.
- C. Documents for Information: Submit two copies.
- D. Documents for Project Closeout: Make one reproduction of submittal originally reviewed. Submit one extra of submittals for information.
- E. Samples: Submit the number specified in individual specification sections; one of which will be retained by Public Works Director of the City.
  - 1. After review, produce duplicates.
  - 2. Retained samples will not be returned to Contractor unless specifically so stated.

## **SUBMITTALS LIST**

- A. The following is a list of submittals that will be required to be submitted to the Owner's Representative for approval prior to installation and construction of the respective items. Refer to the Bid Item Description and the Technical Specification for each respective item's submittal requirements. Additional submittals may be requested at the Owner's Representatives discretion.

#### Prior to the Start of Construction

1. City of Coalinga Business License Approval (Appendix A)
2. Form W-9 (Appendix A)
3. Signed Agreement (Section 00500)
4. Contractor Contact List and/or Emergency Contact List
5. Written Notice of Construction (English and Spanish).
6. Construction Schedule (Section 01300)
7. Traffic Control Plan (Section 00420)
8. Waste Management Plan (Section 01732)
9. ESCP (Section 01575)
10. Site Clearing (Section 02230)
11. Fill and Backfill (Section 02316)
12. Trenching for Site Utilities (Section 02317)
13. Water Distribution (Section 02510)
14. Storm Drainage Piping (Section 02635)
15. Aggregate Base (Section 02721)
16. Asphaltic Concrete Paving (Section 02741)
17. Traffic Striping, Pavement Markings, & Pavement Markers (Section 02763)
18. Irrigation System (Section 02810)
19. Site Furnishing (Section 02870)
20. Construction Surveys and Staking (Section 02896)
21. Exterior Plants (Section 02930)
22. Portland Cement Concrete (Section 03050)
23. Concrete Reinforcement (Section 03200)
24. Detectable Warning Surface Tile (Section 09410)
25. Electrical Basic Materials and Methods (Section 16050)

#### Prior to the End of the Project

1. As-Builts (Section 02310, 02315, 02510, 02640, 02896, 16050)
2. Certificate of Construction Completion

**END OF SECTION**

# **SECTION 01325 - CONSTRUCTION PROGRESS SCHEDULE**

## **PART 1 GENERAL:**

### **REFERENCES:**

- A. AGC (CPM) - The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry; Associated General Contractors of America; 1976.
- B. M-H (CPM) - CPM in Construction Management - Project Management with CPM, O'Brien, McGraw-Hill Book Company; 1984.

### **SUBMITTALS:**

- A. At Pre-Construction Meeting submit preliminary schedule defining planned operations.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 calendar days.
- C. Within 20 calendar days after review of preliminary schedule, submit draft of proposed complete schedule for review.
  - 1. Include written certification that major Contractors have reviewed and accepted proposed schedule.
  - 2. Within 10 calendar days after joint review, submit complete schedule.
  - 3. Submit updated schedule with each Application for Payment.
  - 4. Submit the number of copies that Contractor requires, plus two copies which will be retained by Public Works Director of the City.

### **SCHEDULE FORMAT:**

- A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- B. Diagram Sheet Size: Maximum 11 x 17 inches (560 x 432 mm) or width required.
- C. Sheet Size: Multiples of 8-1/2 x 11 inches (216 x 280 mm).
- D. Scale and Spacing: To allow for notations and revisions.

## **PART 2 PRODUCTS - NOT USED**

## **PART 3 EXECUTION**

### **PRELIMINARY SCHEDULE:**

Prepare preliminary schedule in the form of a horizontal bar chart in an Excel or Word format.

### **CONTENT:**

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification section number.
- C. Identify work of separate stages and other logically grouped activities.
- D. Provide sub-schedules for each stage of work identified in Section 01100.
- E. Identify Critical Activities.
- F. Include conferences and meetings in schedule.
- G. Show accumulated percentage of completion of each item, and total percentage of work completed, as of the first day of each month.
- H. Indicate delivery dates for equipment, products and materials.
- I. Coordinate content with schedule of values specified in Section 01200.
- J. Provide legend for symbols and abbreviations used.
- K. Identify days not worked; city holidays.

### **BAR CHARTS:**

- A. Include a separate bar for each major portion of work or operation.
- B. Identify the first work day of each week.

### **REVIEW AND EVALUATION OF SCHEDULE:**

- A. Participate in joint review and evaluation of schedule with the Owner's Representative at each submittal.
- B. Evaluate project status to determine work behind schedule and work ahead of schedule.
- C. After review, revise as necessary as result of review and resubmit with progress payment application.

### **UPDATING SCHEDULE:**

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Annotate diagrams to graphically depict current status of work.
- D. Identify activities modified since previous submittal, major changes in work, and other identifiable changes.
- E. Indicate changes required to maintain Date of Completion.
- F. Submit reports required to support recommended changes.
- G. Provide narrative report to define problem areas, anticipated delays, and impact on the schedule. Report corrective action taken or proposed Recovery Schedule if requested, and its effect including the effects of changes on schedules of separate Contractors.

### **DISTRIBUTION OF SCHEDULE:**

- A. Distribute copies of updated schedules to Contractor's project site file, to Subcontractors, suppliers, the Owner's Representative, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

## **END OF SECTION**

# SECTION 01400 - QUALITY REQUIREMENTS

## PART 1 GENERAL

### SECTION INCLUDES

- A. Quality assurance submittals.
- B. Mock-ups.
- C. Control of installation.
- D. Tolerances.
- E. Testing and inspection services.
- F. Manufacturers' field services.

### RELATED SECTIONS

### REFERENCES

- A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008.
- B. ASTM C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2011c.
- C. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Unit Masonry; 2011.
- D. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2012a.
- E. ASTM E329 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction; 2011c.
- F. ASTM E543 - Standard Practice for Agencies Performing Nondestructive Testing; 2009.
- G. ASTM E548 - Standard Guide for General Criteria used for Evaluating Laboratory Competence; 1994e1.

### REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from the Owner's Representative before proceeding.

### SUBMITTALS

- A. Testing Agency Qualifications:
  - 1. Prior to start of work, submit agency name, address, and telephone number, and names of full-time registered Engineer and responsible officer.
  - 2. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- B. Design Data: Submit for the Owner's Representative knowledge as Contract administrator or for the City, for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract documents.
- C. Test Reports: After each test/inspection, promptly submit two copies of report to the Owner's Representative and to Contractor.
  - 1. Include:

- i. Date issued.
  - ii. Project title and number.
  - iii. Name of inspector.
  - iv. Date and time of sampling or inspection.
  - v. Identification of product and specifications section.
  - vi. Location in the Project.
  - vii. Type of test/inspection.
  - viii. Date of test/inspection.
  - ix. Results of test/inspection.
  - x. Conformance with Contract Documents.
  - xi. When requested by the Owner's Representative provide interpretation of results.
2. Test reports are submitted for the Owner's Representative's knowledge as Contract administrator or for the City for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract documents.
- D. Certificates: When specified in individual specification sections submit certification by the manufacturer and Contractor or installation/application Subcontractor to the Owner's Representative in quantities specified for Product Data.
- 1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
  - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to the Owner's Representative.
- E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the City's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- F. Manufacturer's Field Reports: Submit reports for the Owner's Representative benefit as Contract administrator or for the City.
- 1. Submit report in duplicate within thirty (30) days of observation to the Owner's Representative for information.
- G. Erection Drawings: Submit drawings for the Owner's Representative benefit as Contract administrator or for the City.

## **TESTING AND INSPECTION AGENCIES**

- A. As indicated in individual specification sections, City shall employ and pay for services of an independent testing agency to perform specified testing and inspection.
- B. Employment of agency in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.
- C. Contractor is responsible for coordinating and scheduling with test testing agency.

## **RMA GEOSCIENCE**

- A. To schedule your Materials Testing and Special Inspections Dispatching, please call our RMA Dispatch Office at (559) 708-8865, (559) 732-3039, or (800) RMA-4396 ext. 5404 and give our dispatcher a 24-hour to 48-hour notice to dispatch our Inspectors to your site.
- B. Please order your native soils, import material (for import acceptance lab testing allow 5-7 days to process), and aggregate base samples to be picked up from the site to process laboratory curves 48 hrs. prior to any compaction testing activities.

## **PART 2 PRODUCTS - NOT USED**

## **PART 3 EXECUTION**

## **CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step-in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from the Owner's Representative before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

## **MOCK-UPS**

- A. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining work.
- D. Where mock-up has been accepted by the Owner's Representative and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

## **TOLERANCES**

- A. Monitor fabrication and installation tolerance control of products to produce acceptable work.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from the Owner's Representative before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

## **TESTING AND INSPECTION**

- A. See individual specification sections for testing required.
- B. Testing Agency Duties:
  - 1. Test of mixes submitted by Contractor.
  - 2. Provide qualified personnel at site. Cooperate with the Owner's Representative and Contractor in performance of services.
  - 3. Perform specified sampling and testing of products in accordance with specified standards.
- C. Contractor Responsibilities:
  - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
- D. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by the Owner's Representative. Payment for re testing will be charged to the Contractor.

## **DEFECT ASSESSMENT**

Replace work or portions of the work not conforming to specified requirements.

## **END OF SECTION**

## **SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS**

### **PART 1 GENERAL**

#### **SECTION INCLUDES**

- A. Temporary utilities.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.

#### **RELATED SECTIONS**

N/A.

#### **TEMPORARY UTILITIES**

- A. Provide and pay for all electrical power, lighting, and water required for construction purposes.
- B. Existing facilities may not be used.
- C. New permanent facilities may be used.
- D. Use trigger-operated nozzles for water hoses, to avoid waste of water.

#### **TEMPORARY SANITARY FACILITIES**

Provide and maintain required temporary sanitary facilities and enclosures. Provide at time of project mobilization.

#### **BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- E. Existing businesses will remain open, public must have access to all businesses at all times.

#### **SECURITY**

- A. Provide security and facilities to protect work, and City's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with City's security program.

#### **VEHICULAR ACCESS AND PARKING**

- A. Coordinate access and haul routes with governing authorities and City.
- B. Provide and maintain access to fire hydrants free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Designated existing on-site roads may be used for construction traffic.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

#### **WASTE REMOVAL**

- A. See Section 01732 - Waste Management, for additional requirements.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

## **REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS**

- A. Remove temporary utilities, equipment, facilities, and materials prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet; Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

## **DUST CONTROL**

- A. Maintain dust control about the site of the work, including any haul road to or from the site, by whatever means are necessary, such as watering, sweeping or oiling, so as to cause the least possible dust nuisance to the public.
- B. Any dust control measure ordered by the City Engineer shall be promptly and immediately carried out.
- C. Water may be taken from a City approved source.
  - a. If taken from the City water system, the Contractor shall submit a water meter application in person at the city Administration Office, 155 W. Durian St., CA 93210.
- D. Contractor shall pay all costs for a satisfactory water supply.
- E. The Contractor shall submit a Dust Control Plan to the City Engineer when such a plan is required by the regulations of the San Joaquin Valley Air Pollution Control District or the Contract Specifications.
- F. If the Contractor fails to provide dust control measures so ordered by the City Engineer within two hours after being notified, the Contractor shall pay to the City a penalty of fifty dollars (\$50.00) for each half hour, or portion thereof, that elapses from the time the penalty is ordered into effect by the City Engineer, until dust control measures ordered by the City Engineer are completely carried out and the dust nuisance mitigated.
  - a. Such penalty shall be deducted from any monies owed the Contractor or invoiced the Contractor.
- G. Where no bid item is provided for Dust Control, the cost thereof shall be included in the various bid items of work; no separate payment will be made therefor.

## **PART 2 PRODUCTS - NOT USED**

## **PART 3 EXECUTION - NOT USED**

## **END OF SECTION**

## **SECTION 01510 - TEMPORARY UTILITIES**

### **PART 1 GENERAL**

#### **TEMPORARY ELECTRICITY:**

- A. Cost by Contractor.
- B. Connect to City existing power service.
  - 1. Do not disrupt City's service.
  - 2. Exercise measures to conserve energy.
  - 3. Provide separate metering and reimburse City for cost of energy used.
- C. Provide temporary electric feeder from existing building electrical service at location as directed.
- D. Provide main service disconnect and over-current protection at convenient location and meter.
- E. Permanent convenience receptacles may be utilized during construction.

#### **TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES:**

- A. Provide and maintain incandescent lighting for construction operations to achieve a minimum lighting level of 2 watt/sq. ft. (21 watt/sq. m).
- B. Provide and maintain 1 watt/sq. ft. (10.8 watt/sq. m) lighting to exterior staging and storage areas after dark for security purposes.
- C. Maintain lighting and provide routine repairs.
- D. Permanent building lighting may be utilized during construction.

#### **TEMPORARY WATER SERVICE:**

- A. Cost of Water Used: By Contractor.
- B. Provide and maintain suitable quality water service for construction operations at time of project mobilization.
- C. Connect to existing water source.
  - 1. Exercise measures to conserve water.
  - 2. Provide separate metering and reimburse City for cost of water used. An Application must be filed in person, at the City Administration Office, 155 W. Durian St., Coalinga, CA 93210.
- D. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

### **PART 2 PRODUCTS - NOT USED**

### **PART 3 EXECUTION - NOT USED**

### **END OF SECTION**

# **SECTION 01550 - VEHICULAR ACCESS AND PARKING**

## **PART 1 GENERAL**

### **SECTION INCLUDES**

- A. Access roads.
- B. Parking.
- C. Existing pavements and parking areas.
- D. Permanent pavements and parking facilities.
- E. Construction parking controls.
- F. Flag persons.
- G. Flares and lights.
- H. Haul routes.
- I. Traffic signs and signals.
- J. Maintenance.
- K. Removal, repair.
- L. Mud from site vehicles.
- M. Traffic Plan approved by the City and the State of California Department of Transportation.

### **RELATED SECTIONS**

- A. Section 01100 - Summary: access to site, work sequence, and occupancy.
- B. Section 02310 - Grading: Specifications for earthwork and paving bases.

## **PART 2 PRODUCTS**

### **MATERIALS**

- A. Temporary Construction: Contractor's option.
- B. Materials for Permanent Construction: As specified in product specification sections, including earthwork, paving base, and topping.

### **SIGNS, SIGNALS, AND DEVICES**

- A. Post Mounted and Wall Mounted Traffic Control and Informational Signs: Specified in Section 01580.
- B. Traffic Control Signals: As approved by local jurisdictions.
- C. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions.
- D. Flag Person Equipment: As required by local jurisdictions.

## **PART 3 EXECUTION**

### **PREPARATION**

Clear areas; provide surface drainage of road, parking, premises, and adjacent areas.

### **ACCESS ROADS**

- A. Designated existing on-site roads may be used for construction traffic.
- B. Tracked vehicles not allowed on paved areas.
- C. Construct new temporary all-weather access roads from public thoroughfares to serve construction area of a width and load bearing capacity to provide unimpeded traffic for construction purposes.
- D. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
- E. Extend and relocate as work progress requires, provide detours as necessary for unimpeded traffic flow.
- F. Locate as indicated.
- G. Provide unimpeded access for emergency vehicles. Maintain 20-foot (6 m) width driveways with turning space between and around combustible materials.

- H. Provide and maintain access to fire hydrants free of obstructions.

## **PARKING**

- A. Use of existing & new parking facilities by construction personnel is not permitted.
- B. Do not allow heavy vehicles or construction equipment in parking areas.
- C. Arrange for temporary parking areas to accommodate use of construction personnel. Provide additional off-site parking if needed.
- D. Locate as indicated.

## **NEW PERMANENT PAVEMENTS**

- A. Prior to Substantial Completion the base for permanent roads and parking areas may be used for construction traffic.
- B. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.

## **CONSTRUCTION PARKING CONTROL**

- A. Control vehicular parking to prevent interference with public traffic and parking access by emergency vehicles and Owner's operations.
- B. Prevent parking on or adjacent to access roads or in non-designated areas.

## **FLAG PERSONS**

Provide trained and equipped flag persons to regulate traffic when construction operations as required.

## **FLARES AND LIGHTS**

Use flares and lights as required.

## **HAUL ROUTES**

- A. Consult with authority having jurisdiction to establish public thoroughfares to be used for haul routes and site access.
- B. Confine construction traffic to designated haul routes.
- C. Provide traffic control at critical areas of haul routes and minimize interference with public traffic.

## **TRAFFIC SIGNS AND SIGNALS**

- A. Install traffic signs at approaches to site, on site, crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B. Install and operate traffic control signals to direct and maintain orderly flow of traffic in areas affected by Contractor's operations.
- C. Maintain effective traffic control.

## **MAINTENANCE**

- A. Maintain traffic and parking areas.
- B. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

## **REMOVAL AND REPAIR**

- A. Remove temporary roads at project completion or when determined acceptable by the Owner's Representative.
- B. Remove underground work and compacted materials to a depth of 2 feet (600 mm); fill and grade site as specified.
- C. Repair existing facilities damaged by use to original condition.
- D. Remove equipment and devices when no longer required.
- E. Repair damage caused by installation.

F. Remove post settings to a depth of 2 feet.

### **MUD FROM SITE VEHICLES**

Provide means of removing mud from vehicle wheels before entering streets.

**END OF SECTION**

## **SECTION 01565 - SECURITY MEASURES**

### **SECURITY PROGRAM:**

- A. Protect work and the City's operations from theft and vandalism.
- B. Initiate program at project mobilization and maintain program throughout construction period until City's occupancy.

### **ENTRY CONTROL:**

- A. Restrict entrance of persons and vehicles into project site and existing facilities.
- B. Allow entrance only to authorized persons with proper identification.

### **VANDALISM:**

- A. Contractor is responsible to protect his work from vandalism until City accepts said improvements at time of "Notice of Completion" submittal.
  - 1. Work damaged by vandalism prior to Owner acceptance shall be replaced or repaired at no cost to the City.

## **END OF SECTION**

# **SECTION 01575 - TEMPORARY EROSION AND SEDIMENTATION CONTROL**

## **PART 1 GENERAL**

### **PERFORMANCE REQUIREMENTS**

- A. Conform to the National Pollutant Discharge Elimination System (NPDES) permit provisions to prevent storm water pollution.
- B. Follow a Best Management Practices Plan and submit periodic inspection reports.
- C. Timing: Put preventative measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.
- D. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
  - 1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels in excess of actual capacity or amount allowed by authorities having jurisdiction or whichever is less.
  - 2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 10 years.
- E. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.
  - 1. Control movement of sediment and soil from temporary stockpiles of soil.
  - 2. Prevent development of ruts due to equipment and vehicular traffic.
  - 3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to the City.
- F. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
  - 1. Prevent windblown soil from leaving the project site.
  - 2. Prevent tracking of mud onto public roads outside site.
  - 3. Prevent mud and sediment from flowing onto sidewalks and pavements.
  - 4. If erosion occurs due to non-compliance with these requirements restore eroded areas at no cost to City.
- G. Open Water: Prevent standing water.
- H. Maintenance: Maintain temporary preventative measures until permanent measures have been established.

### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Schedule of temporary preventive measures, in relation to ground disturbing activities.
- C. Other information required by law.
- D. Format required by law is acceptable provided any additional information specified is also included.
  - 1. Obtain the approval of the Plan by authorities having jurisdiction.
  - 2. Obtain the approval of the Plan by City.

## **PART 2 PRODUCTS**

### **MATERIALS**

- A. As needed.
  - 1. Products must conform to the State of California Department of Transportation "Construction Site Best Management Practices (BMPs) Manual," most recent edition.

## **PART 3 EXECUTION**

### **EXAMINATION**

Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

## **PREPARATION**

Schedule work so that soil surfaces are left exposed for the minimum amount of time.

## **MAINTENANCE**

- A. Inspect preventative measures according to The State of California Department of Transportation "Construction Site Best Management Practices (BMPs) Manual," most recent edition.
- B. Repair deficiencies immediately.

## **CLEAN UP**

- A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by the Owner's Representative.
- B. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

## **END OF SECTION**

## **SECTION 01600 - PRODUCT REQUIREMENTS**

### **PART 1 GENERAL**

#### **SUBMITTALS**

Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this project.

### **PART 2 PRODUCTS**

#### **PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.
- D. Products Specified by Installation only, are products that do not need to be ordered. These items shall be picked up at designated area and delivered to site for installation only. All instructions shall be read for full inventory, equipment needed for installation and inventory checklist shall be conducted. Contractor to provide all equipment for installation, see Section 00420 – Bid Item Description, Section 02870 – Site Furnishings, Appendix C – Products for full descriptions.

### **PART 3 EXECUTION**

#### **SUBSTITUTION PROCEDURES**

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- C. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the substitution for the specified product.
  - 3. Will coordinate installation to be complete with no additional cost to City.
  - 4. Waives claims for additional costs or time extension.
- D. Substitution Submittal Procedure:
  - 1. Submit two copies of request for substitution for consideration. Limit each request to one proposed substitution.
  - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
  - 3. The Owner's Representative will notify Contractor in writing of decision to accept or reject request.

#### **TRANSPORTATION AND HANDLING**

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- D. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

## **STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. Prevent contact with material that may cause corrosion, discoloration, or staining.
- F. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

## **END OF SECTION**

## **SECTION 01700 - EXECUTION REQUIREMENTS**

### **PART 1 GENERAL**

#### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Survey work: Provided by Contractor.

#### **PROJECT CONDITIONS**

- A. Grade site to drain, maintain excavations free of water, provide, operate and maintain pumping equipment.
- B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere.
- C. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage.
- D. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
- E. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

#### **COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate completion and clean-up of work of separate sections.
- E. After City occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of City's activities.

### **PART 2 PRODUCTS - NOT USED**

### **PART 3 EXECUTION**

#### **EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication.
- E. Verify utility service availability.

#### **LAYING OUT THE WORK (By Contractor)**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify the Owner's Representative of any discrepancies discovered.
- C. Contractor shall locate and protect survey control and reference points.
- D. Control datum for survey as established by City provided survey.
- E. Promptly report to the Owner's Representative the loss or destruction of any reference point or relocation.

#### **GENERAL INSTALLATION REQUIREMENTS**

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and
-

recommendations.

- B. Make vertical elements plumb and horizontal elements level unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces with seamless transitions, unless otherwise indicated.

## **PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition daily and dispose off-site; do not burn or bury.
- B. Dust control shall conform to the provisions in Section 10, "Traffic and Dust Control", of the Standard Specifications.
- C. All excess and loose asphalt concrete aggregate shall be removed from driveways, gutters, lawns, and other areas that may be designated by the Owner's Representative.

## **PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Contractor shall protect installed work from damage or vandalism. Vandalized sidewalk and other concrete installations, or other improvements will not be accepted by the Owner's Representative. Corrective work to be paid by Contractor.

## **FINAL CLEANING**

- A. Execute final cleaning prior to final project assessment.
- B. Use cleaning materials that are nonhazardous.
- C. Remove waste, surplus materials, trash/rubbish, and temporary facilities from the site; dispose of in a legal manner; do not burn or bury.

## **CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  - 1. Provide copies to the Owner's Representative.
  - 2. Provide copies to City.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in Contractor's Notice of Substantial Completion.
- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for the Owner's Representative review.
- D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to City-occupied areas.
- E. Notify the Owner's Representative when work is considered substantially complete.

## **END OF SECTION**

## **SECTION 01732 - WASTE MANAGEMENT**

### **PART 1 GENERAL**

#### **WASTE MANAGEMENT REQUIREMENTS**

- A. City requires that this project, employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- B. Reuse, salvage, or recycle as much waste as economically feasible.
- C. Methods of trash/waste disposal that are not acceptable are:
  - 1. Burning on the project site.
  - 2. Burying on the project site.
  - 3. Dumping or burying on other property, public or private.
  - 4. Other illegal dumping or burying.
- D. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

#### **DEFINITIONS**

- A. Construction and Demolition Waste: Solid wastes including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- B. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- C. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- D. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- E. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- F. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- G. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- H. Return: To give back reusable items or unused products to vendors for credit.
- I. Reuse: To reuse a construction waste material in some manner on the project site.
- J. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- K. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- L. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- M. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- N. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- O. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

### **PART 2 PRODUCTS - NOT USED**

### **PART 3 EXECUTION**

#### **WASTE MANAGEMENT PROCEDURES**

- A. See Section 01300 - Administrative Requirements for additional requirements for project meetings, reports, submittal procedures, and project documentation.

- B. See Section 01500 - Temporary Facilities and Controls for additional requirements related to trash/waste collection and removal facilities and services.
- C. See Section 01600 - Product Requirements for waste prevention requirements related to delivery, storage and handling.

## **WASTE MANAGEMENT PLAN IMPLEMENTATION**

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each Subcontractor, City, and the Owner's Representative.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
  - 1. Pre-construction meeting.
  - 2. Regular job-site meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all Contractors and installers.
  - 1. As a minimum, provide:
    - i. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
    - ii. Separate dumpsters for each category of recyclable.
    - iii. Recycling bins at worker lunch area.
    - iv. The Contractor must submit receipts and weigh tickets for all recycled, salvage and disposed material prior to Final Inspection.
    - v. All material removed under this Contract shall become the property of the Contractor and be promptly removed from the site. Do not store or permit debris to accumulate on the site. Remove from the site all debris, rubbish, and other materials resulting from demolition operations and dispose of same legally. Burning of removed materials from structures will not be permitted on site.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

## **END OF SECTION**

## **SECTION 01780 - CLOSEOUT SUBMITTALS**

### **PART 1 GENERAL**

#### **SUBMITTALS:**

- A. Project Record Documents: Submit documents to the Owner's Representative with claim for final Application for Payment.
- B. Warranties and Bonds.
- C. For equipment or component parts of equipment put into service during construction with the City's permission, submit documents within ten days after acceptance.
- D. AS-BUILTS: Submit to the Owner's Representative one (1) copy of the approved set of construction plans revised to reflect all field revisions and marked "AS-BUILT" for review and approval. Upon approval of the AS-BUILTS by the Owner's Representative provide two (2) copies of the AS-BUILTS to the Owner's Representative.

### **PART 2 PRODUCTS - NOT USED**

### **PART 3 EXECUTION**

#### **PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
- B. Ensure entries are complete and accurate enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
- E. Measured horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
- F. Field changes of dimension and detail.
- G. Details not on original Contract drawings.

#### **WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with City's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Include certificates, start-up dates, maintenance schedules, Owner's manual, and Product Data as required by specified sections.

### **END OF SECTION**

## **DIVISION 2 – SITE CONSTRUCTION**

### **SECTION 02200 - SITE PREPARATION**

#### **PART 1 GENERAL**

##### **PROJECT CONDITIONS**

- A. Prior to start of work, the Contractor shall provide a written Notice (English and Spanish) to each dwelling or business within Project Limits which informs them of proposed scope and duration of construction activities.
- B. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers or other pollution.
- C. Comply with other requirements specified in Section 01700.
- D. The Contractor shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.
- E. The Contractor shall repair or replace all existing improvements within the parcel which are not designated for removal (curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.
- F. The Contractor shall assume full responsibility for any damage to pipes, conduits, poles, or any other structures or utilities. He shall not make any claim for inconvenience, delay or added cost of performing the work which may be attributed in any degree to inaccuracy of information provided by the City relative to the locations, sizes, dimensions, depths, and character of any pipes, conduits, poles, or other structures and utilities of for failure of the City to furnish any information thereto.
- G. The Contractor's operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all times. Safe and adequate pedestrian and vehicular access shall be provided and maintained to: fire hydrants, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, hospitals, police, fire stations, and establishments of a similar nature.
- H. The Contractor shall cooperate with the various parties involved in the delivery of mail and the collection and removal of trash and garbage to maintain existing schedules for these services.

##### **SUBMITTALS**

- A. Written Notice (English and Spanish) to Resident/Businesses

#### **PART 2 PRODUCTS – NOT USED**

#### **PART 3 EXECUTION**

##### **EXISTING UTILITIES**

- A. Coordinate work with utility companies; notify utility companies before starting work and comply with their requirements and obtain required permits. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 5 days prior written notification to City.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Locate and mark utilities to remain; mark using highly visible tags or flags with identification of utility type; protect from damage.
- E. Unused underground piping may be abandoned in place provided it is completely drained and capped. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- F. Abandon structures where noted in accordance with the Standard Details.

##### **VEGETATION**

- A. In areas where vegetation must be removed, remove vegetation with minimum disturbance of the subsoil.

- B. Vegetation Removed: Do not burn, bury, landfill, or leave on site.
  - 1. Chip, grind, crush, or shred vegetation for mulching, composting or other purposes; preference should be given to on-site uses.
  - 2. Trees: Sell if marketable; if not, treat as specified for other vegetation removed; remove stumps and roots to depth of 24 inches.
  - 3. Sod: re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.
- C. Restoration: if vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations replace at no cost to City.

## **EXISTING BUILT ELEMENTS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Use Physical barriers to prevent access to areas that could be hazardous to workers and the public.
  - 2. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  - 3. Do not close or obstruct roadways or sidewalks without permit.
  - 4. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time and protect persons using entrances and exits from removal operations.
  - 5. Obtain written permission from Owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Protect existing structures and other elements that are not to be removed.
- C. If hazardous materials are discovered during removal operations stop work and notify the Owner's Representative, Hazardous materials include regulated asbestos containing materials, lead, PCB's and mercury.
- D. Perform demolition in a manner that maximizes salvage and recycling of materials.
  - 1. Dismantle existing construction and separate materials.
  - 2. Set aside reusable, recyclable, and salvageable materials. Store and deliver to collection point or point of reuse.
- E. Partial Removal of Paving and Curbs: Neatly sawcut at right angle to surface.

## **DEBRIS**

Remove debris, junk, and trash from site daily.

## **WASTE REMOVAL**

- A. Remove from site all materials not to be reused on site, do not burn or bury.
- B. Leave site in clean condition ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

## **END OF SECTION**

## **SECTION 02230 - SITE CLEARING**

### **PART 1 GENERAL**

#### **RELATED SECTIONS**

State Standards – Section 16: Clearing and Grubbing.

#### **PROJECT CONDITIONS**

- A. Conform to applicable regulations relating to environmental requirements and disposal of debris.
- B. Coordinate clearing work with utility companies.
- C. Protect utilities to remain from damage.
- D. Protect trees, plants, and other features designated to remain as final landscaping.
- E. Protect benchmarks, survey control points, and existing structures from damage or displacement.

#### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Materials Sources: Submit name of imported materials source.
- C. Product Data: Submit manufacturers' data on manufactured products.
- D. Copy of MSDS for the proposed product

### **PART 2 PRODUCTS**

#### **WEED CONTROL**

- A. Methods and chemicals shall be suitable with regard to season and shall control weeds and shall be approved by all governing agencies.

### **PART 3 EXECUTION**

#### **PREPARATION**

- A. Locate and identify utilities to remain.
- B. Verify that existing plants designated to remain are tagged or identified.
- C. All surface materials which, in the opinion of the Owner's Representative, are suitable for reuse in restoring the surface shall be kept from the general excavation material.
- D. The Contractor shall be responsible for furnishing the Owner's Representative with original weight tickets for all material which is to be paid for by the ton and which has been delivered/removed to/from the project site. Said record shall become the basis of payment for the materials itemized therein. All scales used for proportioning materials shall be inspected for accuracy and certified within the past twelve (12) months by the State of California Bureau of Weights and Measures, or by a scale mechanic registered with or licensed by the County

#### **CLEARING**

- A. Clear areas required for access to site and execution of work.
- B. Remove trees, shrubs and stumps indicated.
- C. Remove roots to a depth of 24 inches.
- D. Clear undergrowth and deadwood without disturbing subsoil.

#### **WEED CONTROL**

- A. Methods and chemicals shall be suitable with regard to season and shall control weeds and shall be approved by all governing agencies.
- B. Treatment shall not damage or impede growth of existing trees, shrubs, and ground covers specified to remain.
- C. Applicator shall be a licensed as required by all governing agencies.
- D. Contractor shall obtain required permits from County Agricultural Commissioner. Weed control treatment shall be in accordance with Federal, State of California, County and local codes and regulations, and shall be safe,

not cause a health hazard, nor disrupt or inconvenience continuing business operations of the Owner and neighbors, public street, parking lot and sidewalk use or construction activities.

- E. Method of treatment shall be strictly in accordance with manufacturer's recommendations.
- F. Only apply when there is no wind.
- G. Method of application and chemicals to be reviewed and approved by the Owners representative.
- H. Contractor shall ascertain and ensure that all areas not slated to be paved are weed-free prior to placement of aggregate base.

## **REMOVAL**

Remove debris from site daily.

## **SAWCUTTING**

- A. Sawcutting shall consist of sawing asphalt concrete to a minimum depth of 7" and sidewalk to a minimum depth of 4" with an abrasive type saw to the lines shown on the plans and as directed by the Owner's Representative.
- B. The Contractor shall endeavor to protect all saw cut edges from damage. Should the sawed edge become damaged, the Contractor shall resaw the edge at his expense.
- C. Adjustment of compensation as provided for in Section 4-1.03B of the Standard Specifications shall not apply to sawcutting.
- D. Contractor shall exercise due caution to avoid damage to existing facilities or buildings. Any sawcutting damage done by the Contractor shall be repaired or replaced at the Contractor's expense.
- E. Contractor shall exercise due caution to avoid damage to existing private utilities within private property pavement transition areas.

## **END OF SECTION**

## **SECTION 02310 - GRADING**

### **PART 1 GENERAL**

#### **RELATED SECTIONS**

State Standards – Sections 16 thru 23: Grading.

#### **SUBMITTALS**

Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts and slope gradients. Record in red ink on the as-built plans.

#### **PROJECT CONDITIONS**

- A. Protect above- and below-grade utilities that remain, including existing private utilities within private property pavement transition areas.
- B. Protect plants, lawns, and other features to remain as a portion of final landscaping.
- C. Protect benchmarks, survey control points, existing structures, fences, sidewalks, paving, and curbs from grading equipment and vehicular traffic.

### **PART 2 PRODUCTS – NOT USED**

### **PART 3 EXECUTION**

#### **EXAMINATION**

Verify that survey benchmark and intended elevations for the work are as indicated.

#### **PREPARATION**

- A. Identify required lines, levels, contours, and datum.
- B. Stake and flag locations of known utilities.
- C. Locate, identify, and protect utilities that remain, from damage.

#### **ROUGH GRADING**

- A. When excavating through roots, perform work by hand and cut roots with sharp axe.
- B. Remove topsoil from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials.
- C. Do not remove topsoil when wet.
- D. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.
- E. Do not remove wet subsoil, unless it is subsequently processed to obtain optimum moisture content.
- F. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.

#### **SOIL REMOVAL**

- A. Stockpile topsoil to be re-used on site, remove remainder from site.
- B. Stockpile subsoil to be re-used on site, remove remainder from site.
- C. Stockpiles: use areas designated on site, pile depth not to exceed 8 feet and protect from erosion.

#### **FINISH GRADING**

- A. Before Finish Grading:
  - 1. Verify building and trench backfilling have been inspected.
  - 2. Verify subgrade has been contoured and compacted.
- B. Remove debris, roots, branches, stones, in excess of 1/2 inch in size.
- C. Remove soil contaminated with petroleum products.

- D. In areas where vehicles or equipment have compacted soil, scarify surface to depth of 3 inches.
- E. Place topsoil in areas indicated.
- F. Place topsoil where required to level finish grade.
- G. Place topsoil during dry weather.
- H. Remove roots, weeds, rocks, and foreign material while spreading.
- I. Near plants spread topsoil manually to prevent damage
- J. Fine grade topsoil to eliminate uneven areas and low spots.
- K. Maintain profiles and contour of subgrade.
- L. Lightly compact placed topsoil.

### **TOLERANCES**

- A. Top Surface of Subgrade: Plus or minus 1/10 foot from required elevation.
- B. Top Surface of Finish Grade: Plus or minus 1/2 inch.

### **CLEANING AND PROTECTION**

- A. Remove unused stockpiled topsoil and subsoil. Grade stockpile area to prevent standing water. Leave site clean and raked, ready to receive landscaping.

### **END OF SECTION**

## **SECTION 02315 - EXCAVATION**

### **PART 1 GENERAL**

#### **RELATED SECTIONS**

- A. Section 2310 – Grading: Soil removal from surface of site.
- B. Section 2316 – Fill and Backfill: Fill materials, filling, and compacting.
- C. State Standards – Sections 16 thru 23: Grading.

#### **PROJECT CONDITIONS**

- A. Verify that survey benchmark and intended elevations for the work are as indicated.
- B. Protect plants, lawns, and other features to remain.
- C. Protect benchmarks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- D. Protect existing private utilities within private property pavement transition areas.

### **PART 2 PRODUCTS – NOT USED**

### **PART 3 EXECUTION**

#### **PREPARATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. Locate, identify, and protect utilities that remain and protect from damage.

#### **EXCAVATING**

- A. Excavate to accommodate new construction operations.
- B. Notify the City's Representative of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- C. Do not interfere with 45 degree bearing splay of foundations.
- D. Cut utility trenches wide enough to allow inspection of installed utilities.
- E. Hand trim excavations. Remove loose matter.
- F. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd. (0.25 cu m) measured by volume.
- G. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- H. Remove excavated material that is unsuitable for re-use from site.
- I. Remove excess excavated material from site.
  - 1. Surplus excavation material shall become the property of the Contractor and shall be disposed of outside the work area in accordance with the provisions of the Standard Specifications
- J. Slope banks of excavations deeper than 4 feet (1.2 meters) to angle of repose or less until shored.
- K. Correct areas that are over-excavated and load-bearing surfaces that are disturbed.
- L. Stockpile excavated material to be re-used in area designated on site in accordance with Section 02310.

#### **ABANDONING STRUCTURES**

- A. When existing manholes or inlets are to be abandoned, pipes entering the manhole or inlet shall be securely closed by a tight-fitting plug or wall of minor concrete not less than 6 inches thick, or by a tight brick wall not less than 8 inches thick with cement mortar joints.
  - 1. Minor concrete shall conform to the provision of Section 90-10, "Minor Concrete" of the State Standard Specifications.
- B. The bases of manholes or inlets shall be broken in a manner to prevent entrapment of water.
- C. Demolish manhole or inlet to an elevation 24 inches below finish grade and backfilled in with "Structural Fill" conforming to the State Standard Specifications.

D. If any unexpected subsurface conditions are encountered, notify the City's Representative and discontinue affected work in area until notified to resume work.

### **FIELD QUALITY CONTROL**

See Section 01400 - Quality Requirements, for general requirements for field inspection and testing.

### **PROTECTION**

Prevent displacement of banks and keep loose soil from falling into excavation, maintain soil stability.

### **END OF SECTION**

## **SECTION 02316 - FILL AND BACKFILL**

### **PART 1 GENERAL**

#### **RELATED SECTIONS**

- A. Section 02310 – Grading: Removal and handling of soil to be re-used.
- B. State Standards – Sections 19: Earthwork.

#### **REFERENCES**

- A. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method; 2007.
- B. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN m/m<sup>3</sup>)); 2012.
- C. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth); 2010.

#### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Compaction Density Test Reports.

#### **PROJECT CONDITIONS**

- A. Provide sufficient quantities of fill to meet project schedule and requirements. When necessary store materials on site in advance of need.
- B. When fill materials need to be stored on site locate stockpiles where designated.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.
- C. Verify that survey benchmarks and intended elevations for the work are as indicated.

### **PART 2 PRODUCTS**

#### **FILL MATERIALS**

- A. General Fill: Conforming to State Standards.
- B. Structural Fill: Conforming to State Standards.
- C. Granular Fill: Coarse aggregate conforming to State Standards.
- D. Sand: Conforming to State Standards.
- E. Topsoil: See Section 02310.

#### **SOURCE QUALITY CONTROL**

- A. See Section 01400 - Quality Requirements for general requirements for testing and analysis of soil material.
- B. If tests indicate materials do not meet specified requirements change material and retest.

### **PART 3 EXECUTION**

#### **EXAMINATION**

Identify required lines, levels, contours, and datum locations.

#### **PREPARATION**

- A. Scarify subgrade surface to a depth of 6 inches to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.

- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

## **FILLING**

- A. Employ a placement method that does not disturb or damage other work.
- B. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- C. Maintain optimum moisture content of fill materials to attain required compaction density.
- D. Correct areas that are over-excavated.
  - 1. Load-bearing foundation surfaces: Fill with concrete.
  - 2. Other areas: Use general fill flush to required elevation compacted to minimum 95 percent of maximum dry density.
- E. Reshape and re-compact fills subjected to vehicular traffic.
- F. Compaction Density Unless Otherwise Specified or Indicated:
  - 1. All Construction: 95 percent of maximum dry density.

## **FILL AT SPECIFIC LOCATIONS**

- A. Use general fill unless otherwise specified or indicated.
- B. Over Buried Utility Piping and Conduits in Trenches:
  - 1. Compact in maximum 8 inch (200 mm) lifts to 95 percent of maximum dry density.

## **TOLERANCES**

- A. Top Surface of General Filling: Plus or minus 1 inch (25 mm) from required elevations.
- B. Top Surface of Filling Under Paved Areas: Plus or minus 1 inch (25 mm) from required elevations.

## **FIELD QUALITY CONTROL**

- A. See Section 01400 - Quality Requirements for general requirements for field inspection and testing.
- B. Perform compaction density testing on compacted fill in accordance with ASTM D1556 or ASTM D6938.
- C. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 1557 ("modified Proctor").
- D. If tests indicate work does not meet specified requirements, remove work, replace and retest.

## **CLEAN-UP**

- A. Leave unused materials in a neat, compact stockpile.
- B. Remove unused stockpiled materials; leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

## **END OF SECTION**

# **SECTION 02317 - TRENCHING FOR SITE UTILITIES**

## **PART 1 GENERAL**

### **REFERENCES**

- A. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method; current edition.
- B. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN m/m<sup>3</sup>)); current edition.
- C. ASTM D2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); current edition.
- D. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); current edition.
- E. Appropriate City Standard Plans.

### **SUBMITTALS**

- A. See Section 01300 – Administrative Requirements for submittal procedures.
- B. Compaction Density Test Reports.

### **PROJECT CONDITIONS**

- A. Provide sufficient quantities of fill to meet project schedule and requirements.
- B. When fill materials need to be stored on site, locate stockpiles where designated.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.
- C. Verify that survey benchmarks and intended elevations for the work are as indicated.
- D. Protect plants, lawns, and other features to remain.
- E. Protect benchmarks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

## **PART 2 PRODUCTS**

### **FILL MATERIALS**

- A. General Fill: Conforming to State Standards.
- B. Structural Fill: Conforming to State Standards.
- C. Granular Fill: Coarse aggregate, conforming to State Standards.
- D. Sand: Conforming to State Standards.
- E. Topsoil: See Section 02310.

### **SOURCE QUALITY CONTROL**

- A. See Section 01400 - Quality Requirements for general requirements for testing and analysis of soil material.
- B. Where fill materials are specified by reference to a specific standard, test and analyze samples for compliance before delivery to site.
- C. If tests indicate materials do not meet specified requirements, change material and retest.
- D. Provide materials of each type from same source throughout the work.

## **PART 3 EXECUTION**

### **EXAMINATION**

- A. Identify required lines, levels, contours, and datum locations.

- B. Locate, identify and mark utilities to remain; mark using highly visible tags or flags with identification of utility type; protect from damage.

## **EXISTING UTILITIES**

- A. Notify utility companies of work prior to excavating.
- B. Coordinate shut off with utility companies if necessary; comply with their requirements and obtain any required permits from the authority having jurisdiction prior to beginning work.
- C. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 5 days prior written notification to City.

## **TRENCHING**

- A. Notify the City's Representative of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- B. Slope banks of excavations deeper than 4 feet (1.2 meters) to angle of repose or less until shored.
- C. Do not interfere with 45 degree bearing splay of foundations.
- D. Cut trenches wide enough to allow inspection of installed utilities.
- E. Hand trim excavations and remove loose matter.
- F. Remove large stones and other hard matter which could damage piping or impede consistent backfilling or compaction.
- G. Remove lumped subsoil, boulders, and rock up to 1/3 CY (0.25 cu M) measured by volume.
- H. Remove excavated material that is unsuitable for re-use from site.
- I. Remove excess excavated material from site.

## **PREPARATION FOR UTILITY PLACEMENT**

- A. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- B. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- C. Until ready to backfill, maintain excavations and prevent loose soil from falling into excavation.

## **BACKFILLING**

- A. Fill up to subgrade elevations unless otherwise indicated.
- B. Employ a placement method that does not disturb or damage other work.
- C. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- D. Maintain optimum moisture content of fill materials to attain required compaction density.
- E. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches (150 mm) compacted depth.
- F. Soil Fill: Place and compact material in equal continuous layers not exceeding 8 inches (200 mm) compacted depth.
- G. Slope grade away from building minimum 2.5 inches in 10 ft. (63.5 mm in 3 m), unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- H. Correct areas that are over-excavated.
  - 1. Thrust bearing surfaces: Fill with concrete.
  - 2. Other areas: Use general fill, flush to required elevation, compacted to minimum 95 percent of maximum dry density.
- I. Reshape and re-compact fills subjected to vehicular traffic.

## **TOLERANCES**

- A. Top Surface of General Backfilling: Plus or minus 1 inch (25 mm) from required elevations.
- B. Top Surface of Backfilling under Concrete Areas: Plus or minus 1 inch (25 mm) from required elevations.

## **FIELD QUALITY CONTROL**

- A. See Section 01400 - Quality Requirements for field inspection and testing.
- B. Perform compaction density testing on compacted fill in accordance with ASTM D1556, ASTM D2922, or ASTM D3017.
- C. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 1557 ("Modified Proctor")
- D. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- E. Frequency of Tests: linear intervals not to exceed three hundred feet (300').

## **CLEAN-UP**

- A. Leave unused materials in a neat, compact stockpile.
- B. Remove unused stockpiled materials; leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

## **END OF SECTION**

# **SECTION 02510 - WATER DISTRIBUTION**

## **PART 1 GENERAL**

### **REFERENCES**

- A. American Water Works Association (AWWA) Standards including amendments.
- B. National Sanitation Foundation International Listing for Water Treatment and Distribution Systems including annexations.

### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on pipe materials, pipe fittings, valves and accessories.
- C. Manufacturer's Certificate: Provide and certify that products meet or exceed specified requirements.
- D. Instructions: Provide manufacture's installation instruction for pipe, hydrants and valves.
- E. Field Test Reports: Provide results for hydrostatic and bacteriological tests.
- F. Project Record Documents: Record actual locations of piping mains, valves, connections, thrust restraints and invert elevations. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

### **QUALITY ASSURANCE**

Perform Work in accordance with municipality requirements.

### **DELIVERY, STORAGE AND HANDLING**

Deliver and store valves in shipping containers with labeling place.

## **PART 2 PRODUCTS**

### **WATER MAIN PIPE**

- A. Ductile Iron Pipe (DIP)
  - 1. Ductile iron pipe shall conform to the latest AWWA C151 standards for Class 200.
  - 2. Ductile iron pipe shall have "Tyton Joints," "Ty-Seal Joints," or equal.
  - 3. Ductile iron pipe shall be cement lined in conformance with the latest AWWA C104.
  - 4. All ductile iron pipe shall be protected by a polyethylene encasement in conformance with AWWA C105.
- B. Polyvinyl Chloride Pipe (PVC)
  - 1. PVC pipe 12 inch diameter or less shall be DR 18 or DR 14 where required and shall conform to AWWA Standard C900.
  - 2. PVC pipe 14 inch diameter or greater shall be DR 18 or DR 14 where required and shall conform to AWWA Standard C905.
  - 3. The color of the pipe shall be blue to match Under Ground Service Alert color code.
  - 4. PVC pipe joints shall have elastomeric-gasket bell ends or couplings. The bell ends shall be integral thickened bell end or integral sleeve-reinforced bell end. The bell end joints shall have a minimum wall thickness of the bell or sleeve-reinforced bell, equal at all points to the Standard Dimension Ratio (SDR) requirements for the pipe. The minimum wall thickness in the ring groove and bell-entry sections shall be equal to or exceed the minimum wall thickness of the pipe barrel.
  - 5. Deflection in pipe joints shall not exceed 80 percent of the manufacture's published allowable deflection.
  - 6. Acceptable PVC manufacturers are to be USPipe, Pacific Western, CertainTeed or equal.
- C. Steel Pipe
  - 1. Steel pipe shall be for above ground use only. Steel pipe shall conform to AWWA Standard C200, C207 and C213.
  - 2. Steel pipe thickness shall be a minimum of Schedule 40, "Standard", or 1/4-inch, whichever thickness is

greater.

3. Steel pipe shall be flanged, fusion-bonded and epoxy coated, inside and outside.
4. Flanges for steel pipe shall be Class D.

## **WATER MAIN FITTINGS**

- A. Bends, tees and other fittings shall be Ductile Iron, Class 150, for use with Cast Iron Pipe and Ductile Iron Pipe.
- B. Steel pipe fittings must be flanged, fusion-bonded and epoxy coated, inside and outside.
- C. Flanges for steel pipe fittings shall be Class D.
- D. Flange Fittings must conform to the AWWA Standard C110.
- E. Mechanical Fittings must conform to the AWWA Standard C111.
- F. Steel pipe fittings (for above ground use only) must conform to AWWA Standard C205, C207 and C213.
- G. All fittings for use with connection to PVC pipe must use mechanical joints unless a valve is shown adjacent in which case the fitting joint must be flanged.
- H. All fittings required to maintain proposed alignment shall conform to these standards, whether or not they are specifically described by the Contract Documents.
- I. Contractor shall supply all fittings shown or noted on the plans and fittings not shown or noted on the plans that may be required to maintain proposed alignment.

## **THRUST BLOCKING**

- A. Reaction or thrust blocking shall be constructed at bends, tees, dead ends and where changes in pipe diameter occur. Blocking shall be placed between undisturbed ground and the fitting to be anchored. The area of bearing on the pipe and on the ground shall be that required by City Standard Details. The blocking shall be placed so that the joints of the pipe and fittings will be accessible for repair.
- B. Prior to pouring concrete for thrust blocks, the ground must be properly moistened to prevent the ground from absorbing moisture from the concrete.
- C. Thrust blocking shall be constructed using the concrete mix design specified in Section 03050 Portland Cement Concrete of the project specifications and by the City Standard Specifications. The minimum compressive strength for the concrete shall be 3000 psi.
- D. All fittings in contact with concrete thrust blocks must be wrapped with a minimum of 6-mil polyethylene plastic. Water main pipe shall not be in direct contact with thrust block.
- E. Backfill may be placed on thrust blocks only after the surface has set sufficiently to resist the weight of the backfill. However, newly placed concrete shall be allowed to cure a minimum of 24 hours prior to compacting of backfill. All concrete for thrust blocks shall be placed in the presence of the Engineer.
- F. All wood forms and materials used for forming thrust blocks and not suitable for backfill must be removed prior to backfilling. In addition, thrust blocks and other material used for testing and not shown on the plans, must be removed by the Contractor.

## **RESTRAINED PIPE AND FITTINGS**

- A. Restrained pipe shall be used in areas requiring the use of fittings for vertical bends. Flange adapters shall be made of ductile iron conforming to ASTM A536 and have flange bolt circles compatible with ANSI/AWWA C110/A21.10.
- B. The restrained flange adapter or mechanical joint restraint shall consist of a plurality of individual actuated gripping wedges to maximize restrain capability. Torque limiting actuating screws shall be used to ensure proper initial set of gripping wedges.
- C. The restrained flange adapter shall be capable of deflection during assembly, or allow lengths of pipe to be field cut and a minimum of 0.6 inch gap between the end of the pipe and the mating flange without affecting the integrity of the seal.
- D. The restrained flange adapter and mechanical joint restraint coating shall consist of a minimum of two coats of liquid thermoset epoxy coating with heat cure to follow each coat.
- E. Restrained flange adapter manufacturer and model: EBAA, Inc. Series 2100 Megaflange, or equal.
- F. Mechanical joint restraint manufacturer and model: EBAA, Inc. Series 1100 Megalug, or equal.

## **WATER MAIN VALVES AND VALVE BOXES**

- A. All valves shown adjacent to fittings shall have one mechanical joint and one flange joint. The flange joint will bolt to the fitting.
- B. All gate valves shall be the rubber-seated, tight-closing type conforming to AWWA Standard C509. Valves shall open left and be equipped with a 2- inch AWWA operating nut.
  - 1. Mueller Series 2360 or approved equal.
- C. All butterfly valves shall conform to AWWA Standard C504. Butterfly valves may be installed on main runs only. Valves shall open left and be equipped with a 2-inch AWWA operating nut.
- D. Valve boxes shall be a traffic valve box and lid rated for H-20 traffic loads. The minimum inside diameter of the concrete box shall be 10-3/8 inches. The overall depth of the concrete box shall be a minimum of 12 inches. The valve box lid shall be cast iron.
  - 1. Valve cover lids must be labeled "WATER."
  - 2. An acceptable valve box manufacturer and product is Christy Concrete Products – G05TBOX "Traffic Valve Box" and G05CT "Cast Iron" lid, or approved equal.
  - 3. Materials to be used for extensions below valve box to valve operating nut shall be Concrete or 8-inch PVC pipe. All valve boxes shall be installed to finish grade.

## **SERVICE PIPE AND MATERIALS**

- A. Services shall conform to the latest AWWA Standards C800 and C901 including all amendments.
- B. 1-inch and 2-inch Water Service Pipe
  - 1. Water services shall be Polyethylene IPS Pipe.
- C. 1-inch and 2-inch Water Service Fittings and Valves
  - 1. All fittings and valves must be constructed from "No Lead" materials.
  - 2. Service saddles shall be sized to match the outside diameter of the pipe being tapped. The tap size shall be 1-inch or 2-inch to match the nominal service size. The saddle shall be a double strap style with a Female Iron Pipe Threaded (FIPT) coupling.
  - 3. For C900 PVC pipe, acceptable saddle manufactures and products are James Jones Co. – Bronze Saddle J-969 Series, or approved equal.
  - 4. Ball corporation stop, curb stop, coupling, and meter coupling sizes shall match the diameter of the service pipe. Reducing fittings will not be allowed. Inserts for use with pack joint couplings shall be stainless steel. Fitting sizes shall be National Pipe Threads (NPT) or Copper Tube Size (CTS) pack joints where required.
    - i. Quick Joint or Grip Joint fittings and couplings will not be allowed instead of pack joint fittings and couplings.
    - ii. Acceptable manufacturers for all water service fittings are Ford, Jones, Mueller, McDonald, Cambridge Brass or approved equal.
  - 5. 1-inch and 2-inch Meter Box and Lid
    - i. For 1-inch service lines, the meter box minimum outside dimensions shall be 15 3/4-inch by 22 3/4-inch by 12-inch deep.
    - ii. For 2-inch service lines, the meter box minimum outside dimensions shall be a 22-inch by 35-inch by 12-inch deep.
    - iii. The meter box lid shall be Nicor Read-Rite Polymer Lid
      - (1) 1-inch Service – Nicor Inc. B16 Lid Weighted HDR or approved equal.
      - (2) 2-inch Service – Nicor Inc. B36 Lid Weighted HDR or approved equal.

## **FIRE HYDRANT ASSEMBLY**

- A. Fire hydrants shall be dry-barrel style and conform to AWWA Standard C503. All hydrants shall be painted with "Chrome Yellow" polyurethane high duty industrial enamel.
- B. Fire Hydrants shall be equipped with one 2 ½-inch fire hose connection and one 4 ½-inch pumper connection with small nut regular cast iron pro caps that shall be painted "Chrome Yellow" to match hydrant.
- C. Acceptable hydrants manufacturer and products:

- 1. Clow Valve Co. – Wet Barrel Fire Hydrant Model 950 or approved equal.
- D. Breakable Flange shall be provided and installed between the fire hydrant base and the top of the bury section. The breakable flange shall be bolted to bury flange and hydrant flange with frangible bolts.
  - 1. Clow Valve Co. – Model No. 40 Break-off Riser and Check Valve or equal.
- E. The bury section shall be one piece consisting of a straight midsection (spool) and a 90-degree elbow. The bury section shall be ductile iron pipe, flanged above ground, mechanical joint below ground and fitting conforming to ANSI/AWWA C110/A21.10.

**BLOW-OFFS**

- A. Blow-offs shall be constructed using the materials and manufacturers of fittings as specified on the City Standard.

**TRACER WIRE**

- A. Tracer wire for water mains and services shall have magnetic detectable conductor with brightly colored blue plastic covering made of an inert material and imprinted with “Water Service” in large letters
- B. Acceptable product:
  - 1. Christy’s - Detectable Marking Tape or approved equal.

**PART 3 EXECUTION**

**EXAMINATION**

Verify that building service connection and municipal utility water main size, location and invert are as indicated.

**PREPARATION**

- A. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, remove burrs.
- B. Remove scale and dirt on inside and outside before assembly.
- C. Prepare pipe connections to equipment with flanges or unions.

**TRENCHING**

- A. Hand trim excavation for accurate placement of pipe to elevations indicated.
- B. Form and place concrete for pipe thrust restraints at each change of pipe direction. Place concrete to permit full access to pipe and pipe accessories.
- C. Backfill around sides and to top of pipe with cover fill, tamp in place and compact and then complete backfilling.
- D. No open trenches allowed after working hours or on weekends.

**WORK SEQUENCE**

- A. Contractor shall submit for approval a work sequence schedule delineating work phasing areas.
- B. Each group shall maintain and limit shutdowns of the water distribution system to 3-hour durations or as approved by the City Engineer.
- C. Potholing the existing utility locations shall be the first operation within each phase.
- D. The following table includes the Engineer’s suggested work sequence in three groups. Group 1 water mains and appurtenances shall be installed, tested, with pavement restored or backfilled and compacted with native material before work begins on Group 2 mains and appurtenances and similarly to Group 3.

GROUP	LOCATION
1	<ul style="list-style-type: none"> <li>• “O” Street</li> </ul>
2	<ul style="list-style-type: none"> <li>• Palmer Avenue, Siskiyou Avenue, 9<sup>th</sup> Street</li> </ul>
3	<ul style="list-style-type: none"> <li>• Tornado Avenue</li> <li>• West Line</li> </ul>

**INSTALLATION**

- A. Water mains shall be installed in accordance with the Contract Document and AWWA standards for pipe installation.
- B. Handling of Pipes and Appurtenances
1. Proper implements, tools, equipment and facilities satisfactory to the City Engineer shall be provided and used by the Contractor for the safe and efficient execution of the work.
  2. All pipe, fittings, valves, hydrants and appurtenances shall be lowered into the trench in such a manner as to prevent damage to pipe fittings.
  3. Under no circumstance shall pipe or accessories be dropped or dumped into the trench. Special care shall be exercised so that the coating on pipe, valves and fittings will not be damaged. If such damage should occur, the coating shall be repaired to the satisfaction of the City Engineer. Chain slings will not be permitted.
  4. Pipe loaded on trucks or stacked one upon another shall be supported on wooden blocking.
  5. Pipe handled sideways shall not be skidded or rolled against pipe already on the ground.
  6. All foreign matter or dirt shall be removed from the interior of pipe before lowering into position in the trench. Pipe shall be kept clean during and after laying.
  7. All pipe and accessories shall be inspected for defects prior to lowering into trench. Any defective, damaged or unsound pipe or accessory shall be repaired or replaced at the Contractors' expense.
- C. Laying Pipe
1. The Contractor shall field verify by potholing, the size, depth and alignment of all existing water mains and services shown on the Improvement Plans or marked in the field by the Underground Service Alert (USA) markings prior to construction. The Contractor shall also field verify by potholing, the size, depth and alignment of all other existing utility crossings shown on the Improvement Plans or marked in the field by the Underground Service Alert (USA) markings prior to construction. If any existing utility is not exactly as shown on the Improvement Plans or otherwise omitted, the Contractor shall notify the City Engineer before proceeding with the installation of any new work until instructions for how to proceed are issued by the City Engineer.
  2. Pipe and appurtenances must be installed in accordance with City Standards and per the manufacturer's recommendations. Uniform bearing shall be provided under the full length of the barrel of the pipe. Bell holes shall be provided at each joint, but shall be no larger than necessary for joint assembly.
  3. For water mains in a new subdivision, the mains and the fire hydrant runs and assemblies must be installed prior to the installation of gutter, curb and sidewalk.
  4. All water mains and services shall be installed to the alignment, elevation and slope as shown on the Improvement Plans. When curved alignment is shown on the plans the maximum deflection at any joint shall not exceed 80 percent of the manufacturer's recommendation for the type of pipe and joint being used.
  5. When work is stopped at the end of the work day, the open ends of all water mains shall be closed with watertight blind flange. The blind flange shall not be removed unless the trench is dry.
- D. Thrust Blocks
1. Thrust Blocks shall be cast-in-place concrete between undisturbed ground and the fitting to be anchored. The thrust block area for bearing against the soil shall be determined by City Standard Details.
  2. Prior to pouring concrete for thrust blocks, the ground must be properly moistened to prevent the ground from absorbing moisture from the concrete.
  3. All concrete for thrust blocks shall be placed in the presence of the Engineer. Thrust blocking shall be placed so the joints of the pipe and fittings are accessible for future repair.
  4. The thrust block shall extend from the fitting to undisturbed soil, shall be kept clear of the joints, and shall be of such bearing area as to assure adequate resistance to the force to be encountered. In lieu of the above, movement may be prevented by the use of pipe collars and stainless steel rods and other joint restraint devices. When straps are used to secure thrust blocks, they shall be stainless steel.
  5. Backfill may be placed, but not compacted, on thrust blocks after the concrete surface has cured sufficiently to resist the weight of the backfill. Concrete shall be allowed to cure a minimum of 24 hours prior to compaction of backfill. All wood forms and foreign materials used for forming thrust blocks and not suitable for backfill must be removed prior to backfilling
- E. Valves

1. Valves shall be set plumb and properly fitted to the adjacent sections of the main.
2. A valve box shall be installed flush to final grade over each valve.

F. Tracer Wire

1. Tracer (locating) wire shall be laid on top of all pipe listed below and connected at valves per the Standard Details. Tracer tape shall also be installed on:
  - i. All Water mains – PVC and Ductile Iron
  - ii. Fire hydrant runs
  - iii. Service lines at:
    - (1) all dead end streets, end of all Cul-de-Sacs, and services not perpendicular to the water main

G. Installation of 1-inch Water Services, unless shown otherwise on the plans:

1. Contractor shall furnish and install the meter box, meter box lid and meter setter.
2. City to install and supply water meter.
3. In accordance with the Contract Documents, the Contractor shall provide and install new water service lines from the new water mains from the street onto each serviced property at the locations shown on the project plans, or as directed.
4. Contractor shall disconnect and reconnect existing customer's service connections to newly installed, active water mains.
5. General installation of the services, unless shown otherwise on the plans shall include:
  - i. Excavate the entire trench for the service. Services shall be as close to perpendicular as possible to the water main.
  - ii. Thoroughly clean the outside surface of the water main.
  - iii. If the water main is newly installed and not considered an "active" or "existing" water main by the City, the Contractor will tap the water main at the proper angle and location for the new service.
  - iv. If the water main is "active" or "existing" according to the City, the Contractor must coordinate and schedule with the City and Engineer all connections to the water main.
  - v. Once the water main tap is complete, immediately open the service valve to flush the valve and tapping hole thoroughly.
  - vi. Service pipe shall be installed using proper fittings to maintain vertical and horizontal alignment. The slope of the service pipe shall match the slope of the final grade to maintain minimum cover required.
  - vii. All connections between metal fittings and HDPE service pipe must use metal reinforcing sleeve inserts. Fitting connections must be properly tightened according to the manufacturer's specifications.
  - viii. Heat-flaring of service pipe is not permitted.
  - ix. Service pipe crossing below gutter, curb and sidewalk shall be installed using horizontal boring or pushing methods. Water pressure washing methods are not permitted.
  - x. All service pipe trenches are to be backfilled and compacted.
  - xi. Mark service location by chiseling the letter "W" on the face of the curb.
  - xii. Water services shall be placed a maximum of 2 feet from a property line.

6. Installation of Water Meter and Meter Box

- i. Special care shall be exercised to ensure proper compaction is made under curb stop so it is vertical and the meter idler is level. The meter idler must be installed with the minimum clear distance of 14 inches to from the centerline of the idler to the bottom side of the meter box lid.
- ii. Compaction shall be made under and around the meter box so it remains level. The meter box shall be installed with a brick at the base of each corner to provide a stable footing for the box.
- iii. The meter box shall be installed at the correct elevation to match final grade of the adjacent sidewalk and curb.

7. Installation of 4-inch and Larger Water Service Pipe

- i. Water services shall be installed to the same specifications for water mains and any referenced standards therein.

8. Fire Hydrants

- i. Fire hydrant lateral runs shall be installed to the same specifications for water mains and any referenced standards therein.

- ii. Hydrants shall be plumb with pumper nozzle perpendicular to and facing the roadway.
  - iii. Hydrant nozzles shall be at least 20 inches above ground.
  - iv. Fire hydrant assemblies shall be installed per the City Standard Details.
9. Temporary Blow-Offs
- i. Blow-Offs shall be installed per the City Standard Details.
10. Connections to Water Mains
- i. The City and Engineer must be present at all connections to “existing” and “active” water mains and services.
  - ii. No connections shall be made until the new water has been successfully pressure tested, disinfected and flushed per these specifications.
  - iii. The Contractor is responsible for protecting the existing system from all physical damage and possible contamination during construction.
11. Hydrostatic Pressure Testing
- i. After the pipe trench has been backfilled and compacted with 12 inches over the top of the pipe, each section of the pipe to be tested shall be slowly filled with water from the existing system through an accepted temporary backflow prevention assembly and all air shall be expelled from the pipe. Any temporary pipe, fittings, valves, couplings and other materials needed to fill the pipes with water shall be supplied and installed by the Contractor.
  - ii. All new, previously untested, fire hydrants, curb stop valves at service locations and blow-offs at dead ends must be opened to purge any air at those high points in the new system.
  - iii. The Contractor shall furnish and install any thrust blocks, temporary caps or plugs, and other necessary materials needed to maintain pressures in sections of pipes being tested.
  - iv. Partially opened valves will create turbulence through the valve and increase air bubbles in the system. To reduce all air in the new pipe, any inline valve(s) used to control the flow of water into the new section of pipe to be tested must be opened completely before closing the hydrants or blow-offs.
  - v. After the system has been filled with water and all air expelled, all valves at the ends of the section to be tested shall be fully closed. The new main and any new hydrants and services (including any meter idler or meter unit) must be pressurized at system pressure for a period of not less than 24 hours.
  - vi. After the 24-hour pressure equalization period, additional water may be needed to complete the hydrostatic pressure test.
  - vii. The hydrostatic pressure test requires all mains, hydrants and services (including any meter idler or meter unit) to be pressurized to a minimum gauge pressure of 150 psi or the system pressure plus 50 psi, whichever pressure is greater. The hydrostatic pressure test shall be for a minimum of 2 hours. The pump, gauge and all necessary apparatuses or equipment for the test shall be supplied and installed by the Contractor.
  - viii. During the test, all exposed pipe, fittings, valves, hydrants, and joints will be carefully examined. Any cracked or defective material shall be removed and replaced by the Contractor to the satisfaction of the City Engineer. The test shall be repeated until no defects remain.
  - ix. The pipes in the section being tested will not be accepted if total leakage exceeds the allowable leakage. If leaks are detected, the Contractor shall permanently stop all leaks. All pipes, joints and/or appurtenances which prove defective shall be replaced and the mains on which such defect or defects occur shall be tested again to determine final acceptability of the installation.
  - x. The formula to be used for allowable leakage of water during a hydrostatic pressure test is

$$L = \frac{SD\sqrt{P}}{148,000}$$

L = testing allowable leakage, in gallons per hour

S = length of pipe tested, in feet

D = nominal diameter of pipe, in inches

P = average test pressure during hydrostatic pressure test, in psi (gauge)

xi. Allowable leakage per 1000 linear feet at 150 psi gauge pressure of water main is:

<b>Water Main Size</b>	<b>Allowable Leakage (gallons per hour)</b>
6-inch	0.50
8-inch	0.66
10-inch	0.83
12-inch	0.99
14-inch	1.16
16-inch	1.32
18-inch	1.49
20-inch	1.66
24-inch	1.99

### **FIELD QUALITY CONTROL**

If tests indicate work does not meet specified requirements, remove work, replace and retest at no cost to the City.

### **END OF SECTION**

## **SECTION 02635 - STORM DRAINAGE PIPING**

### **PART 1 GENERAL:**

#### **REFERENCES:**

- A. State Standards – Sections 64: Plastic Pipe and Section 65: Concrete Pipe.
- B. AASHTO M36M - Standard Specification for Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains; American Association of State Highway and Transportation Officials; current edition.
- C. ASTM A74 - Standard Specification for Cast Iron Soil Pipe and Fittings; current edition.
- D. ASTM C76 - Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe; current edition.
- E. ASTM C425 - Standard Specification for Compression Joints for Vitrified Clay Pipe and Fittings; current edition.
- F. ASTM C443 - Standard Specification for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets; current edition.
- G. ASTM C564 - Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings; current edition.
- H. ASTM C700 - Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated; current edition.
- I. ASTM D2751 - Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings; current edition.
- J. Appropriate City Standard Plans.

#### **SUBMITTALS:**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating pipe and pipe accessories.
- C. Manufacturer's Installation Instructions: Indicate special procedures required to install Products specified.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Project Record Documents:
  - 1. Record location of pipe runs, connections, catch basins, and invert elevations.
  - 2. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

#### **REGULATORY REQUIREMENTS:**

Conform to Section 64 & 65 of the State Standards.

#### **PROJECT CONDITIONS:**

Coordinate the work with termination of storm sewer connection outside building, trenching, and connection to foundation drainage system.

### **PART 2 PRODUCTS:**

#### **STORM DRAIN PIPE MATERIALS:**

- A. Plastic Pipe: SDR-35; bell and spigot style sealed joint end.
  - 1. Product: PWPipe – SDR-35 or approved equal
  - 2. Fittings: Same material as pipe molded or formed to suit pipe size and end design in required wye branch, bends, elbows, reducers, and other configurations required.
- B. Concrete Pipe: Reinforced, ASTM C76 (ASTM C76M), Class III with Wall type B; mesh reinforcement; bell and spigot end joints per the State Standards and Standard Plans.
- C. Reinforced Concrete Pipe Joint Device: ASTM C 443 (ASTM C 443M) rubber compression gasket joint per the State Standards and Standard Plans.
- D. High Density Polyethylene Pipe (HDPE): HDPE pipe installed within public or private streets, public easements, and retention basins shall be corrugated exterior, Type "S" (smooth interior) pipe for storm drain installation as shown on the plans, unless otherwise approved. HDPE pipe and fittings shall be manufactured in accordance

with the requirements of Section 64, Plastic Pipe, of the Standard Specifications. A manufacturer's Certificate of Compliance shall be provided in conformance with Section 64-1.02, Materials, of the Standard Specifications. HDPE pipe shall not be used with depth of cover less than 2 feet.

1. The Contractor shall provide a written one-year warranty to guarantee the materials and installation of the HDPE storm drain system.

### **PIPE ACCESSORIES:**

- A. Pipe Joints: Mechanical clamp ring type, stainless steel expanding and Contracting sleeve, neoprene ribbed gasket for positive seal.
- B. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required.
- C. Trace Wire: Magnetic detectable conductor, brightly colored plastic covering, imprinted with "Storm Sewer Service" in large letters.
  1. Product: Christy - Detectable Tape, or approved equal.

### **BEDDING AND COVER MATERIALS:**

- A. Pipe Bedding Material: Per City Standard.
- B. Pipe Cover Material: Per City Standard.

## **PART 3 EXECUTION:**

### **TRENCHING:**

- C. See Section 02317 for additional requirements.
- D. Hand trim excavation for accurate placement of pipe to elevations indicated.
- E. Backfill around sides and to top of pipe with cover fill, tamp in place, compact, and then complete backfilling.

### **INSTALLATION – PIPE:**

- A. Verify that excavation base is ready to receive work and excavations, dimensions, and elevations are as indicated on layout drawings.
- B. Install pipe, fittings, and accessories in accordance with manufacturer's instructions. Seal watertight.
- C. Lay pipe to slope gradients noted on drawings; with maximum variation from true slope of 1/8 inch (3 mm) in 10 feet (3 m).
- D. Install continuous trace wire 6 inches (150 mm) above top of pipe; coordinate with Section 02317.

### **FIELD QUALITY CONTROL:**

- A. Perform field inspection and testing in accordance with Section 01400.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest at no cost to Owner.
- C. Pressure Test: Test in accordance with State Standards and Standard Plans.
- D. Infiltration Test: Test in accordance with State Standards and Standard Plans.
- E. Deflection Test: Test in accordance with State Standards and Standard Plans.

### **PROTECTION:**

Protect pipe and bedding from damage or displacement until backfilling operation is in progress.

## **END OF SECTION**

# **SECTION 02721 - AGGREGATE BASE COURSE**

## **PART 1 GENERAL**

### **REFERENCES:**

State Standards – Sections 26: Aggregate Bases.

### **SUBMITTALS:**

- A. Materials Sources: Submit name of imported materials source.
- B. Compaction Density Test Reports.
- C. See Section 01300 - Administrative Requirements, for submittal procedures.

## **PART 2 PRODUCTS**

### **MATERIALS:**

- A. Aggregate Base: 3/4" Class II and conforming to State Standards.
- B. Coarse Aggregate: conforming to State Standards.
- C. Fine Aggregate: conforming to State Standards.
- D. Sand: conforming to State Standards.

### **SOURCE QUALITY CONTROL:**

- A. If tests indicate materials do not meet specified requirements, change material and retest.
- B. Provide materials of each type from same source throughout the work.

## **PART 3 EXECUTION**

### **EXAMINATION:**

Verify substrate has been inspected, gradients and elevations are correct, and is dry.

### **PREPARATION:**

- A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- B. Do not place aggregate on soft, muddy, or frozen surfaces.

### **INSTALLATION:**

- A. Place aggregate in maximum 4 inch layers and roller compact to 95% relative compaction.
- B. Level and contour surfaces to elevations and gradients indicated.
- C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.
- D. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- E. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

### **TOLERANCES:**

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.
- C. Variation From Design Elevation: Within 1/2 inch.

### **FIELD QUALITY CONTROL:**

- A. See Section 01400 - Quality Requirements, for general requirements for field inspection and testing.
- B. Compaction density testing will be performed on compacted aggregate base course in accordance with California Test Method No. 231 of the State Standards.

C. If tests indicate work does not meet specified requirements, remove work, replace and retest.

**END OF SECTION**

# **SECTION 02741 - ASPHALTIC CONCRETE PAVING**

## **PART 1 GENERAL**

### **REFERENCES:**

- A. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types; The Asphalt Institute; current edition.
- B. AI MS-19 - A Basic Asphalt Emulsion Manual; The Asphalt Institute; current edition.
- C. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction; current edition.
- D. State Standards – Section 39: Hot Mix Asphalt.

### **SUBMITTALS:**

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Materials Sources: Submit name of imported materials source.
- C. Product Data: Submit manufacturers' data on manufactured products.

### **QUALITY ASSURANCE:**

- A. Perform work in accordance with State Standards.
- B. Mixing Plant: Conform to State Standards.
- C. Obtain materials from same source throughout.

### **REGULATORY REQUIREMENTS:**

- A. Conform to applicable code for paving work on public property.
- B. Contractor shall install temporary No Parking signs in those areas to be sealed at least 48 hours prior to work commencing in those areas. The signs shall be placed no more than 100 feet apart on each side of the street and at shorter intervals if conditions warrant. The Contractor shall be responsible for adding the dates and hours of closure to the signs, removal of the signs, and furnishing and placing barricades for posting of the signs.

### **ENVIRONMENTAL REQUIREMENTS:**

- A. Do not place asphalt when ambient air or base surface temperature is less than 50° degrees F or surface is wet or frozen.
- B. Place bitumen mixture when temperature is not more than 15° F degrees below bitumen supplier's bill of lading and not more than maximum specified temperature.

## **PART 2 PRODUCTS**

### **MATERIALS:**

- A. Asphalt Concrete:
  - 1. Type A, 1/2" maximum, medium grading aggregate and shall conform to the provisions in Section 39 of the Standard Specifications and these Special Provisions.
- B. Asphaltic Emulsion (Paint Binder): PG 64-10, PG 64-16, or PG 70-10.
- C. Asphalt Cement: Conforming to State Standards.
- D. Aggregate for Base Course: Conforming to State Standards.
- E. Aggregate for Binder Course: Conforming to State Standards.
- F. Fine Aggregate: Conforming to State Standards.
- G. Mineral Filler: Finely ground particles of limestone, hydrated lime or other mineral dust, free of foreign matter.
- H. Primer: In accordance with State Standards.
- I. Tack Coat: Homogeneous, medium curing, liquid asphalt.

## **ASPHALT PAVING MIXES AND MIX DESIGN:**

- A. Use dry material to avoid foaming. Mix uniformly.
- B. Base Course: Conforming to State Standards.
- C. Binder Course: Conforming to State Standards.
- D. Wearing Course: Conforming to State Standards.
- E. Submit proposed mix design of each class of mix for review prior to beginning of work.

## **SOURCE QUALITY CONTROL:**

Test mix design and samples in accordance with Method Construction Process.

## **PART 3 EXECUTION**

### **EXAMINATION:**

- A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.

### **BASE COURSE:**

Place and compact base course 95% relative compaction.

### **PREPARATION - TACK COAT:**

- A. Apply tack coat in accordance with manufacturer's instructions.
- B. Apply tack coat on asphalt surfaces over subgrade surface at uniform rate of 0.10 gal/sq. yd.
- C. Coat surfaces of manhole frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

### **PLACING ASPHALT PAVEMENT - SINGLE COURSE:**

- A. Install work in accordance with State Standards.
- B. Place asphalt within 24 hours of applying primer or tack coat.
- C. Install gutter drainage grilles and frames in correct position and elevation.
- D. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
- E. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.

### **PLACING ASPHALT PAVEMENT - DOUBLE COURSE:**

- A. Place asphalt binder course within 24 hours of applying primer or tack coat.
- B. Place wearing course within two hours of placing and compacting binder course.
- C. Install gutter drainage grilles and frames in correct position and elevation.
- D. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
- E. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

### **TOLERANCES:**

- A. Flatness: Maximum variation of 1/4 inch (6 mm) measured with 10 foot (3 m) straight edge.
- B. Compacted Thickness: Within 1/4 inch (6 mm) of specified or indicated thickness.
- C. Variation from True Elevation: Within 1/2 inch (12 mm).

### **FIELD QUALITY CONTROL:**

- A. See Section 01400 - Quality Requirements for general requirements for quality control.
- B. Provide field inspection and testing. Take samples and perform tests in accordance with AI MS-2.

**PROTECTION:**

Immediately after placement, protect pavement from mechanical injury for TWO (2) days or until surface temperature is less than 140 degrees F (60 degrees C).

**END OF SECTION**

# **SECTION 02763 - TRAFFIC STRIPING, PAVEMENT MARKINGS, AND PAVEMENT MARKERS**

## **PART 1 GENERAL**

### **SUBMITTALS:**

- A. Product Data: Submit manufacturer's literature describing products and installation procedures.
- B. Certificates of compliance for each batch of material and each type of pavement marker used.
- C. METS notification letter stating that the material is authorized for use for each batch of material.
- D. MSDS for each batch of material.
- E. See Section 01300 - Administrative Requirements, for submittal procedures.

### **QUALITY CONTROL AND ASSURANCE:**

- A. Within 14 days of applying a traffic stripe or a pavement marking, the retro reflectivity of the traffic stripe or the pavement marking must be a minimum of 250 millicandelas per square meter per lux for white and 150 millicandelas per square meter per lux for yellow.
- B. Retro-reflectivity of the thermoplastic traffic stripes and pavement markings shall conform to the requirements in ASTM D6359-99.
- C. Test the retroreflectivity under ASTM E1710.
- D. Pavement markers must be on the Authorized Material List for signing and delineation materials.

## **PART 2 PRODUCTS**

### **MATERIALS:**

- A. Thermoplastic traffic stripes and pavement markings shall conform to the provisions in Section 84-2, "Thermoplastic Traffic Stripes and Pavement Markings", of the State Standards.
  - 1. Thermoplastic material shall be free of lead and chromium, and shall conform to the requirements of State Standards PTH-02SPRAY, PTH-02HYDRO, or PTH-02ALKYD.
  - 2. Primer must comply with the thermoplastic manufacturer's recommendations. Do not thin the primer.
- B. Paint for traffic stripes and pavement markings shall conform to the provisions in Section 84-3, "Painted Traffic Stripes and Pavement Markings", of the State Standards.
  - 1. The color of the painted traffic stripes and pavement markings must comply with ASTM D6628.
  - 2. Do not thin the paint.
- C. Raised pavement markers shall conform to the provisions in Section 85, "Pavement Markers", of the State Standards.
  - 1. Non-reflective pavement markers shall be ceramic in conformance to Section 85-1.02B(3), "Non-reflective Pavement Markers (ceramic)," of the State Standards. Plastic non-reflective markers shall not be allowed.
  - 2. Reflective pavement markers shall be in conformance to Section 85-1.02C, "Retro-reflective Pavement Markers," of the State Standards. Reflective markers shall be glass-faced abrasion resistant markers.
  - 3. A blue reflective marker shall be furnished and installed at each fire hydrant location.

## **PART 3 EXECUTION**

### **REMOVAL OF EXISTING TRAFFIC STRIPES AND PAVEMENT MARKINGS:**

- A. All existing crosswalks, arrows, lettering and striping within the project area shall be removed by the Contractor, prior to installing new pavement striping and markings
- B. Removal shall be done by grinding or another approved method which will cause the least possible damage to the pavement.
  - 1. Alternate methods of removal require prior approval of the Owner's Representative.
- C. All residue including dust shall be removed immediately after grinding has occurred.
- D. Raised markers shall be removed by an approved method which will result in the least possible damage to the

pavement.

1. Where raised pavement markers are to remain, the Contractor shall take special care to protect existing reflective pavement markers and shall, at his expense, replace all coated markers.

### **PREPARATION:**

- A. Preparation of surfaces and application of traffic stripe and pavement marking material shall conform to all requirements of Subsection 84-1.03D, "Surface Preparation," of the State Standards.

### **APPLICATION:**

- A. Traffic stripes and pavement markings shall be applied in conformance to Section 84-1.03E, "Application of Stripes and Markings," of the State Standards.
  1. Thermoplastic traffic stripes and pavement markings shall be applied in conformance to Section 84-2.03 of the State Standards.
  2. Painted traffic stripes and pavement markings shall be applied in conformance to Section 84-3.03 of the State Standards.
    - i. Application equipment shall conform to Section 84-3.02C of the State Standards.
- B. Pavement markers shall be applied in conformance to Section 85-1.03 of the State Standards.

### **TOLERANCES:**

- A. A completed stripe must have clean, well-defined edges without running or deformation, be uniform, and be straight on a tangent alignment and on a true arc on a curved alignment.
- B. The width of a completed traffic stripe must not deviate from the width shown by more than 1/4 inch on a tangent alignment and 1/2 inch on a curved alignment.
- C. The length of the gaps and individual stripes that form a broken traffic stripe must not deviate by more than 2 inches from the lengths shown and be uniform throughout the entire length of each broken traffic stripe so that a normal striping machine will be able to repeat the pattern and superimpose successive coats on the applied traffic stripe.
- D. A completed pavement marking must comply with the dimensions shown and have well-defined edges without running or deformation.
- E. A completed thermoplastic traffic stripe or thermoplastic pavement marking must be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

### **FIELD QUALITY CONTROL:**

- A. See Section 01400 - Quality Requirements, for general requirements for field inspection and testing.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest.

## **END OF SECTION**

# **SECTION 02810 - IRRIGATION SYSTEM**

## **PART 1 GENERAL**

### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed product literature, including installation instructions.
- C. Record Documents: Record actual locations of all concealed components piping system.
- D. Operation and Maintenance Data:
  - 1. Provide instructions for operation and maintenance of system and controls, seasonal activation and shutdown, and manufacturer's parts catalog.
  - 2. Provide schedule indicating length of time each valve is required to be open to provide a determined amount of water.

### **COORDINATION**

Coordinate the work with site demolition, grading and delivery of plant life.

## **PART 2 PRODUCTS**

### **MATERIALS**

- A. All materials and equipment to be used shall be as outlined on the irrigation legend, or as described in the irrigation notes and irrigation specifications. All materials shall be new and unused.
- B. All specified materials, products and manufacturers are relevant to describe the required quality and features of a particular component of the irrigation system, however, the specific product or manufacturer noted is to be construed to be followed by the words, "or approved equal".

### **PIPELINES/SLEEVES**

- A. Irrigation Piping:
  - 1. Pressure pipe / upstream of control valve (mainline pipe): PVC Schedule 40 solvent weld pipe, PVC Material ASTM D1784, Cell Class 12454B & Pipe Design ASTM 1785.
  - 2. Circuit pipe / downstream of control valve (lateral pipe): PVC Schedule 40 solvent weld pipe, PVC Material ASTM D1784, Cell Class 12454B & Pipe Design ASTM 1785.
  - 3. Sleeving under paving: PVC Schedule 80 solvent weld pipe, PVC Material ASTM D1784, Cell Class 12454B & Pipe Design ASTM 1785.
- B. Plastic pipe shall be as called for on the plan and extruded from PVC 1120/1220 and shall meet commercial standards CS 256-63. Class and schedule of pipe shall be as called for in the plans. Strict conformance with the manufacturers recommended installation instructions is required. Bronze pipe is to be used for any pipe installed above grade. Fittings for above grade piping are to be consistent with pipeline material. Sun burned pipe or pipe that has been abused in shipping and handling is not to be used.
- C. The Contractor is to install concrete thrust blocks as outlined in the thrust block detail to secure all changes in direction or dead ends of all mainline pipe. The Contractor is to use rebar as needed if necessary to insure the stability of the pipe. Where concrete thrust blocks cannot be installed against continuous native subgrade, the Contractor is to install ductile iron mechanical joint restraints as manufactured by LEEMCO, or approved equal. No bending, or curving of pipe will be allowed, except as permitted by the pipe manufacturer. Pipe manufacturer must be approved prior to ordering materials.
- D. Where piping on the plans is shown under paved areas, but is running parallel and adjacent to planted areas, the intent of the plans is to install the piping in the planted area, except where specifically noted to be installed below hardscaped surface. PVC Schedule 40 sleeves are to be used with all pipe and wire installed under hardscaped surfaces.

### **PIPELINE FITTINGS**

- A. Fittings:
  - 1. For PVC solvent weld plastic pipe: PVC Schedule 40 / 80 socket fittings (ASTM A2564, D2466, D2464 & D2467), Type 1, Grade 1. All fittings not specifically noted as PVC Schedule 80 type in the specifications or irrigation details are to be PVC schedule 40 type.
  - 2. For connections between mainlines and remote control valves: Schedule 80 PVC fittings and nipples (threaded both ends), see Irrigation Installation Details.
  - 3. When connection is plastic to metal, Schedule 80 TOE nipple shall be used.
  - 4. Teflon tape shall be used on all small diameter (½" to 3") threaded connections. No liquid or paste pipe

thread sealants are allowed.

- B. Solvent Weld Adhesive: Weld-On cement & primer appropriate for size & type of pipe and fittings. See manufacturer's instructions and recommendations. Note weather and temperature limitations for use. Use primer for all joints, mainline and lateral pipe connections.

## **BUBBLERS**

Rainbird RWS-B-1402 Root Watering System or approved equivalent.

## **VALVES/CONTROL WIRE**

- A. Remote Control Valves: Rainbird 1" Remote Control Valve #100-PESB-PRS-D valves operated by DC latching solenoid, normally closed, with manual flow adjustment. Sizes and types as shown on drawings. Low voltage electrical connections to valves shall have a 24" coiled loop to each valve in valve box, see details. Valves shall be installed in a concrete valve box with concrete bolt down lid. Install one valve per valve box, no exceptions.
- B. Control Wire: Single strand Copper, UL approved for direct burial, minimum size #14-1 (hot wires) & #12-1 (common wires) rated for 600 volts as manufactured by Paige Electric, or approved equal. Common wire to be white/green, control wire to be red/yellow, spare hot to be black, spare common to be blue. All low voltage valve wiring is to be installed adjacent to pipe and taped into bundles at ten (10'-0") foot intervals. Wiring is to be neatly organized and loosely laid in trench and not stretched or pulled tight with expansion coils (24") at all changes in direction. All low voltage "hot" wiring is to be continuous, between the valve location and the irrigation controller. Low voltage wire shall be color coded by controller.
- C. Control Wire Connectors: 3M DBY/DBR Direct Bury Splice Kit and Scotchlok "Y" Connectors.
- D. Control Wire Marking: T. Christy Enterprise, Inc. Waterproof Irrigation I.D. Tag or approved equal (714) 771-4172.
- E. Control Valve Boxes: Christy concrete valve boxes with concrete bolt down lids, or approved equal. See Irrigation Details for model numbers and sizes.

## **CONTROLLERS**

Hunter Node-200 2-Station 9V Battery Operated Irrigation Controller, or approved equivalent. The installation shall be in accordance with the manufacturer's instructions and recommendations. All electrical connections to the controller shall be the responsibility of the Contractor and shall be UL approved and meet all applicable codes and regulations. All wiring from the electrical source to controller shall be installed in UL approved electrical conduit. Contractor is responsible for training up to four persons appointed by the City in the operation of the controller.

## **VALVE BOXES**

All valves, manual or automatic shall have a valve box, set flush with grade. All valve boxes shall be of concrete construction with concrete bolt down lids. Valve boxes are to be manufactured by Christy, or approved equal. A maximum of one (1) valve per valve box is allowed, no exceptions. Placement of the valves within the valve boxes shall allow for proper servicing and maintenance space or the installation will be rejected.

## **FILTER**

Rainbird QKCHK-100 Quick-Check Basket Filter or Approved Equal.

## **BACKFLOW PREVENTER**

Febco Series 1" 825YA Horizontal Reduced Pressure Assembly, Inline Configuration, Outside Installation.

## **BACKFLOW PREVENTER ENCLOSURE**

Refer to Landscape/Irrigation Plans for Backflow Preventer Enclosure Schedule.

## **FROST GUARD BLANKET**

Guard Shack Frost Guard Blanket.

## **OTHER MATERIALS**

- A. Materials not specifically indicated but necessary for proper execution of this work shall be of the first quality as selected by the Contractor subject to the acceptance of Engineer.
- B. All materials appearing in the legend and details of the irrigation drawings are part of this job. Contractor is responsible for installation according to drawings and details. The system shall efficiently and uniformly irrigate all areas and perform as required by these plans and specifications.

## **PART 3 EXECUTION**

### **EXAMINATION**

- A. Verify location of existing utilities.
- B. Verify that required utilities are available, in proper location, and ready for use.

### **PREPARATION**

- C. Piping layout indicated is diagrammatic only. Route piping to avoid trees, and structures.
- D. Layout and stake locations of system components.
- E. Review layout requirements with other affected work.

### **TRENCHING**

- A. Trench and backfill in accordance with Section 02315 and Section 02316.
- B. Trench Size: One foot (1') Minimum width required.
- C. Trench to accommodate grade changes.
- D. Maintain trenches free of debris, materials or obstructions that may damage pipe.

### **INSTALLATION**

- A. Install pipe, valves, controls, and outlets in accordance with manufacturer's instructions.
- B. Connect to utilities.
- C. Set outlets and box covers at finish grade elevation.
- D. Provide for thermal movement of components in system.
- E. After piping is installed, but before outlets are installed and backfilling commences, open valves and flush system with full head of water.

### **ADJUSTING**

- A. Adjust control system to achieve time cycles required.
- B. Adjust head types for full water coverage as directed.

### **DEMONSTRATING**

Instruct Owner's personnel in operation and maintenance of system, including adjustment of sprinkler heads. Use operation and maintenance material as basis of demonstration.

## **END OF SECTION**

## **SECTION 02870 - SITE FURNISHING**

### **PART 1 GENERAL**

#### **REFERENCES**

- A. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
- B. ASTM A283 - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates; 2007.
- C. ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength; 2010.
- D. ASTM A325M - Standard Specification for High-Strength Bolts for Structural Steel Joints (Metric); 2009.
- E. ASTM A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2010a.
- F. AWS D1.1 - Structural Welding Code - Steel; American Welding Society; 2004.

#### **SUBMITTALS**

- A. See Section 01300 – Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product specified, including detailed installation diagrams and recommended installation methods.
- C. Selection Samples: Two complete color charts representing manufacturer's full range of available colors.

### **PART 2 PRODUCTS**

See Appendix C

#### **MANUFACTURERS**

- A. Acceptable Manufacturers:
  - 1. DuMor Site Furnishings.; Mifflintown, PA 17059-0142; Tel: 800-598-4018 or 717-436-2106. Fax: 717-436-9839; <http://www.dumor.com>.
  - 2. Patterson Williams (PW) Athletic Manufacturing Co.; Mesa, AZ 85203; Tel: 886-710-3390; <http://www.pwathletic.com>.
  - 3. Approved Equal.
- B. Substitutions: See Section 01600 - Product Requirements.

#### **MATERIALS**

- A. Steel Structural Supports:
  - 1. Steel Tubing: ASTM A500, Grade B cold-formed structural tubing.
  - 2. Steel Plate: ASTM A283/A283M.
  - 3. Steel Pipe: ASTM A53, Grade B Schedule 40, hot-dip galvanized finish.
  - 4. Bolts, Nuts, and Washers: ASTM A325 (ASTM A325M).
- B. Welding Materials: AWS D1.1; type required for materials being welded.

#### **SITE FURNISHINGS**

- A. Steel Benches:
  - 1. Manufacturer:
    - i. Dumor, Inc.
  - 2. Product:
    - i. 6' Steel Bench without Center Arm Rest.
    - ii. Model: 19-60
    - iii. Color: Black.
  - 3. Installation:
    - i. Surface Mount.
  - 4. Additional Details:
    - i. Product purchased by others.
    - ii. Pick up location:
      - (1) City of Coalinga Public Works Equipment Yard
      - (2) 135 E. Sacramento St., Coalinga, CA 93210
      - (3) Coordinate with City of Coalinga Project Representative for yard access.
- B. Picnic Table:

1. Manufacturer:
    - i. Dumor, Inc..
  2. Product:
    - i. 8' Steel ADA Picnic Table, 2 Benches
    - ii. Model: 443-558-1/S-2
    - iii. Color: Black.
  3. Installation:
    - i. Surface Mount.
  4. Additional Details:
    - i. Product purchased by others.
    - ii. Pick up location:
      - (1) City of Coalinga Public Works Equipment Yard
      - (2) 135 E. Sacramento St., Coalinga, CA 93210
      - (3) Coordinate with City of Coalinga Project Representative for yard access.
- C. Trash Receptacle:
1. Manufacturer:
    - i. Dumor, Inc..
  2. Product:
    - i. 32-Gallon Steel Receptacle with Shield
    - ii. Model: 158-32SH-FTO
    - iii. Color: Black.
  3. Additional Details:
    - i. Product purchased by others.
    - ii. Pick up location:
      - (1) City of Coalinga Public Works Equipment Yard
      - (2) 135 E. Sacramento St., Coalinga, CA 93210
      - (3) Coordinate with City of Coalinga Project Representative for yard access.
  4. Installation:
    - i. Surface Mount.
- D. Concrete Benches:
1. Manufacturer:
    - i. Majestic Fountains and More
  2. Product:
    - i. Horned Toad Garden Bench by Phoenix Precast
    - ii. SKU: HTB
  3. Installation:
    - i. Surface Mount.
  4. Additional Details:
    - i. Product purchased by others.
    - ii. Pick up location:
      - (1) City of Coalinga Public Works Equipment Yard
      - (2) 135 E. Sacramento St., Coalinga, CA 93210
      - (3) Coordinate with City of Coalinga Project Representative for yard access.
- E. Permanent Sign:
1. Manufacturer:
    - i. A-Plus Signs
  2. Product:
    - i. Permanent Pre-Fab Posts and Panel
  3. Installation:
    - i. Panel to posts and posts in concrete foundation in-ground.
  4. Additional Details:
    - i. Product purchased by others.
    - ii. Pick up location:
      - (1) City of Coalinga Public Works Equipment Yard
      - (2) 135 E. Sacramento St., Coalinga, CA 93210
      - (3) Coordinate with City of Coalinga Project Representative for yard access.
- F. Solar Lights:
1. Manufacturer:
    - i. Fonroche Lighting America

2. Product:
    - i. City of Coalinga - Solar Off-Street Decorative Light
    - ii. Model: T54-CK16B-4K-T4
    - iii. Color: Black.
  3. Installation:
    - i. Surface mounted on above ground foundation, see plans for details.
    - ii. Installation Instructions provided on pallet.
  4. Additional Details:
    - i. Product purchased by others.
    - ii. Pick up location:
      - (1) City of Coalinga Public Works Equipment Yard
      - (2) 135 E. Sacramento St., Coalinga, CA 93210
      - (3) Coordinate with City of Coalinga Project Representative for yard access.
- G. Irrigation Controller:
1. Manufacturer:
    - i. Hunter or engineer approved equal
  2. Product:
    - i. MP Rotator Nozzles Node-200 2 Station.
    - ii. Model: Standard MP Rotator Nozzle
    - iii. Model #: MP-1000-90.
  3. Installation:
    - i. Surface Mount.
  4. Additional Details:
    - i. All labor, supervision, equipment, materials, furnishing and installing by Contractor.
- H. Floor Drains
1. Manufacturer:
    - i. Blucher; A WATTS Brand or engineer approved equal
  2. Product:
    - i. Steel Adjustable Shower Drain
    - ii. Model: 110.300.075 - Square
  3. Installation:
    - i. Surface mounted prior to concrete and epoxy floor installation into sewer underground plumbing
- I. Storm Drain Inlet
1. Manufacturer:
    - i. Jensen Precast or engineer approved equal
  2. Product:
    - i. Traffic Valve Box
    - ii. Model: HTV10-5
  3. Installation:
    - i. Surface Mounted to connect to underground storm drains on sides or bottom, see plans for details.

## **FABRICATION**

Shop assemble site furnishings for delivery to site in units easily handled and to permit shipment without disassembly.

## **PART 3 EXECUTION**

### **EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Owner's Representative of City of unsatisfactory preparation before proceeding.

### **INSTALLATION**

Install in accordance with manufacturer's instructions.

### **PROTECTION**

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products after Substantial Completion.

**END OF SECTION**

# **SECTION 02896 - CONSTRUCTION SURVEYS AND STAKING (By Contractor)**

## **PART 1 GENERAL**

### **RELATED SECTIONS**

State of California Department of Transportation Surveys Manual

### **SUBMITTALS**

- E. Name, qualifications and experience of individuals to be assigned to the survey tasks prior to performing any construction survey or staking tasks.
- F. Contractor Staking Requests twenty-four (24) hours prior to performing staking.
- G. Staking Notes (Cut Sheets) within twenty-four (24) hours of performing staking.
- H. As Built Plans.
- I. See Section 01300 - Administrative Requirements for submittal procedures.

### **PROJECT CONDITIONS**

- A. Verify that survey benchmarks and intended elevations for the work are as indicated.
- B. Protect plants, lawns and other features to remain.
- C. Protect benchmarks, survey control points, existing structures, fences, sidewalks, paving and curbs from survey equipment and vehicular traffic.

### **PROVIDED MATERIAL**

- A. The Design Engineer will identify and confirm the horizontal control points and benchmarks shown on the plans and provide that information to the Contractor.
- B. AutoCAD files will be provided to the Contractor upon request after signing an indemnification form and a fee of \$100.00 is paid to the Design Engineer.

## **PART 2 PRODUCTS**

### **MATERIALS**

- A. Hubs shall be 1 ½ inch x 1 ½ inch x 16-inch oak.
- B. Witness stakes shall be 1-inch x 1-inch x 36-inch oak or other hardwood.
- C. Field notebooks.
- D. All equipment necessary to perform the work specified.

### **EQUIPMENT**

- A. Equipment for construction surveys shall be of a quality and condition to provide the required accuracy.
- B. The equipment shall be maintained in good working order and in proper adjustment at all times.
- C. Records of repairs, calibration tests, accuracy checks, and adjustments shall be maintained and be available for inspection by the Owner's Representative.
- D. Equipment shall be checked, tested, and adjusted as necessary in conformance with manufacturer's recommendations.

## **PART 3 EXECUTION**

### **FIELD QUALITY CONTROL**

- C. The location of all underground utilities shall be verified prior to performing staking.
  - 1. If any conflict is found with an existing underground utility and the proposed design it shall be brought to the immediate attention of the Owner's Representative. The Owner's Representative shall resolve any conflict

and inform the Contractor how to proceed.

2. Any staking done prior to verifying conflicts shall be at the expense of the Contractor and no payment shall be made for restaking.

## **QUALITY OF WORK**

- A. All work shall follow recognized professional practice and the standards of the industry.
- B. The work shall be performed to the accuracy and detail appropriate for the type of job.
- C. Notes, sketches, and other data shall be complete, recorded neatly, legible, reproducible and organized to facilitate ease in review and allow reproduction of copies for job documentation.
- D. All computations shall be mathematically correct and shall include information to identify the bid item, date, and who performed, checked, and approved the computations.
  1. Computations shall be legible, complete, and clearly document the source of all information used including assumptions and measurements collected.
- E. If a computer program is used to perform the computations, the Contractor shall provide the Owner's Representative with the software identification, vendor's name, version number, and other pertinent data before beginning survey activities.
  1. Computer generated computations shall show all input data including values assigned and assumptions made.
- F. The elevations of permanent and temporary benchmarks shall be determined and recorded to the nearest 0.01 foot.
- G. Differential leveling and transit traverses shall be of such precision that the error of vertical closure in feet shall not exceed plus or minus 0.1 times the square root of the traverse distance in miles.
- H. Linear measurements shall be accurate to within 1 foot in 5,000 feet.
- I. The angular error of closure for transit traverses shall not exceed 1 minute times the square root of the number of angles turned.
- J. The minimum requirements for placing slope stakes shall be at 100-foot stations for tangents, as little as 25 feet for sharp curves, breaks in the original ground surface and at any other intermediate stations necessary to ensure accurate location for construction layout and measurement.
  1. Slope stakes and cross sections shall be perpendicular to the centerline.
- K. Significant breaks in grade shall be determined for cross sections.
- L. Distances shall be measured horizontally and recorded to the nearest 0.1 foot.
- M. Side shots for interim construction stakes may be taken with a hand level.
- N. Measurements for stationing and establishing the location of structures shall be made to the nearest 0.1 foot.
- O. Elevations for concrete work, pipes, and mechanical equipment shall be determined and recorded to the nearest 0.01 foot.
- P. Elevations for earth work shall be determined and recorded to the nearest 0.1 foot.

## **PRIMARY CONTROL**

- A. The baselines and benchmarks for primary control, necessary to establish lines and grades needed for construction are shown on the drawings and have been located on the job site.
- B. These baselines and benchmarks shall be used as the origin of all surveys, layouts, and measurements to establish construction lines and grades.
- C. The Contractor shall take all necessary precautions to prevent the loss or damage of primary control points.
- D. Any stakes or control points lost or damaged by construction activity will be reestablished by the Contractor or at Contractor expense.

## **CONSTRUCTION SURVEYS**

Before work starts that requires Contractor performed surveys, the Contractor shall submit in writing for the Owner's Representative's review: the name, qualifications, and experience of the individuals to be assigned to the survey tasks.

## STAKING

- A. The construction staking required for the item shall be completed before work on any item starts.
- B. Construction staking shall be completed as follows:
  - 1. **Clearing and grubbing** — The boundary of the area(s) to be cleared and grubbed shall be staked or flagged at a maximum interval of 200 feet, closer if needed, to clearly mark the limits of work. When Contractor staking is the basis for determining the area for final payment, all boundary stakes will be reviewed by the Owner's Representative before start of this work item.
  - 2. **Excavation and fill** — Slope stakes shall be placed at the intersection of the specified slopes and ground line. Slope stakes and the reference stakes for slopes shall be marked with the stationing, required cut or fill, slope ratio, and horizontal distance from the centerline or other control line. The minimum requirements for placing slope stakes is outlined in Section: Quality of Work
  - 3. **Structures** — Centerline and offset reference line stakes for location, alignment, and elevation shall be placed for all structures.

## RECORDS

- A. All survey data shall be recorded in fully identified standard hard-bound engineering survey field notebooks with consecutively numbered pages.
- B. All field notes and printed data shall include the purpose or description of the work, the date the work was performed, weather data, sketches, and the personnel who performed and checked the work.
- C. Electronically generated survey data and computations shall be bound, page numbered, and cross referenced in a bound field notebook containing the index for all survey activities.
- D. All work shall follow recognized professional practice.
- E. The construction survey records shall be available at all times during the progress of the work for examination and use by the Owner's Representative and when requested, copies shall be made available.
- F. The original field notebooks and other records shall be provided to and become the property of the Owner before final payment and acceptance of all work.
- G. Complete documentation of computations and supporting data for progress payments shall be submitted to the Owner's Representative with each invoice for payment.

## END OF SECTION

## **SECTION 02930 - EXTERIOR PLANTS**

### **PART 1 GENERAL**

#### **REFERENCES**

- A. ANSI Z60.1 - American Standard for Nursery Stock; 2004.
- B. ANSI A300 - American National Standard for Tree Care Operations -- Tree, Shrub and Other Woody Plant Maintenance -- Standard Practices; most recent edition.
- C. Refer to Landscape/Irrigation Plans for Schedule Particulars.

#### **SUBMITTALS**

- A. See Section 01300 – Administrative Requirements for submittal procedures.
- B. Maintenance Data: Include cutting and trimming method; types, application frequency and recommended coverage of fertilizer.
- C. Submit list of plant life sources.

#### **QUALITY ASSURANCE**

- A. Nursery Qualifications: Company specializing in growing and cultivation the plants with three years documented experience.
- B. Installer Qualifications: Company specializing in installing and planting the plants with 1 year experience.
- C. Tree Pruner Qualifications: Company specializing in pruning trees with proof of Arborist Certification.
- D. Tree Pruning: NAA- Pruning Standards for Shade Trees.
- E. Maintenance Services: Performed by installer.

#### **REGULATORY REQUIREMENTS**

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of plants, fertilizer and herbicide mixture.
- C. Plant Materials: Certified by federal department of agriculture; free of disease or hazardous insects.

#### **DELIVERY, STORAGE AND HANDLING**

- A. Deliver fertilizer in waterproof bags showing weight, chemical analysis and name of manufacturer.
- B. Protect and maintain plant life until planted.
- C. Deliver plant life materials immediately prior to placement.
- D. Keep plants moist.

#### **ENVIRONMENTAL REQUIREMENTS**

- A. Do not install plant life when ambient temperatures may drop below 35°F (2°C) or rise above 90°F (32°C).
- B. Do not install plant life when wind velocity exceeds 30 MPH.

#### **WARRANTY**

- A. See Section 01780- Closeout Submittals, for additional warranty requirements.
- B. Provide 90 day warranty.
- C. Warranty: Include coverage for one continuous growing season; replace dead or unhealthy plants.
- D. Replacements: Plants of same size and species as specified, planted in the next growing season, with a new warranty commencing on date of replacement.

#### **MAINTENANCE SERVICE**

- A. Maintain plant life for three months after date of substantial completion.
- B. Maintain plant life immediately after placement and until plants are well established and exhibit a vigorous growing

condition. Continue maintenance until termination of warranty period.

C. Maintenance to include:

1. Cultivation and weeding plant beds and tree pits.
2. Applying herbicides for weed control in accordance with manufacturer's instructions. Remedy damage resulting from use of herbicides.
3. Remedy damage from use of insecticides.
4. Irrigating sufficient to saturate root system.
5. Pruning, including removal of dead or broken branches, and treatment of pruned areas or other wounds.
6. Disease control.
7. Maintaining Wrapping, guys, turnbuckles and stakes. Adjust turnbuckles to keep guy wires tight. Repair or replace accessories when required.
8. Replacement of mulch.

## **PART 2 PRODUCTS**

### **TREES, PLANTS, AND GROUND COVER**

Trees: 24-inch Box Pistacia Chinensis "Keith Davey" Chinese Pistache.

### **SOIL MATERIALS**

Topsoil: Fertile, agricultural soil, typically for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds and roots; minimum PH value of 5.4 to a maximum of 7.0.

### **SOIL AMENDMENT MATERIALS**

Refer to Landscape/Irrigation Plans for Soil Amendment Particulars.

### **ACCESSORIES**

- A. Wrapping Materials: Burlap.
- B. Stakes: Softwood lumber, pointed end.
- C. Cable, Wire, Eye Bolts and Turnbuckles: Non-Corrosive, of sufficient strength to withstand wind pressure and resulting movement of plant life.
- D. Plant Protectors: Rubber sleeves over cable to protect plant stems, trunks and branches.
- E. .

### **TOP SOIL**

A uniform mixture of 1 part peat and 3 parts topsoil by volume.

### **SOURCE QUALITY CONTROL AND TESTS**

- A. Section 01400- Quality Requirements: Provide analysis of topsoil.
- B. Provide testing of imported topsoil.
- C. Analyze to ascertain percentage of nitrogen, phosphorus, potash, soluble salt and organic matter and pH Value.
- D. Submit minimum 10 oz sample of topsoil proposed. Forward sample to testing laboratory in sealed containers to prevent contamination.
  1. Testing is not required if recent tests are available for imported topsoil. Submit there test results to the testing laboratory for approval. Indicate, by test results, information necessary to determine suitability.

## **PART 3 EXECUTION**

### **EXAMINATION**

- A. Verify that prepared subsoil and planters are ready to receive work.

- B. Saturate soil with water to test drainage.
- C. Verify that required underground utilities are available, in proper location and ready for use.

### **PREPARATION OF SUBSOIL**

- A. Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.
- C. Scarify subsoil to a depth of 3 inches where plants are to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.
- D. Dig pits and beds 6 inches larger than plant root system.

### **PLACING TOPSOIL**

- A. Spread topsoil to a minimum depth of 4 inches over area to be planted and rake smooth.
- B. Place topsoil during dry weather and on dry unfrozen subgrade.
- C. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage.
- D. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- E. Install topsoil into pits and beds intended for plant root balls, to a minimum thickness or 6 inches.

### **FERTILIZING**

- A. Apply fertilizer in accordance with manufacturer's instructions.
- B. Apply after initial raking of topsoil.
- C. Mix thoroughly into upper 2 inches of topsoil.
- D. Lightly water to aid the dissipation of fertilizer.

### **PLANTING**

- A. Place plants for best appearance.
- B. Place plants for best appearance for review and final orientation by Public Works Director of the City.
- C. Set Plants Vertical.
- D. Remove non-biodegradable root containers.
- E. Set plants in pits or beds, partly filled with prepared plant mix and a minimum depth of 6 inches under each plant. Remove burlap, ropes and wires from root ball.
- F. Place bare root plant materials so roots lie in a natural position. Backfill soil mixture in 6 inch layers. Maintain plant life in vertical position.
- G. Saturate soil with water when the pit or bed is half full of topsoil and again when full.

### **PLANT RELOCATING AND RE-PLANTING**

- A. Relocate plants as indicated by Public Works Director of the City.
- B. Replant plants in pits or beds, partly filled with prepared topsoil mixture at a minimum depth of 6 inches under each plant. Remove burlap, ropes and wires from the root ball.
- C. Place bare root plant materials so roots lie in a natural position. Backfill soil mixture in 6 inch layers. Maintain plant materials in vertical position.
- D. Saturate soil with water when the pit or bed is half full of topsoil and again when full.

### **PLANT SUPPORT**

Brace plants as show on the plans.

### **TREE PRUNING**

- A. Perform pruning of trees as recommended in ANSI A300.
- B. Prune newly planted trees as required to remove dead, broken and split branches.

## **FIELD QUALITY CONTROL**

- A. Perform field inspection and testing in accordance with Section 01400.
- B. Plants will be rejected if a ball of earth surrounding roots has been disturbed or damaged prior to or during planting.

## **MAINTENANCE**

- A. Neatly trim plants where necessary.
- B. Immediately remove clippings after trimming.
- C. Water to prevent soil from drying out.
- D. Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions.
- E. Apply pesticides in accordance with manufacturer's instructions.

## **END OF SECTION**

## **DIVISION 3 – CONCRETE**

### **SECTION 03050 - PORTLAND CEMENT CONCRETE**

#### **PART 1 GENERAL**

##### **REFERENCES**

- A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; current edition.
- B. ACI 305R - Hot Weather Concreting; American Concrete Institute International; current edition.
- C. ACI 306R - Cold Weather Concreting; American Concrete Institute International; current edition.
- D. ASTM A185 - Standard Specification for Welded Steel Wire Fabric, Plain, for Concrete Reinforcement; current edition.
- E. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; current edition.
- F. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; current edition.
- G. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; current edition.
- H. ASTM C173 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; current edition.
- I. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; current edition.
- J. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing; current edition.

##### **SUBMITTALS**

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on joint filler, admixtures, and curing compound.
- C. Design Data: Indicate mix design, pavement thickness, designed concrete strength, reinforcement, and typical details.

##### **QUALITY ASSURANCE**

- A. Perform work in accordance with State Standards.
- B. Obtain cementitious materials from same source throughout.
- C. Follow recommendations of ACI 305R when concreting during hot weather.
- D. Follow recommendations of ACI 306R when concreting during cold weather.

##### **ENVIRONMENTAL REQUIREMENTS**

- A. Do not place concrete when base surface temperature is less than 40 degrees F (4 degrees C).
- B. Do not place concrete when base surface is wet or frozen.

#### **PART 2 PRODUCTS**

##### **REINFORCEMENT**

- A. Reinforcing Steel: ASTM A615/A615M Grade 40 (300); deformed billet steel bars; unfinished finish.
- B. Welded Steel Wire Fabric: Plain type, ASTM A185; in flat sheets; unfinished.
- C. Dowels: ASTM A615/A615M Grade 40 (300); deformed billet steel bars; unfinished finish.
- D. Refer to the Appropriate Standard Construction Drawing Detail of the project drawings.

##### **CONCRETE MATERIALS**

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Provide in accordance with the State Standards.

## **CONCRETE MIX DESIGN**

- A. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.
- B. Refer to each applicable standard construction detail for required concrete mix design strength.

## **PART 3 EXECUTION**

### **EXAMINATION**

- A. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.

### **PREPARATION**

- A. Moisten base to minimize absorption of water from fresh concrete.
- B. Coat surfaces of manhole and catch basin frames with oil to prevent bond with concrete pavement.
- C. Notify the City' Representative minimum 24 hours prior to commencement of concreting operations.

### **FORMING**

- A. Place and secure forms to correct location, dimension, profile, and gradient.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. At the option of the Contractor, pavement shall be constructed with equipment utilizing stationary side forms or by the use of slip-form paving equipment.

### **REINFORCEMENT**

Place reinforcement as indicated.

### **PLACING CONCRETE**

- A. Place concrete in accordance with the State Standards.
- B. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- C. Place concrete continuously over the full width of the panel and between predetermined construction joints.
- D. Do not break or interrupt successive pours such that cold joints occur.
- E. Apply surface retarder to all exposed surfaces in accordance with manufacturer's instructions.

### **JOINTS**

Construct Contraction Expansion Joints true to line with faces perpendicular to surface of plane of concrete.

### **FINISHING**

- A. Area Paving: Light broom, texture perpendicular to pavement direction.
- B. Sidewalk Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge 1/4 inch (6 mm) radius.
- C. Curbs and Gutters: Light broom, texture parallel to pavement direction.
- D. Inclined Vehicular Ramps: Broomed perpendicular to slope.
- E. Place sealer on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.
  - 1. Any miscellaneous concrete construction shall be cured in accordance with any of the methods described in Section 90-7.01 except the curing compound, if used, shall be clear and non-pigmented.

### **TOLERANCES**

- A. Maximum Variation of Surface Flatness: 1/4 inch (6 mm) in 10 feet (3 m).
- B. Maximum Variation from True Position: 1/4 inch (6 mm).

### **FIELD QUALITY CONTROL**

Tests of concrete and concrete materials may be performed at any time to ensure conformance with specified requirements.

### **PROTECTION**

Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

### **END OF SECTION**

# **SECTION 03100 - CONCRETE FORMS AND ACCESSORIES**

## **PART 1 GENERAL**

### **DESIGN REQUIREMENTS**

Design, engineer and construct formwork, shoring and bracing to conform to design and code requirements; resultant concrete to conform to required shape, line and dimension.

### **SUBMITTALS: NOT USED**

## **PART 2 PRODUCTS**

### **WOOD FORM MATERIALS**

Form Materials: At the discretion of the Contractor.

### **PREFABRICATED FORMS**

Forms: At the discretion of the Contractor.

### **FORMWORK ACCESSORIES**

- A. Form Release Agent: Colorless mineral oil that will not stain concrete.
- B. Nails, Spikes, Lag Bolts, Through Bolts, and Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

## **PART 3 EXECUTION**

### **EXAMINATION**

- A. Verify lines, levels and centers before proceeding with formwork.
- B. Ensure that dimensions agree with drawings.

### **EARTH FORMS**

Earth forms are not permitted.

### **ERECTION – FORMWORK**

- A. Erect formwork, shoring and bracing to achieve design requirements in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork.
  - 1. Shore or strengthen formwork subject to overstressing by construction loads.
- C. Arrange and assemble formwork to permit dismantling and stripping.
  - 1. Do not damage concrete during stripping.
- D. Align joints and make watertight.
  - 1. Keep form joints to a minimum.
- E. Coordinate this section with other sections of work that require attachment of components to formwork.

### **APPLICATION – FORM RELEASE AGENT**

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent.
- D. Soak inside surfaces of untreated forms with clean water.
- E. Keep surfaces coated prior to placement of concrete.

## **INSERTS, EMBEDDED PARTS, AND OPENINGS**

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
- B. Locate and set in place items that will be cast directly into concrete.  
Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other work.
- C. Install accessories in accordance with manufacturer's instructions so they are straight, level, and plumb.
  - 1. Ensure items are not disturbed during concrete placement.
- D. Install water stops in accordance with manufacturer's instructions, so they are continuous without displacing reinforcement.
  - 1. Heat seal joints so they are watertight.
- E. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection.
  - 1. Locate openings at bottom of forms to allow flushing water to drain.
- F. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

## **FORM CLEANING**

- A. Clean forms as erection proceeds to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
  - 1. Flush with water or use compressed air to remove remaining foreign matter.
    - i. Ensure that water and debris drain to exterior through clean-out ports.
  - 2. During cold weather, remove ice and snow from within forms.
    - i. Do not use de-icing salts.
    - ii. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure.
    - iii. Use compressed air or other means to remove foreign matter.

## **FORMWORK TOLERANCES**

- A. Construct formwork to maintain tolerances required by ACI 301.
- B. Construct and align formwork for elevator hoistway in accordance with ASME A17.1.
- C. Camber slabs and beams in accordance with ACI 301.

## **FIELD QUALITY CONTROL**

Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and to verify that supports, fastenings, wedges, ties, and items are secure.

## **FORM REMOVAL**

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
- B. Loosen forms carefully.
- C. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- D. Store removed forms to prevent damage to form materials or to fresh concrete.
- E. Discard damaged forms.

## **END OF SECTION**

## **SECTION 03200 - CONCRETE REINFORCEMENT**

### **PART 1 GENERAL**

#### **SUBMITTALS**

- A. Manufacturer's Certificate: Certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.
- B. Buy America Certificate
- C. See Section 01300 - Administrative Requirements for submittal procedures.

#### **QUALITY ASSURANCE**

Perform work of this section in accordance with ACI 301.

### **PART 2 PRODUCTS**

#### **REINFORCEMENT**

- A. Reinforcing Steel Mat: ASTM A 704/A 704M, using ASTM A615/A615M Grade 40 (300) steel bars or rods, unfinished.
- B. Welded Steel Wire Fabric: ASTM A185, plain type.
  - 1. Flat Sheets.
  - 2. Mesh Size and Wire Gage: As indicated on drawings.
- C. Reinforcement Accessories.
  - 1. Tie Wire: Annealed, minimum 16 gage (1.5 mm).
  - 2. Chairs, Bolsters, Bar Supports, and Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

#### **FABRICATION**

Welding of reinforcement is not permitted.

### **PART 3 EXECUTION**

#### **PLACEMENT**

- A. Place, support and secure reinforcement against displacement.
  - 1. Do not deviate from required position.
- B. Conform to applicable code for concrete cover over reinforcement.

### **END OF SECTION**

**DIVISION 4 – MASONRY (NOT USED)**

**DIVISION 5 – METALS (NOT USED)**

**DIVISION 6 – WOOD AND PLASTICS (NOT USED)**

**DIVISION 7 – THERMAL AND MOISTURE PROTECTION (NOT USED)**

**DIVISION 8 – DOORS AND WINDOWS (NOT USED)**

## **DIVISION 9 – FINISHES**

### **SECTION 09410 - DETECTABLE WARNING SURFACE TILE**

#### **PART 1 GENERAL**

##### **DESCRIPTION**

This Section specifies furnishing and installing detectable warning surface tactile tile modules (cast-in place) where indicated.

##### **SUBMITTALS**

- A. Product Data: Submit manufacturer's literature describing products, installation procedures and routine maintenance.
- B. Samples for Verification Purposes: Submit two (2) tile samples minimum 6"x6" of the kind proposed for use.
- C. Shop drawings are required for products specified showing fabrication details, composite structural system, tile surface profile, sound on cane contact amplification feature, plans of tile placement including joints, and material to be used as well as outlining installation materials and procedure.
- D. Material Test Reports: Submit complete test reports from qualified accredited independent testing laboratories to qualify that materials proposed for use are in compliance with requirements and meet or exceed the properties indicated on the specifications. All tests shall be conducted on Detectable Warning Surface Tile (cast-in place) system as certified by a qualified independent testing laboratory.
- E. Maintenance Instructions: Submit copies of manufacturer's specified installation and maintenance practices for each type of Detectable Warning Surface Tile and accessory as required.
- F. See Section 01300 - Administrative Requirements for submittal procedures.

##### **QUALITY ASSURANCE**

- A. Provide Detectable Warning Surface Tiles (cast-in place) and accessories as produced by a single manufacturer with a minimum of three (3) years' experience in the manufacturing of Detectable Warning Surface Tiles (cast-in place).
- B. Installer's Qualifications:
  - 1. Engage an experienced Installer certified in writing by tactile manufacturer as qualified for installation who has successfully completed tile installations similar in material, design, and extent to that indicated for project.
- C. Installer's Qualifications: Engage an experienced Installer certified in writing by Detectable Warning Surface Tile manufacturer as qualified for installation, who has successfully completed installations similar in material, design, and extent to that indicated for Project.
- D. Americans with Disabilities Act (ADA): Provide Detectable Warning Surface Tiles (cast-in place) which comply with the detectable warnings on walking surfaces section of the Americans with Disabilities Act (Title III Regulations, 28 CFR Part 36 ADA STANDARDS FOR ACCESSIBLE DESIGN, Appendix A, Section 4.29.2 DETECTABLE WARNINGS ON WALKING SURFACES).
- E. California Code of Regulations (CCR): Provide only approved DSA-AC detectable warning products as provided in the California Code of Regulations (CCR) Title 24, Part 2, Section 205 definition of "Detectable Warning". Section 1117A.4 and 1127B.5 for "Curb Ramps" and Section 1133B.8.5 for "Detectable Warnings at Hazardous Vehicular Areas."

##### **DELIVERY, STORAGE AND HANDLING**

- A. Detectable Warning Surface Tiles (cast-in place) shall be suitably packaged or crated to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy plastic wrappings to protect tile from concrete residue during installation and tile type shall be identified by part number.
- B. Detectable Warning Surface Tiles (cast-in place) shall be delivered to location at building site for storage prior to installation.

## **SITE CONDITIONS**

- A. Environmental Conditions and Protection: Maintain minimum temperature of 40°F in spaces to receive Detectable Warning Surface Tiles (cast-in place) for at least 24 hours prior to installation, during installation, and for not less than 24 hours after installation.
- B. The use of water for work, cleaning or dust control, etc. shall be contained and controlled and shall not be allowed to come into contact with the general public. Provide barricades or screens to protect the general public.
- C. Disposal of any liquids or other materials of possible contamination shall be made in accordance with federal state and local laws and ordinances.
- D. Cleaning materials shall have code acceptable low VOC solvent content and low flammability if used on the site.

## **GUARANTEE**

Detectable Warning Surface Tiles (cast-in place) shall be guaranteed in writing for a period of five (5) years from date of final completion. The guarantee includes defective work, breakage, deformation, fading and loosening of tiles.

## **PART 2 PRODUCTS**

### **MANUFACTURERS**

- A. Available Manufacturers:
  - 1. Armorcast Products Company, 13230 Saticoy Street, North Hollywood, CA 91605. Phone (818) 982-3600, Fax (818) 982.7742.
  - 2. Armor Tile Tactile Systems by Engineered Plastics Inc., 300 International Drive Suite 100, Williamsville, Ny 14331. Phone (800) 682-2525.
  - 3. Approved Equal.

### **MATERIALS**

- A. Detectable Warning Surface Tile (cast-in place):
  - 1. Durable, slip-resistant material having a surface texture composed of raised truncated domes with a diameter of nominal 0.9 inch at the base tapering to 0.45 inch at the top, a height of nominal 0.2 inch, and a center-to-center spacing of nominal 2.35 inches. "Nominal" as used here shall be in accordance with California State Referenced Standards Code Sections 12-11A and B-102.
  - 2. Contrast visually with adjoining surfaces, either light on dark or dark on light. The material used to provide contrast shall be an integral part of the walking surface.
  - 3. Color yellow conforming to Federal Color No. 33538. The color shall be homogeneous throughout the tile.

## **PART 3 EXECUTION**

### **INSTALLATION**

- A. Per Manufacturer's Instructions and as follows:
  - 1. Detectable Warning Surface Tile (cast-in place) shall be laid so that the center aligns with a straightedge placed both perpendicular and parallel with the direction of travel. Dome Alignment may not differ by more than ¼-inch.
  - 2. Detectable Warning Surface Tile (cast-in place) shall be located so that the edge nearest the curb line is 6 inches minimum and 8 inches maximum from the face of curb line.
  - 3. Domes shall be aligned on a square grid, aligned in rows parallel and perpendicular to the predominant direction of travel. Domes must not be skewed diagonally to the direction of travel.

### **CLEANING AND PROTECTING**

- A. Protect tiles against damage during construction period to comply with Tactile Tile manufacturer's specification.
- B. Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood.
- C. Clean Tactile Tiles not more than four days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean Tactile Tile by method specified by Tactile Tile manufacturer

D. Comply with manufacturers maintenance manual for cleaning and maintaining tile surface and it is recommended to perform annual inspections for safety and tile integrity.

## **END OF SECTION**

**DIVISION 10 – SPECIALTIES (NOT USED)**  
**DIVISION 11 – EQUIPMENT (NOT USED)**

## DIVISION 12 – FURNISHINGS

### SECTION 120000 – DuMor Bench Model 19

#### SECTION-1 – GENERAL

##### 1.1 SUMMARY

- a. This section includes the following:
  - i. **Benches (Model 19)**

##### 1.2 QUALITY ASSURANCE

- a. **Installer Qualification:** An experienced installer who has completed installation of site furnishings and whose work has resulted in construction with a record of successful in-service performance.
- b. **Manufacturer Qualifications:** Experienced site furniture manufacturer since 1984.

##### 1.3 SUBMITTALS

- a. **Product Data:** Include physical characteristics such as shape, dimensions and finish for each bench.
- b. **Shop Drawings:** Provide installation details for each product.
- c. **Samples for Verification:** For the following product, show the color of the powder coat finish.
- d. **Maintenance Data:** For each product.
  - i. Provide recommended methods for repairing damage and abrasions to the powder coat finish.

##### 1.4 DELIVERY, STORAGE, AND HANDLING

- a. Store products in original undamaged packaging in a dry location until ready for installation.
- b. Handle powder coated products with care to prevent any damage to the finish.

##### 1.5 WARRANTY

- a. All products manufactured by DuMor, Inc., are warranted against defect in materials and/or workmanship and in accordance with our published specifications. DuMor, Inc. further warrants our products as follows:
  - i. Limited twenty-year warranty against structural failure of all steel bench frames or complete steel bench assemblies, table frames, litter receptacle frames, steel planters and all cast iron and aluminum bench support.
  - ii. Limited five-year warranty against structural failure of wood slats.
  - iii. Limited ten-year warranty against structural failure of recycled plastic. It is further warranted not to degrade, split, crack or splinter during this period.
  - iv. Limited three-year warranty on structural failure of all bike racks.
  - v. Limited one-year warranty on any item not specifically discussed above.

#### SECTION-2 - PRODUCTS

##### 2.1 ACCEPTABLE MANUFACTURERS

- a. Provide products from the following manufacturer:
  - i. DuMor Inc.  
138 Industrial Circle  
Mifflintown, PA 17059  
Phone: 800-598-4018  
Fax: 717-436-9839  
Email: sales@dumor.com

## 2.2 BENCHES - DuMor Model 19 Series

- A. Materials:
  - a. Supports:
    - i. End Supports shall be ASTM A48 Class 30 cast iron.
  - b. Seat Assembly:
    - i. Seat straps shall be manufactured from 5/8" diameter ASTM A36 steel round bar.
    - ii. Contour straps shall be manufactured from 3/8" thick ASTM A36 steel plate.
    - iii. Pipe brace shall be manufactured from 3/4" (1 1/16" OD) ASTM A500 schedule 40 steel tubing.
  - c. Intermediate armrests (optional):
    - i. Intermediate armrests shall be manufactured from ASTM A48 Class 30 cast iron.
  - d. Anchoring:
    - i. Stainless steel expansion anchors (1/2" x 3 3/4") provided.
- B. Dimensions
  - a. 6 foot bench
    - i. Overall: 74 1/4" long x 27 9/16" deep x 31 11/16" high
  - b. 8 foot bench
    - i. Overall: 98 1/4" long x 27 9/16" deep x 31 11/16" high
- C. Finish:
  - a. Powder Coating
    - i. All parts are processed through an 8-stage iron phosphorous wash system.
    - ii. Parts are coated with a zinc-rich epoxy primer to an AVERAGE of 4-5 mils.
    - iii. Parts are then finished with a top coat of TGIC-polyester powder to an AVERAGE of 4-5 mils.
    - iv. Powder is cured at the powder manufacturers specifications using combination of infrared and convection heat for approximately 20 minutes.
    - v. Finished parts shall comply with the following American Standard Test Method (ASTM) for coating and coating method: ASTM-D-523, ASTM-D-3363, ASTM-D-1737, ASTM-D-3359, ASTM-D-2794, ASTM- B-117 and ASTM-D-3451.

## SECTION-3 – EXECUTION

### 3.1 INSTALLATION

- a. Handle and install benches according to manufacturer's recommendations and installation instructions.
- b. Some assembly required.

# SECTION 120001 – DuMor Table Model 443

## SECTION-1 – GENERAL

### 1.1 SUMMARY

- a. This section includes the following:
  - i. **Table (Model 443)**

### 1.2 QUALITY ASSURANCE

- a. **Installer Qualification:** An experienced installer who has completed installation of site furnishings and whose work has resulted in construction with a record of successful in-service performance.
- b. **Manufacturer Qualifications:** Experienced site furniture manufacturer since 1984.

### 1.3 SUBMITTALS

- a. **Product Data:** Include physical characteristics such as shape, dimensions and finish for each bench
- b. **Shop Drawings:** Provide installation details for each product.
- c. **Samples for Verification:** For the following product, show the color of the powder coat finish.
- d. **Maintenance Data:** For each product.
  - i. Provide recommended methods for repairing damage and abrasions to the powder coat finish.

### 1.4 DELIVERY, STORAGE, AND HANDLING

- a. Store products in original undamaged packaging in a dry location until ready for installation.
- b. Handle powder coated products with care to prevent any damage to the finish.

### 1.5 WARRANTY

- a. All products manufactured by DuMor, Inc., are warranted against defect in materials and/or workmanship and in accordance with our published specifications. DuMor, Inc. further warrants our products as follows:
  - i. Limited twenty-year warranty against structural failure of all steel bench frames or complete steel
  - ii. bench assemblies, table frames, litter receptacle frames, steel planters and all cast iron and aluminum bench support.
  - iii. Limited five-year warranty against structural failure of wood slats.
  - iv. Limited ten-year warranty against structural failure of recycled plastic. It is further warranted not to degrade, split, crack or splinter during this period.
  - v. Limited three-year warranty on structural failure of all bike racks.
  - vi. Limited one-year warranty on any item not specifically discussed above.

## SECTION-2 - PRODUCTS

### 2.1 ACCEPTABLE MANUFACTURERS

- a. Provide products from the following manufacturer:
  - i. DuMor Inc.  
138 Industrial Circle  
Mifflintown, PA 17059  
Phone: 800-598-4018  
Fax: 717-436-9839  
Email: sales@dumor.com  
Website: www.dumor.com

## 2.2 TABLES - DuMor Model 443 Series

- A. Materials:
  - a. Supports:
    - i. Bench end supports shall be ASTM A48 Class 30 cast iron.
    - ii. Table supports shall be manufactured from 1" x 2" ASTM A36 steel flat bar.
  - b. Seat Assembly
    - i. Seat straps shall be manufactured from 1/4" x 1 1/2" ASTM A36 carbon steel flat bar.
    - ii. Support pipes shall be manufactured from 2" (2 3/8" OD) ASTM A513 schedule 40 steel tubing.
    - iii. Pipe brace shall be manufactured from 3/4" (1 1/16" OD) ASTM A500 schedule 40 steel tubing.
  - c. Table Assembly:
    - i. Table straps shall be manufactured from 1/4" x 1 1/2" ASTM A36 carbon steel flat bar.
    - ii. Support pipes shall be manufactured from 2" (2 3/8" OD) ASTM A513 schedule 40 steel tubing.
    - iii. Pipe brace shall be manufactured from 3/4" (1 1/16" OD) ASTM A500 schedule 40 steel tubing.
  - d. Anchoring:
    - i. Stainless steel expansion anchors (1/2" x 3 3/4") provided.
- B. Dimensions
  - a. 6 foot table
    - i. Overall: 74 1/4" long x 83 3/4" deep x 30" high
  - b. 8 foot table
    - ii. Overall: 98 1/4" long x 83 3/4" deep x 30" high
  - c. Wheelchair accessible table:
    - iii. Overall: 97 1/2" long x 83 3/4" deep x 30" high
- C. Finish:
  - a. Powder Coating
    - i. All parts are processed through an 8-stage iron phosphorous wash system.
    - ii. Parts are coated with a zinc-rich epoxy primer to an AVERAGE of 4-5 mils.
    - iii. Parts are then finished with a top coat of TGIC-polyester powder to an AVERAGE of 4-5 mils.
    - iv. Powder is cured at the powder manufacturers specifications using combination of infrared and convection heat for approximately 20 minutes.
    - v. Finished parts shall comply with the following American Standard Test Method (ASTM) for coating and coating method: ASTM-D-523, ASTM-D-3363, ASTM-D-1737, ASTM-D-3359, ASTM-D-2794, ASTM B-117 and ASTM-D-3451.

## SECTION-3 – EXECUTION

### 3.1 INSTALLATION

- a. Handle and install products according to manufacturer's recommendations and installation instructions.
- b. Some assembly required.

## **SECTION 120100 – MP Rotator® Nozzle**

### **Part 1 – General**

1.1 The MP Rotator is a high-efficiency, multi-stream, multi-trajectory rotary nozzle designed with a viscous drive for rotation. The multiple streams shall allow for a slow application of water without misting at a high distribution uniformity.

- a. MP Rotator Standard Nozzles, designated by a black canister, shall have a matched precipitation rate of approximately 0.4 in/hr (10 mm/hr) across any arc and radius to better match soil intake rates and prevent runoff.
- b. MP Rotator MP800 Nozzles, designated by a gray canister, shall have a matched precipitation rate of approximately 0.8 in/hr (20 mm/hr).
- c. MP Rotator Strip Nozzles shall target 5' (1.5 m) narrow strip spaces, with the precipitation rate dependent on the system layout.
- d. MP Rotator Nozzles shall have female threads for installation on male-threaded, pop-up sprinklers. Select models shall have a male-threaded option for installation on female-threaded, pop-up sprinklers.
- e. Each MP Rotator Nozzle shall have a filter screen to prevent internal system debris from entering the nozzle and a patented double-pop feature to prevent external debris from falling into the nozzle.
- f. Each MP Rotator Nozzle shall be color-coded for easy field identification.

### **Part 2 – Parts and Materials**

#### **2.1 Parts**

- A. MP Rotator Nozzles shall be available in the following options:
  - a. MP Rotator Standard Nozzles: approximately 0.4 in/hr (10 mm/hr) precipitation rate
    - i. MP-1000-90, MP-1000-210, MP-1000-360 for an 8' to 15' (2.5 m to 4.5 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - ii. MP-2000-90, MP-2000-210, MP-2000-360 for a 13' to 21' (4.0 m to 6.4 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - iii. MP-3000-90, MP-3000-210, MP-3000-360 for a 22' to 30' (6.7 m to 9.1 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - iv. MP-3500-90 for a 31' to 35' (9.4 m to 10.7 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - v. MP-CORNER for an 8' to 15' (2.5 m to 4.5 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
  - B. MP Rotator MP800 Nozzles: approximately 0.8 in/hr (20 mm/hr) precipitation rate
    - i. MP-800SR-90, MP-800SR-360 for 6' to 12' (1.8 m to 3.5 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - ii. MP-815-90, MP-815-210, MP-815-360 for 8' to 16' (2.5 m to 4.9 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - iii. MP-820-90, MP-820-210, MP-820-360 for 15' to 24' (4.6 m to 7.3 m) radius when operating at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
    - iv. at 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa)
- C. MP Rotator Strip Nozzles: precipitation rate dependent on layout
  - i. 1. MP-LCS-515, MP-RCS-515, MP-SS-530 for 5' (1.5 m) wide strip models

## 2.2 Materials

### A. Plastic material description

- i. The adjustable orifice shall be manufactured from polyurethane and acetal plastic materials for durability and adjustability.
- ii. The acetal material shall have UV stabilizers for outdoor applications.

### B. Metal component materials

- i. The radius adjustment screw, arc ring, spring, and internal collar shall be made of stainless steel.
- ii. The stator that drives the speed of rotation inside the silicone chamber shall be made of brass.

### C. Filter screen description

- i. Each MP Rotator Nozzle shall come with a detachable filter screen.
- ii. The filter screen shall be made of polypropylene.
- iii. The screen mesh (or micron) size shall be dependent on the MP Rotator Nozzle model.
  - a. 60 mesh (250 microns): MP-800SR-90
  - b. 40 mesh (420 microns): MP-1000, MP-2000, MP-CORNER, MP Strips, MP-800SR-360, MP-815
  - c. 20 mesh (840 microns): MP-3000, MP-3500, MP-820

### D. Color description

- i. Each MP Rotator Nozzle model shall have its own designated color scheme.
- ii. MP Rotator Standard Nozzles shall have a black canister and black top retainer.
  - a. MP-1000-90 (maroon), MP-1000-210 (light blue), MP-1000-360 (olive)
  - b. MP-2000-90 (black), MP-2000-210 (green), MP-2000-360 (red)
  - c. MP-3000-90 (blue), MP-3000-210 (yellow), MP-3000-360 (gray)
  - d. MP-3500-90 (tan)
  - e. MP-CORNER (turquoise)
- iii. MP Strip Nozzles shall have a black canister and black top retainer.
  - a. MP-LCS-515 (ivory), MP-RCS-515 (copper), MP-SS-530 (brown)
- iv. MP Rotator MP800 Nozzles shall have a gray canister and gray top retainer.
  - a. MP-800SR-90 (orange), MP-800SR-360 (lime green)
  - b. MP-815-90 (maroon), MP-815-210 (light blue), MP-815-360 (olive)
  - c. MP-820-90 (black), MP-820-210 (green), MP-820-360 (red)

### E. Nozzle threads

- i. Models MP-1000, MP-2000, MP-3000, MP-3500, MP-CORNER, MP Strips, MP-800SR, MP-815, and MP-820 shall be fit for installation in pop-up bodies having a  $\frac{5}{8}$ "-27 UNS male threaded stem at all common pop-up heights.
- ii. Models MP-1000-HT, MP-2000-HT, MP-3000-HT, MP Corner HT, and MP Strip HT shall be fit for installation in pop-up bodies having a  $\frac{5}{8}$ "-28 UNS female-threaded stem at all common pop-up heights.

### F. Viscous drive

- i. The viscous fluid used to maintain the rotation speed of the MP Rotator Nozzle shall be made of a silicone material.
- ii. The silicone chamber shall be sealed with EPDM rubber seals.
- iii. The brass stator inside the silicone chamber shall control the rotation speed.

## 2.3 Warranty

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- A. MP Rotator Nozzles shall have a warranty period of three years.

### Part 3 – Function and Operation

#### 3.1 Operating pressure

- i. A. MP Rotator Nozzles shall operate between 30 to 55 PSI (2.1 to 3.8 bar; 210 to 380 kPa).
- ii. B. The recommended operating pressure shall be 40 PSI (2.8 bar; 280 kPa).

#### 3.2 Flow rates

- i. A. Flow rates shall depend on the specific MP Rotator Nozzle model.
- ii. B. As the arc and radius are adjusted, the flow rate shall change to maintain approximate matched precipitation.

#### 3.3 Radius description

- i. The radius of throw shall depend on the specific MP Rotator Nozzle model.
- ii. At the recommended 40 PSI (2.8 bar; 280 kPa) operating pressure, full- or part-circle sprinklers shall be capable of radius reduction up to 25% using a stainless steel radius adjustment screw.
- iii. The radius reduction screw shall have a slip clutch mechanism to prevent internal damage if turned past the minimum or maximum radius settings.
- iv. The radius reduction screw shall reduce the pressure and flow upstream of the adjustable orifice, thereby maintaining stream integrity.

#### 3.4 Arc adjustment

- i. Depending on the model selected, the part-circle sprinkler shall have an infinitely adjustable arc from 45° to 105°, 90° to 210°, or 210° to 270° using the stainless steel arc ring.
- ii. The full-circle sprinkler shall irrigate a full 360°.
- iii. The 45° to 105° model shall not require coverage from adjacent sprinklers closer than 3' (1 m) from the head.
- iv. Arc adjustment shall be effective only while the sprinkler is popped up and shall be ineffective when the sprinkler is retracted.
- v. The adjustment mechanism shall have a ratcheting action to prevent internal damage when turned past the minimum or maximum arc limits.

#### 3.5 Application rate

- i. Models MP-1000, MP-2000, MP-3000, MP-3500, and MP-CORNER shall produce and maintain a matched precipitation rate no greater than 0.6 in/hr (15 mm/hr) throughout the arc adjustment range and radius adjustment range, with a radius reduction up to 25%, when spaced at 50% of the irrigated diameter.
- ii. Models MP-800SR, MP-815, and MP-820 shall produce and maintain a matched precipitation rate no greater than 1.0 in/hr (25 mm/hr) throughout the arc adjustment range and radius adjustment range, with a radius reduction up to 25%, when spaced at 50% of the irrigated diameter.
- iii. The precipitation rate of MP Rotator Strip Nozzles shall be dependent on layout, reaching approximately 0.5 in/hr (13 mm/hr) with triangular or single-row spacing and 1.0 in/hr (25 mm/hr) with rectangular spacing.

#### 3.6 Double-pop feature

- i. When installed in a pop-up sprinkler body, the MP Rotator Nozzle shall pop up after the body stem is fully extended; upon decreasing pressure, the rotor shall retract before the

retraction of the sprinkler body stem.

- ii. MP Rotator Nozzles shall pop up at approximately 15 PSI (1.0 bar; 100 kPa).

**DIVISION 13 – SPECIAL CONSTRUCTION (NOT USED)**  
**DIVISION 14 – CONVEYING SYSTEMS (NOT USED)**  
**DIVISION 15 – MECHANICAL (NOT USED)**

## **DIVISION 16 – ELECTRICAL**

### ***SECTION 16050 - ELECTRICAL BASIC MATERIALS AND METHODS***

#### **PART 1 GENERAL**

##### **REFERENCES**

- A. Construction Plans for schedule particulars.
- B. State Standards– Section 86: Electrical Systems.
- C. Appropriate State Standard Plans, City Standard Plans, and Details.

##### **SUBMITTALS**

- A. Manufacturer's printed Product Literature, including installation instructions.
- B. Record of all locations of concealed electrical components.
- C. Buy America Certificates.
- D. See Section 01300 - Administrative Requirements, for submittal procedures.

##### **QUALITY ASSURANCE**

Furnishing and installing lights shall conform to the provisions of the PG&E Green Book, the State Standards, State Standard Plans and these Specifications and Plans.

#### **PART 2 PRODUCTS**

##### **ELECTRICAL PULLBOX**

- A. Caltrans No. 3-1/2 or approved equal.

##### **ELECTRICAL CONDUIT**

2" Non-Metallic Schedule 40 PVC Conduit.

##### **UNDERGROUND WARNING TAPE**

4" wide plastic tape, detectable type colored red with suitable warning legend describing buried electrical lines.

##### **PULL ROPE**

A pull rope shall be installed in all conduits which are designated for future use. The pull rope shall be nylon or polypropylene with a minimum tensile strength of 500 pounds. At least two feet of pull rope shall be doubled back into the conduit at each termination.

#### **PART 3 EXECUTION**

##### **SITE PREPARATION**

According to Section 02200.

##### **SITE CLEARING**

According to Section 02230.

##### **TRENCHING FOR SITE UTILITIES**

According to Section 02317.

##### **CONCRETE INSTALLATION**


According to Section 03100 and 03200.

**END OF SECTION**

## APPENDIX A: PERMITS

- [SWRCB R-Factor Proof \(No Permit Required\)](#)

**SWRCB R-VALUE PROOF (PERMIT NOT APPLICABLE)**

 An official website of the United States government



MENU

## National Pollutant Discharge Elimination System (NPDES)

CONTACT US

SHARE   

# Rainfall Erosivity Factor Calculator for Small Construction

## Introduction

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- Submit your LEW through EPA's eReporting Tool <<https://www.epa.gov/npdes/submitted-notice-intent-noi-notice-termination-not-or-low-erosivity-waiver-lew-under>>



- List of states, Indian country, and territories where EPA is the permitting authority (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit-cover.pdf>>
- Construction Rainfall Erosivity Waiver Fact Sheet <<https://www.epa.gov/npdes/construction-rainfall-erosivity-waiver-fact-sheet>>
- Small Construction Waivers and Instructions (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-c-waivers.pdf>>

The R-factor calculation can also be integrated directly into custom applications using the R-Factor web service <<https://epa.gov/api-docs/>>.

## Steps to Calculate an R Factor for your Small Construction Project

- 1 Select the estimated start and end dates of construction by clicking the calendar icons below and using the dropdown calendar. The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**

**End Date:**

- 2 Locate your small construction project by entering the address in the search box or by clicking on the map.

**Location:**

**Search**





- 3 Click the "Calculate R Factor" button below.

### Calculate R Factor

## Facility Information

<b>Start Date:</b> 04/06/2026	<b>Latitude:</b> 36.1411
<b>End Date:</b> 05/01/2026	<b>Longitude:</b> -120.3629

## Calculation Results

### Rainfall erosivity factor (R Factor) = 0.926

A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. If you are located in an area where EPA is the permitting authority (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit-cover.pdf>>, you can submit a LEW through EPA's NPDES eReporting Tool (NeT) <<https://www.epa.gov/npdes/submitted-notice-intent-noi-notice-termination-not-or-low-erosivity-waiver-lew-under>>. Otherwise, contact your state permitting authority to

## APPENDIX B: LOCAL AGENCY CONSTRUCTION FORMS

### DOCUMENTS TO BE SUBMITTED PRE-CONSTRUCTION AND DURING CONSTRUCTION

- [City of Coalinga Business License Application](#)
- [City of Coalinga Construction Meter Application](#)
- [City of Coalinga Quality Assurance Program](#)
- [Work Delay Form](#)
- [Application for Payment \(G702/G703\)](#)
- [Form W-9 \(submit with first payment application\)](#)
- [Certificate of Construction Completion](#)

# ***City of Coalinga Business License Application***

CITY OF COALINGA  
BUSINESS LICENSE/  
HOME OCCUPATION APPLICATION  
155 W. Durian Street Coalinga, CA 93210  
Phone: (559) 935-1531 Fax: (559) 935-0995

Business Type: (Check all that apply)  
GENERAL (\$29.00)  
HOME OCCUPATION (\$100.00)  
CONTRACTOR (\$54.00)  
PROFESSIONAL (\$44.00)  
NON-PROFIT  
OTHER

BUSINESS NAME: \_\_\_\_\_

APPLICANT NAME: \_\_\_\_\_ BUSINESS PHONE# \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_

FEDERAL TAXPAYER I.D./S.S.#: \_\_\_\_\_ SALES TAX I.D.# \_\_\_\_\_

DESCRIBE BUSINESS ACTIVITY \_\_\_\_\_

FOR HOME OCCUPATION: PLEASE COMPLETE A QUESTIONNAIRE

OWNERSHIP STATUS: Sole Proprietor Corporation Partnership

OPENING DATE OF BUSINESS: \_\_\_\_\_

KIND OF BUSINESS: (Check all that apply)

Retail	Manufacturing	Contractor	Real Estate Leasing/Rentals
Wholesale	Services	Door to Door Solicitation	Financial/Insurance
Restaurant	Professional Office	Dental/Medical	Other _____

OWNER/MANAGER NAME: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

AFFIDAVIT: I declare, under penalty of making false affidavit, that this application is made by me, that I am authorized to make such an application, that to the best of my knowledge and belief, it is a true, correct and complete application made in good faith, pursuant to the provisions of the Business License Ordinance of the City of Coalinga.

\_\_\_\_\_  
Signature Date

**FOR HOME OCCUPATION APPLICANTS ONLY:**

AFFIDAVIT: I, the undersigned, hereby certify that I have read and understand the provisions attached pertaining to the establishment of a Home Occupation and agree that I will operate my business within the provisions prescribed by Sec. 9-2.3001 of the Coalinga Municipal Code:

\_\_\_\_\_  
Signature Date

**FOR OFFICIAL USE ONLY**

License No. _____	General _____	Planning _____
Date Received _____	Professional _____	Building _____
Paid _____	Contractor _____	Fire _____
Expiration _____	Home Occup. _____	Police _____
Home Occupation Approved by: _____	Date _____	
Business License Application Approved by: _____	Date _____	

## WORKER'S COMPENSATION DECLARATION

I hereby affirm, under penalty of perjury, one of the following declarations:

\_\_\_\_\_ I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided by Section 3700, for the duration of any business activities conducted for which this license is issued.

\_\_\_\_\_ I have and will maintain worker's compensation insurance, as required by Section 3700, for the duration of any business activities conducted for which this license is issued.

My worker's compensation insurance carrier, policy number, and expiration date are:

Carrier \_\_\_\_\_

Policy Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

\_\_\_\_\_ I certify that in the performance of any business activities for which this license is issued I shall not employ any person in any manner so as to become subject to the worker's compensation laws of California, and agree that if I should become subject to the worker's compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with the provisions of Section 3700.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Business Name \_\_\_\_\_ Telephone \_\_\_\_\_

Address \_\_\_\_\_

**WARNING:** Failure to secure worker's compensation coverage is unlawful and shall subject an employer to criminal penalties and civil fines up to \$100,000. In addition to the cost of compensation, damages as provided for in Section 3700 of the Labor Code, interest and attorney's fees.



## CITY OF COALINGA BUSINESS LICENSE INFORMATION

155 W. Durian  
Coalinga, CA 93210  
Phone: (559) 935-1531  
Fax: (559) 935-0995

*Thank you for your interest in conducting business with the City of Coalinga. Ordinance 546 of the City of Coalinga Code requires that any person who conducts, operates, or engages in any business activities within the city shall obtain a City of Coalinga business license. The term "business" shall include all activities engaged in or caused to be engaged in within this City with the object of gain, benefit or advantage, whether direct or indirect, to the taxpayer or to another or to others, but shall not include the services rendered by an employee to this employer or a casual or isolated transaction. "Engaging in Business" shall mean commencing, conducting or continuing in business and liquidating a business when the liquidators thereof hold themselves out to the public as conducting such business.*

All annual business tax certificates issued under Ordinance 546, except the first certificate issued to newly established businesses, shall be considered to be issued on January 1<sup>st</sup> of each year and shall expire on December 31<sup>st</sup> of the same year.

### **UPON THE SALE OR TRANSFER**

No certificate granted or issued under the Business Tax provisions of this article shall be in any manner transferred or assigned, or authorize any person other than the person named in the certificate to carry on the business therein named or to transact such business at any place other than the place or location therein named without the written consent of the Finance Director endorsed thereon. **At the time such certificate is assigned or transferred on the place of location for the carrying on of such business is changed, the person applying for such transfer or change shall pay to the Finance Department a fee of \$25.00 for each assignment or transfer.**

### **PENALTY FOR NONPAYMENT OF ANNUAL BUSINESS TAX**

Every annual business tax or registration fee renewal which is not paid on or before March 1<sup>st</sup> of each year, or within fifteen (15) days after commencing business for a newly established business, is hereby declared delinquent, and the Finance Department shall thereupon add to said business tax registration fee and collect a penalty of twenty-five (25) percent of the tax so delinquent. In addition to the penalties imposed, any person who fails to remit any business tax shall pay interest at the rate of one and one-half percent (1 ½%) per month.

### **DOCUMENTS REQUIRED TO OBTAIN A CITY LICENSE**

The following documents (if applicable to your business) are needed when submitting an application for a City license:

- Fictitious Name Statement- For information on how to file, contact the Fresno Co. Clerks Office
- Seller's Permit – For information on how to obtain a permit, contact the State of CA Dept of Tax and Fee Administration
- Worker's Compensation Insurance Certificate
- Health Department Inspection Report/License
- Copy of Contractor's License

### **TRANSFER, SALE OF BUSINESS OR NEW BUSINESS**

**(Does not apply to Home Occupation Businesses)**

***You are required to set up an inspection with the Building and Fire Department Inspector prior to operation of business. A business license will be issued upon approval of inspections.***

**NOTE: Neither the filing of an application nor payment of the license fee shall authorize a person to engage in or conduct business activities until such license has been granted.**

***City of Coalinga Construction Meter Application***

**CITY OF COALINGA  
PUBLIC WORKS DEPARTMENT  
UTILITIES DIVISION**

**Policy on Construction Water**

Effective Date: March 6, 2006

Policy Objective: It will be the policy of the City of Coalinga to allow the use of portable water for construction purposes within the City's Water service area, so far as the water and infrastructure is available.

Policy: The use of construction water, for any construction project related to the City of Coalinga or not and within the City's water service area, will come only after the appropriate forms have been filed and the preliminary fees paid by the proponent. Approvals for construction water must come from both the Public Works Department (PWD) and the Finance Department. The PWD will be responsible for establishing the method of water use measurement, collecting periodic water use data for billing purposes, delivering and receiving the water meter, if used, by the proponent at the Finance Office, the release of any deposit to the proponent, if deemed appropriate by the City. The Finance Department will be responsible for collecting all deposits and fees from the proponent, billing proponent for water use, returning any or partial deposit to the proponent when the job is complete. Construction water will only be allowed when the following conditions are met:

1. Proponent makes a written request for construction water to the Utilities Department, 155 W. Durian St., California, CA 93210. The request must include the name of the company, location of construction site; date when water is first needed, and approximate duration of the project. (Allow 2 weeks for prior notice for construction water and 2-3 working days for service)
2. An Application must be filed by the proponent, in person, at the City Administration Office, 155 W. Durian St., Coalinga, CA 93210.
3. Before full water service is established, the proponent will deposit \$ 1200.00 and pay \$ 75.00 set-up fee to the City of Coalinga, at the time of application.
4. -Within the next 2-3 business days, service for construction water will be established by the City for the proponent to use for the duration of the project. Set-up fees will not be refundable. Deposits will be refundable only when the meter is returned in a satisfactory condition, as determined by the City and when the water bill is paid in full as determined by the Finance Department.

The following rules will be followed by the proponent while using City of Coalinga Construction Water:

(Failure to follow any of these rules, as witnessed and verified by any citizen or employee, will result in the discontinuance of use of the water until measures are taken by the proponent and agreed to by the City. There will be no warning of these rules violations.)

- Construction water will only allowed into vehicles or new pipelines with the proper cross-connection provided by the proponent and approved by the City PWD.
- Only City owned water meters will be allowed for use to measure water.
- Only currently accepted fire hydrants on the City distribution system will be allowed to have construction water withdrawn. In specific cases outside the City where there are no hydrants, special arrangements will be made with the PWD. An additional deposit, set by the City, for each special arrangement will be made by the proponent for any modifications made to the City appurtenances.
- The City reserves the right to charge a monthly rental fee for any construction water meter. A rental fee of \$100.00 per month will be charged after ninety (90) calendar days from the date the construction water meter is obtained by the proponent. This fee will be added to the proponent's water usage bill. The City further reserves the right to determine when a rental fee will begin after the ninety (90) calendar days on a case by case basis.
- Water truck load counts will only be allowed when all City owned hydrant meters are in use by others. Specific arrangements for load counts must be made at the time of filing an application for construction water with the City.
- Once a hydrant meter is received by the proponent to use, it will be the proponent's responsibility to care for the meter until it is returned to the City.
- Only appropriate wrenches, spanner wrenches, will be allowed for the opening and closing of the fire hydrant valve. Any damage to the fire hydrant or appurtenance caused by use or misuse by the proponent will be repaired by the City at the expense of the proponent.
- Once a hydrant meter has been installed at a service location, it cannot be moved to another location until a written request is received from the proponent and approved by the PWD.
- At the conclusion of use, it will be the proponent's responsibility to return the meter to the City at 155 W. Durian St.
- The Utilities Department reserves the right to dictate where construction water will be withdrawn.

- It will be the proponent's responsibility to monitor and maintain a clean construction water withdrawal site. This shall include cleaning any City right-of-way affected by the use of construction water of mud and other debris. It will also affect any damage to curb and gutter or street caused by the proponents use of construction water.
  
- Proponent will exercise caution when withdrawing water through the hydrant in order to minimize any effects of water hammer caused by deliberation closing of the fire hydrant.

CITY OF COALINGA

Application: For Construction Water

Date: \_\_\_\_\_

User Information:

Name	_____	Billing Address:	_____
Address	_____		_____
	_____		_____
Phone	_____		_____
Fax	_____		_____

Location of Water Need (include map, if necessary):

\_\_\_\_\_  
\_\_\_\_\_

Duration of Use: \_\_\_\_\_  
Read City Construction Water Policy      YES \_\_\_      NO \_\_\_\_\_

Signature \_\_\_\_\_      Date \_\_\_\_\_

Utilities Department Use Only

- Metered \_\_\_\_\_      Load Count \_\_\_\_\_
- Meter Model \_\_\_\_\_      Serial# \_\_\_\_\_  
Initial Rding. \_\_\_\_\_      Final Rding \_\_\_\_\_
- If Load Count, Size (s) of truck(s) in gallons: \_\_\_\_\_
- Load Count to be received by \_\_\_\_\_  
Daily \_\_\_\_\_      Weekly \_\_\_\_\_      Monthly \_\_\_\_\_
- Adequate Cross-Connection for use      YES \_\_\_\_\_      NO \_\_\_\_\_  
Remedial action necessary \_\_\_\_\_
- Water use location: \_\_\_\_\_  
Special Requirements \_\_\_\_\_  
Fee Amount: \_\_\_\_\_
- Written request(s) to move water use location:  
\_\_\_\_\_  
\_\_\_\_\_
- End of job meter check-in:  
Meter received by: \_\_\_\_\_      Date: \_\_\_\_\_  
General Condition: \_\_\_\_\_  
Memo to Finance Office by: \_\_\_\_\_      Date: \_\_\_\_\_

Finance Office Use Only

- Dep./Con. Fee Paid: \_\_\_\_\_      Ck# \_\_\_\_\_      Date: \_\_\_\_\_
- Account Opened, Date: \_\_\_\_\_  
Account Closed, Date: \_\_\_\_\_
- Deposit Released      YES \_\_\_\_\_      NO \_\_\_\_\_  
Amount      \$ \_\_\_\_\_  
Warrant      \_\_\_\_\_      Date: \_\_\_\_\_

# **CITY OF COALINGA QUALITY ASSURANCE PROGRAM**

The purpose of this program is to provide assurance that the materials incorporated into the construction projects are in conformance with the Contract specifications. This program should be updated every five years or more frequent if there are changes of the testing frequencies or to the tests themselves. To accomplish this purpose, the following terms and definitions will be used:

## DEFINITION OF TERMS

- Acceptance Testing (AT) – Sampling and testing, or inspection, to determine the degree of compliance with Contract requirements.
- Independent Assurance Program (IAP) – Verification that AT is being performed correctly by qualified testers and laboratories.
- Quality Assurance Program (QAP) – A sampling and testing program that will provide assurance that the materials and workmanship incorporated into the construction project are in conformance with the Contract specifications. The main elements of a QAP are the AT, and IAP.
- Source Inspection – AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.

For projects on the SHS, the local agency must adopt the Caltrans QAP detailed in the following manuals and guides:

- Caltrans Construction Manual
- Construction Manual Supplement for Local Agency REs
- Local Assistance Structure Representative Guidelines
- Independent Assurance Manual

In addition, the current Caltrans Standard Specifications (CTSS) and Plans must be part of the Plans, Specifications and Estimate (PS&E). Test methods used must be as specified in the CTSS and special provisions.

For projects off the SHS, local agencies may adopt the Caltrans QAP described above or may develop their own QAP conforming with the requirements of the QAP Manual and FHWA regulations. The local agency must use the current Caltrans or Greenbook Standard Plans and Specifications. Tests methods used may be either CTM, ASTM, AASHTO, or other nationally recognized test methods, but must be specified in the Contract documents.

## MATERIALS LABORATORY

The AGENCY will use a private consultant materials laboratory to perform AT on Federal-aid and other designated projects. The materials laboratory shall be under the responsible management of a California registered Engineer with experience in sampling, inspection and testing of construction materials. The Engineer shall certify the results of all tests performed by laboratory personnel under the Engineer's supervision. The materials laboratory shall contain certified test equipment capable of performing the tests conforming to the provisions of this QAP.

The materials laboratory used shall provide documentation that the laboratory complies with the following procedures:

1. Correlation Testing Program- The materials laboratory shall be a participant in one or more of the following testing programs:
  - a. AASHTO Materials Reference Laboratory (AMRL)
  - b. Cement and Concrete Reference Laboratory (CCRL)
  - c. Caltrans' Reference Samples Program (RSP)
2. Certification of Personnel- The materials laboratory shall employ personnel who are certified by one or more of the following:

- a. Caltrans District Materials Engineer
  - b. Nationally recognized non-Caltrans organizations such as the American Concrete Institute, Asphalt, National Institute of Certification of Engineering Technologies, etc.
  - c. Other recognized organizations approved by the State of California and/or recognized by local governments or private associations.
3. Laboratory and Testing Equipment-The materials laboratory shall only use laboratory and testing equipment that is in good working order. All such equipment shall be calibrated at least once each year. All testing equipment must be calibrated by imperial means using devices of accuracy traceable to the National Institute of Standards and Technology. A decal shall be firmly affixed to each piece of equipment showing the date of the last calibration. All testing equipment calibration decals shall be checked as part of the IAP.

### ACCEPTANCE TESTING (AT)

AT will be performed by a materials laboratory certified to perform the required tests. The tests results will be used to ensure that all materials incorporated into the project are in compliance with the Contract specifications.

Testing methods will be in accordance with the CT Methods or a national recognized standard (i.e., AASHTO, ASTM, etc.) as specified in the Contract specifications.

Sample locations and frequencies may be in accordance with the Contract specifications. If not so specified in the Contract specifications, samples shall be taken at the locations and frequencies as shown in Attachment #1.

### INDEPENDENT ASSURANCE PROGRAM (IAP)

The City has a general policy of hiring AT consultants that have appropriate and up to date certifications from Caltrans. If the City hires a private lab that already has Caltrans certification, this completes the City's IA requirements for the project. In this case the City shall require the Caltrans documentation from the lab for their records. That completes the IAP for the project.

If the City chooses to hire a private lab to perform AT work which does not have appropriate and up to date certifications from Caltrans, the City shall request Caltrans provide IA services if California Test Methods. Then Caltrans will certify and accredit that lab as long as the project has federal-aid and using California Test Methods (CTM).

The IA program consists of activities that are unbiased and are an independent evaluation of all the sampling and testing procedures used in the acceptance program. The requirements are defined in Title 23, Code of Federal Regulations, Chapter 1, Part 637 (23 CFR 637).

Per this CFR, IA program consists of two parts:

- Testing equipment be evaluated by using calibration checks and proficiency samples
- Testing personnel be evaluated by observation and proficiency samples

During project construction, the local agency must verify that the IA program is being executed by performing the following tasks:

- Obtaining Certifications of all Sampling and Testing Personnel
- Obtaining Qualifications of all laboratories
- Verifying equipment is calibrated

All samplers and testers, including project, laboratory and consultant personnel, must possess a current certificate of proficiency for the tests performed. A copy of the certificate must be in the project files.

IA sampling and testing is not to be used for determining quality and acceptability of material incorporated into the job. Such tests are used only for the purpose of determining the reliability of testing personnel.

## REPORTING ACCEPTANCE TESTING RESULTS

The following are time periods for reporting material test results to the Resident Engineer:

- When the aggregate is sampled at material plants, test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 24 hours after sampling.
- When materials are sampled at the job site, test results for compaction and maximum density should be submitted to the Resident Engineer within 24 hours after sampling.
- When soils and aggregates are sampled at the job site:
  - i. Test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 72 hours after sampling.
  - ii. Test results for "R" Value and asphalt concrete extraction should be submitted to the Resident Engineer within 96 hours after sampling.

When sampling products such as Portland Cement Concrete (PCC), cement-treated base (CTB), hot mix asphalt (HMA), and other such materials; the time of such sampling shall be varied with respect to the time of the day insofar as possible, in order to avoid a predictable sampling routine. The reporting of AT results, if not performed by the Resident Engineer's staff, shall be done on an expedited basis such as by fax or telephone.

## TESTING OF MANUFACTURED MATERIALS

During the Design phase of the project, the Project Engineer may submit a "Source Inspection Request" to the Agency, consultant, or Caltrans for inspection and testing of manufactured and prefabricated materials by their materials laboratory. A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Attachment #2 (Appendix F of the QAP Manual). All certificates of compliance shall conform to the requirements of the Contract specifications.

Should the Agency request Caltrans to conduct the source inspection, and the request is accepted, all sampling; testing, and acceptance of manufactured and prefabricated materials will be performed by Caltrans' Office of Materials Engineering and Testing Services.

For Federal-aid projects on the National Highway System (NHS), Caltrans will assist in certifying the materials laboratory, and the acceptance samplers and testers. For Federal-aid projects off the NHS, Caltrans may be able to assist in certifying the materials laboratory, and the acceptance samplers and testers.

## SOURCE INSPECTION

Source inspection is the inspection, sampling and testing of manufactured and prefabricated materials at locations other than the job site. It is most commonly performed on materials involving structural integrity or safety to the public, such as precast prestressed concrete members, structural steel, and poles for electrical systems. The purpose is to ensure that structural materials comply with Contract requirements in regard to raw materials, fabrication processes, personnel certification, and in-process quality control testing.

The local agency determines which materials will be source inspected. For a list of manufactured or prefabricated materials that are commonly source inspected for Caltrans projects, see Table 6-2.1, Inspection of Fabricated and Manufactured Materials of the Caltrans Construction Manual. Resources to assist in the development of a Source Inspection Program can be found on the internet at the following address:

<https://dot.ca.gov/-/media/dotmedia/programs/engineering/documents/mets/sigla-manual.pdf>

Source inspection is performed by the local agency or a qualified consultant. Caltrans no longer provides source inspection services for projects off the SHS. Caltrans may provide source inspection for projects on the SHS if terms are detailed in a cooperative agreement or encroachment permit. For more details on the inspection procedures, refer to Section 6-3, Field Tests, of the Caltrans Construction Manual and the Office of Structural Materials Practices and Procedures (OSMPP) manual.

Due to the costs incurred when traveling to inspect materials sourced far from the job site, Section 6-3.05B, Source Inspection Expense Deductions of the CTSS provides the details for deductions to be taken when applicable.

Verification at the source of fabrication does not guarantee acceptance at the job site. Table 6-2.1 referenced above also includes items that must be checked or rechecked at the job site to ensure that the materials are acceptable. The RE must inspect the material upon arrival to be sure it meets the requirements of the specifications and is undamaged by shipping and handling. The RE must obtain and file the source inspectors report.

### MATERIALS ACCEPTED ON THE BASIS OF AUTHORIZED MATERIALS LIST

The CTSS identifies some materials that must be on an authorized materials list.

The list is available at: <https://dot.ca.gov/programs/engineering-services/authorized-materials-lists>.

For Contracts using the CTSS, the RE must verify the materials furnished are shown on the appropriate authorized materials list before the material is used on the project. Materials shown on the authorized materials list may also require a certificate of compliance or sampling and testing for acceptance.

### MATERIALS ACCEPTED BY CERTIFICATE OF COMPLIANCE

A local agency may permit the use of certain manufactured products, materials or assemblies accompanied by a Certificate of Compliance (COC) prior to sampling and testing, provided these products, materials or assemblies do not involve structural integrity or safety to the public. Additionally, these items must have a history of having met specifications based upon previous sampling and testing. The manufacturer of the products, materials or assemblies shall sign the Certificate of Compliance and state that the included materials and workmanship conform in all respects to the project specifications. The Contract documents must specify which materials require the Contractor to submit a Certificate of Compliance. The RE is responsible for insuring that a Certificate of Compliance is furnished with each lot of these materials delivered to the work site. Exhibit 16-T1: Materials Requiring a Certificate of Compliance Per the Caltrans Standards Specifications and Exhibit 16-T2: Materials Requiring a Certificate of Compliance Per the Greenbook are lists of materials for which the Contractor must submit a COC per the respective project specifications.

The COC must be furnished before the material is incorporated into the work and include:

- Project number
- Certified material lot number matching lot tags affixed or stenciled to the released materials
- Manufacturer's signature
- A statement that the material complies with the specifications of the Contract

All materials accepted on the basis of a signed Certificate of Compliance shall be documented in the inspector's daily reports. Inspect the material upon arrival to be sure it meets the requirements of the specifications and is undamaged by shipping and handling before accepting. Manufactured products, materials or assemblies used on the basis of a Certificate of Compliance may be sampled again at the job site and tested at any time during the life of the Contract. Items found not in conformance with Contract requirements must be rejected whether in place or not.

A Certificate of Compliance for each item shall be kept in the RE's file.

### MATERIALS REQUIRING A BUY AMERICA CERTIFICATION

Steel and iron products incorporated into the project must comply with Buy America requirements of the CFRs. All steel and iron products must be delivered with a COC stating all manufacturing processes involved in the production of the products occurred within the United States. These processes include:

- Rolling
- Extruding
- Machining
- Bending

- Grinding
- Drilling
- Coating
- Welding
- Smelting

In addition to the COC requirements mentioned earlier in this section, a Buy America COC must also include the mill markings or heat numbers.

The Buy America requirements apply to the entire construction Contract if any federal-aid money has been authorized for any phase of the project, not just the construction phase. A local agency cannot circumvent the Buy America requirement by declaring that the material is being paid for with the non-federal portion of the funding.

Buy America does not apply to temporary steel such as that used in falsework, sheet piling or shoring. A minimal use of foreign iron and steel is allowed provided that the total delivered cost to the project site is less than \$2,500.00 or 0.1 percent of the Contract amount, whichever is greater. Supporting invoices, including the cost of transportation, must be on file in the project records.

**PROJECT CERTIFICATION**

Upon completion of a Federal-aid project, a "Materials Certificate" shall be completed by the Resident Engineer. The Agency shall include a "Materials Certificate" in the Report of Expenditures submitted to the Caltrans District Director, Attention: District Local Assistance Engineer. A copy of the "Materials Certificate" shall also be included in the Agency's construction records. The Resident Engineer in charge of the construction function for the Agency shall sign the certificate. All materials incorporated into the work which did not conform to specifications must be explained and justified on the "Materials Certification", including changes by virtue of Contract change orders.

**RECORDS**

All material records of samples and tests, material releases and certificates of compliance for the construction project shall be incorporated into the Resident Engineer's project file. If a Federal-aid project:

- The files shall be organized as described in Section 16.8 "Project Files" of the Local Assistance Procedures Manual.
- It is recommended that the complete project file be available at a single location for inspection by Caltrans and Federal Highway Administration (FHWA) personnel.
- The project files shall be available for at least three years following the date of final project voucher.
- The use of a "Log Summary," as shown in Appendix H of the QAP Manual facilitates reviews of material sampling and testing by Caltrans and FHWA, and assists the Resident.Engineer in tracking the frequency of testing.

When two or more projects are being furnished identical materials simultaneously from the same plant, it is not necessary to take separate samples or perform separate tests for each project; however, copies of the test reports are to be provided for each of the projects to complete the records.

APPROVED BY:   
 (Signature)

DATE: 5/11/2023

NAME: Noel Bucu, P.E.

TITLE: City Engineer, City of Coalinga

**City of Coalinga Acceptance Testing**

**Sampling and Testing Frequency Table**

**HOT MIX ASPHALT (HMA) / ASPHALT CONCRETE (AC)**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Aggregate Gradation (Sieve)	CT 202	1 Per 1000 Tons or Part Thereof ; Minimum 1 per day during production/placement of at least 300 tons per day.	At Plant Per CT 125 (a)
Sand Equivalent	CT 217		
Asphalt Binder Content	CT 382		Loose Mix Behind Paver Per CT 125
In-Place Density and Relative Compaction (Nuclear )	Nuclear (b) CT 375 or ASTM D2950 (c)	1 Per 1000 Tons or Part Thereof ; Minimum 1 per day during production/placement of at least 300 tons per day. (b)	Random Locations Per CT 375 (c)
Theoretical Maximum Specific Gravity and Density (Rice)	CT 309	1 Per Day During Production/Placement of At Least 300 Tons Per Day	Loose Mix Behind Paver Per CT 125
HMA Moisture Content	CT 226 or CT 370		
Stabilometer Value (d)	CT 366		
Asphalt Binder	Sample per Section 92	Sample 1 min. per day for production over 300 tons per day; See (f) regarding testing.	At Plant Per CT 125
Smoothness	12-foot Straightedge	As necessary to confirm Contract compliance.	Final Pavement Surface

- (a) Exact tonnage of sample location to be determined by Random Sampling Plans
- (b) Compaction determined by Nuclear Density Device. Core testing required if compaction fails the nuclear test
- (c) Correlation between core densities and nuclear device required only if compaction fails the nuclear test
- (d) Report the average of 3 tested briquettes from a single split source
- (e) Use CT 309 to determine maximum theoretical density in lieu of CT 367 calculated maximum theoretical density
- (f) No testing required unless warranted by concern ; sample and store until completion of project

**SUBGRADE (DISTURBED BASEMENT SOIL) OR EMBANKMENT**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Maximum Density and Relative Compaction	CT 216/CT 231	1 Min. Test per 5000 sq ft under vehicle traveled way and shoulder 1 Min. Test Per 250 linear foot under sidewalk/curb & gutter 1 Min. Test per 24 inches depth, per 150 linear foot pipe trench fill	Random locations as determined by the Engineer in place after compaction.

**AGGREGATE BASES AND SUBBASES, IMPORTED BORROW**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 Min. Test Per Material Source	Sample from site stockpile/plant prior to placement.
R-Value	CT 301		
Sand Equivalent	CT 217		
Maximum Density and Relative Compaction	CT 216/CT 231	1 Min. Test per 5000 sq ft under roadway 1 Min. Test per 250 linear foot under curb & gutter	Random locations as determined by the Engineer in place after compaction.

**STRUCTURE BACKFILL, SELECT BACKFILL**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 Min. Test Per Material Source	Sample from site stockpile/plant prior to placement
R-Value	CT 301		
Sand Equivalent	CT 217		
Maximum Density and Relative Compaction	CT 216/CT 231	1 Min. Test Per 2 Vertical Lifts of Placement	Random locations as determined by the Engineer in place after compaction.

**PORTLAND CEMENT CONCRETE (PCC) – STRUCTURAL AND SIGNAL/LIGHTING FOUNDATIONS**

**COARSE AGGREGATE**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 min. test per 500 cu yds and per each material source ; 1 min. test on smaller projects; If bridge, 1 min. set per separate pour per abutment/pier/deck.	Sample from site stockpile/plant prior to placement.
Cleaness Value	CT 227		

**FINE AGGREGATE**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 min. test per 500 cu yds and per each material source ; 1 min. test on smaller projects; If bridge, 1 min. set per separate pour per abutment/pier/deck.	Sample from site stockpile/plant prior to placement.
San Equivalent	CT 217		

**WET MIX**

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Slump/Penetration	CT 202	1 min. set of 3 per day; If bridge, 1 min. set per separate pour of abutment/pier/deck.	Sample from truck/work site
Cylinders	CT 539/540		

Appendix F - Construction Materials Accepted by a Certificate of Compliance

Soil Amendment  
Fiber  
Mulch  
Stabilizing Emulsion  
Plastic Pipe  
Lime  
Reinforcing Steel  
Structural Timber and Lumber  
Treated Timber and Lumber  
Timber and Lumber  
Culvert and Drainage Pipe Joints  
Reinforced Concrete Pipe  
Corrugated Steel Pipe and Corrugated Steel Pipe Arches  
Structural Metal Plate Pipe Arches and Pipe Arches  
Perforated Steel Pipe  
Polyvinyl Chloride Pipe and Polyethylene Tubing  
Steel Entrance Tapers, Pipe Down drains, Reducers, Coupling Bands and Slip Joints  
Aluminum Pipe (Entrance Tapers, Arches, Pipe Down drains, Reducers, Coupling Bands and Slip Joints)  
Metal Target Plates  
Electrical Conductors  
Portland Cement  
Minor Concrete  
Waterstop

Note: Usually these items are inspected at the site of manufacture or fabrication and re-inspected after delivery to the job site.

## Work Delay Form

This form is to be filed by the Prime Contractor to request an extension to the Time of Completion on a capital improvement project for unplanned events outside of the control of the Contractor. Time extensions will only be granted when the event impacts an activity that is on the critical path, as determined by the City Engineer. Claims must be filed within ten (10) days of the event.

Project: \_\_\_\_\_

Company: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone/Fax: \_\_\_\_\_

Start Date of Event: \_\_\_\_\_ End Date of Event: \_\_\_\_\_

Type of Event: \_\_\_\_\_

Explanation of Project Impacts: \_\_\_\_\_

---

**Contract Completion Date:** \_\_\_\_\_ **Requested Completion Date:** \_\_\_\_\_

I, (Name) \_\_\_\_\_ being the (Title) \_\_\_\_\_ (must be an officer) of (Company) \_\_\_\_\_ (General Contractor), declare under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached claim for extension of time, and know its contents, and said claim is made in god faith; the supporting data is truthful and accurate; that the time requested accurately reflects the Contract adjustment for which the Contractor believes the Owner is liable; and, further, that I am familiar with California Penal Code section 72 and California Government Code Section 12560, et seq., pertaining to false claims, and further know and understand that submission of certification of a false claim may lead to fines, imprisonment, and/or other severe legal consequences. I also understand that approval of a time extension will not result in additional payments to me, unless specifically authorized by a Contract amendment.

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Date

---

This section to be completed by the Engineer.

Approved: \_\_\_\_\_ Denied: \_\_\_\_\_

Reason for Denial: \_\_\_\_\_

Revised Completion Date: \_\_\_\_\_

\_\_\_\_\_  
Project Inspector

\_\_\_\_\_  
Date

\_\_\_\_\_  
City Engineer

\_\_\_\_\_  
Date

## ***APPLICATION FOR PAYMENT (G702/G703)***

Please utilize Tri City Engineering, Inc.'s Application for payment for all billing, the next two pages are examples of what the spreadsheet looks like.

Request Excel Spreadsheet from Tri City prior to submitting first application for payment if not provided when receiving the Notice of Award.

# APPLICATION AND CERTIFICATION FOR PAYMENT

TO OWNER: City of Coalinga  
155 W. Durian Ave  
Coalinga, CA 93210

PROJECT:

AIA DOCUMENT G702

APPLICATION NO:

INVOICE DATE:

PERIOD FROM:

PERIOD TO:

Distribution to:

<input type="checkbox"/>	OWNER
<input type="checkbox"/>	ENGINEER
<input type="checkbox"/>	CONTRACTOR
<input type="checkbox"/>	INSPECTOR

FROM CONTRACTOR:

CONTRACT FOR:

CONTRACT DATE:

## CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

<b>1. ORIGINAL CONTRACT SUM</b>	\$	<u>                    </u>
<b>2. Net change by Change Orders</b>	\$	<u>          0.00</u>
<b>3. CONTRACT SUM TO DATE (Line 1 ± 2)</b>	\$	<u>          0.00</u>
<b>4. TOTAL COMPLETED &amp; STORED TO DAT</b> (Column G on G703)	\$	<u>          0.00</u>
<b>5. RETAINAGE:</b>		
a. <u>  5  </u> % of Completed Work	\$	<u>          \$0.00</u>
(Column D + E on G703)		
b. <u>      </u> % of Stored Material	\$	<u>          0</u>
(Column F on G703)		
Total Retainage (Lines 5a + 5b or		
Total in Column I of G703)	\$	<u>          0.00</u>
<b>6. TOTAL EARNED LESS RETAINAGE</b> (Line 4 Less Line 5 Total)	\$	<u>          0.00</u>
<b>7. LESS PREVIOUS CERTIFICATES FOR PAYMENT</b> (Line 6 from prior Certificate)	\$	<u>          0.00</u>
<b>8. CURRENT PAYMENT DUE</b>	\$	<u>          0.00</u>
<b>9. BALANCE TO FINISH, INCLUDING RETAINAGE</b> (Line 3 less Line 6)	\$	<u>          0.00</u>

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order	\$0.00	\$0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: \_\_\_\_\_ Date: \_\_\_\_\_

INSPECTOR OF RECORD:

By: \_\_\_\_\_ Date: \_\_\_\_\_

OWNER:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Coalinga

## ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED . . . . . \$           0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)  
Engineer: Tri City Engineering, Inc.

By: \_\_\_\_\_ Date: \_\_\_\_\_

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.



**FORM W-9: REQUEST FOR TAXPAYER IDENTIFICATION NUMBER AND CERTIFICATION**



***Certificate of Construction Completion***



### CERTIFICATE OF CONSTRUCTION COMPLETION

INSTRUCTIONS: Contractor is to complete Items 1-12. Local Agency completes Items 13-16.

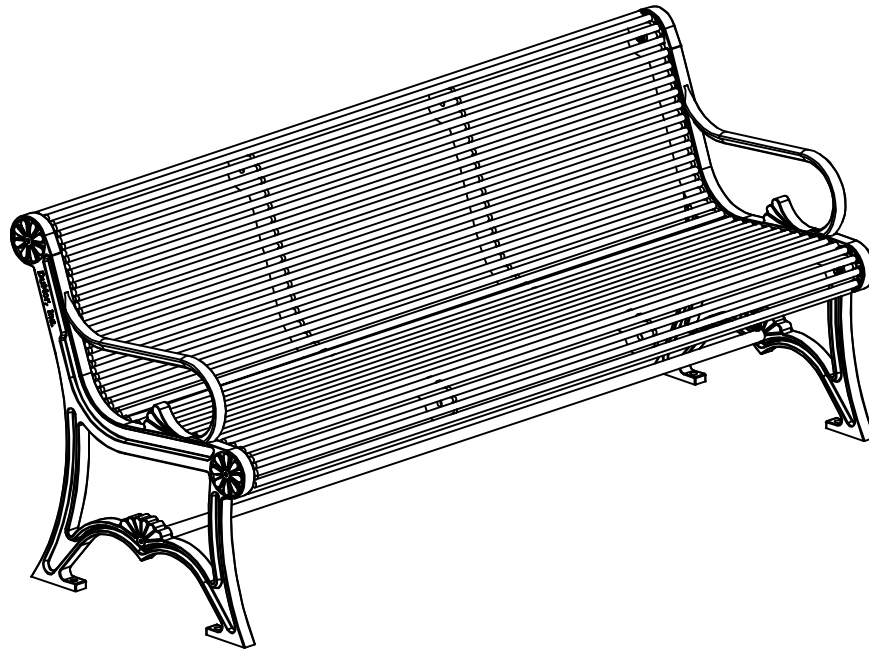
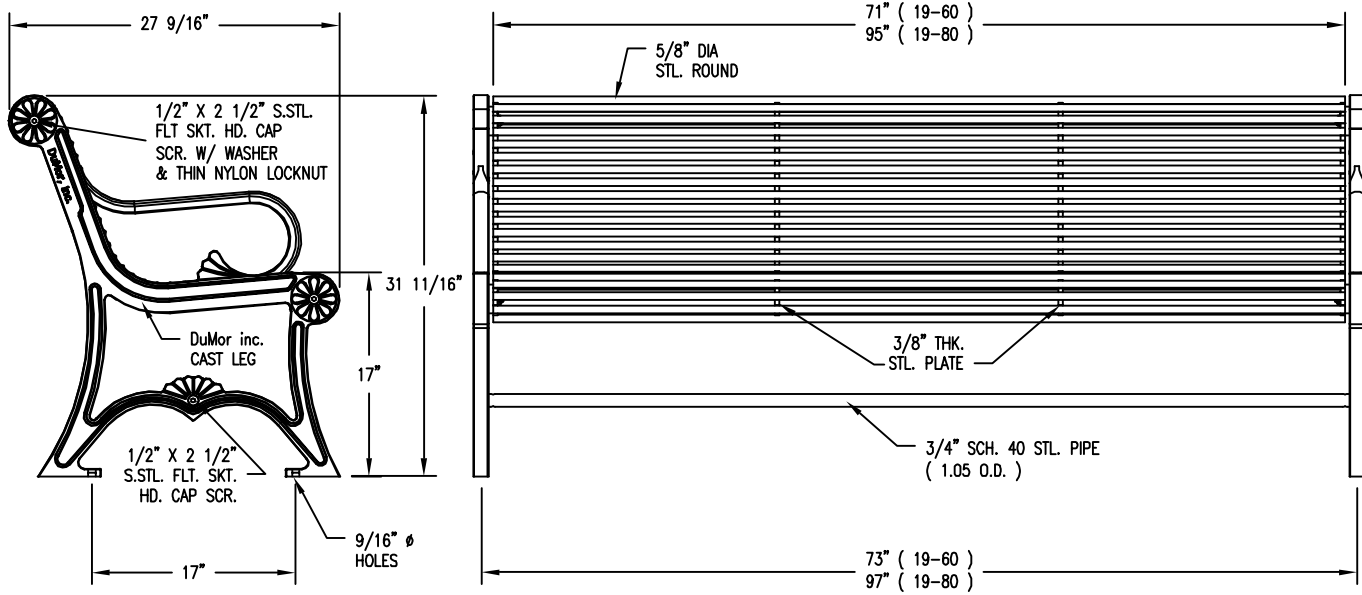
Once signed, the projects final completion phase is in effect. Contractor to submit remaining submittals, as-builts, final invoice, etc. Local agency to submit closeout paperwork.

1. PUBLIC WORKS PROJECT NO.:	2. GRANT PROJECT NO. (if applicable):
3. PROJECT NAME:	
4. PROJECT LOCATION:	
5. CONTRACTOR'S NAME:	6. CONTRACT AMOUNT:
7. DATE OF CONTRACT/AGREEMENT ACCEPTANCE:	8. START OF CONSTRUCTION DATE:
9. SUBSTANTIAL COMPLETION DATE (prior to punch walk):	10. END OF CONSTRUCTION DATE:
<p>11. FINAL INSPECTION: The above listed project's construction, including all subcontractor's construction was completed and a final inspection has been made. The project was completed as programmed and in compliance with all state and federal requirements and no further construction is to be made.</p> <p>_____</p> <p>SIGNATURE (Contractor Representative):                      DATE:                      TITLE:</p>	
12. CONTRACTOR REMARKS (if applicable):	
13. LOCAL AGENCY REVIEW MADE BY (print name):	14. DATE OF FINAL WALKTHROUGH:
<p>15. PROJECT VERIFICATION: This verification of completion also constitutes approval to pay costs shown in the Final Invoice included in the Report of Expenditures. The person listed above has reviewed the job site and found the project constructed in accordance with the scope and description of the project authorization document and in reasonable conformance with the plans and specifications. The project can now go through final completion phase to close out the project.</p> <p>_____</p> <p>SIGNATURE (Local Agency or Representative):                      DATE:                      TITLE:</p>	
16. LOCAL AGENCY REMARKS (if applicable):	

## APPENDIX C: PRODUCTS

- [DuMor 19-60 Bench](#)
- [DuMor 158-32SH-FTO Receptable](#)
- [DuMor 443-558-1 Series / S-2 Picnic Table](#)
- [Hunter Node-200 2-Station Irrigation Controller](#)
- [Fonroche Lighting America – Solar Light Pole and Smart Light System](#)
- [Blucher 110.300.075](#)
- [Jenson Precast HTV10- Traffic Valve Box](#)
- [Oldcastle Infrastructure V05 Box](#)
- [ADA Solutions Inc. – Cast-In-Place](#)
- [Majestic Fountains and More – Horned Toad Bench](#)
- [A Plus – Permanent Park Sign](#)
- [Hunter – MP-1000-90](#)
- [Jay R. Smith MFG. CO. – Trap Primer and Distribution Unit](#)

**DUMOR 19-60 BENCH**



CUSTOM LETTERING ( 37 SPACES ) \_\_\_\_\_

NOTES

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
- 3.) CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANEL. ( 37 TOTAL SPACES )

LENGTH OPTIONS

- 6' BENCH
- 8' BENCH

  
**DuMor, inc.**  
 P.O. Box 142 Mifflintown, PA 17059-0142

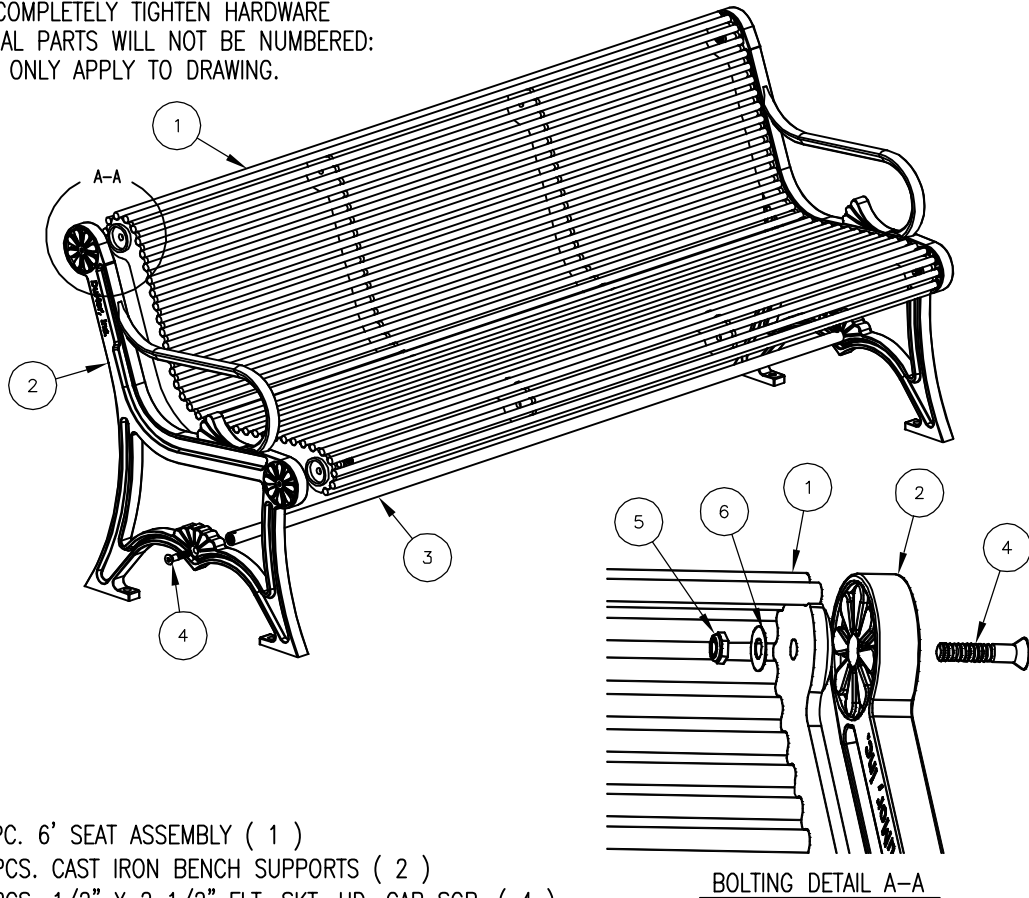
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 DRAWN BY : AH  
 DATE REV. : 3/11/05  
 REV. BY : AWH

TITLE : BENCH  
 REV. E  
 DRAWING NUMBER 19 SERIES

SHEET 1 OF 2

**NOTE:**

- 1.) DURING ASSEMBLY PROCEDURE;  
DO NOT COMPLETELY TIGHTEN HARDWARE
- 2.) THE ACTUAL PARTS WILL NOT BE NUMBERED:  
NUMBERS ONLY APPLY TO DRAWING.



**STEP 1:**

- USE 1 - PC. 6' SEAT ASSEMBLY ( 1 )
  - 2 - PCS. CAST IRON BENCH SUPPORTS ( 2 )
  - 4 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. ( 4 )
  - 4 - PCS. 1/2" SS THIN NYLON LOCKNUT ( 5 )
  - 4 - PCS. 1/2" SS FLAT WASHER ( 6 )
- ATTACH CAST IRON BENCH SUPPORT ( 2 ) TO 6' SEAT ASSEMBLY ( 1 ) USING HARDWARE ( 4, 5, & 6 ). TIGHTEN TO SNUG FIT.

**STEP 2:**

- USE 1 - PC. 71 3/4" PIPE BRACE ( 3 )
  - 2 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR ( 4 )
- ATTACH 71 3/4" PIPE BRACE ( 3 ) TO STEP 1 ASSEMBLY USING HARDWARE ( 4 ). TIGHTEN SNUG FIT.

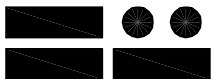
**STEP 3:**

UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.

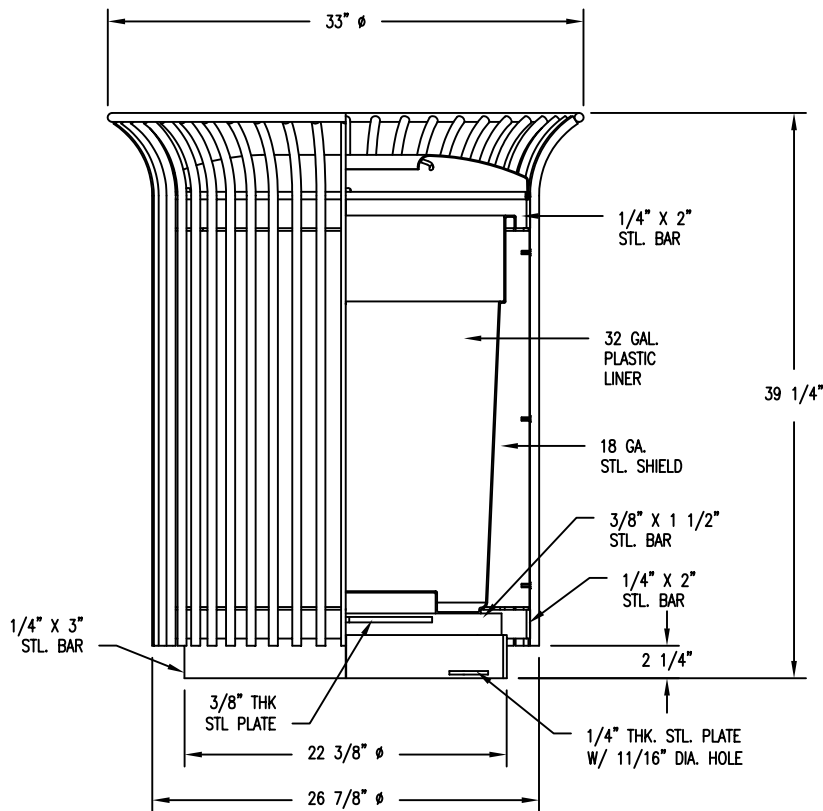
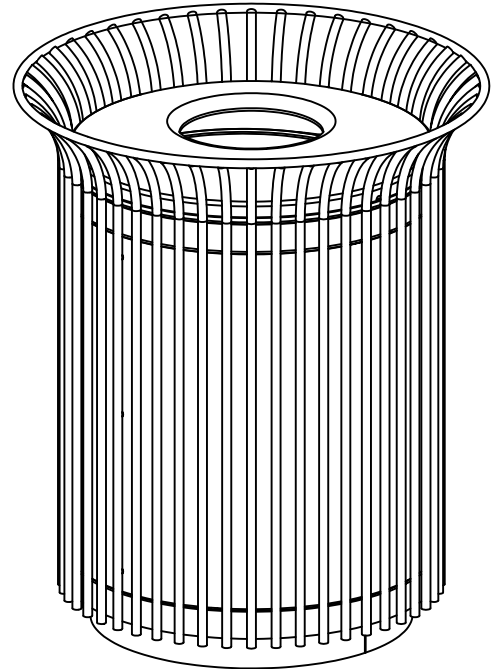
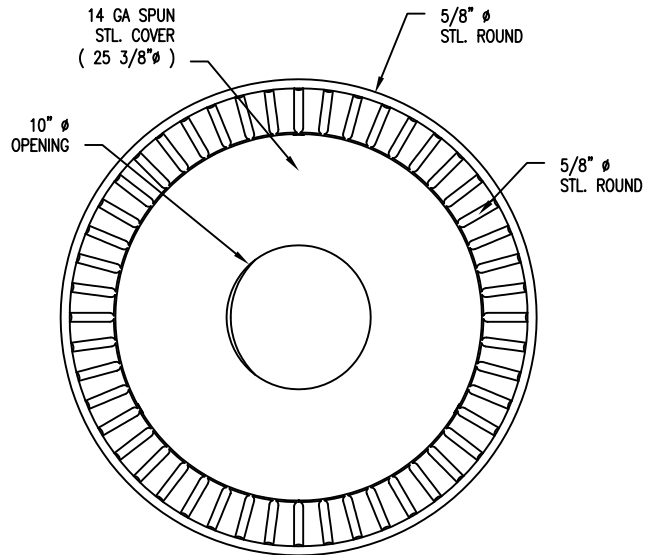
**STEP 4:**

MOUNT AND ANCHOR AS SPECIFIED.

ITEM	QTY	PART NO	DESCRIPTION
1	1	0-19-60-01	6' STL SEAT SECTION
2	2	0-57-00-02	CAST IRON BENCH SUPPORT
3	1	0-57-60-04	71 3/4" PIPE BRACE
4	6	1-12-065	1/2" X 2 1/2" FLT SKT HD CAP SCR
5	4	1-20-018	1/2" SS THIN NYLON LOCKNUT
6	4	1-22-015	1/2" SS FLAT WASHER

 <b>DuMor, inc.</b> P.O. Box 142 Mifflintown, PA 17059-0142	SCALE : <b>NONE</b>	TITLE : <b>BENCH ASSEMBLY</b>		
	DATE DRAWN : 3/22/94	REV. <b>E</b>	DRAWING NUMBER <b>19 SERIES</b>	SHEET <b>2 OF 2</b>
	DRAWN BY : AH			
	DATE REV. : 3/11/05			
	REV. BY : AWH			

# **DUMOR 158-32SH-FTO RECEPTACLE**



**NOTES:**

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
- 3.) ALL WELDS CONT. THEN GROUND SMOOTH.



**DuMor, inc.**  
 P.O. Box 142 Mifflintown, PA 17059-0142

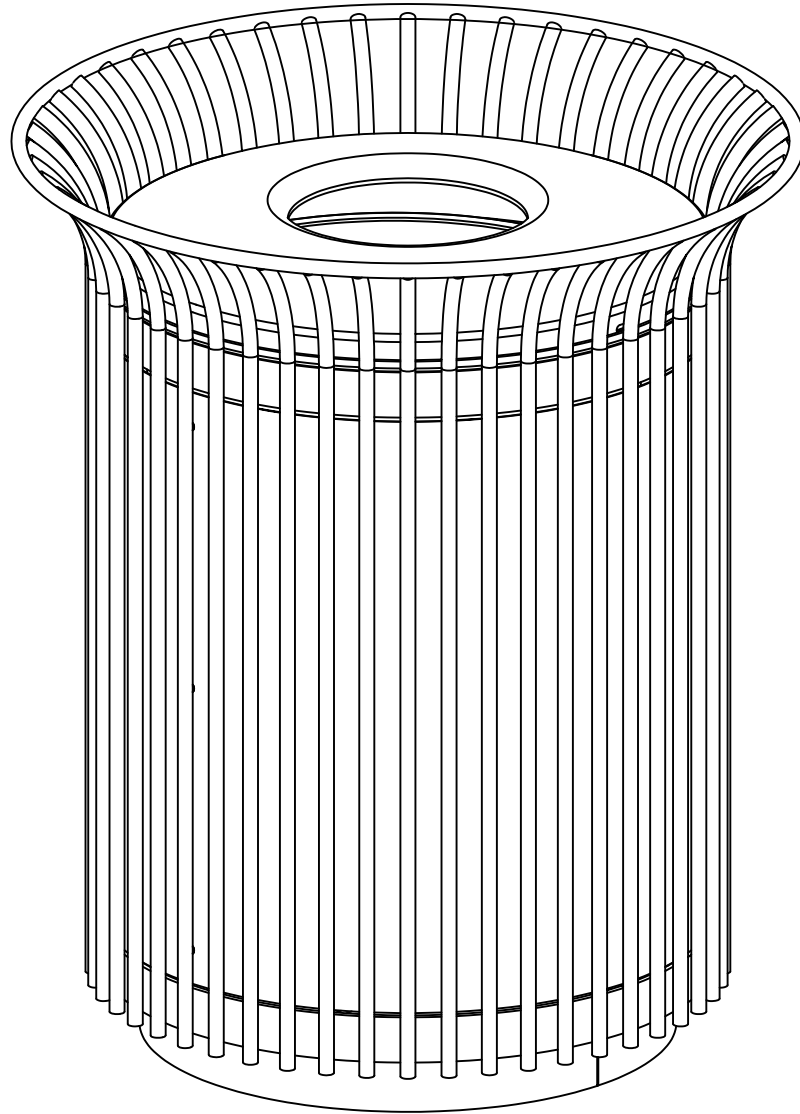
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 DRAWN BY : CDC  
 DATE REV. : 12/10/12  
 REV. BY : JSB

TITLE : RECEPTACLE

REV. H

DRAWING NUMBER 158-32SH-FTO

SHEET 1 OF 2



NOTE:

- 1.) RECEPTACLE SHIPPED FULLY ASSEMBLED.
- 2.) COVER ATTACHED W/ 1/8" VINYL COATED CABLE.
- 3.) MOUNT AND ANCHOR AS SPECIFIED.



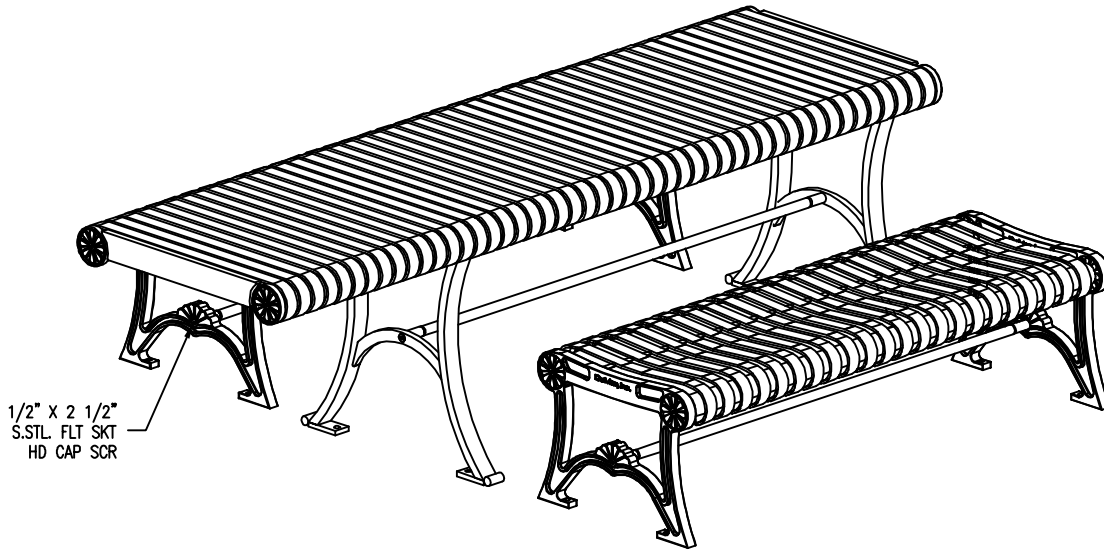
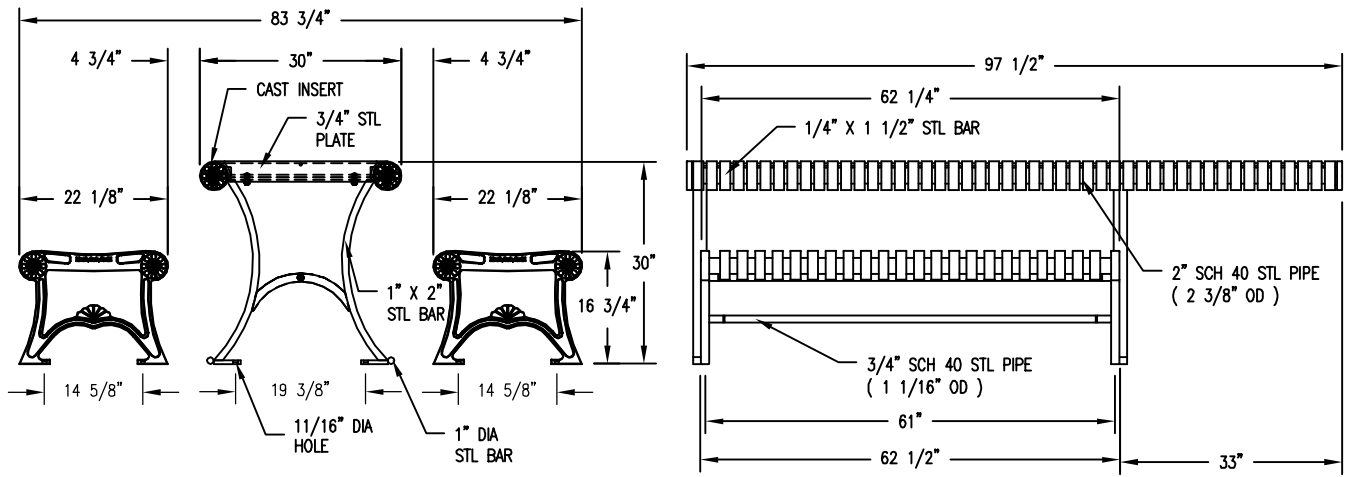
DuMor, inc.

P.O. Box 142 Mifflintown, PA 17059-0142

SCALE : NONE  
 DATE DRAWN : 6/24/03  
 DRAWN BY : CDC  
 DATE REV. : 12/10/12  
 REV. BY : JSB

TITLE : RECEPTACLE		DRAWING NUMBER 158-32SH-FTO	SHEET 2 OF 2
REV. H			

**DUMOR 443-558-1 SERIES / S-2 PICNIC TABLE**



1/2" X 2 1/2"  
S.STL. FLT SKT  
HD CAP SCR

### NOTES

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) ALL WELDS CONT. THEN GROUND SMOOTH.
- 3.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED

**NOTES:**

- 1.) DURING ASSEMBLY PROCEDURE;  
DO NOT COMPLETELY TIGHTEN HARDWARE.
- 2.) THE ACTUAL PARTS WILL NOT BE NUMBERED.  
NUMBERS ONLY APPLY TO DRAWING.
- 3.) UPON COMPLETION OF ASSEMBLY SQUARE  
ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.
- 4.) MOUNT AND ANCHOR AS SPECIFIED.

**TOOLS REQ'D**

- 3/4" WRENCH
- 5/16" ALLEN WRENCH
- 1/2" MASONRY DRILL BIT
- DRILL
- RATCHET STRAP (PROVIDED)

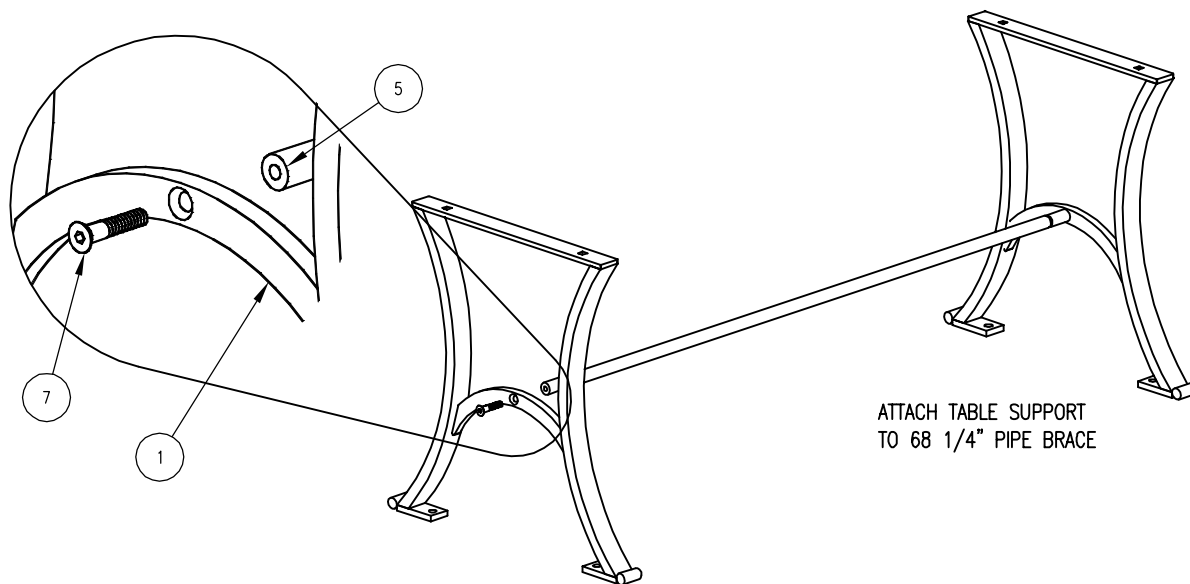
**PARTS LIST FOR S-2**

ITEM	QTY	PART NO	DESCRIPTION
1	2	0-443-00-01/S-2	TABLE SUPPORT FOR SURFACE MOUNT
2	1	0-443-80-02	95 1/2" STL TABLE TOP,30",92 STYLE ASSEMBLY
2	2	0-57-50-04	3/4" SCH 40 PIPE BRACE ( 59 3/4" )
3	4	0-91-00-02	BKLESS CAST IRON BNCH SUPT
4	2	0-92-50-01	5' STL SEAT
5	1	0-PB12-61-04	3/4" SCH 40 PIPE BRACE (61 1/4")
6	4	1-11-042	1/2" X 1 1/2" SS CGE BOLT
7	14	1-12-065	1/2" X 2 1/2" FLT SKT HD CAP SCR
8	4	1-20-015	1/2" SS NYLON LOCKNUT
9	4	1-22-015	1/2" SS FLAT WASHER

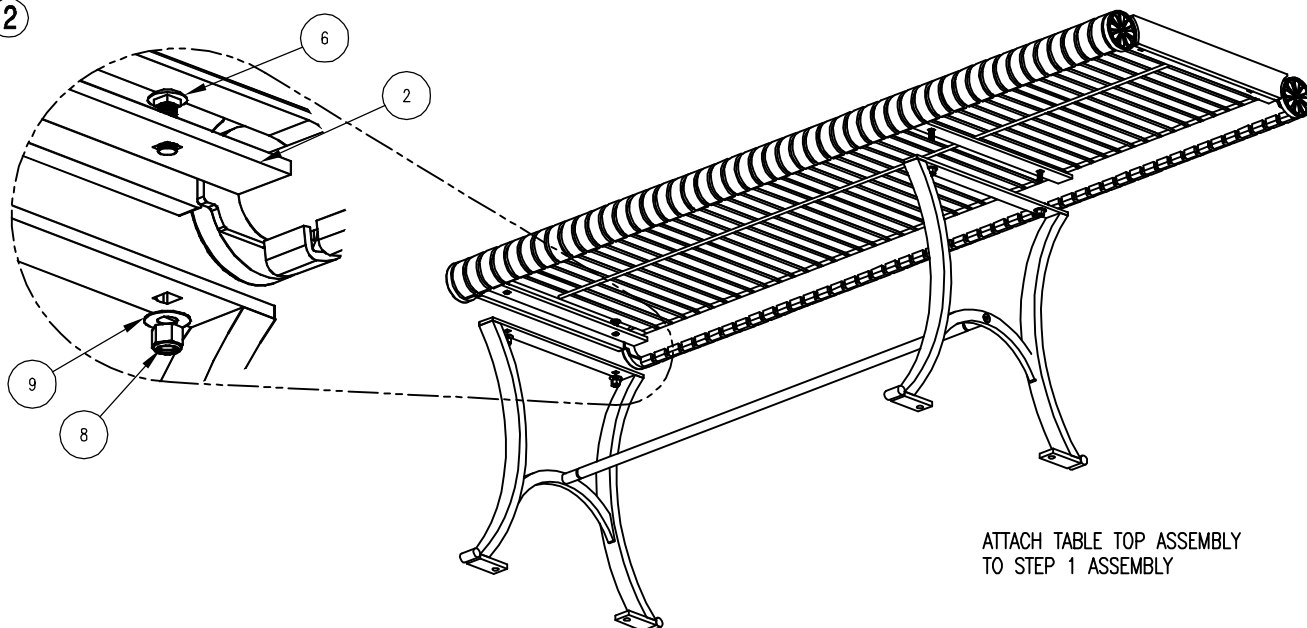
**KITS PROVIDED FOR S-2**

ITEM	QTY	PART NO	DESCRIPTION
10	3	K-ANCO860-4	1/2" X 3 3/4" SS ANCHOR KIT (4PC)
11	1	K-CG0824-4L	1/2" CGE BOLT HARDWARE KIT (4)
12	4	K-FC0840-4	1/2" CAP HARDWARE KIT (4 PCS)

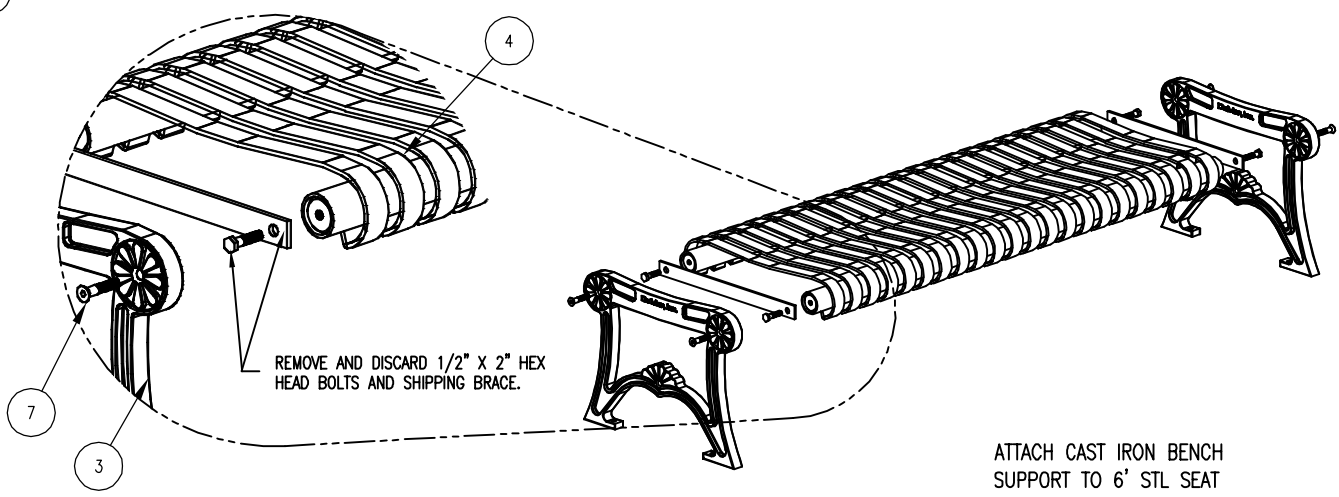
1



2



3



3A



PLACE SEAT ASSEMBLY ON WORK SURFACE ALLOWING ACCESS TO ENDS. PLACE RATCHET STRAP AROUND SEAT ASSEMBLY AS SHOWN ABOVE.

3B



TIGHTEN STRAP UNTIL SHIPPING BRACKET BECOMES LOOSE. THEN REMOVE AND DISCARD BOLTS & SHIPPING BRACKET.

3C



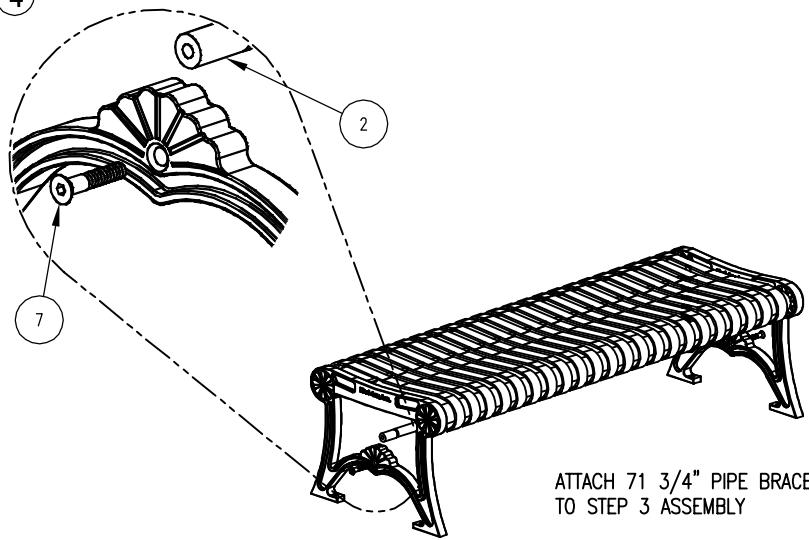
ATTACH CAST SUPPORT TO SEAT ASSEMBLY. IF HOLES IN CASTING DO NOT ALIGN WITH THE SEAT ASSEMBLY, ADJUST BY USING THE RATCHET STRAP.

3D



TIGHTEN HARDWARE THEN REMOVE RATCHET STRAP AND REPEAT THIS PROCEDURE ON THE OTHER END OF BENCH.

4



# ***HUNTER NODE-200 2-STATION IRRIGATION CONTROLLER***



## NODE-200

**Brand:** Landscape Irrigation

**Product Line:** Controllers

**Product Model:** NODE

**SKU:** NODE200

**Description:** NODE Battery-Operated Controller, 2-station, solenoids not included

**Number of Stations:** 2

---

### Shipping Information

**UPC-A:** 0611698283103

**Qty. / Bag:** 10

**Ocean Pallet:** 480

**Land Pallet:** 400

**Master Carton:** 10

### Additional Information

**Central Control:** None (Standalone)

**Controller Power:** Battery

**Field Valve Connection:** Conventional wired

**Flow:** Without Flow

**Network Connection Type:** None

**Sensor Compatibility:** Rain Freeze Wind Soil Moisture

**FONROCHE LIGHTNING AMERICA - SOLAR LIGHTPOLE AND SMARTLIGHT SYSTEM**



Autonomous Solar  
Street Light  
**SMARTLIGHT**  
**ESSENTIAL SINGLE**



New Name, Same Great Product -  
The CK is now the Essential

**Project:**

**Notes:**

M54-CK16B	- 2.7K	- T2	-	- [ P270F	- 3P	- HW-MC	- 25Ft. Round Tapered Pole-Anchor Base-1-4FT Arm	- BK	- BK	45
Fixture	Temp	Type	HS	Solar	Power Center	Option	Pole	Color (Pole)	Color (Fixture)	Tilt Panel

## The Most Reliable Solar Lighting in the World

We keep our solutions simple with Smartlight—one proven, powerful solar light that meets a wide range of needs. Its unique black solar panel looks elegant, day or night. No hanging wires or bulky battery box. No solar panel that looks like a high school science project. We use powerful components and smart controls to provide all the energy you need in a sleek package, so you can count on all-night lighting all year around.

**175,000**

SmartLight Systems Installed Worldwide

**365**

Nights of Lighting per Year Guaranteed

**5 Years**

Warranty, Including the Battery With No Pro-Rating

**\$0**

Zero Trenching Cost, Zero Electric Bills and Zero Maintenance for 10 Years



**DARKSKY  
APPROVED**  
Reduces light pollution  
Certified by DarkSky.org

# ESSENTIAL SINGLE SMARTLIGHT



LUMINAIRE PRODUCT CODE	NAME	COLOR TEMP	DISTRIBUTION	COLOR	HOUSE SIDE SHIELD OPTION	WEIGHT LBS EA.	EPA FT <sup>2</sup> EA.
[M54-CK 16B	Essential	2700K, 3000K, 5000K	T2,T3,T4,CW (Crosswalk)	Black	NA	7	.25

SOLAR MODULE ASSEMBLY PRODUCT CODE / DESCRIPTION		DIMENSIONS SOLAR MODULE	MODULE FRAME & BACK SHEET
<b>P160F</b>	160W PolyCrystalline Solar Module with Steel Mount - Tilt Adjustment (0,10,25 or 45 Degree) Mount Galvanized and Powder Coated. IEC 61730-1:2019 and IEC 61215-2:2017 Includes Hydrophobic Coating	43.31 x 33.46 x 1.57	Black
<b>P270F</b>	270W PolyCrystalline Solar Module with Steel Mount - Tilt Adjustment (0,10,25 or 45 Degree) Mount Galvanized and Powder Coated IEC 61730-1:2019 and IEC 61215-2:2017 Includes Hydrophobic Coating	66.93 x 40.55 x 1.81	Black
<b>P310F</b>	310W PolyCrystalline Solar Module with Steel Mount - Tilt Adjustment (0,10,25 or 45 Degree) Mount Galvanized and Powder Coated IEC 61730-1:2019 and IEC 61215-2:2017 Includes Hydrophobic Coating	66.93 x 42.13 x 1.57	Black

Heavy Duty Mount Adder (Required with 45 degree tilt)	
HW-MC	Heavy Duty Mount Galvanized with Marine Powder Coat Upgrade

POWER 365 ASSEMBLY PRODUCT CODE / DESCRIPTION		BATTERIES	
<b>2P</b>	Power 365 Power Center with 624 Wh NiMH Battery Capacity-IP65	Chemistry	Nickel Metal Hydride
<b>3P</b>	Power 365 Power Center with 936 Wh NiMH Battery Capacity-IP65	Operating Temperature	-40°F to +158°F (-40°C to +70°C)
<b>4P</b>	Power 365 Power Center with 1248 Wh NiMH Battery Capacity-IP65	Warranty	5 Year Full Replacement
		Certifications	EN 550 14-1 ; EN 55014-2 ; EN 61000-6-2 ; EN 61000-6-3

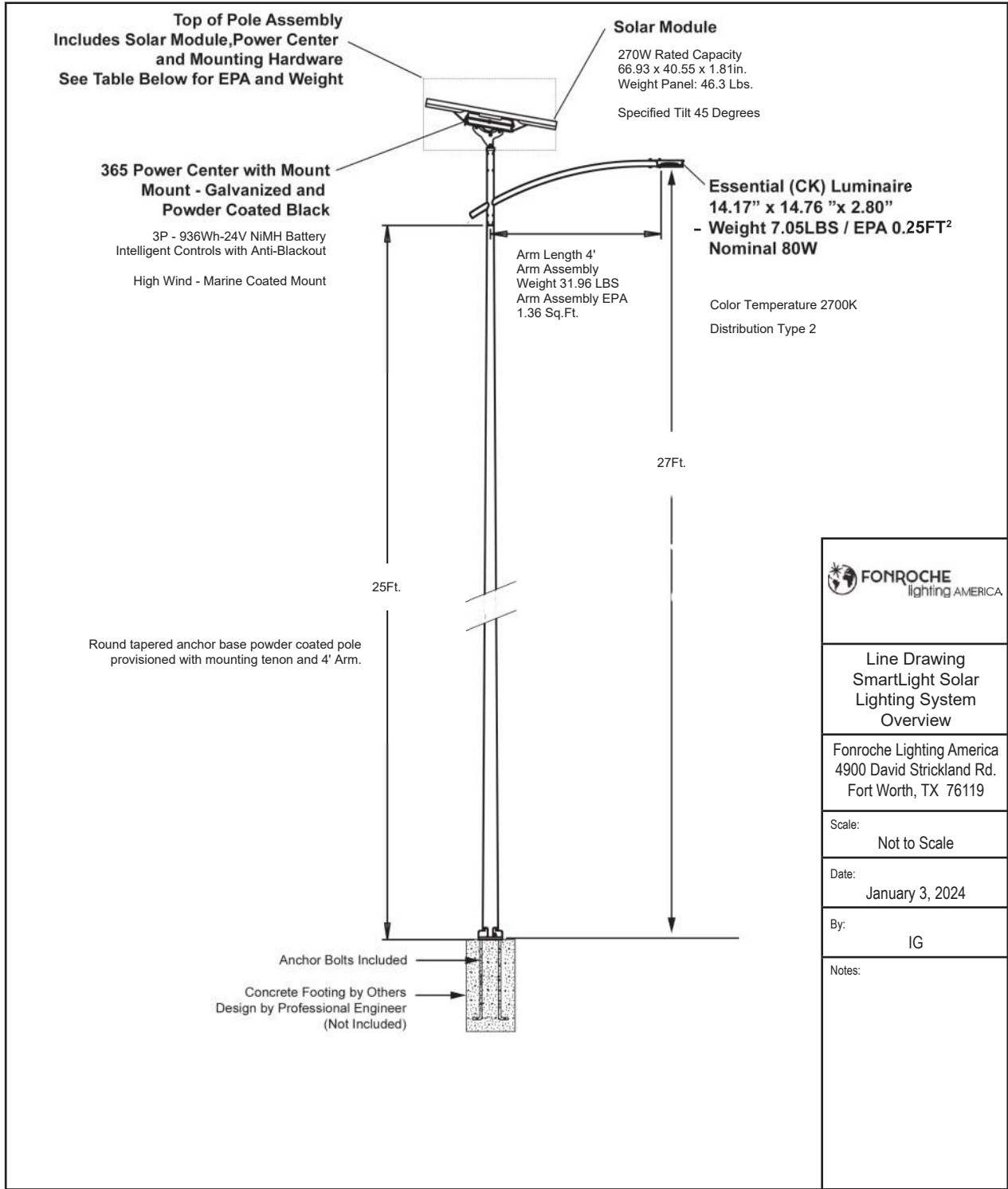
Controller
Battery Management System (BMS) Anti-Black Out Control 3-Level Programmable Lighting Profiles

System Warranty and Certification	
System Warranty	5 Years
Solar Performance Warranty	25 Years
System Certification	CE

TOTAL TOP OF POLE ASSEMBLY - PANEL, MOUNTING, 365 POWER CENTER						
						EPA (Sq.Ft.)
Solar Assembly	2P	3P	4P	10° Tilt	25° Tilt	45° Tilt
P160F-HW-MC	113.31	123.89	134.48	2.36	4.99	7.67
P270F-HW-MC	130.95	141.53	152.12	4.62	9.99	16.02
P310F-HW-MC	130.95	141.53	152.12	4.62	9.99	16.02

POLE SELECTED BASED ON PROJECT CONDITIONS			ARM ASSEMBLY	
PRODUCT CODE / DESCRIPTION	NOMINAL HEIGHT/ MOUNTING HEIGHT	EMBED DEPTH	4' ARM ASSY. WEIGHT/EPA	6' ARM ASSY. WEIGHT/EPA
14Ft. Round Tapered Pole-Anchor Base	14'/16'	NA	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
20Ft. Round Tapered Pole-Anchor Base	20'/22'	NA	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
25Ft. Round Tapered Pole-Anchor Base	25'/27'	NA	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
30Ft. Round Tapered Pole-Anchor Base	30'/32'	NA	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
14Ft. Round Tapered Pole-Direct Burial	14'/16'	3' 9-1/4"	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
20Ft. Round Tapered Pole-Direct Burial	20'/22'	4' 5-1/4"	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
25Ft. Round Tapered Pole-Direct Burial	25'/27'	5' 0"	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>
30Ft. Round Tapered Pole-Direct Burial	30'/32'	Contact Representative	31.96 LBS. / 1.36 FT <sup>2</sup>	38.92 LBS. / 1.88 FT <sup>2</sup>

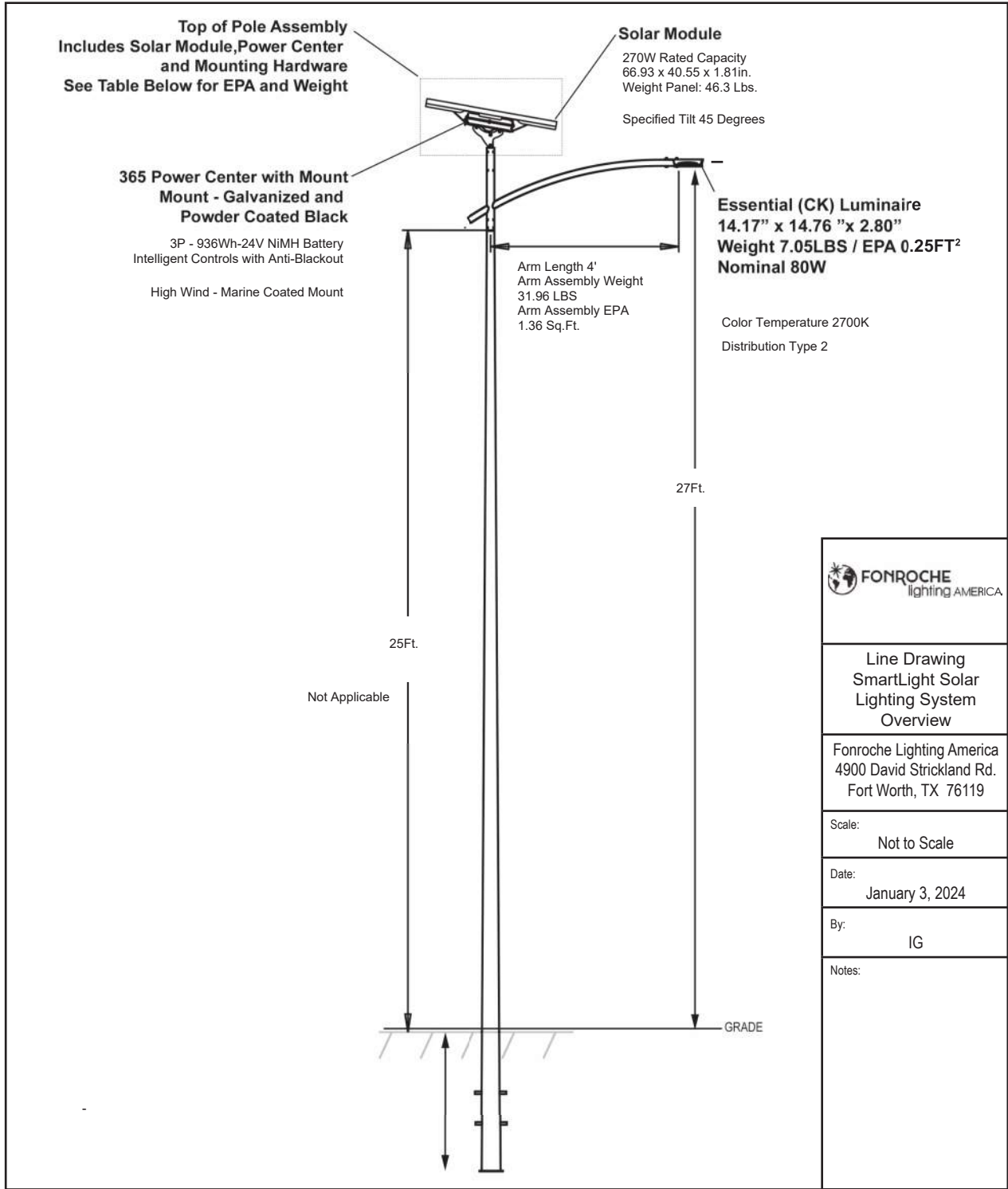
[M54-CK16B	[2.7K	[T2	[HS	[P270F	[3P	[HW-MC	[25Ft. Round Tapered Pole-Anchor Base-14FT Arm	[BK	[BK	[45
Fixture	Temp	Type	HS	Solar	Power Center	Option	Pole	Color (Pole)	Color (Fixture)	Tilt Panel



**TOTAL TOP OF POLE ASSEMBLY - PANEL, MOUNTING, 365 POWER CENTER**

Solar Assembly	EPA (Sq.Ft.)					
	2P	3P	4P	10° Tilt	25° Tilt	45° Tilt
P160F-HW-MC	113.31	123.89	134.48	2.36	4.99	7.67
P270F-HW-MC	130.95	141.53	152.12	4.62	9.99	16.02
P310F-HW-MC	130.95	141.53	152.12	4.62	9.99	16.02





TOTAL TOP OF POLE ASSEMBLY - PANEL, MOUNTING, 365 POWER CENTER

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P310F-HW-MC	130.95	141.53	152.12	4.62	9.99	16.02



[ M54-CK16B	- 2.7K	- IT2	-	] - [ P270F	- 3P	- HW-MC	- 25Ft. Round Tapered Pole-Anchor Base-1-4FT Arm	- BK	- BK	45
Fixture	Temp	Type	HS	Solar	Power Center	Option	Pole	Color (Pole)	Color (Fixture)	Tilt Panel

**BLUCHER 110.300.075**

## 110.300.075 ADJUSTABLE SHOWER DRAIN SQUARE

- Floor: concrete and tiled
- No membrane, frame: 5-3/4 x 5-3/4 inch
- Outlet: Ø3 inch, horizontal
- Stainless steel: AISI304/EN1.4301

### Product Codes

EAN: 5705499104844  
VVS Number: 153327113  
RSK Number: 7119372  
NRF Number: 3394513  
LVI Number: 3305749

### Specification

Field of Application: Domestic  
Floor: Concrete / Tiled  
Load Class EN1253: K3  
Material: AISI 304  
Material (EN): EN 1.4301  
Maximum Height (mm): 145  
Membrane Type: No Membrane  
Number of Inlets: 0  
Number of Screw Holes: 2  
Outlet dia. (mm): 75  
Outlet Diameter (Inch): 3  
Outlet Direction: Horizontal  
Shape: Square  
Size (mm): 145x145  
Size of Frame (Inch): 5-3/4 x 5-3/4  
Weight (kg): 1.3  
Weight (lbs): 2.87

### Approvals



DE - LGA Certificate 57214035 b



DK - VA 2.42/19048-22



HACCP Food Safety Programme - Australasia



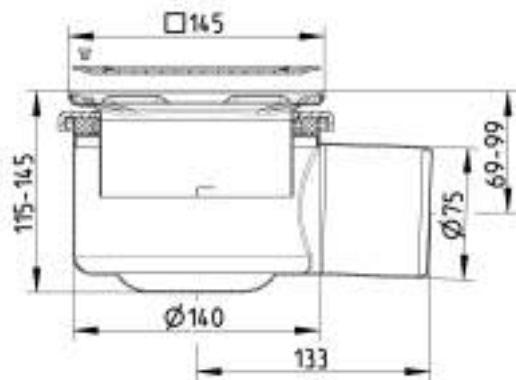
HACCP Food Safety Programme - Europe



SE - SITAC 0403/02

DK - VA 2.42/19048-13

PL - Hygienic Certificate - All Products

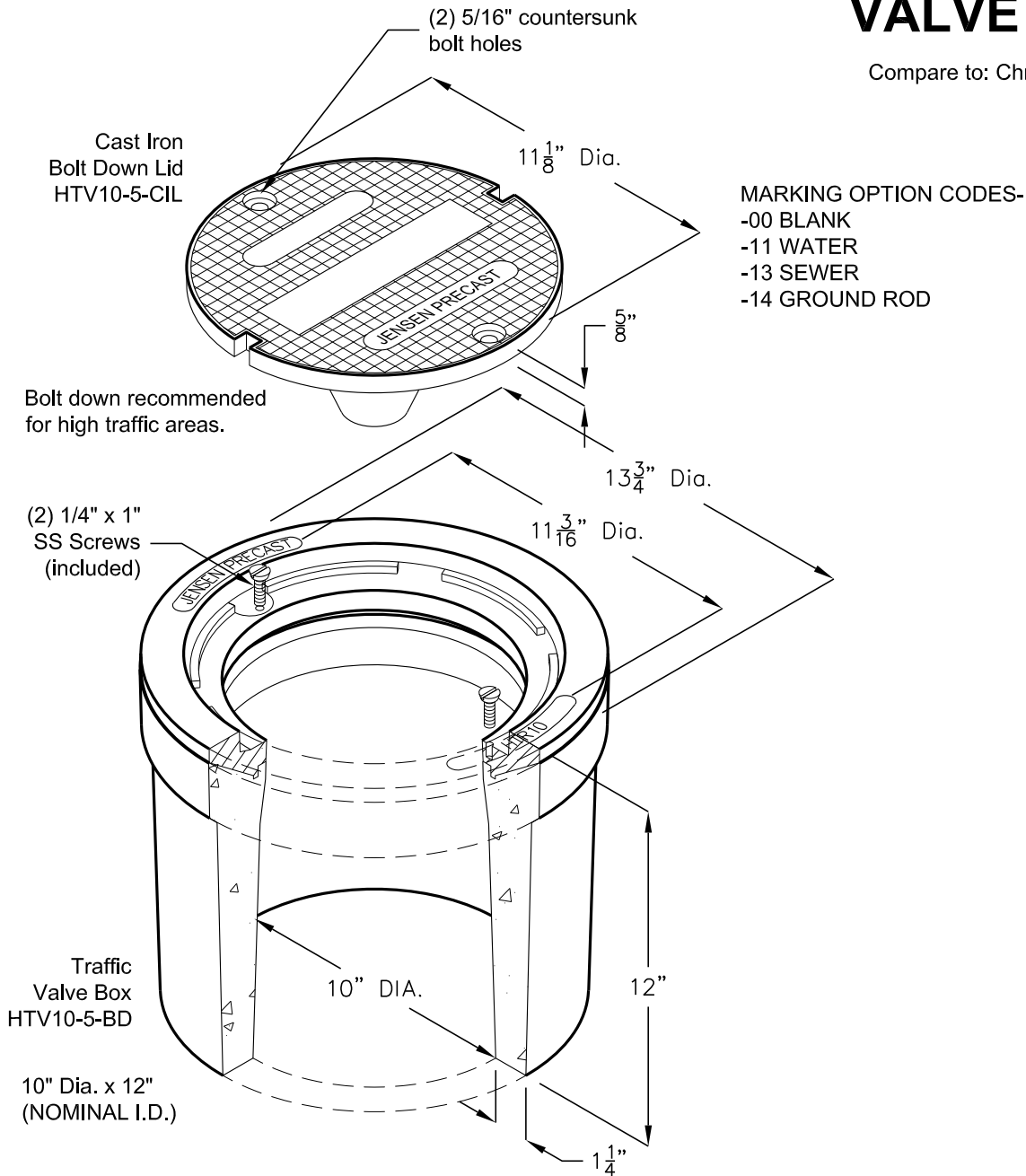


**BLÜCHER®**

# **JENSEN PRECAST HTV10-5 TRAFFIC VALVE BOX**

# HTV10-5 TRAFFIC VALVE BOX

Compare to: Christy®G05T



MODEL NO.	PRODUCT	DESCRIPTION	APPROX. WEIGHT	QTY PER PALLET
HTV10-5-CIL-1	LID	10"x12" Traffic Valve Box Cover - Import	14	N/A
HTV10-5-BD-1	VALVE BOX	10"x12" Traffic Valve Box - Import	63	36
HTV10-5-CIL-USA	LID	10"x12" Traffic Valve Box Cover - USA	14	N/A
HTV10-5-BD-USA	VALVE BOX	10"x12" Traffic Valve Box - USA	14	36

Y All trademarks are the property of their respective owners.  
Jensen Precast reserves the right to make changes to product design and/or dimensions without notice.  
Please contact Jensen Precast whenever necessary for confirmation or advice on product design.

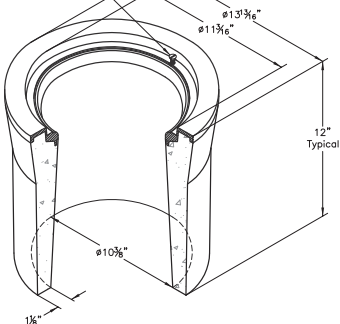


# **Oldcastle Infrastructure V05 Box**

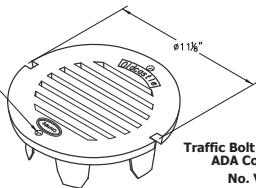
# DRAINAGE ITEMS

## Traffic Valve Box No. G05T BOX 58 lbs.

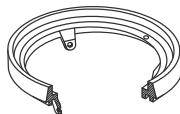
(2)  $\frac{3}{16}$ " x 1" SS Bolt  
(Included)



(2)  $\frac{3}{16}$ " Counter Sunk  
Bolt Holes



**Traffic Bolt Down Grate  
ADA Compliant  
No. V05CT  
15 lbs.**



**Locking  
Grade Ring**

The largest throat diameter for an box in its size range permits quick, easy valve adjustments. The large throat also makes this unit highly adaptable as a survey monument box. Unique locking grade rings assure permanence and quality of surface grades when streets are re-paved. The carefully engineered cast iron lid and ring includes machined surfaces and bolting features reducing the danger of lid "pop-out" in high traffic areas. Bolt down recommended for high traffic areas. Approximate dimensions and weight shown.

Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
G05TBOX	BOX	58 lbs.	G05T Traffic Valve Box (10 $\frac{3}{8}$ " I.D. x 12" high)— 36 per pallet— (includes $\frac{3}{16}$ "—20 x 1", bolts)
V05-71CT	LID	15 lbs.	Cast Iron Grate (Includes holes for bolt down feature) ADA Compliant
G05X12	EXTENSION	38 lbs.	12" reinforced concrete for the G05 boxes— 36 per pallet
G05TGR10	GRADE RING	10 lbs.	1" High cast iron
G05TGR15	GRADE RING	14 lbs.	1 $\frac{1}{2}$ " High cast iron
G05TGR20	GRADE RING	18 lbs.	2" High cast iron



### V05 BOX

FILE NAME: V05\_ISO

ISSUE DATE: January, 2011

**V05 DRAIN BOX  
10-3/8" I.D. x 12"  
CHRISTY**

## ***ADA Solutions Inc. – Cast-In-Place***



# PRODUCT DATA SHEET

## CAST-IN-PLACE TACTILE

### Inline Dome Pattern: Tactile Warning Surface

View additional photos, drawings and specifications on our website: [www.adatale.com](http://www.adatale.com).  
Call (800) 372-0519 with any questions.

<b>DOMGEOMETRY</b>	<i>In accordance with ADA Regulations for Detectable Warning on Curb Ramps: raised truncated domes with a diameter of nominal 0.9", a height of nominal 0.2", and a center-to-center spacing of 1.67" minimum and <b>2.35" maximum</b>.</i>	
<b>TWS UNIT DIMENSIONS</b>	TWS Units are available in 24"x36", 24"x48", 24"x60", <b>36"x48"</b> , and <b>36"x60"</b> sizes. TWS Units may also be custom configured to accommodate specific project requirements. TWS Units measure 0.20" nominal thickness and feature embedment ribs at 3" on center.	
<b>MATERIAL</b>	A homogenous glass and carbon reinforced composite which is colorfast and UV stable. Truncated domes are fiberglass reinforced for enhanced durability. The color of the TWS Unit is uniform throughout and does not rely on any type of paint coating to achieve color stability. Standard colors include: <b>Federal Yellow</b> , Brick Red, Clay Red, Safety Red, Gray, Black, and Blue.	
<b>INSTALLATION</b>	TWS Units are to be used on new curb ramp locations. The TWS Units can be pre-filled with concrete and set in place or pressed into place in the freshly poured concrete.	
<b>PHYSICAL CHARACTERISTICS:</b>		
Compressive Strength	28,900 psi	ASTM D 695
Flexural Strength	29,300 psi	ASTM D 790
Water Absorption	.07%	ASTM D 570
Slip Resistance	1.18 Dry, 1.05 Wet	ASTM C 1028
Flame Spread Index	20	ASTM E 84
Salt Spray	No Change (200 hours)	ASTM B 117
Chemical Stain Testing	No Deterioration	ASTM 1308
Abrasion Resistance	549	ASTM C 501
Accelerated Weathering	Delta E<5.0 (2,000 hours)	ASTM G 155
Tensile Strength	11,600 psi	ASTM D 638
Load Bearing at 16,000#	No Damage	AASHTO-H20
Freeze/Thaw/Heat	No Disintegration	ASTM C 1026

5-Year  
Warranty

Proudly Made in  
the U.S.A.



**ADA SOLUTIONS, INC.**  
**DETECTABLE WARNING SURFACES**  
**FOR PEDESTRIAN CROSSINGS**

**CAST-IN-PLACE (WET-SET)**



*Service, Delivery and Price*  
*Make ADA Solutions, Inc. the Obvious Choice*

WWW.ADATILE.COM • 800-372-0519

# CAST-IN-PLACE TACTILE

## Inline Dome Pattern

### DOME GEOMETRY

*In accordance with ADA Regulations for Detectable Warning on Curb Ramps:* Raised truncated domes with a diameter of nominal 0.9", a height of nominal 0.2", and a center-to-center spacing of 1.67" minimum, and 2.35" maximum.

### PANEL DIMENSIONS

Tactile Units are available in 2'x3', 2'x4', 2'x5', 3'x4' and 3'x5' sizes. Tactile Units may also be custom configured to accommodate specific project requirements. Tactile Units measure 0.25" nominal thickness and feature embedment ribs at 3" on center.

### MATERIAL

A durable exterior grade homogenous glass, carbon, and fiberglass reinforced composite material which is colorfast and UV stable. The color of the Tactile Unit is uniform throughout and does not rely on any type of paint coating to achieve color stability. Standard colors include: Federal Yellow, Seattle Yellow, White, Brick Red, Clay Red, Safety Red, Blue, Dark Gray and Black. For superior wheelchair, walker and shopping cart mobility, truncated domes have a center-to-center (horizontally and vertically) spacing of 2.35 inches.



### INSTALLATION

Tactile Units are to be used on new curb ramp locations. The Tactile Units can be pre-filled with concrete and set in place or pressed into place in the freshly poured concrete.

### PHYSICAL CHARACTERISTICS

Compressive Strength	28,900 psi	ASTM D 695
Flexural Strength	29,300 psi	ASTM D 790
Water Absorption	.07%	ASTM D 570
Slip Resistance	1.18 Dry, 1.05 Wet	ASTM C 1028
Flame Spread Index	20	ASTM E 84
Salt Spray	No Change (200 hours)	ASTM B 117
Chemical Stain Testing	No Deterioration	ASTM 1308
Abrasion Resistance	549	ASTM C 501
Accelerated Weathering	Delta E<5.0 (2,000 hours)	ASTM G 155
Tensile Strength	11,600 psi	ASTM D 638
Load Bearing at 16,000 lbs.	No Damage	AASHTO-H20
Freeze/Thaw/Heat	No Disintegration	ASTM C 1026

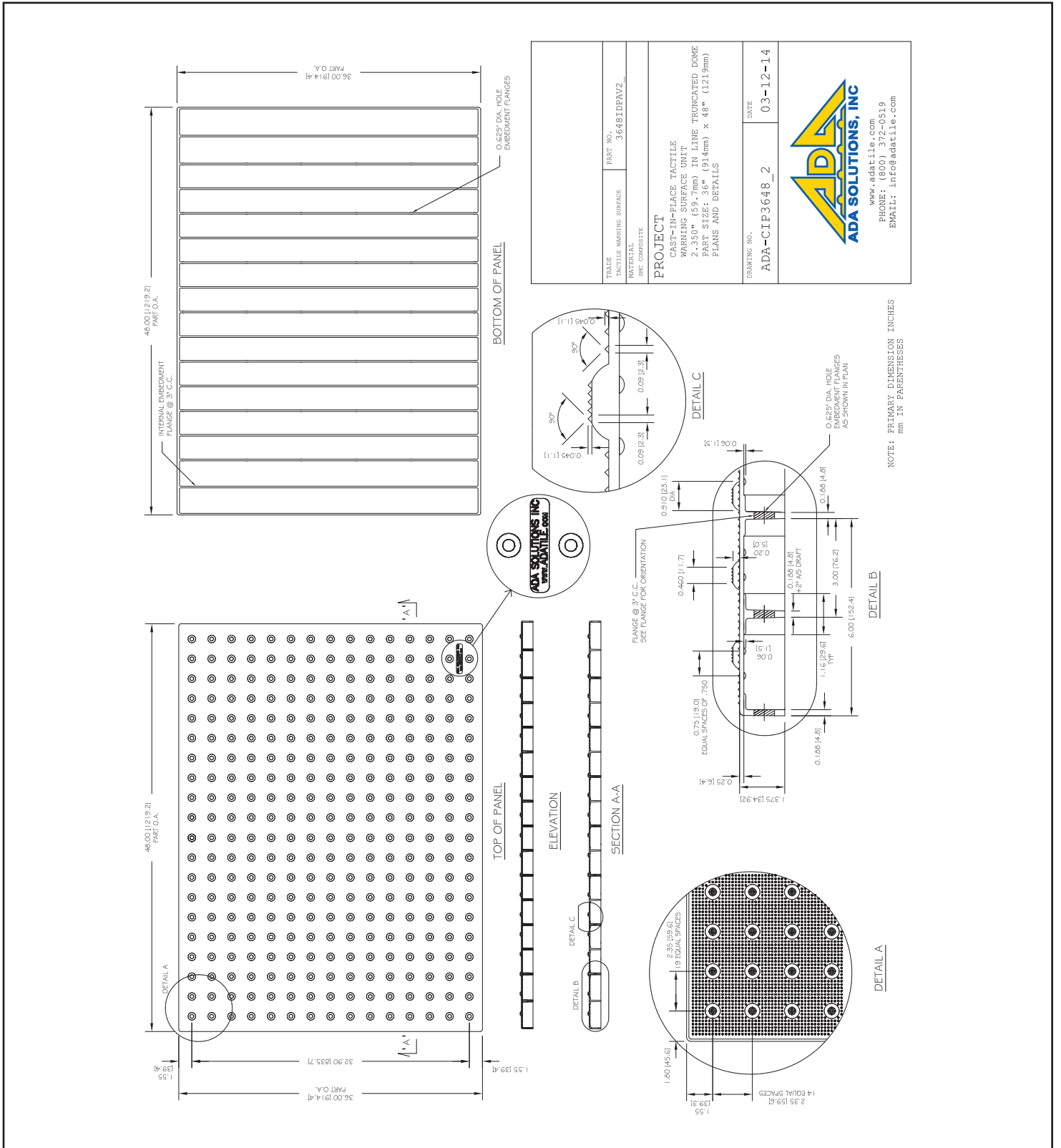


Color  
Throughout

5-Year  
Warranty

# CAST-IN-PLACE TACTILE

**36"x48" (914 x 1219mm) Tile**  
**2.35" (59.7 mm) Dome Spacing**

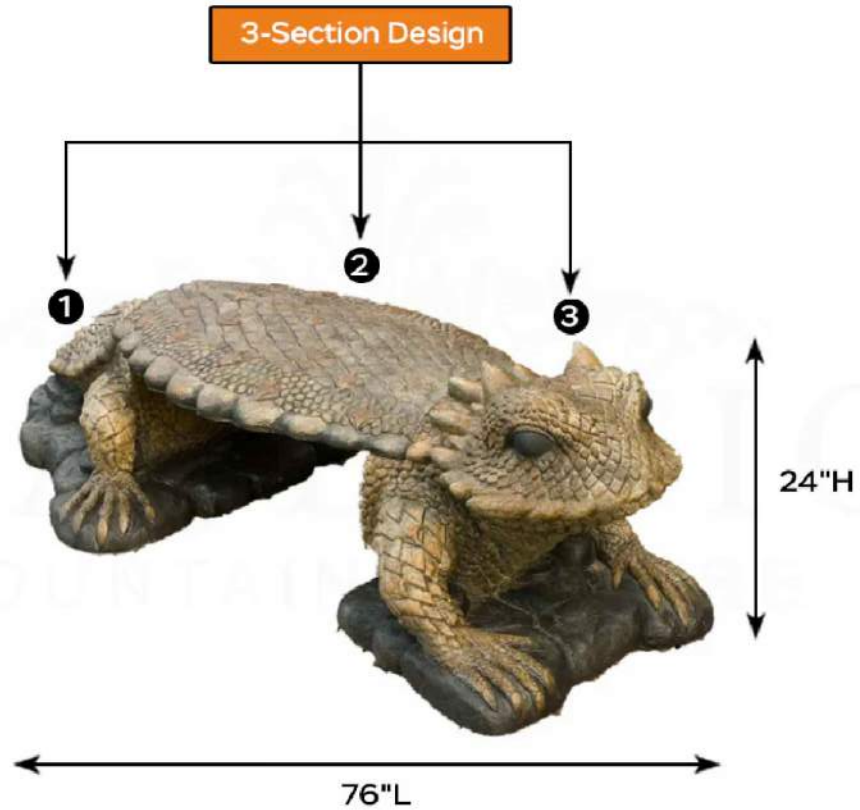




# ***Majestic Fountains and More – Horned Toad Bench***

# Horned Toad Concrete Garden Bench

76"L x 35"W x 24"H | 900 lbs.



  
MAJESTIC  
FOUNTAINS & MORE

## ***A Plus – Permanent Park Sign***



# RAMSEY SPLASH PARK

## EMERGENCY DIAL 911

**POOL PHONE NUMBER:  
(559) 935-2313**

**PHYSICAL ADDRESS OF POOL:  
405 N. Cedar**

### NOTICE

**PERSONS HAVING CURRENTLY ACTIVE DIARRHEA OR WHO HAVE HAD ACTIVE DIARRHEA WITHIN THE PREVIOUS 14 DAYS SHALL NOT BE ALLOWED TO ENTER THE POOL WATER**

### CAUTION

**WATER IS RECIRCULATED  
DO NOT DRINK**



### ARTIFICIAL RESPIRATION PROCEDURE

1. CLEAR VICTIMS MOUTH QUICKLY. TILT HEAD BACK.
2. COVER VICTIMS MOUTH WITH YOUR MOUTH. PINCH NOSTRILS SHUT AND BLOW HARD. FOR A CHILD PLACE YOUR MOUTH OVER HIS OR HER MOUTH AND BLOW GENTLY.
3. REMOVE YOUR MOUTH. ALLOWING AIR TO COME OUT. REPEAT EVERY 5 SECONDS FOR ADULTS. EVERY 3 SECONDS FOR CHILDREN.
4. IF UNABLE TO GET AIR INTO VICTIM'S LUNGS TILT HEAD INTO PROPER POSITION. IF YOU SUSPECT FOREIGN MATTER IN AIRWAY, PLACE VICTIM ON BACK, STRADDLE THE VICTIM'S THIGHS, PERFORM 6-10 ABDOMINAL THRUSTS. CLEAR MATTER FROM MOUTH, RESUME ARTIFICIAL RESPIRATION.

### COALINGA SPLASH PARK RULES

**OPEN  
MID MAY - MID SEPTEMBER  
HOURS OF OPERATION:  
DAILY 10AM - 5PM**

1. NO FACILITY SUPERVISION. PARENTS/GUARDIANS ARE RESPONSIBLE FOR SUPERVISING THEIR CHILDREN.
2. NO RUNNING OR ROUGH PLAYING ON OR AROUND THE SPLASH PAD.
3. DO NOT CLIMB OR HANG ON EQUIPMENT.
4. NO ANIMALS ALLOWED ON OR NEAR THE SPLASH PAD.
5. URINATING, DISCHARGING OF FECAL MATTER, AND BLOWING THE NOSE IN THE SPLASH PAD IS PROHIBITED.
6. NO GLASS CONTAINERS OR FOOD ALLOWED.
7. SHOWER BEFORE ENTERING.
8. DO NOT SWALLOW THE WATER.
9. CHILDREN THAT ARE NOT POTTY-TRAINED MUST WEAR A SWIM DIAPER.
10. SPLASH PAD MAY BE CLOSED AT ANY TIME DUE TO WEATHER, MAINTENANCE OR OTHER OPERATIONAL CONCERNS.

### REGLAS DEL PARQUE ACUÁTICO

**ABIERTO DE MEDIADOS DE MAYO A  
MEDIADOS DE SEPTIEMBRE  
HORARIO DE OPERACIÓN DIARIO:  
10AM - 5PM**

1. NO HAY SUPERVISIÓN DEL PERSONAL. LOS PADRES/ GUARDIANES SON RESPONSABLES DE SUPERVISAR A SUS HIJOS.
2. NO CORRER O JUGAR BRUSCAMENTE EN O ALREDEDOR DE LA ZONA DE AGUA.
3. PROHIBIDO SUBIRSE O COLGARSE DEL EQUIPO.
4. NO SE PERMITEN ANIMALES EN O CERCA DE LA ZONA DE AGUA.
5. PROHIBIDO ORINAR, DEFECAR O SONARSE NARIZ EN LA ZONA DE AGUA.
6. NO SE PERMITEN ENVASES DE VIDRIO. NO SE PERMITE COMIDA.
7. DUCHESE ANTES DE ENTRAR.
8. NO TRAGUE EL AGUA.
9. LOS NIÑOS QUE NO ESTÉN ENTRENADOS PARA USAR EL BAÑO DEBEN USAR PAÑAL DE NATACIÓN.
10. LA ZONA DE AGUA PUEDE CERRARSE EN CUALQUIER MOMENTO DEBIDO AL CLIMA, MANTENIMIENTO U OTROS MOTIVOS OPERATIVOS.

# ***Hunter – MP-1000-90***



## MP-1000-90

**Brand:** Landscape Irrigation

**Product Line:** MP Rotator Nozzles

**Product Model:** Standard MP Rotator® Nozzle

**SKU:** MP100090

**Description:** MP Rotator Nozzle, 0.4 in/hr precipitation rate, 8' to 15' radius, 90° to 210° adjustable arc, female thread, maroon

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### Operating Specifications

**Arc:** 90° to 210°

**Operating Pressure:** 40 PSI

**Precipitation Rate:** 0.4 in/hr

**Radius:** 12' to 15'

**Flow:** 0.17 to 0.27 GPM; 10.2 to 16.2 GPH

---

### Shipping Information

**UPC-A:** 0611698152850

**Qty. / Bag:** 10/200

**Ocean Pallet:** 38400

**Land Pallet:** 32000

**Master Carton:** 200

### Additional Information






**Arc:** 90° - 210°

**Precipitation Rate:** Approx 0.4 in/hr

**Radius:** 8' – 15'


**MP1000**





**Radius: 8' to 15'**  
Adjustable Arc & Full Circle  
**Maroon:** 90° to 210°  
**Lt. Blue:** 210° to 270°  
**Olive:** 360°

Arc	Pressure		Radius	Flow		Precip in/hr	
	PSI			ft	GPM	GPH	■
90° 	30		12	0.17	10.2	0.45	0.52
	35		13	0.19	11.4	0.43	0.50
	40		14	0.21	12.6	0.41	0.48
	45		14	0.23	13.8	0.45	0.52
	50		15	0.25	15.0	0.43	0.49
	55		15	0.27	16.2	0.46	0.53
180° 	30		12	0.34	20.4	0.45	0.52
	35		13	0.38	22.8	0.43	0.50
	40		14	0.42	25.2	0.41	0.48
	45		14	0.44	26.4	0.43	0.50
	50		15	0.50	30.0	0.43	0.49
	55		15	0.51	30.6	0.44	0.50
210° 	30		12	0.40	24.0	0.46	0.53
	35		13	0.45	27.0	0.44	0.51
	40		14	0.49	29.4	0.41	0.48
	45		14	0.51	30.6	0.43	0.50
	50		15	0.57	34.2	0.42	0.48
	55		15	0.59	35.4	0.43	0.50
270° 	30		12	0.48	28.8	0.43	0.49
	35		13	0.53	31.8	0.40	0.46
	40		14	0.63	37.8	0.41	0.48
	45		14	0.67	40.2	0.44	0.51
	50		15	0.72	43.2	0.41	0.47
	55		15	0.75	45.0	0.43	0.49
360° 	30		12	0.69	41.4	0.46	0.53
	35		13	0.77	46.2	0.44	0.51
	40		14	0.84	50.4	0.41	0.48
	45		14	0.88	52.8	0.43	0.50
	50		15	0.98	58.8	0.42	0.48
	55		15	1.01	60.6	0.43	0.50

**MP2000**








**Radius: 13' to 21'**  
Adjustable Arc & Full Circle  
**Black:** 90° to 210°  
**Green:** 210° to 270°  
**Red:** 360°

Arc	Pressure		Radius	Flow		Precip in/hr	
	PSI			ft	GPM	GPH	■
90° 	30		18	0.38	22.8	0.45	0.52
	35		19	0.40	24.0	0.43	0.49
	40		20	0.43	25.8	0.41	0.48
	45		21	0.46	27.6	0.40	0.46
	50		21	0.47	28.2	0.41	0.47
	55		21	0.48	28.8	0.42	0.48

180° 	30	Black	Black	17	0.64	38.4	0.43	0.49
	35			18	0.71	42.6	0.42	0.49
	40			19	0.77	46.2	0.41	0.47
	45			20	0.85	51.0	0.41	0.47
	50			21	0.91	54.6	0.40	0.46
	55			21	0.95	57.0	0.41	0.48
210° 	30	Black	Green	17	0.75	45.0	0.43	0.49
	35			18	0.81	48.6	0.41	0.48
	40			19	0.86	51.6	0.39	0.45
	45			20	0.91	54.6	0.38	0.43
	50			21	0.98	58.8	0.37	0.42
	55			21	1.01	60.6	0.38	0.44
270° 	30	Green	Green	17	0.95	57.0	0.42	0.49
	35			18	1.03	61.8	0.41	0.47
	40			19	1.10	66.0	0.39	0.45
	45			20	1.17	70.2	0.38	0.43
	50			21	1.23	73.8	0.36	0.41
	55			21	1.30	78.0	0.38	0.44
360° 	30	Red	Red	17	1.28	76.8	0.43	0.49
	35			18	1.37	82.2	0.41	0.47
	40			19	1.48	88.8	0.39	0.46
	45			20	1.57	94.2	0.38	0.44
	50			21	1.68	100.8	0.37	0.42
	55			21	1.74	104.4	0.38	0.44

MP3000

Radius: 22' to 30'  
Adjustable Arc & Full Circle  
Blue: 90° to 210°  
Yellow: 210° to 270°  
Grey: 360°

Arc	Pressure PSI			Radius ft	Flow		Precip in/hr	
					GPM	GPH		
90° 	30	Blue	Blue	27	0.76	45.6	0.40	0.46
	35			28	0.82	49.2	0.40	0.46
	40			30	0.86	51.6	0.37	0.42
	45			30	0.90	54.0	0.39	0.44
	50			30	0.95	57.0	0.41	0.47
	55			30	1.01	60.6	0.43	0.50
180° 	30	Blue	Blue	27	1.58	94.8	0.42	0.48
	35			28	1.70	102.0	0.42	0.48
	40			30	1.82	109.2	0.39	0.45
	45			30	1.93	115.8	0.41	0.48
	50			30	2.04	122.4	0.44	0.50
	55			30	2.13	127.8	0.46	0.53
210° 	30	Blue	Yellow	27	1.84	110.4	0.42	0.48
	35			28	1.99	119.4	0.42	0.48
	40			30	2.12	127.2	0.39	0.45
	45			30	2.25	135.0	0.41	0.48
	50			30	2.37	142.2	0.43	0.50
	55			30	2.49	149.4	0.46	0.53
270° 	30	Yellow	Yellow	27	2.37	142.2	0.42	0.48
	35			28	2.55	153.0	0.42	0.48
	40			30	2.73	163.8	0.39	0.45
	45			30	2.89	173.4	0.41	0.48
	50			30	3.06	183.6	0.44	0.50
	55			30	3.22	193.2	0.46	0.53
360° 	30	Grey	Grey	27	3.15	189.0	0.42	0.48
	35			28	3.40	204.0	0.42	0.48
	40			30	3.64	218.4	0.39	0.45
	45			30	3.86	231.6	0.41	0.48
	50			30	4.07	244.2	0.44	0.50
	55			30	4.27	256.2	0.46	0.53

# ***Jay R. Smith MFG. CO. – Trap Primer and Distribution Unit***



# SMITH FLUID CONTROLS™

TRAP PRIMERS AND DISTRIBUTION UNITS



**JAY R. SMITH MFG. CO.**  
MEMBER OF MORRIS GROUP INTERNATIONAL



**FIGURE NO. 2694-NP**  
PRESSURE-DROP TRAP PRIMER

**FIGURE NO. 270FM-08**  
ELECTRONIC TRAP PRIMER

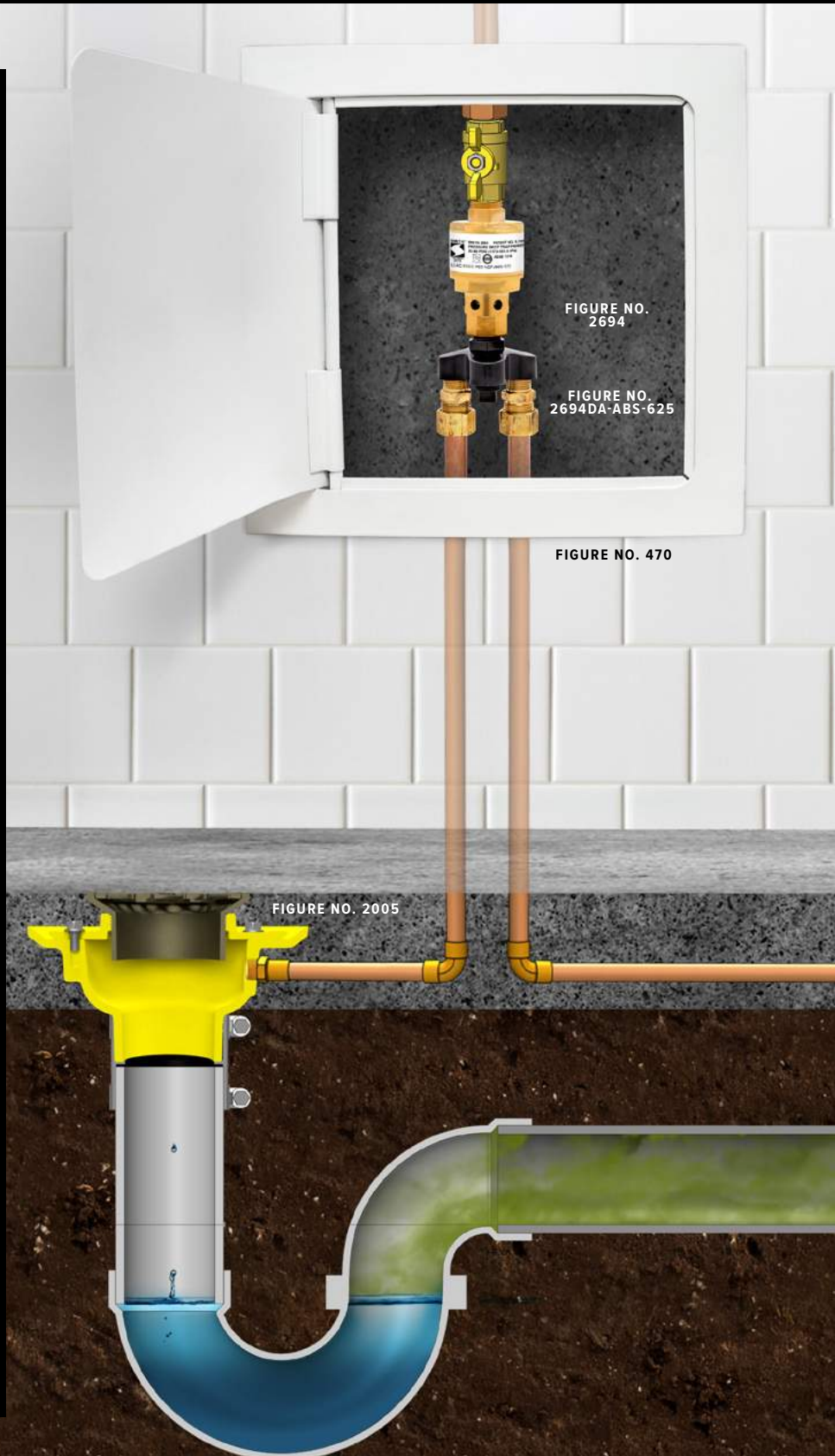


**FIGURE NO. 2694DA-ABS-625**  
CLOVERLEAF STYLE DISTRIBUTION UNIT

**FIGURE NO. 2683-3**  
BRANCH STYLE DISTRIBUTION UNIT



TRAP PRIMERS, TRAP PRIMER ADAPTERS,  
DISTRIBUTION UNITS, AIR GAPS,  
DIELECTRIC FITTINGS, WATER HAMMER  
ARRESTERS, AND ACCESS DOORS.



**FIGURE NO. 2694**

**FIGURE NO. 2694DA-ABS-625**

**FIGURE NO. 470**

**FIGURE NO. 2005**



## JAY R. SMITH MFG. CO.

has been manufacturing engineered plumbing and drainage products for the non-residential construction industry for nearly 95 years. We are proud to continue manufacturing our core products while designing and introducing product lines that meet the evolving needs of our valued customers. Smith products, services, and brands are designed to put the customer's needs at the forefront. Yesterday, today, and always, Smith is Customer Driven.

For the most current information please visit [www.jrsmith.com](http://www.jrsmith.com).



MEMBER OF



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- 3 PRESSURE-DROP TRAP PRIMER
- 4 ELECTRONIC TRAP PRIMERS



- 8 DISTRIBUTION UNITS**
- 8 CLOVERLEAF STYLE
- 9 BRANCH STYLE



- 10 TRAP PRIMER ADAPTERS**



- 11 AIR GAP FITTINGS**



- 12 ACCESS DOORS**

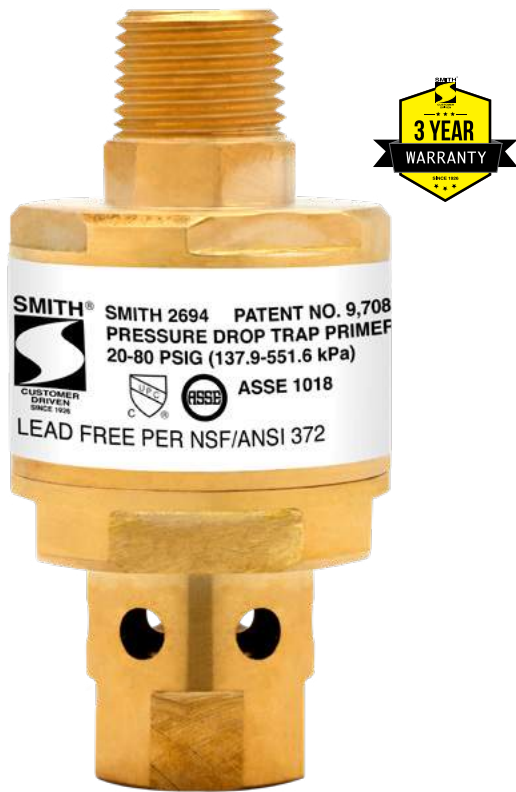


- 14 DIELECTRIC FITTINGS**



- 15 RELATED PRODUCTS**

# TRAP PRIMERS



**FIGURE NO. 2694**  
PRESSURE DROP TRAP PRIMER

Trap-Defender™ is a pressure drop trap primer designed to be connected to any potable cold water line. It is automatically activated when a valve or faucet is opened and the system experiences a drop in pressure. Water is released into the floor drain's P-trap to maintain a seal.

## PRESSURE-DROP TRAP PRIMER FEATURES:

- Fully automatic, no adjustments needed
- Operates at pressures from 20-80 psi, with a minimum pressure drop of 3 psi
- The Trap-Defender will produce output after a decrease in supply line pressure
- The Trap-Defender, having virtually no moving parts, eliminates the friction associated with pistons or o-rings, greatly increasing the device's sensitivity and providing better performance when low flow valves are present
- Can prime up to four traps with the use of a distribution unit (Figure No. 2694DA • Figure No. 2683)
- VARIATIONS:
  - Figure No. 2694-UN 1/2" NPT Union
  - Figure No. 2694-SW 1/2" Sweat Union
- OPTIONAL FINISH:
  - Nickel Plated -NP
- Three-year warranty
- Lead-free
- Patent No. 9,708,808  
Patent No. 10,190,306



The Trap-Defender™ comes boxed with 30 individually packaged units and provides a convenient way for contractors and wholesalers to purchase and stock the Trap-Defender product.

EACH PACKAGE INDIVIDUALLY LABELED WITH MODEL AND MATERIAL



# ELECTRONIC TRAP PRIMERS

Electronic Trap Primers deliver a timed discharge of water to the floor drain P-traps to ensure the traps maintain a water seal.



**FIGURE NO. 273-120**



**FIGURE NO. 273-B-12V**

## **SURFACE MOUNT SINGULAR TRAP PRIMER FEATURES:**

Singular electronic trap primers can be used to prime 1, or up to, 4 floor drain traps with optional distribution unit.

- An optional distribution unit can be specified when more than one trap is to be primed
- A factory pre-set timer is programmed to discharge water to the trap every 24 hours
- Units can be hardwired or operated on a battery pack
- Unit includes solenoid valve, brass air gap, timer module, and control box
- ASSE, IAPMO (UPC) & IAPMO EGS (UL1951) Listed

## **SURFACE MOUNT SINGULAR TRAP PRIMER FIGURE NO.:**

**FIGURE NO. 273:** Surface mount singular unit designed to interface with Building Management System if required. Hardwired connection.

**FIGURE NO. 273-B:** Singular unit housed in a surface-mounted Nema Type 1 enclosed box. Designed to interface with Building Management System if required. Hardwired connection.

**FIGURE NO. 273-SW:** Singular unit available in 24VAC or 240VAC hardwired connection.

**FIGURE NO. 273-SW-120VAC:** Supplied with six-foot (1.83M), three-prong, plug-in connection.

**FIGURE NO. 273-12V:** Surface mount singular 12V battery-operated unit. Designed to interface with Building Management System. Supplied with 12V battery pack. (as shown)

**FIGURE NO. 273-B-12V:** Singular 12V battery-operated unit housed in a surface-mounted Nema Type 1 enclosed box. Designed to interface with Building Management System. Supplied with 12V battery pack.

**FIGURE NO. 273-B-AG:** Singular unit housed in a box for flush (recessed) mounting. Designed to interface with Building Management System if required. Hardwired connection.



**FIGURE NO. 270FM-08**

## FLUSH MOUNT (RECESSED) TRAP PRIMERS FEATURES:

Flush Mount, or recessed, Electronic Trap Primers sit flush with the finished wall.

- A multi-port outlet assembly primes 4 to 36 traps
- A factory pre-set timer is programmed to discharge water into the trap every 24 hours
- The steel recessed mounting enclosure fits between studs 16-inches on center
- An optional solid cover or hinged access door is available
- Consists of shut-off valve, solenoid valve, control box, atmospheric vacuum breaker and copper manifold
- ASSE, IAPMO (UPC) & IAPMO EGS (UL1951) Listed

## FLUSH MOUNT (RECESSED) TRAP PRIMERS FIGURE NO.:

**FIGURE NO. 270FM-SERIES:** Multi-port outlet assembly designed to prime 4 to 16 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection. (as shown)

**FIGURE NO. 271FM SERIES:** Multi-port outlet assembly designed to prime 16 to 24 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection. (as shown)

**FIGURE NO. 272FM SERIES:** Multi-port outlet assembly designed to prime 24 to 32 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection



**FIGURE NO. 271FM-24**

## FLUSH MOUNT (RECESSED) TRAP PRIMERS OPTIONS:

- GC: Galvannealed Steel Cover
- SSC: Solid Stainless Steel Cover
- SL: Hinged Access Door with Screwdriver Latch
- AKL: Hinged Access Door with Allen Key Lock
- CL: Hinged Access Door with Cylinder Lock
- FR: Fire-Rated 16 Ga Steel Recessed Enclosure and Cover
- U: Vandal Proof Cover Screws
- EMS: Interface with Facilities Energy Management System

# ELECTRONIC TRAP PRIMERS



FIGURE NO. 270SM-08

## SURFACE-MOUNTED (SM) TRAP PRIMERS FEATURES:

Surface-mounted electronic trap primers mount on the finished wall.

- A multi-port outlet assembly primes 4 to 32 traps
- A factory pre-set timer is programmed to discharge water to the trap every 24 hours
- A steel NEMA Type 1 surface mounted enclosed box, shut-off valve, solenoid valve, control box, atmospheric vacuum breaker and copper manifold are provided
- ASSE, IAPMO (UPC) & IAPMO EGS (UL1951) Listed

## SURFACE MOUNT (SM) TRAP PRIMERS FIGURE NO.:

**FIGURE NO. 270SM-SERIES:** Multi-port outlet assembly designed to prime from 4 to 16 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection. (as shown)

**FIGURE NO. 271SM SERIES:** Multi-port outlet assembly designed to prime from 16 to 24 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection. (as shown)

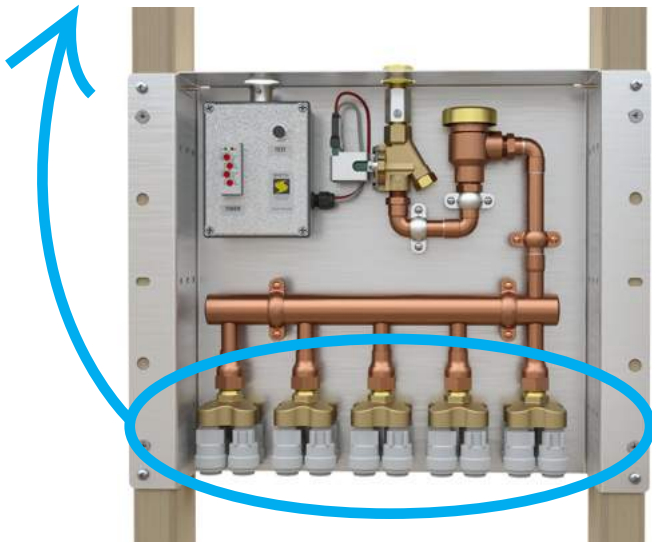
**FIGURE NO. 272SM SERIES:** Multi-port outlet assembly designed to prime from 26 to 32 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection.



FIGURE NO. 271SM-24



**PUSH-IN FITTINGS**



**FIGURE NO. 271FM-20-CTS**



**FIGURE NO. 271SM-20-CTS**

## **PUSH-IN CONNECTIONS (CTS) FEATURES:**

CTS series Electronic Trap Primers are available in surface mount and flush mount varieties.

- A multi-port outlet assembly primes 4 to 36 traps.
- A factory pre-set timer is programmed to discharge water to the trap every 24 hours
- Units are provided with a recessed or surface-mounted enclosure, optional recessed cover, shut-off valve, solenoid valve, control box, atmospheric vacuum breaker and copper manifold
- The CTS option provides push-in connections for faster installation

## **FLUSH MOUNT WITH PUSH-IN CONNECTIONS (CTS) FIGURE NO.:**

**FIGURE NO. 271FM-CTS SERIES:** Multi-port outlet assembly designed to prime 4 to 20 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection. (as shown)

**FIGURE NO. 272FM-CTS SERIES:** Multi-port outlet assembly designed to prime 24 to 36 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection.

## **SURFACE MOUNT WITH PUSH-IN CONNECTIONS (CTS) FIGURE NO.:**

**FIGURE NO. 271SM-CTS SERIES:** Multi-port outlet assembly designed to prime 4 to 20 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection. (as shown)

**FIGURE NO. 272SM-CTS SERIES:** Multi-port outlet assembly designed to prime 24 to 36 floor drain P-traps. Designed to interface with Building Management System. Hardwired connection.

# DISTRIBUTION UNITS

Distribution units connect to trap primers and divide the flow of water evenly in order to prime up to four traps with one trap primer. Two styles of distribution units are offered in the Smith Fluid Controls™ product line: Cloverleaf Style and Branch Style.



**FIGURE NO. 2694DA-ABS-625**  
TRAP PRIMING DISTRIBUTION UNIT

## CLOVERLEAF STYLE FEATURES:

The Trap Priming Distribution Unit simply and effectively primes up to four floor drains with only one Trap Priming Valve. Unit must be installed level.

- Water leaving the trap primer is divided evenly between outlets
- A variety of outlet types are available
- Available in lead-free brass or ABS



Patent No. 10,066,378



**FIGURE NO. 2694DA-625CTS**  
TRAP PRIMING DISTRIBUTION UNIT

## CLOVERLEAF STYLE WITH PUSH-IN FEATURES:

Push-in fittings save labor by eliminating the need for traditional, labor intensive methods of connecting pipe to fittings. With a push-in fitting, the installer simply pushes the pipe into the fitting to complete the connection.



Patent No. 10,066,378

# DISTRIBUTION UNITS

## DISCHARGE TYPES

**FIGURE NO. 2683-1**  
(4) 1/4" MALE SWEAT



**FIGURE NO. 2683-2**  
(2) 1/4" MALE SWEAT

(2) 1/4" TUBES WITH  
CLOSED ENDS



**FIGURE NO. 2683-3**  
(4) 1/2" NPT THREAD



**FIGURE NO. 2683-4**  
(3) 1/4" MALE SWEAT



**FIGURE NO. 2683-5**  
(2) 1/4" MALE SWEAT



**FIGURE NO. 2683-6**  
(2) 1/2" FEMALE SWEAT

(2) 1/4" TUBES WITH  
CLOSED ENDS



## BRANCH STYLE FEATURES:

The distribution unit simply and effectively primes up to four floor drain traps with one trap primer.

- Branches are flexible for ease of connection
- Water leaving the trap primer is divided evenly between branches
- A variety of connection types are available



**FIGURE NO. 2683-3**  
(4) 1/2" NPT THREAD

# TRAP PRIMER ADAPTERS

Trap primer adapters are installed on the floor drain outlet prior to the P-trap.



## ADAPTERS FEATURES:

- Provide a trap primer connection when the floor drain and P-trap are not tapped
- Allow the fitting flexibility to be rotated in any direction prior to bonding, offering a quick and cost-saving installation
- Trap Primer connection sizes/types
  - 1/2-inch NPT Female
  - 1/2-inch OD Copper Compression
  - 5/8-inch OD Copper Compression
  - 5/8-inch OD CTS (Push-In)
- Available in PVC or ABS
- Available in 2", 3" or 4" pipe sizes



**276 SERIES**  
ABS TRAP PRIMING ADAPTERS



**276 SERIES**  
PVC TRAP PRIMING ADAPTERS

# AIR GAP FITTINGS

An air gap is a vertical break between the supply pipe and the receiving source to provide backflow protection into the potable water system.

## AIR GAP FITTINGS FEATURES:

- Required by code for protection against backflow into the potable water system
- Optional finish is nickel plated brass



**FIGURE NO. 280**  
1/2" NPT  
THREADED CONNECTIONS



**FIGURE NO. 281-S**  
3/4" X 1 1/2"  
SWEAT CONNECTIONS



**FIGURE NO. 281-T**  
3/4" X 1 1/2" NPT  
THREADED CONNECTIONS

# ACCESS DOORS

Access doors provide an easy way to access hidden components in the wall. For products such as the Trap-Defender™ trap primer and water hammer arresters, access doors make it possible for maintenance and service after installation.

 **WHITEHALL MANUFACTURING®**

**05** MODEL NO. WH3740  
LIGATURE RESISTANT  
STAINLESS STEEL BASIN

**06** MODEL NO. WH3375-S0  
LIGATURE RESISTANT SINGLE  
TEMPERATURE SENSOR  
ACTIVATED FAUCET -  
4 INCH CENTERSET



**04**

 **ACORN ENGINEERING COMPANY®**

MODEL NO. 1709HEU  
ADA STAINLESS STEEL HIGH  
EFFICIENCY URINAL

**04**



**06**

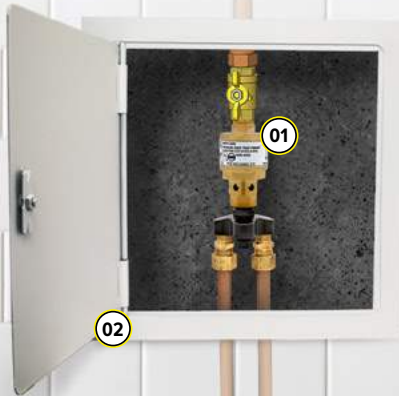
**05**

**JAY R. SMITH MFG. CO.®**

**01** FIGURE NO. 2694  
TRAP-DEFENDER WITH  
DISTRIBUTION UNIT

**03** FIGURE NO. 2005  
GENERAL PURPOSE  
FLOOR DRAIN  
WITH ADJUSTABLE  
STRAINER HEAD

**02** FIGURE NO. 470  
DRYWALL ACCESS DOOR



**02**

**01**



**03**



**FIGURE NO. 470, 472**  
DRYWALL ACCESS DOORS



**FIGURE NO. 474, 474-SS**  
FIRE-RATED WALL ACCESS DOORS

## **DRYWALL ACCESS DOORS FEATURES:**

---

This Drywall Access door and frame is ideally suited for new installations or for remodeling in masonry, tile, wood or other wall and ceiling surfaces.

- 16 ga, galvanized steel construction with a prime coat finish suitable for painting or stainless steel construction
- Rounded safety corners and a rod hinge up to 24"
- Sizes 24" and larger are provided with a concealed piano hinge. Frame shall be one piece construction with no mitres or welds on the face
- Latch shall be screwdriver operated

## **FIRE-RATED WALL ACCESS DOORS FEATURES:**

---

This access door is Fire Rated for 1-1/2 hours

- 16 ga, galvanized steel construction with a prime coat finish suitable for painting or stainless steel construction
- Concealed type hinge and heavy duty spring provide positive latching when closed
- Interior latch release slide enables the door to be opened from the inside
- Exterior latch is recessed and operated with a ring attached to the sliding bolt
- For wall installation only

# DIELECTRIC FITTINGS

Dielectric fittings protect the plumbing system via a steel-to-plastic design that establishes an effective dielectric waterway by interrupting the continuity of electrical current and assisting in the prevention of pipe failure that may result when dissimilar metals are connected.

## DIELECTRIC FITTINGS FEATURES:

- Interrupt continuity of electrical current between dissimilar metals
- Provide protection for the plumbing system
- Available in three models for flexible installations



**FIGURE NO. 950-TxT SERIES**  
DIELECTRIC FITTING WITH  
THREAD BY THREAD



**FIGURE NO. 950-GxT SERIES**  
DIELECTRIC FITTING WITH  
THREAD BY GROOVE



**FIGURE NO. 950-GxG SERIES**  
DIELECTRIC FITTING WITH  
GROOVE BY GROOVE

## RELATED PRODUCTS

See the other trap primers and accessory options in Smith's product line to compliment your trap primer installation.



**FIGURE NO. 2699**  
LEAD-FREE AUTOMATIC TRAP PRIMER



**FIGURE NO. 2699-1**  
LEAD-FREE AUTOMATIC TRAP PRIMER WITH COPPER SWEAT



**FIGURE NO. 2696**  
AUXILIARY INLET FITTING WITH THREADED OUTLET



**FIGURE NO. 2697**  
AUXILIARY INLET FITTING WITH CAULK OUTLET



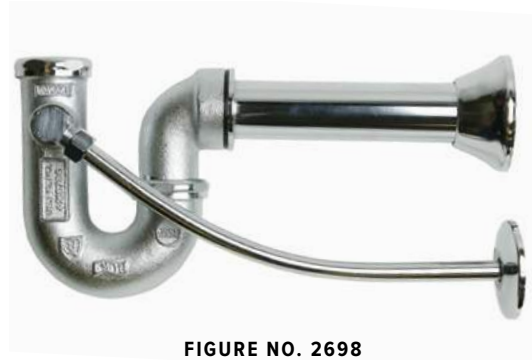
**FIGURE NO. 2695**  
CAST IRON AUXILIARY INLET FITTING



**5000 SERIES**  
HYRDOTROL WATER HAMMER ARRESTER



**FIGURE NO. 2692**  
QUAD CLOSE "STINK STOPPER" TRAP SEAL DEVICE



**FIGURE NO. 2698**  
PRIME EZE WATER SAVER

# MORRIS GROUP INTERNATIONAL

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### DRAINAGE



### PLUMBING FIXTURES & ACCESS



**murdock**



### FIRE PROTECTION



### MANUFACTURING SUPPORT



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EMIRATES



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SWORDS

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MAILING ADDRESS  
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PHONE: (334) 277-8520  
E-MAIL: SALES@JRSMITH.COM

## APPENDIX D: PRE-CONSTRUCTION SITE PHOTOS

On/Off Site



Figure 1: On-site. Facing North-West. On W. Cedar Ave.



Figure 2: Off-site. Facing South. On W. Cedar Ave.



Figure 3: Off-site. Facing North. On W. Cedar Ave.

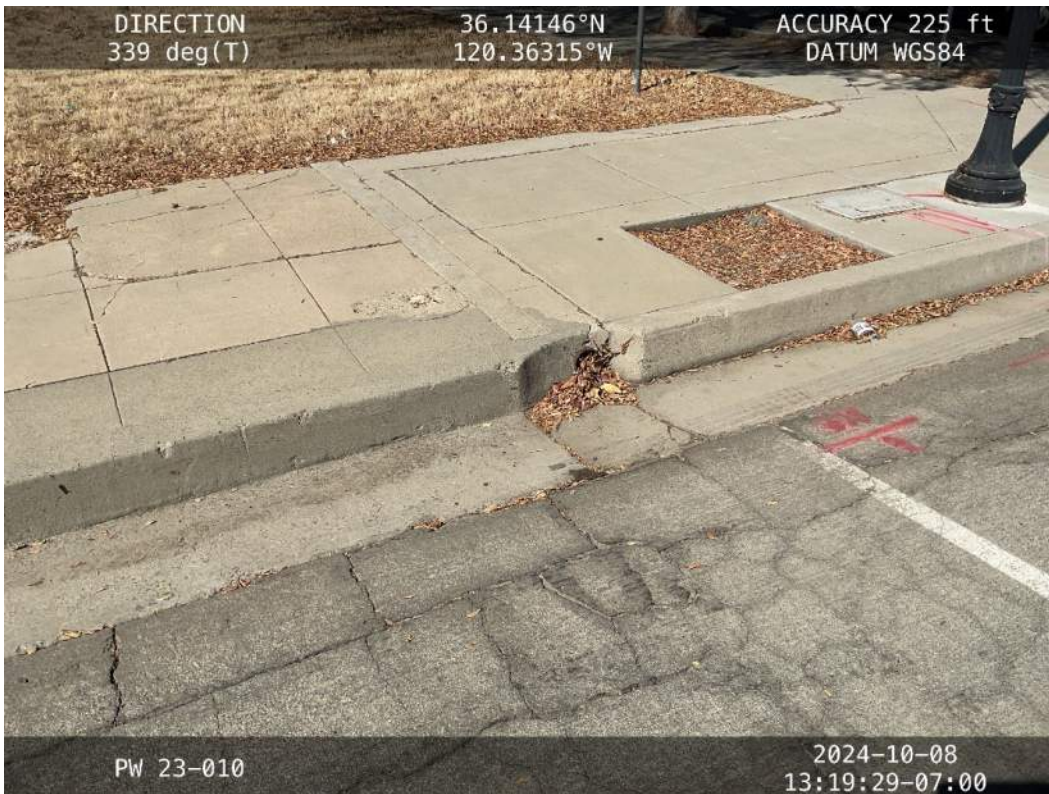


Figure 4: Off-site. Facing North. On W. Cedar Ave.



Figure 5: On-site. Facing West. On W. Cedar Ave.



Figure 6: On-site. Facing North-West. On W. Cedar Ave.



Figure 7: On/Off site. Facing North-West. on Coalinga Plaza.



Figure 8: On/Off site. Facing South-East. On Coalinga Plaza.

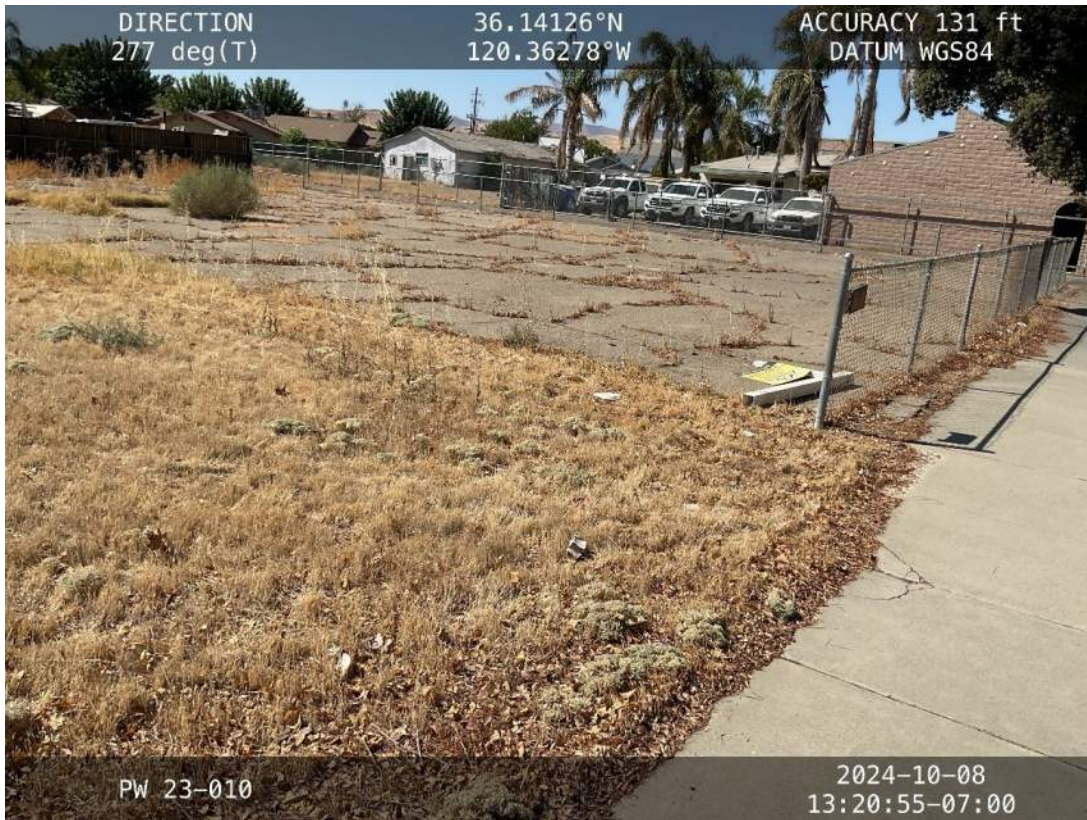


Figure 9: On-site. Facing North-West. On Coalinga Plaza.



Figure 10: On-site. Facing South-East. On W. Cedar Ave.



*Figure 11: Off-site. Facing South-East. On Coalinga Plaza.*



*Figure 12: Off-site. Facing North-East. In Alley, looking at backside of Park.*

# END OF SPECIFICATIONS