

**Recommended by:**

Catherine M. Wampler 8/9/2018

Catherine M. Wampler, PE  
County Project Manager, Temescal Canyon Road Widening Projects

Alfredo Martinez 8/9/18

Alfredo Martinez, PE  
County Project Manager, Temescal Canyon Road Drainage Improvement Project

**Concurrence:**

Khalid Nasim 8/9/18

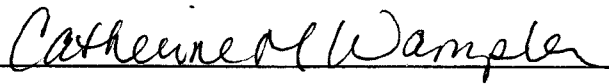
Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:** (Signature) Date: 8/13/18  
(Contractor)

JRJ:jj:rr

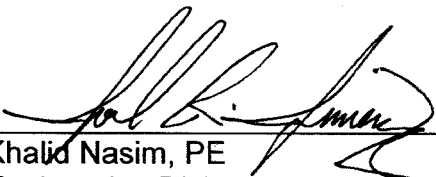
Note: Refer to Instruction to Bidders Item No. 8, "Addenda". Submission of all addendum pages and non-bidding document attachments of addendum are not necessary for Bid submittal. Submittal of this acknowledgement page is adequate for Bid reception. Bidders are reminded to list addendum number(s) received on the first page of the Bid form (Proposal).

**Recommended by:**



Catherine M. Wampler, PE  
County Project Manager

**Concurrence:**

 for  
Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:**



(Contractor)

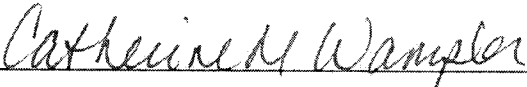
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8/17/14

JRJ:jrj:rr

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County Project Manager, Temescal Canyon Road Widening Projects

**Concurrence:**



Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:**

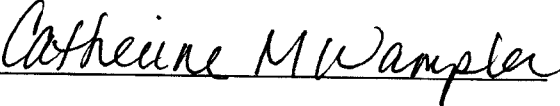
  
\_\_\_\_\_  
(Contractor)

Date: 8/22/18

JRJ:jrj:rr

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**Recommended by:**




Catherine M. Wampler, PE  
County Project Manager, Temescal Canyon Road Widening Projects

**Concurrence:**



Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:**

  
(Contractor)


Date:

8/30/18

JRJ:rrj:rr

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**Recommended by:**




Catherine M. Wampler, PE  
County Project Manager, Temescal Canyon Road Widening Projects

**Concurrence:**



Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:**

  
(Contractor)

Date: 8/31/18

JRJ:jj:rr

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Patricia Romo, P.E.  
Director of Transportation

# COUNTY OF RIVERSIDE

## TRANSPORTATION AND LAND MANAGEMENT AGENCY

Mojahed Salama, P.E.  
Deputy for Transportation/Capital Projects  
Richard Lantis, P.L.S.  
Deputy for Transportation/Planning and  
Development

### Transportation Department

#### ADDENDUM NUMBER 1

Dated August 1, 2018

to the  
Specifications and Contract Documents  
for the construction of

Temescal Canyon Road Widening Projects  
Dawson Canyon Road to 0.7 Mile North  
Dos Lagos Drive to Leroy Road, and

Temescal Canyon Road Slurry Seal Project  
0.7 Miles North of Dawson Canyon Road to Leroy Road  
Project No. C5-0072, C6-0066  
State Project No. LPPSB1L-5956(267); and

Temescal Canyon Road Drainage Improvement Project  
At Coldwater Creek  
Project No. B9-0988  
In the Community of Temescal Valley

**Bids Due:** (Revised) Wednesday, August 22, 2018; 2:00 p.m.  
14<sup>th</sup> Street Transportation Annex  
3525 14<sup>th</sup> Street; Riverside, CA 92501  
(951) 955-6780

This Addendum is issued pursuant to the Instructions to Bidders, Item No. 8, of the Contract Documents for the reference project. This Addendum is issued as a supplement to the specification and special provisions for the referenced project. The revisions to the specifications shall become a part of the Contract Documents, and each bidder shall acknowledge receipt thereof on the Bid (Proposal). Bidders are directed to sign this addendum as acknowledged, and attach the signed addendum to the contractor's submitted proposal.

Note: During the advertisement period of this project, this document and attachments (if any) are available upon request at the office of the Transportation Department, and are available as a free download at the Transportation Department's website:

<http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids>

#### MODIFICATIONS / CLARIFICATIONS TO SPECIAL PROVISIONS:

**Item 1:** The new designated date and time for the receipt and opening of bids is revised as follows:

Wednesday, August 22, 2018; 2:00 p.m.  
14<sup>th</sup> Street Transportation Annex  
3525 14<sup>th</sup> Street; Riverside, CA 92501  
(951) 955-6780

**Item 2: Mandatory Pre-Bid Meeting.** A mandatory pre-bid meeting for prime contractors is scheduled for 2:15 pm on **Wednesday, August 15, 2018**, at the County of Riverside Transportation Department, 3525 14<sup>th</sup> Street, Riverside, California 92501.

Sub-contractors, suppliers, and manufactures are welcome to attend this meeting.

The County will conduct a mandatory pre-bid meeting for this project. Each bidder must attend the mandatory pre-bid meeting. For a joint venture, one of the parties must attend the mandatory pre-bid meeting. The County does not accept a bid from a bidder who did not attend the meeting.

A sign-up sheet is used to identify each prospective bidder. Each bidder is required to include the name of the company representative attending the mandatory pre-bid meeting.

**Item 3: Project Name Update to Include Slurry Seal Segment.** Refer to bidding documents and contract documents in the specs book (Contract Documents).

Whenever and wherever in the Contract Documents the name Temescal Canyon Road Widening Projects, Dawson Canyon Road to 0.7 Mile North, Dos Lagos Drive to Leroy Road, Project No. C5-0072, C6-0066, State Project No. LPPSB1L-5956(267); and Temescal Canyon Road Drainage Improvement Project, At Coldwater Creek, Project No. B9-0988, In the Community of Temescal Valley is used, it shall be understood to mean and refer to:

Temescal Canyon Road Widening Projects  
Dawson Canyon Road to 0.7 Mile North  
Dos Lagos Drive to Leroy Road, and  
Temescal Canyon Road Slurry Seal Project  
0.7 Miles North of Dawson Canyon Road to Leroy Road  
Project No. C5-0072, C6-0066  
State Project No. LPPSB1L-5956(267); and  
Temescal Canyon Road Drainage Improvement Project  
At Coldwater Creek  
Project No. B9-0988  
In the Community of Temescal Valley

**Item 4: Supplemental Project Information Clarification:** Refer to "Supplemental Project Information" documents made available at the County of Riverside website. Updated versions of the following documents supersede originally posted documents:

- Cross Sections – Temescal Canyon Road, Dawson Canyon Segment (updated 7/ 26/ 2018)
- Baseline SWPPP – Widening Projects (updated 7/ 23/ 2018)
- Baseline WPCP – Drainage Projects (updated 7/ 26/ 2018)

**Supplemental Project Information Modification:** Refer to Section 2-1.06B, "Supplemental Project Information," of the Special Provisions (page 21 and 22). The following document is added to the list of supplemental project information made available by the Transportation Department:

- Box Culvert Drawings

Supplemental Project Information is available at:

County of Riverside website during advertisement period.

[http://www.rctlma.org/trans/con\\_bid\\_advertisements.html](http://www.rctlma.org/trans/con_bid_advertisements.html)

**Recommended by:**

Catherine M. Wampler 8/1/2018

Catherine M. Wampler, PE  
County Project Manager

**Concurrence:**

Khalid Nasim 8/1/18  
Khalid Nasim, PE  
Engineering Division Manager

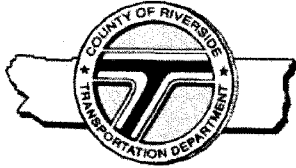
**Acknowledged:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
(Contractor)

JRJ:jrj:rr

Note: Refer to Instruction to Bidders Item No. 8, "Addenda". Submission of all addendum pages and non-bidding document attachments of addendum are not necessary for Bid submittal. Submittal of this acknowledgement page is adequate for Bid reception. Bidders are reminded to list addendum number(s) received on the first page of the Bid form (Proposal).



COPY



Patricia Romo, P.E.  
Director of Transportation

**COUNTY OF RIVERSIDE**  
**TRANSPORTATION AND**  
**LAND MANAGEMENT AGENCY**

Mojahed Salama, P.E.  
Deputy for Transportation/Capital Projects  
Richard Lantis, P.L.S.  
Deputy for Transportation/Planning and  
Development

**Transportation Department**

**ADDENDUM NUMBER 2**

**Dated August 9, 2018**

**to the**

**Specifications and Contract Documents  
for the construction of**

**Temescal Canyon Road Widening Projects  
Dawson Canyon Road to 0.7 Mile North  
Dos Lagos Drive to Leroy Road, and**

**Temescal Canyon Road Slurry Seal Project  
0.7 Miles North of Dawson Canyon Road to Leroy Road  
Project No. C5-0072, C6-0066  
State Project No. LPPSB1L-5956(267); and**

**Temescal Canyon Road Drainage Improvement Project  
At Coldwater Creek  
Project No. B9-0988  
In the Community of Temescal Valley**

**Bids Due: (Revised) Wednesday, August 29, 2018; 2:00 p.m.**  
14<sup>th</sup> Street Transportation Annex  
3525 14<sup>th</sup> Street; Riverside, CA 92501  
(951) 955-6780

This Addendum is issued pursuant to the Instructions to Bidders, Item No. 8, of the Contract Documents for the reference project. This Addendum is issued as a supplement to the specification and special provisions for the referenced project. The revisions to the specifications shall become a part of the Contract Documents, and each bidder shall acknowledge receipt thereof on the Bid (Proposal). Bidders are directed to sign this addendum as acknowledged, and attach the signed addendum to the contractor's submitted proposal.

Note: During the advertisement period of this project, this document and attachments (if any) are available upon request at the office of the Transportation Department, and are available as a free download at the Transportation Department's website:

<http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids>

**MODIFICATIONS / CLARIFICATIONS TO SPECIAL PROVISIONS:**

**Item 1: Revised Mandatory Pre-Bid Meeting date.** Refer to Addendum No. 1, Item No. 2. The new designated date and time for the Mandatory Pre-Bid Meeting is revised as follows:

**Wednesday, August 22, 2018; 2:15 p.m.**  
14<sup>th</sup> Street Transportation Annex  
3525 14<sup>th</sup> Street; Riverside, CA 92501  
(951) 955-6780

**Item 2:** The new designated date and time for the receipt and opening of bids is revised as follows:

**Wednesday, August 29, 2018; 2:00 p.m.**  
14<sup>th</sup> Street Transportation Annex  
3525 14<sup>th</sup> Street; Riverside, CA 92501  
(951) 955-6780

- Item 3: Modified Hours of Work.** Refer to special provisions Table of Contents and Section 00-1.03(A), "Modified Hours of Work," of the special provisions (pages 3 and 4).

Delete the section heading, 00-1.03(A) MODIFIED HOURS OF WORK (Not Used), and replace it with the following section heading:

**00-1.03(A) MODIFIED HOURS OF WORK**

Note: the special provisions in Section 00-1.03(A), "Modified Hours of Work", revise Section 13, Hours of Work, of the Instructions to Bidders.

- Item 4: Liquidated Damages.** Refer to Section 00-1.04, "Liquidated Damages," of the special provisions (page 4). Delete the second paragraph of Section 00-1.04 and replace it with the following paragraph:

**Temescal Canyon Road Drainage Improvement Project**

The Contractor shall pay to the County the sum of **\$ 2,500.00 per day**, for each and every calendar day's delay in finishing the work in excess of the number of ~~working~~ calendar days prescribed in Time of Completion Special Provision.

- Item 5: Supplemental Project Information Clarification:** Refer to "Supplemental Project Information" documents made available at the County of Riverside website. Updated versions of the following documents supersede originally posted documents:

- Baseline WPCP – Drainage Projects (updated 8/9/2018)

**Supplemental Project Information Modification:** Refer to Section 2-1.06B, "Supplemental Project Information," of the Special Provisions (page 21 and 22). The following document is added to the list of supplemental project information made available by the Transportation Department:

- Conceptual Traffic Detour Plan, Drainage Improvement Project

Supplemental Project Information is available at:

County of Riverside website during advertisement period.

[http://www.rctlma.org/trans/con\\_bid\\_advertisements.html](http://www.rctlma.org/trans/con_bid_advertisements.html)

- Item 6: Clearing and Grubbing.** Refer to Section 17-2.01, "Clearing and Grubbing," of the special provisions (pages 43 and 44). The following Special Provisions are added and made a part hereby:

Full compensation for the removal and proper disposal of existing rocks, debris, and existing cutoff wall necessary for construction of the Drainage Improvements (precast reinforced concrete box culvert installation) shall be considered as included in the contract price paid per lump sum for Clearing and Grubbing and no additional compensation will be allowed therefor.

- Item 7: Reinforced Concrete Box Culvert.** Refer to Section 51.4.0C, "Box Culverts," of the special provisions (page 67). Delete Section 51.4.0C, "Box Culverts," in the special provisions and replace it with the following Special Provisions:

#### **51-4 PRECAST CONCRETE MEMBERS**

##### **Add to Section 51-4.1, General:**

##### PRECAST REINFORCED CONCRETE BOX (RCB) CULVERT:

The Contractor shall install Precast Reinforced Concrete Box Culvert in accordance with the provisions of Section 51-4, Precast Concrete Members, applicable for Box Culverts.

Refer to Section 6-1.02, Department-Furnished Materials, of the special provisions. The County furnishes you with the Precast Reinforced Concrete Box Culvert for you to pick up from Riverside County's El Cerrito Maintenance Yard located at 19355 Ontario Avenue, Corona, CA 92881.

Shop drawings for precast concrete box culverts are provided as supplemental project information.

Carefully handle, transport, and erect precast concrete members to avoid twisting, racking, or other distortion that would result in cracking or damage to the members.

Structure excavation and backfill must comply with Section 19-3, Structure Excavation and Backfill. Full compensation for structure excavation necessary for installation of precast reinforced concrete box culvert is included in the contract price paid per cubic yard for Structure Excavation (Culvert).

Laying of precast concrete box culverts must comply with the specifications for laying reinforced concrete pipe in section 65-2.03C, "Laying Pipe".

Joints must comply with the specifications for cement mortar or resilient material joints in section 65-2.02F, "Joints".

##### Payment:

Full compensation for transporting and installing County furnished Reinforced Concrete Box including excavation necessary (other than Structure Excavation) and backfill, temporary shoring if needed, sand bedding, and trench backfill, including all labor, equipment, materials and incidentals, shall be considered as included in the contract price paid per linear foot for Reinforced Concrete Box Culvert, and no additional compensation will be allowed therefor.

- Item 8: Rock Energy Dissipator.** Refer to Section 72-2, "Rock Slope Protection (RSP) And Rock Energy Dissipator," of the special provisions (page 72). The following Special Provisions are added and made a part hereby:

Rock Energy Dissipator consist of placing 38' x 11' x 3' deep 1/4 Ton grouted rip-rap per construction note "17" of the drainage improvement project plans.

Full compensation for providing and installing grout required for the Rock Energy Dissipator shall be considered as included in the contract price paid per cubic yard for Rock Energy Dissipator and no additional compensation will be allowed therefor.

Addendum No. 2

Temescal Canyon Road Widening Projects, Temescal Canyon Road Slurry Seal Project, and  
Temescal Canyon Road Drainage Improvement Project

Project No. C5-0072, C6-0066, B9-0988

August 9, 2018

Page 4 of 5

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### **MODIFICATIONS / CLARIFICATIONS TO THE PLANS**

#### **Item 9: Revisions to the Drainage Improvement at Coldwater Creek Plans.**

**General Notes.** Refer to Drainage Improvement Project at Coldwater Creek plan sheet 1 of 3. Delete General Note 1 and replace it with the following note:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 EDITION OF THE PLANS AND SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.

**Construction Notes.** Refer to Drainage Improvement Project at Coldwater Creek plan sheets 2 and 3 of 3. Delete Construction Notes 8 and 12 and replace them with the following notes:

8. CONSTRUCT STRAIGHT CONCRETE BOX CULVERT WINGWALL, TYPE D, CASE 1, PER CALTRANS STD D85. LENGTH = 35'. MODIFY WITH SECTION C-C. MODIFY WINGWALL OVER REINFORCED CONCRETE BOX CULVERTS TO INCLUDE BARRIER PARAPET FOR ATTACHED GUARDRAIL PER CALTRANS STD RSP D83B.
12. INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STD A77L1 AND RSP A77P2, TYPE 11E LAYOUT.

**Recommended by:**

Catherine M. Wampler 8/9/2018

Catherine M. Wampler, PE  
County Project Manager, Temescal Canyon Road Widening Projects

Alfredo Martinez 8/9/18

Alfredo Martinez, PE  
County Project Manager, Temescal Canyon Road Drainage Improvement Project

**Concurrence:**

Khalid Nasim 8/9/18  
Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
(Contractor)

JRJ:jj:rr

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Patricia Romo, P.E.  
Director of Transportation

# COUNTY OF RIVERSIDE

## TRANSPORTATION AND LAND MANAGEMENT AGENCY

Mojahed Salama, P.E.  
Deputy for Transportation Capital Projects  
Richard Lantis, P.L.S.  
Deputy for Transportation Planning and  
Development

### Transportation Department

#### ADDENDUM NUMBER 3

Dated August 16, 2018

to the

Specifications and Contract Documents  
for the construction of

Temescal Canyon Road Widening Projects  
Dawson Canyon Road to 0.7 Mile North  
Dos Lagos Drive to Leroy Road, and

Temescal Canyon Road Slurry Seal Project  
0.7 Miles North of Dawson Canyon Road to Leroy Road  
Project No. C5-0072, C6-0066  
State Project No. LPPSB1L-5956(267); and

Temescal Canyon Road Drainage Improvement Project  
At Coldwater Creek  
Project No. B9-0988  
In the Community of Temescal Valley

**Bids Due:** **Wednesday, August 29, 2018; 2:00 p.m.**  
14<sup>th</sup> Street Transportation Annex  
3525 14<sup>th</sup> Street; Riverside, CA 92501  
(951) 955-6780

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Note: During the advertisement period of this project, this document and attachments (if any) are available upon request at the office of the Transportation Department, and are available as a free download at the Transportation Department's website:

<http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids>

#### MODIFICATIONS / CLARIFICATIONS TO SPECIAL PROVISIONS:

**Item 1: Revised Proposal.** Refer to "Proposal" pages B2-B8. Delete and replace "Proposal" (pages B2-B8) with "Proposal (Revised)" attached herewith as **Attachment "A"**.

**Note: Revisions made to the proposal are written with blue font / blue numbers.**

- a. "Estimated Quantities" are revised for the following bid items:  
Item 15, 17, 19, 21, 22, 33, 41, 42, 43, 53, 54, 57, 63, 70, 73, 76, 79, 80, 87
- b. The following bid items have been added:  
Item 34A, 42A, 103A, 103B, and 103C

- c. The following bid items are "Like Bid Items" found in Base Bid Schedules 1 and 2:

|                    |   |
|--------------------|---|
| Items 84, and 105, | "PAVEMENT MARKER (RETROREFLECTIVE)"     |
| Items 89 and 106,  | "ROADSIDE SIGN - ONE POST"              |
| Items 92, and 107, | "THERMOPLASTIC PAVEMENT MARKING"        |
| Items 93, and 108, | "PAINT TRAFFIC STRIPE (2-COAT)"         |
| Items 94 and 109,  | "REMOVE PAINTED TRAFFIC STRIPE"         |
| Items 96 and 110,  | "REMOVE THERMOPLASTIC PAVEMENT MARKING" |

NOTE: Like bid items shall have the same unit bid price. See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. These provisions are only applicable to Like Bid items found in Based Bid Schedules 1 and 2.

- d. All Alternate Bid Schedules have been revised and rearranged, one Alternate Bid Schedule has been added.
- e. The sequence for bid items found in Base Bid Schedule No. 3 has been revised.

- Item 2: Project Description.** Refer to Section 00-1.01 "Project Description," of the special provisions (pages 1 and 2).

Delete the fourth and fifth paragraphs and replace them with the following paragraphs:

- **Temescal Canyon Road Widening Projects and Slurry Seal Project (herein referred to as "Widening Project" or "Widening Projects"):**

This project consists of widening two segments of Temescal Canyon Road. The first segment is from Dawson Canyon Road to 0.7 mile northerly ("Dawson Canyon Segment") consisting of approximately 0.7 mile of improvements. The second segment is from Dos Lagos Drive to Leroy Road ("Dos Lagos Segment") consisting of approximately 0.6 mile of improvements. The proposed improvements will widen the existing two-lane road to four lanes with a two-way left turn lane, with sidewalk in some locations.

Delete the seventh and eight paragraphs and replace them with the following paragraphs:

The project will also include the application of slurry seal, removal and replacement of pavement delineation, and addition of roadside signs along approximately 0.7 mile of Temescal Canyon Road between the Dawson Canyon Segment widening area and the Dos Lagos Segment widening area. This work is detailed on the plans for the Dawson Canyon Segment.

Alternative bid items of work to be performed by the Contractor include relocating water lines and appurtenances, transferring water services, and adjusting sewer manhole covers in accordance with specifications provided by water purveying agencies.

- Item 3: Time of Completion.** Refer to Section 00-1.03 "Time of Completion," of the special provisions (page 2). Working days allowed for each of the Alternate Bid Schedules are being revised.

Delete the section pertaining to Alternate Bid Schedules (A through F) and replace it with the following section for Alternate Bid Schedules (A through E):

**Alternate Bid Schedule A - City of Corona - Utility Relocations (Dawson Canyon Segment): 8 Working Days**

**Alternate Bid Schedule B** - City of Corona - Water Service Transfers (Dawson Canyon and Dos Lagos Segments): **15 Working Days**

**Alternate Bid Schedule C** - Temescal Valley Water District - Utility Relocations (Dawson Canyon Segment): **8 Working Days**

**Alternate Bid Schedule D** - Elsinore Valley Municipal Water District - Utility Relocations (Dawson Canyon and Dos Lagos Segments): **8 Working Days**

**Alternate Bid Schedule E** - Santa Ana Watershed Project Authority - Utility Relocations (Dawson Canyon and Dos Lagos Segments): **3 Working Days**

**Item 4: Modified Hours of Work.** Refer to Section 00-1.03(A) "Modified Hours of Work," of the special provisions (pages 3 and 4).

Delete the first and second paragraphs and replace them with the following paragraphs:

Due to the high volume of traffic on Temescal Canyon Road during morning and afternoon peak hours, often the result of overflow traffic attempting to bypass the congestion on the Interstate 15 Freeway (I-15) and including traffic generated by local residents driving their children to schools, **Contractor shall not perform "impacting operations" between the hours of 4:30am and 9:00am, and between 4:00pm to 6:00pm, Monday through Friday**, unless specifically approved in writing 48 hours in advance by the Engineer. "Impacting Operations" include any activity by the Contractor, as determined by the Engineer, that would impact the flow of traffic, including but not limited to the arrival or departure of construction equipment, material delivery vehicles, hauling, or excessive movement of personal vehicles of the Contractor's or subcontractors' or material suppliers' employees. It will be at the sole discretion of the Engineer to approve the types of work, if any, that may be permitted during the restricted morning hours. At the request of the Engineer, the Contractor may be required to provide a Contingency Plan specific for the operation.

A minimum of one travel lane shall be maintained in each direction throughout the duration of the construction of the project. Temporary lane closures may be approved by the Engineer under Engineer's sole discretion.

Delete the fourth paragraph and replace it with the following paragraph:

The opportunity to work during nights in the vicinity of the residential areas near Leroy Road, and between Dos Lagos Drive and Foster Road, may not be available if the County receives complaints from the residents due to disturbances such as noise, light or vibration. The Contractor is encouraged to provide public outreach to these residents.

**Item 5: Liquidated Damages.** Refer to Section 00-1.04 "Liquidated Damages," of the special provisions (page 4), and Section 87, "Electrical Systems," subsection D, "Equipment Orders," (page 88 and 89)/

Additional Liquidated Damages for Traffic Signals – Equipment Orders is deleted and replaced with the following:

**Traffic Signals – Equipment Orders**

In addition to the Liquidated Damages set forth above, the Contractor shall pay to the County of Riverside the sum of **\$800.00** per day for each and every calendar day delay in receiving Traffic Signals equipment furnished by the Contractor, within one-hundred twenty (120) calendar days of the contract award date.



Refer to Section 87, Electrical Systems, sub-section D, Equipment Orders, of the special provisions for list of traffic signal equipment applicable for liquidated damages.

- Item 6: Prosecution and Progress.** Refer to Section 00-1.05 "Prosecution and Progress," of the special provisions (pages 3 and 4). Delete Section 00-1.05 and replace it with the following:

**00-1.05 PROSECUTION AND PROGRESS:**

Attention is directed to the provisions in Section 8-1.04, "Start of Job Site Activities", section 8-1.05 "Time" of the Standard Specifications and these Special Provisions.

Standard Specification Section 8-1.04B, "Standard Start" is modified to read as follows:

**Upon the Contractor's satisfactory completion of submittal items as required by the County in these Special Provisions, the County will issue a written "Notice to Proceed for the Widening Project" to commence work. Contractor shall begin work within fifteen (15) calendar days of the date stated within the written Notice to Proceed.**

**A separate written "Notice to Proceed for the Drainage Project" will be issued by the County to the Contractor. Contractor shall begin work within fifteen (15) calendar days of the date stated within the written Notice to Proceed, in accordance with the construction dates during the summer of 2019 as identified under "Order of Work" of these Special Provisions.**

The Contractor shall notify the Engineer, in writing, of the Contractor's intent to begin work at least 72 hours before work is begun. If the project has more than one (1) location of work, Contractor shall submit a separate notice for each location. The notice shall be delivered to the Engineer and shall specify the date the Contractor intends to start at said location.

**Remove and Replace the 2<sup>nd</sup> paragraph of Standard Specification Section 8-1.04B, "Standard Start" with the following:**

The first working day will be the 15th calendar day after the issuance of the Notice To Proceed (NTP). The NTP will be given on the 20<sup>th</sup> calendar day after the County's awarding of the construction contract or at such time that the Contractor's submittals listed below are accepted by the Engineer, whichever occurs first. Contractor will not start job site activities until the Engineer approves Contractor's submittal for:

1. CPM baseline schedule
2. SWPPP, WPCP
3. Notification of DRA or DRB nominee and disclosure statement
4. Traffic Control Plan
5. Notice of Materials To Be Used form.

- Item 7: Obtain Encroachment Permit.** Refer to Section 00-1.07 "Obtain Encroachment Permit," of the special provisions (page 6).

Delete the third paragraph and replace them with the following paragraph:

Payment

The permit fee(s) will be reimbursed to Contractor through Miscellaneous Work, without markup. Other than the permit fee(s), full compensation for obtaining Encroachment Permit (Caltrans) and obtaining Encroachment Permit (City of Corona) and conforming to and complying with the requirements in the encroachment permits shall be considered as included in the contract prices paid for the various items of

work involved for each agency and no additional compensation will be allowed therefor. All incidental costs incurred by the Contractor, including but not limited to traffic control plan preparation and administrative activities, shall be considered as included in the various items of work and no additional compensation will be allowed therefor.

**Item 8: Supplemental Project Information.** Refer to Section 2-1.06B "Supplemental Project Information," of the special provisions (pages 21 and 22).

Delete item No. 1 from the list of items 'Incorporated into the Special Provisions by Addendum for Temescal Canyon Road Widening Projects' and replace it with the following item:

1. Stage Construction Plans

**Item 9: Utility Relocation and Contractor-Arranged Time for the Relocation.** Refer to Section 5-1.36C(3), "Non-highway Facility Rearrangement," of the special provisions (pages 23 and 24).

Delete the 'Utility Relocation and Contractor-Arranged Time for the Relocation' table on page 24 and replace it with the table attached herewith as **Attachment "B"** and made a part hereby.

**Item 10: Work Sequencing, Order of Work.** Refer to Section 10-1.02 "Work Sequencing/ Order of Work," of the special provisions (pages 25 and 26).

Add the following paragraph after the first paragraph in Section 10-1.02 of the special provisions:

Work shall be completed in stages as shown in the Stage Construction Plans as part of the Contract Drawings. Any request by the Contractor to change the construction staging must be approved by the Engineer, and the Contractor will be required to provide revised Traffic Control Plans in accordance with these Special Provisions.

**Item 11: Traffic Control Systems.** Refer to Section 12-5 "Traffic Control Systems," of the special provisions (pages 30 through 32).

• Delete Subsection "Temescal Canyon Road Widening Projects" on page 30 of the special provisions, and replace it with the following:

**Temescal Canyon Road Widening Projects**

Contractor shall provide traffic control plans (TCP) to the Engineer for review at least two weeks prior to the start of construction. The Contractor's TCP shall be based off the Stage Construction Plans provided as part of the contract documents. The Contractor's TCP shall be sealed by a Traffic Engineer or Civil Engineer who is registered as such in the State of California. Any revisions to the plans shall be submitted by the Contractor for review and approval by the County, and by Caltrans when applicable, at least two weeks prior to the implementation of the change.. Revisions to the plans shall be prepared, signed and stamped by a Civil Engineer or Traffic Engineer who is registered as such in the State of California, unless otherwise specifically allowed by the Engineer. Construction shall not begin until the Engineer provides Contractor with County approval of revised plans. Minor adjustments made in the field to facilitate stage construction must be approved by the Engineer and the Contractor's Traffic Engineer or Civil Engineer.

The Contractor shall furnish and install temporary video detection cameras to detect all traffic at the intersection of Temescal Canyon Road and Dawson Canyon Road, and as directed by the Engineer. The Contractor shall coordinate with the Engineer for the installation of temporary video detection cameras on

existing traffic signal poles and mast arms. The County of Riverside is the designated signal maintenance agency at this location. Contractor shall make necessary adjustments to video detection cameras between stage changes where traffic striping has changed to capture the new movement of vehicles.

The Contractor shall use the existing video detection camera to detect northbound traffic at the intersection of Temescal Canyon Road and Dos Lagos Drive and as directed by Engineer. The Contractor shall coordinate with the City of Corona for the modification of the existing video detection equipment at this signal. The City of Corona is the designated signal maintenance agency at this location. Contractor shall make necessary adjustments to video detection cameras between stage changes where traffic striping has changed to capture the new movement of vehicles.

• Delete the words "Construction staging and traffic control plans" at the beginning of the first paragraph in Subsection 12-5.03, "Compliance," on page 31, and replace them with the words "Traffic control plans".

• Delete the first paragraph of Subsection 12-5.05, "Payment," on page 32, and replace it with the following paragraph:

The work included in this item shall include supplying all labor, materials, equipment, supervision, and incidentals required to provide a traffic control plan and any revisions to the plan sealed by a Traffic Engineer or Civil Engineer, make adjustments to video detection cameras between stage changes, implement, revise, monitor, and maintain the traffic control system, including attendance at public meetings. The Contractor's responsibility to provide necessary traffic control elements shall include, but not be limited to, traffic signs, special signs, portable changeable message signs, Temporary Railing (Type K), Crash Cushions (Absorb 350 or approved equal), temporary painted traffic stripe, pavement markings, barricades, type III barricades, delineators, and other incidental items. The Contractor shall be responsible for implementing, monitoring, maintaining and removal of temporary traffic control until the acceptance of the project.

**Item 12: Clearing and Grubbing.** Refer to Section 17-2.01 "Clearing and Grubbing," of the special provisions (pages 43 and 44).

Delete item No. 1 from the list of items included under Clearing and Grubbing and replace it with the following:

1. All trees, tree stumps and roots, except those identified to be protected in place or removed in accordance with Section 17-3 Tree Removal.

**Item 13: Tree Removal.** The following special provisions are added and made part herby:

#### **17-3 TREE REMOVAL**

##### **Add to Section 17-3 Reserved:**

Contractor shall remove trees to within twelve inches above ground level in areas required to be Cleared and Grubbed in accordance with Section 17-2, except those trees identified to be protected in place.

Ground disturbance during tree removal operations is not allowed unless the Project's Storm Water and Pollution Control Plan has been accepted by the County and site BMPs are in place, and archeological monitors are available.

Removed trees, trimmings, vegetation, debris and other items described herein shall become the property of the Contractor and shall be disposed of by the Contractor outside of the highway right of way, as provided in Section 17-2.03D, "Disposal of Materials" of the Standard Specifications.

Contractor is advised of recent changes to the requirements for prevailing wage rate for tree trimmers for work related to capital improvement projects.

Any tree or bush removal or trimming between February 1<sup>st</sup> and September 15<sup>th</sup> will require a preconstruction survey for nesting birds. The Contractor shall schedule accordingly. Refer to Section 14-6.03B, "Bird Protection," of these Special Provisions.

Payment:

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article including all labor, equipment, materials and incidentals, for performing tree removal to two-feet above ground level including but not limited to the removal, relocation, adjustment, maintenance and disposal of items listed in this section, and for complying with all environmental regulatory permits and requirements, shall be considered as included in the contract price paid per lump sum for Tree Removal and no additional compensation will be allowed therefor.

**Item 14: Roadway Excavation, Pavement Grinding in Place.** Refer to Section 19-2 "Roadway Excavation," of the special provisions (pages 44 and 45).

Add the following paragraph after the seventh paragraph in Section 19-2 of the special provisions:

Pavement grinding in place, if necessary, will be performed in accordance with Section 30-2 Pulverized Roadbed of these Special Provisions. Payment for pavement grinding in place or pulverizing will be included in the fixed final payment for Roadway Excavation.

**Item 15: Pulverized Roadbed (Grinding Asphalt Concrete in Place).** Refer to Section 30-2 "Pulverized Roadbed (Grinding Asphalt Concrete in Place)," of the special provisions (pages 48 and 49).

- Delete the last sentence of second paragraph in Subsection 30-2.03, "Construction," and replace it with the following sentence:

Full compensation for furnishing all labor, tools and doing all the work necessary including grinding, and sawcutting shall be considered as included in the fixed final contract price paid for Roadway Excavation and no additional compensation will be allowed therefor.

- Delete the last sentence of third paragraph in Subsection 30-2.03, "Construction," and replace it with the following sentence:

Full compensation for furnishing all labor, tools and doing all the work necessary to provide longitudinal transitions between pulverized road areas and reconstructed road areas, including deeper grinding, sawcutting, and regrading and compacting the material, shall be considered as included in the fixed final contract price paid for Roadway Excavation and no additional compensation will be allowed therefor.

- Delete Subsection 30-2.04, "Payment," and replace it with the following:

**30-2.04 PAYMENT**

The fixed final contract unit bid price paid for Roadway Excavation shall include full compensation for furnishing all labor, tools, materials, equipment including cold planing the existing asphalt concrete pavement as directed by the Engineer and no additional compensation will be allowed therefor.

**Item 16: Additional Concrete Items of Work.** Refer to Section 73, "Concrete Curbs and Sidewalks," of the special provisions (pages 73 and 74).

The following are added to the list of Minor Concrete Items to be constructed:

Under Sidewalk Drain Cast in Place (Crs 309) (Mod),  
Minor Concrete (Cross-Gutter and Spandrel) (Crs 209) [Includes Curbs]

The following special provision is added and made part hereby:

The cementitious material content of concrete used must be at least 590 pounds per cubic yard for Cross-Gutter and Spandrel.

**Item 17: Temporary Hot Mix Asphalt Pavement.** The following special provisions are added and made part hereby:

**Temporary Hot Mix Asphalt (HMA) Pavement**

The Contractor must construct, and maintain temporary HMA pavement as necessary. Remove and properly dispose of temporary pavement when it is no longer necessary.

Temporary HMA pavement structure must be 3-1/2-inch-thick HMA over aggregate base, unless otherwise directed by the Engineer.

Aggregate base used for temporary HMA pavement must comply with the 3/4-inch maximum gradation specified in section 26-1.02B.

HMA must comply with the specifications in section 39 of these special provisions.

Maintain the temporary pavement structure and replace if necessary as directed by the Engineer.

After removing temporary pavement, you may stockpile that aggregate base at the Contractors staging area and reuse it for another temporary pavement structure.

If necessary, temporary pavement delineation shall conform to Section 12-6, Temporary Pavement Delineation, of the Standard Specifications.

Temporary pavement delineation shall be completely removed when no longer necessary, leaving no visible scar.

**Payment:**

Full compensation for constructing and maintaining temporary hot mix asphalt pavement shall be included in the price paid on Force Account basis for Temporary Hot Mix Asphalt Pavement in accordance with Section 9-1.04, "Force Account" and these Special Provisions, up to the fixed cost amount; and shall include full compensation for the work performed, including furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing temporary asphalt concrete with aggregate base, complete in place, as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

Addendum No. 3

Temescal Canyon Road Widening Projects, Temescal Canyon Road Slurry Seal Project, and

Temescal Canyon Road Drainage Improvement Project

Project No. C5-0072, C6-0066, B9-0988

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No markups will be allowed. All incidental costs incurred by the Contractor shall be included in the various items of work, and no compensation will be allowed therefor.

**Item 18: City of Corona, Temescal Valley Water District, and Elsinore Valley Municipal Water District Special Provisions.** The following City of Corona, TVWD, and EVMWD Special Provisions are added and made part of hereby:

- 1) Temescal Canyon Roadway Improvements  
Waterline Relocations and Waterline Service Changes  
City of Corona Department of Water and Temescal Valley Water District

Included in this addendum and designated as **Attachment "C"**.

Note: Subsection 4-1.1.1, "Buy-American Clause," of these City of Corona Department of Water and Temescal Valley Water District special provisions, does not apply.

- 2) Elsinore Valley Municipal Water District (EVMWD)  
Temescal Canyon Road Widening Project  
Relocation of 42-Inch Diameter TVP Potable Waterline

Included in this addendum and designated as **Attachment "D"**.

**Item 19: Project Information; Questions and Responses**

Questions and Responses information list is available as a free download at the following County website:

<http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids>

This (downloadable) file is provided for reference only. For any discrepancy written on the Questions and Responses, the Contractor shall conform to the contract documents.

The Contractor Questions and Responses are included as **Attachment "E"**.

**MODIFICATIONS / CLARIFICATIONS TO THE PLANS**

**Item 20: Plan sheets revisions and additions.**

**Temescal Canyon Road Widening – Dawson Canyon Segment**

The following thirty-one (31) plan sheets are revised by **Attachment "F"** and are made a part hereby:

- |                              |                               |                               |
|------------------------------|-------------------------------|-------------------------------|
| 1. Plan sheet 1 of 63, T-1   | 12. Plan sheet 28 of 63, D-5  | 22. Plan sheet 42 of 63, UD-3 |
| 2. Plan sheet 2 of 63, K-1   | 13. Plan sheet 30 of 63, DD-2 | 23. Plan sheet 46 of 63, UD-7 |
| 3. Plan sheet 4 of 63, X-1   | 14. Plan sheet 31 of 63, DD-3 | 24. Plan sheet 47 of 63, UD-8 |
| 4. Plan sheet 7 of 63, L-1   | 15. Plan sheet 35 of 63, DD-7 | 25. Plan sheet 49 of 63, PD-2 |
| 5. Plan sheet 8 of 63, L-2   | 16. Plan sheet 36 of 63, U-1  | 26. Plan sheet 50 of 63, PD-3 |
| 6. Plan sheet 9 of 63, L-3   | 17. Plan sheet 37 of 63, U-2  | 27. Plan sheet 57 of 63, SP-4 |
| 7. Plan sheet 10 of 63, L-4  | 18. Plan sheet 38 of 63, U-3  | 28. Plan sheet 58 of 63, SP-5 |
| 8. Plan sheet 11 of 63, L-5  | 19. Plan sheet 39 of 63, U-4  | 29. Plan sheet 59 of 63, SP-6 |
| 9. Plan sheet 12 of 63, L-6  | 20. Plan sheet 40 of 63, UD-1 | 30. Plan sheet 60 of 63, SP-7 |
| 10. Plan sheet 18 of 63, C-3 | 21. Plan sheet 41 of 63, UD-2 | 31. Plan sheet 61 of 63, SP-8 |
| 11. Plan sheet 25 of 63, D-2 |                               |                               |

The following twenty (20) plan sheets are added by **Attachment "F"** and are made a part hereby:

- |                              |                                |                                |
|------------------------------|--------------------------------|--------------------------------|
| 1. Plan sheet 22A of 63, C-8 | 8. Plan sheet 7 of 19, SC-7    | 15. Plan sheet 14 of 19, SC-14 |
| 2. Plan sheet 1 of 19, SC-1  | 9. Plan sheet 8 of 19, SC-8    | 16. Plan sheet 15 of 19, SC-15 |
| 3. Plan sheet 2 of 19, SC-2  | 10. Plan sheet 9 of 19, SC-9   | 17. Plan sheet 16 of 19, SC-16 |
| 4. Plan sheet 3 of 19, SC-3  | 11. Plan sheet 10 of 19, SC-10 | 18. Plan sheet 17 of 19, SC-17 |
| 5. Plan sheet 4 of 19, SC-4  | 12. Plan sheet 11 of 19, SC-11 | 19. Plan sheet 18 of 19, SC-18 |
| 6. Plan sheet 5 of 19, SC-5  | 13. Plan sheet 12 of 19, SC-12 | 20. Plan sheet 19 of 19, SC-19 |
| 7. Plan sheet 6 of 19, SC-6  | 14. Plan sheet 13 of 19, SC-13 |                                |

**Temescal Canyon Road Widening – Dos Lagos Segment**

The following forty-four (44) plan sheets are revised by **Attachment "G"** and are made a part hereby:

- |                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|
| 1. Plan sheet 1 of 73, T-1    | 16. Plan sheet 27 of 73, C-12 | 31. Plan sheet 46 of 73, UD-3 |
| 2. Plan sheet 2 of 73, K-1    | 17. Plan sheet 28 of 73, C-13 | 32. Plan sheet 47 of 73, UD-4 |
| 3. Plan sheet 7 of 73, L-1    | 18. Plan sheet 29 of 73, C-14 | 33. Plan sheet 51 of 73, R-1  |
| 4. Plan sheet 8 of 73, L-2    | 19. Plan sheet 30 of 73, C-15 | 34. Plan sheet 56 of 73, R-6  |
| 5. Plan sheet 9 of 73, L-3    | 20. Plan sheet 33 of 73, D-2  | 35. Plan sheet 57 of 73, R-7  |
| 6. Plan sheet 10 of 73, L-4   | 21. Plan sheet 34 of 73, D-3  | 36. Plan sheet 58 of 73, R-8  |
| 7. Plan sheet 11 of 73, L-5   | 22. Plan sheet 35 of 73, D-4  | 37. Plan sheet 59 of 73, R-9  |
| 8. Plan sheet 12 of 73, L-6   | 23. Plan sheet 37 of 73, DD-2 | 38. Plan sheet 60 of 73, R-10 |
| 9. Plan sheet 19 of 73, C-4   | 24. Plan sheet 39 of 73, U-1  | 39. Plan sheet 61 of 73, R-11 |
| 10. Plan sheet 20 of 73, C-5  | 25. Plan sheet 40 of 73, U-2  | 40. Plan sheet 62 of 73, R-12 |
| 11. Plan sheet 21 of 73, C-6  | 26. Plan sheet 41 of 73, U-3  | 41. Plan sheet 63 of 73, R-13 |
| 12. Plan sheet 22 of 73, C-7  | 27. Plan sheet 42 of 73, U-4  | 42. Plan sheet 64 of 73, E-1  |
| 13. Plan sheet 23 of 73, C-8  | 28. Plan sheet 43 of 73, U-5  | 43. Plan sheet 70 of 73, SP-6 |
| 14. Plan sheet 25 of 73, C-10 | 29. Plan sheet 44 of 73, UD-1 | 44. Plan sheet 71 of 73, SP-7 |
| 15. Plan sheet 26 of 73, C-11 | 30. Plan sheet 45 of 73, UD-2 |                               |

Addendum No. 3

Temescal Canyon Road Widening Projects, Temescal Canyon Road Slurry Seal Project, and

Temescal Canyon Road Drainage Improvement Project

Project No. C5-0072, C6-0066, B9-0988

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The following nineteen (19) plan sheets are added by **Attachment "G"** and are made a part hereby:

- |                                |                              |                                |
|--------------------------------|------------------------------|--------------------------------|
| 1. Plan sheet 71A of 73, SP-8  | 8. Plan sheet 3 of 14, SC-3  | 15. Plan sheet 10 of 14, SC-10 |
| 2. Plan sheet 71B of 73, SP-9  | 9. Plan sheet 4 of 14, SC-4  | 16. Plan sheet 11 of 14, SC-11 |
| 3. Plan sheet 71C of 73, SP-10 | 10. Plan sheet 5 of 14, SC-5 | 17. Plan sheet 12 of 14, SC-12 |
| 4. Plan sheet 72 of 73, SP-11  | 11. Plan sheet 6 of 14, SC-6 | 18. Plan sheet 13 of 14, SC-13 |
| 5. Plan sheet 73 of 73, SP-12  | 12. Plan sheet 7 of 14, SC-7 | 19. Plan sheet 14 of 14, SC-14 |
| 6. Plan sheet 1 of 14, SC-1    | 13. Plan sheet 8 of 14, SC-8 |                                |
| 7. Plan sheet 2 of 14, SC-2    | 14. Plan sheet 9 of 14, SC-9 |                                |

**Note:** All revised plan sheets are posted on the County website and are available for download during the advertisement period.

<http://rctlma.org/trans/Contractors-Corner/Notices-Inviting-Bids>

## ATTACHMENTS

A – Revised Proposal

B – Data Table - Utility Relocation and Contractor-Arranged Time for the Relocation

C – Special Provisions – Waterline Relocations and Waterline Service Changes  
City of Corona Department of Water and Temescal Valley Water District  
(TVWD)

D – Special Provisions – Relocation of 42-Inch Diameter TVP Potable Waterline  
Elsinore Valley Municipal Water District (EVMWD)

E – Contractors Questions and Responses

F – Revised and Added Plans for Temescal Canyon Road Widening – Dawson Canyon Segment (51 Sheets)

G – Revised and Added Plans for Temescal Canyon Road Widening – Dos Lagos Segment (63 Sheets)



Addendum No. 3

Temescal Canyon Road Widening Projects, Temescal Canyon Road Slurry Seal Project, and  
Temescal Canyon Road Drainage Improvement Project

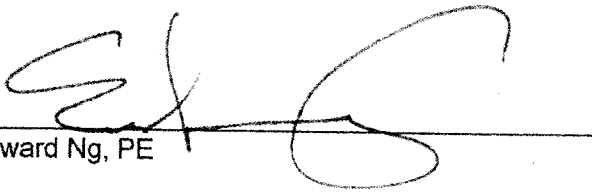
Project No. C5-0072, C6-0066, B9-0988

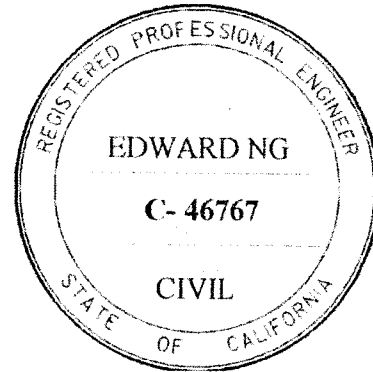
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This addendum has been prepared under the direction of the following registered Civil Engineer(s):

  
Edward Ng, PE



**Recommended by:**

Catherine M. Wampler

Catherine M. Wampler, PE  
County Project Manager

**Concurrence:**

Khalid Nasim for  
Khalid Nasim, PE  
Engineering Division Manager

**Acknowledged:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
(Contractor)

JRJ:jj:rr

Note: Refer to Instruction to Bidders Item No. 8, "Addenda". Submission of all addendum pages and non-bidding document attachments of addendum are not necessary for Bid submittal. Submittal of this acknowledgement page is adequate for Bid reception. Bidders are reminded to list addendum number(s) received on the first page of the Bid form (Proposal).

**Temescal Canyon Road Widening Projects  
Dawson Canyon Road to 0.7 Mile North  
Dos Lagos Drive to Leroy Road, and**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

**Temescal Canyon Road Slurry Seal Project  
0.7 Miles North of Dawson Canyon Road to Leroy Road  
Project No. C5-0072, C6-0066  
State Project No. LPPSB1L-5956(267); and**

**Temescal Canyon Road Drainage Improvement Project  
At Coldwater Creek  
Project No. B9-0988  
In the Community of Temescal Valley**

**REVISED PROPOSAL**

| ITEM No.   | ITEM CODE | ITEM   | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|-----------|--|----------------|------|--------------------|-------------------------|--------------------|
| <b>BASE BID SCHEDULE 1 - TEMESCAL CANYON ROAD WIDENING PROJECTS (Dawson Canyon and Dos Lagos Segments)</b> |           |  |                |      |                    |                         |                    |
| 1  | 011510    | COLD PLANE ASPHALT CONCRETE PAVEMENT   |                | SQYD | 9,870              |                         |                    |
| 2  | 017003    | CATCH BASIN (CURB INLET) WITH FULL TRASH CAPTURE DEVICE (CRS 300) [L=21', D=13'] |                | EA   | 1                  |                         |                    |
| 3  | 017003    | CATCH BASIN (CURB INLET) WITH FULL TRASH CAPTURE DEVICE (CRS 300) [L=21', D<8']  |                | EA   | 2                  |                         |                    |
| 4  | 017003    | CATCH BASIN (CURB INLET) WITH FULL TRASH CAPTURE DEVICE (CRS 300) [L=7', D<8']   |                | EA   | 4                  |                         |                    |
| 5  | 017003    | CATCH BASIN (CURB INLET) WITH FULL TRASH CAPTURE DEVICE (CRS 300) [L=14', D<8']  |                | EA   | 5                  |                         |                    |
| 6  | 017003    | TOE OF SLOPE DITCH INLET   |                | EA   | 1                  |                         |                    |
| 7  | 037000    | CONCRETE DROP INLET WITH FULL TRASH CAPTURE DEVICE (RCFC & WCDS CB110) (D<8')    |                | EA   | 1                  |                         |                    |
| 8  | 037000    | CIP DRAINAGE INLET (TYPE GT3) WITH FULL TRASH CAPTURE DEVICE (CSP RSP D72D)      |                | EA   | 1                  |                         |                    |
| 9  | 017003    | PRECAST DRAINAGE INLET (TYPE G1) (CSP C73B)                                      |                | EA   | 1                  |                         |                    |
| 10   | 037000    | PRECAST 24"X24" INLET, FRAME, AND GRATE  |                | EA   | 6                  |                         |                    |
| 11   | 017003    | CONCRETE COLLAR  |                | EA   | 7                  |                         |                    |
| 12   | 017103    | MANHOLE NO. 2 (RCFC & WCDS MH252) [CONNECTS RCP RANGE UP TO 30"]                 |                | EA   | 2                  |                         |                    |
| 13   | 017110    | MANHOLE NO. 4 (RCFC & WCDS MH254) [CONNECTS RCP RANGE 42" TO 48"]                |                | EA   | 4                  |                         |                    |
| 14   | 017110    | MANHOLE NO. 4 (RCFC & WCDS MH254) [CONNECTS TO 60" X 38" RCP]                    |                | EA   | 4                  |                         |                    |
| 15   | 017110    | MANHOLE NO. 4 (RCFC & WCDS MH254) [CONNECTS RCP RANGE 24" TO 36"]                |                | EA   | 2                  |                         |                    |
| 16   | 017114    | TRANSITION STRUCTURE NO.3 (RCFC & WCDS TS303) [CONNECTS RCP RANGE 24" TO 36"]    |                | EA   | 5                  |                         |                    |
| 17   | 017304    | MINOR CONCRETE (CURB AND GUTTER) (CRS 200)                                       |                | LF   | 13,280             |                         |                    |
| 18   | 017304    | MINOR CONCRETE (PARKING LOT V-GUTTER)  |                | LF   | 105                |                         |                    |
| 19   | 017309    | MINOR CONCRETE (TYPE "D" CURB) (CRS 204)   |                | LF   | 330                |                         |                    |
| 20   | 017309    | MINOR CONCRETE (RETAINING CURB)  |                | LF   | 26                 |                         |                    |
| 21   | 017310    | MINOR CONCRETE (RESIDENTIAL DRIVEWAY APPROACH) (CRS 207)                         |                | SQFT | 2,900              |                         |                    |
| 22   | 017312    | MINOR CONCRETE (COMMERCIAL DRIVEWAY APPROACH) (CRS 207A)                         |                | SQFT | 14,610             |                         |                    |
| 23   | 017312    | MINOR CONCRETE (6" THICK DRIVEWAY TIE-IN BEYOND SIDEWALK)                        |                | SQFT | 3,870              |                         |                    |

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9: corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only

**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.   | ITEM CODE  | ITEM   | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|------------|--|----------------|------|--------------------|-------------------------|--------------------|
| <b>BASE BID SCHEDULE 1 - TEMESCAL CANYON ROAD WIDENING PROJECTS (Dawson Canyon and Dos Lagos Segments)</b> |            |  |                |      |                    |                         |                    |
| 24   | 017312     | MINOR CONCRETE ( 8" THICK DRIVEWAY TIE-IN BEYOND SIDEWALK) |                | SQFT | 480                |                         |                    |
| 25   | 017316     | MINOR CONCRETE (CURB RAMP) (CRS 403 - CASE A)              |                | EA   | 2                  |                         |                    |
| 26   | 017316     | MINOR CONCRETE (CURB RAMP) (CRS 403 - CASE B)              |                | EA   | 4                  |                         |                    |
| 27   | 731623     | MINOR CONCRETE (CURB RAMP) (CSP RSP A88A - CASE C)         |                | EA   | 1                  |                         |                    |
| 28   | 037300     | MINOR CONCRETE (TYPE B PASSAGEWAY) (CSP A88B)              |                | EA   | 1                  |                         |                    |
| 29   | 037300     | MINOR CONCRETE (TYPE C PASSAGEWAY) (CSP A88B)              |                | EA   | 1                  |                         |                    |
| 30   | 100100     | DEVELOP WATER SUPPLY                                       |                | LS   | 1                  |                         |                    |
| 31   | 120100     | TRAFFIC CONTROL SYSTEM                                     |                | LS   | 1                  |                         |                    |
| 32   | 130200     | WATER POLLUTION CONTROL                                    |                | LS   | 1                  |                         |                    |
| 33   | 160110     | TEMPORARY HIGH-VISIBILITY FENCE [ESA]                      |                | LF   | 3,160              |                         |                    |
| 34   | 170103     | CLEARING AND GRUBBING                                      |                | LS   | 1                  |                         |                    |
| 34A  | 170103     | TREE REMOVAL   |                | LS   | 1                  |                         |                    |
| 35   | 066102     | DUST ABATEMENT   |                | LS   | 1                  |                         |                    |
| 36   | 190101 (F) | ROADWAY EXCAVATION   |                | CY   | 36,210             |                         |                    |
| 37   | 190101 (F) | ROADWAY EXCAVATION [CUT SLOPE PER SHEET G-1]               |                | CY   | 90,890             |                         |                    |
| 38   | 202026     | RELOCATE BACKFLOW PREVENTER ASSEMBLY [2"]                  |                | EA   | 4                  |                         |                    |
| 39   | 202026     | RELOCATE BACKFLOW PREVENTER ASSEMBLY [8"]                  |                | EA   | 1                  |                         |                    |
| 40   | 210430     | HYDROSEED [EROSION CONTROL]                                |                | SQYD | 269,160            |                         |                    |
| 41   | 260203     | CLASS 2 AGGREGATE BASE                                     |                | CY   | 16,710             |                         |                    |
| 42   | 390132     | HOT MIX ASPHALT (TYPE A)                                   |                | TON  | 24,880             |                         |                    |
| 42A  | 390132     | TEMPORARY HOT MIX ASPHALT PAVEMENT (TYPE A)                |                | FA   | 1                  | 48,000.00               | 48,000.00          |
| 43   | 390137     | RUBBERIZED HOT MIX ASPHALT (TYPE G)                        |                | TON  | 2,850              |                         |                    |
| 44   | 393007     | PAVEMENT REINFORCING GRID                                  |                | SQYD | 4,360              |                         |                    |
| 45   | 418005     | REMOVE CONCRETE PAVEMENT [BELOW EXIST AC PAVEMENT]         |                | SQYD | 11,000             |                         |                    |
| 46   | 475000 (F) | RETAINING WALL (CALTRANS TYPE 7, MOD) [MAX HT 12']         |                | SQFT | 4,000              |                         |                    |
| 47   | 475000 (F) | MASONRY RETAINING WALL (SPPWC 618-3) [MAX HT 6']           |                | SQFT | 1,410              |                         |                    |
| 48   | 510502 (F) | MINOR CONCRETE (HEADWALLS AND WINGWALLS)                   |                | CY   | 265                |                         |                    |
| 49   | 510526 (F) | MINOR CONCRETE (REINFORCED CONCRETE CAP)                   |                | CY   | 609                |                         |                    |
| 50   | 000003     | RELOCATE 4" PIPE [ON DAWSON SEGMENT]                       |                | LF   | 1                  |                         |                    |
| 51   | 641101     | 8" PLASTIC PIPE (ASTM D3034 SDR 23.5)                      |                | LF   | 447                |                         |                    |
| 52   | 641101     | 12" PLASTIC PIPE (ASTM D3034 SDR 23.5)                     |                | LF   | 104                |                         |                    |
| 53   | 650211     | 18" REINFORCED CONCRETE PIPE (CLASS II)                    |                | LF   | 168                |                         |                    |

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.

**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.   | ITEM CODE  | ITEM   | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|------------|--|----------------|------|--------------------|-------------------------|--------------------|
| <b>BASE BID SCHEDULE 1 - TEMESCAL CANYON ROAD WIDENING PROJECTS (Dawson Canyon and Dos Lagos Segments)</b> |            |  |                |      |                    |                         |                    |
| 54   | 650416     | 24" REINFORCED CONCRETE PIPE (CLASS V)                                   |                | LF   | 975                |                         |                    |
| 55   | 650416     | 24" REINFORCED CONCRETE PIPE W/ WATER TIGHT JOINTS (CLASS V)             |                | LF   | 180                |                         |                    |
| 56   | 650420     | 30" REINFORCED CONCRETE PIPE (CLASS II)                                  |                | LF   | 1,745              |                         |                    |
| 57   | 650420     | 30" REINFORCED CONCRETE PIPE W/ WATER TIGHT JOINTS (CLASS II)            |                | LF   | 360                |                         |                    |
| 58   | 650432     | 48" REINFORCED CONCRETE PIPE (CLASS II)                                  |                | LF   | 30                 |                         |                    |
| 59   | 652428     | 42" REINFORCED CONCRETE PIPE (CLASS II)                                  |                | LF   | 106                |                         |                    |
| 60   | 652444     | 66" REINFORCED CONCRETE PIPE (CLASS II)                                  |                | LF   | 610                |                         |                    |
| 61   | 657330     | 60" X 38" ELLIPTICAL RCP W/ WATER TIGHT JOINTS (CLASS III)               |                | LF   | 915                |                         |                    |
| 62   | 667038     | 66" X 42" CORRUGATED STEEL PIPE ARCH W/ WATER TIGHT JOINTS (.109" THICK) |                | LF   | 75                 |                         |                    |
| 63   | 703319     | 18" BITUMINOUS COATED CORRUGATED STEEL PIPE RISER (0.138" THICK)         |                | EA   | 1                  |                         |                    |
| 64   | 710120     | REMOVE DRAINAGE FACILITY   |                | LS   | 1                  |                         |                    |
| 65   | 710252     | MODIFY MANHOLE NO.4 (RCFC & WCDS MH254) [CONNECTS UP TO 42"]             |                | EA   | 1                  |                         |                    |
| 66   | 721420     | CONCRETE DITCH LINING  |                | LF   | 1,201              |                         |                    |
| 67   | 721028 (F) | ROCK SLOPE PROTECTION (#2, METHOD B)                                     |                | CY   | 491                |                         |                    |
| 68   | 721013 (F) | ROCK SLOPE PROTECTION (1/4 TON, METHOD B)                                |                | CY   | 1,256              |                         |                    |
| 69   | 729011     | ROCK SLOPE PROTECTION FABRIC (CLASS 8)                                   |                | SQYD | 1,859              |                         |                    |
| 70   | 731521     | MINOR CONCRETE (SIDEWALK) (CRS 401) 4" THICK                             |                | SQFT | 21,477             |                         |                    |
| 71   | 731521     | MINOR CONCRETE (SIDEWALK WITH 6" RETAINING CURB) (CRS 401) 4" THICK      |                | SQFT | 870                |                         |                    |
| 72   | 780500     | PARKING BUMPER (PRECAST CONCRETE) (4" H x 6" W x 6' L)                   |                | EA   | 55                 |                         |                    |
| 73   | 782100     | MAILBOX  |                | EA   | 30                 |                         |                    |
| 74   | 782100     | CLUSTER BOX UNIT [16 COMPARTMENTS AND PEDESTAL]                          |                | EA   | 1                  |                         |                    |
| 75   | 782120     | RELOCATE MAILBOX   |                | EA   | 1                  |                         |                    |
| 76   | 800103     | TEMPORARY FENCE (TYPE CL-6)  |                | LF   | 3,410              |                         |                    |
| 77   | 800340     | CHAIN LINK FENCE (6' HIGH) (SPPWC STD 600-3)                             |                | LF   | 620                |                         |                    |
| 78   | 800340     | CHAIN LINK FENCE (6' HIGH) (SPPWC STD 600-3)                             |                | LF   | 580                |                         |                    |
| 79   | 800340     | CHAIN LINK FENCE (6' HIGH W/ TOP RAIL) (SPPWC STD 600-3)                 |                | LF   | 590                |                         |                    |
| 80   | 800340     | CHAIN LINK FENCE (6' HIGH W/ BARBED WIRE) (SPPWC STD 600-3)              |                | LF   | 1,060              |                         |                    |
| 81   | 800340     | CHAIN LINK FENCE (6' HIGH W/ TOP RAIL AND BARBED WIRE) (SPPWC STD 600-3) |                | LF   | 980                |                         |                    |
| 82   | 038000     | 20' DOUBLE SWING GATE [CHAIN LINK]                                       |                | EA   | 1                  |                         |                    |
| 83   | 038000     | 38' ROLLING GATE [CHAIN LINK]  |                | EA   | 1                  |                         |                    |
| 84   | 810230     | PAVEMENT MARKER (RETROREFLECTIVE)  | Like 1         | EA   | 1,070              |                         |                    |

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.

**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.   | ITEM CODE | ITEM  | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|-----------|---|----------------|------|--------------------|-------------------------|--------------------|
| <b>BASE BID SCHEDULE 1 - TEMESCAL CANYON ROAD WIDENING PROJECTS (Dawson Canyon and Dos Lagos Segments)</b> |           |   |                |      |                    |                         |                    |
| 85   | 820250    | REMOVE AND SALVAGE ROADSIDE SIGN - ONE-POST                             |                | EA   | 29                 |                         |                    |
| 86   | 820590    | RELOCATE ROADSIDE SIGN - ONE POST                                       |                | EA   | 45                 |                         |                    |
| 87   | 820250    | RELOCATE PRIVATE SIGN - ONE POST  |                | EA   | 3                  |                         |                    |
| 88   | 820600    | RELOCATE ROADSIDE SIGN - TWO POST                                       |                | EA   | 2                  |                         |                    |
| 89   | 820840    | ROADSIDE SIGN - ONE POST  | Like 2         | EA   | 20                 |                         |                    |
| 90   | 833088    | METAL HAND RAILING (SPPWC STD 606-4, TYPE B)                            |                | LF   | 480                |                         |                    |
| 91   | 840501    | THERMOPLASTIC TRAFFIC STRIPE  |                | SQFT | 650                |                         |                    |
| 92   | 840515    | THERMOPLASTIC PAVEMENT MARKING  | Like 3         | SQFT | 1,180              |                         |                    |
| 93   | 840656    | PAINT TRAFFIC STRIPE (2-COAT)   | Like 4         | LF   | 47,720             |                         |                    |
| 94   | 846020    | REMOVE PAINTED TRAFFIC STRIPE   | Like 5         | LF   | 2,900              |                         |                    |
| 95   | 846030    | REMOVE THERMOPLASTIC TRAFFIC STRIPE                                     |                | LF   | 240                |                         |                    |
| 96   | 846035    | REMOVE THERMOPLASTIC PAVEMENT MARKING                                   | Like 6         | SQFT | 200                |                         |                    |
| 97   | 870400    | TRAFFIC SIGNAL MODIFICATION [AT DAWSON CANYON ROAD]                     |                | LS   | 1                  |                         |                    |
| 98   | 870400    | ADJUST TRAFFIC SIGNAL VIDEO DETECTION ZONES [AT DOS LAGOS DRIVE]        |                | LS   | 1                  |                         |                    |
| 99   | 066105    | RESIDENT ENGINEERS OFFICE   |                | LS   | 1                  |                         |                    |
| 100  | 000003    | CONSTRUCTION ZONE ENHANCED ENFORCEMENT PROGRAM (COZEEP)                 |                | FA   | 1                  | 32,000.00               | 32,000.00          |
| 101  | 035100    | ARCHITECTURAL SURFACE FORM LINER [OPTION A - VERTICAL FRACTURED RIB]    |                | LS   | 1                  |                         |                    |
| 102  | 035100    | ARCHITECTURAL SURFACE FORM LINER [OPTION B - HILLSIDE/STAGECOACH THEME] |                | LS   | 1                  |                         |                    |
| 103  | 010602    | MISCELLANEOUS WORK (AS DIRECTED)  |                | FA   | 1                  | 900,000.00              | 900,000.00         |
| 103A   | 017003    | UNDER SIDEWALK DRAIN CAST IN PLACE (CRS 309) (MOD)                      |                | EA   | 1                  |                         |                    |
| 103B   | 037300    | TEXTURED CONCRETE AND COLOR STAMPED CONCRETE                            |                | SQFT | 1,090              |                         |                    |
| 103C   | 017317    | MINOR CONCRETE (CROSS-GUTTER AND SPANDREL) (CRS 209) [INCLUDES CURBS]   |                | SQFT | 600                |                         |                    |

BASE BID SCH. 1 SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 1-103C "WORDS"

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.

**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.  | ITEM CODE | ITEM                                  | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|---|-----------|---------------------------------------|----------------|------|--------------------|-------------------------|--------------------|
| <b>BASE BID SCHEDULE 2 - TEMESCAL CANYON ROAD SLURRY SEAL PROJECT (Dawson Canyon Segment)</b> |           |                                       |                |      |                    |                         |                    |
| 104   | 377501    | SLURRY SEAL, TYPE 2                   |                | TON  | 260                |                         |                    |
| 105   | 810230    | PAVEMENT MARKER (RETROREFLECTIVE)     | Like 1         | EA   | 570                |                         |                    |
| 106   | 820840    | ROADSIDE SIGN - ONE POST              | Like 2         | EA   | 19                 |                         |                    |
| 107   | 840515    | THERMOPLASTIC PAVEMENT MARKING        | Like 3         | SQFT | 680                |                         |                    |
| 108   | 840656    | PAINT TRAFFIC STRIPE (2-COAT)         | Like 4         | LF   | 30,610             |                         |                    |
| 109   | 846020    | REMOVE PAINTED TRAFFIC STRIPE         | Like 5         | LF   | 13,292             |                         |                    |
| 110   | 846035    | REMOVE THERMOPLASTIC PAVEMENT MARKING | Like 6         | SQFT | 300                |                         |                    |

BASE BID SCH. 2 SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 104-110 "WORDS"

| ITEM No.   | ITEM CODE | ITEM   | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|-----------|--|----------------|------|--------------------|-------------------------|--------------------|
| <b>ALTERNATE BID SCHEDULE A - CITY OF CORONA - UTILITY RELOCATIONS (Dawson Canyon Segment)</b> |           |  |                |      |                    |                         |                    |
| 111  | 000003    | RELOCATE 18" CMLC PIPE [CROSSING DAWSON LINE B AND LINE C - LOCATION 1]  |                | LS   | 1                  |                         |                    |
| 112  | 000003    | RELOCATE 18" CMLC PIPE [CROSSING DAWSON LINE D LOCATION 2]               |                | LS   | 1                  |                         |                    |
| 113  | 000003    | RELOCATE AIR RELEASE VACUUM VALVE  |                | EA   | 1                  |                         |                    |
| 114  | 000003    | RELOCATE BLOW OFF  |                | EA   | 2                  |                         |                    |
| 115  | 000003    | RELOCATE WATER PRESSURE RELEASE VALVE                                    |                | EA   | 1                  |                         |                    |
| 116  | 000003    | CONNECT TO 8" FIRE SERVICE SALVAGE AND REINSTALL DBL DETECTOR CHECK ASSY |                | EA   | 1                  |                         |                    |
| 117  | 000003    | SUPPORT EXISTING UTILITIES   |                | LS   | 1                  |                         |                    |

ALT. BID A SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 111-117 "WORDS"

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.

**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.  | ITEM CODE | ITEM  | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|---|-----------|---|----------------|------|--------------------|-------------------------|--------------------|
| <b>ALTERNATE BID SCHEDULE B - CITY OF CORONA - WATER SERVICE TRANSFERS (Dawson Canyon and Dos Lagos Segments)</b> |           |   |                |      |                    |                         |                    |
| 118   | 000003    | CONSTRUCT 6" PRESSURE REGULATING STATION [LOCATION 1]                 |                | LS   | 1                  |                         |                    |
| 119   | 000003    | CONSTRUCT 6" PRESSURE REGULATING STATION [LOCATION 2]                 |                | LS   | 1                  |                         |                    |
| 120   | 000003    | RELOCATE HYDRANT  |                | EA   | 2                  |                         |                    |
| 121   | 000003    | RELOCATE WATER METER AND TRANSFER WS TO TWWD [1" SERVICE LATERAL]     |                | EA   | 9                  |                         |                    |
| 122   | 000003    | RELOCATE WATER METER AND TRANSFER WS TO TWWD [1-1/2" SERVICE LATERAL] |                | EA   | 7                  |                         |                    |
| 123   | 000003    | RELOCATE WATER METER AND TRANSFER WS TO TWWD [2" SERVICE LATERAL]     |                | EA   | 1                  |                         |                    |
| 124   | 000003    | RELOCATE 1-1/2" BACKFLOW PREVENTER DEVICE                             |                | EA   | 7                  |                         |                    |
| 125   | 000003    | RELOCATE 2" BACKFLOW PREVENTER DEVICE                                 |                | EA   | 1                  |                         |                    |
| 126   | 000003    | CONNECT TO 8" FIRE SERVICE [DOS LAGOS]                                |                | EA   | 1                  |                         |                    |
| 127   | 000003    | CONNECT TO 8" FIRE SERVICE [DAWSON]                                   |                | EA   | 1                  |                         |                    |
| 128   | 000003    | SUPPORT EXISTING UTILITIES  |                | LS   | 1                  |                         |                    |

ALT. BID B SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 118-128 "WORDS"

| ITEM No.   | ITEM CODE | ITEM   | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|-----------|--|----------------|------|--------------------|-------------------------|--------------------|
| <b>ALTERNATE BID SCHEDULE C - TEMESCAL VALLEY WATER DISTRICT - UTILITY RELOCATIONS (Dawson Canyon Segment)</b> |           |  |                |      |                    |                         |                    |
| 129  | 000003    | RELOCATE 20" PIPE [CROSSING DAWSON SEGMENT LINE B AND LINE C]      |                | LS   | 1                  |                         |                    |
| 130  | 000003    | RELOCATE 14" CM&L PIPE [CROSSING DAWSON SEGMENT LINE B AND LINE C] |                | LS   | 1                  |                         |                    |
| 131  | 000003    | ADJUST MANHOLE TO GRADE  |                | EA   | 7                  |                         |                    |
| 132  | 000003    | RECONSTRUCT TOP OF MANHOLE   |                | EA   | 2                  |                         |                    |
| 133  | 000003    | RELOCATE AIR RELEASE VACUUM VALVE                                  |                | EA   | 3                  |                         |                    |
| 134  | 000003    | RELOCATE WATER METER   |                | EA   | 3                  |                         |                    |
| 135  | 000003    | RELOCATE WATER METER AND PROVIDE WATER METER ENCLOSURE             |                | EA   | 1                  |                         |                    |
| 136  | 000003    | RELOCATE WATER PRESSURE RELEASE VALVE                              |                | EA   | 1                  |                         |                    |

ALT. BID C SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 129-136 "WORDS"

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.



**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.  | ITEM CODE | ITEM  | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|---|-----------|---|----------------|------|--------------------|-------------------------|--------------------|
| <b>ALTERNATE BID SCHEDULE D - ELSINORE VALLEY MUNICIPAL WATER DISTRICT - UTILITY RELOCATIONS (Dawson Canyon and Dos Lagos Segments)</b> |           |   |                |      |                    |                         |                    |
| 137   | 000003    | RELOCATE 42" PIPE [CROSSING DAWSON SEGMENT LINE B AND LINE C] |                | LS   | 1                  |                         |                    |
| 138   | 000003    | 42" BUTTERFLY VALVE. FLANGED ENDS BURIED SERVICE (CLASS 350)  |                | LS   | 1                  |                         |                    |
| 139   | 000003    | OVEREXCAVATION AND REPLACE UNSUITABLE MATERIAL                |                | CY   | 40                 |                         |                    |
| 140   | 000003    | RELOCATE AIR RELEASE VACUUM VALVE                             |                | EA   | 2                  |                         |                    |
| 141   | 000003    | RELOCATE HYDRANT  |                | EA   | 3                  |                         |                    |

ALT. BID D SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 137-141 "WORDS"

| ITEM No.   | ITEM CODE | ITEM   | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|--|-----------|--|----------------|------|--------------------|-------------------------|--------------------|
| <b>ALTERNATE BID SCHEDULE E - SANTA ANA WATERSHED PROJECT AUTHORITY - UTILITY RELOCATIONS (Dawson Canyon and Dos Lagos Segments)</b> |           |  |                |      |                    |                         |                    |
| 142  | 000003    | PROTECT 24" FORCE MAIN [CROSSING DAWSON SEGMENT LINE B AND LINE C] |                | LS   | 1                  |                         |                    |
| 143  | 000003    | ADJUST MANHOLE TO GRADE  |                | LS   | 9                  |                         |                    |

ALT. BID D SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 142-143 "WORDS"

\* NOTE: See Instructions to Bidders, Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.

**REVISED PROPOSAL**

ISSUED BY ADDENDUM No. 3  
ATTACHMENT "A"

| ITEM No.  | ITEM CODE | ITEM  | Like Bid Item* | UNIT | ESTIMATED QUANTITY | ITEM PRICE (IN FIGURES) | TOTAL (IN FIGURES) |
|---|-----------|---|----------------|------|--------------------|-------------------------|--------------------|
| <b>BASE BID SCHEDULE 3 - TEMESCAL CANYON ROAD DRAINAGE IMPROVEMENT PROJECT AT COLDWATER CREEK</b> |           |   |                |      |                    |                         |                    |
| 144   | 066102    | DUST ABATEMENT                                | N/A**          | LS   | 1                  |                         |                    |
| 145   | 130200    | WATER POLLUTION CONTROL                       | N/A**          | LS   | 1                  |                         |                    |
| 146   | 120100    | TRAFFIC CONTROL SYSTEM                        | N/A**          | LS   | 1                  |                         |                    |
| 147   | 170101    | DEVELOP WATER SUPPLY [WPCP]                   | N/A**          | LS   | 1                  |                         |                    |
| 148   | 220101    | FINISHING ROADWAY                             | N/A**          | LS   | 1                  |                         |                    |
| 149   | 170103    | CLEARING AND GRUBBING                         | N/A**          | LS   | 1                  |                         |                    |
| 150   | 160110    | TEMPORARY HIGH-VISIBILITY FENCE [TYPE ESA]    | N/A**          | LF   | 800                |                         |                    |
| 151   | 190101    | ROADWAY EXCAVATION                            | N/A**          | CY   | 100                |                         |                    |
| 152   | 192025    | STRUCTURE EXCAVATION (CULVERT)                | N/A**          | CY   | 160                |                         |                    |
| 153   | 260203    | CLASS 2 AGGREGATE BASE                        | N/A**          | CY   | 70                 |                         |                    |
| 154   | 390132    | HOT MIX ASPHALT (TYPE A)                      | N/A**          | TON  | 100                |                         |                    |
| 155   | 000003    | REINFORCED CONCRETE BOX CULVERT               | N/A**          | LF   | 80                 |                         |                    |
| 156   | 510501    | MINOR CONCRETE [HEADWALL]                     | N/A**          | CY   | 40                 |                         |                    |
| 157   | 193006    | FINISHING ROADWAY                             | N/A**          | CY   | 50                 |                         |                    |
| 158   | 720011    | ROCK ENERGY DISSIPATOR                        | N/A**          | CY   | 50                 |                         |                    |
| 159   | 832002    | METAL BEAM GUARD RAILING (STEEL POST)         | N/A**          | LF   | 70                 |                         |                    |
| 160   | 839585    | ALTERNATIVE FLARED TERMINAL SYSTEM [TYPE SRT] | N/A**          | EA   | 4                  |                         |                    |
| 161   | 840515    | THERMOPLASTIC PAVEMENT MARKING                | N/A**          | SQFT | 15                 |                         |                    |
| 162   | 840656    | PAINT TRAFFIC STRIPE (2-COAT)                 | N/A**          | LF   | 400                |                         |                    |
| 163   | 810230    | PAVEMENT MARKER (RETROREFLECTIVE)             | N/A**          | EA   | 40                 |                         |                    |
| 164   | 010602    | MISCELLANEOUS WORK (AS DIRECTED)              | N/A**          | FA   | 1                  | 30,000.00               | 30,000.00          |

BASE BID SCH. 3 SUB-TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 144-164 "WORDS"

\*\* NOTE: Section 16 "Like Bid Items" provisions are not applicable for bid items listed on BASE BID SCHEDULE No. 3.

BASE BID SCHEDULES 1, 2 AND 3, ALTERANTE BIDS A,B, C, D and E

PROJECT TOTAL: \_\_\_\_\_ \$ \_\_\_\_\_  
ITEMS 1-164 "WORDS"

\* NOTE: See Instructions to Bidders. Section 16 "Like Bid Items", on page A9; corrections will apply if Like Bid items cost discrepancies are submitted. Applicable to Base Bid Schedules 1 and 2 only.

Temescal Canyon Road Widening  
Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
Leroy Road to Dos Lagos Drive (C6-0066)  
Utility Data Table for Special Provisions  
8/16/2018

AT&T California

| # | Description   | Segment | Approximate Station                     | Site Prep Requirements  | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|---|---|---------|---|---|-----------------------------------|-----------------------------|
| 1 | Adjust manhole to grade   | Dawson  | 61+49                                   | All paving completed  | 30                                | 1                           |
|   | Adjust manhole to grade   | Dawson  | 66+10                                   | All paving completed  |                                   |                             |
| 2 | Relocate telephone pedestal   | Dawson  | 62+82                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    | 30                                | 15                          |
|   | Relocate telephone box  | Dawson  | 62+90                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
|   | Relocate telephone box  | Dawson  | 63+03                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
|   | Relocate telephone pedestal   | Dawson  | 66+28                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
|   | Relocate telephone box  | Dawson  | 71+00                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
|   | Relocate telephone pedestal   | Dawson  | 74+56                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
|   | Relocate telephone pedestal   | Dawson  | 76+75                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
|   | Relocate telephone pedestal   | Dawson  | 78+11                                   | Complete grading for parkway/sidewalk to be within 1' below finished grade                    |                                   |                             |
| 3 | Relocate telephone duct bank (approx. 6' LT of "A" line)<br>And<br>Relocate telephone duct bank (approx. 27' RT of "A" Line") | Dawson  | 71+43 to 72+10<br>And<br>71+60 to 71+98 | Establish work zone and remove existing AC, pavement and buried concrete pavement, if present | 30                                | 25                          |

ISSUED BY ADDENDUM No. 3, ATTACHMENT "B"

<sup>1</sup> **Advance Notification:** Number of calendar days for Contractor to provide advance notification of the working window for the utility company.

<sup>2</sup> **Working Window:** Number of working days (non-weekend, non-holiday) for Contractor to provide to the utility company to perform the work.

Temescal Canyon Road Widening  
Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
Leroy Road to Dos Lagos Drive (C6-0066)  
Utility Data Table for Special Provisions  
8/16/2018

| #  | Description   | Segment   | Approximate Station                            | Site Prep Requirements   | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|---|-----------|--|--|-----------------------------------|-----------------------------|
| 4  | Fiber optic-Temporary Relocation                    | Dawson    | 71+61 to 71+97                                 | Establish work area, remove existing AC pavement and buried concrete pavement, if present    |                                   |                             |
| 5  | Fiber optic – Permanent Installation                | Dawson    | 71+61 to 71+97                                 | Install new storm drain "Line B" and "Line C"  | 30                                | 5                           |
| 6  | Relocate telephone manhole                          | Dawson    | 93+62  | Complete grading for parkway/sidewalk to be within 1' below finished grade                   | 30                                | 5                           |
| 7  | Relocate overhead telephone line on SCE power poles | Dos Lagos | 140+48 (PP #4824486E) to 146+63 (PP #4583116E) | SCE sets new (replacement) power poles   | 30                                | 20                          |
|    | Relocate pole 1315"H                                | Dos Lagos | 140+52   | Establish Work Zone  |                                   |                             |
|    | Relocate telephone pedestal                         | Dos Lagos | 146+09   | Complete grading for parkway/sidewalk to be within 1' below finished grade                   |                                   |                             |
|    | Relocate fiber optic pull box                       | Dos Lagos | 146+15   | Complete grading for parkway/sidewalk to be within 1' below finished grade                   |                                   |                             |
|    | Relocate telephone pedestal                         | Dos Lagos | 146+19   | Complete grading for parkway/sidewalk to be within 1' below finished grade                   |                                   |                             |
| 8  | Relocate overhead telephone line on SCE power poles | Dos Lagos | 151+27 (PP #4815545E) to 161+69 (PP #4815538E) | SCE sets new (replacement) power poles   | 30                                | 30                          |
| 9  | Adjust manhole to grade                             | Dos Lagos | 151+80   | All paving completed   | 30                                | 3                           |
|    | Adjust manhole to grade                             | Dos Lagos | 167+88   | Roadway subgrade completed, curb and gutter staked   |                                   |                             |
| 10 | Relocate telephone duct bank                        | Dos Lagos | 156+88   | Establish work zone and remove existing AC pavement and buried concrete pavement, if present | 30                                | 5                           |

<sup>1</sup> **Advance Notification:** Number of calendar days for Contractor to provide advance notification of the working window for the utility company.

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Temescal Canyon Road Widening  
Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
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Charter Communications (Spectrum)

| #  | Description  | Segment   | Approximate Station                            | Site Prep Requirements  | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--|-----------|--|---|-----------------------------------|-----------------------------|
| 11 | Relocate cable TV pull box                         | Dawson    | 67+69  | Complete grading for parkway/sidewalk to be within 1' below finished grade                | 30                                | 2                           |
| 12 | Cable TV   | Dawson    | 67+70 to 74+00                                 | SCE sets new (replacement) power poles  | 30                                | 10                          |
| 13 | Cable TV – Temporary Relocation                    | Dawson    | 67+70 to 74+00                                 | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 10                          |
| 14 | Cable TV – Permanent Installation                  | Dawson    | 67+70 to 74+00                                 | Install new storm drain "Line B" and "Line C"   | 30                                | 10                          |
| 15 | Relocate pedestal                                  | Dawson    | 81+36  | Complete grading for parkway/sidewalk to be within 1' below finished grade                | 30                                | 2                           |
| 16 | Relocate cable TV pull box                         | Dawson    | 93+27  | Complete grading for parkway/sidewalk to be within 1' below finished grade                | 30                                | 2                           |
| 17 | Cable TV – Temporary Relocation                    | Dawson    | 94+87  | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 5                           |
| 18 | Cable TV – Permanent Installation                  | Dawson    | 94+87  | Install new storm drain "Line F"  | 30                                | 5                           |
| 19 | Relocate overhead cable TV line on SCE power poles | Dos Lagos | 140+48 (PP #4824486E) to 146+63 (PP #4583116E) | SCE sets new (replacement) power poles  | 30                                | 15                          |
|    | Relocate fiber optic pull box                      | Dos Lagos | 144+14   | Complete grading for parkway/sidewalk to be within 1' below finished grade                |                                   |                             |
|    | Relocate fiber optic pull box                      | Dos Lagos | 146+23   | Complete grading for parkway/sidewalk to be within 1' below finished grade                |                                   |                             |
|    | Relocate fiber optic pull box                      | Dos Lagos | 148+45   | Complete grading for parkway/sidewalk to be   |                                   |                             |

<sup>1</sup> **Advance Notification:** Number of calendar days for Contractor to provide advance notification of the working window for the utility company.

<sup>2</sup> **Working Window:** Number of working days (non-weekend, non-holiday) for Contractor to provide to the utility company to perform the work.

Temescal Canyon Road Widening  
 Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
 Leroy Road to Dos Lagos Drive (C6-0066)  
 Utility Data Table for Special Provisions  
 8/16/2018

| #  | Description  | Segment   | Approximate Station                            | Site Prep Requirements   | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--|-----------|--|--|-----------------------------------|-----------------------------|
|    | Relocate fiber optic pull box                      | Dos Lagos | 149+79   | within 1' below finished grade<br>Complete grading for parkway/sidewalk to be within 1' below finished grade |                                   |                             |
| 20 | Relocate overhead cable TV line on SCE power poles | Dos Lagos | 151+27 (PP #4815545E) to 161+69 (PP #4815538E) | SCE sets new (replacement) power poles   | 30                                | 20                          |
|    | Relocate fiber optic pull box                      | Dos Lagos | 152+31   | Complete grading for parkway/sidewalk to be within 1' below finished grade                                   |                                   |                             |
|    | Relocate fiber optic pull box                      | Dos Lagos | 162+71   | Complete grading for parkway/sidewalk to be within 1' below finished grade                                   |                                   |                             |

Frontier Communications

| #  | Description                          | Segment | Approximate Station | Site Prep Requirements                           | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--------------------------------------|---------|---------------------|--|-----------------------------------|-----------------------------|
| 21 | Fiber optic – Temporary Relocation   | Dawson  | 82+10               | Establish work area, remove existing AC pavement | 30                                | 5                           |
| 22 | Fiber optic – Permanent Installation | Dawson  | 82+10               | Install new storm drain "Lateral D-2"            | 30                                | 5                           |

CenturyLink (formerly Level 3 Communications)

| #  | Description                          | Segment | Approximate Station | Site Prep Requirements  | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--------------------------------------|---------|---------------------|---|-----------------------------------|-----------------------------|
| 23 | Fiber optic – Temporary Relocation   | Dawson  | 71+50 to 72+00      | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 5                           |
| 24 | Fiber optic – Permanent Installation | Dawson  | 71+50 to 72+00      | Install new storm drain "Line B" and "Line C"   | 30                                | 5                           |
| 25 | Fiber optic – Temporary Relocation   | Dawson  | 82+22 to 83+95      | Establish work area, remove existing AC pavement and buried                               | 30                                | 5                           |

<sup>1</sup> **Advance Notification:** Number of calendar days for Contractor to provide advance notification of the working window for the utility company.

<sup>2</sup> **Working Window:** Number of working days (non-weekend, non-holiday) for Contractor to provide to the utility company to perform the work.

Temescal Canyon Road Widening  
 Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
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| #  | Description                          | Segment   | Approximate Station | Site Prep Requirements  | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--------------------------------------|-----------|---------------------|---|-----------------------------------|-----------------------------|
|    |                                      |           |                     | concrete pavement, if present   |                                   |                             |
| 26 | Fiber optic – Permanent Installation | Dawson    | 82+22 to 83+95      | Install new storm drain "Lateral D-2" and "Lateral D-4"                                   | 30                                | 5                           |
| 27 | Fiber optic – Temporary Relocation   | Dos Lagos | 148+47              | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 5                           |
| 28 | Fiber optic – Permanent Installation | Dos Lagos | 148+47              | Install new storm drain "Lateral B-1"   | 30                                | 5                           |
| 29 | Fiber optic – Temporary Relocation   | Dos Lagos | 156+82              | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 5                           |
| 30 | Fiber optic – Permanent Installation | Dos Lagos | 156+82              | Install new storm drain "Lateral B-2"   | 30                                | 5                           |

Southern California Gas

| #  | Description              | Segment   | Approximate Station | Site Prep Requirements  | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--------------------------|-----------|---------------------|---|-----------------------------------|-----------------------------|
| 31 | Relocate 8" HP gas line  | Dawson    | 71+58 to 71+98      | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 10                          |
| 32 | Relocate 8" HP gas line  | Dawson    | 83+92               | Establish work area, remove existing AC pavement and buried concrete pavement, if present | 30                                | 5                           |
| 33 | Relocate 1" gas line     | Dos Lagos | 152+14              | Install new storm drain "Lateral B-1"   | 30                                | 2                           |
| 34 | Relocate 1" gas line     | Dos Lagos | 160+93              | Install new storm drain "Lateral C-1"   | 30                                | 2                           |
| 35 | Relocate gas meter       | Dos Lagos | 160+98              | Complete grading for parkway/sidewalk to be within 1' below finished grade                | 30                                | 2                           |
| 36 | Relocate 1 1/2" gas line | Dos Lagos | 161+08              | Install new storm drain "Lateral C-1"   |                                   |                             |

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<sup>2</sup> **Working Window:** Number of working days (non-weekend, non-holiday) for Contractor to provide to the utility company to perform the work.

Temescal Canyon Road Widening  
 Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
 Leroy Road to Dos Lagos Drive (C6-0066)  
 Utility Data Table for Special Provisions  
 8/16/2018

Sunesys (acquired by Crown Castle International Corp.)

| #  | Description   | Segment   | Approximate Station                                     | Site Prep Requirements   | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|---|-----------|---|--|-----------------------------------|-----------------------------|
| 37 | Relocate overhead fiber optic line on SCE power poles | Dawson    | 65+54<br>(PP #4419790E)<br>to 75+25<br>(PP #4087919E)   | SCE sets new (replacement) power poles                                     | 30                                | 10                          |
| 38 | Relocate overhead fiber optic line on SCE power poles | Dos Lagos | 140+48<br>(PP #4824486E)<br>to 146+63<br>(PP #4583116E) | SCE sets new (replacement) power poles                                     | 30                                | 15                          |
|    | Relocate fiber optic pull box                         | Dos Lagos | 146+19  | Complete grading for parkway/sidewalk to be within 1' below finished grade |                                   |                             |
| 39 | Relocate overhead fiber optic line on SCE power poles | Dos Lagos | 151+27<br>(PP #4815545E)<br>to 161+69<br>(PP #4815538E) | SCE sets new (replacement) power poles                                     | 30                                | 20                          |

Southern California Edison

| #  | Description  | Segment | Approximate Station | Site Prep Requirements   | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|--|---------|---------------------|--|-----------------------------------|-----------------------------|
| 40 | Relocate overhead lines and power poles:<br>4419790E<br>4415979E<br>4172913E<br>4172912E<br>4087920E<br>4172911E<br>4868604E<br>4087919E<br>4172909E (buddy pole)<br>4172925E and buddy pole<br>4172917E | Dawson  | 65+54 to 82+98      | Complete grading for parkway/sidewalk to be within 1' below finished grade | 60                                | 10                          |
| 41 | Relocate street light SL4534225E   | Dawson  | 95+02               | Complete grading for parkway/sidewalk to be within 1' below finished grade | 60                                | 3                           |

<sup>1</sup> **Advance Notification:** Number of calendar days for Contractor to provide advance notification of the working window for the utility company.

<sup>2</sup> **Working Window:** Number of working days (non-weekend, non-holiday) for Contractor to provide to the utility company to perform the work.



Temescal Canyon Road Widening  
Dawson Canyon Road to 0.7 Miles North (C5-0072) &  
Leroy Road to Dos Lagos Drive (C6-0066)  
Utility Data Table for Special Provisions  
8/16/2018

| #  | Description   | Segment   | Approximate Station                                    | Site Prep Requirements   | Advance Notification <sup>1</sup> | Working Window <sup>2</sup> |
|----|---|-----------|--|--|-----------------------------------|-----------------------------|
|    | Relocate electrical pull box  | Dawson    | 95+08  | Complete grading for parkway/sidewalk to be within 1' below finished grade                             |                                   |                             |
| 42 | Relocate overhead lines and power poles:<br>4172916E  | Dawson    | 93+23  | Complete grading for parkway/sidewalk to be within 1' below finished grade                             | 60                                | 3                           |
| 43 | Relocate overhead lines and power poles:<br>4824486E<br>4824485E<br>4677503E<br>20438SCG<br>4406888E<br>4583116E  | Dos Lagos | 140+48 to<br>146+63                                    | Complete grading for parkway/sidewalk to be within 1' below finished grade                             | 60                                | 10                          |
| 44 | Relocate overhead lines and power poles:<br>104234H<br>4815545E<br>2328674E<br>4815544E<br>4815543E<br>105431H<br>104231H<br>4815542E<br>4815541E<br>4521151E<br>4815540E<br>4815539E<br>4239365E<br>4815538E | Dos Lagos | 151+23 to<br>161+69                                    | Complete retaining wall and complete grading for parkway/sidewalk to be within 1' below finished grade | 60                                | 20                          |
| 45 | Relocate underground electric duct bank   | Dos Lagos | 159+00<br>(PP #4815539E)<br>to 160+04<br>(Transformer) | Establish work area, remove existing AC pavement and buried concrete pavement, if present              | 60                                | 5                           |
| 46 | Relocate overhead lines and power poles:<br>4824477E<br>4824478E  | Dos Lagos | 10+67 to 12+21<br>"F" LINE                             | Complete grading for parkway/sidewalk to be within 1' below finished grade                             | 60                                | 4                           |

ISSUED BY ADDENDUM No. 3, ATTACHMENT "B"

<sup>1</sup> **Advance Notification:** Number of calendar days for Contractor to provide advance notification of the working window for the utility company.

<sup>2</sup> **Working Window:** Number of working days (non-weekend, non-holiday) for Contractor to provide to the utility company to perform the work.

# Special Provisions

## Temescal Canyon Roadway Improvements Waterline Relocations and Waterline Service Changes City of Corona Department of Water and Temescal Valley Water District

ISSUED BY ADDENDUM No. 3, ATTACHMENT "C", Page 1 of 60



August 10, 2018

## Special Provisions

### Temescal Canyon Roadway Improvements Waterline Relocations and Waterline Service Changes City of Corona Department of Water and Temescal Valley Water District

#### PART 1 - GENERAL PROVISIONS

The Work hereunder shall be done in accordance with;

City of Corona Department of Water and Power (DWP) Design Policy and Standard Drawings herein after referred to as "DWP Design Specifications" and

Temescal Valley Water District Standard Drawings 9-2015, Lee Lake Water District Water System Facility Requirements, August 2008, herein after referred to as "TVWD Design Specifications" and

Standard Specifications for Public Works Construction ("Greenbook"), 2015 Edition, including all current supplements, addenda, and revisions thereof (hereinafter referred to as "**Standard Specifications**")

The DWP Design Specifications, TVWD Design Specifications and Standard Specifications are referred to and by this reference made a part hereof as though set forth at length.

- In the case of conflict between the DWP Design and/or Standard Specifications and these Special Provisions; Special Provisions shall take precedence over, and shall be used in lieu of, such conflicting provisions.
- In the case of conflict between the TVWD Design and/or Standard Specifications and these Special Provisions; Special Provisions shall take precedence over, and shall be used in lieu of, such conflicting provisions.

The following Special Provisions supplement and amend the Standard Specifications for Public Works Construction 2015 Edition ("Greenbook"). These Special Provisions have been arranged into a format that parallels the Greenbook. In the event a section heading contained in the Standard Specifications is not referenced in these Special Provisions that section shall read exactly as stated in the Standard Specifications.

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**STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK"),  
2015 EDITION, INCLUDING ALL CURRENT SUPPLEMENTS, ADDENDA, AND REVISIONS  
THEREOF (HEREINAFTER REFERRED TO AS "STANDARD SPECIFICATIONS")**

**SECTION 2 - SCOPE AND CONTROL OF WORK**

**2-5 PLANS AND SPECIFICATIONS**

**2-5.3.3 Shop Drawings**

*Add the following to Table 2-5.3.3:*

**TABLE 2-5.3.3**

| Item | Subsection No. | Title             | Subject  |
|------|----------------|-------------------|--|
| 7    | 212-1.1        | Submittal Package | Water and Sewer System Valves and Appurtenances  |
| 8    | 306-8.9.4      | Disinfection      | Disinfection, Testing, Flushing, and Dechlorinating, Discharge to Sewer or Storm Drain, Laboratory Testing |

**SECTION 2-6 WORK TO BE DONE**

*Add the following after the first paragraph*

City of Corona Department of Water and Power will operate the control valves for shut down of the waterline. Contractor shall provide a written 10 working day notice to the City of Corona Department of Water and Power for the requested date for planned shutdown of the waterline.

The Contractor will be allowed one (1) fourteen (14) calendar day shutdown of the 18-inch waterline to complete all work at Location No. 1 and Location No. 2, including de-watering, excavation and backfill, installation of 18-inch DIP pipe, installation of casing, blow-offs and combination air and vacuum release assemblies, testing and disinfection to place the waterline fully operational back in service beginning on a Thursday at 1800 hours to the second consecutive Thursday at 1800 hours.

The Contractor shall schedule the removal of the existing fire service valves and installation of blind flanges on the City of Corona Department of Water and Power's 18-inch waterline required for the transfer of service to Temescal Valley Water District during this (14) calendar day shutdown.

Temescal Valley Water District (TVWD) will operate the control valves and de-water the 20-inch potable waterline and 14-inch CML & C agricultural waterline. Contractor shall provide a written 10 working day notice to the TVWD for the requested date for planned shutdown of the 20-inch potable waterline and a written 10 working day notice to the TVWD District for the requested date for planned shutdown of the 14-inch agricultural waterline.

The Contractor will provide labor, portable pumps and equipment to assist TVWD with the dewatering of their waterlines.

The Contractor will be allowed one (1) thirty five (35) hour shutdown of the 20-inch potable waterline to complete all work at Location No. 3 beginning at 6:00 am Saturday to 5:00 pm Sunday including,

excavation and backfill, installation of 20-inch CML & C pipe, blow-offs and combination air and vacuum release assemblies, testing and disinfection to place the waterline fully operational back in service.

The Contractor will be allowed one (1) fifty nine (59) hour shutdown of the 14-inch agricultural waterline to complete all work at Location No. 4 beginning at 6:00 am Tuesday to 5:00 pm Thursday; including, excavation and backfill, installation of 14-inch CML & C, blow-offs and combination air and vacuum release assemblies, testing and disinfection to place the waterline fully operational back in service.

Full compensation for complying with these requirements must be considered to be included within the contract unit or lump sum bid prices paid for the various items of work and no additional compensation will be allowed therefore.

#### **SECTION 4 - SCOPE AND CONTROL OF WORK**

*Add the following subsection:*

##### **4-1.1.1: Buy-American Clause**

Unless otherwise shown, all materials used for water system construction shall be made in the United States of America.

*Add the following subsection:*

#### **SECTION 5 – UTILITIES**

##### **5-1: LOCATION**

##### **5-1.1: General**

*Add the following after the last paragraph*

The Contractor shall pothole all the existing utilities that parallel or cross the work and points of connection to existing waterlines, including existing waterlines and other utilities that parallel or cross the proposed new waterline construction including USA markings and the Contractor shall verify there are no utility, pipeline or other obstruction that would interfere with the planned connection and to verify size, location, piping material, fittings, materials, and appurtenances needed for reconnection of existing water and fire services.

The Contractor shall provide the Engineer survey notes of the horizontal and vertical location and description of existing utility for each pothole and point of connection.

The Contractor will be responsible for locating the actual points of connection.

The Contractor and Engineer must field-review each section of the proposed waterline to verify the alignment for trenching purposes. The Engineer may vary pipe alignment to better fit field conditions.

The Contractor must pothole to positively locate and verify location existing piping and fittings, material size and location of existing water connections, including fire service laterals, and submit proposed connection details to the Engineer prior to ordering materials for construction. If field conditions differ from the planned details the Contractor must provide an alternate plan with connection details and materials for the Engineer's approval.

The Contractor must provide a detailed plan of the proposed connection, alteration or abandonment details identifying existing piping materials or valves for the Engineer's approval prior to ordering materials for construction. This plan must include proposed materials, fittings and transition couplings required to make the planned connections to existing waterlines, valve stem extensions and abandonment of existing waterlines.

Upon completion of the potholing of utilities and points of connection the Contractor shall as-built survey notes to the Engineer.

The Contractor shall allow the Engineer five (5) working days to review the as-built pothole survey notes and to make necessary changes to the waterline alignment and grades to better fit the as-built field conditions.

Adjustments to the alignment and depth of the proposed Waterline(s) and to the connection details as shown on the plans shall be made based on the actual position and condition of the existing utilities as determined from the pothole work.

Changes to the plans by the Engineer will be issued to the Contractor.

Full compensation for complying with these requirements must be considered to be included within the contract unit or lump sum bid prices paid for the various items of work and no additional compensation will be allowed therefore.

## **SECTION 9 - MEASUREMENT AND PAYMENT**

*Add the following:*

### **SECTION 9-4 BID ITEMS**

**9-4.01: City of Corona Department of Water & Power 18-inch Potable Water; Ductile Iron Pipe, CML, Fully, Restrained Joints Class 250; Location No. 1**

**9-4.02: City of Corona Department of Water & Power 18-inch Potable Water; Ductile Iron Pipe, CML, Fully, Restrained Joints Class 250; Location No. 2**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in City of Corona Department of Water & Power 18-inch Potable Water; Ductile Iron Pipe, CML, Fully, Restrained Joints Class 250; Location No. 1 and Location No. 2 in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

All pipe materials must conform to the State of California Department of Health requirements regarding the separation of sanitary sewers and potable water lines.

Mechanical Pipe Joint Restraint System in accordance with DWP List of Approved Materials shall be furnished and installed at all pipe joints.

Pipeline Pressure Testing, Disinfection and Commissioning of the installed pipe shall be performed in accordance with the Standard Specification, 306-8.9 Pipeline Pressure Testing, Disinfection and Commissioning, and these Special Provisions.

Potable water pipe will have two (2) layers polyethylene encasement in conformance with AWWA C105 (or approved equal material). Minimum thickness of the polyethylene encasement is 8 mil.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

A Polyethylene Pressure Pipe Blue Strip AWWA C-906 will be installed as a casing for the 18-inch waterline to comply with Title 22 Section 64572 regarding Water Main Separation.

- Location No. 1; Casing will be continuous for its full length. Pipe casing shall be a minimum (40) forty foot sections except for the tag end to make the required casing length. Field joints shall be fusion welded in accordance with the manufacturer's recommendations.
- Location No. 2; casing will be continuous for its full length no field joints.

Casing spacers and blown sand in the casing will not be required. Casing end seals will be required.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include dewatering, removal of the existing pipe, installation of the pipe and casing, testing and disinfections and placing the waterline back in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process from notice to City of Corona Department of Water and Power requesting a shutdown continuously to placing the waterline back in service.

The City of Corona Department of Water and Power's Flushing and Disinfection Plan, Appendix A, shall be utilized by the Contractor for the City's 18-inch potable water flushing and disinfection.

The Contractor will provide a Flushing and Disinfection Plan to the Engineer and City of Corona Department of Water and Power for approval to accommodate the allowable system shut down period provided for in SECTION 2-6; Work to Be Done.

After receiving the Engineer's approval of Shop Drawing and SSWP the Contractor shall schedule shutdown of the waterline by the City of Corona Department of Water and Power.

### **Measurement and Payment**

The contract price paid per Lump Sum Item Bid for City of Corona Department of Water & Power 18-inch Potable Water; Ductile Iron Pipe, CML, Fully, Restrained Joints Class 250; Location No. 1 and Location No. 2 in accordance with DWP Design Specifications, Standard Specifications, the plans and these General Provisions shall be considered full compensation for furnishing all necessary labor,

materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including pipeline dewatering, excavation and backfill, fittings and mechanical joint restraint systems, pressure testing, flushing and disinfection and commissioning; and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing City of Corona Department of Water & Power 18-inch Potable Water; Ductile Iron Pipe, CML, Fully, Restrained Joints Class 250; Location No. 1 and Location No. 2 as specified herein and shown on the plans shall be paid per each by the Lump Sum Contract Item Bid and no additional compensation will be allowed therefor

**9-4.03: Temescal Valley Water District 20-inch Potable Water; CML&C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 3**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved constructing Temescal Valley Water District 20-inch Potable Water; CML & C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 3 in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions.

All pipe materials must conform to the State of California Department of Health requirements regarding the separation of sanitary sewers and potable water lines.

Pipeline Pressure Testing, Disinfection and Commissioning of the installed pipe shall be performed in accordance with the Standard Specification, 306-8.9 Pipeline Pressure Testing, Disinfection and Commissioning, and these Special Provisions.

Potable water pipe will have two (2) layers polyethylene encasement in conformance with AWWA C105 (or approved equal material) at fittings and valves. Minimum thickness of the polyethylene encasement is 8 mil.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include dewatering (dewatering will be performed by Temescal Valley Water District), removal of the existing pipe, installation of the pipe, testing and disinfections and placing the waterline back in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process from notice to Temescal Valley Water District requesting a shutdown continuously to placing the waterline back in service.

The Contractor shall utilize and make necessary modifications to the City of Corona Department of Water and Power's Flushing and Disinfection Plan, Appendix A, described for the 18-inch DIP potable water listed as Pipeline1 for TVWD's 20-inch Potable Water show as Location No. 3 on the project plans.

The Contractor will provide a modified Flushing and Disinfection Plan to the Engineer and TVWD for approval to accommodate the allowable system shut down period provided for in SECTION 2-6; Work to Be Done



After receiving the Engineer's approval of Shop Drawing and SSWP the Contractor shall schedule shutdown of the waterline by the Temescal Valley Water District.

**Measurement and Payment**

The contract price paid per Lump Sum Item Bid for Temescal Valley Water District 20-inch Potable Water; CML & C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 3 in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including assisting TVWD with pipeline dewatering, excavation and backfill, piping installation, fittings and corresponding field welding, pressure testing, flushing and disinfection and commissioning; and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing Temescal Valley Water District 20-inch Potable Water; CML & C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 3 as specified herein and shown on the plans shall be paid per Lump Sum Contract Item Bid and no additional compensation will be allowed therefor.

**9-4.04: Temescal Valley Water District 14-inch Agricultural Water; CML&C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 4**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in constructing Temescal Valley Water District 14-inch Agricultural Water; CML & C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 4 in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions

All pipe materials must conform to the State of California Department of Health requirements regarding the separation of sanitary sewers and potable water lines.

Agricultural water pipe will have two (2) layers polyethylene encasement in conformance with AWWA C105 (or approved equal material) at fittings and valves. Minimum thickness of the polyethylene encasement is 8 mil.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include dewatering, removal of the existing pipe, installation of the pipe, testing and disinfections and placing the waterline back in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process from notice to Temescal Valley Water District requesting a shutdown continuously to placing the waterline back in service.

After receiving the Engineer's approval of Shop Drawing and SSWP the Contractor shall schedule shutdown of the waterline by the Temescal Valley Water District.

## **Measurement and Payment**

The contract price paid per Lump Sum Item Bid for Temescal Valley Water District 14-inch Agricultural Water; CML & C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 4 in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including assisting TVWD with pipeline dewatering, excavation and backfill, piping installation, polyethylene encasement, fittings and corresponding field welding; and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing Temescal Valley Water District 14-inch Agricultural Water; CML & C Steel Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi; Location No. 4 as specified herein and shown on the plans shall be paid per Lump Sum Contract Item Bid and no additional compensation will be allowed therefor.

**9-4.05: 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1 - City of Corona Department of Water & Power STD 410; Location No. 1; (6-inch Inlet and Outlet Piping)**

**9-4.06: 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1 - City of Corona Department of Water & Power STD 410; Location No. 2; (8-inch Inlet and Outlet Piping)**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in installing 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1-City of Corona Department of Water & Power STD 410; Location No. 1; (6-inch Inlet and Outlet Piping) and; 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1-City of Corona Department of Water & Power STD 410; Location No. 2; (8-inch Inlet and Outlet Piping) as specified herein and shown on the plans complete in place in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

All pipe materials must conform to the State of California Department of Health requirements regarding the separation of sanitary sewers and potable water lines.

Pipeline Pressure Testing, Disinfection and Commissioning of the installed pipe shall be performed in accordance with the Standard Specification, 306-8.9 Pipeline Pressure Testing, Disinfection and Commissioning, and these Special Provisions.

City of Corona Department of Water & Power STD 410 Option 1 is for an 8-inch Pressure Reducing Station with 4-inch By-Pass the Contractor shall use the same material list and equipment specifications set forth in STD 410; Option 1 except that material list sizes shall be reduced to correspond to a 6-inch Pressure Reducing Station with 3-inch By-Pass - Option 1 in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include hot tap, installation of the pipe, installation of the Pressure Regulating Station, connections to existing pipeline, testing and disinfections and placing the waterline in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process to place the system in service.

### **Measurement and Payment**

The contract price paid per Lump Sum Item Bid for 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1 - City of Corona Department of Water & Power STD 410; Location No. 1; (6-inch Inlet and Outlet Piping) and; 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1 - City of Corona Department of Water & Power STD 410; Location No. 2; (8-inch Inlet and Outlet Piping) in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including excavation and backfill, piping installation, various sizes of waterline, hot taps, thrust blocks, Potable Water Resilient Wedge Gate Valves of various sizes and Zone Valve, removable guard posts, concrete slab, polyethylene encasement, fittings and corresponding mechanical joint restraint systems, pressure testing, disinfection and commissioning; and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1 - City of Corona Department of Water & Power STD 410; Location No. 1; (6-inch Inlet and Outlet Piping) and; 6-inch Pressure Regulating Station with 3-inch By-Pass-Option 1 - City of Corona Department of Water & Power STD 410; Location No. 2; (8-inch Inlet and Outlet Piping) as specified herein and shown on the plans shall be paid per Lump Sum Contract Item Bid and no additional compensation will be allowed therefor.

### **9-4.07: 6-inch Fire Hydrant (Steel Pipe) - Temescal Valley Water District DWG No. W-3**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in furnishing and installing 6-inch Fire Hydrant (Steel Pipe) - Temescal Valley Water District DWG No. W-3 as shown on the plans and in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include dewatering (dewatering will be performed by Temescal Valley Water District), removal of the existing pipe, installation of the pipe, testing and disinfections and placing the waterline back in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process from notice to Temescal Valley Water District requesting a shutdown continuously to placing the waterline back in service.

### **Measurement and Payment**

The contract price paid per Each Item Bid for 6-inch Fire Hydrant (Steel Pipe) - Temescal Valley Water District DWG No. W-3 in accordance with TVWD Design Specifications, Standard Specifications, the plans and these General Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to

construct complete in place, including excavation and backfill, piping installation, hot taps, polyethylene encasement, fittings and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing 6-inch Fire Hydrant (Steel Pipe) - Temescal Valley Water District DWG No. W-3 as specified herein and shown on the plans shall be paid per Each Contract Item Bid and no additional compensation will be allowed therefor.

**9-4.08: 1-inch High Pressure (>80PSI) Service Lateral - Temescal Valley Water District DWG No. W-34**

**9-4.09: 1 1/2-inch High Pressure (>80PSI) Service Lateral - Temescal Valley Water District DWG No. W-34**

**9-4.10: 2-inch High Pressure (>80PSI) Service Lateral - Temescal Valley Water District DWG No. W-34**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in furnishing and installing High Pressure (>80PSI) Service Lateral - Temescal Valley Water District DWG No. W-34, potable water service system as shown on the plans in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions.

Contractor shall locate and verify the size of existing City of Corona Department of Water and Power existing service, meter and private side water service and replace said service with Temescal Valley Water District potable water services off their existing 20-inch or 24-inch potable waterline.

All existing 5/8-inch and 3/4-inch residential potable water services shall be increased to 1-inch for new services.

All existing 5/8-inch, 3/4-inch and 1-inch commercial potable water services shall be increased to 1 1/2-inch for new services.

New services shall be extended to the new parkway in accordance with Temescal Valley Water District DWG No. W-1.

Contractor will locate the existing water service at the public right of way line on the private side of the proposed meter and determine size and type of piping material and make connection to restore service.

The location of the private side water service where it crosses the public right of way will determine the location of the connection to the Temescal Valley Water District 20-inch or 24-inch potable waterline, new water service and meter.

Contractor will be required to adjust location of water service connection to the Temescal Valley Water District 20-inch or 24-inch potable waterline, service, meter and tie-in to fit field conditions.

Interruption of services to restore water service shall be coordinated with Temescal Valley Water District.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include dewatering (dewatering will be performed by Temescal Valley Water District), removal of the existing pipe, installation of the pipe, testing and disinfections and placing the waterline back in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process from notice to Temescal Valley Water District requesting a shutdown continuously to placing the waterline back in service.

Once the new water service is placed in service the Contractor shall disconnect the existing City of Corona Department of Water and Power water service at the corporation stop; close the corporation stop, remove existing service line and remove and salvage existing water meter.

Pipeline Pressure Testing, Disinfection and Commissioning of the installed pipe shall be performed in accordance with the Standard Specification, 306-8.9 Pipeline Pressure Testing, Disinfection and Commissioning, and these Special Provisions.

Salvaged existing water meter shall be delivered to the City of Corona Department of Water and Power Warehouse at Public Safety Way, Corona, CA

**Measurement and Payment**

The contract price paid per Each Item Bid for High Pressure (>80PSI) Service Lateral - Temescal Valley Water District DWG No. W-34 of the various sizes in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including excavation and backfill, piping installation, fittings and appurtenances and adjusting location of connection to the Temescal Valley Water District 20-inch or 24-inch potable waterline, connection to existing water service, and tie-in to fit field conditions, salvaging existing water meter and delivering to the City of Corona as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation furnishing and installing High Pressure (>80PSI) Service Lateral - Temescal Valley Water District DWG No. W-34 of the various sizes as specified herein and shown on the plans shall be paid per Each Contract Item Bid and no additional compensation will be allowed therefor.

**9-4.11: 1 1/2-inch Backflow Prevention Device - Temescal Valley Water District DWG No. W-13**

**9-4.12: 2-inch Backflow Prevention Device - Temescal Valley Water District DWG No. W-13**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in furnishing and installing Backflow Prevention Device Temescal Valley Water District DWG No. W-13 of the various sizes as shown on the plans in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions. Backflow prevention device is required at all commercial properties.

Contractor shall locate and verify the size of existing City of Corona Department of Water and Power existing service, meter and private side water service and replace said service with Temescal Valley Water District potable water services off their existing 20-inch or 24-inch potable waterline.

New services shall be extended to the new parkway in accordance with Temescal Valley Water District DWG No. W-1.

Contractor will locate the existing water service at the public right of way line on the private side of the proposed meter and determine size and type of piping material and make connection to restore service.

The location of the private side water service where it crosses the public right of way will in general determine the location of the new water service, meter and backflow prevention device. Contractor may be required to adjust location of service, meter, backflow prevention device and tie-in to fit field conditions. Full compensation for adjusting location of service, meter, backflow prevention device and tie-in to fit field conditions is included in the contract Items bid and no additional compensation will be allowed therefor.

Pipeline Pressure Testing, Disinfection and Commissioning of the installed pipe shall be performed in accordance with the Standard Specification, 306-8.9 Pipeline Pressure Testing, Disinfection and Commissioning, and these Special Provisions.

Interruption of services to restore water service shall be coordinated with Temescal Valley Water District.

Once the new water service is placed in service the Contractor shall disconnect the existing City of Corona Department of Water and Power water service at the corporation stop; close the corporation stop and remove existing service line and meter.

### **Measurement and Payment**

The contract price paid per Each Item Bid for Backflow Prevention Device Temescal Valley Water District DWG No. W-13 of the various sizes in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including excavation and backfill, piping installation, fittings and appurtenances and adjusting location of connection to existing water service and tie-in to fit field conditions, as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation furnishing and installing Backflow Prevention Device Temescal Valley Water District DWG No. W-13 of the various sizes as specified herein and shown on the plans shall be paid per Each Contract Item Bid and no additional compensation will be allowed therefor.

### **9-4.13: Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 24-inch CML & C Potable Waterline**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 24-inch CML & C Potable Waterline system as shown on the plans in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

All pipe materials must conform to the State of California Department of Health requirements regarding the separation of sanitary sewers and potable water lines.

Contractor shall locate and verify the size of existing City of Corona Department of Water and Power fire service, intercept service line before existing double detector check assembly and connect said fire service to the Temescal Valley Water District 's existing potable waterline.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include hot tap, installation of the pipe, connections to existing waterline, testing and disinfections and placing the fire service in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process to place the system in service.

Interruption of services to restore water service shall be coordinated with Temescal Valley Water District and Riverside County Fire Prior to shutting down fire services.

- Dispatch Center - (951-940-6900
- Local Fire Station- (951) 277-1182

Contractor will locate the existing fire service at the public right of way line on the private side of the proposed meter and determine size and type of piping material and make connection to restore service.

Contractor will furnish and install an 8-inch CLA-Val Pressure Reducing Valve, Model 90-01 and reconstruct the inlet side of the existing double detector check assembly to accommodate the pressure reducing valve as shown on the plans.

The location of the private side fire service where it crosses the public right of way will determine the location of the connection to the Temescal Valley Water District 24-inch potable waterline.

Contractor will be required to adjust location of fire service connection to the Temescal Valley Water District's 24-inch potable waterline to fit field conditions.

Once the new fire service is placed in service the Contractor shall remove the existing fire service 8-inch valve, install an 8-inch blind flange at the fitting and remove existing fire service line.

### **Measurement and Payment**

The contract price paid per Each Item Bid for Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 24-inch CML & C Potable Waterline in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including excavation and backfill, hot taps and thrust blocks, piping installation, adjusting location of connection to existing 8-inch fire service lateral to Temescal Valley Water District's 24-inch CML & C Potable Waterline, adjusting fire service tie-in to fit

field conditions, installing pressure reducing valve, polyethylene encasement, fittings and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 24-inch CML & C Potable Waterline as specified herein and shown on the plans shall be paid per Each Contract Item Bid and no additional compensation will be allowed therefor.

**9-4.14: Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML&C Potable Waterline as shown on the plans in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

All pipe materials must conform to the State of California Department of Health requirements regarding the separation of sanitary sewers and potable water lines.

Contractor shall locate and verify the size of existing City of Corona Department of Water and Power fire service, intercept service line before existing double detector check assembly and connect said fire service to the Temescal Valley Water District 's existing potable waterline.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include hot tap, installation of the pipe, connections to existing waterline, testing and disinfections and placing the fire service in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process to place the system in service.

Interruption of services to restore water service shall be coordinated with Temescal Valley Water District and Riverside County Fire Prior to shutting down fire services.

- Dispatch Center - (951-940-6900)
- Local Fire Station - (951) 277-1182

Contractor will locate the existing fire service at the public right of way line on the private side of the proposed meter and determine size and type of piping material and make connection to restore service.

Contractor will furnish and install an 8-inch CLA-Val Pressure Reducing Valve, Model 90-01 and reconstruct the inlet side of the existing double detector check assembly to accommodate the pressure reducing valve as shown on the plans.

The location of the private side fire service where it crosses the public right of way will determine the location of the connection to the Temescal Valley Water District 20-inch potable waterline.



Contractor will be required to adjust location of fire service connection to the Temescal Valley Water District's 20-inch potable waterline to fit field conditions.

Once the new fire service is placed in service the Contractor shall remove the existing fire service 8-inch valve, install an 8-inch blind flange at the fitting and remove existing fire service line.

### **Measurement and Payment**

The contract price paid per Each Item Bid for Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place including excavation and backfill, hot taps and thrust blocks, piping installation, adjusting location of connection to existing 8-inch fire service lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline, adjusting fire service tie-in to fit field conditions, installing pressure reducing valve, polyethylene encasement, fittings and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline as specified herein and shown on the plans shall be paid per Each Contract Item Bid and no additional compensation will be allowed therefor.

### **9-4.15: Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline-Salvage and Re-install Double Detector Check Assembly**

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline-Salvage and Re-install Double Detector Check Assembly as shown on the plans in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

Contractor shall locate and verify the size of existing City of Corona Department of Water and Power fire service, intercept service line before existing double detector check assembly and connect said fire service to the Temescal Valley Water District 's existing potable waterline.

After Potholing of Utilities and Points of Connection in accordance with Section 5-1.1, General, and prior to ordering piping materials the Contractor shall provide shop drawings of the piping and connection details to existing waterlines for each location for the Engineer's review and approval.

The Contractor shall provide a detailed Site Specific Work Plan (SSWP) for the work process to include hot tap, installation of the pipe, connections to existing waterline, testing and disinfections and placing the fire service in service for the Engineer's review and approval. This SSWP shall be an hourly detail of the labor, equipment and schedule for each of the tasks involved in the work process to place the system in service.

Contractor will salvage the existing double detector check assembly and re-install it as shown on the plans.

Interruption of services to restore water service shall be coordinated with Temescal Valley Water District and Riverside County Fire Prior to shutting down fire services.

- Dispatch Center - (951-940-6900)
- Local Fire Station - (951) 277-1182

Contractor will locate the existing fire service at the public right of way line on the private side of the proposed meter and determine size and type of piping material and make connection to restore service.

Contractor will furnish and install an 8-inch CLA-Val Pressure Reducing Valve, Model 90-01 and reconstruct the inlet side of the existing double detector check assembly to accommodate the pressure reducing valve as shown on the plans.

The location of the private side fire service where it crosses the public right of way will determine the location of the connection to the Temescal Valley Water District 20-inch potable waterline.

Contractor will be required to adjust location of fire service connection to the Temescal Valley Water District's 20-inch potable waterline to fit field conditions.

Once the new fire service is placed in service the Contractor shall remove the existing fire service 8-inch valve, install an 8-inch blind flange at the fitting and remove existing fire service line.

### **Measurement and Payment**

The contract price paid per Each Item Bid for Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline -Salvage and Re-install Double Detector Check Assembly in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including salvaging and re-install existing double detector check assembly, excavation and backfill, hot taps and thrust blocks, piping installation, adjusting location of connection to existing 8-inch fire service lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline, adjusting fire service tie-in to fit field conditions, installing pressure reducing valve, installing stationary guard post, polyethylene encasement, fittings and appurtenances as shown on the plans and specified herein and no additional compensation will be allowed therefor.

Full compensation for furnishing and installing Connection to Existing 8-inch DIP Fire Service Lateral to Temescal Valley Water District's 20-inch CML & C Potable Waterline-Salvage and Re-install Double Detector Check Assembly as specified herein and shown on the plans shall be paid per Each Contract Item Bid and no additional compensation will be allowed therefor.

### **9-4.16: Support Existing Utilities**

#### **SECTION 5 – UTILITIES (“Greenbook”)**

#### **5-2 Protection**

*Add the following after the last paragraph:*

Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in Support Existing Utilities in accordance with the Standard Specifications, the plans and these Special Provisions.

Locations of all underground utilities are approximate. The Contractor shall determine the exact locations and verify all conditions on the job site prior to commencing work. The Contractor agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities. The Contractor shall notify all concerned utility companies at least 48 hours in advance of excavation. Call Underground Service Alert at 811.

Construction of City of Corona Department of Water and Power Facilities - Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in shoring and supporting existing utilities, including providing engineering calculations and drawings for each utility to be supported for the Engineer's review and acceptance and in accordance with DWP Design Specifications, Standard Specifications, the plans and these Special Provisions.

Construction of Temescal Valley Water District Facilities - Contractor shall furnish all labor, materials, tools, equipment and incidentals and for doing all work involved in shoring and supporting existing utilities, including providing engineering calculations and drawings for each utility to be supported for the Engineer's review and acceptance and in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions.

The Contractor shall be responsible for coordinating his/her work with all utility companies during the construction of the Work.

The plans identify the approximate locations of existing utilities that parallel or cross the Work. These locations are based on the best information available to the County. The Contractor shall verify these locations.

During construction of the work, some of the existing utilities, including existing water lines, may fall within the prism of trenches. If the existing utility does fall within the Contractor's trenches, the utility involved shall be supported properly by the Contractor to the satisfaction of Engineer and the utility owner. The method of support of the utility, precautions to be taken during trench excavation, backfill and compaction, etc., shall be per the utility owner's requirements. The Contractor shall contact the utility owner should it anticipate such exposure of any of the existing utilities.

The Contractor shall provide engineering calculations, plans and support details, including shoring necessary to support utilities, for existing utilities crossing or in the prism of trenches as shown on the plans for approval by the by the Engineer and Utility Owner.

### **Measurement and Payment**

The contract price paid per Lump Sum Item Bid for Support Existing Utilities in accordance with TVWD Design Specifications, Standard Specifications, the plans and these Special Provisions shall be considered full compensation for furnishing all necessary labor, materials, tools, equipment, and incidentals required for doing all of the work required to construct complete in place, including determining exact locations and verifying all conditions on the job site, engineering calculations, plans, shoring and support details for existing utilities crossing or in the prism of trenches as shown on the

plans for approval by the by the Engineer and Utility Owner and no additional compensation will be allowed therefor.

Full compensation for Support Existing Utilities as specified herein and shown on the plans shall be paid per Lump Sum Contract Item Bid and no additional compensation will be allowed therefor.

-----  
 Add the following section:

**STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION  
 ("GREENBOOK"), 2015 EDITION, INCLUDING ALL CURRENT SUPPLEMENTS, ADDENDA,  
 AND REVISIONS THEREOF HEREINAFTER REFERRED TO AS "STANDARD  
 SPECIFICATIONS"**

**PART 2 - CONSTRUCTION MATERIALS  
 SECTION 209 – PRESSURE PIPE**

**209-1.1.1 General**

*Delete entire subsection and substitute with the following:*

This subsection specifies ductile iron pipe used for pressure piping applications for water and reclaimed water pressure pipes, sewage force mains, and other liquids. Pipe shall be fully self-restrained without the use of thrust blocks, notwithstanding the requirement for supplemental thrust blocks in City of Corona Standard Drawing 401.

PVC, HDPE, CML & C steel, asbestos cement, or concrete cylinder pipe (CCP) pressure pipe shall not be used in the City of Corona without written approval from the Engineer. Acceptable manufacturers are listed in Table 209-1.1.1:

**TABLE 209-1.1.1**

| Item                              | Manufacturer  |
|-----------------------------------|---|
| <b>Ductile-Iron Pipe</b>          | <b>American Cast Iron Pipe Company (ACIPCO)</b>           |
|                                   | <b>Clow Water Systems Company</b>                         |
|                                   | <b>Griffin Pipe Products</b>                              |
|                                   | <b>Pacific States Cast Iron Pipe Co Div. McWane, Inc.</b> |
|                                   | <b>U.S. Pipe and Foundry</b>                              |
| <b>Ductile-Iron Pipe Fittings</b> | <b>American Cast Iron Pipe</b>                            |
|                                   | <b>Clow Water Systems Company</b>                         |
|                                   | <b>Griffin Pipe Products</b>                              |
|                                   | <b>Star Pipe Products</b>                                 |
|                                   | <b>Tyler Union Div. McWane, Inc.</b>                      |
|                                   | <b>U.S. Pipe and Foundry</b>                              |
| <b>Push-on Joints</b>             | <b>American Cast Iron Pipe "Fastite"</b>                  |

|  |  |
|--|--|
|  | Clow Water Systems Company   |
|  | Griffin Pipe Products  |
|  | Pacific States Cast Iron Pipe Co Div. McWane, Inc.   |
|  | U.S. Pipe and Foundry "Tyton"  |
| Restrained Joints --<br>Locking Gasket Type  | American Cast Iron Pipe "Fast-Grip"  |
|  | Griffin Pipe Products "Talon"  |
|  | Pacific States Cast Iron Pipe Co Div. McWane, Inc.<br>"Sure-Stop"  |
|  | U.S. Pipe and Foundry "Field-Lok"  |
| Tee-Head Bolts and<br>Hex Nuts on Mechanical<br>Joints   | NSS Industries Corten<br>Tripac  |
| Restrained Joints -<br>Third-Party Follower-<br>Gland-Type Mechanical<br>Joint Restraints for<br>Ductile Iron Pipe | EBAA Iron Megalug Series 1100<br>#1100 for new MJ fittings 3"-48"<br>#1100SD restraint for existing MJ fittings 3"-48"   |
|  | Ford Uni-Flange Series 1300 Restrained End Cap for MJ<br>fittings 4"-16"   |
|  | Ford Uni-Flange Series 1400 for MJ fittings 4"-36"   |
| Third-Party Follower-<br>Gland-Type Mechanical<br>Joint Restraints for<br>Joining to Existing PVC<br>Pipe          | EBAA Iron Megalug Series 2000<br>#2000PV for new MJ fittings 4"-24"<br>#2000SV for existing MJ fittings 4"-24"   |
|  | Ford Uni-Flange Series 1500 Circle Lock for MJ fittings<br>4"-24"  |
| Third-Party Transition<br>Coupling for Joining DI<br>Pipe to AC Pipe   | Romac 501-13.55 x 14 (L) or 501-13.55 x 14.44 x 14 (L) if<br>required. Transition Coupling   |
|  | Accepted Equals  |
| Third-Party Ductile<br>Iron Pipe Restraint<br>Harness for Push-on Bells<br>(For DIP only. Do not use<br>on PVC)    | EBAA Iron Megalug Series 1700 Restraint Harness 3"-<br>6"  |
|  | Ford Uni-Flange Series 1450  |
| Flanged Coupling<br>Adaptor Restraints   | EBBA Iron Megaflange Series 2100 3"-48"<br>Ford Meter Box Company, Uniflange w/ UFR 1400 3"-24"<br>JCM Industries, Inc. Style 301<br>Romac Industries RFCA<br>Smith Blair, Inc Style 912, "Flange Lock" DIP 3"-12" |
| Shop Coat on Buried<br>Pipe  | Koppers 11-S Primer  |
| Polyethylene<br>Encasement   | Christy's "AWWA Polywrap"<br>Dupont Alathon<br>Northtown Company<br>Trumbull Industries, Inc.<br>Accepted Equal  |
| Ceramic Epoxy Lining   | Induron Protecto 401   |
| Field Coatings on<br>Buried Pipe   | Koppers Bituplastic No 33  |

**209-1.1.2 Materials.**

*Add the following to Table 209-1.1.2:*

**TABLE 209-1.1.2**

| Item                                 | Material   | Specification                                 |                    |
|--------------------------------------|--|---|--------------------|
|                                      |  | Pipe with Threaded Flanges                    | Thickness Class 53 |
| Interior Lining and Exterior Coating | Ceramic Epoxy Interior Lining, where shown on Plans – required for pipes transporting sewage | Minimum 20% by volume ceramic quartz pigment. |                    |
| Joints                               | Restrained Style (Required on all new pipe construction)                                     | Locking gasket style                          |                    |
| Fittings                             | Style  | Mechanical joint (with restraint) or flanged  |                    |
| Ductile Iron Pipe Joint Restraints   | Style  | Locking gasket style                          |                    |

**209-1.1.2 Materials.**

*Delete the following from Table 209-1.1.2:*

**TABLE 209-1.1.2**

| Item                                 | Material         | Specification  |
|--------------------------------------|------------------|--|
| Fittings                             | Style            | Push-on (standard) or restrained joint (as shown).     |
| Alternate to Polyethylene Encasement | Pipe Finish Coat | 15 mils (375 µm) MDFT field-applied bitumastic coating |

**SECTION 209-2 STEEL PIPE AND FITTINGS:**

**209-2.2.1 Materials,**

**Table 209-2.2.1; Minimum Wall Thickness**

*Manufacturer shall design minimum wall thickness for 250 psi design pressure.*

**SECTION 212 – WATER AND SEWER SYSTEM VALVES AND APPURTENANCES**

**212-2 FLANGED AND THREADED CONNECTIONS.**

**212-2.5 Flange, Coupling, and Harness Bolts, Nuts, and Washers.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-2.5.

**TABLE 212-2.5**

| Item  | Manufacturer                       |
|---|------------------------------------|
| <b>Anti-Seize Compound for Stainless Steel Bolts and Nuts</b> | Bostik Never Seez                  |
|   | Christy's Antiseize                |
|   | Husk-It Husky Lube O-Seal          |
|   | Loctite                            |
|   | Permatex                           |
|   | Ramco Antiseize                    |
|   | Ramco TRX-Synlube                  |
| <b>Bolts and Nuts</b>   | Industrial Threaded Products, Inc. |
|   | Ocean State Stainless, Inc.        |
|   | Pacific Coast Bolt                 |
|   | Tripac Fasteners                   |
|   | Western Pacific Products           |
| <b>Buried Bolt Coatings</b>                                   | 3M Company (EC 244)                |
|   | Protecto-Wrap                      |
|   | Carboline Bitumastic No. 50        |
|   | Engard Coatings 858                |
|   | Tnemec Co. (46-465 H.B. Tnemecol)  |

**212-2.5.2 Flange, Coupling, and Harness Bolts, Nuts, and Washers for Above-Ground Ferrous or Plastic Piping.**

*Delete the following from Table 212-2.5.2:*

**TABLE 212-2.5.2**

| Item  | Material                        | Specification   |
|---|---------------------------------|---|
| <b>Bolts for Above-Ground Ferrous Installations</b> | <b>Zinc-Plated Carbon Steel</b> | <b>ASTM A307 Grade B.</b><br><b>Heavy hexagon series</b><br><b>ANSI B1.1 Class 2A fit</b><br><b>Class 3A fit may be used for holes tapped for studs.</b><br><b>¼" to ½" (6mm-12.5mm) shall project through tightened nut.</b><br><b>Threads may be either cut or cold-formed.</b><br><b>Threading per ANSI/ASME B18.2.1.</b><br><b>Bolt-Head Identification Mark – A307B"</b> |

|  |                                 |   |
|--|---------------------------------|---|
| <b>Nuts for Above-Ground Ferrous Installations</b> | <b>Zinc-Plated Carbon Steel</b> | <b>ASTM A563.<br/>Heavy hexagon series<br/>ANSI B1.1 Class 2B fit.<br/>Threading per ANSI/ASME B18.2.2.</b> |
| <b>Coating for Existing Bolts and Nuts</b>         | <b>Non-Oxide Grease</b>         | <b>Use on zinc-plated carbon steel hardware</b>   |

**212-2.5.3 Applications in Corrosive, High-Chloride, or Saltwater Environments.**

*Delete the following from Table 212-2.5.3:*

**TABLE 212-2.5.3**

| Item                                     | Material  | Specification   |
|--|---|---|
| <b>Coating for Buried Nuts and Bolts</b> | <b>AWWA C217<br/>Petrolatum Wax<br/>and Wax-Tape<br/>System</b> | <b>Primer, wax, and 40-mil (1 mm) tape per<br/>AWWA C217. 1" (25 mm) minimum tape overlap<br/>with 1.5-mil (40 µm) clear metallocene resin tape<br/>outer wrap.</b> |

**212-2.7 Flange Gaskets.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-2.7:

**TABLE 212-2.7**

| Item                                       | Manufacturer   |
|--|--|
| <b>NSF 61-Listed<br/>Flange Gaskets</b>    | <b>Bluegard Div. Garlock, Inc. Style 98206</b>                 |
|  | <b>PSI (Pipeline Seal and Insulator, Inc.) "Linebacker 61"</b> |
|  | <b>U.S. Pipe and Foundry "Flange-Tyte"</b>                     |
| <b>Flange Gaskets –<br/>Cloth-Inserted</b> | <b>Bluegard Div. Garlock, / Inc. Style 5000</b>                |
|  | <b>John Crane (Cranite)</b>                                    |
|  | <b>Johns Manville 60<br/>Tripac Style 5000</b>                 |
| <b>Flange Gaskets –<br/>Neoprene</b>       | <b>Bluegard Div. Garlock, Inc. Style 2000</b>                  |
|  | <b>John Crane (Cranite)</b>                                    |
|  | <b>Johns Manville 60</b>                                       |
|  | <b>Tripac Style 2000</b>                                       |

**212-2.8.3 Flange Insulating Kits.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-2.8.3.2.



TABLE 212-2.8.3.2

| Item                           | Manufacturer                                   |
|--------------------------------|--|
| Flange Insulation Kit Products | APS Advance Products & Systems, Inc            |
|                                | Calpico, Inc.                                  |
|                                | Central Plastics Company                       |
|                                | Corrpro Corrosion Div Control Products Company |
|                                | Farwest Corrosion Control                      |
|                                | PSI (Pipeline Seal and Insulator, Inc.)        |
| Insulating Reducing Bushings   | Christy's                                      |
| Insulating Gaskets             | Calpico, Inc.                                  |
|                                | PSI Linebacker "Type E"                        |

212-2.9 Mastic and Tape-Wrap Systems.

*Delete section in its entirety:*

212-3 PIPE HANGERS AND SUPPORTS, CASING SPACERS, AND WALL PENETRATIONS  
212-3.1.1 General.

*Add the following:*

Acceptable manufacturers are listed in Table 212-3.1.1.

TABLE 212-3.1.1

| Item   | Manufacturer                          |
|--|---------------------------------------|
| Concrete Anchors – Epoxy Adhesive Anchor Systems | Hilti Corp.                           |
|  | Simpson Strong Tie Co. "Epoxy-Tie"    |
|  | Reynolds                              |
| Pipe and Conduit Hangers                         | Grinnell Corporation "Anvil"          |
|  | Tripac Inc.                           |
|  | Unistrut Corporation                  |
| Metal Bolted Framing Strut Systems               | Tripac Inc.                           |
|  | Unistrut Corporation                  |
| Fiberglass Channel Framing Systems               | Champion Fiberglass "Champion Strut"  |
|  | Strut Tech Engineered Support Systems |
|  | Unistrut Corporation                  |

212-3.1.1 Materials.

*Delete the following from Table 212-3.1.2:*

TABLE 212-3.1.2

| Item  | Option                                  | Specification   |
|---|---|---|
| Bolts (Connection Bolts and Anchor Bolts) – Steel | High Strength Carbon Steel - Galvanized | ASTM A325 or ASTM A490. With self-locking nuts or lock-washers and plain nuts |
|   | Stainless Steel                         | SAE Type 316  |
| Concrete Anchors – Expansion Bolt Systems         |   |   |
| Powder Actuated Fastening Systems                 | Steel                                   | AISI 1061. Hardness: 52-58 Rockwell C   |
|   | Galvanized Coating                      | ASTM B6333 – 2.1 mil (53µm) thickness – 1.30 oz./ft <sup>2</sup>              |
| Pipe and Conduit Hangers (Above Ground)           | Galvanized Coating                      | ASTM A153 - 2.1 mil (53µm) thickness – 1.30 oz./ft <sup>2</sup>               |
| Washers   | Carbon steel - Galvanized               | Square or rectangular smooth beveled washers, tapered in thickness            |
|   | Galvanized Coating                      | ASTM A153 - 2.1 mil (53µm) thickness – 1.30 oz./ft <sup>2</sup>               |

212-3.2 Casing Spacers.

Add the following:

Acceptable manufacturers are listed in Table 212-3.2.

TABLE 212-3.2

| Item                             | Manufacturer                                     |
|----------------------------------|--|
| Casing Insulators - Metallic     | APS Advance Products & Systems, Inc./Model SSI   |
|                                  | Calpico/Model PX                                 |
|                                  | CCI Pipeline Systems                             |
|                                  | Pipeline Seal and Insulator, Inc. (PSI)          |
|                                  | Smith Blair "800" Series                         |
| Casing Insulators – Non-Metallic | Pipeline Seal and Insulator, Inc. (PSI) "Ranger" |
| Casing End Seals Rubber          | Advance Products & Systems, Inc./ Model AC       |
|                                  | Calpico/Model C                                  |
|                                  | Pipeline Seal and Insulator, Inc. (PSI) Model S  |
|                                  | Powerseal Pipeline Products Corp                 |
| Casing End Seals Heat Shrinkable | Caseal   |
|                                  | Raychem  |

**212-3.3 Wall Pipes, Seep Rings, and Penetrations.**

**212-3.3.1. General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-3.3.1.

**TABLE 212-3.3.1**

| Item   | Manufacturer   |
|--|--|
| PVC Pipe Penetration Sleeve with Weep Ring     | Calpico, Inc.  |
|  | Pipeline Seal and Insulator, Inc. (PSI) "Century Line" (Type S-316)                    |
| PVC Wall Sleeve with Weep Ring                 | Pipeline Seal and Insulator, Inc. (PSI) "WS" Steel Wall Sleeve                         |
| Polyethylene Foam Filler for Pipe Penetrations | Dow Chemical Company "Ethaform"  |
|  | Hercules Inc Plastic Products Group Industrial Systems Department (Minicel backer rod) |
|  | Pipeline Seal and Insulator, Inc. (PSI) "Cell-Cast"                                    |

**212-3.4 Rubber Annular Hydrostatic Sealing Devices.**

**212-3.4.1 General.**

*Add the following:*

Acceptable manufacturers include the following:

**TABLE 251-3.4**

| Item                                       | Manufacturer   |
|--|--|
| Rubber Annular Hydrostatic Sealing Devices | Calpico, Inc. "Pipe Linx"  |
|  | CCI Pipeline Systems "Wrap-it Link" (Type WL-SS)                 |
|  | Pipeline Seal and Insulator, Inc. (PSI) "Link Seal" (Type S-316) |

**212-4 VALVE ACTUATORS, EXTENSIONS, AND VALVE BOXES.**

**212-4.2.2 Valve Extension Stems.**

*Delete the following:*

Extension stems on valves shall be furnished and installed wherever the valve centerline is more than 4-feet (1.2 m) below the finish grade or water surface. The extension stem shall bring the nut to within 6-inches (150 m) below the finished grade or water surface. Stem extensions shall not be pinned to the valve operating nut.

*Replace with the following:*

Extension stems on valves shall be furnished and installed wherever the valve centerline is more than 5-feet below the finish grade or water surface. The extension stem shall bring the nut to 2-feet below the finished grade or water surface. Stem extensions shall not be pinned to the valve operating nut.

**212-4.2.3 Valve Can and Cover for Buried Valves.**

**212-4.2.3.1. General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-4.2.2.

**TABLE 212-4.2.3.1**

| Item                   | Manufacturer                       |
|------------------------|------------------------------------|
| Valve Boxes and Covers | Christy's G-5                      |
|                        | Eisel Enterprises, Inc.            |
|                        | Jensen Precast                     |
|                        | J & R Concrete Products            |
| Valve Box Covers       | Alhambra Foundry Company Ltd.      |
|                        | Long Beach Iron Works, Inc.        |
|                        | Neenah Foundry                     |
|                        | South Bay Foundry                  |
|                        | U S Foundry and Manufacturing Corp |

**212-4.3 Valve Operators for Above-Ground Valves**

**212-4.3.1 General.**

*Delete entire subsection and substitute with the following:*

Above-ground valves shall have 2-inch operating nuts with position indicators and a locking cap over the operating nut.

**212-5 VALVES.**

**212-5.1.1 General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.1.1.

**TABLE 212-5.1.1**

| Item                                  | Manufacturer                             |
|---------------------------------------|--|
| Resilient Wedge Gate Valves (Potable) | ACIPCO American Flow Control Series 2500 |
|                                       | Clow Valve Series 2600                   |

|                  |   |
|------------------|---|
| Water AWWA C515) | Kennedy Valve Div., McWane, Inc. Kenseal II |
|                  | M&H Valve Div. McWane Inc Style 7000        |
|                  | Mueller Co. Series 2360                     |

**212-5.1.3 Design Options.**

*Delete the Handwheel requirements in table 212-5.1.3 and replace with the following:*

**TABLE 212-5.1.2**

| Item                        | Option    | Specification   |
|-----------------------------|-----------|---|
| Resilient Wedge Gate Valves | Handwheel | Required on above-ground valves or valves in vaults where shown on the Plans. |

**212-5.1.4 Tapping Valves.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.1.4.

**TABLE 212-5.1.4**

| Item           | Manufacturer                                |
|----------------|---|
| Tapping Valves | ACIPCO American Flow Control Series 2500    |
|                | Clow Valve Series F-6000                    |
|                | Kennedy Valve Div., McWane, Inc. Kenseal II |
|                | M&H Valve Div. McWane Inc Style 3751        |
|                | Mueller Co. Series H600 or H700             |

**212-5.1.5 Tapping Sleeves.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.1.4.

**TABLE 212-5.1.4**

| Item   | Manufacturer                            |
|--|---|
| Stainless Steel Tapping Sleeves 12" and smaller              | Dresser Piping Specialties (620 Series) |
|  | Romac Industries (Style SSTIII)         |
|  | Smith Blair, Inc. (Model 663)           |
| Stainless Steel Tapping Sleeves Greater than 12" in Diameter | Romac Industries (Style SSTIII)         |
|  | Smith Blair, Inc. (Model 663)           |

**212-5.1.5 Tapping Sleeves.**

*Delete entire subsection and substitute with the following:*

Tapping sleeves shall be stainless steel. Gaskets shall provide a full circumferential seal on both sides of the tap capable of withstanding the specified test pressures or be a positive-seal-type gasket capable of withstanding specified test pressures. Flanges shall match adjacent valves.

Size-on-size stainless-steel-type tapping sleeves will not be permitted. Outlet taps larger than 67 percent of tapped pipe size will not be permitted unless accepted in writing by the Engineer.

Tapping sleeves may be used for working pressures up to 150 psi. At higher pressures, tapping sleeves may only be used if express written approval is obtained from the DWP General Manager or designee.

**212-5.2 Butterfly Valves.**

**212-5.2.1 General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.2.1.

**TABLE 212-5.2.1**

| Item   | Manufacturer  |
|--|---|
| Butterfly Valves for Buried Service (Class 150B)                                     | DeZurik "BAW"   |
|  | Henry Pratt Co. "Groundhog II"  |
| Butterfly Valves for Use Above Ground with resilient seat on valve body (Class 150B) | DeZurik "BAW" with hand lever up to 4" with M series handwheel actuator 6" and larger     |
|  | Henry Pratt Co. Model 2FII with hand lever up to 4" with Pratt MDT operator 6" and larger |

**212-5.3 Plug Valves.**

**212-5.3.1 General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.3.1.

**TABLE 212-5.3.1**

| Item                                | Manufacturer |
|-------------------------------------|--------------|
| Eccentric Plug Valves and Actuators | DeZurik PEF  |

|  |  |
|--|--|
| <b>- Rectangular Port</b>                  |  |
| <b>Eccentric Plug Valves and Actuators</b> | <b>Henry Pratt Company "Ballcentric /Milliken Valve 3"-18"</b> |
| <b>- Round Port</b>                        |  |

**212-5.4 Ball Valves.**

**212-5.4.1 General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.4.1.

**TABLE 212-5.4.1**

| <b>Item</b>                           | <b>Manufacturer</b>   |
|---------------------------------------|---|
| <b>Ball Valves – Metal Seated</b>     | <b>APCO Willamette Valve and Primer Corporation List 26 Series 2600</b> |
|                                       | <b>Henry Pratt Company Bulletin BV-90</b>                               |
| <b>Ball Valves – Resilient Seated</b> | <b>APCO Willamette Valve and Primer Corporation List 26 Series 2600</b> |
|                                       | <b>Henry Pratt Company Bulletin BV-90</b>                               |
|                                       | <b>Val-Matic Valve and Manufacturing Company "Ener-G" Series 4000</b>   |

**212-5.5 Check Valves.**

**212-5.5.1 Swing-Check Valves.**

**212-5.5.1.1 General.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.5.1.1.

**TABLE 212-5.5.1.1**

| <b>Item</b>               | <b>Manufacturer</b>                                     |
|---------------------------|---|
| <b>Swing Check Valves</b> | <b>M&amp;H Valve Div McWane Inc. Style 159 (4"-12")</b> |

**212-5.5.1.3 Design Options.**

*Add the following to Table 212-5.5.1.3:*

**TABLE 212-5.5.1.3**

| Item               | Option             | Specification                    |
|--------------------|--------------------|----------------------------------|
| Swing Check Valves | Position Indicator | Required on Valves 6" and Larger |

**212-5.5.4 Slanting-Disc Check Valves.**

*Add the following:*

Acceptable manufacturers are listed in Table 212-5.5.4.

**TABLE 212-5.5.4**

| Item  | Manufacturer                                     |
|---|--|
| Slanting Disc Check Valves with Controlled Opening and Closing –14" - 60" | APCO Willamette Valve and Primer Corp Series 800 |

**212-5.6 Air Release, Air/Vacuum, and Combination Air Valves.**

**212-5.6.1 General.**

*Delete entire subsection and substitute with the following:*

Air release, air/vacuum and combination air valves shall comply with AWWA C512, except where listed acceptable manufacturers include patented air release, air vacuum and combination air valves similar in function, but not design to AWWA C512. Said products shall be capable of passing all tests described in AWWA C512 Section 5.

Acceptable manufacturers are listed in Table 212-5.6.1.

**TABLE 212-5.6.1**

| Item  | Manufacturer   |
|---|--|
| Air Release Valves (for working pressures to 175 psi)   | ARI Flow Control Accessories<br>D-040-C Series 1" - 2"<br>D-015 Series 3" - 8" |
| Air Release Valves (for working pressures over 175 psi) | ARI Flow Control Accessories D-065 HF Series                                   |
| Well Service Air Valves 3-inch and smaller              | ARI Flow Control Accessories D-070 Series                                      |
| Air and Vacuum Valves                                   | ARI Flow Control Accessories<br>D-040-C Series 1" - 2"<br>S-015 Series 3" - 8" |
| Combination Air and Vacuum                              | ARI Flow Control Accessories   |



|  |  |
|--|--|
| Valves   | D-040-C Series 1" - 2"<br>S-015 Series 3" - 8" |
| Vacuum Breaker Valve with Controlled Air Release                       | ARI Flow Control Accessories D-040-C Series    |
| Air Release Valves for Wastewater                                      | ARI Flow Control Accessories S-020             |
| Air and Vacuum Valves for Wastewater                                   | ARI Flow Control Accessories D-020 or D-025    |
| Combination Air and Vacuum Valves for Wastewater                       | ARI Flow Control Accessories D-020 or D-025    |
| Combination Air and Vacuum Valves for Wastewater (All Stainless Steel) | ARI Flow Control Accessories                   |

Note: ARI Flow Control Accessories products are manufactured in Israel.

### 212-5.7: Diaphragm-Actuated Pilot-Control Valves

#### 212-5.7.1: General

Add the following:

Acceptable manufacturers are listed in Table 212-5.7.1.

TABLE 212-5.7.1

| Item             | Manufacturer                    |
|------------------|---------------------------------|
| Diaphragm Valves | Cla-Val Company (no exceptions) |

#### 212-5.7.2: Materials

Delete entire subsection and substitute with the following:

Diaphragm-actuated pilot-control valves shall be constructed of the following:

TABLE 212-5.7.2

| Item  | Material                               | Specification     |
|---|--|-------------------|
| Main Valve Body and Cover, Disc Retainer and Diaphragm Washer | Ductile Iron (for pressures 0-300 psi) | ASTM A536         |
| Main Valve Trim: Stem, Seat and Bonnet Spring                 | SAE Type 316 Stainless Steel           | ASTM A276 or A351 |
| Stem Guide Bearings, Upper and Lower                          | SAE Type 316 Stainless Steel           | ASTM A276         |
| Disc  | Buna-N Rubber                          |                   |
|   | or<br>EPDM for                         |                   |

|                             |   |   |
|-----------------------------|---|---|
|                             | <b>Reclaimed Water</b>                                    |   |
| <b>Diaphragm</b>            | <b>Nylon-Reinforced Buna-N Rubber or</b>                  |   |
|                             | <b>EPDM for Reclaimed Water</b>                           |   |
| <b>Pilot Control System</b> | <b>Cast Bronze with SAE Type 316 Stainless Steel Trim</b> | <b>Lead free for potable water applications ASTM A276</b> |
| <b>Piping and Tubing</b>    | <b>SAE Type 316 Stainless Steel</b>                       |   |

**212-6: HYDRANTS**

**212-6.1: Fire Hydrants**

**212-6.1.1: General**

*Add the following:*

Acceptable manufacturers are listed in Table 212-6.1.1

**TABLE 212-6.1.1**

| <b>Item</b>  | <b>Manufacturer</b>                     |
|--|---|
| <b>Wet Barrel Fire Hydrants (Residential Bronze 4" x 2½")</b>                    | <b>Clow Valve Model F2050</b>           |
|  | <b>James Jones Company Model J3710</b>  |
| <b>Wet Barrel Fire Hydrants (Residential Cast Iron 4" x 2½")</b>                 | <b>Clow Valve Model F850</b>            |
|  | <b>James Jones Company Model J4040B</b> |
| <b>Wet Barrel Fire Hydrants (Commercial Bronze 4" x 2½" x 2½")</b>               | <b>Clow Valve Model F2060</b>           |
|  | <b>James Jones Company Model J3765</b>  |
| <b>Wet Barrel Fire Hydrants (Commercial Cast Iron 4" x 2½" x 2½")</b>            | <b>Clow Valve Model F860</b>            |
|  | <b>James Jones Company Model J4060B</b> |
| <b>Wet Barrel Fire Hydrants (Commercial Bronze 4" x 4" x 2½" Double Steamer)</b> | <b>Clow Valve Model F2065</b>           |
|  | <b>James Jones Company Model J3775</b>  |
| <b>Wet Barrel Fire Hydrants (Commercial Cast</b>                                 | <b>Clow Valve Model F865</b>            |

|                                       |  |
|---------------------------------------|--|
| Iron 4" x 4" x 2½"<br>Double Steamer) |  |
|---------------------------------------|--|

**212-6.1.1: General**

*Delete the second sentence and substitute with the following:*

Color scheme shall comply with City of Corona standards. If no such standards exist, hydrants shall be painted per Table 212-12.2.

**212-7: BACKFLOW PREVENTION DEVICES**

**212-7.2: Double Check (DC) Valve Backflow Prevention Assemblies**

*Add the following:*

Acceptable manufacturers and models are listed in the University of Southern California (USC) list of Approved Backflow Prevention Devices available from the USC Foundation for Cross-Connection Control and Hydraulic Research. Backflow prevention assemblies must meet all lead free requirements.

**212-7.3: Reduced-Pressure (RP) Backflow Prevention Assemblies**

*Add the following:*

Acceptable manufacturers and models are listed in the University of Southern California (USC) list of Approved Backflow Prevention Devices available from the USC Foundation for Cross-Connection Control and Hydraulic Research. Backflow prevention assemblies must meet all lead free requirements.

**212-8: COUPLINGS**

**212-8.1: Bolted Sleeve Type Couplings**

**212.8.1.1: General**

*Add the following:*

Acceptable manufacturers are listed in Table 212-8.1.1.

**TABLE 212-8.1.1**

| Item   | Manufacturer  |
|--|---|
| <b>Couplings – Steel Bolted Sleeve Type, for Identical Pipe Materials on each side</b> | <b>Dresser Piping Specialties (Style 38)</b>                    |
|  | <b>Romac Industries (400)</b>                                   |
|  | <b>Smith Blair, Inc. (Style 411)</b>                            |
|  | <b>Total Piping Solutions (Hymax)</b>                           |
| <b>Couplings – Steel Bolted Transition Sleeve Type, for</b>                            | <b>Dresser Piping Specialties (Style 162) or (Style 62TY.1)</b> |
|  | <b>Romac Industries (TC400)</b>                                 |
|  | <b>Smith Blair, Inc. (Style 413)</b>                            |

|   |                                       |
|---|---------------------------------------|
| Different Pipe Materials on each side   | Total Piping Solutions (Hymax)        |
| Couplings – Ductile Iron Bolted Sleeve Type System, for Identical or Different Pipe Materials on Each Side        | Romac Industries (501) or (XR501)     |
|   | Smith Blair, Inc. (Style 461 Quantum) |
| Couplings – Ductile Iron Bolted Sleeve Extended Range Type for Identical or Different Pipe Materials on Each Side | Romac Industries (501)                |
|   | Smith Blair, Inc. (Style 462 Quantum) |

**212-8.2: Flanged Coupling Adaptors**

**212-8.2.1: General**

*Add the following:*

Acceptable manufacturers are listed in Table 212-8.2.1.

**TABLE 212-8.2.1**

| Item  | Manufacturer   |
|---|--|
| Couplings, Flanged Coupling Adaptor for Ductile Iron Pipe | Romac Industries (FCA 501)   |
|   | Smith Blair, Inc. (Style 912) 3"- 12"                                    |
|   | Smith Blair, Inc. (Style 913) 3"- 24"                                    |
| Couplings, Flanged Coupling Adaptor (Restrained)          | EBAA Iron Megaflange Series 2100 3"-24"                                  |
|   | Ford Meter Box Company (Restrained Flange Adaptor with UFR 1400) 3"- 24" |

**212-8.3: Coupling Restraint Systems**

*Delete the following from Table 212-8.3:*

**TABLE 212-8.3**

| Item             | Material     | Specification  |
|------------------|--------------|--|
| Tie Rods – Steel | Carbon Steel | ASTM A193 Grade B7 threaded rods. Do not use all-thread. |
|                  | Galvanized   | ASTM A123 – 3.4 mil (90 µm) thickness – 2.00             |

|  |         |   |
|--|---------|---|
|  | Coating | oz./ft <sup>2</sup> (610 g/m <sup>2</sup> ) |
|--|---------|---|

**212-8.4: Grooved and Shouldered Couplings and Joints**

**212-8.4.1: General**

*Add the following:*

Acceptable manufacturers are listed in Table 212-8.4.1

**TABLE 212-8.4.1**

| Item  | Manufacturer  |
|---|---|
| Couplings – Flexible Grooved Type for Steel Pipe 4” through 24” | Victaulic Company of America, Inc. (Style 77)               |
| Couplings – Roll-Grooved Type for Steel Pipe 28” through 42”    | Victaulic Company of America, Inc. (Style 770)              |
| Couplings – Shouldered Type for Steel Pipe 4” through 60”       | Victaulic Company of America, Inc. (Style 44 with Vic-Ring) |
| Couplings – Grooved Type for Ductile Iron Pipe 3 “ through 36”  | Victaulic Company of America, Inc. (Style 31)               |

**212-9: EXPANSION JOINTS**

**212-9.1: Double-Ball Expansion Joints**

**212.-9.1.1: General**

*Add the following:*

Acceptable manufacturers are listed in Table 212-9.1.1.

**TABLE 212-9.1.1**

| Item   | Manufacturer                          |
|--|---------------------------------------|
| Expansion Joints – Double-Ball Type with Telescoping Ductile Iron Sleeve | EBAA Iron (Flex-Tend)                 |
| Expansion Joints   | EBAA Iron (Forced Balanced Flex-Tend) |

|  |  |
|--|--|
| <b>- Double Ball Type<br/>Force Balanced</b> |  |
|--|--|

**212-10: SERVICE LATERALS, METERS AND METER BOXES**

**212-10.3: Corporation Stops, Angle Meter Valves, Service Saddles and Other Service Materials**

*Add the following:*

Acceptable manufacturers are listed in Table 212-10.3.

**TABLE 212.4.13 Check Valve United States of America**

| Item  | Manufacturer   |
|---|--|
| <b>Angle Meter<br/>Valves</b>   | <b>Ford Meter Box Co. KV43-444W</b>                                |
|   | <b>James Jones E-1966W</b>   |
|   | <b>Mueller Company B-24258</b>                                     |
| <b>Brass Body Type<br/>304L Stainless Steel<br/>Double-Strap Service<br/>Saddles for AC, CIP,<br/>DIP, and PVC Pipe</b> | <b>Ford Meter Box Co. Style 202BSD</b>                             |
|   | <b>Mueller Company BR2S and BR2W Series</b>                        |
|   | <b>James Jones J-969 Series</b>                                    |
| <b>Brass Body<br/>Flattened Bronze<br/>Double-Strap Service<br/>Saddles for DIP Only</b>                                | <b>Ford Meter Box Co. Style 202B</b>                               |
|   | <b>Mueller Company BR2B Series</b>                                 |
|   | <b>James Jones J-979 Series</b>                                    |
| <b>Corporation Stops</b>  | <b>Ford Meter Box Co. FB1100-4Q, FB1100-6Q or FB1100-7Q</b>        |
|   | <b>James Jones E1935SG</b>   |
|   | <b>Mueller B-25028</b>   |
| <b>Customer Service<br/>Valves</b>  | <b>Ford Meter Box Co. Style B13 with HB-34S lock on/off handle</b> |
|   | <b>James Jones Style E1908DL with lock-on/off handle</b>           |
| <b>Meter Bolts –<br/>Silicon Bronze</b>   | <b>Tripac Fasteners</b>  |
| <b>Meter Yokes</b>  | <b>Ford Meter Box Co.</b>  |
|   | <b>Mueller Company. EZ Setter</b>                                  |

**212-10.4: Meters**

*Delete entire subsection and substitute with the following:*

Acceptable types of meters shall be as shown on the Plans or Standard Plans.

Registers shall be straight-reading type, hermetically sealed, having a register test hand. Registration shall be in gallons or cubic feet as shown in the Special Provisions. Registration accuracy shall comply with AWWA or these Special Provisions. Meters 5/8-inch through 2-inch in size shall provide remote read capabilities for remote meter reading system. Meters larger than 2-inch size shall be installed in above-ground locations.

Magnetic meters shall provide local read with 4-20mA signal output where required by City.

Acceptable manufacturers are listed in Table 212-10.4.1

**TABLE 212.4.13 Check Valve United States of America**

| Item                              | Manufacturer                |
|-----------------------------------|-----------------------------|
| Positive Displacement Flow Meters | Neptune Model T-10          |
| Compound Flow Meters              | Neptune Tru/Flow Compound   |
| Magnetic Flow Meters              | Endress + Hauser Promag 400 |

Meters shall conform to the following:

**TABLE 212-10.4.2**

| Type of Meter                | Size Range          | Case                         | Specification   |
|------------------------------|---------------------|------------------------------|---|
| Positive Displacement Meters | 5/8" through 1-1/2" | Lead Free High Copper Alloy  | Accuracy to 1.5% within normal operating flow range – remote read capable |
| Compound Meters              | 2"                  | Lead Free High Copper Alloy  | Accuracy to 1.5% within normal operating flow range – remote read capable |
| Compound Meters              | 3" through 8"       | Lead Free High Copper Alloy  | Accuracy to 1.5% within normal operating flow range                       |
| Magnetic Meters              | 4" through 54"      | Epoxy-Lined and Coated Steel | Accuracy to 0.5% within flow range having 20:1 minimum turndown ratio     |

**212-10.6: Meter Boxes**

*Delete entire subsection and substitute with the following:*

**212-10.6.1: General**

Meter boxes and lids in parkways and areas not subject to traffic shall be polymer. Meter boxes and lids subject to traffic shall be concrete, H-20 traffic load rated. Provide remote read lid labeled "WATER".

Acceptable manufacturers are listed in Table 212-10.6.1.

TABLE 212-10.6.1

| Item  | Manufacturer                              |
|---|---|
| Polymer-Concrete Meter Box for 1" Meter and Smaller         | J & R Concrete Products PW5 ½ (17" x 28") |
| Polymer-Concrete Meter Box for 1½" Meter and 2" Meter       | J & R Concrete Products PW6B (17" x 30")  |
| H-20 Load Rated Concrete Meter Box for 2" Meter and Smaller | J & R Concrete Products W6T (17" x 30")   |

212-10.6.2: Dimensions

Minimum meter box dimensions shall conform to the following:

TABLE 212-10.6.2

| Size of Meter | Interior Length (Below Lip) | Interior Width (Below Lip) | Depth |
|---------------|-----------------------------|----------------------------|-------|
| ¾" or less    | 25"                         | 13"                        | 12"   |
| 1"            | 25"                         | 13"                        | 12"   |
| 1½"           | 29"                         | 16"                        | 12"   |
| 2"            | 29"                         | 16"                        | 12"   |

212-11: PRESSURE GAUGES

212-11.1: STEM-MOUNTED PRESSURE GAUGES

212.-11.1.1: General

Add the Following:

Acceptable manufacturers are listed in Table 212-11.1.

TABLE 212-11.1.1

| Item   | Manufacturer                               |
|--|--|
| Pressure Gauges – Stem-Mounted Bourdon Tube Type | Ashcroft Type 1008S (0-300 psi)            |
|  | U.S. Gauge Company (Ametek)                |
|  | Wika Instrument Corporation Div Ryan Herco |

212-11.1.2: Materials

Delete the following from Table 212-11.1.2:



TABLE 212-11.1.2

| Item | Material | Specification |
|------|----------|---------------|
| Case | ABS      |               |

Delete the substitute following from Table 212.11.1.2

TABLE 212-11.1.2

| Item   | Material                 | Specification |
|--------|--------------------------|---------------|
| Window | Polycarbonate<br>Acrylic |               |

212-11.1.3: Design Options

Delete the substitute following from Table 212-11.1.3

TABLE 212-11.1.3

| Item | Option                       | Specification   |
|------|------------------------------|---|
| Dial | Calibrated<br>Pressure Range | <del>0-150 psi (0—1,000kPa) unless otherwise shown on the Plans.</del><br>0-200 psi unless otherwise shown on plans or operating pressure exceeds 175 psi. 0-300 psi if operating pressure exceeds 175 psi. |

212-11.2: Flanged In-Line Sensor Sleeve Style Pressure Gauges

212-11.2.1: General

Delete first sentence and substitute following:

Flanged in-line sensor sleeve style pressure gauges shall be used in wastewater applications.  
Add the following:

Acceptable manufacturers are listed in Table 212-11.2.1.

TABLE 212-11.2.1

| Item  | Manufacturer                  |
|---|-------------------------------|
| Pressure Sensors and Gauges – Flanged in-line Sensor Sleeve Style | Cla-Val Company CVPS          |
|   | Onyx Valve                    |
|   | Red Valve Company (Series 40) |

212-12: PAINTING, INTERIOR LINING, AND EXTERIOR COATING

**212-12.1: Lining and Coating of Ferrous Valve, Hydrant, Valve Operator, Meter, Coupling, Expansion Joint, Spool, Fitting, and Backflow Preventer Surfaces**

**212-12.1.1: General**

*Add the following:*

Acceptable manufacturers are listed in Table 212-12.1.1.

**TABLE 212-12.1.1**

| Item   | Manufacturer  |
|--|---|
| NSF-Approved Fusion-Bonded Epoxy Linings and Coatings                          | 3M Scotchkote 134, 206N or 6233   |
|  | Northtown Keysite 740   |
| Fusion-Bonded Epoxy Linings and Coatings (Not NSF 61-Listed)                   | 3M Scotchkote 134, 135, 203, 206, 206-N or 6233                             |
|  | Gilpon  |
|  | Northtown Keysite 740   |
|  | Valspar "Pipe Clad" 1500 Red  |
| Field-Applied Liquid Epoxy Linings and Coatings for Patching                   | 3M Scotchkote 306   |
| Field-Applied Liquid Epoxy Linings and Coatings for Patching Welded Steel Pipe | 3M Scotchkote 302   |
| NSF-Approved Liquid Epoxy Linings and Coatings                                 | 3M Scotchkote 323   |
|  | ICI Devoe - Sinclair - ICI Dulux Paint Div. Glidden Co. Bar Rust 233 series |
|  | Tnemec Pota-Pox L140  |
| Liquid Epoxy Linings and Coatings  | 3M Scotchkote 312 or 314  |
|  | ICI Devoe - Sinclair - ICI Dulux Paint Div. Glidden Co. Bar Rust 233 series |
|  | Tnemec Pota-Pox L140  |
|  | (For nonpotable water use Tnemec Series L69)                                |
| Polyethylene Encasement for Corrosion Protection                               | Christy's "AWWA Polywrap"   |
|  | Dupont Alathon  |
|  | Northtown Company   |
|  | Trumbull Industries, Inc.   |
| Tape for Polyethylene Encasement   | Berry Plastics "Polyken No 900"   |
|  | Plicoflex No 340  |
|  | Protecto Wrap No 200  |
|  | Scotchwrap (3M), No 50  |
|  | Tapecoat Co., CT  |

ISSUED BY ADDENDUM No. 3, ATTACHMENT "C", Page 41 of 60

**Section 217: Bedding and Backfill**

**Section 217-2.1: General**

*Add the following after the second paragraph*

In lieu of Temescal Valley Water Districts Standard Drawing DWG No. W-20, Excavation and Backfill the Contractor may use one (1) sack cement slurry for backfill up to the bedding for new storm drains at the 14-inch Agricultural Waterline and 20-inch Potable Waterline relocations for storm drain interference.

**Measurement and Payment**

Full compensation for one (1) sack cement slurry for backfill shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals to accomplish the work as specified herein shall be by the Lump Sum Contract Items bid for Location 3; Temescal Valley Water 20-inch Potable Water CML & C Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi and for Location 4 Temescal Valley Water District 14-inch Agricultural Water CML & C Pipe Bell and Spigot Lap Joints, Design Pressure 250 psi and no additional compensation will be allowed therefor.

**SECTION 306 – OPEN TRENCH CONDUIT CONSTRUCTION**

**SECTION 306-1.5.2: Permanent Resurfacing**

*Add the following after the first paragraph:*

Limits of AC overlay shall extend to edge of pavement or nearest lane line with a 2-foot minimum taper.

Disturbing more than one lane requires an overlay over the width of all lanes affected by the Work. For two-lane roadways, the requirement will be from centerline to edge of pavement overlay.

**306-2: DELIVERY, STORAGE, HANDLING AND PROTECTION OF PIPELINE MATERIALS, FITTINGS, VALVES, AND APPURTENANCES**

**306-2.2: Shipment and Delivery**

**306-2.2.1: General**

*Add the following:*

- a) Only new pipeline products of accepted manufacturers shall be delivered to or used on the site.
- b) Contractor shall not ship, accept delivery of, or store manufactured items on site for which applicable submittals have not been approved.
- c) Before shipping, the pipe, valves, motors, actuators and mechanical equipment shall be operated and tested at the factory to ensure products are complete and in working condition. Submit certified test results.

- d) Within one working day following pipe delivery, remove the pipe end covers, swab the entire pipe interior with a bleach solution, replace pipe end covers, and securely wrap the plastic and tape. Retain pipe end covers and plastic wrap covering on pipe until pipe is installed in trench.

**306-2.3: Storage**

*Add the following:*

- m) No pipe or materials shall be left along right-of-way overnight.

**306-2.5: Protection of Pipe Interiors**

*Delete first sentence of the second paragraph and substitute with the following:*

Cover with rubber, plastic, or canvas during shipping, storage, and staging for installation pressure pipe and clean water gravity pipe, pipe ends, fitting ends, valve ends, and equipment openings to prevent intrusion or contamination. Pipes and fittings without openings covered will not be accepted for delivery.

**306-2.7: Shutdowns of Existing Pipelines**

**306-2.7.1: General**

*Delete entire subsection and substitute with the following:*

Work requiring the shut-down of an existing pipeline for the Contractor's benefit shall be performed by forces employed by the City of Corona or affected utility if not City-owned. Under no circumstances shall the Contractor operate valves, hydrants or other appurtenant equipment on existing public utilities.

The City, or utility owner, will make a concerted effort to isolate pressure pipelines as planned. However, the Contractor shall be prepared to employ pumping and dewatering equipment if a watertight seal cannot be achieved by City or utility forces. The Agency will not be responsible for any delays or expenses due to difficulties with system shutdown and isolation.

All emergency situations shall be reported immediately to the affected utility.

**306-2.7.3: Temporary Bypass**

*Delete entire subsection and substitute with the following:*

Where main shutdowns in excess of four (4) hours are required, the City, or affected utility, will determine what temporary bypasses or service connections may be required. The Contractor shall furnish all necessary hose, piping, valves, water trucks, disinfection, and labor to provide and maintain temporary service. All piping, hoses and associated equipment used for temporary potable water service shall be flushed and disinfected in accordance with 306-8.9.4.

**306-8: PREFABRICATED PRESSURE PIPE**

**306-8.1: General**

*Add the following:*

Unless otherwise shown, water pipe, fittings, and appurtenances used in the City of Corona shall be fully self-restrained ductile iron pipe. PVC pressure pipe shall not be used in the City of Corona.

Except for short runs, sections of pipe shall be installed in a sequence moving in an upgrade direction on grades exceeding 10 percent. Pipe installed in a downgrade direction shall be secured to prevent movement.

Closure and correction pieces shall be provided as required to adjust the pipe installation to conform to the pipe alignment and stationing shown.

Pipe will be inspected in the field before and after installation. Pipe which is not in true alignment or shows any undue settlement after installation shall be removed and re-installed. If any cause for rejection is discovered in a pipe after it has been installed, it shall be subject to rejection. Corrective work shall be approved by the Engineer.

### **306-8.2: Ductile Iron Pipe**

#### **306-8.2.2.1: Push-on Joints**

*Delete the sentence describing the use of flex-ring, split-ring, or ring segments restraint and substitute the following:*

Push-on restrained joints shall incorporate locking gasket type restraint, and shall be installed in accordance with the manufacturer's installation and warranty instructions for the joint design used.

#### **306-8.2.2.3: Installation of Polyethylene (PE) Film Wrap on Iron Fittings**

*Delete paragraph c) and substitute the following:*

- c) Film wrap shall not be installed on pipe sections or fittings to be concrete encased, installed within casing, or installed through concrete slope anchors.

#### **306-8.8.2.1: General**

Add the following:

Valves and appurtenances shall be constructed in accordance with the City of Corona Standard Plans.

#### **306-8.8.4: Service Connections**

*Delete entire subsection and substitute with the following:*

Service connections shall be constructed as shown on the Plans and in accordance with the City of Corona Standard Plans. Minimum service connection size shall be 1-inch. Where mains are laid in paved streets, service connections 2-inches and smaller shall be installed by boring rather than by cutting the pavement unless prior written approval from the Engineer is obtained to avoid conflict with other utilities.

Service laterals shall be placed under curbs and gutters by boring rather than by open trenching. The letter "W" shall be inscribed in the center of the curb face in line with each meter installation. The "W" shall be approximately 1 1/2-inches high and 1/16-inch deep. No kinks, flats, crushes or other reductions in the diameter of service laterals will be permitted.

*Add the following:*

### **306-8.8.6: Fire Hydrant Installation**

Fire hydrants shall be constructed in accordance with the City of Corona Standard Plans. The hydrant lateral shall be flushed through each fire hydrant with a City of Corona Fire Department Representative present to test for maximum fire flow capabilities. The Contractor shall notify the Fire Department seventy two (72) hours in advance of such test.

### **306-8.9: Hydrostatic Pressure Test**

*Delete entire heading and substitute with the following:*

### **306-8.9: Hydrostatic Pressure Test and Flushing**

#### **306-8.9.2.2: Preparation**

*Add the following after the first paragraph:*

Appendix A- City of Corona Department of Water and Power Flushing and Disinfection Plan

Four-hour hydrostatic pressure test shall proceed prior to placing permanent surfacing, but after the following have occurred:

- a) Pipe appurtenances and permanent thrust blocks shall be installed and backfilled sufficiently to provide the required bearing area.
- b) Trench backfill involving compactive effort using heavy-duty compacting equipment weighing more than 100 pounds shall be completed.
- c) Thrust blocks and other field-placed concrete and mortar in contact with the pipe shall have been in place and allowed to cure for at least 7 days.
- d) Valves shall be verified by the Contractor to be bubble-tight and closed where available.
- e) Butterfly valves or other valves having a working pressure rating less than the test pressure shall be braced and blocked by the Contractor to provide a minimum back-pressure on these devices equal to the difference between the test pressure the valve or device's rated working pressure.
- f) Temporary bulkheads shall be placed in the pipe where valves are not available.
- g) Air test gauges shall be laboratory calibrated no more than one year prior to test.
- h) Contractor shall make arrangements to meter, pay for, deliver and dispose of test water.
- i) At least 24 hours before the test the pipeline shall be filled slowly with the air vents open and maintained at operating pressure for at least 24 hours to satisfy any system water absorption.

- j) Air shall be expelled from the pipeline to the best of the Contractor's ability.
- k) Bulkheads, valves, and connections shall be examined for leaks and corrective measures shall be taken to eliminate any leaks discovered.
- l) The Engineer shall be present to verify testing and record results.
- m) The Engineer shall be allowed to verify all intermediate valves are in the open position so "short-sheeting" cannot occur during pressure testing.

Test pressure shall be 200 psi as measured at the highest elevation of the water main under test.

Delete entire second, third and fourth paragraphs and add the following sections:

**306-8.9.2.2.1: Initial Flushing**

The Contractor shall flush all potable water mains and services with potable water to flush out debris prior to disinfection. Nonpotable water may be used for flushing of nonpotable water mains and services.

Provide fittings, connectors, manifolds, piping, hoses, and adapters as necessary to flush mains and services to achieve the required minimum flushing velocity over the entire length of the pipe as tabulated below.

| Pipe Diameter | REQUIRED FLUSHING VELOCITY | REQUIRED FLUSHING FLOW | NUMBER OF SOURCE HYDRANTS REQUIRED | MINIMUM SIZE SUPPLY FITTING | MINIMUM SIZE SUPPLY HOSE OR PIPE | MINIMUM SIZE DRAIN FITTING | MINIMUM SIZE DRAIN HOSE OR PIPE |
|---------------|----------------------------|------------------------|------------------------------------|-----------------------------|----------------------------------|----------------------------|---------------------------------|
| 6-inch        | 5 FPS                      | 440 gpm                | 1                                  | 4-inch                      | 4-inch                           | 4-inch                     | 4-inch                          |
| 8-inch        | 5 FPS                      | 790 gpm                | 1                                  | 4-inch                      | 4-inch                           | 4-inch                     | 4-inch                          |
| 10-inch       | 5 FPS                      | 1,223 gpm              | 1                                  | 6-inch                      | 6-inch                           | 6-inch                     | 6-inch                          |
| 12-inch       | 5 FPS                      | 1,762 gpm              | 2                                  | 8-inch                      | 6-inch                           | 8-inch                     | 8-inch                          |
| 16-inch       | 3 FPS                      | 1,870 gpm              | 2                                  | 8-inch                      | 6-inch                           | 8-inch                     | 8-inch                          |
| 20-inch       | 3 FPS                      | 2,936 gpm              | 3                                  | 10-inch                     | 6-inch                           | 10-inch                    | 10-inch                         |
| 24-inch       | 2.5 FPS                    | 3,523 gpm              | 3                                  | 12-inch                     | 6-inch                           | 12-inch                    | 12-inch                         |
| 30-inch       | 2.5 FPS                    | 5,505 gpm              | 4                                  | 12-inch                     | 6-inch                           | 12-inch                    | 12-inch                         |

Remove fire hydrant head and install flanged tee at supply source for flushing all water mains larger than 8-inch diameter.

The backflow device and metered connection to the potable supply will be sized to meet this minimum flow requirement. Supporting calculations shall be submitted with the disinfection, testing, flushing and dechlorinating plan. Velocities through outlets and fittings shall not exceed 25 feet per second (750 m/s) during flushing.

All pipelines shall be flushed for sufficient time to achieve 3 exchanges of the total volume of the pipeline as a minimum and until the flushing water exits the pipe in a clear condition having not more than 2 NTU turbidity as measured with a potable turbidity meter and not more than 0.5 mg/L suspended solids as measured in an eimhoff cone at all outlets.

Drainage facilities shall be constructed as necessary to ensure water lines do not become contaminated during flushing. The Contractor shall secure and adhere to the NPDES permit. If the Contractor is allowed to operate under the City's De Minimis Discharge permit, the Contractor will be charged for the hours necessary to supervise the preparation of lagoons, sampling, and laboratory analysis necessary to ensure compliance. The Contractor shall bear all direct and indirect costs.

Test or flushing water may be discharged to sanitary sewer system rather than discharging to storm drain, provided Contractor obtains and submits to Engineer a copy of written permission to discharge from sanitary sewer owner including supplementary information described above under Submittals. Schedule discharges to sewers during off-peak periods as recommended by sewer owner.

No entity or agent other than City of Corona DWP staff shall operate any valve or facility of the approved distribution system without the written consent and direct supervision of the DWP Chief Water Operator or designated representative.

Upon satisfactory test completion, permanently cap or plug any outlets used for flushing, testing or air release.

Unless otherwise specified, the Contactor shall make the arrangements for, and provide the water for, flushing and its subsequent discharge.

**306-8.9.2.4: Test Procedure**

*Add the following after the second paragraph: Add the following after the second paragraph:*

The test pressure for sewage force mains and pressure sanitary sewers shall be 120% of the maximum working pressure shown on Plans unless the test pressure is specified elsewhere in the Contract Documents.

*Add the following after the ninth paragraph:*

When leakage exceeds the amount allowed by the Specifications, the Contractor shall locate the leaks and make the necessary repairs or replacements in accordance with the Specifications to reduce the leakage or infiltration to the specified limits. Individual detectable leaks shall be repaired, regardless of the results of the tests.

**306-8.9.4: Disinfection**

**306-8.9.4.1: General**

*Add the following:*

Where the City's standard is more stringent than the associated AWWA standards, the City's



standard shall supersede the AWWA standard.

Disinfection operations shall be scheduled by the Contractor as late as possible during the Contract time period to assure the maximum degree of sterility of the facilities at the time the Work is accepted by the City.

#### **306-8.9.4.2: Submittals**

*Delete "If requested by the Engineer" from the first section of table 306-8.9.4.2 under the "Description" column.*

#### **306-8.9.4.3: Potable Water System Disinfection Procedures**

*Delete entire section and substitute with the following:*

All potable water pipelines except those appurtenant to hydraulic structures shall be disinfected in accordance with the requirements of AWWA C651 using the Continuous-Feed Method as modified herein. The Contractor shall provide sampling locations in accordance with AWWA C651, the California Department of Public Health Safe Drinking Water Systems regulations, and requirements herein.

Preliminary and final flushing shall be performed on mains, which have been hydrostatically tested in accordance with the flushing plan.

Disinfection shall not be combined with any other activity such as pressure testing or flushing. Disinfection shall be against a capped or plugged line. The new main will be accepted as a whole and not in portions as they pass inspection. The only exception will be for very large projects where physical separations are used at predetermined locations and the procedures are clearly detailed in the pre-approval plan.

Contractor shall not allow chlorinated water to remain in contact with internal waterway ports of pumps, valves, and sensor line assemblies for longer than required to perform disinfection process.

All chemicals for chlorination and temporary valves, temporary blow-offs, bulkheads, backflow devices to prevent the strong chlorine solution in the line being disinfected from back flowing into the line supplying the water, or other necessary devices, chemicals or and materials shall be furnished by the Contractor. No materials shall be used which would be injurious to the pipeline or its future function. Contractor shall keep adequate chlorine residual testing and indicating apparatus available on site during the entire disinfection period.

Unless otherwise indicated, potable water for testing and disinfecting water pipelines shall be furnished by the Contractor. Contractor shall also make all necessary arrangements for conveying the water to the points of use.

Chlorine for disinfection shall be in the form of sodium hypochlorite solution. Sodium hypochlorite solution shall be used only:

- a) Under the direct supervision of an experienced technician;
- b) When all safety practices are observed.

Disinfection shall be accomplished by chlorination. Chlorinating and testing operations shall be performed in the presence of the City's Representative.

A chlorine-water mixture shall be uniformly introduced into the pipeline by means of a solution-feed chlorinating device. The chlorine solution shall be introduced at one end of the pipeline through a tap in such a manner that as the pipeline is filled with water, the dosage produced in all sections of the pipelines and appurtenances shall be not less than 50 mg/l nor more than 100 mg/l. Contractor shall make 24-hour chlorine residual tests and notify the Engineer of all chlorine test results.

Chlorinated water shall be retained in the pipeline for at least 24 hours. After the chlorine-treated water has been retained for the required time, the free chlorine residual at the pipeline extremities and at other representative points shall be at least 50 mg/l free chlorine. If the tests are not satisfactory, the Contractor shall provide additional disinfection as required until all tests are passed.

Placing of HTH capsules or powder in pipe sections during the laying process will not be considered adequate disinfection. The Contractor shall keep adequate chlorine residual testing and indicating apparatus available on site during the entire disinfection period. After final flushing, Contractor shall plug flushing fittings with devices intended for this purpose at pressure class of pipe. Where water main is coated for disinfection, plugs and outlets shall be similarly coated.

Contractor shall keep and provide accurate documentation of dosing rate (ppm), time of dosing and duration. Dosing agent's name, contact information and signature shall be provided.

Disinfection testing procedure shall be repeated if the initial tests fail to produce satisfactory results. Two consecutive satisfactory test results shall be required after any unsatisfactory test. The tablet method shall not be used for repeated disinfection.

During disinfection, all valves, hydrants, and other accessories shall be operated. All appurtenances shall be disinfected. Pipe and appurtenances used to connect the newly installed water main shall also be disinfected in accordance with AWWA C651.

**306-8.9.4.5: Dechlorination and Flushing**

*Add the following after the first paragraph:*

Final Flushing shall be done by the Contractor after satisfactory chlorine residual test results have been returned and accepted by the Engineer.

Dechlorinate and remove pollutants from water flushed from water mains where discharging or draining to gutters, streets, storm drains, or any constructed or natural drainage channels (waters of the State) in accordance with AWWA C655 and NPDES Permit applicable for pipeline flushing.

Water flushed from water mains and spread on-site with no runoff does not require dechlorination.

Flushing water may be discharged to sanitary sewer system as alternative to discharging to storm drain, provided Contractor obtains and submits to City a copy of written permission to discharge from sanitary sewer owner including supplementary information described above under Submittals. Schedule discharges to sewers during off-peak periods as recommended by sewer owner.

After the applicable retention period, the heavily chlorinated water shall be flushed from the pipeline at its extremities until chlorine measurements show the concentration in the water leaving the pipeline is equal chemically and bacteriologically to those of permanent source of supply. A reducing agent shall be applied to the water to neutralize thoroughly the chlorine residual remaining in the water in accordance with AWWA C655 and the NPDES Permit applicable for the Water Quality Region in which the discharge occurs.

The following are parameters for flushing after disinfection:

- a) High chlorine concentration (super-chlorinated) water will be flushed completely from the main and discharged in compliance with the requirements of the NPDES general permit.
- b) The NPDES general discharge permit requires neutralization of the chlorine before it contacts the "waters of the State." How this will be achieved shall also be covered in the approved flushing and disinfection plan. A field test kit shall be used to adjust the neutralization. Samples shall be collected and analyzed by the colorimetric method to demonstrate the effectiveness of the neutralization.
- c) The NPDES general discharge permits (Table E-1) lists the discharge event parameters requiring monitoring for discharge of super-chlorinated water.
- d) The NPDES general discharge permit (Table E-2) requires one sample collected for discharge durations less than 20 minutes, and one sample during the first 10 minutes and a second sample within the last 10 minutes for flushing durations between 20 minutes and 60 minutes.
- e) All discharges must be  $<0.10\text{mg/L}$  Total  $\text{Cl}_2$  residual.
- f) Total chlorine residual will be measured in the source water. A field test kit that measures total and free chlorine and is approved for potable water reporting purposes shall be used. Pool kits are not acceptable. When the same total chlorine residual as measured in the source water is detected at all outlets and no free chlorine is present, then the flushing is complete.

#### **306-8.9.4.6: Bacteriological Sampling and Testing**

*Delete entire section and substitute with the following:*

Provide not less than 5 business days advance notification to the City of all sampling activities to include proposed sampling location, description of sampling point, and name of firm or individual who will perform sampling. Provide sketch or plan showing the proposed sampling locations in accordance with AWWA C651, the California Department of Public Health Safe Drinking Water Systems regulations, and requirements herein. A City-provided flushing and disinfection plan may be used to meet this requirement to the extent the flushing and disinfection plans shows proposed sampling locations.

Sampling shall be accomplished by a qualified sampler employed by a certified laboratory. Laboratory certification shall be evidenced in the approved plan.

The qualified sampler employed by a certified laboratory shall collect a minimum of 2 sets of samples on consecutive days not less than 16 hours nor more than 24 hours apart after completion of final flushing and deliver bacteriological samples to a certified laboratory for bacteriological testing.

No flushing or any movement of water in the pipe is allowed during sampling phase.

Provide legible chain of custody documentation from point of sampling to laboratory for each sampling location. Do not commingle samples from different projects or different parts of the same project on the chain of custody or testing report.

Locations for water sampling for bacteriologic testing shall follow the requirements of AWWA C651, and shall be taken from each end of the disinfected main (located downstream of point of introduction of chlorine disinfectant), all branches of the new main and at intermediate points at intervals no greater than 300-feet. Sample points shall conform to those submitted in the approved disinfection plan. A second set of samples shall be collected from the same sample points not less than 16 hours nor more than 24 hours after the first set of samples were collected.

Temperature, total chlorine and free chlorine residuals shall be measured with a field test kit and recorded by the sampler on the "chain of custody" form. Both sample sets shall be analyzed for total and fecal coliform presence/absence and heterotrophic plate count. The Contractor may choose to request resample to verify or discredit laboratory results when one or two of many are unsatisfactory and a sampling error is suspected. The City of Corona reserves the right to sample for bacteria at its own discretion with notice.

Source water shall also be sampled two weeks prior to sampling and bacteriological testing, or the nearest water quality sample station's most recent results shall be used to determine the baseline water quality for the duration of the project. Source water sampling shall be under the supervision of the City's Water Production and Distribution Division staff.

Testing procedures shall follow the current edition of the Standard Methods for the Examination of Water and Wastewater. Satisfactory bacteriological results shall be as follows:

- a) No total or fecal coliform,
- b) heterotrophic plate count less than 500 CFU and
- c)  $Cl_2$  residual shall be no less than 50 percent of the source water

Passing bacteriological tests on two consecutive days shall be achieved prior to placing the pipeline into service. In the event disinfection fails to produce satisfactory results in total or fecal coliform, the pipe shall be re-flushed, re-disinfected, resampled, and retested. In the event disinfection fails to produce satisfactory results in only heterotrophic plate count, the pipe may be re-flushed, resampled and retested one time at the City's discretion with City's written approval. If results from analysis of the second samples exceed the above criteria, the pipe shall be re-flushed, re-disinfected, resampled and retested until satisfactory results are obtained. All sampling and laboratory testing shall be at Contractor's expense. The Contractor shall be responsible for all repeat bacteriological testing costs.

**306-12: BACKFILL**

**306-12.4: Jetted Trench Backfill**

**306-12.4.1: General**

*Add the following:*

Jetting of backfill shall not be permitted for potable water main construction.

## **Appendix A**

# **Temescal Canyon Roadway Improvements Waterline Relocations and Waterline Service Changes City of Corona Department of Water and Temescal Valley Water District**



City of Corona Department of Water and Power  
Flushing & Disinfection Plan

PROJECT: Temescal Canyon Rd Widening Project

DATE: 08/09/2018

LOCATION: Temescal Canyon Rd between Stellar Ct to I-15 Fwy

**DESCRIPTION:**

Installation of **Pipeline 1)** approximately **190 LF of 18" DI pipe** along Temescal Canyon Rd approximately 700-ft northwest of Dawson Rd and **Pipeline 2)** approximately **140 LF of 18" DI pipe** Temescal Canyon Rd fronting 23255 Temescal Canyon Rd.

**HANDLING AND PROTECTION OF NEW PIPE:**

All pipe and fittings shall arrive on-site with end caps in place or they will be rejected. At the site, all pipe and fittings shall be wrapped in plastic with the end caps installed and kept out of contact with the ground. During installation, the contractor will take care to ensure that no dirt or debris enters the pipe. The joints of pipe will be prepared in accordance with the manufacturer's specifications and joined together in the trench. The ends of the lines will be sealed after installation and until such time as connections are made for flushing. **Please be aware that keeping dirt and debris from entering the pipe is the most important factor in being able to have the pipe disinfected in the shortest timeframe.**

**HYDROSTATIC TESTING:**

Prior to flushing the line the pipeline shall be hydrostatic tested in accordance to Greenbook Spec Section 306-8.9.2.3. The lines shall be filled and allowed to soak for 24 hours prior to testing.

**Pipeline 1:**

The pipeline shall be filled by receiving potable water from the existing **EVMWD fire hydrant** located at the **Supply Source** hydrant located on Temescal Canyon Rd approximately 1700-ft northwest of Dawson Canyon Rd as shown in the attached **Map** and supplied potable water to the pipe at the **Supply Point (SP) at STA 11+81.96**. The Supply Source fire hydrant shall be modified by removing the fire hydrant head, installing a 6"x6"x6" tee, a 6" gate valve, a 6" potable construction water meter, a 6" backflow device and a new 6" highline pipe or hose to the SP. See attached **Exhibit B** for an example supply source facility.

**Pipeline 2:**

The pipeline shall be filled by receiving potable water from the existing **TVWD fire hydrant** located at the **Supply Source** hydrant located on Temescal Canyon Rd fronting 23255 Temescal Canyon Rd (Shell gas station) as shown in the attached **Map** and supplied potable water to the pipe at the **Supply Point (SP) at STA 11+32.94**. The Supply Source fire hydrant shall be modified by removing the fire hydrant head, installing a 6"x6"x6" tee, a 6" gate valve, a 6" potable construction water meter, a 6" backflow device and a new 6" highline pipe or hose to the SP. See attached **Exhibit B** for an example supply source facility.

The pipe shall be tested at 200 psi for 4-hours and an inspector from the City of Corona will be present to witness the pressure test.

**Allowable Leakage (per Greenbook Spec Section 306-8.9.2.3)**

$$L=(SD(P^{1/2}))/148,000$$

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City of Corona Department of Water and Power  
Flushing & Disinfection Plan

PROJECT: Temescal Canyon Rd Widening Project

DATE: 08/09/2018

|                                   |                | Pipeline 1  | Pipeline 2  |
|-----------------------------------|----------------|-------------|-------------|
| S, length of pipe tested          | feet           | 190         | 140         |
| D, nominal diameter of pipe       | inches         | 18          | 18          |
| P, average observed test pressure | psi gauge      | 200         | 200         |
| L, allowable leakage              | gallons/hr     | 0.33        | 0.25        |
| Duration                          | hrs            | 4           | 4           |
| <b>Total Allowable Leakage</b>    | <b>gallons</b> | <b>1.32</b> | <b>1.00</b> |

**FLUSHING PROCEDURE:**

The lines will be flushed at the **Flushing Points (FP) shown on the attached Map**. Flush the FP per the duration indicated in the Project Method below. The pipe shall be flushed for a period of time specified to turnover the total volume in the pipe twice. The contractor shall install a **minimum 6" fire hose** rated at a minimum 200 psi working pressure for all **hydrants, hydrant blow-offs and discharge points 6" or larger** and all other discharge points shall use a **minimum 2" fire hose** rated at a **minimum 200 psi** working pressure. **All water shall be dechlorinated and discharged to the street.**

The equation  $Q=A*V$  (Quantity = Area x Velocity) is used to determine the demand for flushing water to achieve a cleansing velocity of 5.0 feet per second (fps). Calculations are presented below.

**GENERAL GUIDELINES:**

- 1) Ensure all FH and DDC connections are closed.
- 2) Ensure all Corp Stops are closed.
- 3) Flushing velocities must be at least 3 fps.
- 4) All services must be flushed and de-chlorinated to a  $Cl_2$  Residual of less than 0.10 mg/L.
- 5) Refer to attached plans for reference points.
- 6) All discharged flows will be placed into a storm drain system.
- 7) Flushing shall not exceed 50,000 gallons of water per flush cycle.
- 8) Contact Mayra Cabrera at 951-739-4842 or via email at Mayra.Cabrera@CoronaCA.gov at least 48-hours prior to flushing.

**PROJECT METHOD:**

This project is broken into **multiple** segments for flushing.

**Pipeline 1**

**Flushing Pt 1 - STA 9+94.00 End of Line**

|                          |       |                        |        |                               |         |
|--------------------------|-------|------------------------|--------|-------------------------------|---------|
| Pipe Diam (in):          | 18    | Length (ft):           | 187.96 | START STA.:                   | 1181.96 |
| A (ft <sup>2</sup> ) =   | 1.77  |                        |        | END STA.:                     | 994.00  |
| V (ft/s) =               | 3.00  |                        |        | LENGTH (LF.):                 | 187.96  |
| Q (ft <sup>3</sup> /s) = | 5.30  | -> Q (gpm) =           | 2,380  |                               |         |
| Volume (gal) =           | 2,485 |                        |        |                               |         |
| Time (min) =             | 2.09  | Suggested Time (min) = | 3      | Total Water Usage (gallons) = | 7139    |

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City of Corona Department of Water and Power  
Flushing & Disinfection Plan

PROJECT: [REDACTED] Temescal Canyon Rd Widening Project

DATE: 08/09/2018

|   |       |                    |                                    |
|---|-------|--------------------|------------------------------------|
| <b>Flushing Pt 2 - STA 11+68.03 6" Blow-Pff</b> |       |                    |                                    |
| Pipe Diam (in):                                 | 6     | Length (ft):       | 45.00                              |
| A (ft <sup>2</sup> ) =                          | 0.20  | START STA.:        | NA                                 |
| V (ft/s) =                                      | 3.00  | END STA.:          | NA                                 |
| Q (ft <sup>3</sup> /s) =                        | 0.59  | LENGTH (L.F.):     | 45.00                              |
| Volume (gal) =                                  | 66    | -> Q (gpm) = 264   |                                    |
| Time (min) =                                    | 0.50  |                    |                                    |
| Suggested Time (min) = 1                        |       |                    | Total Water Usage (gallons) = 264  |
| <b>Flushing Pt 3 - STA 10+60.80 2" Air/Vac</b>  |       |                    |                                    |
| Pipe Diam (in):                                 | 2     | Length (ft):       | 45.00                              |
| A (ft <sup>2</sup> ) =                          | 0.02  | START STA.:        | NA                                 |
| V (ft/s) =                                      | 3.00  | END STA.:          | NA                                 |
| Q (ft <sup>3</sup> /s) =                        | 0.07  | LENGTH (L.F.):     | 45.00                              |
| Volume (gal) =                                  | 7     | -> Q (gpm) = 29    |                                    |
| Time (min) =                                    | 0.50  |                    |                                    |
| Suggested Time (min) = 1                        |       |                    | Total Water Usage (gallons) = 29   |
| <b>TOTAL WATER USAGE (GALLONS)</b>              |       |                    |                                    |
| <b>Pipeline 2</b>                               |       |                    |                                    |
| <b>Flushing Pt 1 - STA 9+94.00 End of Line</b>  |       |                    |                                    |
| Pipe Diam (in):                                 | 18    | Length (ft):       | 138.94                             |
| A (ft <sup>2</sup> ) =                          | 1.77  | START STA.:        | 1132.94                            |
| V (ft/s) =                                      | 3.00  | END STA.:          | 994.00                             |
| Q (ft <sup>3</sup> /s) =                        | 5.30  | LENGTH (L.F.):     | 138.94                             |
| Volume (gal) =                                  | 1,837 | -> Q (gpm) = 2,380 |                                    |
| Time (min) =                                    | 1.54  |                    |                                    |
| Suggested Time (min) = 2                        |       |                    | Total Water Usage (gallons) = 4759 |
| <b>Flushing Pt 2 - STA 11+35.44 2" Air/Vac</b>  |       |                    |                                    |
| Pipe Diam (in):                                 | 2     | Length (ft):       | 45.00                              |
| A (ft <sup>2</sup> ) =                          | 0.02  | START STA.:        | NA                                 |
| V (ft/s) =                                      | 3.00  | END STA.:          | NA                                 |
| Q (ft <sup>3</sup> /s) =                        | 0.07  | LENGTH (L.F.):     | 45.00                              |
| Volume (gal) =                                  | 7     | -> Q (gpm) = 29    |                                    |
| Time (min) =                                    | 0.50  |                    |                                    |
| Suggested Time (min) = 1                        |       |                    | Total Water Usage (gallons) = 29   |
| <b>Flushing Pt 3 - STA 10+60.00 6" Blow-Off</b> |       |                    |                                    |
| Pipe Diam (in):                                 | 6     | Length (ft):       | 45.00                              |
| A (ft <sup>2</sup> ) =                          | 0.20  | START STA.:        | NA                                 |
|   |       | END STA.:          | NA                                 |

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City of Corona Department of Water and Power  
Flushing & Disinfection Plan

PROJECT: Temescal Canyon Rd Widening Project

DATE: 08/09/2018

|                          |      |                               |       |
|--------------------------|------|-------------------------------|-------|
| V (ft/s) =               | 3.00 | LENGTH (L.F.):                | 20.00 |
| Q (ft <sup>3</sup> /s) = | 0.59 | -> Q (gpm) =                  | 264   |
| Volume (gal) =           | 66   | Total Water Usage (gallons) = | 264   |
| Time (min) =             | 0.50 | Suggested Time (min) =        | 1     |

**TOTAL WATER USAGE (GALLONS)**

**CHLORINATION AND DE-CHLORINATION PROCEDURE:**

All flushing and chlorination will be done per AWWA C651 and City of Corona Specifications. Where the City's standard is more stringent than the AWWA standard, the City standard shall be used.

All requirements of the NPDES Permit (ORDER WQ 2014-0194-DWQ GENERAL ORDER NO. CAG140001) will be complied with. Contractor will dechlorinate and remove pollutants from water flushed from water mains in accordance with AWWA C655. Flushing to a sanitary sewer system must be approved; provide notification of discharge time and duration, utilizing a proper air gap. Flushing to a storm drain must be approved; follow SWPPP standards, and maintain a chlorine residual lower than 0.10 mg/L, not to exceed 29 minutes of continual flushing.

Dechlorination and removal of pollutants from water flushed from water mains shall be in accordance with AWWA C655 and the NPDES Permit applicable for the Water Quality Region. **Liquid sodium hypochlorite shall be used to disinfect waterlines.**

**STEPS TO BE TAKEN AFTER FLUSHING PLAN IS COMPLETED:**

- 1) The water main will be disinfected utilizing a port as near as possible but downstream of the proposed RPP device.
- 2) A 12.5% sodium hypochlorite solution will be injected with an initial dose of 100 mg/L spreading through the main and the services to achieve a residual of 100 mg/L or greater of free chlorine on the date of the injection. The dose may need to be increased to achieve the residual. The residual will be checked to ensure 50 mg/L is present after 24 hours. All service laterals will be chlorinated and flushed and residual checked at the same time as the main to meet the 100 mg/L at initial and 50 mg/L after 24 hours.
- 3) After 24 hours, the residual at all outlets will be checked and shall contain no less than 50 mg/L of free chlorine. If residuals are less than 50 mg/L, re-chlorination shall occur.
- 4) Final flushing of the main shall occur after the 24 hour "Bake" and all outlet residuals are 50 mg/L or greater. The heavily chlorinated water shall be dechlorinated to a residual of 0.10 mg/L or less, and all heavily chlorinated water shall be removed and replenished with new water utilizing the Flushing Plan described above.
- 5) After final flushing and before connections to the system are made, two consecutive bacteriological samples taken 24 hours apart will be collected. **These samples shall come back Absent of Coliform Bacteria, E- Coli and have a heterotrophic plate count (HPC) less than 500 with a CL2 Residual and Total Chlorine no less than 50% of source water.**
- 6) Samples will be collected at the points shown on the attached figure per testing requirements. **TVWD and EVMWD shall be contacted at least 72 hours prior to the proposed waterline samples to collect a sample of the source water.**

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City of Corona Department of Water and Power  
Flushing & Disinfection Plan

PROJECT:  Temescal Canyon Rd Widening Project

DATE:  08/09/2018

7) In the event disinfection fails to produce satisfactory results, the pipe shall be reflushed and shall be resampled and retested (repeat steps 4-6). If counts from analysis of the second samples exceed the above criteria, the pipe shall be re-disinfected and shall be resampled and retested until satisfactory results are obtained (repeat steps 1-6).

8) When the samples come back within acceptable parameters, the inter-ties to the existing main may be completed. **The tie-ins shall be completed with 28 days of the approved disinfection testing results or the contractor must start the process over.**

9) All testing and sampling of water, including measurement of free and total chlorine content, coliform and heterotrophic plate count shall be done by a certified laboratory.

10) Contractor is responsible for achieving all target values.

11) Only City of Corona DWP staff is to operate system valves including valves that feed hydrants.

**PROCEDURE FOR TIE-INS:**

After testing, and with the approval and supervision of the City inspector, the temporary flushing connections will be removed. A permanent connection will be made at the tie-in point shown on the attached figure. Care will be taken to ensure that neither dirt nor debris enters the system and all parts will be swabbed with a minimum 5 percent solution of chlorine. **Note this is only applicable for sections that are less than 18 feet in length. If the tie in is greater than 18 feet the section shall be disinfected as described in the steps above.**

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